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A HISTORIC BUILDING RECORDING OF BARROWFIELD WEAVING MILL

Desk Based Assessment & Level 4 Historic Building Survey

Sophie Nicol MA(Hons) AlfA

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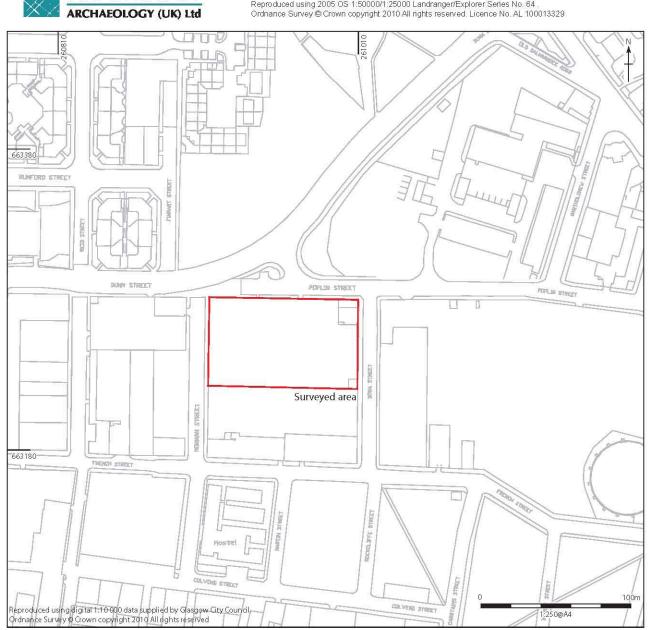
Headland Archaeology (UK) Ltd was commissioned by Farrans and I &H Brown to undertake a programme of archaeological works, in accordance with an Environmental Statement along a section of the proposed East End Regeneration Route, Glasgow. This report forms a comprehensive record of a desk based assessment and building survey carried out at Barrowfield Weaving Mill, Bridgeton, undertaken from the 14th to 21st June 2010.

After the main report the results of the Level 1 survey of Rutherglen Bridge will be presented as a sub report.





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 $\begin{array}{c} \textbf{Illus 2} \\ \textbf{View of north elevation of weaving sheds} \end{array}$



Illus 3 General view of interior at west

A HISTORIC BUILDING RECORDING OF BARROWFIELD WEAVING MILL

Desk Based Assessment & Level 4 Historic Building Survey

by Sophie Nicol

1. BACKGROUND

This report presents the results of the Level 4 Historic Building Recording, in accordance with the Environmental Statement, undertaken of the northern range of weaving sheds at Barrowfield Mill, Glasgow (NGR NS 6093 6322). The new East End Regeneration Route has been designed to improve transport links in the area important to the upcoming Commonwealth Games. As part of this the new road provides a more direct route from Rutherglen Bridge, cutting left of Main Street and heading NE to Dunn Street. This involved the demolition of several industrial buildings, one of which being the weaving sheds associated with Barrowfield Mill (NMRS Number: NS66SW 108).

2. METHODOLOGY

2.1 Documentary study

As a means to fully contextualise the building and assist in the interpretation of the building's fabric, a desk-based assessment of literary and cartographic resources was undertaken prior to survey. Sources that merited consultation were namely the Glasgow City Archives, the National Archives of Scotland, the Post Office Directory and Pigot's, Scotsman, Edinburgh Gazette, Abridgement of Sasines, and several more written and internet sources. The results of this consultation are presented in paragraph 3.1, below.

John Brown and Son were the company who owned and developed the Barrowfield complex at Bridgeton. It should be made clear that the name John Brown is so common that it was difficult to forensically identify the precise antecedants because numerous other companies existed of the same name and industry. Therefore more information may exist on the company founders which could be retrieved with further study.

2.2 Building recording

Following the standards set out by the Royal Commission on the Historical Monuments of England (RCHME 1996), a Level 4 Historic Building Survey was undertaken. The weaving buildings comprised 23 bays of single story sheds, with a north-lighting roof. In order to produce a Level 4 survey of the north bays of the structure the following elements were created; a detailed historical background, a detailed floor plan of the structure showing any additions/modifications to the building, an external illustration of both the east and north elevations, a photographic survey of the west elevation and an internal section showing the roof and building construction.

In addition, a photographic survey of the building was undertaken using a 5.0 megapixel digital camera and a SLR camera loaded with transparency film. Coverage included all external elevations and a series of general shots and selected details within the buildings. The results of the building recording are presented in paragraph 3.2, below.

3. RESULTS

3.1 Documentary study

Fronted onto French Street, the structural remains of the main building of Barrowfield Weaving Factory is a prominent architectural feature in the area, with a 2 storey red brick building with polychrome decoration (Small, 2008). The complex included a weaving shed at the north, which was the subject of the survey as it was destined to be demolished. The north-lit weaving sheds take up the entire space from the back of the main buildings to Poplin Street.

The buildings can be seen on the 2nd Edition Ordnance Survey, with what appears to be a row of tenements of the western side of the factory. Of interest to this survey the NE corner of the plot appears to contain six water tanks, with a chimney just west of this feature.

A typical weaving shed from this period was a single storey building, saw toothed and north lit (Scottish_Textile_2010a). There was an earlier fashion to build multi-storey weaving sheds but as companies moved to larger plots of land the sheds became single storey – due to easy supervision and perhaps increased safety. Typically the interior would have contained looms and spinning machinery. One of the earliest examples of this type of factory in Glasgow can be seen at Fordneuk Factory, David Street (Scran, 2010a). These structures have been studied in detail by Design and Heritage Pennine Lancashire and an extensive report on them can be found here http://www.lancashire.gov.uk/corporate/web/index.asp?siteid=4398&pageid=30628&e=e. From this report it appears that they are commonly associated with a two storey mill building, as the Barrowfield example is. They also benefited from "Simple and relatively cheap construction using a 'standardised' structural system of cast iron columns and beams" (Lancashire City Council, 2010).

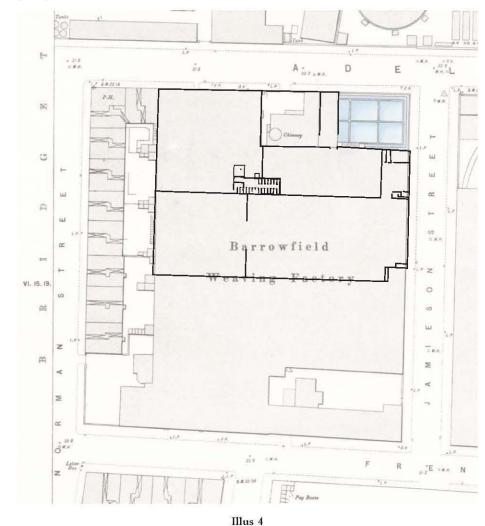
3.2 A history

The firm of John Brown and Son, cotton spinners, appear in The PO Glasgow Directory 1866–7 as 'cotton spinners and power-loom cloth manufacturers, Graham Square, factory; office, 145 Ingram St. (PO Directory, 1866–7, p. 88). Graham Sq was the home of Glasgow Meat Market, as well as an inn and other buildings. By 1876, Browns occupied three separate premises, and had new offices – Sylvan Factory, Broad St., and the office at 15 Drury St., as well as the mill at Graham Sq. James Fleming Brown is named in full, now living at 1 Annfield. By this date, Nicol Paton Brown (John Brown's brother) had also joined the firm, and was living at 33 Hamilton Drive (PO Directory, 1876–7, p. 119). The mill was then split between 11 Graham Sq. and the Sylvan Works, which have been renumbered to now be at 183–7 Broad St., Mile End (PO Directory, 1876–7, p. 510, 556).

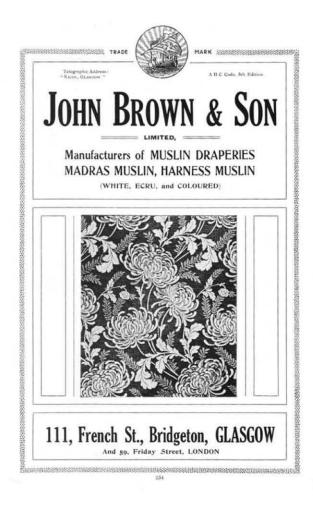
The following year, 1877–8, it appeared a factory move was underway, Nicol and James F. Brown were both still in the same houses, but the Barrowfield Weaving Factory

at Adelphi St. Bridgeton (renamed Poplin St.) appeared for the first time. There is a plan held in the National Archives of Scotland (NAS) of 1876 (NAS, RHP39715) of ground between Moore St. and Graham Sq. to be acquired for markets by Glasgow Corporation, which might explain why the Brown company moved to a virgin site at Barrowfield, perhaps compulsory purchase, or the 19th cent equivalent.

A lot of development and new street formation was taking place in Bridgeton at this time. There is a plan (NAS, RHP24975), without date, only 'mid 19th cent., "showing ground to be contributed by Henry Moneteith and Co. and John Bartholomew and Co. for proposed Carstairs Street". This indicates that two other cotton spinners/weavers gave ground for the formation of the streets.



2nd Edition OS Map
Reproduced by permission of the Trustees of the National Library of Scotland





III, French Street, Bridgeton, Glasgow.

