archenfield archaeology ltd

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Archaeological Building Investigation and Recording, Royal Worcester Porcelain Works, Buildings K1, K2, K3 and K3 extension: The Binns Building Complex

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Revised version number 2
Issued 18/11/2008

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archenfield archaeology ltd

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Archenfield Archaeology ltd is a multidisciplinary archaeological consultancy, offering a complete range of archaeological advice and services to the public and private sector. We specialise in giving archaeological advice to developers, housing associations and private individuals. We also undertake archaeological intervention, from monitoring to full-scale excavation; building survey; landscape and geophysical surveys and community-based historical and archaeological projects.

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Archenfield Archaeology Ltd would like to thank the following for their kind assistance: Berkeley Homes for supplying architect's drawings and general assistance on site; the Trustees of the Worcester Porcelain Museum, for allowing the reproduction of archival material; Wendy Cook, curator of the Worcester Porcelain Museum, for providing advice and making available archival material; and James Dinn, Archaeological Officer of Worcester City Council, for monitoring the fieldwork, giving advice and making corrections to the report.

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Cover Photograph: Building K1 from the canal

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Summary

Archaeological building investigation and recording was undertaken by Archenfield Archaeology Ltd at Royal Worcester Porcelain Works, Severn Street, Worcester, on behalf of Berkeley Homes (Oxford & Chiltern) Ltd prior to re-development of the site. This report deals with the Binns Building complex which is composed of ranges K1, K2 and K3. The Binns Building complex was established in 1878 and consisted of three wings with workshops, offices, a large museum (K2 and K3) and bottle kilns on the east which no longer exist. This complex of buildings appears in the 1st Edition OS map of 1884. Later re-development took place in 1888 when the original building was extended with a cross north wing which consisted of a three storey range (K1) built as a new 'Parian House' (K1). Most of the original external fabric is extant and a high proportion of internal original fittings, including carpentry and masonry detailing, still survives in excellent condition. The building is an interesting example of 19th century factory construction and is of national, historical and architectural importance. This group of buildings also includes two pre-fabricated blocks (K3 extension) which were erected in the 1960 – 70s.

1 Introduction

Site name: Royal Worcester Porcelain Works
Location: Severn Street, Worcester, Worcestershire
NGR: SO 8515 5425
SMR/HER: WCM 96186
Type: Building Investigation and Recording
Date: November 2006 – September 2007
Location of archive: Worcester City Museum
Planning authority: Worcester City Council
Planning reference: P05D0432, L05D0074
Developer: Berkeley Homes (Oxford & Chiltern) Ltd
Site Code: AA_70

Archenfield Archaeology Ltd was commissioned by Berkeley Homes to undertake a programme of archaeological building investigation and recording prior to the redevelopment of the Royal Worcester Porcelain Works, Severn Street, Worcester. The development site constitutes approximately three-quarters of the whole Severn Street site and the remaining quarter is to be retained by Royal Worcester Porcelain Works. The development scheme involves the demolition of 26 large buildings and 6 small sheds, and the modification of 10 existing buildings in order to build 356 dwellings (comprising 317 apartments and 39 houses), a hotel, B1 space and A3 restaurants. The site is located on the south side of Worcester city centre and is bounded by Sidbury, St Peter's Street, King Street, Severn Street, Mill Street and the Worcester and Birmingham Canal (Figures 1 and 2). The majority of the buildings were built parallel or perpendicular to the central lane of the Works (Prince's Drive) which runs north-west to south-east. Thus a site north was established for the survey at approximately the same orientation (Figure 2).

This report (number 15 of a series) deals with Buildings K1, K2 and K3: the Binns Building complex, and also K3 extension. An initial assessment of the buildings recognised that the Binns Building complex is of historic and architectural importance. The archaeological work was conducted in accordance with the written scheme of investigation (WSI) issued by Archenfield Archaeology Ltd (2006), which was in response to a brief issued by Worcester City Museum Archaeology Section (2006). The WSI was issued to fulfil a condition in the planning approval which stated that a programme of archaeological work must be carried out before the re-development works commence. This document gives details of how the archaeological project was conducted and includes any conclusions drawn from the investigation.

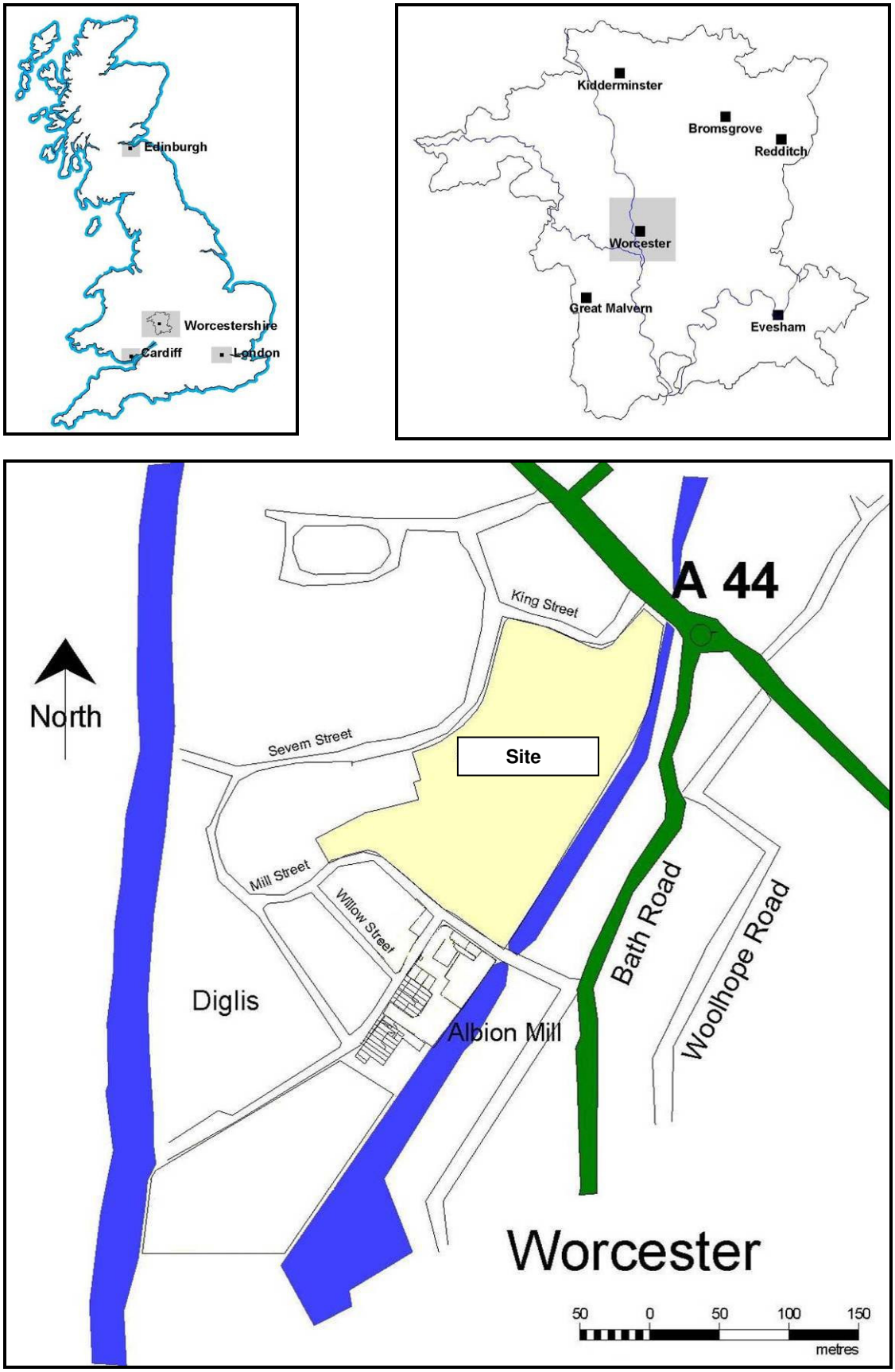

Figure 1: Site location

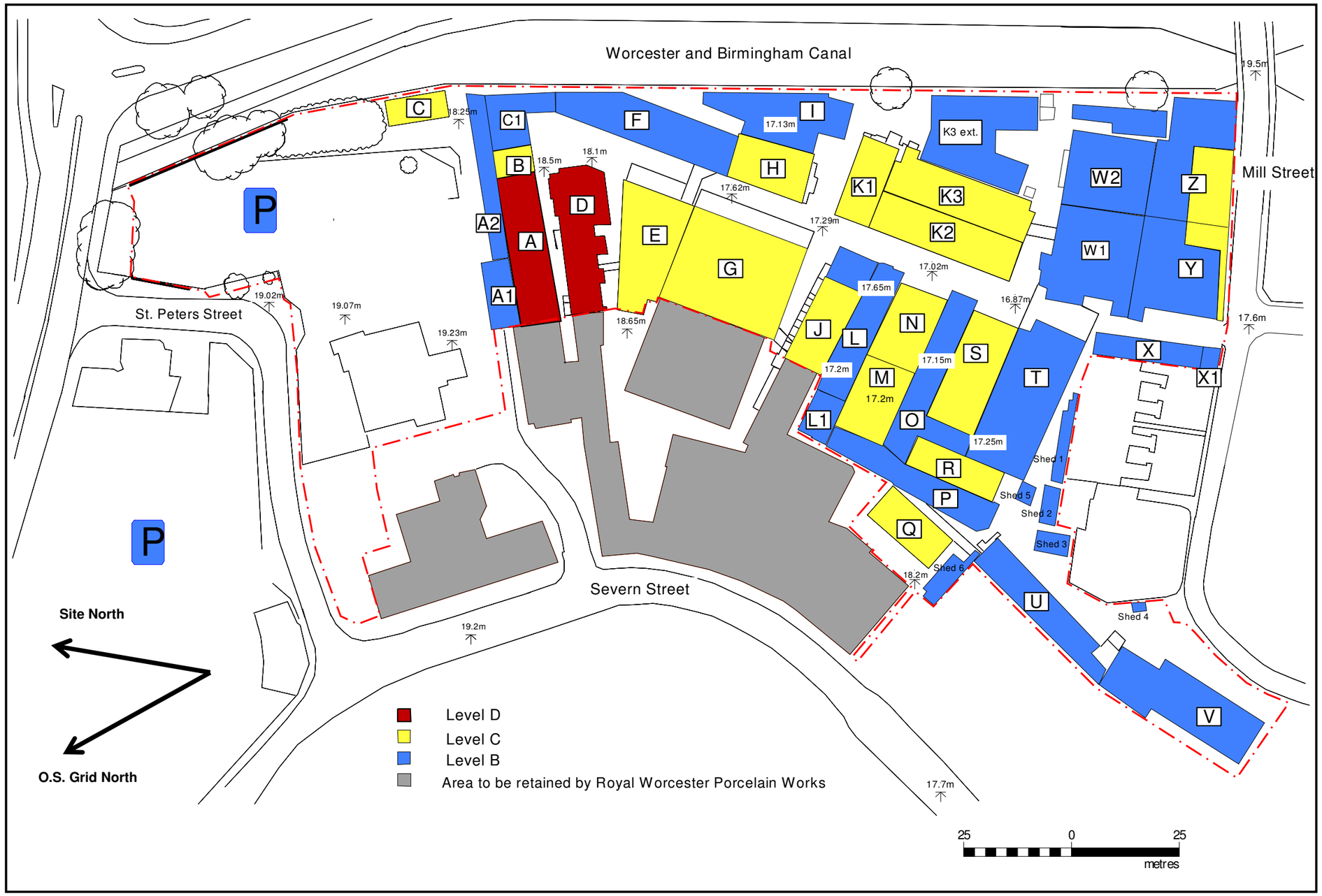

Figure 2: Detailed plan of site, building codes and levels of recording (scale 1:1,000 based on architect's drawing provided by Berkeley Homes)

2 Project aims

The aims of the programme of archaeological building investigation and recording, as defined by the project brief, consisted of the following:

- To make an appropriate record, as identified by the levels of building recording stipulated by the brief, of all the standing buildings at the Royal Worcester Porcelain site.
- To record different phases of all the buildings affected by the development and identify features for conservation.
- To annotate available architects' drawings to include archaeological features such as blocked windows and doors, etc.
- To produce original drawings of important elevations and features.
- To conduct a photographic survey of the major components of the buildings that are directly affected by the development. This should include general views of the exterior of the buildings, all exterior and internal elevations, selective internal views and any detailed coverage of the buildings deemed to be fitting with the character and setting of the buildings. Photographs of any machinery and fittings associated with the working life of the buildings should also be taken.
- To maintain close liaison with the curator of the Worcester Porcelain Museum (henceforth abbreviated as WPM), Wendy Cook, to enable access to the museum archives and give advice on specific aspects of the operation of the manufactory.
- To create a detailed project archive and deposit it with Worcester City Museum after completion of the project.
- To disseminate the results obtained.

3 Geological, historical and archaeological background

3.1 Geology and land use

Worcester lies in the valley of the River Severn, just to the north of its confluence with the River Teme. The eastern bank of the Severn is a sand and gravel terrace. The site lies in the valley of a former tributary of the Severn, the Frog Brook, whose former course was partially used in the creation of the Birmingham and Worcester Canal, which forms the eastern boundary of the site. The underlying geology of the site consists of beds of alluvial drift deposit over the Eldersfield mudstone formation (British Geological Survey).

3.2 Historical, archaeological and architectural background

Two archaeological desk-based assessments have been produced which examine the historical and archaeological background to the Royal Worcester Porcelain Works, Severn Street site (Feryok and Sherlock 2004; Lovell and Pikes 2004). These include cartographic regressions and reproduce the results of documentary studies of the historical evolution of the site. In addition two assessments of the nature, architectural merit and relative importance of the building have also been undertaken (Morriss and

Sherlock 2004; Robinson 2005). These four documents have previously been submitted to the local planning authority in support of the planning application for re-development, and thus they should be used in conjunction with this report. However, this report includes revised and updated facts, which have been revealed during the site work and where discrepancies appear, then this document supersedes previous statements.

4 Methodology

A detailed project design was prepared by Archenfield Archaeology Ltd (2006a). The recording of the Buildings K1, K2, and K3 conformed to level C (specified in Worcester City Museum Archaeology Section brief 06/22) which is based on English Heritage level 3 (EH 2006). The recording of Building K3 extension corresponded to level B (specified by the brief as a basic photographic record).

The requirement for the archaeological building investigation and recording on the Royal Worcester Porcelain site is in line with government guidance and with the archaeological policies in the adopted City of Worcester Local Plan (1991 – 2001; saved policies BE21, BE24, BE26 and BE27). All work was undertaken to the standards specified in the *Recording Historic Buildings: A Descriptive Specification* (RCHME 1996); *Measured Survey and Building Recording for Historic Buildings and Structures* (Dallas 2003); *Understanding Historic Buildings: A guide to good recording practice* (English Heritage 2006) and in accordance with the standards set out by the Institute of Field Archaeologists' *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures* (IFA 2001). All stages of the project were carried out in accordance with the guidelines established in the *Management of Archaeological Projects (MAP 2)* (English Heritage 1991).

The project archive will be compiled in accordance with the guidelines contained in *Guidelines for the Preparation of Excavation Archives for Long-Term Storage* (UKIC 1990) and the *Standards in the Museum Care of Archaeological Co*llections (Museum and Galleries Commission 1992).

The project complied with all Health and Safety requirements stipulated by Berkeley Homes (Oxford & Chiltern) Ltd and those outlined in the *Health and Safety in Field Archaeology Manual* (SCAUM 2002) and in the project's *Risk Assessment* (Archenfield Archaeology Ltd 2006b).

