

VICTORIA MILL, MILES PLATTING, MANCHESTER



Historic Building Reporting

Matrix Archaeology

July 2019

VICTORIA MILL,
MILES PLATTING,
MANCHESTER

Historic Building Reporting

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Client: Signature Living

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Summary

Victoria Mill is an iconic Grade II* listed mill building located on the Rochdale Canal, in the suburb of Miles Platting, just to the north-east of Manchester city centre. It was initially planned as a 'double mill', but contrary to previous claims, the 'A' Mill was first erected in 1863, and the 'B' Mill was added in 1873, just before the 'A' Mill was rebuilt following a fire. The well-known mill architect George Woodhouse may have been involved in the design.

Both mills were initially powered by a pair of large 'vertical' engines (probably beam engines), which drove upright shafts and line shafting. These were located within a central block between the two mills, and the stair tower and chimney form an impressive centrepiece to the building. In 1902, a pair of new vertical engines were installed, driving the mill by rope drives contained in external rope races, and these were powered by four new boilers.

The surviving mill buildings were once part of a larger complex, which included the Albert Mill to the west. The mill closed down in 1959, and remained empty until the late 1980s, since when refurbishment works have occurred to create both office spaces and residential units.

1. Introduction

- 1.1 This report relates to the former cotton mill at Victoria Mill, Miles Platting (SJ 8590 9926). This was commissioned by David Morse, on behalf of the client, Signature Living. The work was undertaken towards discharge of a planning condition related to refurbishment of part of the mill as living accommodation.
- 1.2 The property comprised a substantial late 19th century mill building, which was Grade II* Listed in 1988, and was entered on the Greater Manchester HER as No.2061.1.0.
- 1.3 A number of previous archaeological assessment and limited surveys had been undertaken in previous years, but no overall assessment had been undertaken of the whole complex, and nor had any detailed work been done on the historical sources.
- 1.4 A small amount of new survey work was done undertaken to accord with Level III in the Historic England publication 'Understanding Historic Buildings: A guide to good recording practice', 2016.
- 1.5 A WSI for the work was produced by Matrix Archaeology Ltd, including the following:
 - (1) Archaeological desk-based assessment.
 - (2) Limited level 3 historic building survey.
 - (3) Final reporting.
 - (4) Dissemination of results.
 - (5) Archive deposition of report and records.
- 1.6 **Acknowledgements**

The historical research was undertaken by Dr Peter Arrowsmith, who produced Section 4, and Figures 3-29, and Appendices 1-2. The limited building recording and AutoCAD drawings were undertaken by Mark Fletcher and Peter Middleton. Steven Price made available his report and photographs related to the lowermost floors of 'B' mill in 2017. The site manager for Signature Living, Samy Daoud, kindly facilitated access to the building.

2. Scope and Methodology

- 2.1 A planning application was submitted by the client to Manchester City Council on 8 March 2018 (App No: 119321/JO/2018) to convert the north-east mill building to residential use. The City Council applied planning conditions to the consent, including No.16, which was:

“The development hereby approved shall be constructed in accordance with the Written Scheme of Investigation prepared by Cotswold Archaeology in January 2018 previously approved by the Local Planning Authority on the 5th March 2018.

Prior to the occupation of the development, confirmation that the approved works have been adequately implemented on site including the programme and methodology of investigation, the production of a final report on the significance of the archaeological and historical interest represented and the provision for archive deposition of the report and records of the site investigation has been submitted to and approved in writing by the Local Planning Authority.

Reason - To investigate the archaeological interest of the site and record and preserve any remains of archaeological interest, pursuant to saved policy DC20.1 of the Unitary Development Plan for the City of Manchester and guidance in the National Planning Policy Framework”.

- 2.2 A WSI was prepared by Cotswold Archaeology (2017) which defined the scope of the watching brief to be carried out during the conversion works. However, the watching brief never occurred, and by May 2019, the new residential units were close to completion.
- 2.3 In order to mitigate for this, it was proposed that the client fund a report which integrated all existing available historic information on the mill building, combined with a small amount of new survey work, dependent upon the limited amount of historic fabric which still remains visible.
- 2.4 GMAAS proposed that upon completion of this proposed report, the client could then fund an appropriate level of public benefit, which may comprise an onsite information panel, or a leaflet for residents and visitors, or a popular publication, to outline the historic development and significance of the mill site.
- 2.5 A programme of historical research has been undertaken, which has raised doubts regarding the existing corpus of information about the mill.
- 2.6 Topographic survey data has been modified by a small amount of new manual survey, and use of historical sources, to provide new interpretation about the mill layout.

- 2.7 New colour digital photos were taken with a Canon EOS 1100D camera, fitted with a Tamron SP 10-24mm lens. A selection of the colour digital photos was used to produce the Plates.

3. Building Location

- 3.1 The building was located on Lower Vickers Street, on the north bank of the Rochdale Canal, in Miles Platting, about 2km to the north-east of Manchester city centre. At about 55m AOD, the site rose gently towards the north-east, being located on an interfluvium between the valleys of the rivers Irk and Medlock. Historically, Miles Platting had been a largely rural township in the early 19th century, and was only industrialised along the Rochdale Canal corridor after the extensive development of the nearby industrial suburb of Ancoats.

4. Historical Background

4.1 Introduction

Victoria Mill is an early example of a double mill, comprising twin spinning mills with a central steam-power plant. Each spinning mill is of six storeys above a basement and is of a fireproof construction. The mill's chimney rises from a tower set centrally against the north-west elevation. Within this tower, stairs wind around the chimney and terminate at a viewing gallery, capped by a dome. This double mill was formerly the main element within a substantial mill complex, whose other buildings are no longer extant.

4.2 Previous Studies

Selective documentary sources on Victoria Mill were gathered together by the RCHME/GMAU Greater Manchester Textile Mill Survey in the 1980s. Aerial and terrestrial photographs were taken but Victoria Mill was not among the sites which were also recorded through measured survey.

The mill was designated a Grade II* Listed Building in 1988, resulting in perhaps the first architectural description of the site.¹ In the early 1990s most of the building was converted to offices and apartments, during which process a number of external features were removed and internal details were hidden. No historic building survey is known to have been undertaken at this time.

In 2006 a historic building appraisal was carried out by the Architectural History Practice (AHP) in connection with several proposed alterations and additions to the building. This study drew on building control plans held by Manchester City Council, as well as the material compiled by the Greater Manchester Textile Mill Survey, and significantly advanced understanding of the mill's development.² The AHP report included a number of photographs showing details of the mill prior to its conversion in the early 1990s.

In 2016 Architectural Research Services (ARS) produced a heritage statement on the impact of the proposed conversion of the first to fifth floors of the north-east mill to apartments.³ This report included photographs of the interior of this mill in its existing condition. Historical details were derived from the previous report by AHP.

In the following year a heritage statement was compiled by Paul Butler Associates relating to the proposed creation of apartments in the basement of the south-west mill and on the central ground floor.⁴ This was followed in 2018 by a historic building survey of these parts of the mill.⁵

¹ <https://historicengland.org.uk/listing/the-list/list-entry/1197924>

² Barter 2006.

³ Grange 2016.

⁴ Murphy & Price 2017.

⁵ Murphy & Price 2018.

4.3 The first mill, 1863-73

Historically, Victoria Mill lay in the township of Newton Heath until this was amalgamated within the City of Manchester in 1890.⁶ The Rochdale Canal which runs immediately to the south of the site opened in 1804 as part of a cross-Pennine link to Manchester.⁷ In the later 19th century this section of the canal became a focus of industrial development on the fringe of the city, helping to transform Newton Heath into a densely packed industrial suburb. OS mapping surveyed in 1845 shows that a chemical works had been established on Varley Street to the east of the site of the future mill, which at this date was itself partly occupied by allotments and small buildings which were probably allotment sheds (Figure 3).

Modern consensus is that the twin spinning mills were built by the industrialist William Holland to the design of the architect George Woodhouse and were constructed in two phases. The first mill is variously dated to 1867⁸ and 1869.⁹ The second mill is usually dated to 1873, although McNeil and Nevell give 1875.¹⁰ The earlier dates for both mills can be traced back to at least 1892 and a short account of the firm of William Holland and Sons published in *The Century's Progress*. In this it is stated of William Holland, 'in 1867 he acquired property at Miles Platting, upon which was erected the first portion of the magnificent block known as Victoria Mills...Before long, however, the business of the firm outgrew this increased accommodation, and a second mill, similar in all respects to the first, was built upon ground immediately adjoining. This was in 1873'.¹¹ This account was closely followed in Swindell's *Manchester Street and Manchester Men* in 1908. There we read that William Holland 'in 1867 acquired property at Miles Platting, upon which he built the Victoria Mill. Six years later he added a second mill'.¹²

William Holland, according to a memorial published in 1892, was employed in the cotton mills of Ancoats before establishing his own business in 1854 in Adelphi Mill on the River Irwell in Salford.¹³ Census returns indicate that he was born in about 1823, and in 1851 was working as a mill manager. Trade directories show that at Adelphi Mill he operated as a cotton spinner and manufacturer,¹⁴ and he is also listed as such in the census of 1861 which adds that he employed a total workforce of 444.¹⁵ *The Century's Progress*, followed by Swindells, claims that the decision to leave Adelphi Mill was due to periodic flooding.

⁶ Farrer & Brownbill 1911, 271.

⁷ Hadfield & Biddle 1970, 274.

⁸ McNeil & Nevell 2000, 10; Barter 2006; Grange 2016, 19.

⁹ Listed Building Description (<https://historicengland.org.uk/listing/the-list/list-entry/1197924>), followed by Hartwell *et al* 2010, 382 and Murphy & Price 2017, 18. Williams gives c 1869 (Williams with Farnie 1992, 98).

¹⁰ McNeil & Nevell 2000, 10.

¹¹ Anon 1892 (photocopy in JRL CMS2/4/3/12/1/19).

¹² Swindells 1908, 234.

¹³ *Manchester Guardian* 14 November 1892, p 8 col 7.

¹⁴ Slater 1861, 228; 1863, 237.

¹⁵ Census for 1851 (National Archives HO107/2230, p 1); census for 1861 (National Archives RG9/2910 fol 6, p 5).

According to the 1892 memorial, Holland remained at Adelphi Mill for ‘fourteen years and then purchased the Victoria Mills in Miles Platting’. The statement implies that, contrary to the current belief, Holland himself was not the founder of Victoria Mill but acquired an existing building. This is confirmed by an overwhelming body of evidence.

Thus, rate books for Newton Heath show that the mill was in existence in 1864 when it was owned and occupied by Edward Williams. He is also named in the rate books of 1865 and 1866, with William Holland first appearing as the occupant in 1867.¹⁶ The mill is not listed in the rate book of 1863.

Trade directories list Edward Williams in 1865 as a cotton spinner and doubler at ‘Victoria Mills, Garratt Street’, a street leading to the mill from Oldham Road. They also show that the mill was in existence in 1863, when Williams is described as a ‘yarn agent and spinner and doubler, 8 and 12 Parsonage and Victoria Mills, Garratt Street’. In 1861, on the other hand, his occupation is listed simply as a ‘yarn agent’, with the address again given as 8 and 12 Parsonage (off Blackfriars Street on Manchester).¹⁷ The directories show that he lived in the early 1860s at Willoughby Place, Great Cheetham Street, Higher Broughton. This allows him to be identified in the census of 1861, where Williams, born c 1812, is described as a ‘merchant in cotton yarn’.¹⁸ The directory of 1865 gives Edward’s place of residence as York Terrace, Fallowfield. This makes it likely that he was the Edward Williams, ‘cotton spinner’, of Fallowfield who died in June of that year after falling from his carriage.¹⁹ Earlier in 1865 Edward Williams and Thomas Williams of ‘Victoria Mills, Miles Platting’ had patented an invention for the improvement of spinning mules and throstles.²⁰

Further evidence is provided by the deeds for the mill, details and extracts of which were compiled as part of the Greater Manchester Textile Mill Survey.²¹ They reveal that on 11 July 1863 Edward Williams, ‘yarn merchant’, was granted a 999-year lease from the Dean and Canons of Manchester Cathedral for a plot of land in Newton Heath at an annual rent of £150 9s. This amounted to a total of 9027 sq yds and included ‘all the Mill or Cotton Factory now in course of erection thereon’. The plot was bounded on the south-east by the Rochdale Canal, on the north-west by Vickers Street, on the south-west by land still held by the Dean and Canons, and on the north-east by land leased by them to John Twemlow Bouck. A plan relating to this lease shows the plot of 9027 sq yds to have been the land later occupied by the double mill (Figure 4). Bouck is known from the rate books to have been the owner of the chemical works, adjacent to Victoria Mill, on Varley Street. The lease of 11 July 1863 is also documented in the records of Manchester Cathedral, which show that the term of 999 years commenced on 25 December 1862.²²

¹⁶ See Appendix 2.

¹⁷ Slater 1861, 501; 1863, 520; 1865, 590.

¹⁸ Census for 1861 (National Archives RG9/2909 fol 91, p 38).

¹⁹ *Manchester Courier* 22 June 1865, p 3 col 1.

²⁰ JRL RYCH/3631; *London Gazette* 17 March 1865, p 1573; 11 April 1865, 2001.

²¹ JRL CMS2/4/3/12/1/20.

²² MCA CE1a/1; CE1a/2, 185-6.

The deeds also reveal that in December 1864 Edward Williams mortgaged his plot, including ‘all that mill or factory lately erected and built by said Edward Williams upon said plot’, to the Union Bank of Manchester’. On 1 October 1867 the bank transferred the property to William Holland.²³

Newspapers give additional details. In late May 1867 the mill was advertised for sale by private contract.²⁴ By mid-June it was being advertised for auction:

‘To Capitalists, Cotton Spinners, and others. - Very Valuable Long-leasehold Property, known as the Victoria Mill, situate at Newton Heath, on the banks of the Rochdale Canal, within two miles of the Manchester Royal Exchange.

By Mr. WILLIAM H. PRATT, at the Clarence Hotel, Spring Gardens, Manchester, on Tuesday the 9th day of July next, at six o’clock in the evening prompt, unless previously disposed of private contract, subject to such conditions as will be then and there produced in one lot:

ALL that very Substantial and Modern-built MILL, situate as above, with the Outbuildings, Engines, Gearing, and Machinery, the whole of which are nearly new, in first-rate working order, and supplied by the most eminent makers, comprising [a] pair of capital vertical engines, 100 horses’ power, with four cylindrical two-flued boilers and Green’s heating apparatus; very superior gearing and shafting, steam, gas, and water pipes; 28,848 mule spindles, 25,628 doubling spindles, with ample blowing, carding, combing, drawing, slubbing, roving, and other fixed and movable machinery, utensils and requisites appertaining to a first-class fine spinning mill, with spare room for about 50,000 additional spindles. Also, a Piece of enclosed vacant Land adjoining the above mill, suitable for the erection of another mill or weaving shed. The property contains 9,027 superficial square yards, or thereabouts, and will be sold for the residue of a term of 999 years, except the last day of the said term, from the 25th December, 1862, at the yearly rent of £150. 9s. The mines and minerals are reserved to the lessors, and will not be included in the sale. - An inventory of the machinery may be seen on the premises, and for further particulars and cards to view, apply to the Auctioneer, 21, Bond-street; or to Messrs. EARLE, SON, ORFORD, & EARLE, solicitors, 44 Brown-street Manchester’.²⁵

Other details of this mill are known from the newspaper account of a fire on Tuesday 18 November 1873.²⁶

²³ JRL CMS2/4/3/12/1/20.

²⁴ *Manchester Guardian* 25 May 1867, p 8, col 5.

²⁵ *Manchester Guardian* 15 June 1867, p 8, col 3.

²⁶ *Manchester Guardian* 19 November 1873, p 6 col 3.

‘Yesterday morning a disastrous fire occurred at the Victoria Mill, Miles Platting, belonging to Messrs. W. Holland and Sons. The mill was a handsome brick building, six storeys high and ten windows long, and had been erected about ten years. It contained 90,000 spindles, and found employment for about 500 hands in fine spinning and doubling. To this mill a new building of nearly equal size had been added and was shortly to have been occupied. The later building, unlike the one which was consumed, is fireproof, and was connected with the older mill by a fireproof staircase.’

The fire started on an upper floor and

‘the height of the mill, which was eighty feet, rendered it impossible for jets of water to be poured with much effect upon that portion of the building where the fire originated, and the flames enveloped the building with such rapidity that in less than an hour from the discovery of the fire the roof fell. A portion of the walls fell into the canal, and sank two barges laden with coal which were moored at the back of the mill. Finding it impossible to save the old mill the firemen mainly directed their efforts to the protection of the more recently erected building and the adjoining property, and this happily they succeeded in saving...Before nine o’clock, nothing remained of the mill but portions of the walls, the chimney shaft connected with the engine-house, and the massive brick corners of the building. The offices, however, were saved...The damage is roughly estimated at from £80,000 to £100,000.’

Drawing together the various strands of evidence, it can now be seen that the earliest of the mills at Victoria Mill was built in 1863 by Edwards Williams, a Manchester yarn merchant. It occupied the site of one of the two present mills and, at six storeys, was of the same height as those mills, but differed in being of a non-fireproof construction. The mill was used for cotton spinning and doubling, with power supplied by two ‘vertical’ engines, capable of 100hp, and four Lancashire boilers.

This first mill evidently stood on the site of the present north-eastern mill. A trade directory map of 1865, although not to a precise scale, shows a building complex here which closely corresponds with the footprint of this spinning mill, the pre-1902 engine house block at its north-west corner and, adjoining this, the stair tower (Figure 5). A detached range on Lower Vickers Street directly in front of the stair tower corresponds with the known position of the double mill’s offices, while a projecting wing at the north-east of the spinning mill matches the known position of a carding shed (see below).

Surviving building control plans from the 1900s onwards identify the north-eastern mill as ‘A’ Mill and the south-western as ‘B’ Mill.²⁷ Similarly Albert

²⁷ MA M900/1/1/2/5/7666 (1906); M900/1/1/2/22A/34498 (1954); Building control plans 10249 (1910); 11482 (1913). Also SIM YMS0445, plan 21 (1952).

Mill, which lay immediately to the south-west and was acquired by William Holland and Sons in the 1870s, was known as 'C' Mill. These names might relate simply to the relative position of the mills when viewed from Lower Vickers Street, but they might also refer to the chronological sequence in which they were added to the firm's business.