Illus 5
John Brown & Son advert from the Commercial Yearbook of Glasgow, Chamber of Commerce and Manufacturers, 1915

In the PO Directory for 1877–8 (pub. 1877), p. 117, Brown John & Son, cotton spinners and power loom cloth manufacturers, were at 4 Graham Sq., and appeared for the first time at Barrowfield Weaving Factory at Adelphi St., Bridgeton. Adelphi St., Bridgeton was renamed Poplin St. (Miller, 2001), so it would seem reasonable to suggest that this factory move was to the present factory site, as Poplin St. is at the north end of the present buildings. The office address remains at 15 Drury St. Thus the physical move took place, from Graham Sq and Sylvan Factory, Broad St. (whether it was in Camlachie or Mile End), to Adelphi aka Poplin St. in the year of 1876–7. The PO Directory of 1881–2 shows on p. 127, John Brown and Son, power loom muslin manufacturers, rather than the old cotton spinners. They are not listed in the trade's directory section among the cotton spinners; perhaps between the printing of these two PO guides, in the years between 1879 and 1881, they changed production to muslin, or introduced it as a new product. If they were power loom weavers, perhaps water supply and power sources were better in Bridgeton.

The factory complex was designed and built by M. S. Gibson, architect;

The French Street range consists of a two storey, 4 by 12 bay block with polychrome brick decoration (1891, £700), a three storey 7 bay building with a central pediment (1899, £2350) and a two storey, 11 by 2 bay structure in similar style. At the rear are 23 bays of single storey north-light weaving sheds. When completed, in 1899, the factory had cost £8300.'

J. R. Hume, Industrial Archaeology of Glasgow, 1974

The fact that the factory was built and added to over a ten year period, which has resulted in several different dates being attributed to it. The Canmore (RCAHMS) entry for the building complex does introduce the mistake that the building was constructed for John French and Co., which must be a typing error when someone

was looking at the address Hume gives (Hume, 1974), instead of the owner. The original entry in Hume is correct, and John Brown and Son were the owners.

Immediately upon their 1878 purchase, the Browns, namely Nicol Paton Brown and James Fleming Brown, mortgaged the land for £3,000 using the land as security from a firm of lawyers, R. and J. M. Hill, one of whose partners, William Brown, may have been yet another relative (Abridgements of Sasines, Glasgow, 1878, nos 14, 719–20). It would seem to make sense if they needed the £3,000 to build or expand, or equip their new factory, although they seem already to have moved there before the legal formalities were all completed as was indicated in the Post Office Directories (mentioned above).

The PO Directory of 1881–2 show the company now have a postal address in Bridgeton, the area presumably now having been regularised and built up sufficiently for street numbers to be allocated. They are situated at Barrowfield Weaving Factory, 140 Adelphi St., Bridgeton and 15 Drury St. They are not listed in the trades directory section among the cotton spinners. Perhaps between the printing of these two PO guides, ie in the years between 1879 and 1881 they changed production to muslin, or introduced it as a new product. The company adverts from the World War I, commercial yearbook of 1915, show that the company was manufacturing 'muslin draperies, madras muslin, harness muslin'.

In 1884 Browns borrowed £3,000 from the Campsie and Hurlet Alum Co (they made dye fixatives) (Abridg Sas Glasgow 1884, no. 9874), using the land as security, and in 1891 they borrowed the enormous sum of £17,000 from James Fleming Brown, their former partner, who now appears to have retired, and

used the factory site as security (Abridg Sas Glasgow, 1891, no. 606). As many of the plans in the City Archives date from after this time, it would seem that they were borrowing money from a family member, possibly the only person willing to risk so much capital on a family venture, in order to expand the factory buildings.

Architect M. S. Gibson drew up several schemes of enlargement, including two expansions of the offices (counting house), so the firm must have been doing very well financially.

In 1923, John Brown and Co. applied for a reduction in capital of the company, in effect a devaluation or downsizing. Their creditors had a chance to object, and provision had to be made for the debts owing by the company to be paid before they could reduce the value of the company's nominal assets. The company was reducing its share capital by f,46,250, an enormous sum, by repayment to shareholders in proportion to the no of shares they held. The shares were then to be cancelled, which looks as if the company was trying to reduce the amount of money tied up in the business, and to reduce the number of outsiders who held shares. It may be that all the shares were held by the family themselves (EG, 18/12/1923, p1708). The capital of the company was £303,750, divided into various classes of shares, some of which were never issued (EG, 25/3/1924, p. 438).

Primarily there was no son to succeed as he had been killed in 1st World War, therefore the business was taking over by Gerald Francis Fleming Brown (c.1895–1956), who ran the company until after the 2nd World War.

The public records ceased to be available around the 1940s/50s, therefore information of the company's history at this time is scarce. However, inspection of the Glasgow section of the Scottish Phone Directory shows them to be listed until the 1953 edition. By 1954 the company must have closed.

It seems that the business had a number of contributory factors that led to its demise. BarrowfieldWeaving Factory, like other businesses of its type, saw the impact of returning service personnel unwilling to work in the industry; cheaper foreign competition, antiquated machinery compared with new industrial estates powered by electricity and possibly fashion for manmade materials in furnishings.

3.3 Building recording

The survey covered the north part of the building at ground floor level. The south end of the building outside the road scheme footprint was still in use by several companies and was therefore not available for survey. Each room has been given unique number (R1–R20) and features (doors/windows etc) have also been given a unique number and are prefixed with 'F'. A full description of all features can be found in Appendix 1.

The primary original build of the structure was constructed from red brick built as single storey north lit weaving sheds. The external walls had a 1 header 4 stretcher regular coursing. The 'zig-zag' roof was supported by a combination of circular cast iron columns and H-beam columns. The original section of building surveyed is likely to consist of 2 large open rooms/sheds, the southern of which (R2 & R3) had a wooden flooring while the northern had a concrete floor. This is likely to be indicative of the use of each shed.

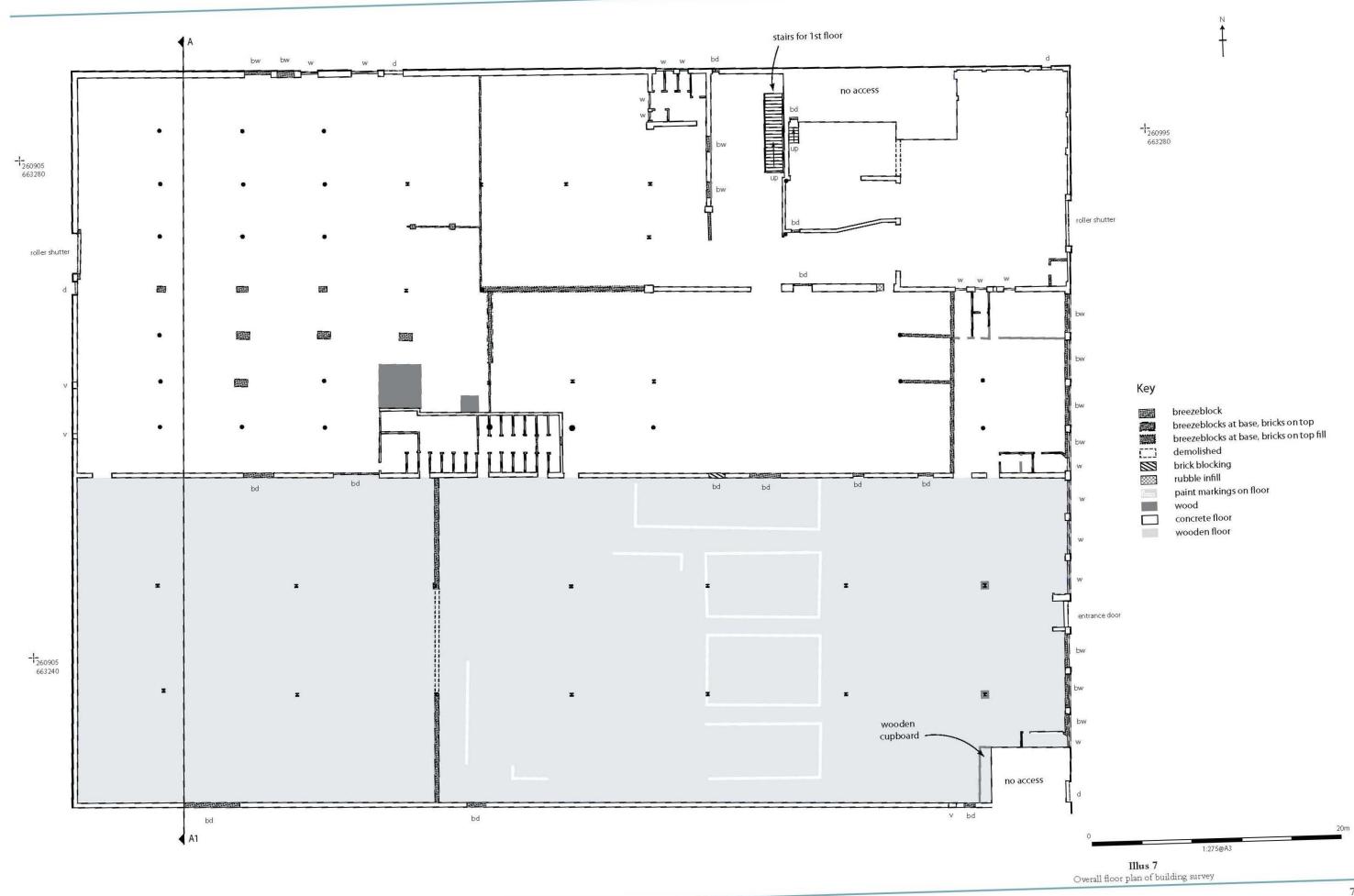
The building, in its most recent past, had been sub-divided into smaller rooms in order to split the space for different companies. Also, several original entranceways and windows had been blocked up. All original openings appear to have had steel H-beam lintels, some of which had been removed at the time of the survey.