The fieldwork was managed by Huw Sherlock BA DIPARCH MIFA and supervised by Alvaro Mora-Ottomano (Gamba). Brenainn Morley and Robert Williams assisted in the fieldwork. The report was written by Gamba. The historical and industrial research was conducted by Dr John van Laun and Wendy Cook, and it is included as an appendix. The survey photographs reproduced in the report were taken by Gamba.

The illustrations were digitised by Abby George. The report was edited by Julie Phillips. The subsequent result comprised the following elements:

4.1 The written record

A written record of the buildings was carried out by annotating plans and elevations and by completing *pro-forma* building recording sheets. The presence of any significant artefacts was recorded with a description of their type, quantity and original location. In order to identify obscured areas, soft–stripping of surfaces was carried out using hand tools.

4.2 The drawn record

A metric survey was initially based on architects' elevations and plans, which were annotated to include archaeological sequences and architectural features. Further survey drawings were carried out using tapes and a laser distance meter. Dumpy and laser levels were also employed. The drawn survey comprised measured floor plans, elevations and sections at 1:50 scale. Detailed features were drawn at appropriate scales ranging from 1:20, 1:10 and 1:5.

4.3 The photographic record

A detailed photographic survey comprised high resolution digital photographs (6 megapixels or above). A further 35mm colour print photographic survey of general exterior views was also conducted. Where possible, photographs included a graduated scale and cameras were mounted on tripods for extra stability. Details of the photographs were recorded on *pro-forma* index sheets, which included location, subject and orientation. The location and direction of the photographs were plotted on scaled plans.

4.4 Documentary research

A further programme of documentary research was undertaken by John van Laun Associates (Industrial Archaeologists) and is included in this report as an appendix. The research dealt with the buildings' form, function, date and sequence of developments. The name and date of former architects involved in the developments of the site were included. Archival research included consultation of relevant secondary sources pertinent to the study area located at the Worcester Porcelain Museum. The archive enabled further specific historic map regression analysis; and relevant contemporary photographic materials were reproduced.

5 Results

This section deals with the analysis and interpretation of the group of buildings composed of K1, K2, K3 and K3 extension. This group is called the Binns Building complex which takes its name after the Works director R W Binns (Figure 3). Buildings K1 and K2 are to be kept whereas K3 and K3 extension have been demolished. However, the building analysis refers to the record made when they still existed. Buildings K1, K2 and K3 were recorded at level C (based on English Heritage level 3), and Building K3 extension was recorded at level B (based on English Heritage level 2).

5.1 Building K1

This is the north cross wing of the Binns Building complex which was built after Buildings K2 and K3 but in a similar fashion. It was built as the new 'Parian House' in 1888 for the production of Parian ware which is a type of porcelain, introduced about 1840 by the English firm of Copeland & Garret, in imitation of Sèvres biscuit (fired but unglazed porcelain). Its name is derived from its resemblance to Parian marble which was quarried during the classical era on the Greek island of Paros. The building is a tall three-storey range with a pitched roof. There is also a small basement at its eastern side. The building is situated between the central lane (Prince's Drive) through the site and the canal, with gables to each. It has an overall dimension of *c.* 19.3 metres long (east/west) x 9 metres wide (north/south) and 14 metres high. It is built of

mid reddish brown bricks (9" x 4" x 3") bonded with flush lime mortar (up to 10mm thick) and laid to English bond.

Figure 3: The Binns Building complex with K2 and K3 on the left and K1 on the right, from the canal

5.1.1 Exterior

North elevation (Figure 4 and 22)

The north elevation is seven bays long. The bays are articulated by brick pilasters and the recessed panels in between are topped by ornately moulded dentilled cornices. The plinths of the pilasters are decorated with chamfered blue engineering brick. There are original cast-iron windows at all three main floor levels. These have segmental brick heads and engineering brick sills.

West elevation (Figure 5 and 23)

In the western gable end, facing the lane, there are two original doorways on the end bays with segmental arched heads and three-light fanlights above the doors. Between the doorways there was originally a wide window or another doorway but it has been carefully blocked with bricks where electric cables are currently attached to the wall and covered with a wooden open box. This elevation has a single bay two-storey additional pitched structure on the south. This structure is part of, and contemporary with, Building K1 as there are no signs of construction breaks. Moreover, the original architect's drawing exhibits the proposed Building K1 with this southern annex (see Appendix). It was designed to be linked with Building K2. This structure is more basic than the rest of the building but it is built in the same general style with a recessed panel and half pilasters on the sides. On the ground floor, there is a double timber door with a fanlight that contains eight lights and has a segmental arched head; and on the first floor there is a former window now blocked-up.

Figure 4: North and east elevations of K1

Figure 5: West elevation of K1

East elevation (Figure 4)

In the eastern gable end, facing the canal, the southernmost ground floor window has been crudely converted into a doorway. The southern window of the second floor has been modified into an encasement type which opens outward and leads to a metal landing with railings that connects to a vertical metal fire escape ladder. The ladder is attached to the third pilaster from the north and extends down to the ground floor where there is a concrete platform over the basement doorway.

Both gable ends have coping lias stones in which the intermediate bay pilasters continue past the main cornice up to the coping. There are two ovolo moulding kneeler red sandstones forming a termination at the eaves of the coping. The cornice is built in the same decorative manner as the cornices of the side panels. In the centre of each gable is a brick-framed roundel containing an ornate cast-iron vent. The east gable has also a galvanised iron vent situated between the roundel and the cornice. The roof is made of natural slate and it has close eaves with PVC guttering; both of the gables have parapets at their verges. On the southern half pitch, there are two galvanised iron cowls which would have ventilated a storage area in the room beneath.

South elevation (Figure 6)

The south elevation has equal pilasters and cornices to the north elevation but is devoid of windows. There are two inserted doorways on the first floor of which one is situated on the second bay from the east which connects to Building K3 and the other one is a wide opening that leads to the wedge-shaped southern structure. The latter has an RSJ lintel and a low ramp that extends to K2. On this floor, there is a primary doorway but it is blocked-up. This is situated on the westernmost bay, which would have connected the staircase upper landing with the wedge-shaped single bay southern structure.

Figure 6: South elevation of K1

5.1.2 Interior

Basement (Figures 7—9 and 20)

Underneath the easternmost bay of the building, there is a small basement which is accessed from a straight staircase on the east wall. Internally it measures 7.7 metres long (north/south), 3.1 metres wide (east/west) and it is 1.93 metres high. The room has brick walls and floor, and the ceiling is composed of corrugated steel sheeting supported by six RSJ beams aligned east/west. There is a small opening on the north wall with a concrete lintel which appears to be a later insertion and is partially visible on the north elevation. On the east wall there are two windows and a central timber door. The southern window is blocked-up and the other consists of only a wooden frame which seems to be a later replacement. The windows have flat chamfered brick jambs. This room contains a series of machinery, including electric pumps and an induction electric motor set over a plastic cylindrical vat.

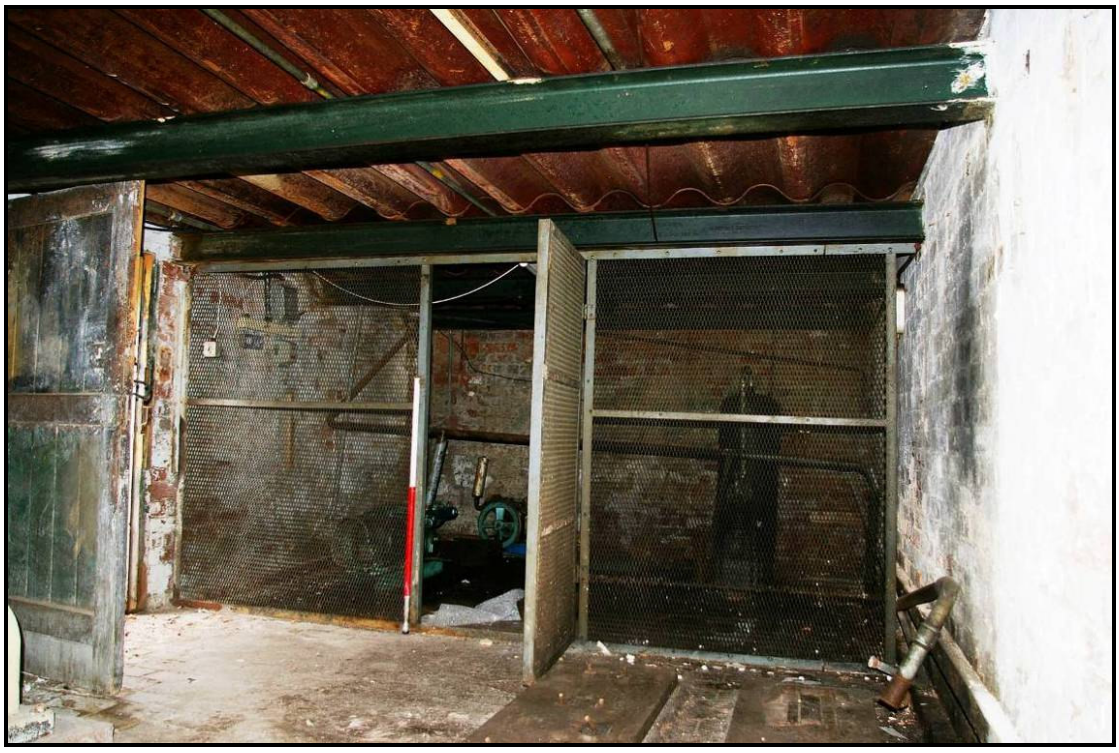

Figure 7: Inside the basement, looking south

Figure 8: Basement floor with electric pump, looking east

Figure 9: Basement floor, looking north

Ground floor (Figures 10 – 13 and 21)

The ground floor is accessed from Prince's Drive through two doorways with small steps (0.15 metres high). There is also a later doorway on the east wall. Internally it measures 18.4 metres long (east/west), 7.2 metres wide and 3.3 metres high. The floor is mostly an open room, but there are some low light-weight partition boards forming separate working spaces. Moreover, there is a mould storage room made of plywood at the south wall and a washing room situated at the north-east corner. The floor has working benches topped with slate slabs, potter's wheels, and cutting and grinding machinery including a jolly which was used to produce hollow ware. The whole floor has painted brickwork, a lath-and-plaster ceiling and the floor is made of wooden boards covered with screed. There are four central cast-iron columns with Tuscan capitals supporting transverse timber beams (north/south). These ceiling beams have narrow flat chamfered edges and plain chamfer stops. Most of the fenestration is original and made of cast-iron with sixteen lights (4 columns x 4 rows). There are seven windows on the north wall with small hopper openings except for the easternmost window which has been altered with the addition of an encasement opening. There are two windows on the south wall which have a hopper opening at lower level and another opening at the top row with pivotal central hinges. The inner windows' jambs and arched heads are flat chamfered with plain stops. The main doorways also have flat chamfered inner jambs and heads. At the north-west corner there is a straight wooden staircase set against the west wall that leads to the upper floors.

This rectangular shape is repeated in the floors above. At ground and first floor levels there is a south-western annex built against Building K2. This annex has a wedge-shaped plan, which measures internally *c.* 8.6 metres long (east/west), 2.5 metres wide on the west side and 1.9 metres wide on the east side and is 3.3 metres high. This structure contains tall wooden shelves with moulds. It is accessed through a principal doorway from Prince's Drive and also from a later doorway on the south wall of the main building.

Figure 10: Ground floor of K1, looking north

Figure 11: A jolly, used to produce hollow ware

Figure 12: Ground floor of K1, looking east

Figure 13: Inside the southern annex of K1

First floor (Figures 14 and 15)

The first floor is very similar to the ground floor and is accessed from the main staircase on the west wall. This is also a large open room which has two jiggers which were used for the production of flat wares. The fenestration and ceiling structure are identical to the ground floor but near the east wall a later RSJ beam has been inserted at the same alignment as the timber beams. The walls, ceiling and floor are also repeated here. On the south wall there is a storage area made of breeze-blocks whose walls measures 2.4 metres high, and it has a flat timber roof and a series of double timber doors. The storage contains wooden shelves with moulds. This wall also has an inserted doorway that connects it to Building K3 through a shallow ramp. The southern wedge-shaped annex is accessed from an inserted doorway on the south wall. The annex has a blocked-up window on the west wall and also a blocked-up doorway which leads to the staircase landing of the main building. On its east narrow wall, there is another blocked window which matches the western one.

Figure 14: First floor of K1 with jigger machinery, looking west

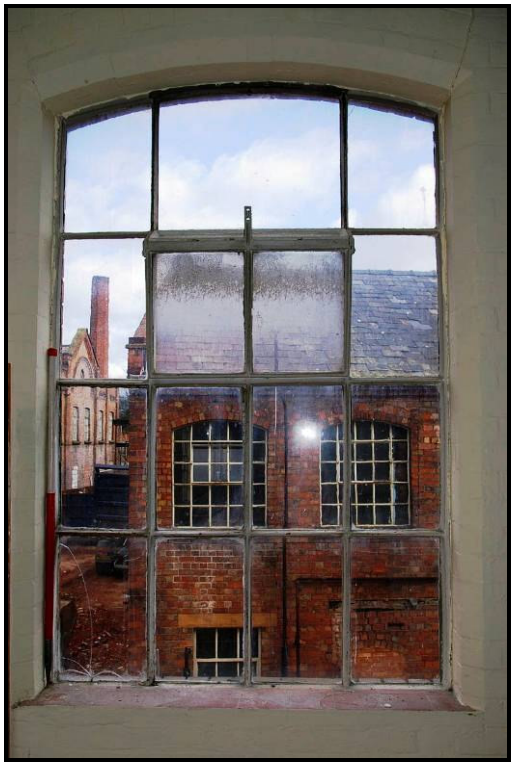

Figure 15: Window on the first floor of K1

Figure 16: Window on the second floor of K1

Second floor (Figures 16 – 19)

The second floor again is a large open room but at the east end there is a small partition made of plywood. The walls and floor are identical to the lower levels but the fenestration differs slightly as the windows are shorter with three rows of lights. The southernmost window of the east wall has been modified into a fire escape exit which leads to an external metal ladder. This floor has a suspended false ceiling at 4.3 metres high which partially obscures the roof structure. The side walls are 3.5 metres high. At the top of these walls there is a sloping ceiling made of lath-and-plaster. This floor also has a storage area on the south wall made of plywood extending to the ceiling. It seems to be ventilated by two cowls set on the roof over the storage. There is a long rectangular worktop table in the middle of the room with cardboard boxes and empty shelves on the walls.

The roof structure consists of four king-post trusses which bears no direct relationship to the five bays demarcated by the ceiling beams and columns of the lower levels nor by the seven-bay design of the north wall. Although this seems fairly irregular, the original architect's drawings shows that this was the original design (see Figure 7 of the Appendix). These trusses are made of sawn timber carrying a single tier of trenched purlins. The principal rafters are supported by raking struts. The common rafters are notched over the wall plate and the upper ends are set on the ridge piece.