4.4 Addition of the second mill ('B' Mill) and rebuilding of the first ('A' Mill), c 1873

When William Holland took over Victoria Mill in 1867 he continued the existing use of the site for spinning and doubling. His two sons, Samuel and William Henry, became partners in the firm in 1872.²⁸ Under the Holland family's ownership, the number of spindles rose to approximately 90,000 by November 1873, when the original mill was destroyed by fire (see above). The figure of 500 given for the size of the workforce at that time is matched by the statement in the census of 1871 that William Holland employed 'about 500 hands'.²⁹

As the newspaper account of the fire relates, by that date the Hollands had also recently added a mill of fireproof construction 'which was shortly to have been occupied'. This provides confirmation for the generally accepted date of 1873 for the second of the two mills. Subsequent to the fire, the original mill was rebuilt, also with a fireproof construction. As described above, the mill rebuilt in c 1873 can be equated with the north-eastern of the present two mills, 'A' Mill. The new mill which was added in 1873 was the south-western 'B' Mill. Its southern corner was canted to take into account an existing lock and overflow channel on the Rochdale Canal.

The earliest known evidence for the internal usage of the two six-storey mills is provided by a Goad's insurance plan of 1928.³⁰ This described the basements of both mills as warehousing, with the basement of the north-east mill ('A' Mill) also being used for packing. In each mill the first floor is described as a frame room, the second to fifth floors were used for spinning, and the sixth floor for doubling. Mules are mentioned at the mill in the 1900-1920s.³¹

By the time of the OS mapping of 1889, adjoining the six-storey mills were a number of lower ancillary buildings, set in a symmetrical arrangement (Figure 7). Details of these are known from an illustration of the mill published in 1909 (Figure 13), as well as from the building control plans, the Goad's plan of 1928, and later photographs. On Lower Vickers Street, centrally placed in front of the stair tower, was a two-storey office building with a large central arched entrance for vehicles flanked on each side by a pedestrian passageway. This building is shown on the trade directory plan of 1865 (Figure 5). The offices are reported to have survived the fire of 1873 (see above). Flanking this building on either side was a narrow range, originally of a single storey,

²⁸ Supplement to *Manchester Courier* 17 September 1898, p 5, col 2.

²⁹ Census for 1871 (National Archives RG10/4064 fol 78, p 35).

³⁰ Goad's fire insurance plans of Manchester, book 2, volume 2, plan 211, 1928.

³¹ SIM YA1996.2530.

used for the preparatory processes of blowing and mixing. These ranges are not shown on the 1865 plan and may have been added as part of the works in c 1873. Each range terminated at a taller pavilion-like building, to the rear of which a carding shed ran along the side elevations of the mills as far as the canal's edge. The north-eastern carding shed appears on the 1865 plan, but was perhaps rebuilt following the 1873 fire.

4.5 George Woodhouse and Victoria Mill

The known late 19th century accounts of William Holland and Sons do not mention the architect of the mill, and no name appears to be given in the sources compiled by the Greater Manchester Textile Mill Survey. The Listed Building Description in 1988 attributes the mill to George Woodhouse of Bolton, which is repeated in later studies. This may be based on the more cautious statement by Edgar Jones in *Industrial Architecture in Britain 1750-1939*, published in 1985, that 'it is possible' that Victoria Mill was designed by Woodhouse, based on a similarity with the Bliss Tweed Mill (see below).³²

George Woodhouse (1829-83) had established a practice in Bolton in about 1852 and between 1860 and 1872 also worked in partnership with Edward Potts with an office in Oldham. Woodhouse and Potts, who later forged other partnerships, are described by Holden as 'almost certainly the premier mill architects of Lancashire', rivalling the perhaps better known Stott and Sons of Oldham.³³ Woodhouse's earliest known commissions in this field included Gilnow New Mills in Bolton, erected in 1854.³⁴ Among later designs were the large and architecturally distinguished Gidlow Works in Wigan built for John Rylands in 1865, and now a Grade II Listed Building.³⁵ Outside the Lancashire cotton region, Woodhouse is reported to have been the architect of Bliss Tweed Mill at Chipping Norton in Oxfordshire, now a Grade II* Listed Building. This is dated to 1872 and, like Victoria Mill, has a domed stair tower through which rises the mill chimney.³⁶

In the 1870s Woodhouse and Potts employed a form of construction in which narrow longitudinal jack arches 3ft wide sprang from light iron joists, themselves carried on heavier transverse beams.³⁷ This form of construction is found in the north-east mill ('A' Mill'). It was presumably also employed in the south-west 'B' Mill. However, this was rebuilt after a fire in 1890 (see below) when, from the evidence visible in the basement, the mill was fitted with concrete flooring.

4.6 Addition and expansion of a third mill (Albert Mill/'C' Mill), c 1877-89

According to *The Century's Progress* in 1892, William Holland and Sons 'introduced into this country the spinning of what are known as "French

³² Jones 1985, 147.

³³ Holden 1998, 50; <https://manchestervictorianarchitects.org.uk/architects/george-woodhouse>

³⁴ <https://manchestervictorianarchitects.org.uk/buildings/gilnow-new-mills-bolton>

³⁵ Williams with Farnie 1993, 34, 98; <https://historicengland.org.uk/listing/the-list/list-entry/1384455>

³⁶ <https://historicengland.org.uk/listing/the-list/list-entry/1198094>

³⁷ Williams with Farnie 1993, 105; Holden 1998, 64.

cashmere yarns”, a branch which they commenced in 1877, and another new mill was then erected for this department, adjoining the existing premises. Even this structure had to be considerably enlarged in 1885 and 1889’.³⁸ Similarly in a newspaper account in 1898 of the career of William Henry Holland we read ‘The operations of the firm were considerably extended in 1878, the firm introducing into this country from France the requisite machinery for the spinning of what are known as French cashmere worsted yarns, a department which had been repeatedly enlarged’.³⁹

The worsted-spinning branch was located to the south-west of the double mill, in a factory which had reached its full extent by the time of OS mapping in 1889 (Figure 7). From the evidence of photographs⁴⁰ and the Goad’s insurance plan of 1928, this site principally consisted of a large single-storey shed, with north-east facing roof lights. It was powered by its own engine house, situated along with a boiler house and mill chimney on the canalside elevation. A three-storey range ran along the north side of the shed and presented a continuous frontage with the street range in front of the six-storey mills.

The full extent of this factory seems to have been the result of several phases of construction, with the central and eastern parts of the single-storey shed, and the engine house, being the earliest. They approximately corresponded with a building which is marked on the trade directory plan of 1865 as a cotton mill (Figure 5). Rate books from 1865 onwards list this as owned and occupied by Matthew Miller,⁴¹ who is named in directories of 1868-9 as a cotton manufacturer at Albert Mill.⁴² In September 1882 Miller’s Albert Mill was advertised for sale or to let and was described as containing 542 looms.⁴³ On the evidence of the rate books, it was taken over by William Holland and Sons in 1884-5. To its west, a detached building is shown on a trade directory plan in 1883 and, though described there as a cotton mill, may be the original worsted spinning building erected by William Holland and Sons in c 1877-8,⁴⁴ The expansion said to have taken place in 1889 (see above) presumably involved the remodelling of the worsted-spinning mills into the single large factory.

A building control plan of 1910 describes the worsted spinning factory as ‘Albert Mill late ‘C’ Mill’.⁴⁵ The reversion to its previous name may have been a consequence of events in 1898, when the cotton spinning and doubling branch of the business came under the Fine Cotton Spinners and Doublers Association (see below). Similarly, on OS mapping of 1907-31 the worsted factory is named as the ‘Albert Woollen Mills’, distinguishing it from the six-storey ‘Victoria Mills (cotton)’ (Figures 8-11).

³⁸ Anon 1892 (photocopy in JRL CMS2/4/3/12/1/19).

³⁹ Supplement to *Manchester Courier* 17 September 1898, p 5, col 2.

⁴⁰ Manchester Local Image Collection m54330, m54332.

⁴¹ See Appendix 2.

⁴² Morris 1868-9; Slater 1869, 388.

⁴³ *Manchester Courier* 16 September 1882, p 2, col 5.

⁴⁴ Slater 1883, reproduced at <https://luna.manchester.ac.uk>

⁴⁵ MA Building control plans 10249.

4.7 Rebuilding of the south-west mill ('B' Mill), c 1890

A second major fire at Victoria Mill occurred in the early hours of Sunday 17 August 1890.⁴⁶ On this occasion the fire started in the engine house during maintenance work. According to a contemporary newspaper account, it spread so quickly that, when the fire brigade arrived, 'The engine house, which is situated in the centre of the main block, was a mass of fire, and the flames were rapidly spreading to the right and along the main building, fronting which stands an extensive range of sheds...After about six hours arduous work the firemen had succeeded in subduing the flames and confining the damage to the right half of the frontage'. About an hour later it was found that 'flames had broken out in the top floor of the left half of the main building'. On this side of the mill the fire was confined to that floor, although 'much injury resulted in the rooms underneath from the immense volumes of water poured into them'. The worst damage occurred 'on the other side [of] the main entrance', ie in the south-west 'B' Mill. Here 'the fire, beginning below, ascended through all the seven storeys, the intense heat expanding and twisting the iron beams and completely destroying the so-called fireproof floors'. Damage was also caused to the central staircase, whose steps cracked under the heat. The newspaper also reported that at the time of the fire 'Messrs. Holland were employing about 1,000 hands, and of these 700 are thrown out of work. The remainder are employed in the worsted spinning factory, which is in a block some little distance from that in which the fire occurred. It will be some weeks before the engines in the cotton spinning department are again started so as to enable work to be recommenced in those rooms which remain more or less intact'. The damage was estimated to be at least £120,000. It was noted that 'The greater part of an old mill which stood on the same site was destroyed in a similar way 17 years ago', a reference to the fire of 1873.

Rebuilding of the mill commenced soon after the fire in 1890. The order book of engineers Platt Brothers of Oldham includes an entry dated 8 October for that year for 'The whole of the Machinery required to fill the Mill now being rebuilt comprising Carding Engines, Combers, Drawing Frames. Speed Frames & Mules as quoted in our estimates of September 30th & Oct^r 6th'.⁴⁷ The mill's present flat concrete roof presumably dates from this rebuild.

The rebuilt mill was evidently working in 1891, when a directory listed William Holland and Sons as having 170,000 spindles,⁴⁸ a figure also found in 1898 when the firm was also said to employ 'about 1,000 persons'.⁴⁹ According to *The Century's Progress* in 1892, there were then 'no fewer than 180,000 spindles of various kinds in operation', of which the worsted department contained 'between 20,000 and 30,000'.⁵⁰

⁴⁶ *Manchester Weekly Times* 22 August 1890, p 2 col 3.

⁴⁷ LRO DDPSL/1/1/5, 191 (photocopy in JRL CMS2/4/3/12/1/15).

⁴⁸ Worrall 1891, 123.

⁴⁹ Supplement to *Manchester Courier* 17 September 1898, p 5, col 2.

⁵⁰ Anon 1892 (photocopy in JRL CMS2/4/3/12/1/19).

4.8 Events later in the 1890s and the new engine house and rope drive, 1902

William Holland died on 11 November 1892 and the firm was continued by his sons. No additions are known to have been made at the mill over the next several years of their ownership. In November 1893, however, a severe gale caused a section of parapet about 100yds long to fall from the top of the mill to the canal, seriously damaging two boats and stopping the canal traffic.⁵¹

In 1898 Williams Holland and Sons were among the firms which amalgamated to form the Fine Cotton Spinners and Doublers Association Ltd (FCS&DA). This appears to have involved a formal division of the business, with worsted spinning at Albert Mill being run independently by the family, and cotton spinning and doubling at Victoria Mill as part of the FCS&DA. Both sides, however, continued to operate under the old name. Thus, trade directories in 1897 list William Holland and Sons as 'cotton and worsted spinners and doublers and sewing cotton manufacturers, Victoria Mills', but in 1899 have separate entries for the business at 'Victoria Mills' and 'Albert's Mills'.⁵² Likewise, rate books from this later period have separate entries for the two mills.⁵³ In 1901/2 the family's worsted-spinning business was expanded by the acquisition of Shaw Heath Mill in Stockport.⁵⁴ In c 1920 this business became a limited company under the name of Hollands Ltd, described as 'spinners of fine Botany worsted, cashmere and merino, mixed cotton and wool yarns for hosiery, underwear and dress goods'.⁵⁵

In 1902 Victoria Mill's power system was upgraded. Two new engines were installed, accommodated in a new engine house to the rear of the central part of the mill, from which power was transmitted via twin rope races, set against the adjoining side elevations. The building control plans for these changes are listed in the on-line catalogue of Manchester Archives,⁵⁶ but could not be traced for the present report. However, the AHP report of 2006 makes reference to these plans and states that the works also included the addition of 'a new set of Lancashire boilers, installed in a single-storey boiler house built between the engine and the canal'.⁵⁷

The engines were photographed in 1955 by George Watkins as part of his nationwide survey of stationary steam engines, and were noted as being two vertical, non-dead centre, compound engines, each of 1000hp, made by John Musgrave and Sons of Bolton under licence from Fleming and Fergusons of Paisley. Watkins also states that they 'were installed in a rebuild after a serious fire which damaged the double beam engine and vertical shafts in use to 1902'.⁵⁸ No evidence has been found for a fire at this time, and there may be a

⁵¹ *Manchester Evening News* 18 November 1893, p 3, col 3.

⁵² Slater's Directory Ltd & Kelly & Co Ltd 1897, 796; Slater's Directory Ltd & Kelly's Directories Ltd 1899, 825.

⁵³ See Appendix 2.

⁵⁴ Slater's Directory Ltd & Kelly's Directories Ltd 1901, 872; 1902, 897.

⁵⁵ Slater's Directory Ltd & Kelly's Directories Ltd 1919, 928; 1920, 945.

⁵⁶ MA M900/1/1/2/4/5407. The building work was completed by September 1902 (M900/1/1/2/4, p 31).

⁵⁷ Barter 2006, 8.

⁵⁸ Copy in JRL CMS/2/4/3/12/18.

confusion here with the fire in 1890. Frank Wightman offers an alternative explanation for the improvements in 1902. 'Hollands as with many others circa 1896/1908 changed the wooden carriage mules to those of all metal for higher production, stiffness and fire resistance, but in many cases trouble was experienced with higher loadings on beam engines and tooth gearing, which led to new engines with rope gearing, mostly accommodated in the familiar glazed external rope races. Hollands was a typical example of such a conversion from tooth gearing to ropes with new engines in a new engine house between the two mills driving the shafts. The new engines and rope drives were supplied by John Musgrave & Sons Ltd Globe Iron Works, Bolton, 1902'.⁵⁹

The Musgrave records held in Bolton Archives show that at this time the firm also provided other fittings for the mill's power system.⁶⁰ In February 1902 these records include mention of the engine-house crane, whose transverse beams still survive in situ and carry the firm's name.⁶¹ Multiple drawings of details of the 1902 engines are listed in a contemporary register,⁶² but the drawings themselves, which are also held in Bolton archives, have not been catalogued. There is also a record of improvements to the engines in 1911.⁶³

From 1902 to 1950 records of proposed alterations to the mill are found within the index books of drawings produced by the FCS&DA's architectural department.⁶⁴ In 1902 the entries principally relate to the new engine house and rope race. In 1905/6 there is reference to a 'proposed new economiser' and in 1907 to '4 Lancashire boilers'.

4.9 Other changes and proposals, c 1900s-1950s

In November 1910 planning permission was given for additions to Victoria Mill in connection with a new humidifying system. A brick-built twin-gabled shed was erected on the roof of each mill to house the filter apparatus and was linked to a flue tower built centrally against the mill's north-east elevation. The towers were constructed in the same style as the mill and contained a central air flue, linked on each side to a bay which opened from the mill floor. Construction was completed by October 1911⁶⁵ and the flue towers appear on OS mapping of 1912 onwards (Figure 9). OS mapping also shows that between 1889 and 1905 WC towers were added at the corners of the mill's north-west elevation (Figures 7 & 8). This may have been in 1903 when the FCS&DA's architectural department produced plans for 'new WCs'.⁶⁶

In the early decades of the 20th century there were repeated schemes to increase the mill's floorspace. Within the original mill site, on the south side of Lower Vickers Street, this possibility was limited to constructing additional

⁵⁹ JRL CMS/2/4/3/12/13.

⁶⁰ BA ZMU/1/5-7.

⁶¹ BA ZMU/1/5, 204.

⁶² BA ZMU/5/4.

⁶³ BA ZMU/6 p 35.

⁶⁴ SIM YA1996.2530.

⁶⁵ MA Building control plans 10249; M900/1/1/2/7, p 35.

⁶⁶ SIM YA1996.2530.

storeys on the existing buildings. In 1901-2 a new steel-framed roof was added to the Lower Vickers Street range to the west of the offices, creating a new upper floor here which is visible on the illustration of 1909 (Figure 13).⁶⁷ Adjacent to this, in 1913 a weighing-in room was added above the north, Lower Vickers Street, end of the card shed on the west side of 'B' Mill.⁶⁸ In 1926-7 a new blowing room was also added to the street ranges.⁶⁹

There was greater potential for expansion on the north side of Lower Vickers Street. OS mapping of 1889 and 1905 shows a vacant plot here (Figures 7 & 8). In 1906 the FCS&DA received permission to redevelop this with a two-storey building to be used for warehousing and related processes such as packing. A subway would link the new building with the 'A' Mill basement.⁷⁰ For reasons unknown the scheme was not pushed forward at this time. By 1912 the plot was enclosed and a different, smaller building had been constructed in its north-west corner (Figure 9). Perhaps at this date the plot served the same function as in 1922 when it was described as a 'private coal and store yard' for the mill.⁷¹ In 1913 the FCS&DA entered into a new agreement with Manchester Corporation allowing the construction of a subway between Lower Vickers Street.⁷² However, it was not until 1923-4 that the site was finally developed with the construction of a mill of three storeys with a basement below its western half, linked by a subway to the basement of 'A' Mill. The exterior was lavishly decorated with terracotta. This mill was provided with its own electricity supply, from a transformer house built at its south-west corner.⁷³ According to the Goad's plan of 1928, the new mill housed the reeling, warping and gassing processes, with the basement providing additional warehousing space.⁷⁴ The building control plans show that it was given the name 'D' Mill.⁷⁵ This is said to have been the last cotton mill built in Manchester.⁷⁶

In the late 1920s and 1930s ring-spinning frames were installed in 'Room 7', ie the sixth floor, of 'A' Mill. These were driven off electric motors.⁷⁷

Final additions and alterations to Victoria Mill were made in the post-war years. In 1950 a new brick hoist tower was built against the right-hand side of the central stair tower.⁷⁸ It is shown on a ground-floor plan of the mill dated October 1952, perhaps originally drawn to accompany an inventory and valuation of the site.⁷⁹

⁶⁷ MA M900/1/1/2/4/5151; M900/1/1/2/4, p 6.