3.4 The southern shed – rooms R1–3

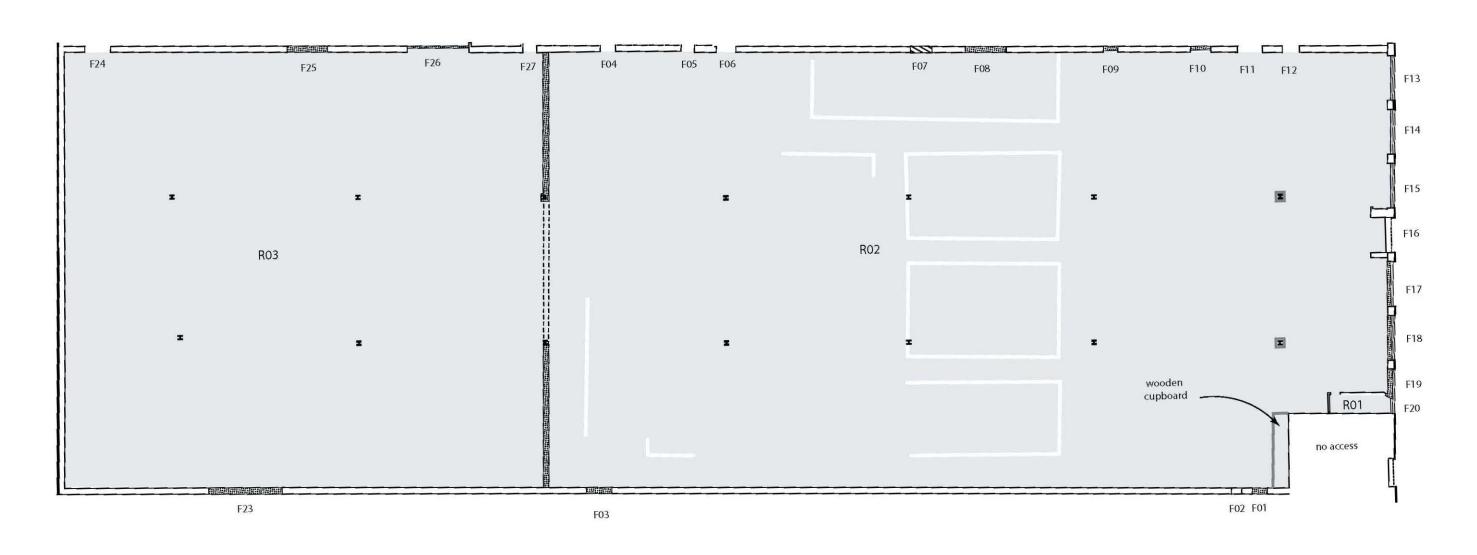
Rooms R2 and R3 were originally one large hall 78m EW by 26m NS, later subdivided by a breeze block wall. It was lit by 6 large windows in the E wall (F13–15, 17–20), (and through the north lit glass roof). The shutter door F16 in the middle of the E wall appears to be a later modification of the original door.



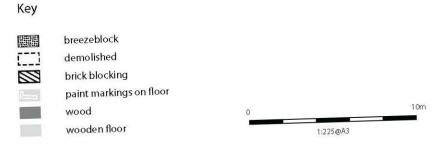
Illus 6 Room R2 & 3, looking west



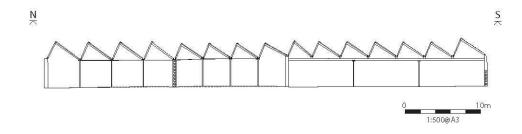
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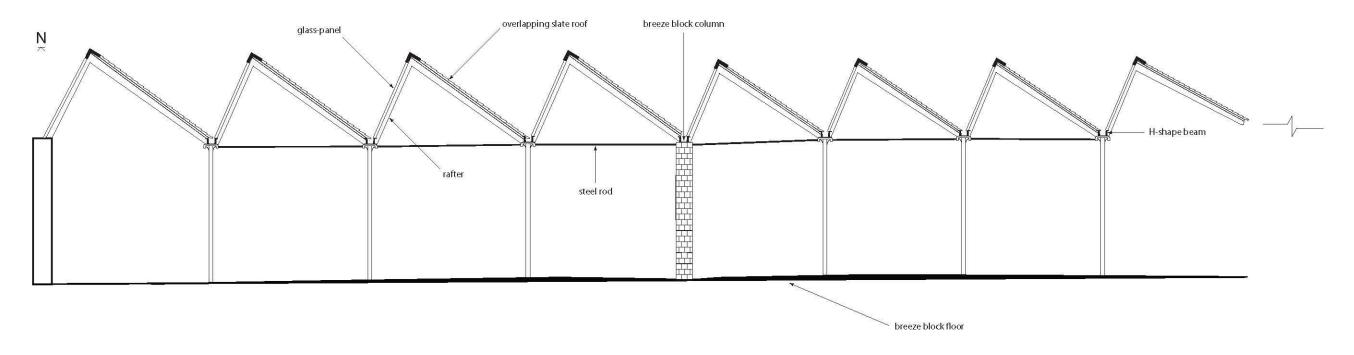