Figure 17: Second floor of K1, looking west

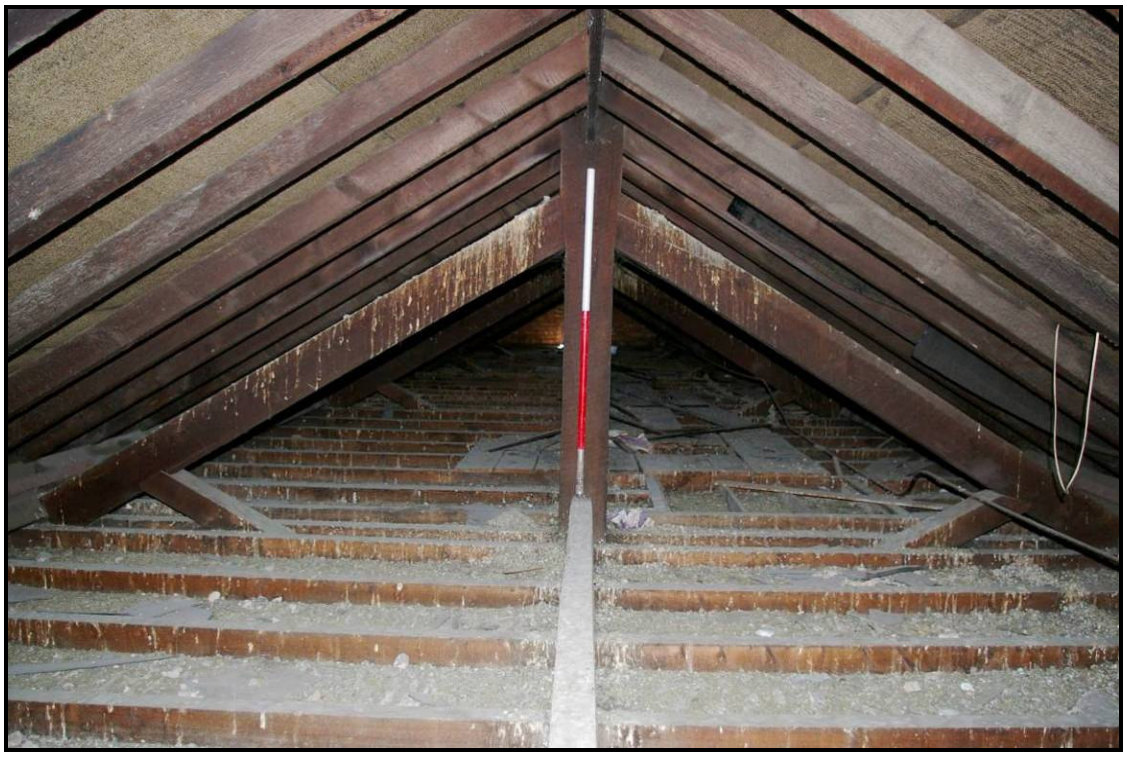

Figure 18: King-post truss of K1

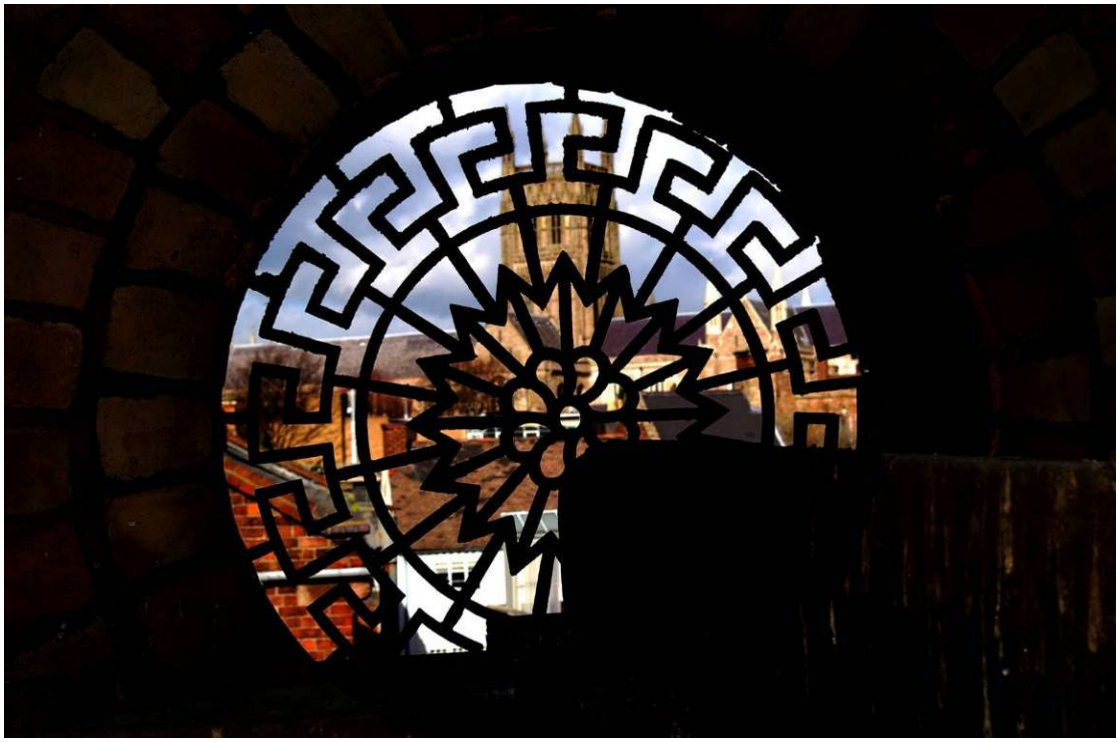

Figure 19: Cast-iron vent of K1, looking west

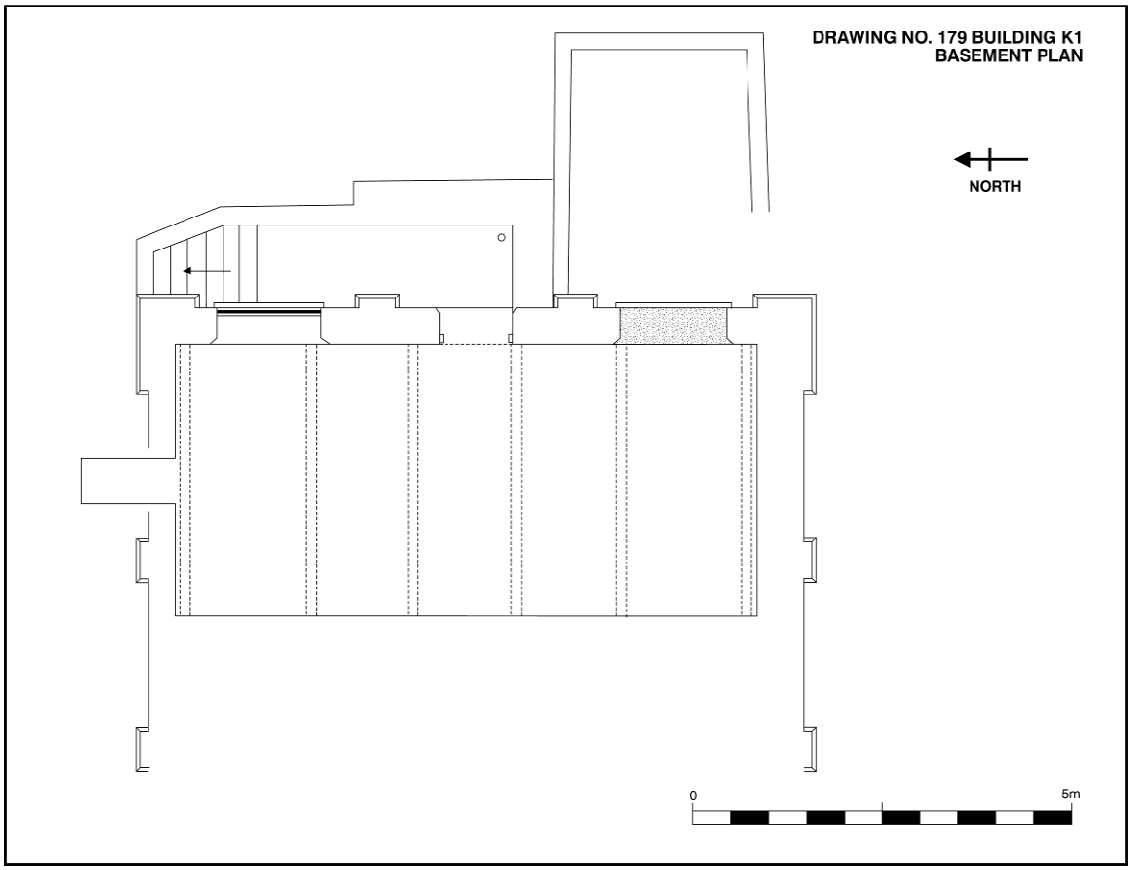

Figure 20: Basement plan of K1 (scale 1:100)

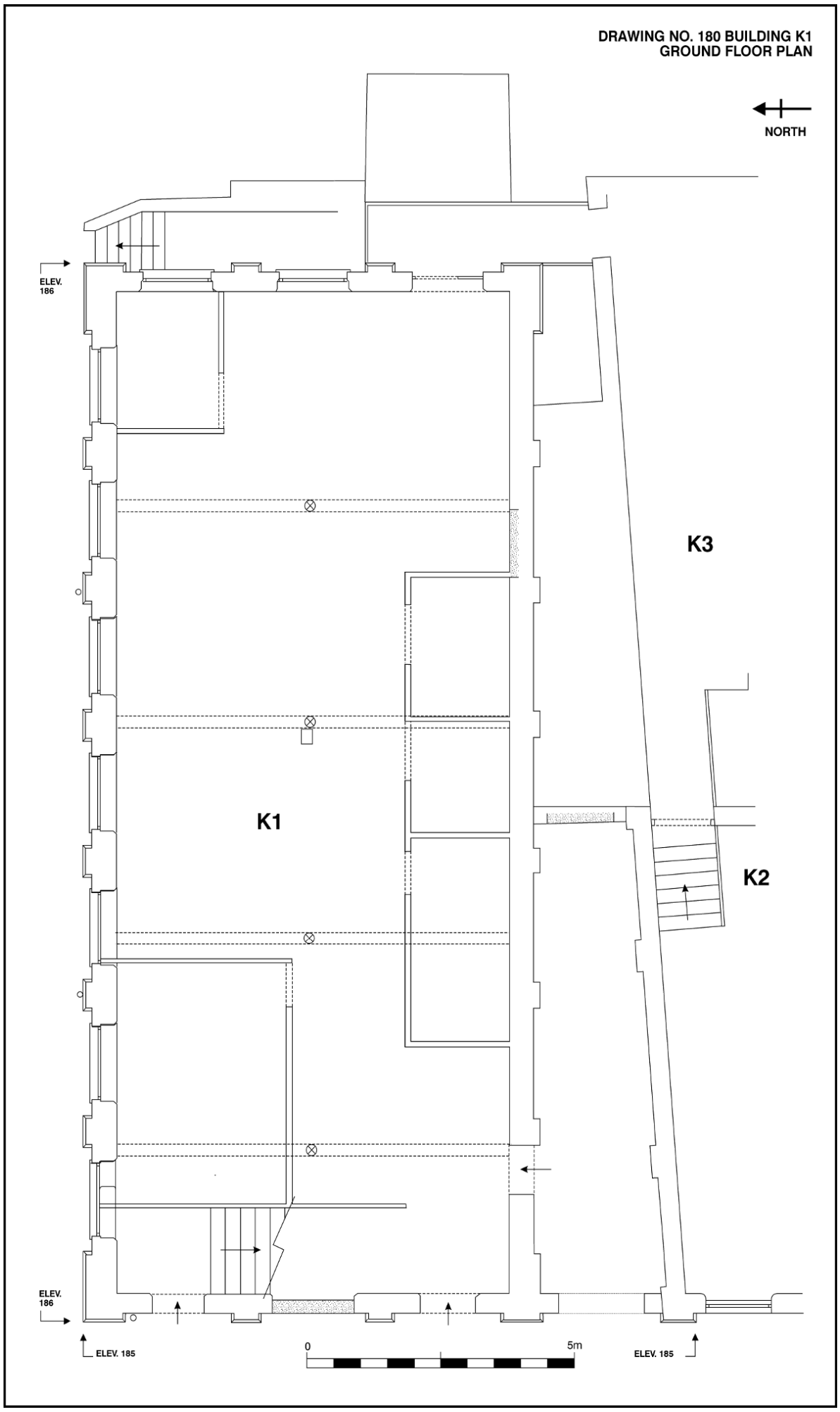

Figure 21: Ground floor plan of K1 (scale 1:100)

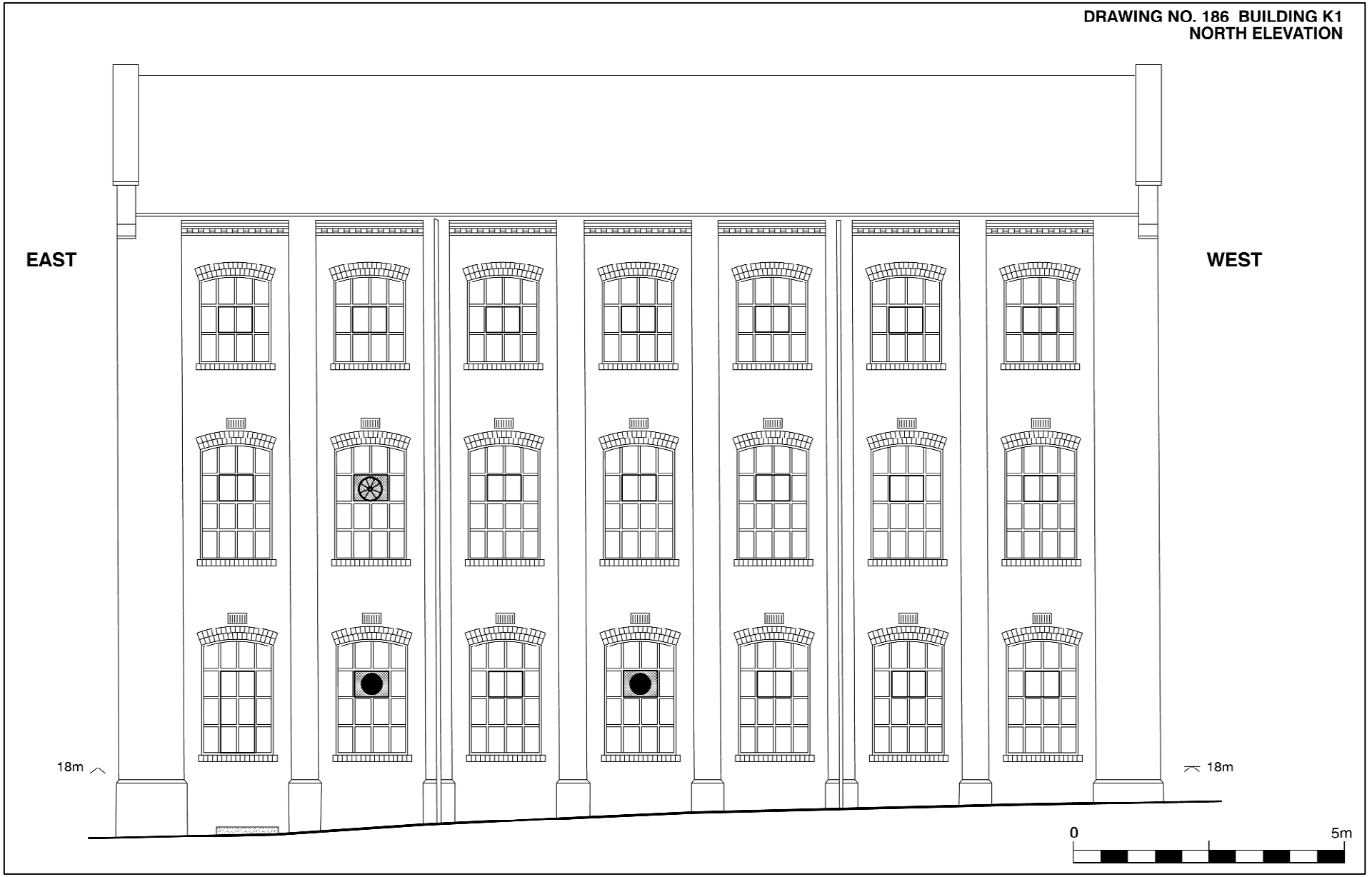

Figure 22: North elevation of K1 (scale 1:100)

