

HISTORIC BUILDING
RECORDING
AT
NORTH WORKS, MG ROVER,
LONGBRIDGE, BIRMINGHAM

Anna Deeks

Illustrated by Marc Steinmetzer

17th August 2004

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Project 2436
Report 1280
BSMR 20737

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Historic building recording at North Works, MG Rover, Longbridge, Birmingham

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Part 1 Project summary

An historic building recording project was undertaken at North Works, MG Rover, Longbridge, Birmingham (SP 0130 7750). The project was requested by Halcrow Group Limited, on behalf of St Modwen Developments Ltd (the Client), who intends to redevelop part of the MG Rover Works. The project is in part fulfilment of conditions for planning permission given by Birmingham City Council. The redevelopment is considered by the curator to have the potential to affect historic buildings. The project aimed to produce a photographic and written analytical record of those buildings likely to date to the First World War and place them within the context of the West Midlands motor industry.

The project identified a number of buildings within the North Works area which date to the First World War, namely the effluent plant, the power house and eastern and southern elevations of the main building. Documentary evidence indicates that these buildings were purpose built for ammunition manufacture between 1916 and 1917, and were subsequently converted to engine production between 1919 and 1928. The North Works continued to expand from this time reaching its zenith by the late 1960's. Further buildings fronting onto the Bristol Road South were identified as dating to the mid 20th century and as such appear to post date the original construction phase of the North Works.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

An historical building recording project was undertaken at North Works, MG Rover works, Longbridge, Birmingham (SP 0130 7750), at the request of Halcrow Group Limited, on behalf of St Modwen Developments Ltd (the Client), who intends to redevelop part of the MG Rover Works, for which a planning application has been submitted to Birmingham City Council (ref S/06896/03/OUT), who consider that a site of archaeological interest may be affected (BSMR 20737). The project is in part fulfilment of conditions for planning permission given by Birmingham City Council.

1.2 Project parameters

The project conforms to the *Standard and guidance for the archaeological investigation and recording of standing buildings or structures* (IFA 1999) and the 'photographic survey' as defined by the Royal Commission on the Historical Monuments of England (RCHME 1996; *Recording historic buildings; a descriptive specification*, 3 edn, 5)

The project also conforms to a brief prepared by Halcrow Group Limited (ref. PI/CLMS/070; Halcrow 2004) and for which a project proposal (including detailed specification) was produced (HEAS 2004).

1.3 Aims

The aims of the historic building recording were to produce a photographic and written analytical record of those buildings likely to date to the First World War.

More specifically the following aims have been identified,

- to trace the historic development of the site through historic maps and written records and relate this to other car plants in the West Midlands and elsewhere in the country;
- to identify all surviving buildings or parts of buildings in the north works likely to date to the First World War;
- to produce a good quality photographic record (black and white prints) of all elevations, including photographs of specific architectural details, and locate the location of each photograph on ground plans of the structures;
- to inspect the interiors as far as they are safely accessible, and a photographic record produced of surviving interior fittings which are likely to be original;
- to produce a written analytical description of the buildings, relating them to the documentary history of the site and to car plants in general.

2. Methods

2.1 Documentary search

The archaeological background to the site is contained within an Environmental Statement already prepared and submitted on behalf of the Client (Halcrow 2003).

2.2 Building recording

The project conformed to the specification for a photographic survey as defined by the Royal Commission on the Historic Monuments of England (RCHME 1996). Plans supplied during site induction (Johnson, Poole and Bloomer Drawing DS821/06) have been used for the location of photographs taken during the course of this project. They only provide the overall outline of the buildings. In the case of the main building this has been supplemented by an approximate location of the engine room and boiler house.

It was originally hoped to record and analyse a third building (situated between Building 7 and 8) fronting onto the Bristol Road South. However this building was demolished some time prior to the commencement of the project and as such it was not included within the historic building survey

2.3 The methods in retrospect

The aims of the project have been successfully achieved and a good quality photographic record was produced of those buildings likely to be of First World War date.