⁶⁸ MA Building control plans 11482; M900/1/1/2/7, p 159.

⁶⁹ Barter 2006, 8, citing MA Building control plans 17936 - these plans are now missing; M900/1/1/2/11, p 144. There are references to drawings for the new storey to the blowing room in 1926 in SIM YA1996.2530.

⁷⁰ MA M900/1/1/2/5/7666.

⁷¹ MA Building control plans 15844.

⁷² JRL CMS2/4/3/12/20.

⁷³ MA Building control plans 15844; M900/1/1/2/10, p 115.

⁷⁴ Goad's fire insurance plans of Manchester, book 2, volume 2, plan 211, 1928.

⁷⁵ MA M900/1/1/2/22A/34498.

⁷⁶ Barter 2006, 9.

⁷⁷ SIM YA1996.2530.

⁷⁸ MA M900/1/1/2/19, p 76. The Listing Building Description dates this tower to the 1920s.

⁷⁹ SIM YMS0445, plan 21.

In 1950, the Fine Spinners and Doublers Ltd (formerly the FCS&DA) was granted permission for the laying of an electric cable to the mill from the transformer house on the north side of Lower Vickers Street.⁸⁰ As late as 1955 the rope races were rebuilt, with part-Perspex cladding over a steel frame.⁸¹ The mill is said to have ceased operation in 1959.⁸²

4.10 1960 onwards

The deeds show that the Fine Spinners and Doublers Ltd sold the mill in 1960.⁸³ Four years later, OS mapping describes the building as a warehouse (Figure 12). By the 1980s it was mostly unoccupied and vulnerable to vandalism (Figures 14-26). The offices and flanking ranges on Lower Vickers Street had been demolished by 1982, leaving only the former carding-shed wing on the south-west and the partial remains of the shed on the north-east.⁸⁴ To the south-west, Albert Mill ('C' Mill) was still standing in 1972,⁸⁵ but a decade later was no longer extant. 'D' Mill, on the south side of Lower Vickers Street, is still shown on photographs of 1982⁸⁶ but had been demolished by the end of the decade. In the 1961 film *A Taste of Honey*, Victoria Mill and Albert Mill formed the background to a scene shot along the Rochdale Canal.⁸⁷

Victoria Mill was designated a Grade II* Listed Building in 1988. In the following year planning and listed building consent was granted for its refurbishment for new uses, one of the first instances in Manchester of such a mill conversion. The work was completed in the early 1990s and saw the north-east mill ('A' Mill) being adopted for office use, and the south-west 'B' Mill for residential accommodation. The conversion involved the loss of a number of features. The 1902 engine house, rope races and boiler house in the rear yard were all demolished. Fire escapes, the WC towers and the hoist tower were removed from the mill's exterior, and the sheds were removed from the roof. The former carding wings on the north-east and south-west elevations were also taken down. Internally, floor spaces were divided for new uses and wall linings and suspended ceilings were fitted, concealing original wall surfaces, cast-iron columns and fireproof ceilings. New services and lifts were inserted, with a plant room for the lift built on the roof. The old windows were replaced with new. The basements were not converted as part of this work.⁸⁸

In c 2006 further alterations and additions were planned, including the construction of single-storey extensions on the roof of both mills and of a

⁸⁰ JRL CMS2/4/3/12/20.

⁸¹ MA M900/1/1/2/22A/34498.

⁸² McNeil & Nevell 2000, 10.

⁸³ JRL CMS2/4/3/12/1/20.

⁸⁴ Manchester Local Image Collection m52472, m52474-52478.

⁸⁵ Manchester Local Image Collection m54522-54526, m54538.

⁸⁶ Manchester Local Image Collection m52473, 52479.

⁸⁷ <https://www.reelstreets.com/films/taste-of-honey-a/>

⁸⁸ Barter 2006.

three-deck carpark against the north-east elevation.⁸⁹ These works do not appear to have been carried out.

The most recent schemes have been for the creation of additional apartments within the existing mill building. These have included the current conversion of former office space in the north-east mill,⁹⁰ and a separate proposal for the conversion of the basement in the south-west mill and of a laundry area on the central ground floor.⁹¹

⁸⁹ Barter 2006.

⁹⁰ Grange 2016.

⁹¹ Murphy & Price 2017.

5. Building Description

5.1 External description

General (Figures 30 & 31)

The building plan-form was that of a C-shape, comprising a pair of large rectangular blocks ('A' and 'B' Mills), connected by a smaller central block which had contained the staircase and power systems. The contained central courtyard had originally housed an engine and boiler house, but these had been demolished in the late 20th century.

The building was confined on its south-east side by the Rochdale Canal, and the south-east wall of 'B' Mill was canted, because of the presence of the byewash channel for Lock 79.

Overall, the mill comprised seven floors, including a basement, which was present beneath the whole of 'B' Mill, but only half of 'A' Mill (Figure 30). This may be explained by the gradual rise in local ground levels towards the north-east; and has the effect of locating the basement level well beneath the water level of the adjacent Rochdale Canal.

The original brickwork comprised hand-made stocks, although considerable areas of the external elevations have been refaced in machine-made brick, probably in the 20th century.

North-west external elevation (Figure 32)

This elevation was obviously intended as the principal façade, and is as impressive as any other mill elevation within the Manchester area. The central feature comprises a distinctively Italianate five-sided staircase tower, which spirals around the lower part of the mill chimney. This was illuminated by pairs of small round-headed windows, which spiralled upwards following the internal stair. This is surmounted by a circular viewing gallery which rises above the mill roof, pierced by contiguous round-headed windows.

Above this is a conical iron-plated sprinkler tank, and the mill chimney rises above this, being topped by a massive oversailer comprising bands of corniced sandstone. The chimney rises to a total height of 59.30m (195ft), and along with the staircase, comprise a focal point upon which the symmetry of the double mill hinges.

To either side of the staircase tower, the central block of the mill breaks forward slightly, and the ground and first floors here were largely taken up by large round-headed windows (lower parts now doorways) which were typical of mill engine houses. The remaining four levels above these large windows were illuminated by triple groups of small round-headed windows.

The 'A' and 'B' Mills to either side were of twelve bays width, and seven storeys in height, although the basement only extended half way across the 'A' mill. The basements were relatively low and constricted, possibly having functioned as conditioning cellars for raw cotton. The ground floor level was

higher than the remaining floors, the segment-headed windows containing eight lights, whilst those of the upper floors contained six lights. All of the window frames appear to be replacements, either of late 20th century form, or in the case of 'A' Mill, very modern. The window cills are of Carboniferous sandstone.

At fifth floor level, paired semi-circular headed windows with cast iron columns between give the impression of a covered loggia. Above this is a Lombardy style frieze, which defines the parapet, formed in a mixture of sandstone and *terra cotta*. At the corner angles are broad pilasters, which appear to have once contained windows (Figure 13), and these were probably intended as privy towers.

As secondary features, flue towers had been added half way along the 'A' and 'B' Mill facades. These were full height, and were illuminated by pairs of segment-headed windows, separated by narrower blind windows, which contained the flue shafts. The 'B' Mill flue was slightly deeper.

North-east and south-west external elevation (Figure 33)

These two elevations were similar, although the 'B' Mill elevation was one bay shorter (at eleven bays), because of the canted bay above the canal byewash. Also within the south-west elevation, both basement and ground floor levels are served by immensely tall windows. It is not certain whether these are original. The elevation ends adjoining the canal are defined by broad pilasters, these may simply be decorative, rather than containing privies, as those on the north-west elevation did.

South-east external elevation (Figure 34)

This elevation faced onto the canal, and did not exhibit the same symmetry as the opposing elevation, due to the canted elevation restricted by the canal byewash; and also, because the basement windows opened into lightwells which themselves opened on the canal bank, and hence were only partially visible adjacent to the slope of the byewash.

Within the central courtyard, the back wall here appeared to have been substantially modified, probably following demolition of the 1902 engine house. Slightly less than half of the left-hand side of this wall appeared to have been reconstructed, the joint being defined by a vertical offset rising almost all of the way up the wall.

At ground and first floor levels, the rope race had extended through this wall, within a pair of broad slots; the brickwork blocking of the right-hand slot could be seen as defined beneath an in-situ steel beam. A pair of narrow windows were integrated into the blocking, and this arrangement was replicated on the left-hand side during the rebuild here.

At first floor level, adjacent to the blocked rope race slot, a pair of large gritstone ashlar are separated by a small infilled vertical slot. The face of the ashlar contains imprints of two pairs of patten plates; the plates are gone but the tie-bars, which would have extended horizontally into the building, seem

to remain. It seems likely that these ashlar and tie-bars were related to the beam floor of the 'A' Mill beam engine.

The fenestration pattern at the second to fifth floor levels may be original, and replicates that within the contiguous walls, although the fifth-floor windows are rectangular, and may be replacements of the original ones.

South-west facing courtyard elevation (Figure 35)

This elevation defines the right-hand side of the open courtyard. It measures eight bays in width, and the fenestration pattern replicates that seen on the other external elevations, apart from on the lower left-hand side, within the base of the 1902 engine house. Here, it is clear that two windows were blocked at ground floor level, in order to build in a substantial cast-iron wallbox here. This would have contained the bearing for the 'A' Mill 1902 engine rope drum; and this feature is mirrored in the opposite elevation, where it was part of the 'B' Mill engine.

Directly above here, between the third and fourth floor levels, the intact travelling crane, cast by Musgraves of Bolton, determined the extent of the 1902 engine house. The elevation drawings by Frank Wightman (Figure 29) determined positions of other features within this elevation.

The 1902 rope race was somewhat unusual, in that it extended in both directions from the rope drum. Towards the south-east, rope pulleys were located within the upper parts of the third set of windows from the canal, at second, third, fourth, and fifth floor levels. Apart from at fifth floor level, this vertical run of windows was bracketed by iron pattress plates, located just below the points where the pulley wheel shafts would have sat. This suggests that cast-iron beams were located just inside the windows, anchored by tie bars, and the bearings for the pulley wheels were seated upon these (long removed) beams.

This rope drive required protection by a pair of steeply-pitched glazed 'sheds', carried upon a lightweight steel framework; but a substantial steel beam, supported upon brackets, was installed across the courtyard between first and second floor levels. This beam supported the canal ends of the two 'sheds'. Only the opposing pair of brackets remain. At a later date, the glazing of the races was replaced by corrugated iron sheets, which would be more resistant to accidental damage.

In the north-westward direction from the rope drum, three sets of ropes extended through tall slots in the north-west engine house wall. Two rope sets drove rope pulleys at ground floor level, whilst the third set drove a single rope pulley at first floor level. Only the basement level did not seem to have rotary power from this arrangement; which may imply that this floor was used as a conditioning cellar.

The 1902 boiler house left no clear evidence within this elevation, although it does figure clearly within the Frank Wightman drawings.

5.2 Internal description

Basement of 'B' Mill (south-west mill) and central block (Figure 30)

There was no access to this building during the present work, although a previous survey of the basement area was made available,⁹² along with a number of digital photographs. Much of what follows is based upon that information.

The low basement structure comprised cast-iron columns which supported runs of south-east to north-west beams of iron or steel beams, between which the floors were of cast in situ concrete. It is not known if the floor levels above were of similar construction; if so this may have replaced the 'fireproof' floors destroyed by the fire within 'B' Mill in 1890.

Within the south-east wall, all of the windows appear to have been blocked, apart from the last one to the north-east, where the apsidal light well was still open, although it had been concreted over externally. Given that there was no obvious evidence for rotary power within the basement, it is possible that this floor had been used as a cotton conditioning cellar, and that cotton bales may have been taken from canal boats and dropped through these light wells into the basement.

However, the lack of any lifting devices or wharf space on the canal bank here make this seem unlikely, and it seems more probable that raw cotton was discharged from elsewhere on the canal, possibly by the Albert Mill, or on the site of the 'B' Mill before construction started here.

A substantial cast-iron wallbox and damaged iron bracket had survived against the gearing wall, within the northern part of 'B' Mill (Plate 33). Located directly above this was a cast-iron trap in the ceiling. The wallbox passed through the thickness of the gearing wall here (Plate 32), and considering that the 1902 engine did not apparently deliver any rotary power into the basement, it could be assumed that this arrangement represented good evidence for an upright shaft at this location, on the west side of the gearing wall. Such an interpretation would place the 'B' Mill engine flywheel on the other side of the gearing wall.

Within the central block, the construction of the 1902 economiser house had probably destroyed all evidence for the 'B' Mill original beam engine. However, within the north-eastern part of the central block, a substantial bed of stonework and brickwork, partially truncated on its north side, is suggested as comprising the remains of the 'A' mill beam engine bed (Plates 29 & 30). Without any form of closer examination, it is difficult to say any more about this feature. However, given what is known of the means of rotary power from the 'B' Mill engine, it can be assumed that the flywheel and upright shaft occupied mirrored positions about the building axis.

⁹² Murphy & Price 2018.

'A' Mill (north-east mill)

Basement Level

No access was obtained to the basement area for the present report. The existing CAD plan showed that the basement only extended across the westernmost half of the 'A' Mill footprint. This resulted in a footprint of 12 bays by six bays; where the jack arches were of a conventional early-mid 19th century design, where single broad arches extended between the columns (Figures 26-28).

However, the south-westernmost bay contained a series of transverse arches, which was an engineering design solution normally intended to negate any lateral thrust exerted by the jack-arches upon external walls; in this particular case they would relieve stresses upon the south-west courtyard wall and the gearing wall (Figures 27 & 28). The jack arches were also stabilised by horizontal wrought-iron tie-rods (Figure 28), which were essential to firmly locate the cast-iron beams whilst the brick vaulting was installed; and subsequently acted to negate the lateral thrust of the vaulting.

Also, at the basement level were two interlocking sets of remedial steelwork braces, which were contiguous with the second and fourth runs of cast-iron columns (as numbered from the south-east wall). These were probably installed in c.1990, in relation to the conversion of the levels above as offices.

It is not known if this modern steelwork installation related to any perceived defect(s) in the cast-iron framework; it may have been inserted simply to provide an additional degree of confidence by engineers unfamiliar with the nature of 19th century construction materials.

It is suggested that the 'A' Mill original upright drive shaft was located against the putative gearing wall, adjacent to the 'A' Mill beam engine location. No evidence has been produced for this, apart from the suggestion that the 'A' Mill would closely mirror the layout of the 'B' Mill, and evidence exists (see above) for the location of the upright shaft within the latter. It is possible that below-ground evidence still survives for the upright shafts within both the 'A' and 'B' Mills.

It is tempting to assume that this basement level was used as a cotton conditioning cellar, especially as rotary power did not seem to have been delivered into this space following the 1902 alterations.

Ground Floor Level

At this level, access for this report was minimal, given that most of this area was given over to NHS office spaces. Cast iron columns at this level, 3.93m in height, supported jack arches as described at the fourth-floor level (Plate 35; see below for arch description).

First Floor Level

The only notable feature seen at this level was a large cast-iron wallbox within the gearing wall, adjacent to the putative location of the 'A' Mill beam engine

flywheel. This feature was located high upon the wall, and extended through into the central block. Within its north-eastern part, it contained a mounting for a large bearing; whilst to the south-east, it extended well into the adjoining space as an integral iron plate. This was interpreted as a mounting for a horizontal driveshaft for a rope pulley; driven from the 1902 engine (Plates 36-38).

The location of this wallbox seemed to coincide with the putative pre-1902 upright shaft; such an arrangement was probably deliberate, and would enable the new rotary drive to engage upon the lineshaft run which was contiguous with this point.

Second Floor and Third Floor

At these floor levels, much of the historic fabric had been obscured by new fitting out.

Fourth Floor Level

At this level, it was possible to view enough of the original fabric to extrapolate a tentative floor plan of the form of the 'A' Mill (Figure 31; Plates 40 to 45). Five rows of cast-iron columns extended from south-west to north-east, each row containing eleven columns. These supported a series of south-east to north-west trending primary cast-iron beams, of inverted T-section, each of which had a fish-bellied web, and a flange with a slight parabolic profile to both edges.

The beams were coupled to the columns by integral semi-circular recessed castings; where contiguous beams were in contact against the columns, the beam ends were bolted together. The columns had splayed decorative capitals, adorned with acanthus leaves. The beams sat upon these capitals. These joints would provide for a small degree of flexing in the event of any post-construction building settlement.

A series of six secondary cast-iron beams span at right angles between each primary beam, carried upon integral ledges cast into the primary beams. These secondary beams in turn support the brickwork jack-arches, with a span of 1.03m, and a rise of just 0.13m (Figure 31, cross-section). Unlike at basement level, no wrought-iron tie bars were noted at this level, although these may have been concealed within the vaulting; or may not even be present at all, given the reduced degree of lateral thrust within this construction.

This type of cast-iron framing design was used by mill architects Woodhouse and Potts; it had a major advantage in that it reduced the lateral thrust of the jack-arches against the external walls, and it also reduced the total floor thickness, as opposed to the more conventional jack arches as seen in the basement of 'A' Mill, and which are characteristically seen in textile mills of the early to mid. 19th century period.

The only unambiguous evidence for rotary power at this level was on the fourth column run from the south-east, where the upper columns had integral cast faces for attachment of brackets to carry line shafting. This location

coincided with the putative upright shaft position against the south-west wall, at this point there was a broken cast-iron fitting which may well have comprised a bracket for containing the long-removed upright shaft.

After 1902, when the new steam engines were installed, the rope drive to this floor level comprised a rope pulley on a shaft affixed into the upper part of the third window from the south-east. Internally, at this location, the upper part of this window had been spanned by a large, inserted cast-iron beam, with a C-section profile. Only the ends of the beam had survived, the remainder having been broken out to reinstate the window. The ends of this beam were affixed to the wall by tie-bars, and pattress plates on the exterior wall face.

But no other internal evidence could be discerned for the rope-drive system, and it is assumed that any post-1902 line shafting was secured from the cast-iron beams on temporary brackets, which have long since been removed.

Fifth Floor Level

At this level, the column arrangement was as for the floor below, but the ceiling was of cast in situ concrete. The fourth run from the south-east of cast-iron columns had supported a line shaft run which may have been driven from the putative upright shaft here.