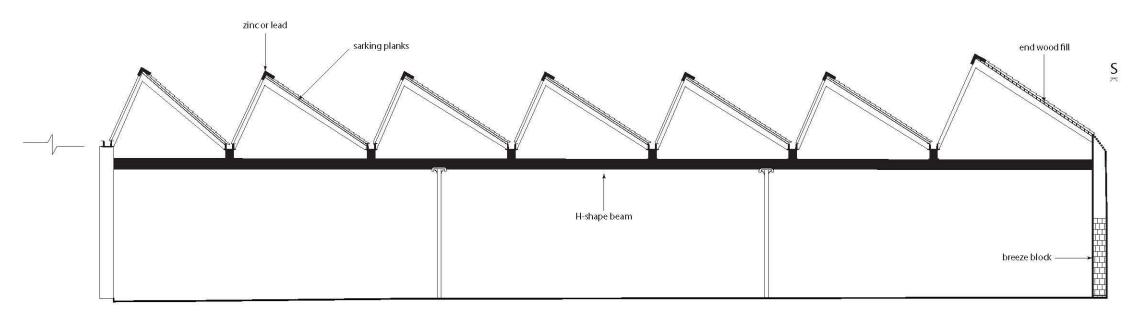




Illus 8
Detailed floor plan of southern shed, rooms R.1–3



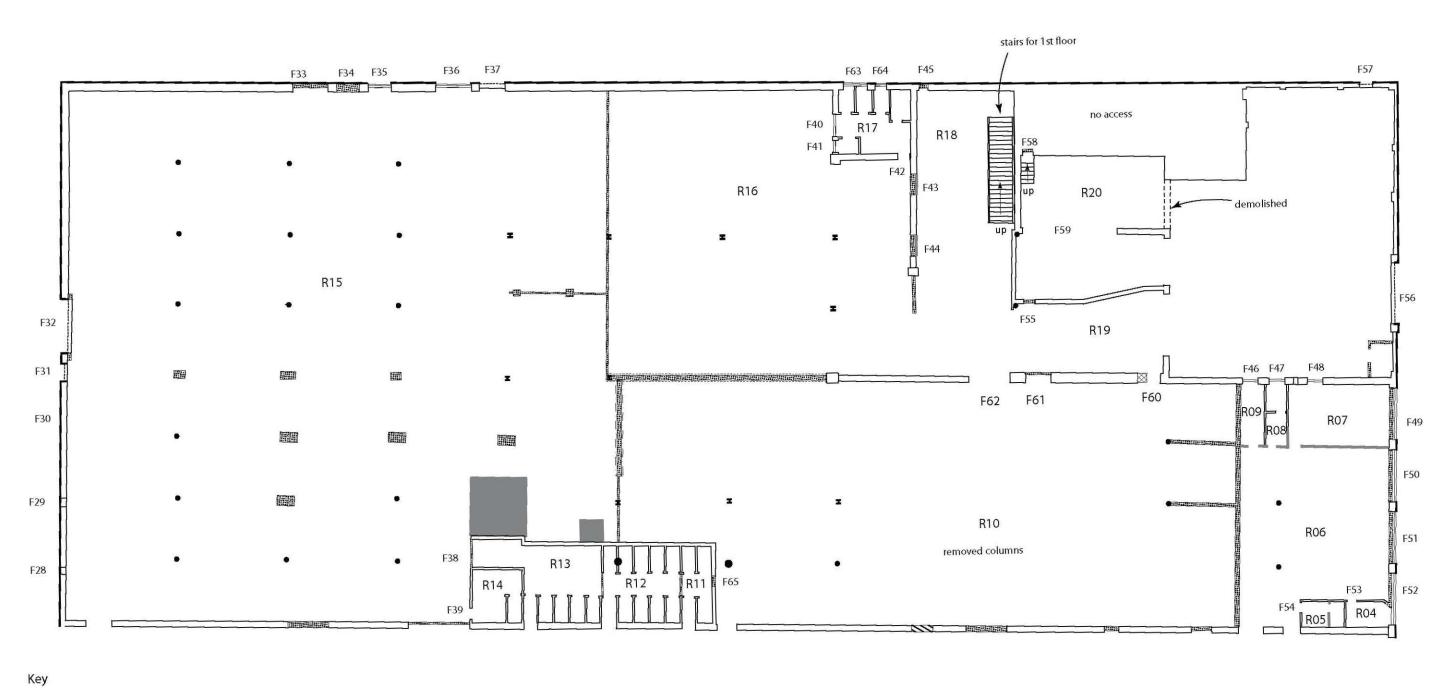






Illus 9
N-S cross section showing roof construction

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0 10m

Illus 10Detailed floor plan of northern shed, rooms R4–20

There are four openings in the S wall of R2-3, all of which have been since blocked up. F1 is a 'normal' door 0.93m wide with F2 is a small rectangular vent to the W. F3 and F23 are wider doors both with associated sliding door brackets. F3 is near the middle of the wall, F23 towards the west end appears to either have been cut through the original wall or possibly widened at some point.

There is a shutter opening in the west wall, which although the door material itself might not be original may be an original opening pertaining to the build. This is difficult to interpret.

There are 13 door openings on the north wall of room R2–R3. The only opening showing evidence of being cut through the original wall was F27 at the NE corner of room R3. This was probably opened up to provide access to the central toilet block after the erection of the breeze block wall between R2 and R3 cut off the easy access to the toilets from room R3. F4 and F5 provide access to the toilet block from room R2.

In the north wall of room R2/R3 there are three openings that are significantly wider: F26 3.7m wide and F25 and F8 both 2.44m wide designed to take wider loads and/or objects. The remaining 10 openings are less than 1.5m wide. Three of these F4, F5 and F27 provide access into the central toilet block, and may represent a later modification.

One of the openings F7 was blocked using bricks indicating that this happened prior to the more recent 'breeze block' alterations.

There are 6 large identical sized windows in the east wall (F13–15, 17–20). The three windows (F17–20) to the south of the shutter door F16 have been blocked in the inside behind the still existing window panes by b-blocks. The blocking also includes the end of the north wall of room R1.

Room R2/3 have wooden floor. In the north half (R2) were remains of painted lines on the floor defining rectangular bays/areas. Four of the best preserved areas were all in line to the east (Illus 8).

The roof in room R2/3 was supported by steel H-beam columns arranged in two rows E to W 8.5m apart on either side of the middle of the room. The beams were 10 to 11m apart. The columns supported a grid of longitudinal and transverse steel H-beams that than provided support for the steel beams running E-W below and along the gullies of the 'zig-zag' roof. This construction seems to be a later modification of the original design seen in the rooms to the north. The purpose of the intermediate grid of longitudinal and transverse steel H-beams was to be able to widen the gap between the rows of roof supporting columns beyond the width of the individual 'zig-zags', thus making room for wider machinery.

Room R1 is located at the SE corner of R2. It appears not to be part of the original design as the north wall is built up against one of the 6 identical sized windows in the E elevation. The room might have been used as a foreman's office. Room R1 is built in brick and predates the much later alterations using breeze blocks.

3.5 The northern shed – rooms R4–20

Rooms R4–10 were located to the north of room R2. Originally all of these rooms (with the possible exception of rooms R8–9) formed a big hall 45.5m long EW and 14.5m wide. Large parts of the roof in room R10 had been demolished prior to the survey. This meant that only four roof support columns out of a likely total of 10 were located within this room. The wall at the NW corner of the room had a breeze block base some 1m high with brick fabric on top possibly indicating a later insertion. A breeze block filling of a 4m wide gap in the west wall against the toilet block indicates a former passage through to room R15.

Rooms R6–7 were partitioned off by breeze block and wooden partition walls, but the rooms R8–9, now used as toilets, both had windows facing the courtyard to the north and were built of brick, more likely original features, although the south end of the cubicles were of wooden frame construction. The east wall of rooms R6–7 comprised four blocked windows (F49–52) of similar to windows (F17–20) to the south.

Two rooms R4–5 were located at the SE corner of room R6. The location and construction of these two rooms were similar to that of room R1 at the SE corner of room R2, especially in the way the south wall curved up against the window. R4 appears



Illus 11Detail of roof in 2 storey building at north

to be a small office with entrance from the north (F53), while R5 was a toilet with entrance from the west (F54).

Room R15 occupies the NW corner of the building. It is almost square 32m EW by 31.5m NS. There is a shutter door (F32), 3m wide by 3m high, near the middle of the west wall. This is not an original feature but may represent a modification of an original wide door at this position. Immediately to the south of the large door is a metal door (F31) within an opening 0.95m wide by 2.04m high, which appears to be an original feature. Evenly spaced to the south of F31 are three vents 0.4m square located 2.1m off the floor.

There are four windows F33–36 in the north wall of the room facing Poplin Street to the north. Two of these, F33–34 to the west are 'breeze blocked'. To the east of the windows is a shutter door, 1.5m width by 2.5m high. As a shutter door this is not original, but it is not clear whether it replaced an original door opening or is entirely new.

Part of the roof support in the rooms to the north of R2–3 (*i.e.* rooms 6–150 appear to be the original design with rows of circular cast iron columns supporting each beam running along the roof gullies. Each column was 0.12m in diameter and was 6.5m apart. There were in total 7 rows of columns in room R15. However these original roof supports were less well preserved and several of the original columns had been replaced by steel H-beams and rectangular pillars made from breeze blocks.

Rooms R11–14 constitutes a rectangular toilet block in the middle of the factory. The four doors on the south side F4, 5 & 27 are not likely to be original and have probably been inserted as part of a redesign of the factory layout to create four separate toilet units (R11–14) by closing off two entrances (F65 & F38) and inserting two breeze block partition walls. The original layout of the toilet probably comprised two sections, the major part comprising 19 cubicles with a 'vestibule' behind the wide entrance to the west. According to the letters above the door this was the 'Ladies' toilet. The 'Gents' toilet is at the NW corner of the toilet block and consists of two cubicles. The proportions of the toilet facilities suggest a largely female workforce.

Room R16 is partitioned off from R15 by a breeze bloc wall. In the NE corner of the room is a square unit R17 sub-divided into five smaller cubicles, three of which were used as toilets. There are two windows facing the street to the north. One of the partition walls for the toilet cubicle is built up against the middle of the window suggesting this is a later alteration. There are a further two windows in the east wall, F40, F41. Some 0.6m above window F41 is a brick relieving arc some 1.3m wide. The current entrance into R17 was through an opening smashed through below window F40. The original entrance was situated at the NE corner (F42). Room R17 was probably built as a small

office, the windows in the west wall, possibly enabling the foreman to keep an eye in the workforce from his office.

The wooden stairs leading up to the first floor level runs along the east wall of room R18. There are two blocked possible window openings (F43, 44) in the west wall of the room. The tops of the windows are formed by a slight brick arc. The windows are blocked by breeze blocks to the W. On the E side the openings are covered by wood panels. There is a narrow door opening, now blocked, in the NW corner of the room.

Rooms R19 and R20 are both roofed by a flat slanting roof. R19 appears to be a corridor leading from the open courtyard at the NE corner of the building into the factory, room R20 might have been a large storage shed. There are stone stairs leading up to a blocked door at the SW corner of room R20. As the door was blocked, it was not possible to survey the inside of the room between R20 and the external north wall.

There is a 3.6m wide shutter door (F56) at the east wall of the courtyard. This is not the original door, but is likely to be located at the original main goods entrance to the factory. A narrow shutter door (F57) at the NE corner of the courtyard represents a recent opening put through the original brick wall. The flooring in the northern shed is concrete throughout.