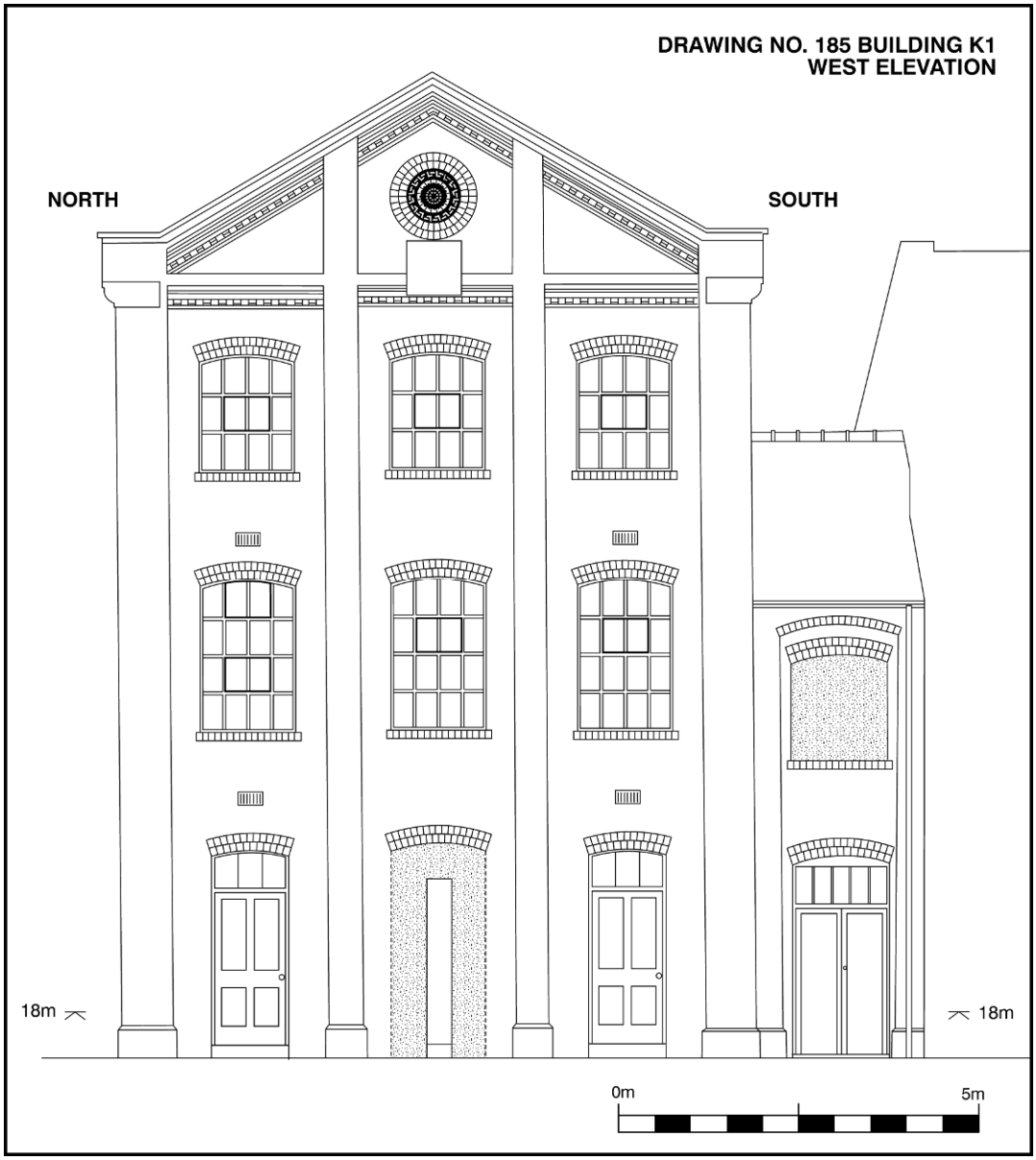

Figure 23: West elevation of K1 (scale 1:100)

5.2 Building K2

This is the west wing of the Binns Building complex which lies parallel to Prince's Drive and is contiguous with the slightly lower east wing (Building K3). It was built in 1878 to accommodate two workshops and a foreman's office on the ground floor and a museum and two offices for the director (R W Binns) and the Works' manager on the first floor. This wing is a two-storey eight bays range made of mid reddish brown bricks (9" x 4" x 3") bonded with flush lime grey mortar (up to 10mm thick) and laid to English bond and it has a slated pitched roof. It has an overall dimension of *c*. 32 metres long (north/south) x 9 metres wide (east/west) and is 11 metres high.

5.2.1 Exterior

West elevation (Figure 24 and 50)

The main west elevation along Prince's Drive has eight bays articulated by brick pilasters that have a vague decorative hint of brick capitals. The pilasters have plinths topped with flat chamfered blue engineering stretcher bricks. The recessed panels between the pilasters are topped by ornate dentilled cornices. The panels have generally two windows at each level with segmental arched brick heads and rounded projecting brick sills. Most of the windows on the ground floor are original whereas the windows on the first floor are later insertions except for the sash type.

In the northernmost bay of this wall there is a primary doorway which has been boarded-up and a small narrow window to its south. The main entrance is in the third bay (from the north) which has double timber doors. Each of them has a large rectangular glazing panes and at the top, there is a horizontal rectangular fanlight. The doorway has a segmental brick head and a sandstone threshold, and is flanked by a pair of tall recessed brick panels. Each of these panels has a chamfered brick sill (flush with the wall), a flat head with concave sides and a central rectangular brick projection (flush with the wall). There is another doorway towards the south end whose original form has been altered with the insertion of a metal sliding door, a concrete lintel and a concrete threshold. There is a window immediately to the north of this doorway, which although of original fabric, was inserted to replace a former doorway. There are two original blind windows on the upper level but both have inserted RSJ beams that are part of a later internal structure.

The roof slopes are slated and topped with tile ridge. The remains of two chimney stacks can be seen on the western half-pitched slope. One of these former chimneys is situated on the north coping and the other one is further south, practically over the third bay from the north. There is also a long skylight on the southern half of the roof. Surviving at the apex at either end of the skylight are two galvanised iron cowl vents.

Figure 24: Building K2, looking north-east

North and south elevations (Figures 25, 26 and 49)

The gable ends are of three bays, the middle bay wider than the outer ones. Each is topped by a coped gable in which the decorative dentilled brickwork in the panel cornices is repeated under the coping and the pilasters are taken up to it. In the centre of the gables there is a brick-framed glazed roundel. In the southern gable end there are four windows (two in the central bay and one to each side) at ground-floor level of the standard pattern seen in the side wall. At first floor level there is just a pair of narrower but taller windows in the central bay with semi-circular heads and vertical sash opening panes. This gable has ovolo moulding kneeler red sandstones at the eaves of the coping although the eastern side seems to have partially decayed and re-built with bricks. The northern gable end is plain without windows or doorways as it was original built against an existing building which was replaced by the current north wing (Building K1). However it keeps some of the features such as the pilasters, dentilled cornices and a roundel on the gable. There is a large opening on the first floor which is topped by a large RSJ beam. The roof is made of natural slates topped with a tile ridge and it has close eaves with cast-iron guttering and both of the gables have short parapets at their verges.

Figure 25: South elevation of K2

Figure 26: The roofs of K2 and K3, looking north

5.2.2 Interior

Ground floor (Figures 27 – 34 and 48)

The ground floor is divided up into three large rooms. These rooms appear on the 1878 architect's plan (see Figure 19 of the Appendix) as the 'Scouring Room' (southern end), the 'Biscuit Room' (middle) and 'Foremans Office' (northern end). Between the' Foremans Office' and the 'Biscuit Room', there is a narrow lobby with the main entrance and staircase for the first floor. There is also a passageway on the north end from which a doorway leads into the 'Foremans Office' and a staircase to the upper floor of Building K3. Internally it measures *c.* 28 metres long (north/south), 8.5 metres wide (east/west) and is 3.2 metres high. There are four cast-iron Tuscan columns aligned north/south which support a central timber ceiling beam with flat chamfered edges and plain stops. The beam runs along the middle of the building but there is a gap in the lobby area.

The main entrance leads into an ornate lobby with a Minton tiled floor, decorated dado rail and an internal second set of double swing doors which leads to the first floor through a staircase. The walls are plastered and painted beige topped with cavetto moulding plastered architrave; and the ceiling is made of lath-and-plaster and is painted dark red. The staircase is a quarter-turn type with a long landing situated before three winders which turn northwards to the upper level. The staircase is made of solid sandstone steps, has an ornate wooden handrail and a cast-iron decorated balustrade and timber newels on the second floor.

The 'Scouring Room' measures internally 8.5 metres long (east/west) and 7.6 metres wide (north/south) and it is accessed from the central lane's inserted doorway. This room has two RSJ ceiling beams (north/south) supported by four RSJ stanchions. The room has painted brickwork, a boarded ceiling and concrete floor. The fenestration appears to be original and it consists of four windows on the south wall and three on the west wall. The windows are made of wood with twelve rectangular lights set vertically (4 columns x 3 rows). The upper section has central pivotal hinges. The inner jambs and arched heads are made of single bullnose bricks and the sills are flat wooden boards. On the east wall, there is a doorway, with a short step (0.45 metres high), that leads to Building K3. There is another doorway, with a sliding metal door, that leads to a central workshop called the Biscuit Room situated north of this room. This room is practically empty except for a cylindrical plastic vat supported by a steel structure situated near the doorway to K3.

The 'Biscuit Room' measures internally 12.5 metes long (north/south) and 8.5 metres wide (east/west). It has six original windows on the west wall. The main structural fabrics are the same as the southern room except that the ceiling is made of lath-and-plaster. This room has long worktop tables and shelves. On the east wall, there are two low storage compartment made of breeze-blocks and concrete soffit. Each has a sliding door and contain ceramic moulds. This room has two of the Tuscan cast-iron columns supporting the longitudinal timber ceiling beam but they are concealed with new RSJ stanchions.

North of this workshop is the lobby described above and further north to this is the 'Foremans Office', which measures internally *c.* 8.5 metres long (east/west) and 5.8 metres wide (north/south) with plasterboard partitions in the middle. There are medical and first aid equipment and filing cabinets inside. It is accessed from the northernmost passageway through two doorways. The western compartment has three original windows on the west wall. The furthest north is very narrow without openings and the others are of the standard original type. On the south wall there is a blocked-up opening that would have been a storage area underneath the stairwell in the lobby corridor. The compartment situated at the north-east corner has a cast-iron Tuscan

column supporting the longitudinal timber ceiling beam. The whole are has painted brickwork, screed over original floor and a lath-and-plaster ceiling.

The northernmost area is a kind of passageway that allows access to the rooms situated immediately to the south and also to the east wing (Building K3). Its east wall is slightly wider than the west and thus its internal dimensions are 2.2 metres wide (west), 3.5 metres wide (east) and 8.5 metres long (east/west). On the east wall there is a doorway that leads to the ground floor of K3 and also a staircase to the first floor of K3. The staircase is made of solid sandstone steps which has a cast-iron handrail, a plain balustrade and an ornate newel. The access to this corridor was from Prince's Drive but the doorway is boarded-up. All the doorways have segmental brick arched heads except for the western doorway on the south wall which is a later insertion with a concrete lintel. The inner jambs and arched heads of the original doorways are made of single bullnose bricks. This passageway has painted brickwork, the floor is made of blue engineering bricks and it has a lath-and-plaster ceiling.

Figure 27: Main entrance of K2

Figure 28: Detail of doorbell

Figure 29: The lobby of K2, looking east

Figure 30: Cast-iron column

Figure 31: Detail of decorated handrail

Figure 32: Detail of decorated dado rail

Figure 33: The Scouring Room of K2, looking south-west

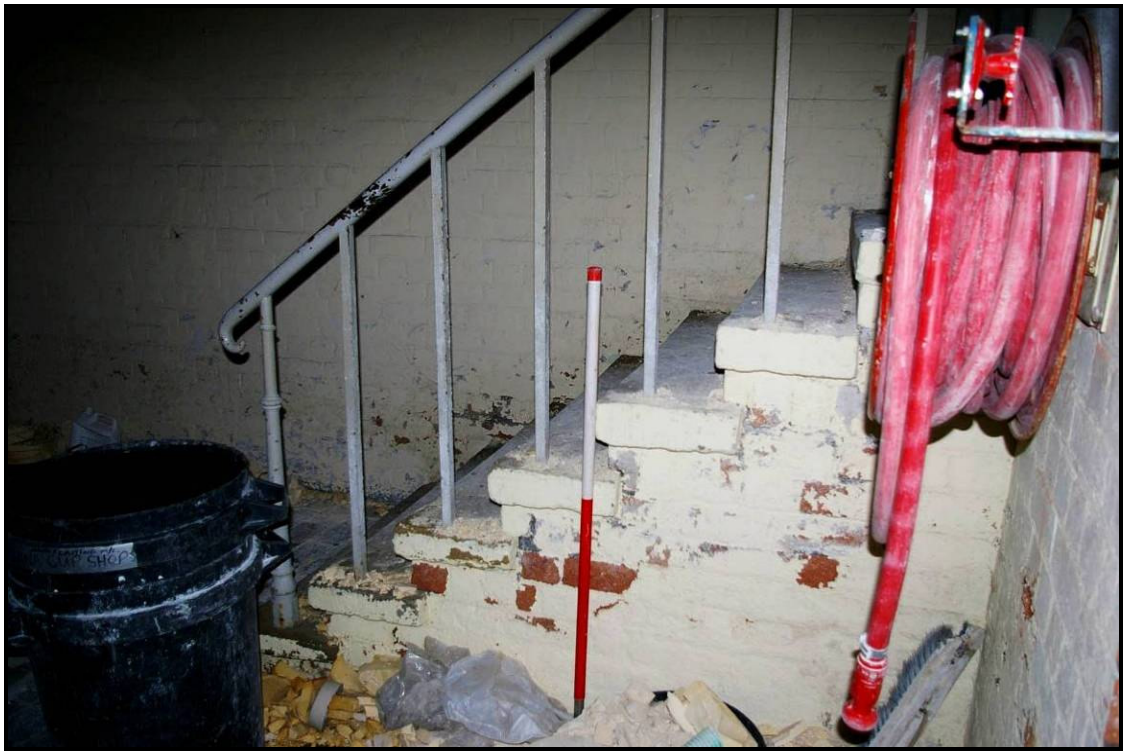

Figure 34: Staircase in the northern passageway, looking north

First floor (Figures 35 – 47 and 51)

The first floor is a large open room whose length and width are the same as the ground floor. However, it is 7.6 metres high from the floor to the apex of the principal rafters on the main southern area which has exposed decorated trusses, and 4.3 metres high to a lath-and-plaster ceiling of the northern end. The side walls measures 3.45 metres high to the bottom of a plastered cornice. Although it is currently an open room, the 1878 architect's plan indicates that the main floor was a long museum with two offices and a lavatory situated on the northern end (see Figure 20 of the Appendix). The former museum area is a fairly impressive space which still has most of its elegant features such as a continuous plastered cornice with key pattern decoration, an elegant staircase balustrade and three richly decorated timber trusses. Between the trusses and the cornice the ceiling is coved. The trusses have plastered frieze with a running *rinceau* pattern under a decorated pediment. The end trusses have decorated cast-iron vents in the middle of the pediments. The tie-beams have the remains of lead pipes which were used as gas ducts of former lamps which would have been suspended from the trusses. There is a continuous skylight that covers the upper area of the decorated ceiling. The museum would have been accessed exclusively from the decorated staircase through the ground floor lobby.