6. Building Interpretation

6.1 Construction phasing

Phase 1 – 1863 – construction of original ‘A’ Mill

Edward Williams obtained a lease to a large plot of land, and constructed one half of a double mill. The 1865 trade directory map of Manchester (Figure 5) appears to show ‘A’ Mill occupying the east part of the plot, along with what was probably the stair tower, boiler house and engine house attached on the west. The original ‘A’ Mill was non-fireproof, suggesting that the internal frame comprised cast-iron columns, timber floor beams, and timber floorboards.

The mill was powered by a ‘vertical’ engine of 100hp, which probably referred to a large beam engine at this date. It seems unlikely that the second beam engine (for the ‘B’ Mill) was installed, although the engine beds and other infrastructure probably had been erected. The drive to the mill would have comprised a vertical iron shaft, delivering power to horizontal line-shafting via bevel gears.

The attraction of this particular site probably related to cost, as compared to the industrial suburb of Ancoats, and to the presence of the Rochdale Canal, which facilitated cheap transport of coal, raw cotton, and finished yarn; as well as providing water for the mill engine condensers and boiler feed.

The ‘double mill’ concept allowed for easy expansion of a site if future trading conditions allowed, and by the late 19th century, such arrangements had become commonplace at the larger new mill sites. It is possible that the Victoria Mill site was one of the earliest double mills to be constructed.

Although the mill located to the west (later named Albert Mill), shown on the 1865 map (Figure 5), was in separate ownership, it is possible that an informal relationship existed between the properties (rather than any formal partnership), given that this mill appears to have been constructed as a powered weaving shed.

Phase 2 – 1873 – construction of ‘B’ Mill, reconstruction of ‘A’ Mill

Under the ownership of William Holland and Sons, the originally planned ‘B’ Mill was constructed, to mirror the appearance of the older ‘A’ Mill. It was six storeys in height, and was of ‘fireproof’ construction, as opposed to the older structure.

Before the ‘B’ Mill could be occupied, the ‘A’ Mill was destroyed by fire, resulting in major collapses, and leaving very little standing fabric. The ‘A’ Mill was therefore rebuilt, in ‘fireproof’ form, matching that of the ‘B’ Mill. This rebuild comprised iron columns supporting main beams of cast-iron with a parabolic upper web profile; which were spanned by lesser iron beams, which in turn carried the brick jack-arches.

Hence only the central block of the mill, comprising the chimney and stair tower, and the original engine house, are all that remain of the 1863 works.

Phase 3 – 1890 – destruction and rebuilding of ‘B’ Mill

In August 1890, a major fire destroyed the ‘fireproof’ floors of the ‘B’ Mill. This was then rebuilt in its present form, which appears to comprise cast concrete floors carried by rolled steel beams, supported upon cast-iron columns.

Phase 4 – 1902 – installation of new steam engines

In 1902, the old engines were removed, and replaced by a pair of 1000hp vertical engines, of the ‘non-dead centre’ type. These were added in a newly-built engine house, within the central courtyard. Each engine had a six-metre diameter rope drive for a flywheel, containing 20 ropes. These ropes were contained within a pair of rope races, which were apparently glazed, and the ropes drove a series of seven rope pulleys, which delivered power to the mill floors.

A new economiser house was constructed within the western part of the original engine houses, requiring removal of the ‘B’ Mill beam engine beds. Part of the ‘A’ Mill beam engine beds has survived in situ, although heavily truncated at the north-west end. A new boiler house was erected within the southern part of the courtyard, containing four boilers, leaving a limited covered space against the canal embankment for holding stocks of dry coal.

Phase 5 – c 1990 onwards

Ongoing conversion of disused mill spaces into office and residential use.

6.2 Architect, builder and construction date

The origin of the attribution of George Woodhouse as the designer of Victoria Mill remains uncertain, and must presently be considered as tentative only. This seems to relate to the superficial external similarity of Victoria Mill to Bliss & Sons Mill at Chipping Norton, erected in 1872, as pointed out by Jones (1985, 147). Woodhouse admittedly employed the type of cast-iron frame as used in the ‘A’ Mill, but this mill had been rebuilt in 1873, a full ten years after Victoria Mill was first erected. If both pieces of evidence are suggested as indicating a Woodhouse design, then Woodhouse was engaged twice at this site over a decade, by two different owners.

Previous reports have claimed, incorrectly, that the ‘A’ Mill was first erected in 1867 or 1869; and the ‘B’ Mill, correctly, was first erected in 1873. McNeil and Nevell claimed that the mill was constructed in ‘1867 and 1875 for William Holland & Sons Ltd’, managing to get both dates wrong.⁹³ New research for this report has now demonstrated that none of this is correct (4.3 above). The ‘A’ Mill was first erected in 1863 by Edward Williams, and after he died in 1865, the mill was acquired by William Holland in 1867. In 1873,

⁹³ McNeil & Nevell 2000, 10.

William Holland and Sons had constructed the 'B' Mill, and in the same year the 'A' Mill was destroyed by fire, then subsequently rebuilt in fireproof form.

The few years which elapsed between the dates of 1863 and 1867 would have had much less significance if this period had not coincided with the 1861-65 Cotton Famine. After hostilities commenced in the American Civil War, the southern ports were blockaded, restricting the supply of cotton. The cost of raw cotton quadrupled, and prices became very volatile, depending upon news and rumour coming out of America. The impact upon the textile trade in north west England was immediate, resulting in many mills closing down, and others working only part time.

However, for anyone with contacts in America, this cotton scarcity had been somewhat predictable, and some businesses were able to stockpile large amounts of cotton in advance of the blockades being established.⁹⁴ In 1861, Edward Williams was listed as a 'yarn agent' in Manchester; but by 1863 he was listed as a 'yarn agent, spinner and doubler'.

As a yarn agent, Williams may well have stockpiled large amounts of yarn in anticipation of a raw cotton shortage. If so, he may have then generated considerable profits in the early years of the Cotton Famine. Williams' construction of the 'A' Mill at Victoria Mill may well have been funded from profits made during this otherwise adverse period.

However, it is possible that Williams had over-reached himself by the end of 1864, as he then mortgaged the property to the Union Bank in Manchester. It was only several years after William Holland acquired the mill from the bank in 1867, that the original intended plan form for a double mill was finally fulfilled.

⁹⁴ Law 1995, 114-16.

7. Recommendations

7.1 Future site works

It seems possible that future building conversion works may affect the basement areas of both 'A' and 'B' Mills, as well as the lower floors of the central block. The opportunity to undertake detailed recording of this somewhat enigmatic and iconic building should be taken if at all possible.

7.2 Publication and interpretation

Possible further works to be undertaken related to Victoria Mill may include a popular publication, one or more interpretation panels, and/or an information leaflet. The relevant material which could be utilised is extensive. This may include the development of the double mill, the late 19th century development of 'fireproofing', the role of canals in mill development, the progression of steam engine technology, and the role of the professional mill architect.

Appendix 1: Timeline of Victoria Mill

1863	Lease of land by the Dean and Chapter of Manchester Cathedral to Edward Williams, yarn merchant
	Construction by Williams of a six-storey, non-fireproof mill for spinning and doubling, on the site of the present north-east mill ('A' Mill)
1864	Mortgage of the mill by Williams to the Union Bank of Manchester
1865	Death of Edward Williams
1867	Transfer of the mill from the bank to William Holland, formerly a cotton spinner and manufacturer at Adelphi Mill, Salford
1872	William Holland's sons Simon and William Henry become partners in the firm
1873	Construction of a second six-storey mill (fireproof). This is the south-west 'B' Mill.
	Destruction of the first mill by fire. Rebuilt with a fireproof construction.
1877-8	Construction of a third mill, to the south-west, for worsted spinning
1884-5	Expansion of the worsted spinning business by the acquisition of Albert Mill
1889	Remodelling of the worsted spinning mills as a single factory, 'C' Mill
1890	Rebuilding of 'B' Mill following a second major fire
1893	Death of William Holland
1898	Cotton spinning and doubling branch of William Holland and Sons amalgamated within the Fine Cotton Spinners and Doublers Association
1902	New engine house, with twin engines by John Musgrave and Sons of Bolton, and a rope race
1906	Planning permission given for a two-storey warehouse on the north side of Lower Vickers Street, but this is not carried out
1910-11	Humidifying system installed with twin sheds on the mill roof and flue towers added to the façade
1923-4	Three-storey mill ('D' Mill) built on the north side of Lower Vickers Street, linked to 'A' Mill via a subway
1950	Building of the hoist tower
1955	Rebuilding of the rope race
1959	Closure of the mill

1960	Sale of the mill by the Fine Spinners and Doublers Ltd
1988	Victoria Mill designated a Grade II* Listed Building
c 1990	Conversion of 'A' Mill to offices and 'B' Mill to apartments. Removal of the WC towers, hoist tower, humidifying sheds on the mill roof, and former carding sheds on the north-east and south-west elevations
2019	Conversion of offices in 'A' Mill to apartments

Appendix 2: Victoria Mill and Albert Mill in Rate Books, 1864-1900

1863 (MA M10/19/5/50)

Mill not listed.

1864 (MA M10/19/5/51, 56)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
Edward Williams	Edward Williams	Mill	420	-

1865 (MA M10/19/5/52, 57)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
Edward Williams	Edward Williams	Mill	562	-
Mathew Miller	Mathew Miller	Mill	100	-

1866 (MA M10/19/5/53, 59)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
Edward Williams	Williams	Mill &c	562	-
Mathew Miller	Mathew Miller	Mill &c	250	-

1867 (MA M10/19/5/53, 66)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland	Late Williams	Mill &c	562	-
Mathew Miller	Mathew Miller	Mill &c	250	-

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1869 (MA M10/19/5/56, 77)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland	William Holland	Mill offices &c	562	-
Mathew Miller	Mathew Miller	Mill warehouse &c	250	-

1870 (MA M10/19/5/57, 79)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland	William Holland	Mill offices &c	750	-
Mathew Miller	Mathew Miller	Mill warehouse &c	333	-

1876-7 (MA M10/19/5/63, 96)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	750	-
Mathew Miller	Mathew Miller	Mill	333	-

1877-8 (MA M10/19/5/64, 109)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1700	-
			1533	-
Mathew Miller	Mathew Miller	Mill	333	-

1878-9 (MA M10/19/5/65, 121)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1533	-
Mathew Miller	Mathew Miller	Mill	333	-

1883 (MA M10/19/5/70, 96)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
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William Holland & Sons	William Holland & Sons	Mill	1533	-
Matthew Miller	M Miller	Mill	333	-

1884 (MA M10/19/5/71, 99)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1533	-
Johnson Clapham & Moores William Holland & Sons	M Miller	Mill	333	-

1885 (MA M10/19/5/72, 99)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1866	-
William Holland & Sons	M Miller	Mill		

1886 (MA M10/19/5/73, 103)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1866	-

1888 (MA M10/19/5/75, 105)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	1866	-

1889 (MA M10/19/5/75, 109)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	2083	-

1890 (MA M10/19/5/77, 112)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	2083 1042	-

1891 (MA M10/19/5/78, 112)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	2083	-

1892 (MA M10/19/5/79, 114)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	3000	-

1897-8 (MA M9/40/2/517, 97)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Mill	3000	-

1899-1900 (MA M9/40/2/537, 102)

<i>Occupant</i>	<i>Owner</i>	<i>Description</i>	<i>Rateable value</i>	
William Holland & Sons	William Holland & Sons	Spinning Mill etc	628	-
Fine Cotton Spinners & Doublers Association Ltd	Fine Cotton Spinners & Doublers Association Ltd		2372	-

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MCA – Manchester Cathedral Archives
SIM – Science and Industry Museum

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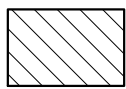
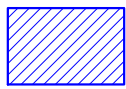


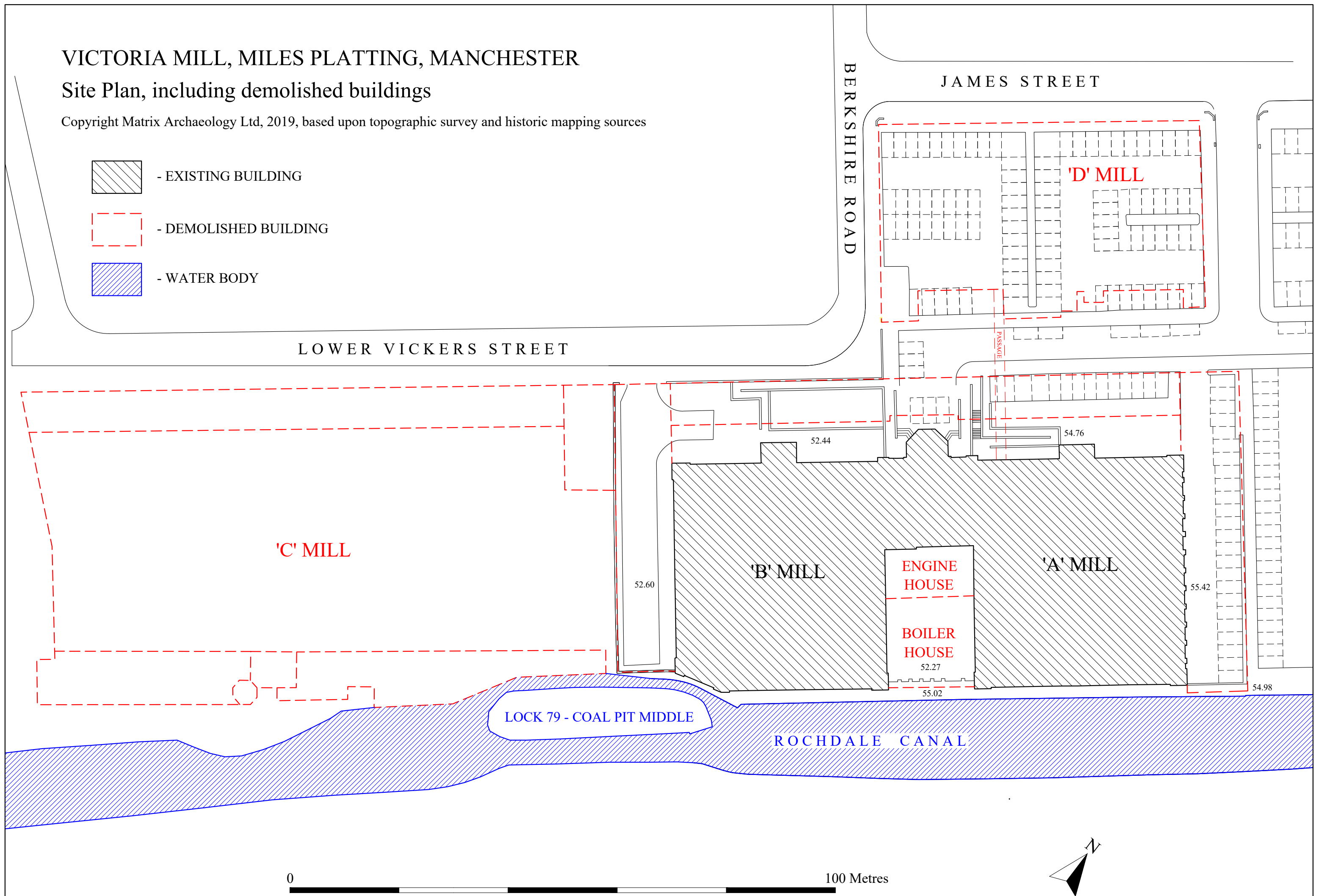
Figure 1. Location plan, O.S. Crown Copyright, Matrix Archaeology Ltd O.S. Licence No. AL100032621. Derived from MasterMap O.S. data.

VICTORIA MILL, MILES PLATting, MANCHESTER

Site Plan, including demolished buildings

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-  - EXISTING BUILDING
-  - DEMOLISHED BUILDING
-  - WATER BODY



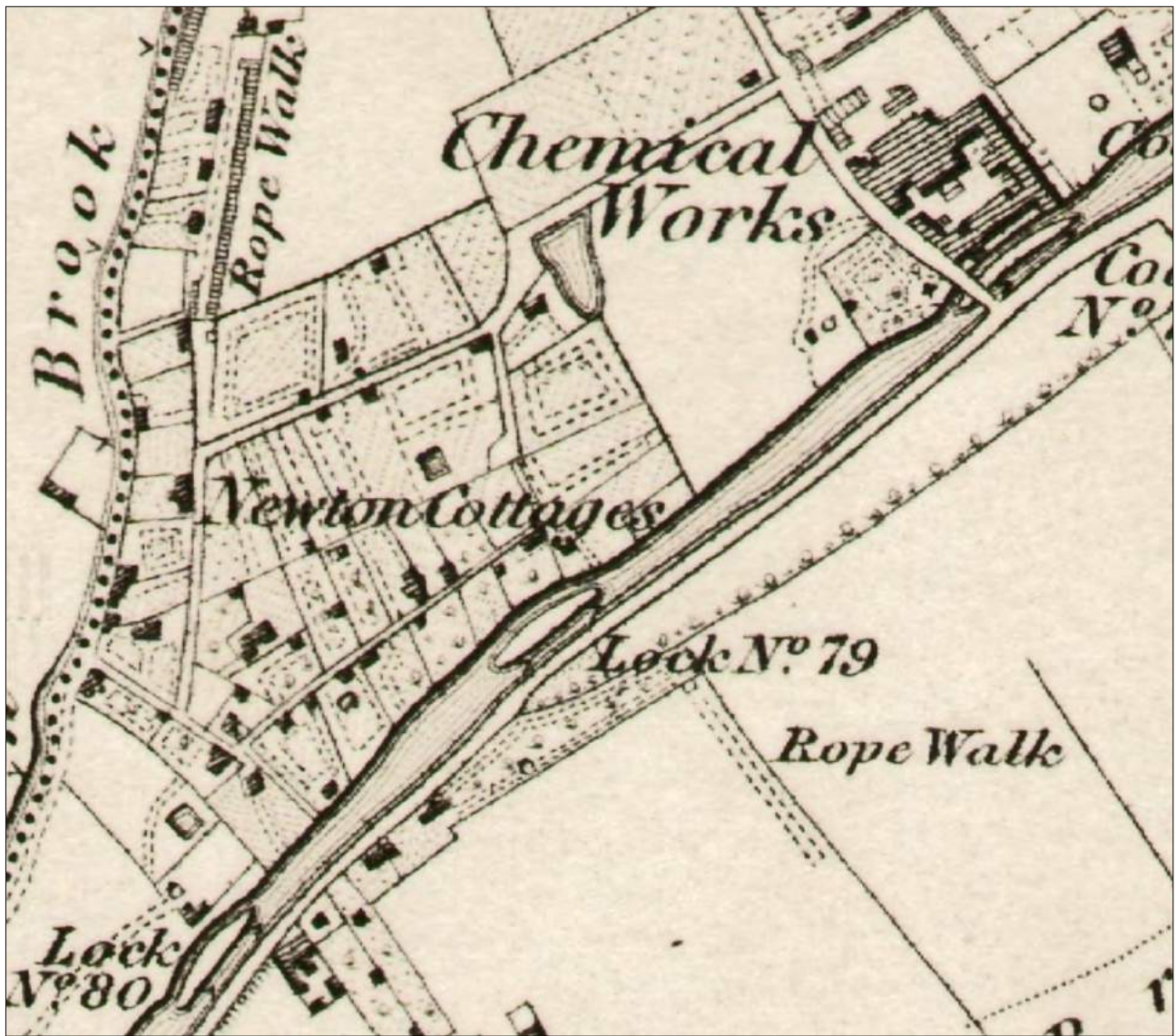


Figure 3: Site of Victoria Mill on OS 6in to 1 mile Lancashire sheet 104, surveyed 1845, published 1848. Scale 1:2000. Compare Figure 6.