External elevations

East elevation

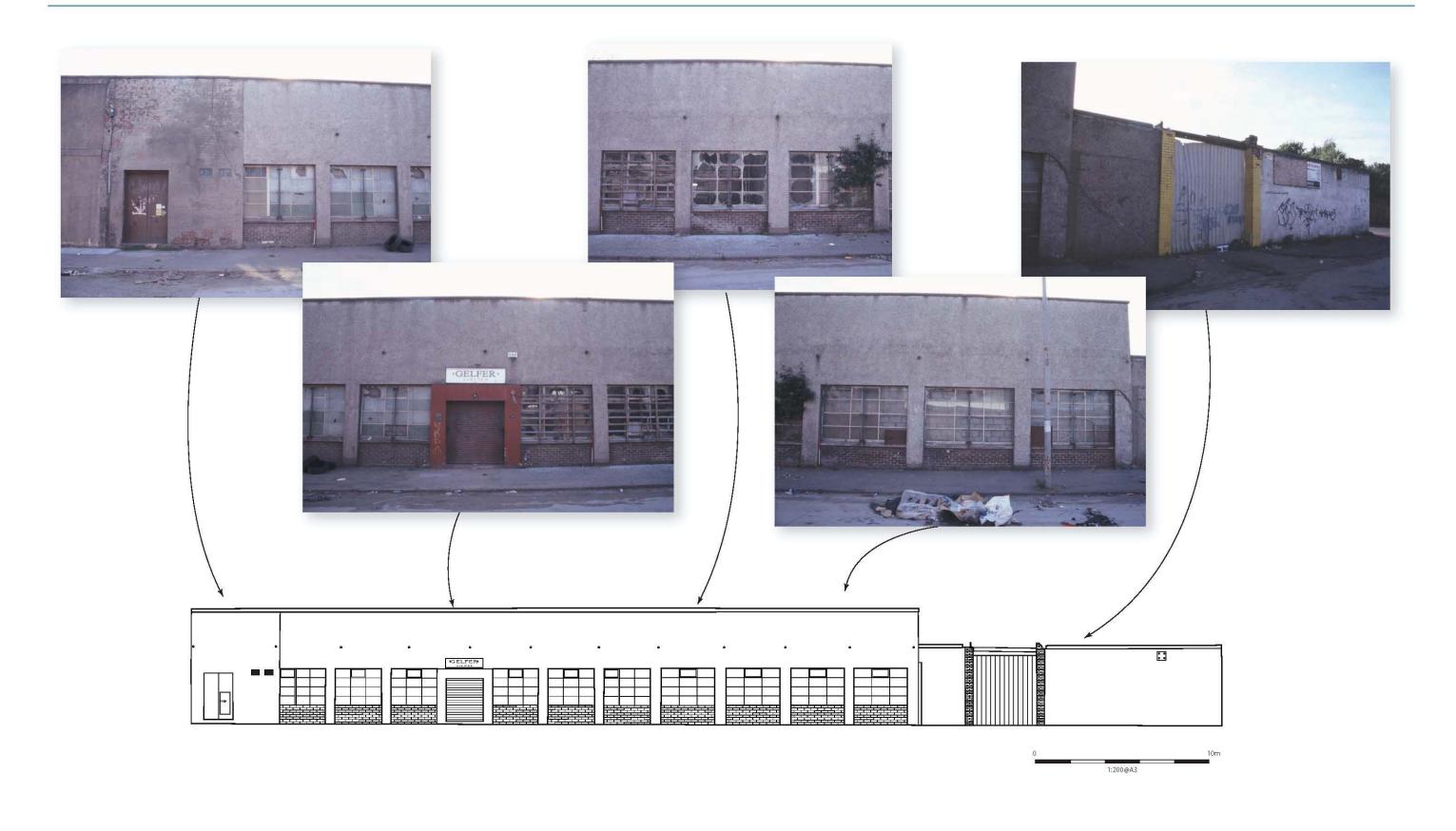
This elevation (Illus 1) is a single storey 10 windowed section of the structure (approx. 59m), fronting onto Dora Street. The section examined in this survey contained one main shuttered door, one fire exit and at the northern end of the elevation the large gates/goods entrance mentioned above. The original brick work had been rendered in rough concrete, apart from below the window bays.

North elevation

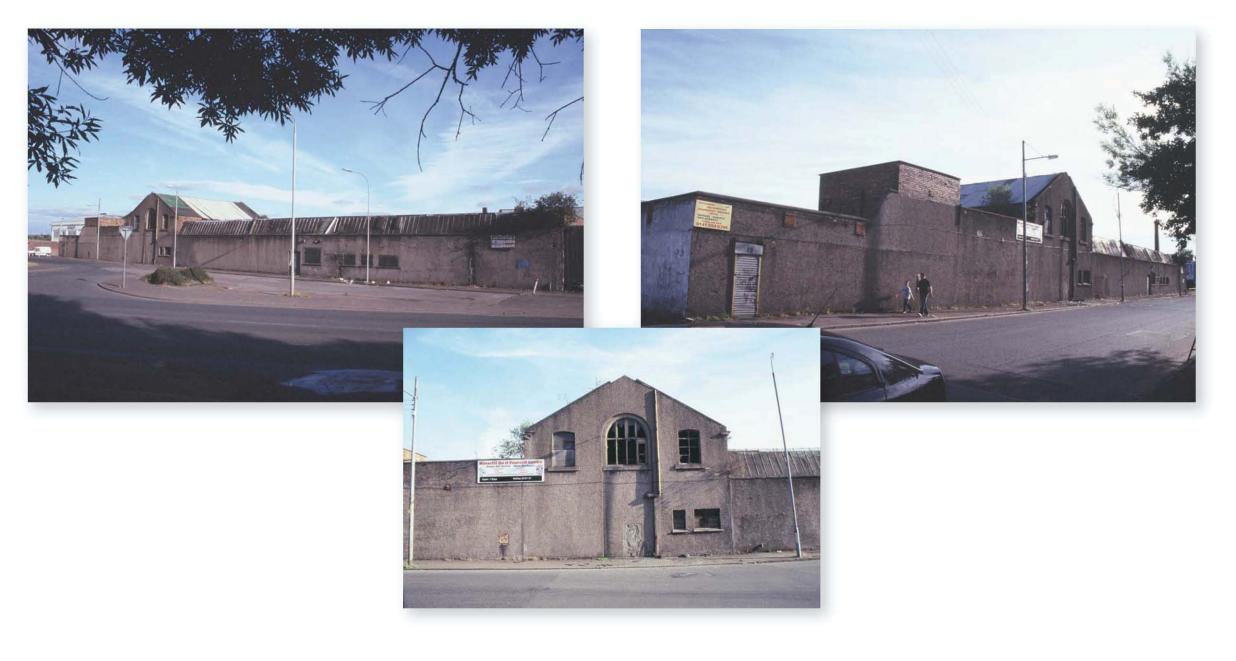
The northern elevation (Illus 12) is the only section of the structure where you can clearly see a second storey in the building. The elevation extends approx 88m and is orientated E-W fronting on onto Poplin Street; all of which has been rendered in rough concrete. The east section of this consists of the brick walled courtyard area which contains one roller shutter door. Directly west is the two storey structure, which contains 1 blocked doorway at centre, directly west two small ground floor windows currently boarded up. First floor centre contains a large arched window with two smaller 8 pane windows on either side (the east of which is blocked). The western section of this elevation consists of the weaving sheds with one roller shutter door and 4 windows. The north lit roof can be seen quite clearly from the front, with several repairs/later modifications along it.

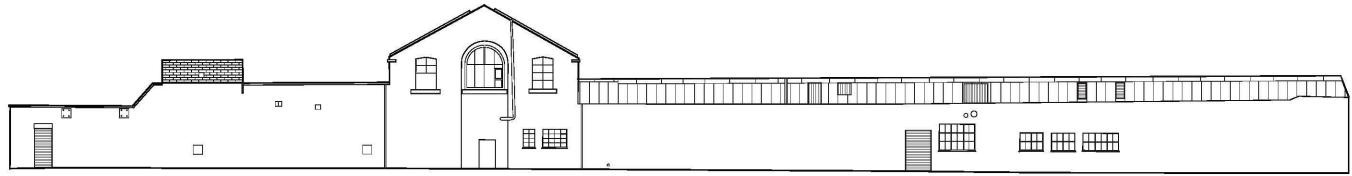
West Elevation

The western elevation was surveyed before any of the main works as it was demolished to provide access into the weaving sheds. A Level 1 Photographic Survey was undertaken of this side of the building to allow the sheds to be cleared out and made safe prior to internal survey. The elevation is the only one surveyed that had not been rendered and therefore showed the original brickwork of one header and four stretcher bricks.



Illus 12East elevation of weaving sheds







Illus 13
North elevation of weaving sheds



Illus 14
Photo of western elevation of weaving sheds

4. DISCUSSION

The results of the physical survey of the building show two basic phases of build. The original build (Phase 1) and later modifications associated with the breeze block construction/blocking (Phase 2).

4.1 Phase 1 – The original build

Within Phase 1 there appears to be several repairs/slight modifications that would have occurred when the building was used as a weaving shed. This can be identified where brick has been used instead of breezeblock in the repairs of windows and blocking up openings. In general the original build consisted of red brick perimeter walls with cast iron circular columns supporting the north-lit glass and iron girder roof. This simple design, as previously discussed in chapter 3.1, was a common feature of these utilitarian buildings. Easy to construct, maintain and with practical floor space for the heavy machinery and movement associated with textile production. The single storey aspect allowed the building to withstand the weight and vibrations of machinery, more than a multi-storeyed structure could (Giles and Goodall, 1992). Although in relatively poor condition the roof at Barrowfield is a good example of the clever northlit design, providing the best possible evenly distributed light onto the workshop floor as there are little/no windows in the perimeter structure. The construction of the roof and column combination is simplistic but effective - 'The cast iron beams that support the rows of north lights are ingeniously designed as inverted channel sections so that they both carry the load of the roofs and act as rainwater gutters' (Lancashire City Council, 2010).

The detail of the metal skeleton structure is simple, with flat scroll topped cast columns as decoration, typical of buildings of this era in Glasgow, supporting horizontal girders and wooden framed windows. The steel girders are stamped 'Lanarkshire Steel Coy Ltd Scotland', a company that provided steel across of the central belt in the late 19th century.