The museum was designed to have tall display cabinets on the side walls and thus these walls were devoid of windows. In order to keep its symmetric appearance, the external west elevation was provided with blind windows (see Figure 21 of the Appendix). However, when the building changed function the blind windows were opened up and ten modern windows were inserted to enable light inside. These windows are extant and have wooden frames with two small inward awning openings at tops and bottoms. On the south wall, there is an original richly decorated paired semi-circular sash window with wooden moulded sill, hollow chamfered frames and a projecting plastered architrave which in effect is a continuation of the original cornice. This paired window is obscured by a metal structure with six long (north/south) conveyors fitted with electric high-pressure hosepipes. The structure has two sliding

tall transparent plastic curtains. The east wall of the museum room has an original doorway blocked-up around the second bay (from the south) and a later inserted doorway on the third bay (from the south). The doorway leads to Building K3 as the east wall itself is a partition between K2 and K3.

The northern portion is simpler than the former museum room. Nevertheless, its flat ceiling has decorated moulded edges and three skylights on the eastern side. There are four original windows on the east wall. These would have lit two former offices. The windows are rectangular wooden sash types and have the same decoration as the paired semi-circular ones on the south wall, but they have flat tops instead. The original walls of these offices, and the lavatory situated at the north-east corner, have been removed and the gaps spanned by RSJ beams. The upper section of the former walls survive over the RSJ beams which reveals that there were two fireplaces in each office. The north wall has been mostly opened up and the above gable is supported by a large inserted RSJ beam. This open wall leads to the southern annex of the north wing (Building K1). The north-east corner has a flimsy partition made of breeze-blocks which contains some empty shelves and a table. The most impressive feature of this northern area is the railing and balustrade of the staircase situated along the east wall.

Although the roof structure is obscured by the ceiling, it was possible to establish that it consists of two queen-post timber trusses, composed of truncated principal rafters rising from a tie-beam only as far as a collar. The rafters carry two tiers of trenched purlins and the collars carry two tiers of clasped purlins set between the ends of the collars and common rafters. The common rafters are notched over the wall plate and the upper ends are set on a ridge piece.

Most of the original cross-wall between the two halves of the building at first-floor level has been removed and the gap spanned by a RSJ. The northern portion is now all open, but the evidence of the surviving pattern of moulded cornices in the ceilings clearly shows that it had once been divided up into three spaces. These were a large landing at the head of the stairs on the east side and two heated rooms on the west side.

Figure 35: First floor of K2, looking south

Figure 36: First floor of K2, looking north

Figure 37: Drawing decorated frieze

Figure 38: Detail of *rinceau* decorated frieze

Figure 39: Decorated trusses of K2

Figure 40: Detail of truss

Figure 41: Drawing decorated truss

Figure 42: Drawing decorated cornice

Figure 43: Detail of plastered cornice with a continuous key pattern decoration

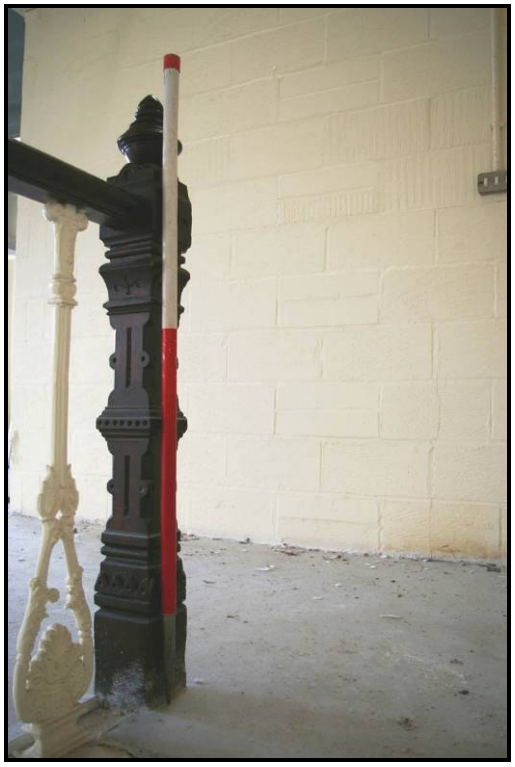

Figure 44: Detail of decorated newel

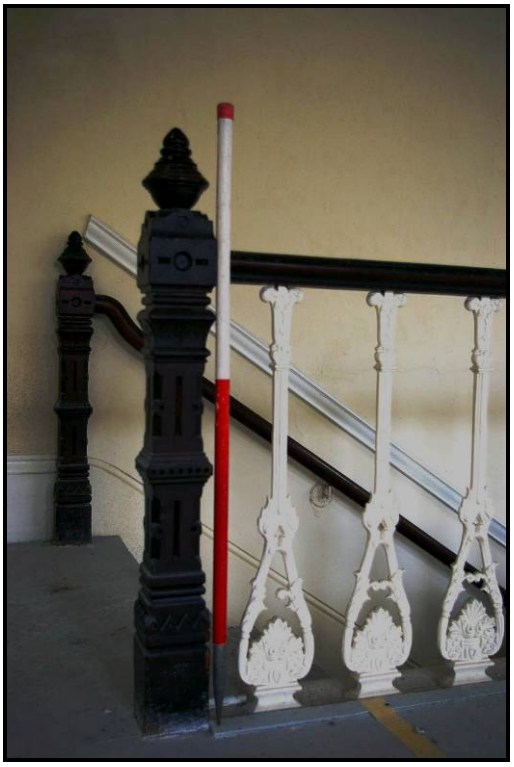

Figure 45: Detail of cast-iron balustrade

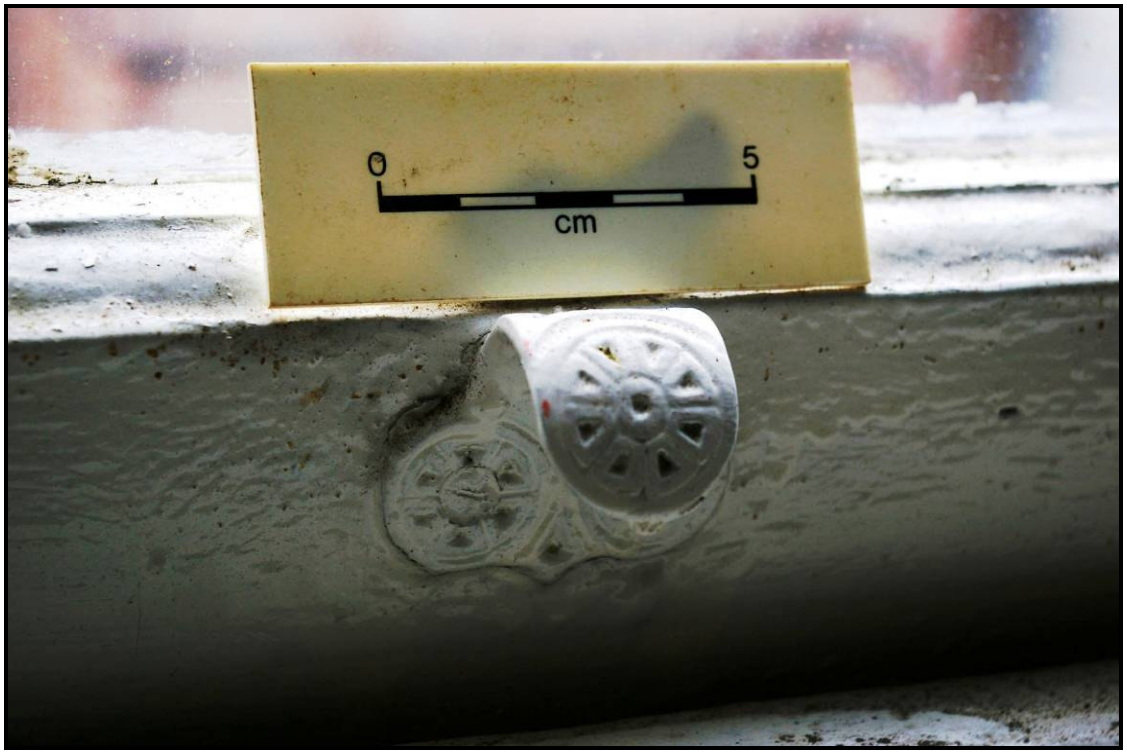

Figure 46: Handle of sash window

Figure 47: Queen-post timber truss on the northern end of K2

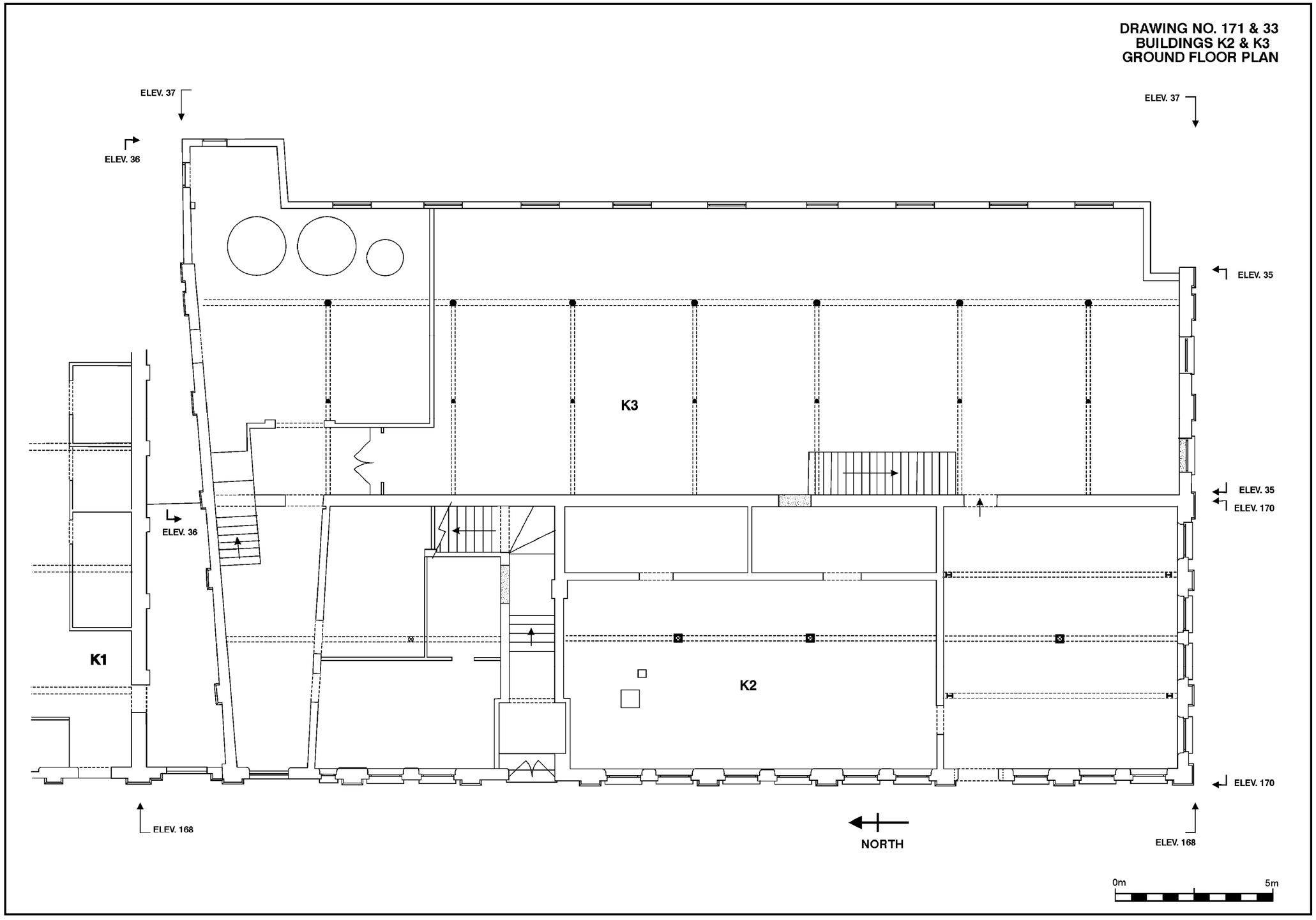

Figure 48: Ground floor plan of K2 and K3 (scale 1:125)

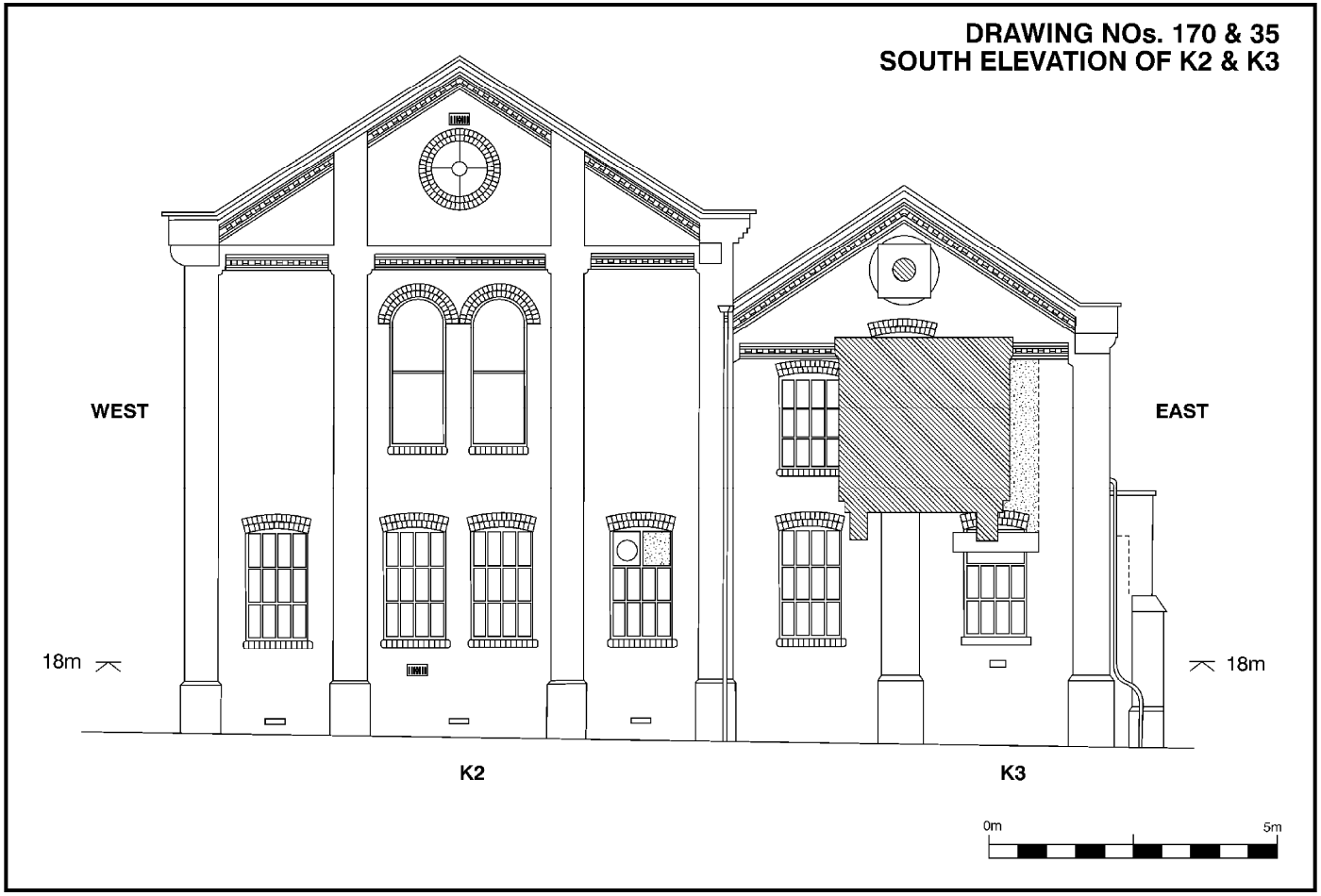

Figure 49: South elevation of K2 and K3 (scale 1:125)