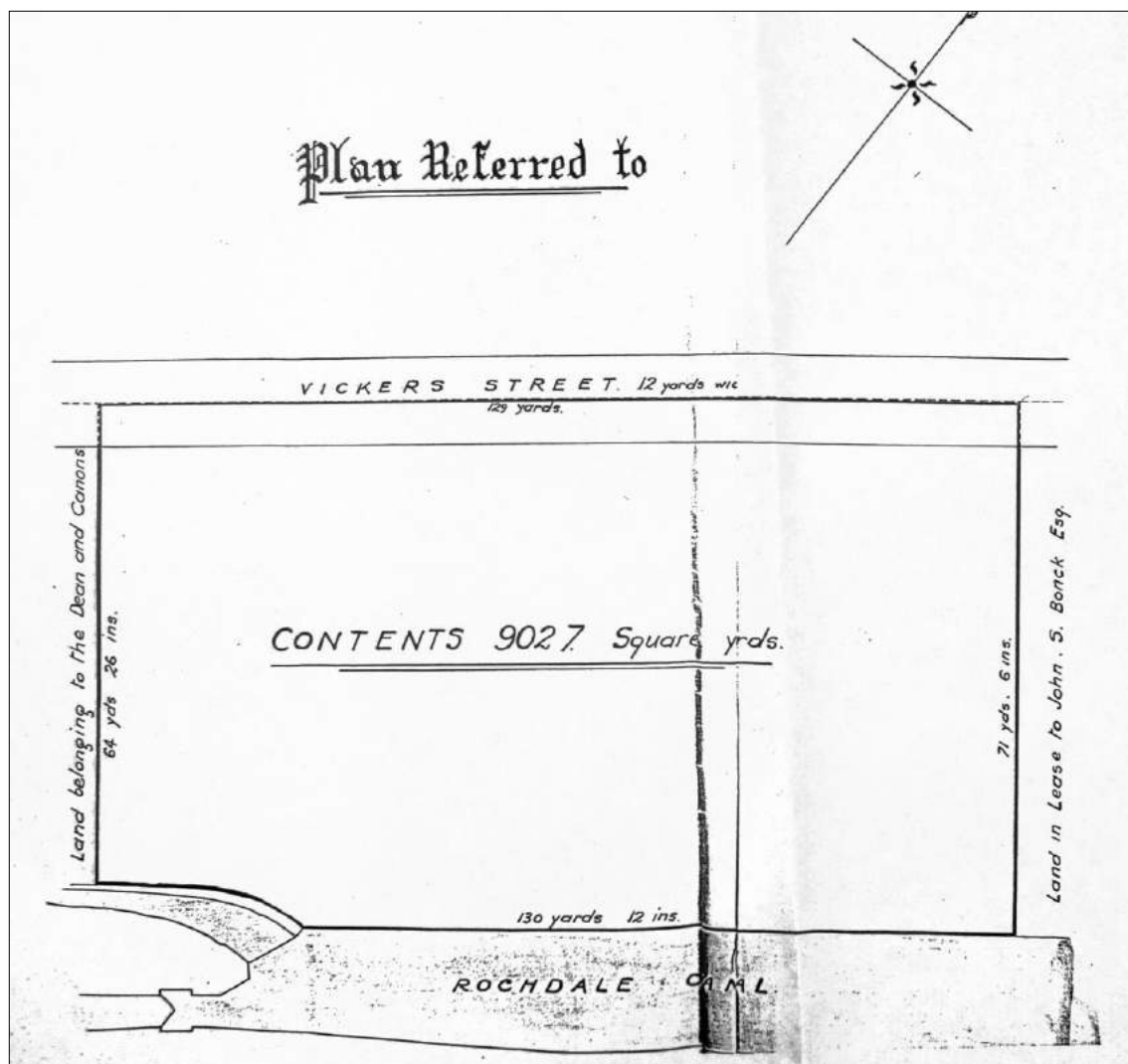


Figure 4: Land held under lease by Edward Williams, 1863 (Greater Manchester Textile Mill Survey).

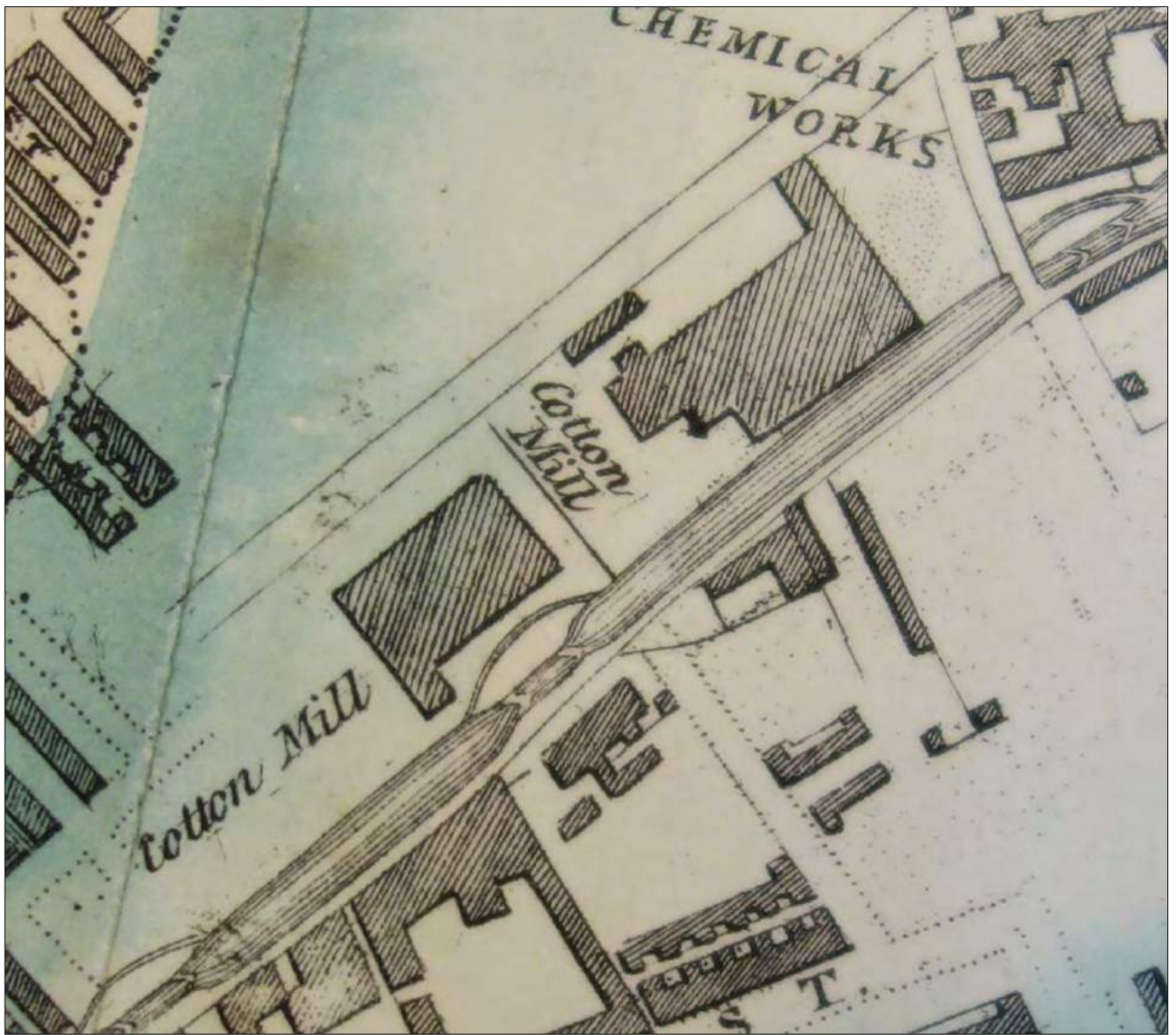


Figure 5: Victoria Mill on 'I. Slater's New Plan of Manchester and Salford, and their vicinities specially prepared for the 1865 directory' (courtesy of Chetham's Library).

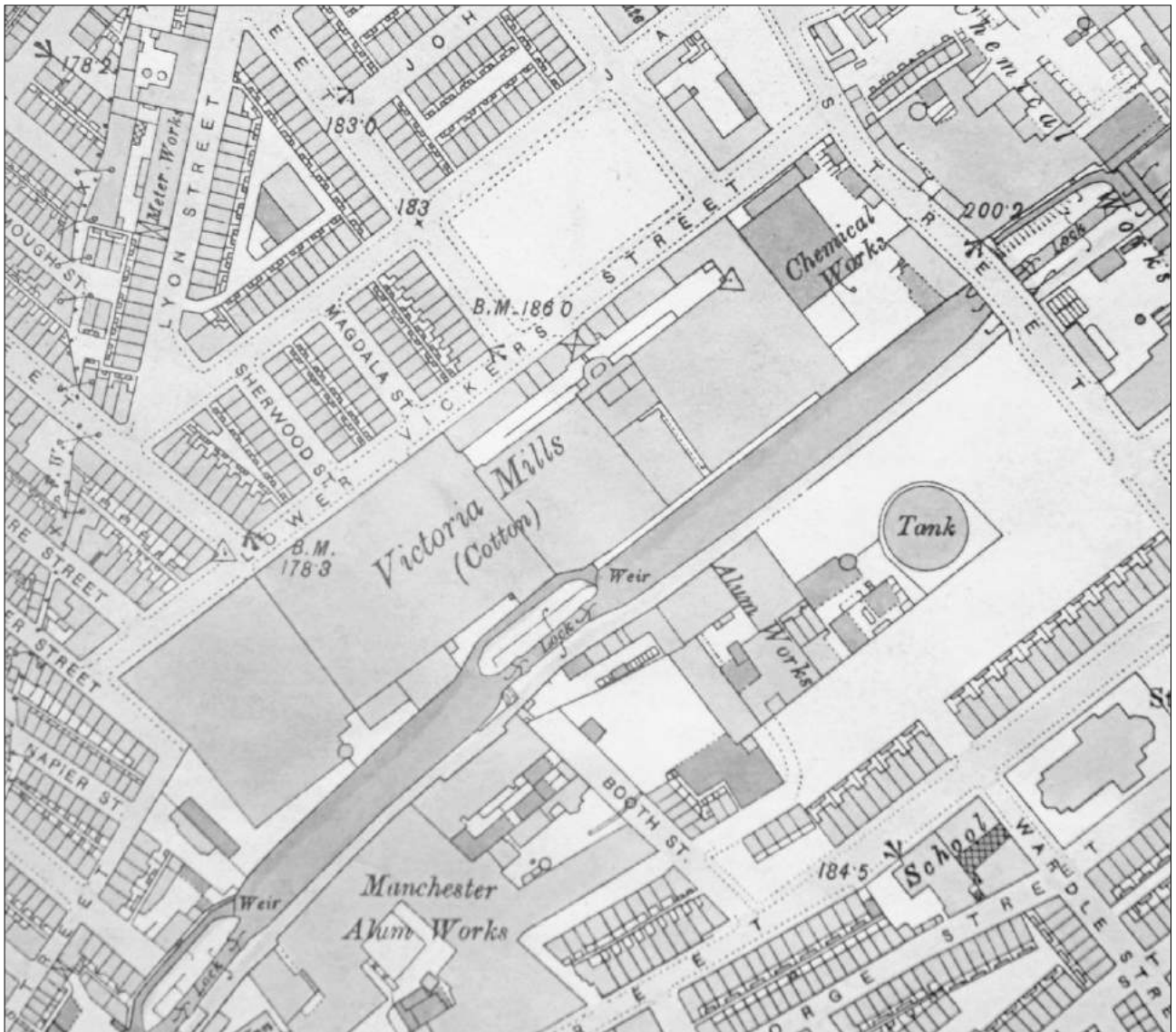


Figure 6: Victoria Mill on OS 1:2500 Lancashire sheet CIV.7 First Edition 1888-91, surveyed 1888-91, published 1893. Scale 1:2000.



Figure 7: Victoria Mill on OS 10ft to 1 mile Manchester sheets CIV.7.8, CIV.7.9, CIV.7.13 and CIV.7.14, surveyed 1889, published 1891. Scale 1:2000.

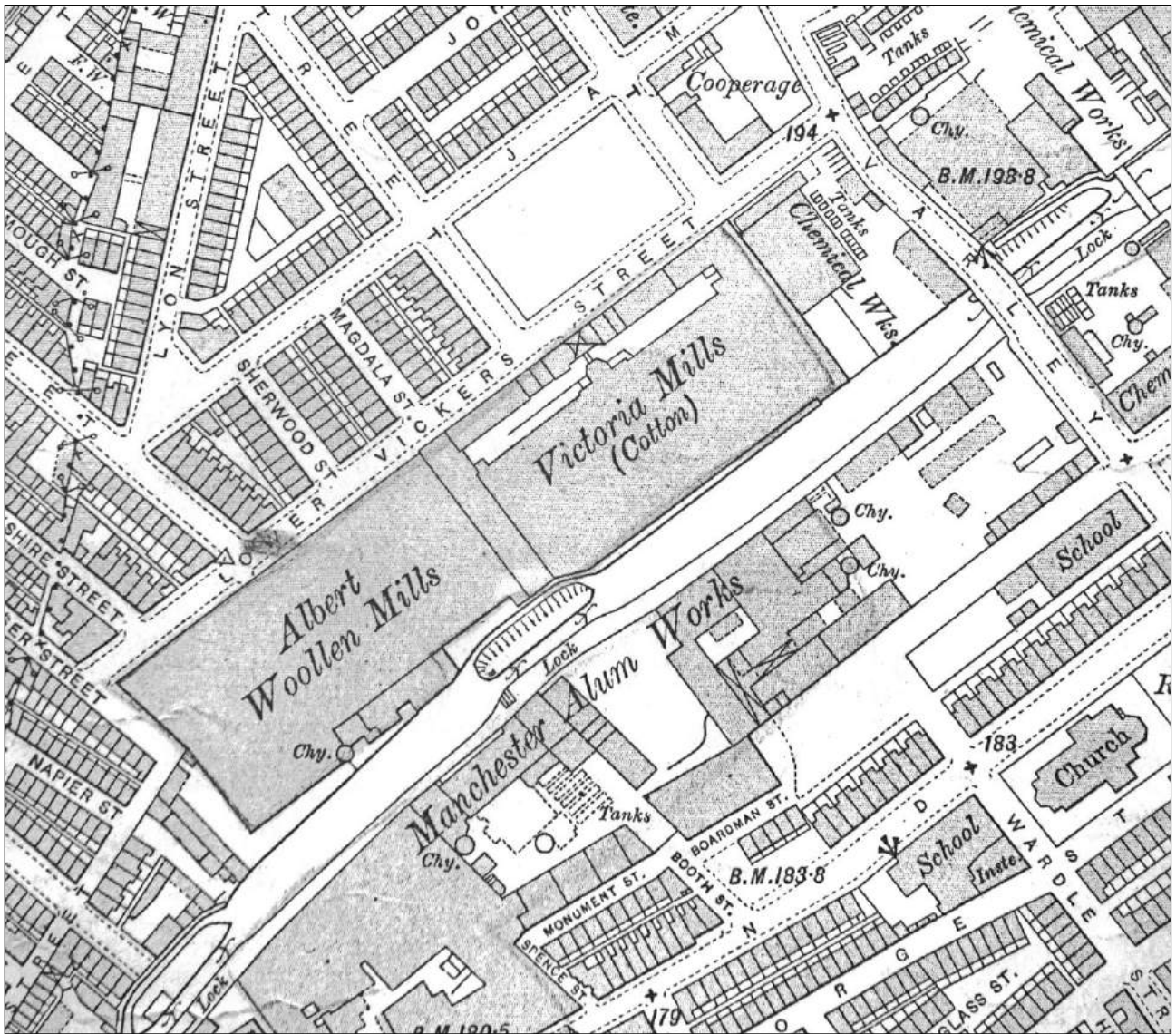


Figure 8: Victoria Mill on OS 1:2500 Lancashire sheet CIV.7 Edition of 1908, revised 1905, published 1908. Scale 1:2000.



Figure 9: Victoria Mill on OS 10ft to 1 mile Manchester sheets CIV.7.8, CIV.7.9, CIV.7.13 and CIV.7.14, revised 1912. Scale 1:2000.