The 2nd Edition OS (1895) depicts that the power hub of the building was in the northeast corner, identifiable with several water tanks and a chimney identifiable on the map. However, no structural remains were encountered during this building survey that added to our knowledge of what was originally here. Later modifications may have removed any evidence of this, removing any further information on what sort of system was housed in the complex.

The flooring in the structure is of interest, in that the southern shed (rooms R1-3) has wooden flooring, whilst the northern has concrete. It could be likely that the northern shed housed different machinery or was utilised for a different purpose. This is supported by the power hub located in this are of the 2nd Edition. However, the original floor may have been replaced when machinery was removed as the wood may have been damaged and unusable. The painted bays on the wooden floor in R02 cannot be dated, and are more likely to belong to the second phase of the mill as the paint is still prominent.

The toilet blocks are an insight into the workforce, predominantly female, in the mill. Typically women dominated the textile industry, operating looms and weaving usually with male supervisors. Female labour was also cheaper, with children also used in some of the processes during this period.

The sourced architectural drawings of the building (Appendix 2) add extra information to the original build of the structures. Plan 1 & 2 show the pitched roof construction of a second storey at the south of the complex (not in study area). This is similar in design to that recorded in the HBR focus area at the north, with two iron struts and several iron braces. This continues the theme of simple and cost effective design, easily constructed.

Plans 3 and 4 are ground floor plans of the weaving sheds, showing the original spacing of circular cast iron columns and cross sections through the structure. Plan 3 also denotes the building fronting Norrman Street as a tenement building. These continued north up the street, with the gardens fronting the west perimeter wall of the weaving sheds, as can be seen on Plan 5.

4.2 Phase 2 – Post mill/weaving modifications

Phase 2 incorporates all major modifications seen in the building. The insertion of shutter roller doors, breeze block pillars to support the roof, division of rooms and blocking of doors. This activity is all likely to be after the original use of the building, associated with the small businesses that utilised the premises as warehouses or workshops. Businesses that used the building prior to demolition include a car parts/repairs company and a vacuum shop. This phase of occupation still utilised the north-lit roof, as it remains relatively intact instead of completely covered as other examples often are such as Deanston Mill, Kilmadock (Scotland Places, 2010).

In conclusion the structure is simple in design, utilitarian and does retain original character. In particular, the roof was continually not altered by its newer owners and provides a good example of this structure type in Glasgow. The business of John Brown and his associates appears to be typical of the textile industry in the 19th–20th century, and with its decline came the demise of many buildings such as these. As this structure was roughly repaired and modified to suit more modern demands the building underwent some change, with many key structural elements remaining the same. Unfortunately, the original use of space in both the northern and southern sheds is difficult to decipher but both cartographic and physical evidence suggest the northern example was slightly different, the driving power behind the many looms and machines housed in the southern sheds. As this example has now been fully recorded, it provides a fuller picture to the textile architecture across Scotland.

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6. RUTHERGLEN BRIDGE – LEVEL ONE PHOTOGRAPHIC

SURVEY

Structure details

Structure 1 Rutherglen Bridge

Grid Reference: NS

Date of Record: 7/07/10

Name of Recorder: Sophie Nicol

Photograph Numbers: 037–092

Description

Three span segmental arched bridge, faced in grey granite. The structure has two central pier supports (boat-shaped) and two terminal piers, constructed from granite with ashlar. Central arch may be slightly larger in width. Built in 1896 (Hume, 1974) by Crough and Hogg (GCC, 2010a) this structure replaced an old five span masonry bridge and was built to allow for the use of the crossing by two lanes of trams (Scran, 2010a).

The superstructure of the bridge has a plain parapet, no balustrade or any detail. The deck is currently used as a 4 lane tarmac road with pavements on both sides. One set of original stairs down to riverside from the deck exists on the western side (Illus 16). This was likely to have been mirrored on the eastern elevation but no longer exists. This has been replaced with later ramped access down to the riverside, which is constructed as a roughly hewn sandstone wall, and abutts the bridge at the NE.

The bridge is currently still in use and continues to be a main link across the Clyde, connecting the North and South of Glasgow.

6.3 Sources

Glasgow City Council, 2010a http://www.glasgow.gov.uk/en/Residents/Parks_Outdoors/HeritageTrails/ClydeBridges/rutherglenbridge.htm, November 2010

Hume, 1974, Industrial Archaeology of Glasgow. Blackie and Son Ltd.

Scran, 2010a http://www.scran.ac.uk/database/record.php?usi=000-000-514-599-C&, November 2010



Illus 15 Photo of bridge section



Illus 16 Photo of stairs

APPENDICES Appendix 1 – Site registers

Appendi	x 1 – Site regi	sters	25	W: 2.44 H: 2.35	Blocked door (breeze blocks). Steel H-beam lintel
Feature not			26	W: 3.66 H: 2.4	Blocked door (breeze blocks). Steel H-beam lintel
Feature no.	Dimensions (m)	Details	27	W: 0.85 H: 2.08	Toilet door. Slapped through wall. Steel H-beam lintel
1	W: 0.93 H: 2.01	Blocked door (breeze blocks). Lintel not visible	28	W: 0.4 H: 0.43	Square ventilation hole, 2.12m above floor
2	W: 0.15 H: 0.5	Rectangular opening, 1.3m above floor level. (Ventilation hole?)	29	W: 0.4 H: 0.43	Square ventilation hole. 2.12m above floor
3	W: 1.53 H: 2.43	Blocked door (breeze blocks). Sliding door brackets above opening.	30	W: 0.4 H: 0.43	Square ventilation hole. 2.12m above floor
4	W: 0.83 H: 1.99	Toilet door. Rectangular lintel	31	W: 0.94 H: 2.04	Metal door in metal door frame. Possibly slapped through the wall
5	W: 0.81 H: 2.05	Toilet door. Rectangular lintel	32	W: 3.06 H: 3	Roller shutter opening with internal pillars made from breeze blocks. Slapped through the wall
6	W: 1.2 H: 2.11	Blocked door (breeze blocks). Lintel not visible	33	W: 2.09 H: 0.96	Blocked window (breeze blocks). Sill 1.46m above floor
7	W: 1.22 H: 2.27	Blocked door (bricks). Rectangular lintel	34	W: 1.38 H: 0.96	Blocked window (breeze blocks). Sill 1.46m above floor
8	W: 2.44 H: 2.47	Blocked door (breeze blocks). Lintel removed (steel?)	35	W: 1.38 H: 0.96	Window Sill 1.46m above floor
9	W: 0.86 H: 2.09	Blocked door (breeze blocks). Steel H-beam lintel	36	W: 2.15 H: 1.5	Window Sill 1.46m above floor
10	W: 1.22 H: 2.44	Blocked door (breeze blocks). Steel H-beam lintel	37	W: 1.55 H: 2.49	External shutter door. Concrete lintel? Probably later insertion
11	W: 1.49 H: 2.31	Door opening. Lintel not visible	38	W: 1.65 H: 2.01	Blocked door (breeze blocks). 'Ladies' written above door
12	W: 1.01 H: 2.35	Door opening. Lintel not visible	39	W: 0.7 H: 1.88	Door. 'Gents' written above door. Brick arch above opening
13	W: 2.64 H: 1.87	Window. Sill 0.96m above floor	40	W: 1.33 H: 1.5	Window, Sill 1.15 m above floor. Common lintel with F41
14	W: 2.66 H: 1.88	Window. Sill 0.94m above floor	41	W: 0.69 H: 1.5	Window Sill 1.15m above floor. Common lintel with F40
15	W: 2.64 H: 1.88	Window. Sill 0.94m above floor	42	W: 0.76 H: 2	Door blocked by wood panelling. Door slapped through
16	W: 2.1 H: 2.03	Entrance door/ porch. Wooden frame on inside, roller shutter on outside	43	W: 1.22 H: 2.2	Blocked window. Brick arch above opening. Protruding stone sill
17	W: 2.68 H: 1.9	Blocked window (breeze blocks). Sill 0.93m above floor	44	W: 1.23 H: 2.2	Blocked window. Brick arch above opening. Protruding stone sill
18	W: 2.65 H: 1.9	Blocked window (breeze blocks). Sill 0.93m above floor	45	W: 0.55 H: 1.52	Blocked door (breeze blocks). Slapped through. No lintel?
19	W: 1.4 H: 1.9	Blocked window (breeze blocks). Sill 0.93m above floor. Same window as F20	46	W: 0.97 H: 1.93	Window. Sill 0.91m above floor
20	W: 0.89 H: 1.88	Window. End of F19	47	W: 0.93 W: 0.93	Window. Sill 0.91m above floor (same size as F46, difference due to plasterboard lining)
22		Roof supporting column. Steel H-beam, 0.115 by 0.125m in cross section	48	W: 0.93 H: 1.87	Window Sill 0.91m above floor (same size as F46 & F47, difference due to plasterboard lining)
23	W: 4.38 H: 2.06	Blocked door (breeze blocks). Sliding door brackets above opening. Lintel partly removed. Opening slapped through wall	49	W: 2.68 H: 1.9	Blocked window (breeze blocks). Sill 0.93m above floor
24	397 4 F 4	T) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			

Feature no. Dimensions (m) Details

W: 2.68 H: 1.9

50

Blocked window (breeze blocks). Sill 0.93m above floor

Feature no.	Dimensions (m)	Details
51	W: 2.68 H: 1.9	Blocked window (breeze blocks). Sill 0.93m above floor
52	W: 2.68 H: 1.9	Partly blocked window. Same as F19, 20
53	W: 0.6 H: 2	Door
54	W: 0.6 H: 2	Door
55	W: 0.66 H: 1.94	Blocked door (breeze blocks)
56	-	External door
57	W: 0.79 H: 2.32	Door. Slapped through wall
58	W: 0.61 H: 1.88	Blocked door 0.94m above floor level. Stone stairs 0.78m wide leading up to door $$
59	W:- H: 2.02	Opening
60	W: 1.37 H: 2.54 (slapped through opening) W: 0.9 H: 2.04	Slapped through door opening later reduced in size by infilling.
61	W: 1.51 H: 2.42	Blocked door (breeze blocks). Sliding door brackets above opening. Steel H-beam lintel
62	W: 2.44 H: 2.42	Opening. Steel H-beam lintel
63	W:- H: 0.96	Window. Sill 1.55m above floor.
64	W: 0.67 H: 0.96	Window. Sill 1.55m above floor

W: 1.54

H: 1.48

Door opening. Lintel removed (steel?)