Figure 50: West elevation of K2 (scale 1:125)

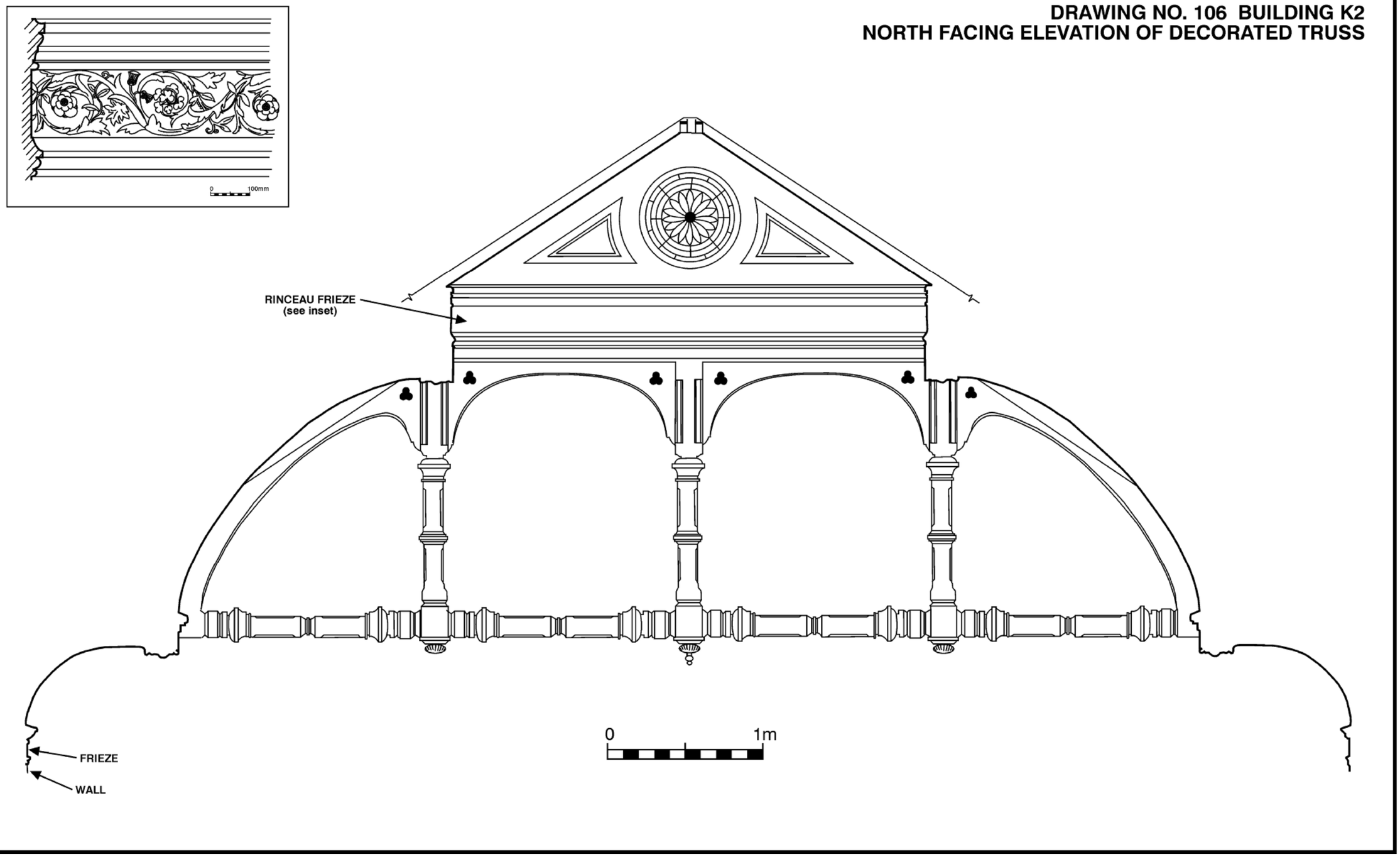

Figure 51: Decorated truss of K2 (scale 1:25)

5.3 Building K3

This building is the east wing of the original Binns Building complex and is completely attached to Building K2 as its west wall is in fact a partition between them and thus it is built in the same general style. It is also two storeys high but is shorter than the west wing. There used to be another wing attached to its east wall which contained bottle kilns (see Appendix), but such a structure no longer survives except for the remains of small pilasters on the gable ends. The ground floor of this wing was built originally as a 'Placing Room' linked to three bottle kilns and a flint kiln on the east and the first floor was the 'Greenware Room' used for drying out ceramic items prior to the firing in the kilns. This wing has an overall dimension of *c.* 33 metres long (north/south) x 10 metres wide (east/west) and 9.7 metres high.

5.3.1 Exterior

East elevation (Figures 52, 53 and 59)

This wing, like the west wing, is also eight bays long but its external side wall, facing the canal, is much plainer and without pilasters. The roof is made of natural slates topped with a tile ridge and it has close eaves with cast-iron guttering and both of the gables have short parapets at their verges. There is a decorative dentilled eaves cornice and the upper wall has eight windows with segmental brick heads and moulded projecting sills. The actual windows are similar to the ones on the ground floor of Building K2, but slightly shorter. The lower level has a later lean-to brick extension with nine small rectangular awning windows and a low half-pitch glazing roof. This structure has at the north end a small projection towards the canal side, which has a vent on its eastern wall and a timber doorway with a concrete lintel on the north wall. The projection also has a low half-pitch glazing roof but it slopes down towards the eaves of the main roof, forming a shallow valley between them. Both of the roof's verges have horizontal parapets. The north and south walls step slightly down towards the eaves.

Figure 52: East elevation of K3

Figure 53: East elevation of K3, looking south

South elevation (Figures 49, 54 and 55)

The end walls are of two bays and have lias stone-capped coped gables with dentilled brickwork beneath them and roundels. The south elevation has been considerably altered with the insertion of a galvanised iron vent, replacing the fixed circular window set in the roundel, and a bridge that links it with Building W1. The bridge is made of steel, concrete and asbestos sheeting and it is situated in the upper level of the wall, between the cornice and the windows on the ground floor. This later insertion involved dismantling the eastern window of the first floor and halved the central pilaster. Such work would have weakened the wall but the upper gable was strengthened with the inclusion of the arched head of the dismantled window which was placed on top of the bridge acting as a relieving arch. The eastern window head of the ground floor was also partially cut by the bridge so a concrete lintel was added immediately underneath the arched head which resulted in the modification of the upper section of the window itself which is now boarded-up. The window on the western bay of the ground floor has also been altered by the insertion of a wooden encasement window replacing the lower lights of the original one. The western pilaster is shared by the west wing (Building K2) and thus it projects higher than the gable eaves. This joint pilaster results in a minor irregularity as only the eastern side of the gable has an ovolo moulding kneeler red sandstone at the eaves of the coping. On the eastern end of the building there is another small pilaster and a narrow brick wall that were part of an even further eastern wing which contained bottle kilns (see Figure 21 of the Appendix). This was also part of the original Binns Building complex, but the top section is a later addition.

Figure 54: South elevation of K3

Figure 55: South elevation with later bridge

North elevation (Figures 56 – 58 and 60)

The north elevation is similar to the south but it was originally designed without windows or doorways as it was built against an existing house and stable (see Appendix). The fixed circular window set on the roundel survives intact and consists of a circular cast-iron frame with glazing bars and five lights (one circular in the middle surrounded by four quarters). This elevation also has a small pilaster and a narrow wall that were attached to the bottle kilns structure. The narrow wall even retains part of the moulded dentilled work from its cornice. The photographic record of this surviving original structure weras limited due to difficult access. The eastern bay has inserted doorways on both floors. The upper one connects it with Building K1 through a shallow ramp and the lower doorway leads to a narrow storage space between K3 and K1 in which a large extractor machine is installed. Next to the surviving small pilaster there is the later lean-to extension which is practically in the same alignment as in the main elevation. The north wall of the later extension has a doorway.

Figure 56: Gable of the north elevation of Building K3

Figure 57: Pilaster of former wing

Figure 58: Surviving dentilled brickwork

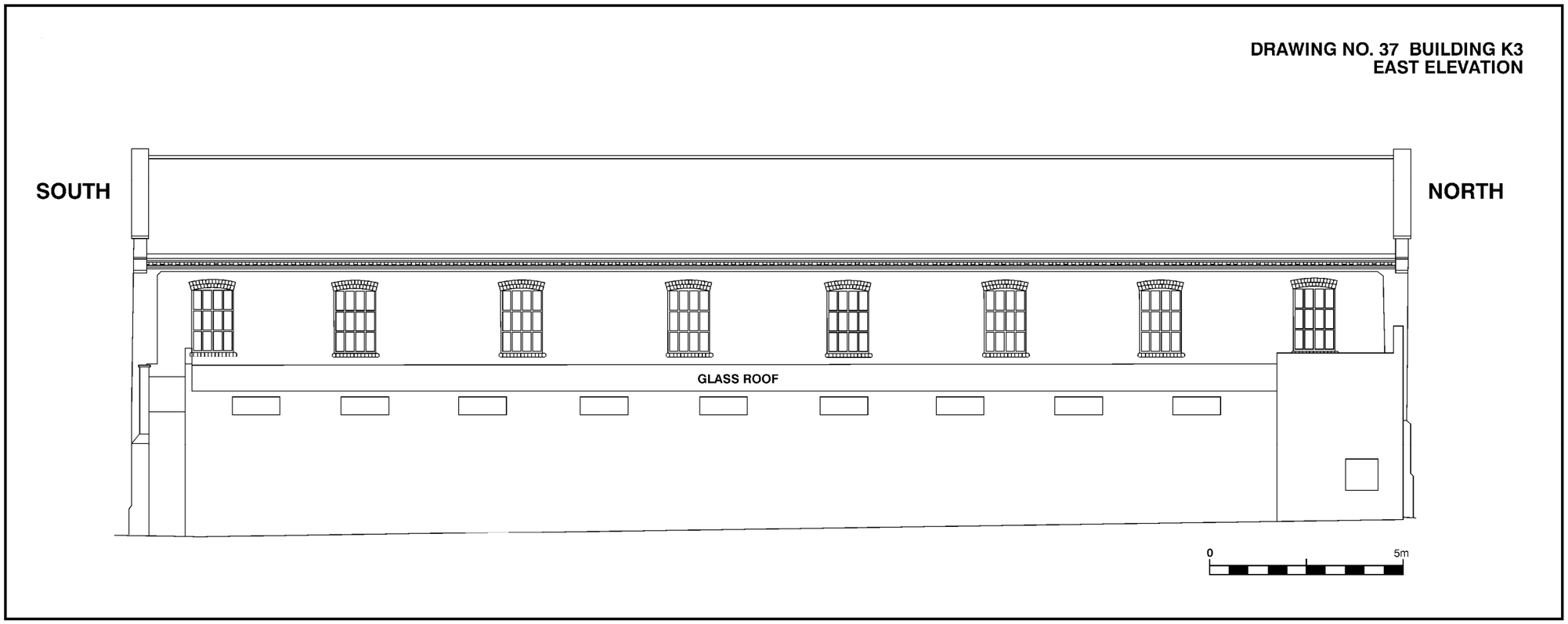

Figure 59: East elevation of K3 (scale 1:125)

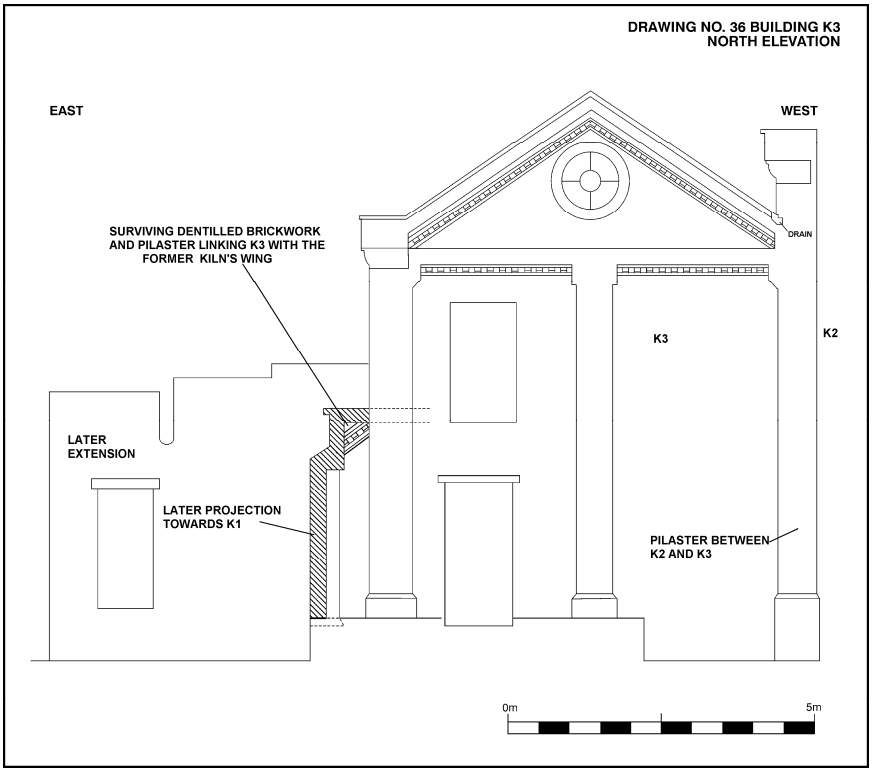

Figure 60: North elevation of K3 (scale 1:125)

5.3.2 Interior

Ground floor (Figures 48, 61 – 64)

The ground floor is mainly an open room except for a small division on the north end made of breeze-blocks which contains slip machinery, including three underground mixing arks (1.7 metres deep). It is roughly rectangular in plan and its internal dimensions are 32.1 metres long (north/south), 9.3 metres wide and 3.15 metres high. This large open room has four long rows of tall metal shelves containing ceramic moulds. There are two doorways on the western wall which lead into K2. There is an original straight staircase set in this wall which connects it to the first floor, but the ceiling opening is currently boarded-up. The staircase is made of eighteen steps of which the lower nine have individual flat sandstone treads and vertical risers set in the west wall and over a parallel brick single skin wall, and the remaining nine are solid sandstone blocks and are cantilevered. There is a cast-iron handrail supported by a decorated newel. On the south wall, the western window opening is blocked-up (internally only). The whole floor has painted brickwork, screed over the original floor and a lath-and-plaster ceiling. In the middle of the floor there is a steel structure supporting a concrete top which measure 6 metres long (east/west) and 4 metres wide (north/south). This entire room has seven transverse timber ceiling beams with flat chamfer edges and plain stops. These are set into the western wall that divides K2 and K3 and each of them are supported by two cast-iron Tuscan columns. The eastern row are topped with open frames in which the end of the beams are inserted into and the western row are narrower columns which are holding the centre of the beams.