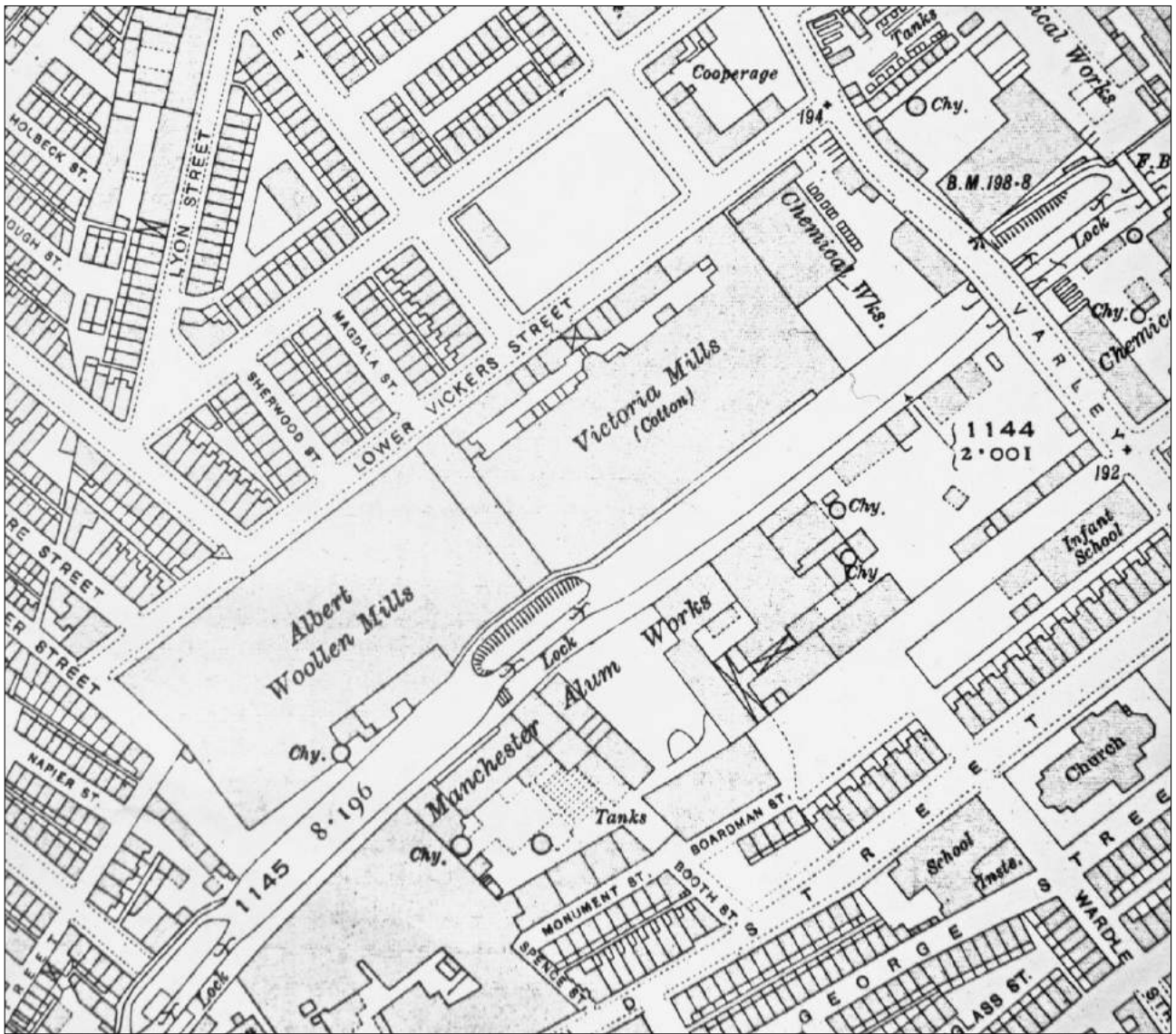


Figure 10: Victoria Mill on OS 1:2500 Lancashire sheet CIV.7 Edition of 1922, revised 1915, published 1922. Scale 1:2000.

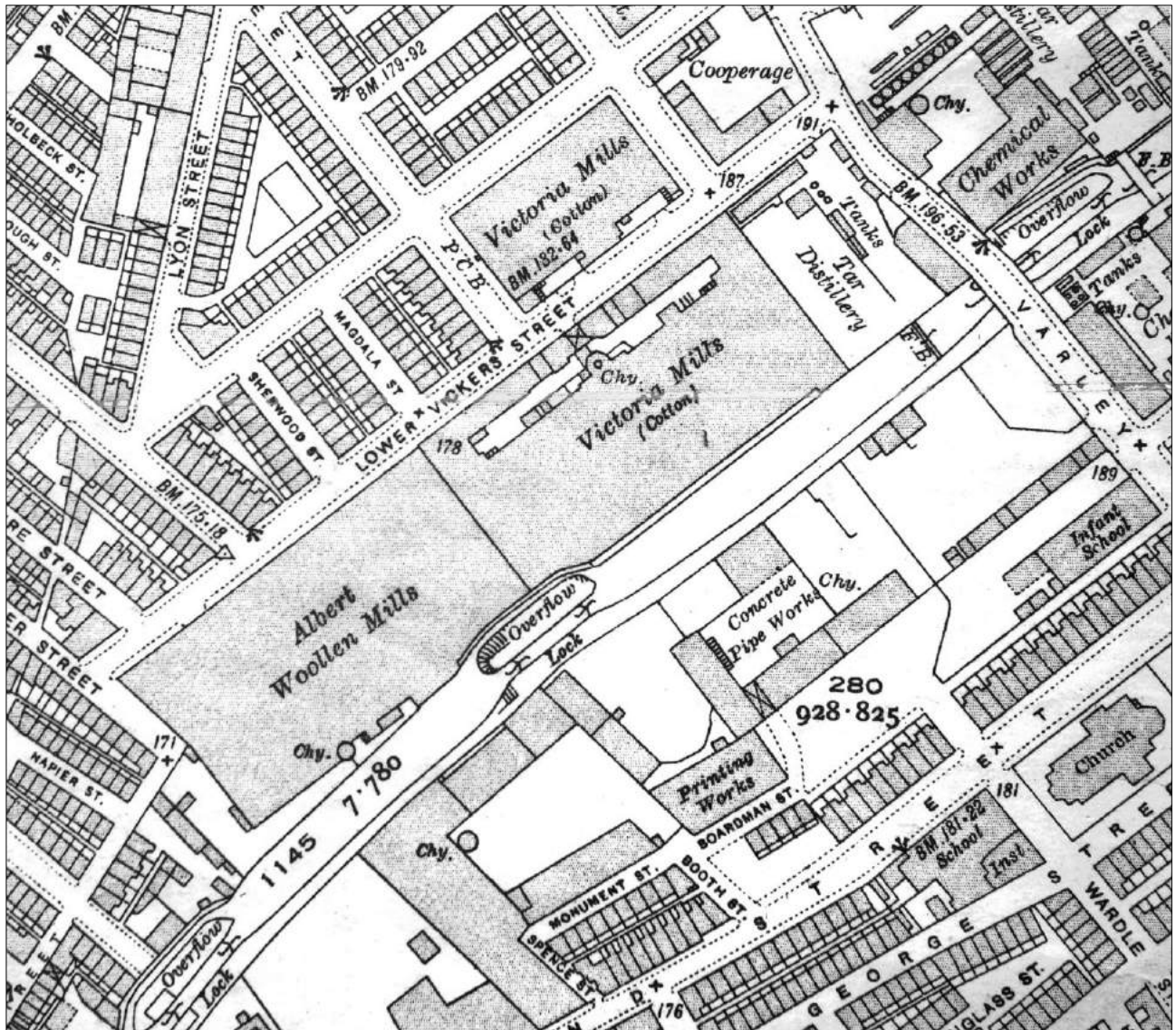


Figure 11: Victoria Mill on OS 1:2500 Lancashire sheet CIV.7 Revision of 1931, revised 1931-2, published 1934. Scale 1:2000.

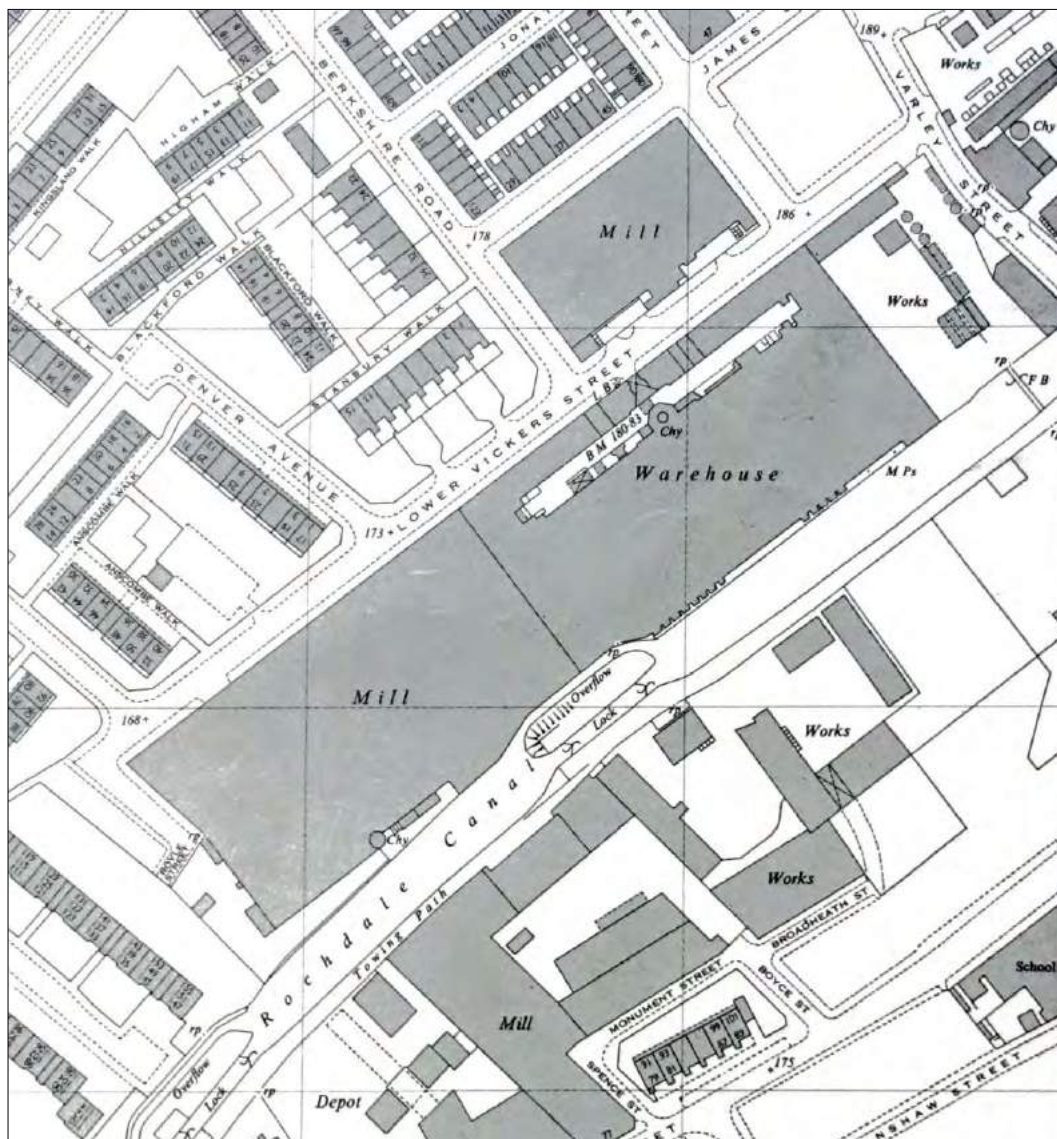


Figure 12: Victoria Mill on OS 1:2500 sheet SJ 84 99 & 85 99, surveyed 1964, published 1966. Scale 1:2000.

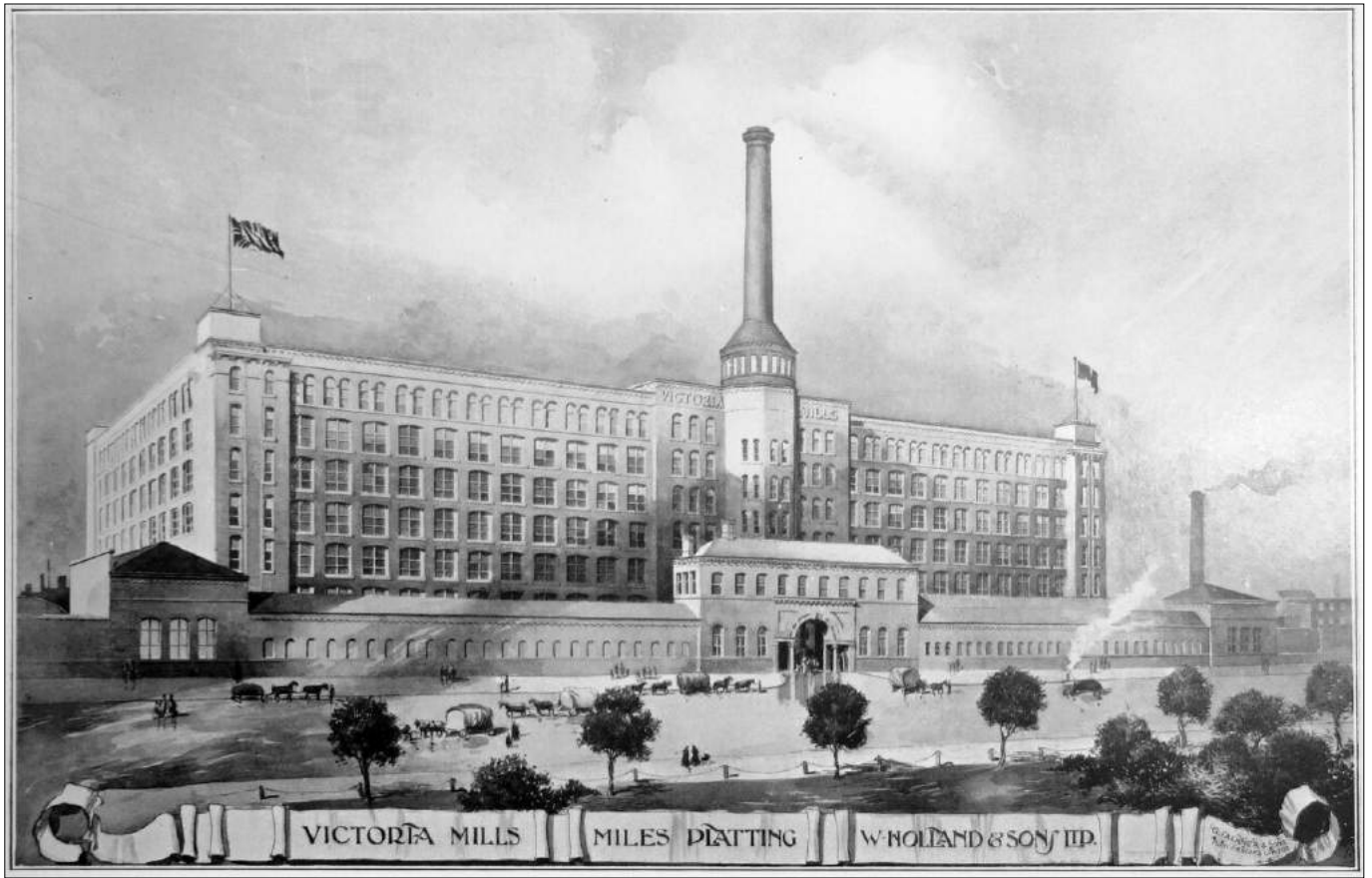


Figure 13: Victoria Mill, 1909 (Fine Cotton Spinners and Doublers' Association 1909)



Figure 14: Victoria Mill, aerial view looking north, 1980s (Greater Manchester Textile Mill Survey SF 4012 63, courtesy of GMAAS).



Figure 15: Victoria Mill, aerial view looking west, 1980s (Greater Manchester Textile Mill Survey SF 4012 64, courtesy of GMAAS).



Figure 16: Victoria Mill, aerial view looking south, 1980s (Greater Manchester Textile Mill Survey SF 4012 65, courtesy of GMAAS).

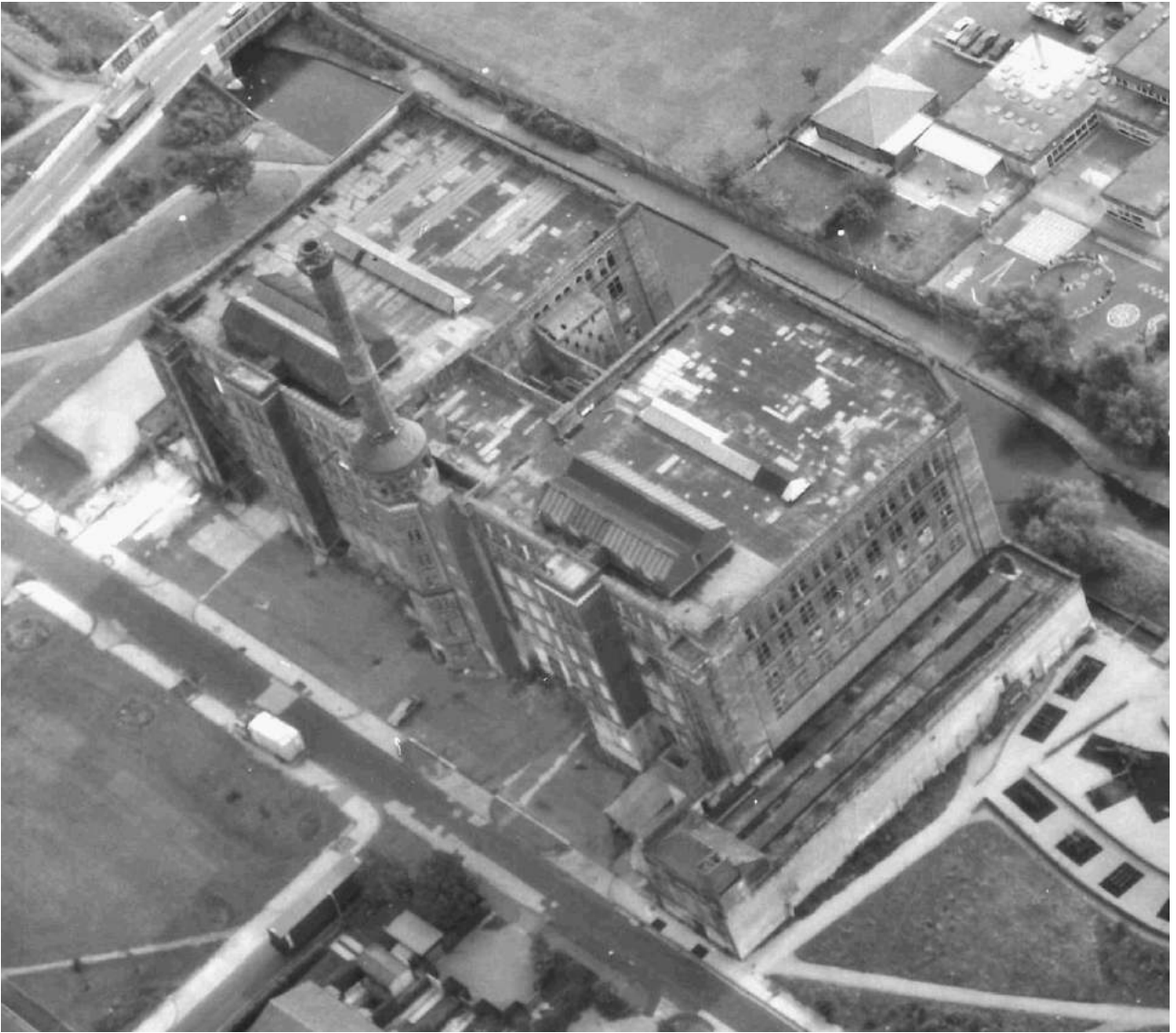


Figure 17: Victoria Mill, aerial view looking east, 1980s (Greater Manchester Textile Mill Survey SF 4012 66, courtesy of GMAAS).