Photo	register
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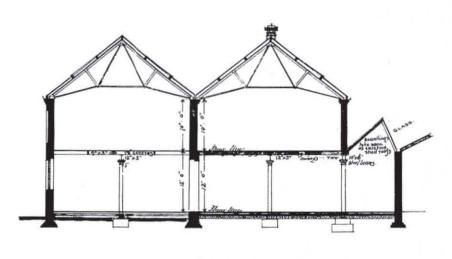
Photo no.	Direction facing	Description
001	E	From N-S of west elevation of shed
002	E	From N-S of west elevation of shed
003	E	From N-S of west elevation of shed
004	E	From N-S of west elevation of shed
005	Е	From N-S of west elevation of shed
006	E	From N-S of west elevation of shed
007	E	From N-S of west elevation of shed
008	SE	Shot of abutting wall – orientated E-W
009	NE	General shot of W elevation
010	E	Detail shot of ventilation and iron detail
011	E	Square iron detail
012	W	Internal 'W elevation' from central door
013	W	Internal 'W elevation' from central door
014	SW	General shot
015	W	Internal 'W elevation' from central door
016	W	Internal 'W elevation' from central door
017	W	Internal 'W elevation' from central door
018	W	Internal 'W elevation' from central door
019	W	Internal 'W elevation' from central door
020	W	Deatil of ventilation grill from inside
021	W	Detail of bracket
022	W	Internal 'W elevation' from central door
023	\mathbb{W}	Internal 'W elevation' from central door
024	W	General shot
025	W	General shot
026	<u></u>	General shot
027	-	General shot
028	_	General shot
029	=	General shot
030	<u>group</u>	General shot
031	<u>1000</u>	General shot — pre building recording
032	-	General shot — pre building recording
033	=	General shot — pre building recording
034	=	General shot — pre building recording
035	<u> </u>	General shot — pre building recording
036	<u>1001</u>	General shot — pre building recording
037	Е	West side of Rutherglen Bridge shot (from north side)
038	SE	West side of Rutherglen Bridge shot (from north side)
039	Е	West side of Rutherglen Bridge shot (from north side)
040	SE	West side of Rutherglen Bridge shot (from north side)

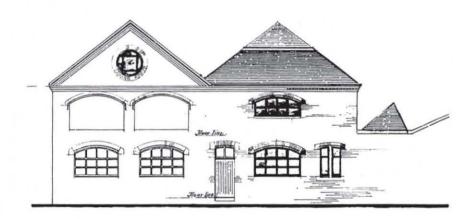
Photo no.	Direction facing	Description
041	SE	West side of Rutherglen Bridge shot (from north side)
042	SE	West side of Rutherglen Bridge shot (from north side)
043	S	West side of Rutherglen Bridge shot (from north side)
044	S	West side of Rutherglen Bridge shot (from north side)
045	S	West side of Rutherglen Bridge shot (from north side)
046	SE	West side of Rutherglen Bridge shot (from north side)
047	E	West side of Rutherglen Bridge shot (from north side)
048	W	West side of Rutherglen Bridge shot (from north side)
049	雨	Various working shots
050	25	Various working shots
051	-	Various working shots
052	-	Various working shots
053	=	Various working shots
054	雨	Various working shots
055	23	Various working shots
056	-	Various working shots
057	-	Various working shots
058	-	Various working shots
059	mi .	Various working shots
060	23	Various working shots
061		Various working shots
062	-	Various working shots
063	-	Various working shots
064	=	Various working shots
065	≅	Various working shots
066	型	Various working shots
067	=	Various working shots
068	-	Various working shots
069	=	Various working shots
070	NE	Bridge shot from south side
071	NE	Bridge shot from south side
072	E	Bridge shot from south side
073	-	Working shots
074	-	Working shots
075	□	Working shots
076	-	Working shots
077	=	Working shots
078	-	Working shots
079	-	Working shots
080		Working shots
081	22	Working shots

Photo no.	Direction facing	Description
082	-22	Working shots
083		Working shots
084	=	Working shots
085	<i>□</i>	Working shots
086	<u></u>	Working shots
087	<u></u>	Working shots
088	=	Working shots
089	=	Working shots
090	NE	Walk way addition to bridge
091	E	Walk way addition to bridge
092	W	Factory close by to bridge

№2.

___ Messa John Brown and Son ___ French Street . Bridgeton . ___ Additions and Alterations to Work . ___

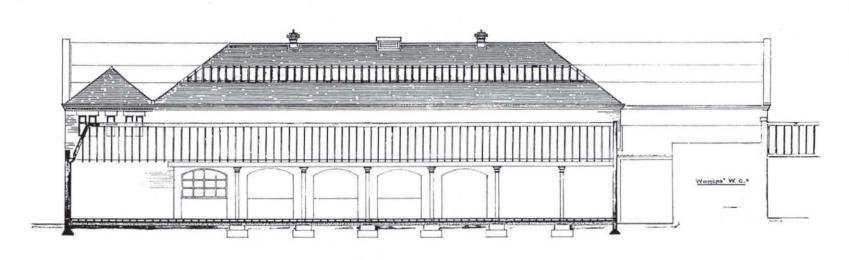




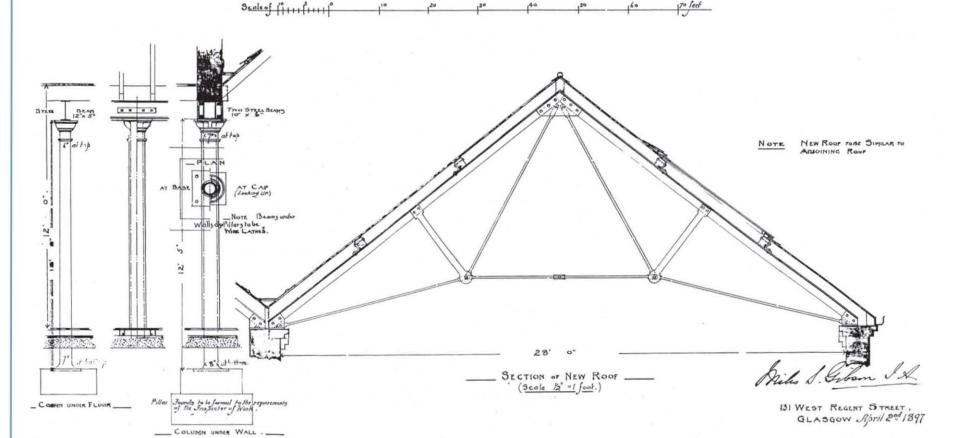
__ SECTION ON LINE A.A.