Figure 61: Underground arks in K3, looking east

Figure 62: Ground floor of K3, looking north

Figure 63: Cast-iron column

Figure 64: Staircase of K3

First floor (Figures 65 – 68)

The first floor is also an open large room which measures internally 32.1 metres long (north/south), 6.5 metres wide (east/west) and stands 5.1 metres to the top of the apex of the principal rafters. The side walls measures 2.8 metres high to the bottom of the principal rafters. The room is currently only accessed from the north end of K2 through a straight staircase set in the north wall. The staircase is made of seventeen solid sandstone blocks and a landing situated exactly between K2 and K3. There is another staircase on the western wall that leads to the ground floor but it is boarded-up and only the uppermost step is visible. On the partition (between K2 and K3) wall, an original doorway to K2 is bricked up and a later one has been inserted over the boarded-up staircase. The south wall has a large opening leading to an inserted bridge which resulted in the dismantling of a window on the eastern side. However, the window on the west bay survives intact. There are eight wooden windows on the east wall. These windows appear to be original and have twelve rectangular lights set vertically (4 columns x 3 rows). The upper section has central pivotal hinges. The inner jambs and arched heads are made of single bullnose bricks and the sills are flat wooden boards. On the north wall there is an inserted doorway that leads to Building K1. The whole floor has painted brickwork, is mainly made of wooden boards except for a concrete area in the middle of the room and the ceiling is made of lath-and-plaster over the roof truss. On the western half-pitched side, there are two skylights.

The roof structure comprises seven composite trusses set at *c.* 3.8 – 4 metres intervals. The principal rafters are made of sawn timber whose ends are housed in cast-iron shoes. From the upper shoe, a vertical wrought-iron suspension bolt drops to an interlocking and bolted junction that connects two further sections of wrought-iron that making up the tie-beam and two wrought-iron raking struts. The principal rafters carry a single tier of trenched timber purlins which are re-inforced with wooden cleats. The principal rafters have bird's mouth joint at the ridge to carry a ridge piece over the upper cast-iron shoe. The common rafters are notched over the wall plate and the upper ends are set on the ridge piece. Both purlins and principal rafters are flat chamfered with plain stops.

Figure 65: First floor of K3, looking north

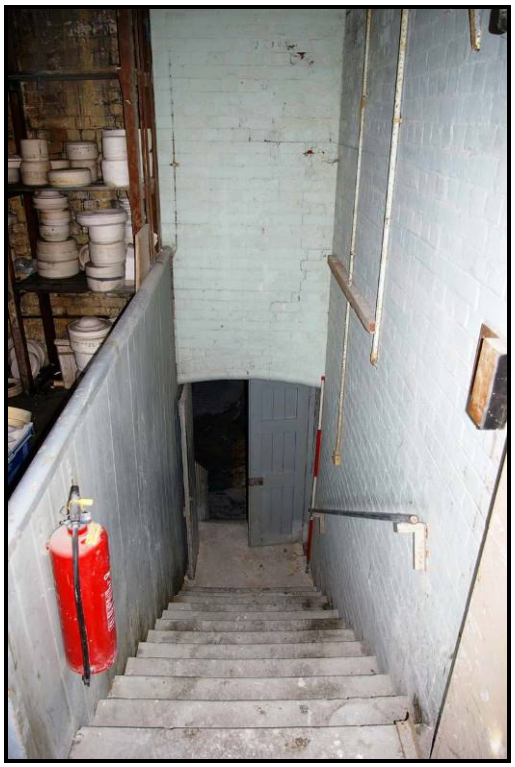

Figure 66: Staircase of K3, looking west

Figure 67: Detail of window

Figure 68: Composite truss on the first floor of K3, looking north

5.4 Building K3 extension

West block (Figures 69 – 71)

This building is formed by two separate pre-fabricated single-storey rectangular blocks. The western block is situated immediately adjacent to the east elevation of Building K3 and the eastern is along the canal side. These blocks are joined by a shed-like structure wedged between their northern inner sides which makes a 'V' shaped plan. The western block is a mould warehouse made of a steel frame with concrete panels imitating wood. The roof has a low pitched shape and it is made of corrugated asbestos sheeting with sixteen corrugated fibre plastic skylights (eight each side). There is a flimsy fire escape wooden door on the north elevation and another at the north-east corner connecting the eastern block. Its principal doorway consists of a large double timber door situated at the south elevation. There is no fenestration on this block. There are several long and tall rows of wooden shelves containing ceramic moulds placed over a concrete floor.

East block (Figures 69, 72 and 73)

The eastern block consists of a large carpentry room, a storage area, a kitchen and an office. This block also has a low pitched roof made of asbestos sheeting over steel trusses and frames with concrete panels imitating cladding wooden boards and concrete floor. This block has a total of thirty square metal windows with upper rectangular awning outward openings (twenty on the east elevation, eight on the west elevation and two on the north elevation). Most of the rooms are partially empty except for some tables, cupboards and piled glazing panes and wooden boards.

The shed-like structure is made of breeze-blocks in a steel frame with a flat roof supported by two RSJ beams. The roof is covered with felt. There is a double wooden door on its south elevation.

Figure 69: Building K3 extension, looking south

Figure 70: Western block of K3 extension

Figure 71: Fire escape of western block

Figure 72: Eastern block, looking south

Figure 73: Carpentry on the eastern block of K3 extension

6 Discussion

An outline of the historical development of the factory can be found in *The Severn Street Factory 1788 - 1900* (Cook 2007) and also in the *Porcelain in Worcester 1751 - 1951: An Illustrated Social History* (Jones 1993). In order to further our knowledge of the factory, Archenfield Archaeology Ltd commissioned John van Laun Associates (Industrial Archaeologists) to carry out an historical and industrial research of the site. The research is included in this report as an appendix. The result of the research, together with previous archaeological desk-based assessments (prepared by Archenfield Archaeology Ltd), cartographic material available, historic photographs and illustrations and the archaeological building survey, successfully identified clear evidence of different phases of construction. This is represented mainly by changes in the building plan, with additional extension, and construction breaks of building materials.

6.1 Phase 1 (1870s)

The historic research identified that the land where the Binns Building currenty lies was purchased in 1857. However, it was not until 1878 that Buildings K2 and K3 were built. The original building also included a further eastern wing with three bottle kilns. The Binns Building complex was constructed against a house and stable on the north and the easternmost wing with the kilns encircled an existing flint kiln at the north-east corner (Figure 74). The flint kiln was intended to be replaced by a fourth bottle kiln at a later date as the original architect's plan states that this area is a 'Space for future oven' (see Figure 19 of the Appendix). Apart from the kilns wing, the majority of the original building is extant.

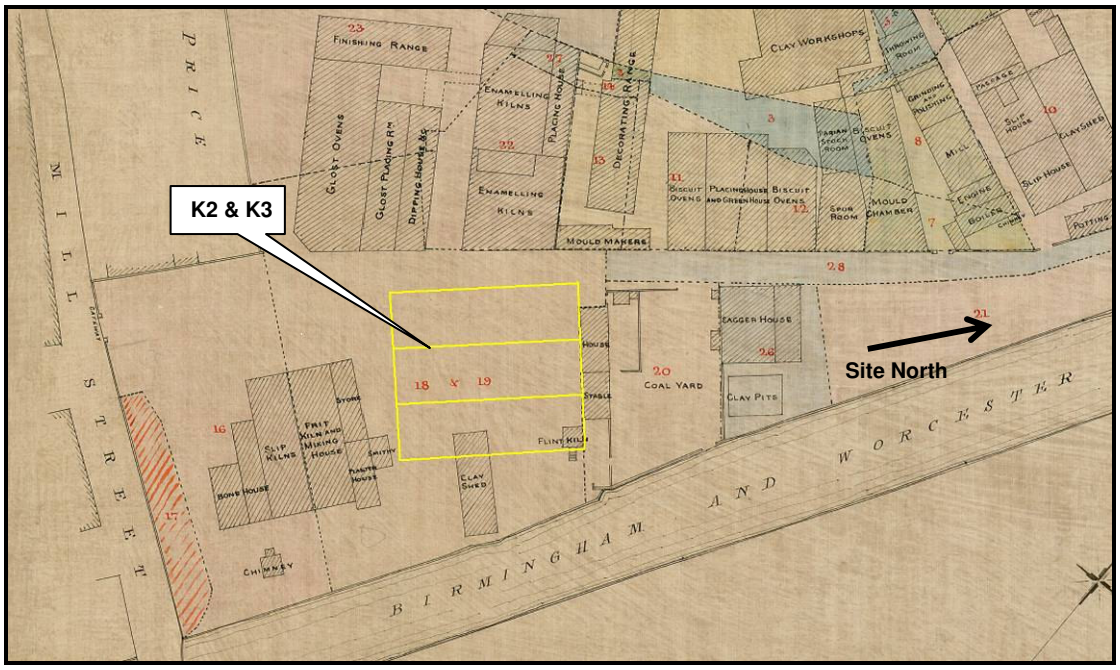

Figure 74: Plan of the Works in 1875 showing in the outline of the forthcoming Binns Building (WPM)

6.2 Phase 2 (1880s)

The removal of the flint kiln and the construction of a fourth bottle kiln in the easternmost wing of the original Binns Building is exhibited on the 1st Edition of the Ordnance Survey map of 1884 (Figure 75). This plan also shows that the stable, situated on the north, was partially dismantled or reduced. In 1888 the north cross wing (Building K1) was built. The construction of this building involved the demolition of the former house and stable. The building is shown on the 1898 plan of the Works (Figure 76). Building K1 is also extant and most of its original fabric survives in good condition.

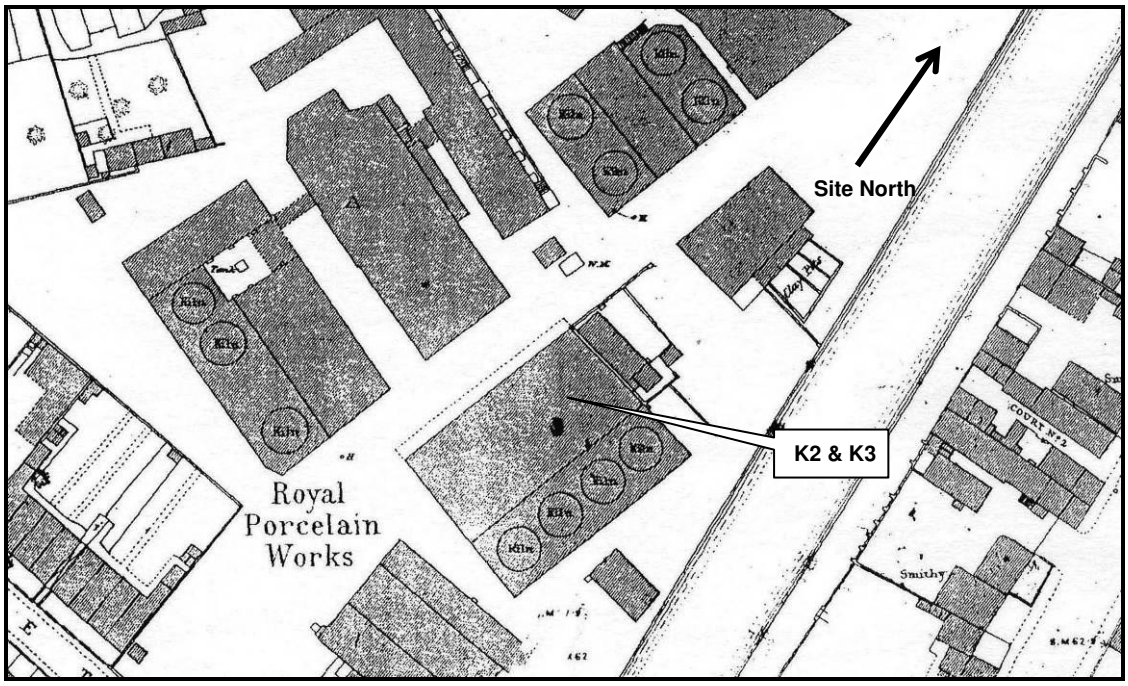

Figure 75: Plan of the Works in 1884 showing the Binns Building (OS map)

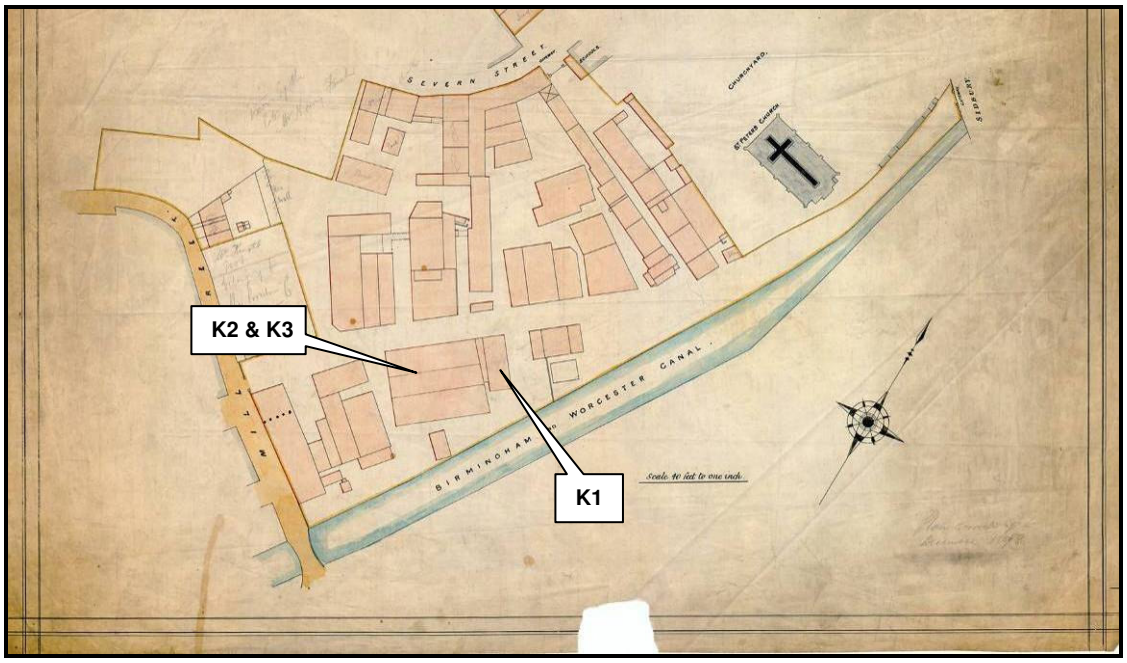

Figure 76: Plan of the Works in 1898 showing the Binns Buildings with K1 on the north (WPM)

6.3 Phase 3 (1930 – 1970s)

The 1931 plan of the Works indicates that some modifications took place in the kiln's wing (Figure 77). Indeed, the kilns were rebuilt and repaired after prolonged use and the 1931 plan shows that the northernmost kiln might have been under re-construction. A photograph showing the missing kiln was taken around this time (see Figure 32 of the Appendix). The rebuilt kiln appears in the 1941 plan of the Works (Figure 78). In 1947 a steel and asbestos bridge was inserted into the south elevation of Building K3 linking Building W1 (Figure 79). In the early 1950s the bottle kilns were demolished and the whole wing became vacant. In the 1960s a pre-fabricated single-storey block was built over where the kilns once laid. This is the west block of K3 extension. In 1970 a narrow lean-to extension was erected between the pre-fabricated block and the east elevation of K3. Building K3 extension was extended in 1973 with another prefabricate block which was built along the canal side (Figure 80). These two pre-fabricated blocks were linked by a short breeze-block shed-like structure.