Figure 18: Victoria Mill, looking south, 1980s (Greater Manchester Textile Mill Survey).



Figure 19: Victoria Mill, looking north, 1980s (Greater Manchester Textile Mill Survey).



Figure 20: Victoria Mill, south-west elevation, c 1980s (Greater Manchester Archaeological Advisory Service).



Figure 21: Victoria Mill, south-east elevation, c 1980s (AHP 2006).



Figure 22: Victoria Mill, 1955 rope race enclosures and south-east wall of 1902 engine house, c 1980s (Greater Manchester Archaeological Advisory Service).



Figure 23: Detail of rope race enclosures, c 1980s (AHP 2006).



Figure 24: North-east mill ('A' Mill), fifth floor, c 1980s (AHP 2006).



Figure 25: North-east mill ('A' Mill), fifth floor, c 1980s (AHP 2006).



Figure 26: North-east mill ('A' Mill), fifth floor ceiling and gable of humidifying shed, c 1980s (AHP 2006).



Figure 26: North-east mill ('A' Mill), basement, 2015 (AHP).



Figure 27: North-east mill ('A' Mill), basement, 2016 (ARS).



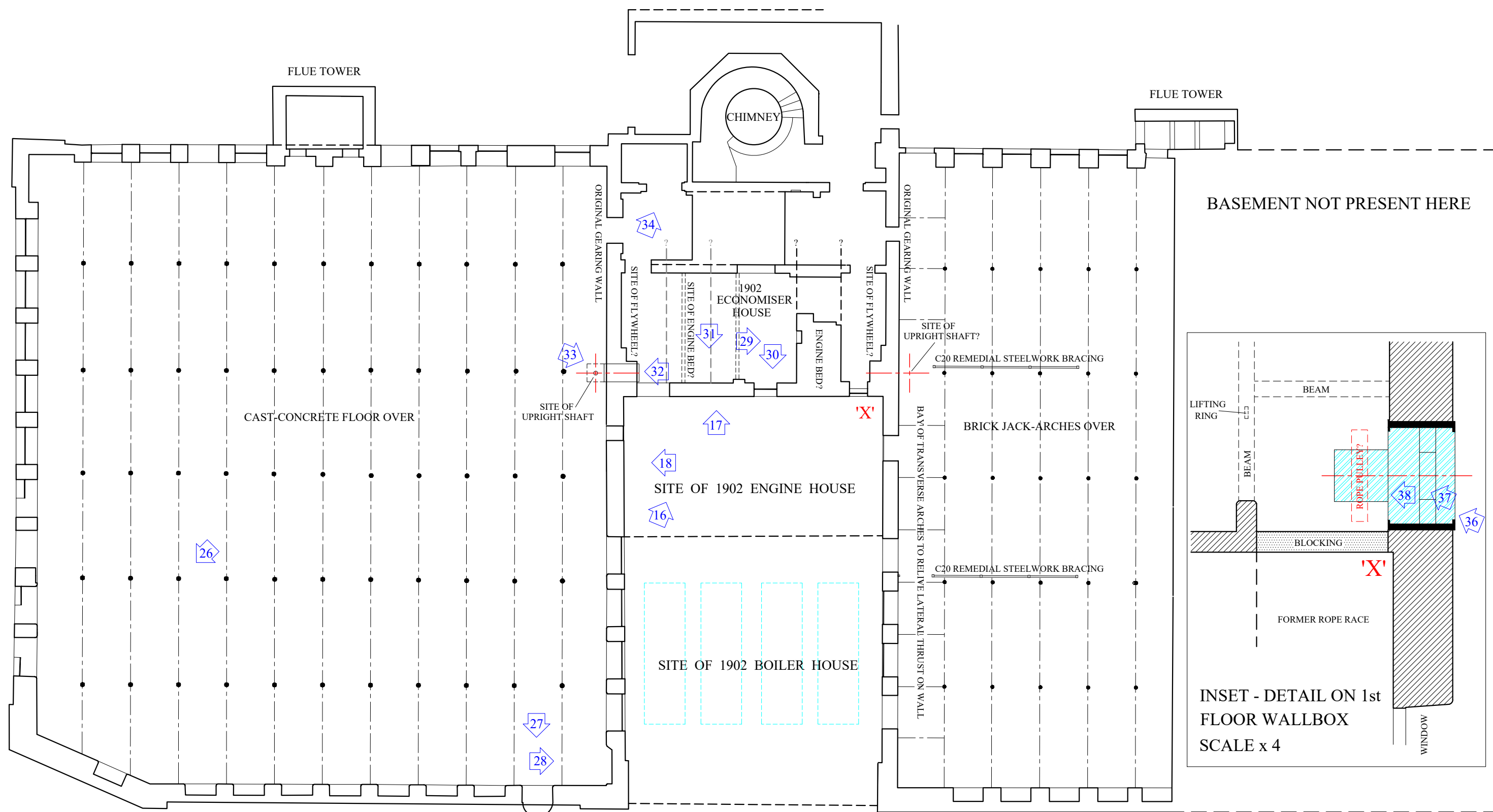
Figure 28: North-east mill ('A' Mill), detail of basement ceiling, 2016 (ARS).

HOLLANDS AS WITH MANY OTHERS, CIRCA 1894/1908 CHANGED THE WOODEN CARRIAGE MULES TO THOSE OF ALL METAL FOR HIGHER PRODUCTION, STIFFNESS & FIRE RESISTANCE, BUT IN MANY CASES TROUBLE WAS EXPERIENCED WITH HIGHER LOADINGS ON BEAM ENGINES & TOOTH GEARING, WHICH LED TO NEW ENGINES WITH ROPE GEARING MOSTLY ACCOMMODATED IN THE FAMILIAR ~~USED~~ EXTERNAL ROPE RACES. HOLLANDS WAS A TYPICAL EXAMPLE OF SUCH A CONVERSION FROM TOOTH GEARING TO ROPES WITH NEW ENGINES IN A NEW ENGINE HOUSE BETWEEN THE TWO MILLS, ~~AND~~ DRIVING THE SHAFTS. THE NEW ENGINES AND THE ROPE DRIVES WERE SUPPLIED BY JOHN MUSGRAVE & SONS LTD GLOBE IRON WORKS, BOLTON. 1902.

PERMISSION TO OBTAIN THE DATA FOR THIS DRAWING WAS GIVEN IN 1950 BY THE FINE SPINNERS & DOUBLERS ASSOCIATION LTD OF ST JAMES SQ MANCHESTER, AND W HOLLAND & SONS LTD (MR S HANKINSON MILL ENGINEER.)
DRAWN IN 1982 BY F. WIGHTMAN ENGINEER & MILLWRIGHT STRET FORD.

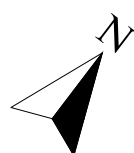
25 MUST
JAWER & MILL SHAF
APPROX CENTRE OF
MULE COUNTER SHAFTS
CENTRES OF LIVE SHAFTS
IN SPINNING ROOMS
VIEW
100 HP 2 ROPES.
150 HP 3 ROPES
150 HP 3 ROPES
150 HP 3 ROPES.
VALLEY ST CANAL
BRIDGE &
LOCK'S
BANKDALE CANAL
1524 EXTENSIVE WORK FOR
BLINDING AND CONCRETE DEPT
ON GROUND FLOOR, REPAIRING
& ERECTING 1st FLOOR AND
WALLS HOUSING
ALL ELECTRIC DRIVEN.
VICKERS ST
ONE ROOF OVER SPRINKLER TANK
CAST FOR CIRCULAR SPRINKLER TANK.
CIRCULAR TUNNEL OVER ROAD ROUND CHIMNEY
MILL OFFICE BOARD
ROOM LOBBY ETC
RED MOIST
TOWER
NO WINDOWS HERE AS HOLLANDS LTD ADJOINED.
VICKERS ST LEVEL
LEVEL OF TUNNELS
VIEW A DIRECTION
FROM HOLLANDS LTD ON CANAL LOWER LEVEL.
BE BRACKEN
TO LOWER LEVEL
SCALE 1/8" = 1 FOOT
MULE WERT & TWINE DOUBLING N°5
TWIST MULE ROOM N°4
TWIST MULE ROOM N°3
TWIST MULE ROOM N°2 / RING ROOM
TWIST MULE ROOM N°1
TAR SETTING POOL TO VARLEY ST.
MESSRS HARDMAN & HOLDEN LTD.
TAR DISTILLERS AND CHEMICAL WARE
CANAL LOCK UNDER BRIDGE
WATER LEVEL
TO WATNTH LEVEL EACH SIDE OF ROCHDALE CANAL
KNOWN AS A MILL
A VIEW
BOILER HOUSE FLOOR
TO WATNTH LEVEL EACH SIDE OF ROCHDALE CANAL
KNOWN AS B MILL
SCALE 1/8" = 1 FT
G.M.C N°
STRICTLY COPYRIGHT

G.M.C N°



SOUTH-WEST MILL ('B' MILL)

NORTH-EAST MILL ('A' MILL)

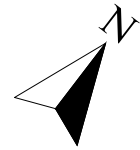
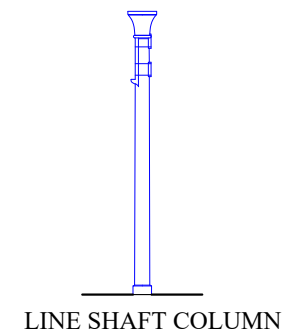


0 30 Metres

VICTORIA MILL, MILES PLATTING, MANCHESTER

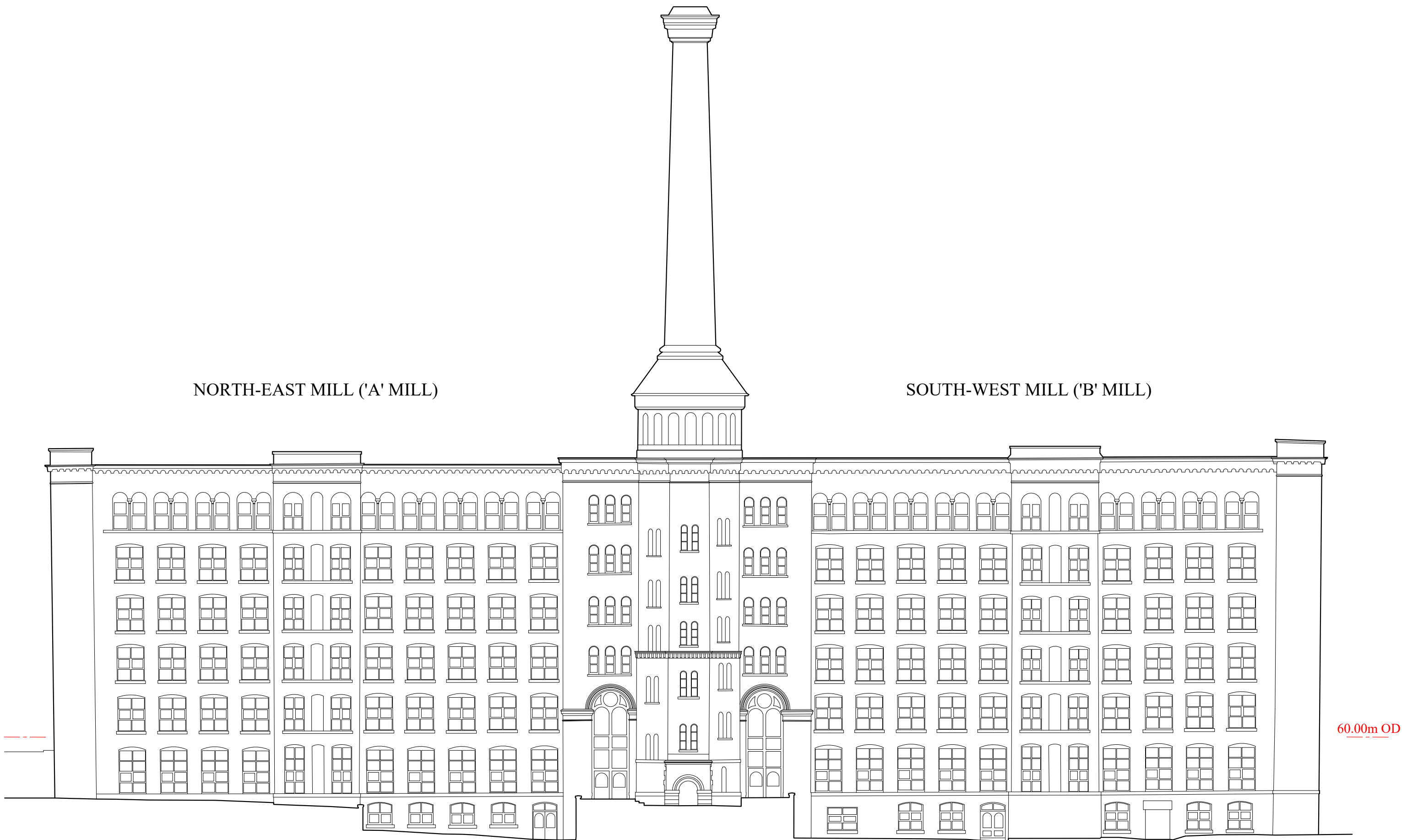
Basement Floor Reconstruction Plan, with Inset on First Floor Wallbox

Copyright Matrix Archaeology Ltd, 2019, based upon minimal fieldwork and several sources



0 30 Metres

Copyright Matrix Archaeology Ltd, 2019, based upon minimal fieldwork and several sources