___ ELEVATION TO JAMIESON STREET.___

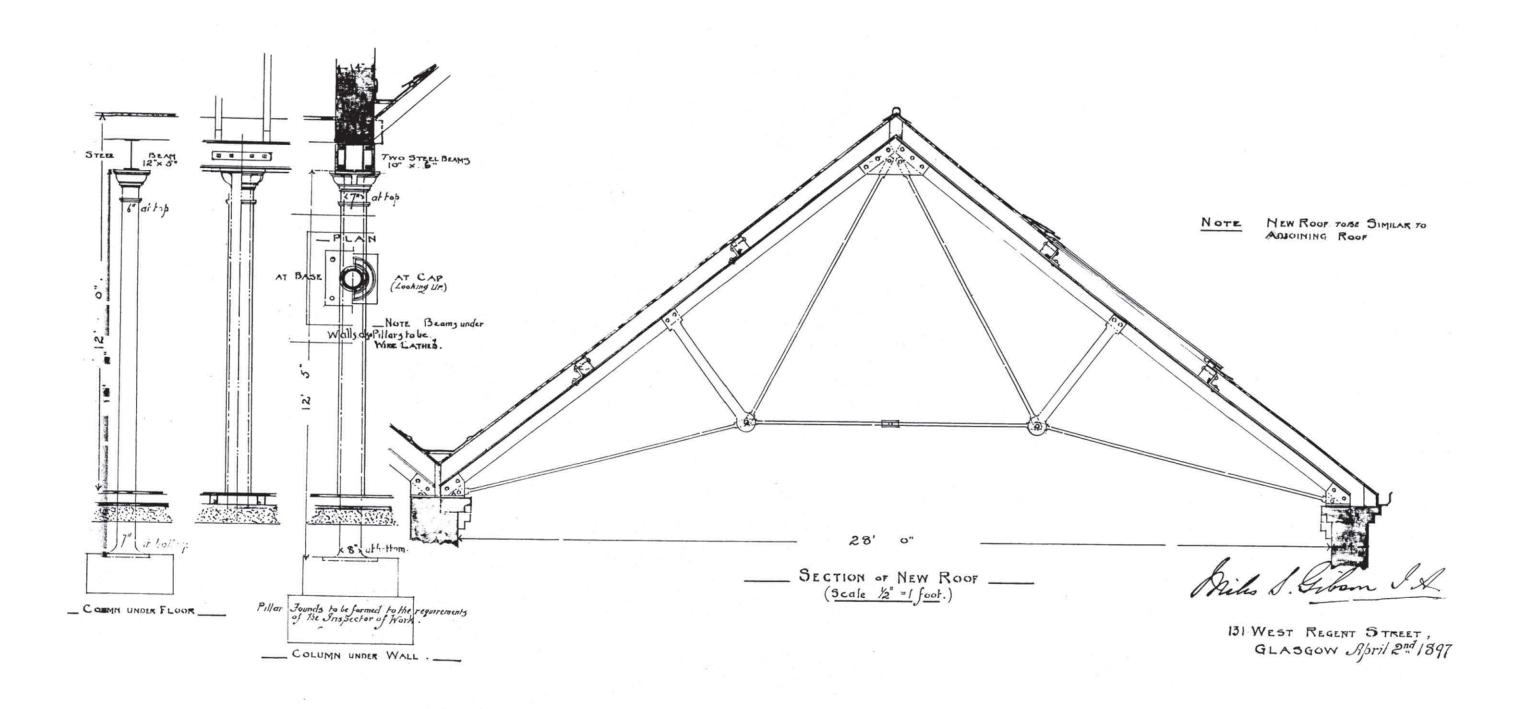
Note Grey Colour shews Old Work.



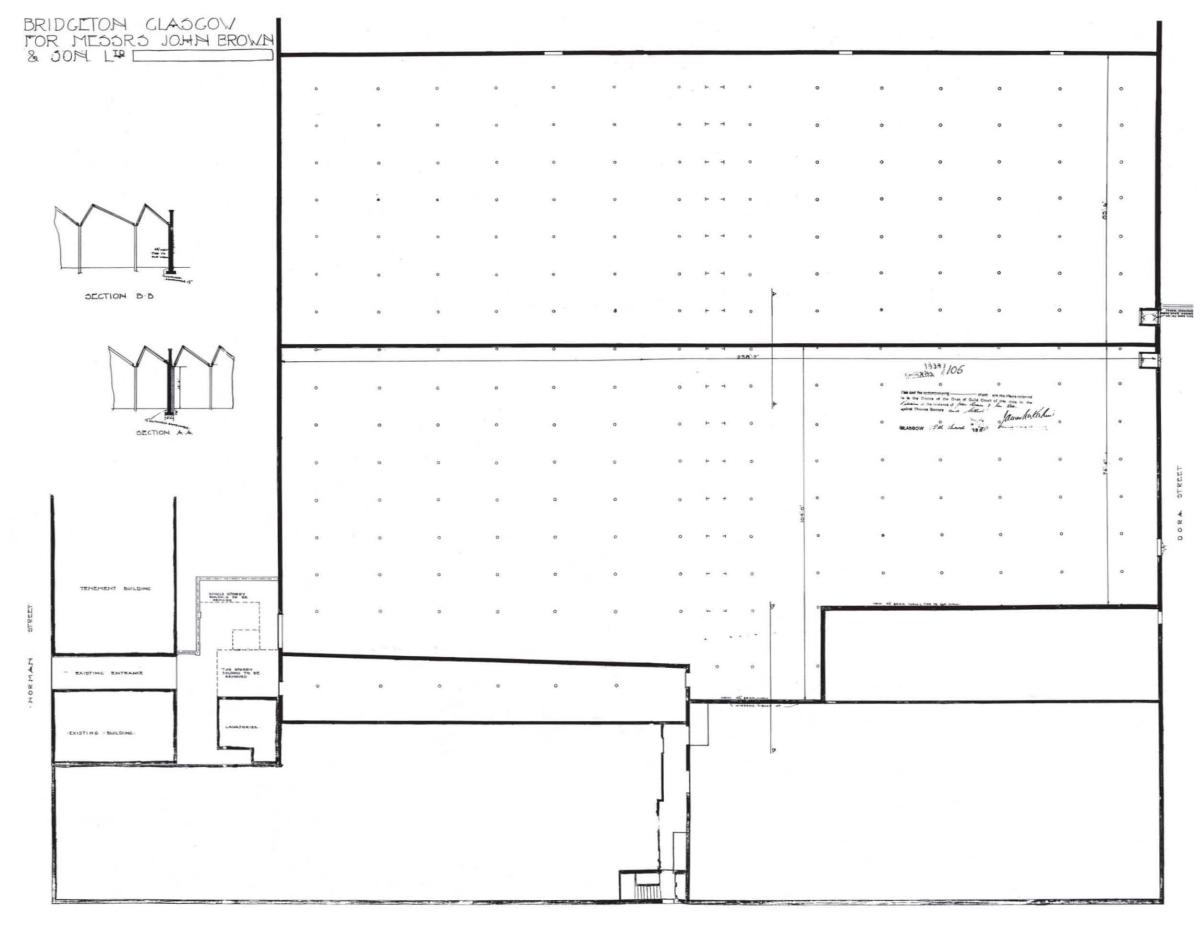
_ SECTION ON LINE B. B. ____



Plan 1



Plan 2



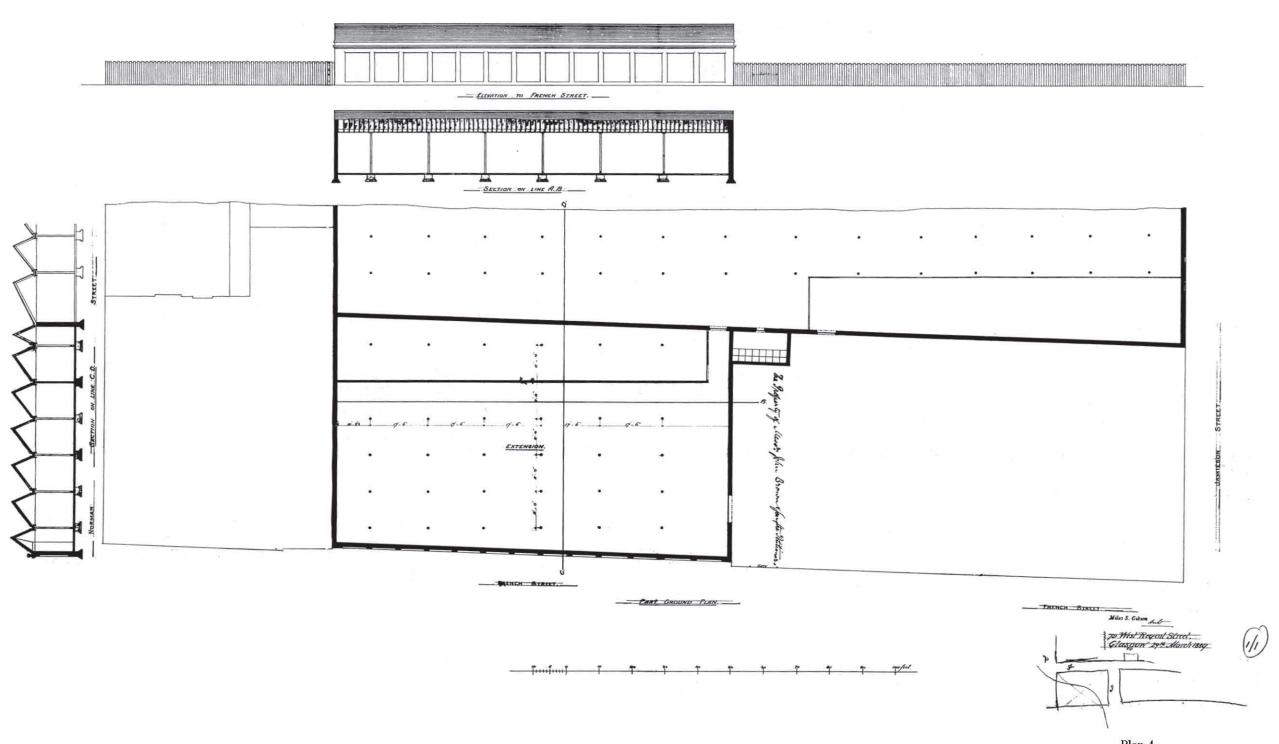
Plan 3

Proposed divisional walls at factory, dated 9 Mar 1935, passed Dean of Guild

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Alwayor 11. April 1889 This feland septement to in D. G. Bleeze of this dade in the Potition as the instance of the Brown som Marky

____Mess. John Brown & Son.___ ____ Proposed Extension to Wearing Sheet ____ ___ Abelphi Street, Bridgeton.___



Proposed extension to weaving shed, signed M. S. Gibson, 79 West Regent St., 29 March, 1889

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