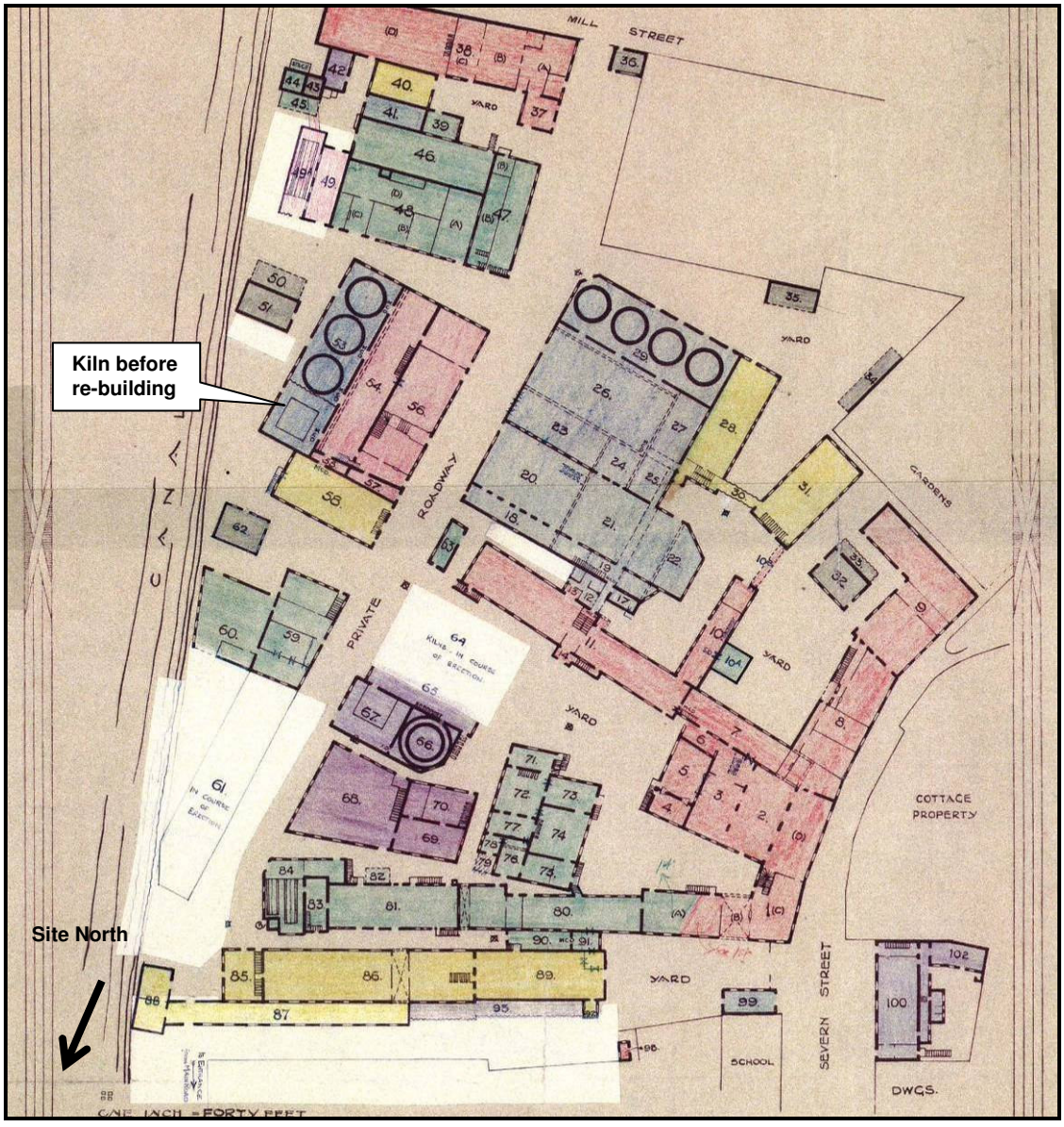

Figure 77: Scholfield's plan of the Works in 1931 (WPM)

Figure 78: Plan of the Works in January 1941 (WPM)

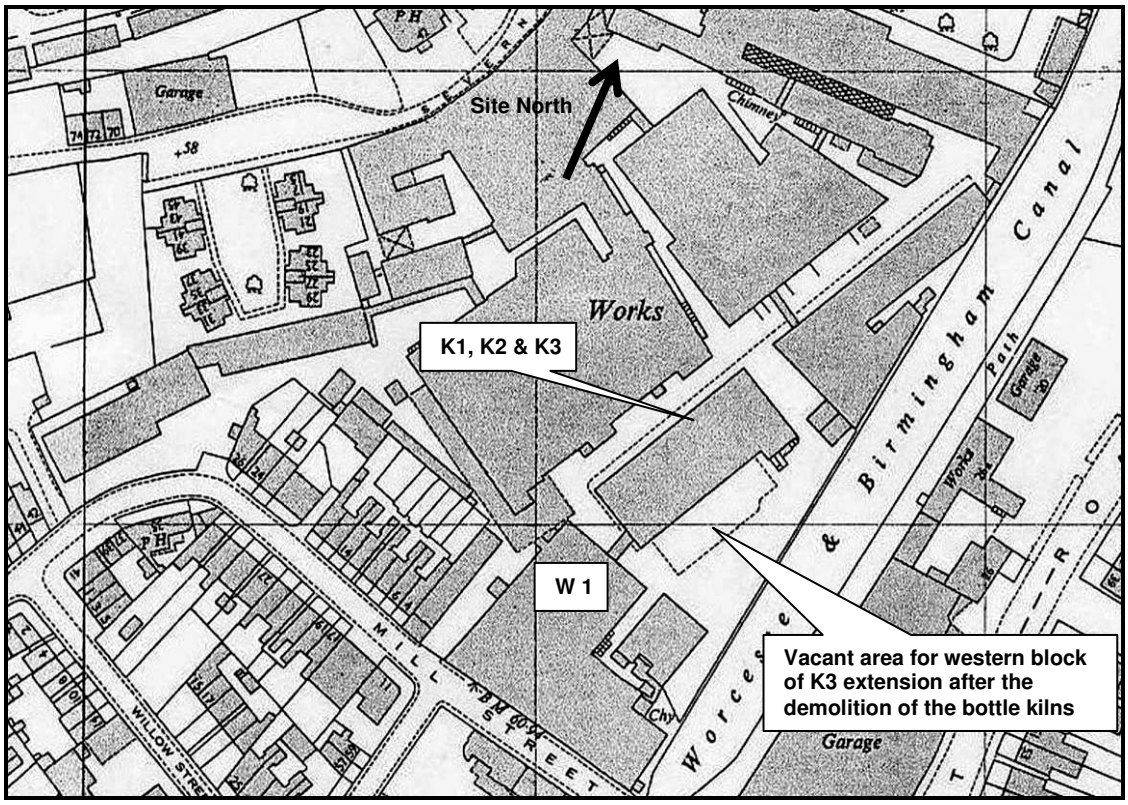

Figure 79: Plan of the Works in 1963 showing the bridge and the demolished kilns (OS map)

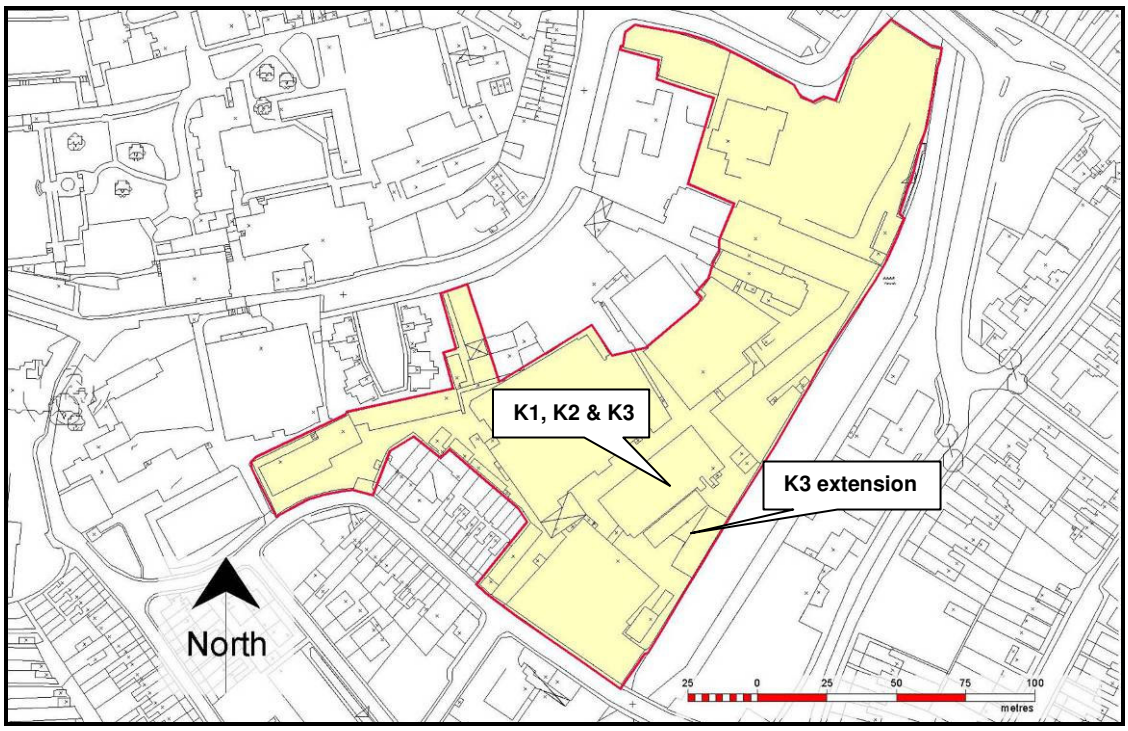

Figure 80: Plan of the Works in 2007 showing K3 extension (OS ref 00002348)

7 Conclusion

This report deals with an archaeological investigation and recording of Buildings K1, K2, K3 and K3 extension. The buildings were recorded in detail with scale drawings, photographs and written description; and their historical and industrial backgrounds was also undertaken in great detail which is included as an appendix. The results indicate that the Binns Building complex was established in 1878. The original building consisted of three wings with workshops, offices, bottle kilns and a large museum (K2 on the west, K3 in the centre and the bottle kilns on the east). The addition of a north wing took place in 1888 which consisted of a three storey building (K1) built as a new 'Parian House'. From the second half of the 20th century the 'Parian House' was used mainly for mould making and slip casting. The bottle kilns were demolished in the early 1950s and only a couple of short pilasters survive from the kilns' wing. Further development took place in the 1960 – 70s with the erection of two pre-fabricated single storey blocks on the eastern side of the Binns Building complex. Despite some alterations the buildings retains the majority of their original fabric, including principal roof structures, exterior and interior brickwork. The floors are mostly original but obscured by later screed. Building K1 is practically empty except for the ground floor which has some machinery and most of the worktop tables. Building K2 retains a series of richly decorated features, including its impressive roof. The central room on the ground floor has some machinery, and the first floor has a washing area with conveyors. Buildings K3 and K3 extension are mainly used for ceramic moulds storage. The Binns Building complex represents an interesting example of 19th century factory construction and is of national, historical and architectural importance.

8 Archive deposition

The project archive, consisting of scaled drawings, digital photographs, photographic records, building recording sheets and computer discs will be prepared and stored in accordance with the guidelines laid down in the Institute of Field Archaeologists' guidelines for the preparation and storage of archives. The archive will be placed at Worcester City Museum.

The archive of the entire project consists of:

- 41 Building record sheets
- 7 Context register sheets
- 212 Photographic records
- 3495 Digital photographs
- 30 35mm colour prints
- 14 Computer discs
- 11 Drawing register sheets
- 262 Scaled drawings

The photographic record of Buildings K1, K2, K3 and K3 extension consists of 392 digital images recorded on *pro-forma* index sheets and plotted on 10 plans. The drawn survey comprises 38 scaled drawings of which 10 are included in the report. The drawings are listed below:

- No 33: Ground floor plan of K3 (1:50). Included in the report with K2 (1:125).
- No 34: First floor plan of K3 (1:50).
- No 35: South elevation of K3 (1:50). Included in the report with K2 (1:125).
- No 36: North elevation of K3 (1:50).
- No 37: East elevation of K3 (1:50). Included in the report (1:125).
- No 40: Elevation of window (sample) of K3 (1:20).
- No 41: Profile of window (sample) of K3 (1:20).
- No 51: Elevation of side column (sample) of K3 (1:20).
- No 52: Elevation of central column (sample) of K3 (1:20).
- No 79: Elevation of surviving dentilled brickwork on the north elevation of K3 (1:10).
- No 80: Profile of moulded dentilled brickwork (sample) of K3 (1:10).
- No 82: Ground floor plan of K2 (1:50). Included in the report with K3 (1:125).
- N0 98: North facing internal elevation of the 'Foremans office' (northern end of the ground floor) of K2 (1:50).
- No 99: North facing internal elevation of the passageway of the ground floor of K2 (1:50).
- No 100: Elevation and profile of window (sample type 1) of K1 (1:20).
- No 101: Elevation and profile of window (sample type 2) of K1 (1:20).
- No 102: Elevation and profile of window (sample type 3) of K1 (1:20).
- No 103: Elevation and profile of window (sample type 4) of K1 (1:20).
- No 104: Internal elevation and profile of double window on the first floor of K2 (1:20).

- No 105: Detail of key pattern cornice on the first floor of K2 (1:5).
- No 106: Elevation of decorated truss on the first floor of K2 (1:20). Included in the report (1:25).
- No 107: Detail of *rinceau* frieze of the decorated truss (1:5). Included in the report (inset of 106).
- No 168: West elevation of K2 (1:50). Included in the report (1:125).
- No 169: East elevation of K2 (1:50).
- No 170: South elevation of K2 (1:50). Included in the report with K3 (1:125).
- No 171: Ground floor plan of K2 (1:50).
- No 172: First floor plan of K2 (1:50).
- No 179: Basement plan of K1 (1:50). Included in the report (1:100).
- No 180: Ground floor plan of K1 (1:50). Included in the report (1:100).
- No 181: First floor plan of K1 (1:50).
- No 182: Second floor plan of K1 (1:50).
- No 183: East elevation of K1 (1:50).
- No 184: South elevation of K1 (1:50).
- No 185: West elevation of K1 (1:50). Included in the report (1:100).
- No 186: North elevation of K1 (1:50). Included in the report (1:100).
- No 246: Longitudinal section of K1 (1:100).
- No 247: Cross section through K1 and long section through K2 (1:100).
- No 248: Elevation of composite truss of K3 (1:50).

9 Publication and dissemination proposals

Paper copies of this report will be lodged with the Archaeological Adviser to Worcester City Council, Worcester Sites and Monuments Record and Worcester City Library. A short note on the project will be prepared for publication.

CDs of this report, together with the supporting archival material will be available from Archenfield Archaeology Ltd. Information will also be available on OASIS, after completion of the report and an OASIS form (http://.ads.ahds.ac.uk)

The complete photographic record and database will be retained by Archenfield Archaeology Ltd and a digital copy will be included in the archive.

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11 Cartographic material

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Ordnance Survey 1963	County Series, Worcestershire Sheet XXXIII NE
Ordnance Survey Superplan Data 2007	Licence Ref. number HEMC 00495300

APPENDIX

ROYAL WORCESTER PORCELAIN WORKS, HISTORICAL AND INDUSTRIAL RESEARCH OF BUILDINGS K1, K2, K3 AND K3 EXTENSION

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