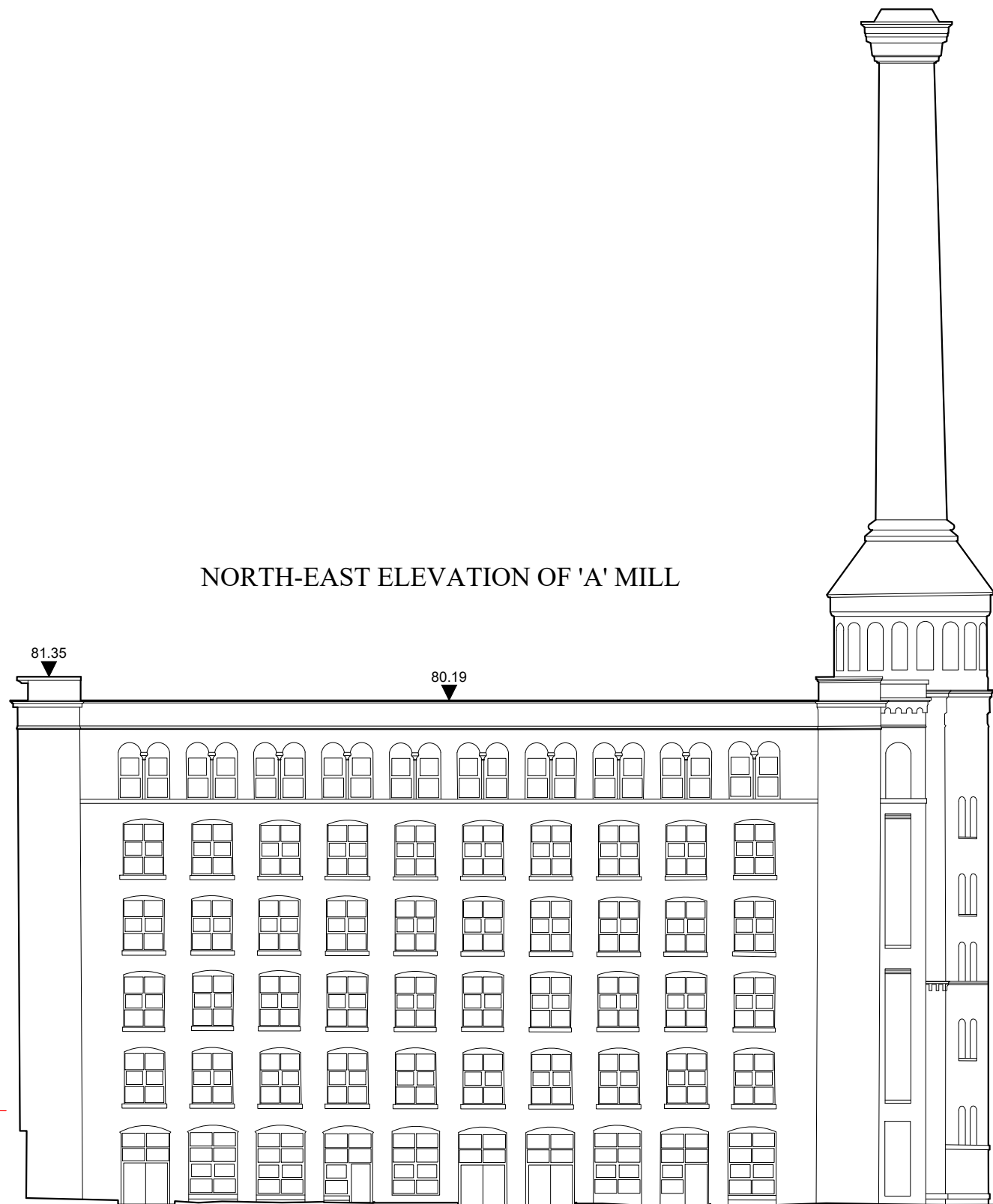


VICTORIA MILL, MILES PLATTING, MANCHESTER

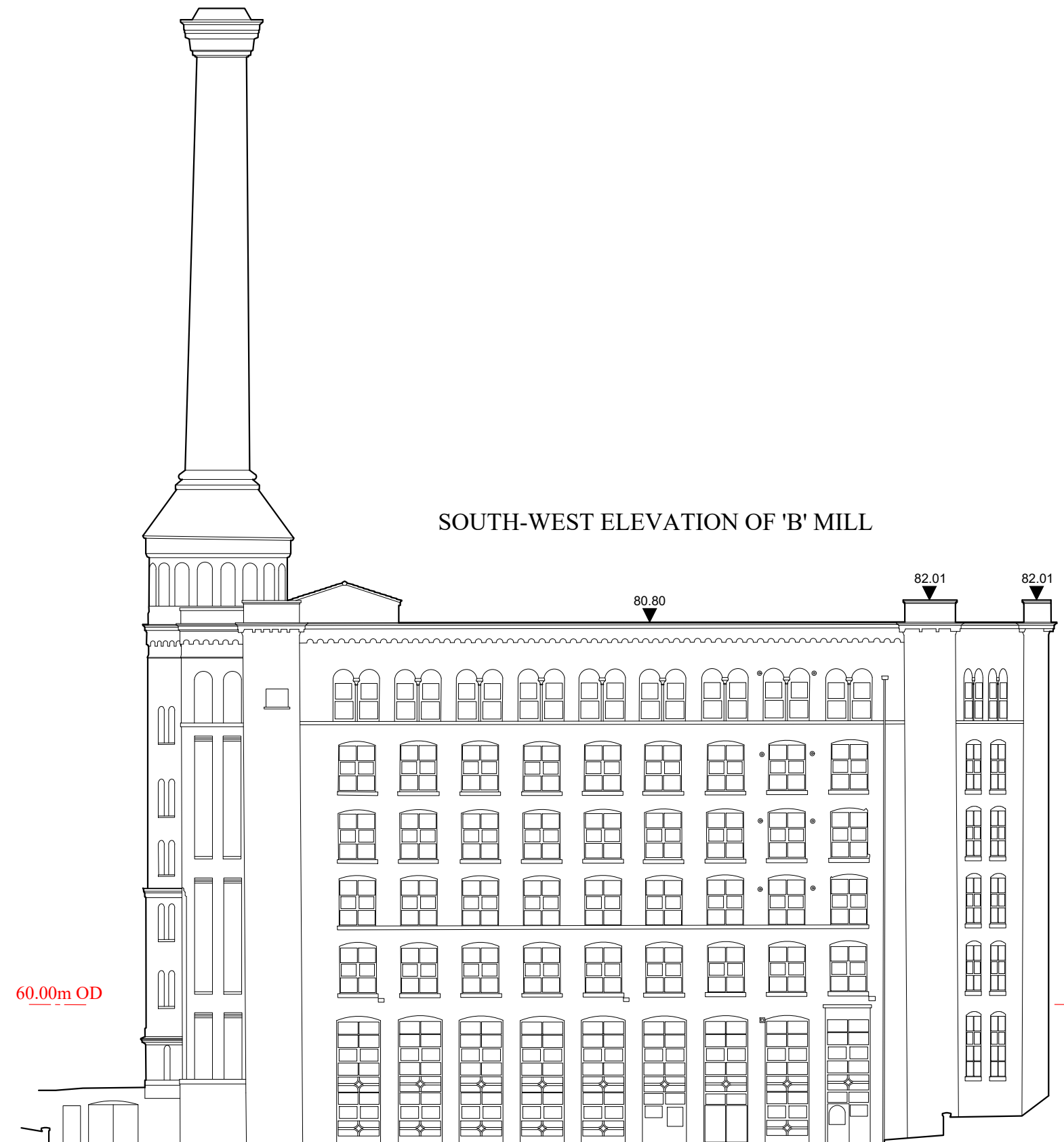
North-West Elevation, facing Lower Vickers Street

Copyright Matrix Archaeology Ltd, 2019, based upon existing survey

NORTH-EAST ELEVATION OF 'A' MILL



SOUTH-WEST ELEVATION OF 'B' MILL



VICTORIA MILL, MILES PLATTING, MANCHESTER

North-East and South-West Elevations

Copyright Matrix Archaeology Ltd, 2019, based upon existing survey

0 30 Metres

VICTORIA MILL, MILES PLATTING, MANCHESTER

South-West Facing Courtyard Elevation, including
1902 Engine, Rope Race, & Boiler reconstruction

Copyright Matrix Archaeology Ltd, 2019, based upon modern survey and Frank Wightman's drawing (Figure 29)

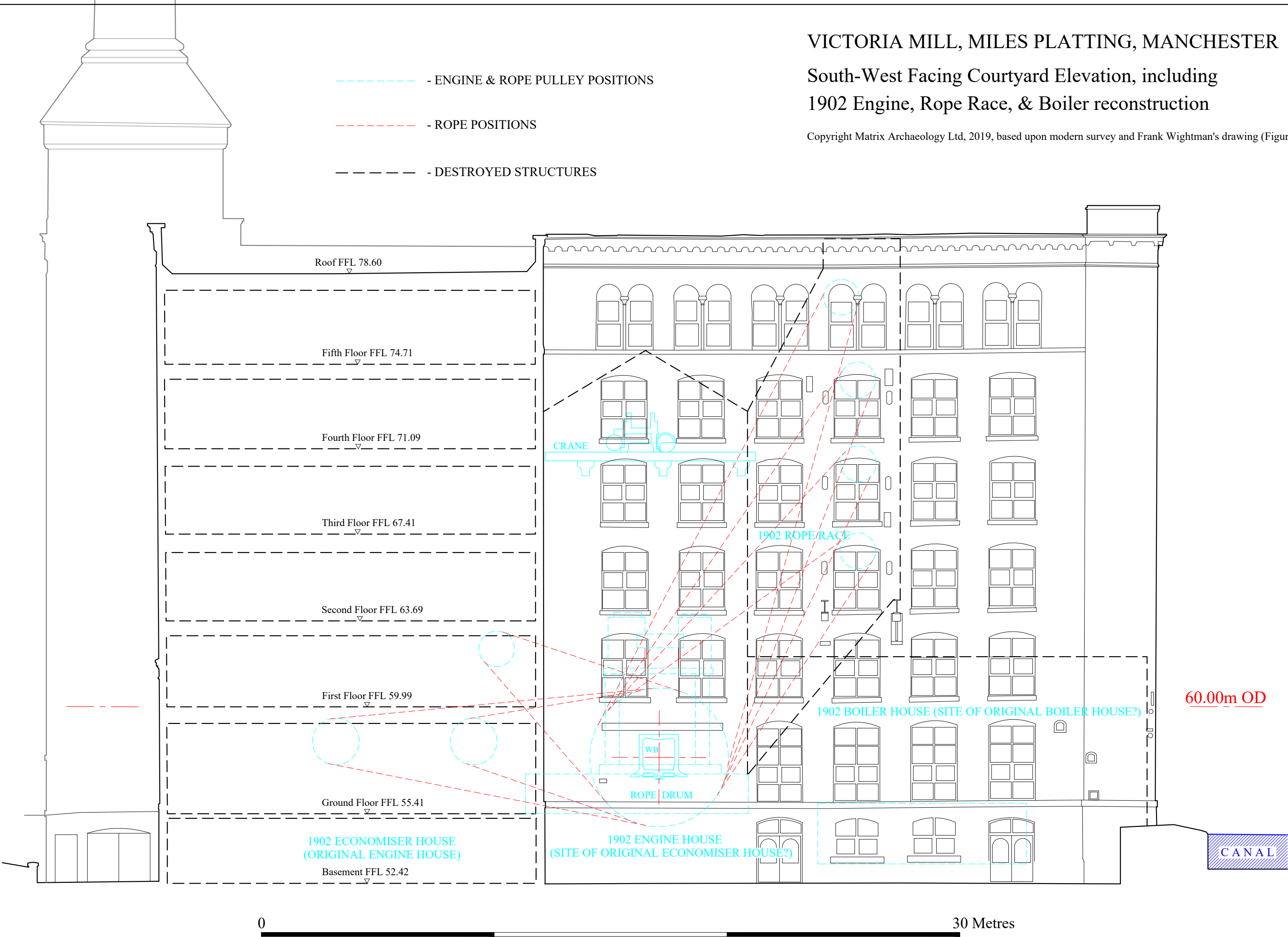


Figure 35



Plate 1. Mill viewed from north, from James Street.



Plate 2. Base of stair tower, viewed from north-west.



Plate 3. Close-up view of stair tower base, viewed from north.



Plate 4. Upper part of stair tower and chimney stack, viewed from north-west.



Plate 5. Gallery and water tank at top of stair tower, viewed from roof.



Plate 6. Top of chimney stack, showing sandstone oversailer and wrought-iron bands and straps.



Plate 7. 'B' Mill flue tower, viewed from north-west.



Plate 8. 'A' Mill, north-east corner tower, viewed from north.



Plate 9. 'A' Mill, south-east corner turret, viewed from north.



Plate 10. 'A' Mill, fifth floor windows with cast-iron column, viewed from north.



Plate 11. Mill viewed from canal bridge, from east.



Plate 12. Central courtyard, viewed from south-east, from canal towpath.



Plate 13. Courtyard, showing south-west elevation of 'A' Mill, viewed from south.



Plate 14. Courtyard, showing north-east elevation of 'B' Mill, viewed from east.



Plate 15. Courtyard, viewed from 'A' Mill, from north-east.



Plate 16. Courtyard, north-west wall, viewed from south-east.



Plate 17. Courtyard, north-west wall, close-up of straight joint and offset, viewed from south-east.



Plate 18. Courtyard, cast-iron wallbox for engine crankshaft, viewed from north-east.

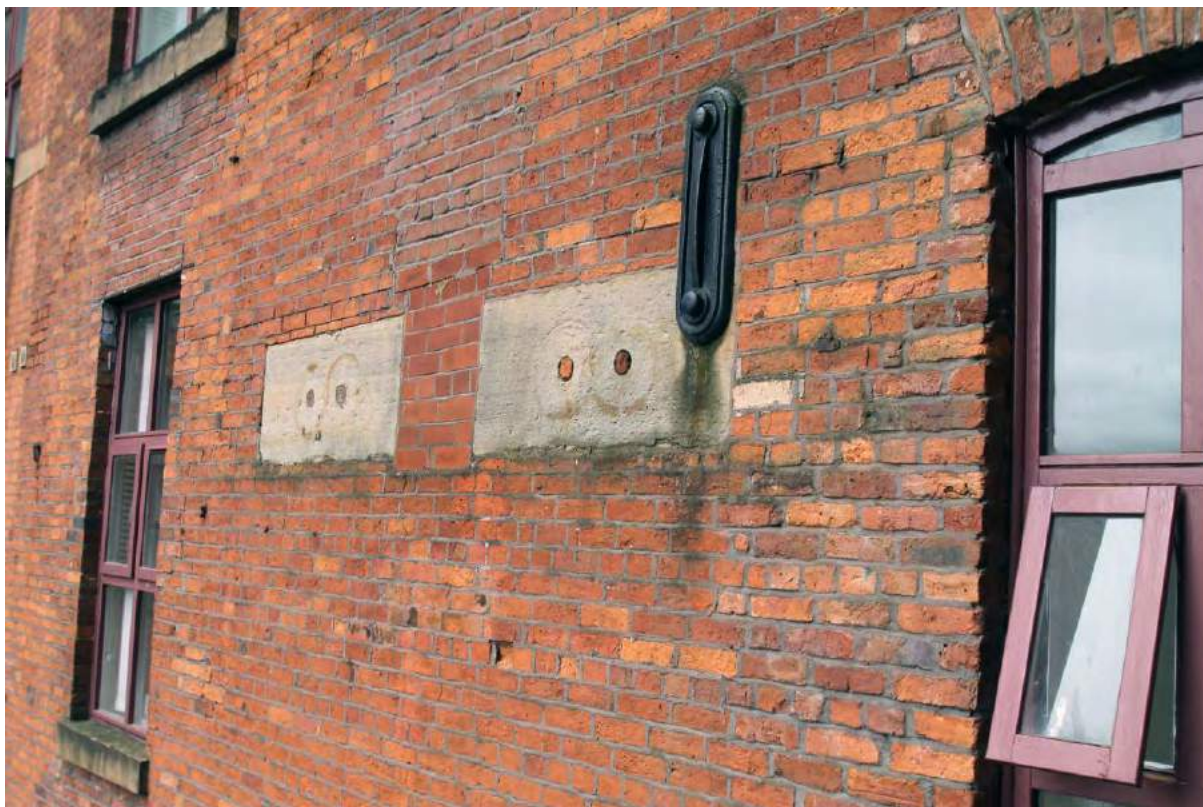


Plate 19. Courtyard, north-west wall, ashlar blocks at first floor level, viewed from east.



Plate 20. Courtyard, intact 1902 Musgrave crane, viewed from east, from fourth floor level.



Plate 21. Mill south-east elevation, viewed from south. Note canted section of wall on 'B' Mill, to left.



Plate 22. 'B' Mill at ground floor level, by canal byewash, note blocked arch windows which formerly illuminated the basement level. Viewed from east.



Plate 23. 'B' Mill, viewed from canal lock, from south.



Plate 24. 'B' Mill, viewed from south-west.



Plate 25. Mill viewed from west.



Plate 26. 'B' Mill, basement, viewed from south-west (by S. Price).



Plate 27. 'B' Mill, basement, light-well in south-east wall, viewed from north-west (by S. Price).



Plate 28. 'B' Mill, basement, small room in north-east corner, viewed from south-east (by S. Price).



Plate 29. Central block, basement, probable south-west face of 'A' Mill beam engine bed, viewed from south-west (by S. Price).



Plate 30. Central block, basement, probable south-west face of 'A' Mill beam engine bed visible to left; and external window inserted through original engine house wall, viewed from north-west (by S. Price).



Plate 31. Central block, basement, south-east internal wall of original beam engine house, later within 1902 economiser chamber. Blocked arch is suggested as a flue from the 1902 boiler house, drawing hot flue gases into 1902 economiser chamber. Viewed from north-west (by S. Price).



Plate 32. Central block, basement, south-east corner, showing cast iron wallbox extending into 'B' Mill, possibly taking drive from beam engine house. Viewed from north-east (by S. Price).



Plate 33. 'B' Mill, basement, on opposite side of wall from Plate 32, showing cast-iron wallbox with damaged bracket; above this is a cast-iron trap built into ceiling. Viewed from south-west (by S. Price).



Plate 34. Central block, basement, possible original doorway between stair tower and 'B' Mill, viewed from south (by S. Price).



Plate 35. 'A' Mill, ground floor, cast-iron columns and beams, viewed from south-east.



Plate 36. 'A' Mill, first floor, large cast-iron wallbox which connects through to central block.



Plate 37. 'A' Mill, first floor, interior of lower part of large cast-iron wallbox, viewed from north-west.



Plate 38. 'A' Mill, first floor, interior of upper part of large cast-iron wallbox, viewed from north-west.



Plate 39. 'A' Mill, third floor, column and beam arrangement on north-west side.



Plate 40. 'A' Mill, fourth floor, column and beam arrangement.



Plate 41. 'A' Mill, fourth floor, central block, north-west side.



Plate 42. 'A' Mill, fourth floor, beam arrangement.



Plate 43. 'A' Mill, fourth floor, north-west side, beam arrangement and windows.



Plate 44. 'A' Mill, fourth floor, second run of columns counting from south-east.



Plate 45. 'A' Mill, fourth floor, fourth run of columns counting from south-east, with integral castings for bearing boxes on right.

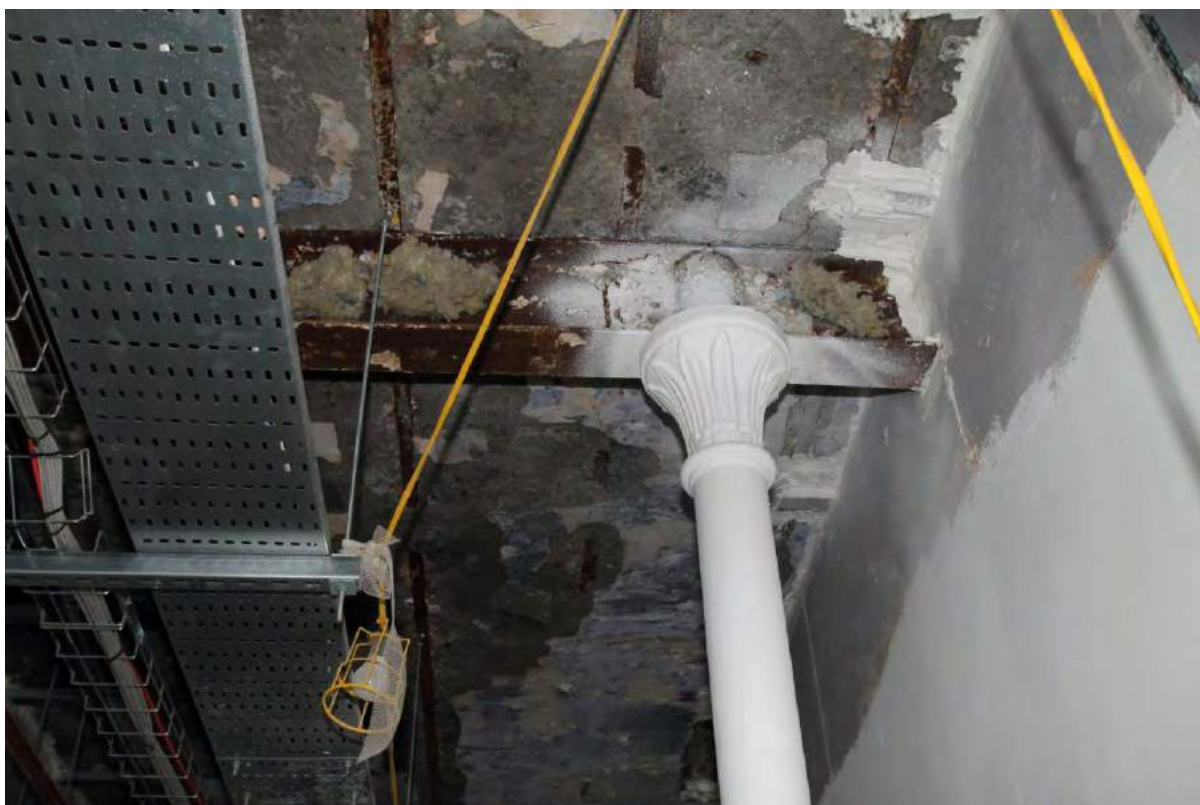


Plate 46. 'A' Mill, fifth floor, showing column head attached to replacement beam of wrought iron or rolled steel.



Plate 47. 'A' Mill, fifth floor, showing replacement concrete ceiling.



Plate 48. 'A' Mill, fifth floor, window with ornamental cast-iron post.