3. Description

3.1 General background

Prior to 1894 the Longbridge site was purely agricultural with only a small scatter of buildings within the development area. These rural buildings comprised 'The Wonders', located in the areas of today's South Work's Car Assembly Building (CAB) 1, 'Longbridge Farm' and to the north of Longbridge Lane, 'Longbridge House, both of which lay within the area of the North Works (Halcrow 2003). Then on the 19th March, 1894 construction began for a new Birmingham printing company factory, White and Pike Ltd (Anon nd). Unfortunately the new venture, the printing and manufacture of tin boxes, does not appear to have been a great success and around 1901 the Longbridge business and its premises were abandoned. The buildings were to remain empty and unused until they came to the attention of Herbert Austin in the November of 1905. Austin immediately made the decision that the works would make the ideal site for his newly registered business venture, The Austin Motor Co. Ltd (officially registered on June 26 1905). His staff of three moved in later that week and Austin became the owner of the works and a further 8 acres of land on the 22nd January, 1906 (Anon nd; Collins and Stratton 1993). Even before official ownership had been confirmed Austin had lodged the first of 7 planning applications that would be made over the following three years. The pace of expansion continued and within four years the works had almost doubled in size growing from 2.5 to 4 acres, the level of staffing had also substantially risen from 270 in 1906 to 1000 by 1910 (Collins and Stratton 1993, 182).

By the spring of 1914 the area occupied by the works had again doubled in size, with extensions to the south of the South Works comprising a narrow range and a large shop (Collins and Stratton 1993). However despite this incredible rate of expansion the Longbridge works were noted for their well planned layout, ideally designed for the industries increasing move towards mechanisation. The declaration of war in August 1914 had understandably dramatic consequences across the country, but nowhere more so than at the Longbridge works. By the end of the year the focus of work had shifted to munitions and other ancillary war work, counterbalancing the lack of car production caused by a downturn in the car market. The scale of production was also shifting from hand working to mass production complemented by increased mechanisation.

With the growing demand for artillery production the construction of the North and West Works was commissioned and financed by the government (Collins and Stratton 1993). The expansion lead to the renaming of the original factory as the South Works (Halcrow 2003).

Initial construction in the North Works took place between 1916 and 1917. During the development Longbridge Farm was demolished to make way for the North Works and the River Rea was culverted, on a new course, where it passed through the works (Halcrow 2003). At the time of construction the North Work's 'main building' consisted of a machine shop and adjoining forge, a mess room and administrative block. The north power house and associated effluent plant and cooling plant were also constructed during this initial phase of construction on the site and were supplied by the newly culverted River Rea (Halcrow 2003).

The construction of these new works during the war period entirely altered the scale of the Longbridge complex and set the stage for the continuing expansion of the plant into the mid 1920s. This first peak in the growth of the Longbridge plant is reflected in the level of planning applications lodged between 1910 and 1919, which total a substantial 155. This figure is equal to 48% of all applications made in the first six decades of the companies' development (Collins and Stratton, 1993).

The growth of the Longbridge works both during the First World War is not easily traced through mapped sources as due to the usage of the buildings they were not included on maps until 1937, by which point they had essentially reached their zenith. Nevertheless the information which can be gleaned from both primary and secondary sources, in particular the planning applications graphically illustrate the two main peaks of growth during the time of the First World War and again in the late 1930's (immediately prior to the Second World War (Collins and Stratton 1993).

By 1926 Longbridge was a 'self contained' manufacturing plant covering an area of 62 acres, containing its own foundry, forge, press shops, power station and paint plants, in addition to engine, bodysell and final assembly facilities (Anon nd). By this time the North Works covered an extensive area bordered by the Bristol Road, Longbridge Lane and the Midland Railway's Halesowen Branch. The works were re-equipped for engine production in 1928 and a further period of growth continued from this time until the late 1930's including the construction of the first shadow factory (now the East Works) in 1936 (Anon nd). The East Works at Longbridge was one of four Midlands shadow factories commissioned by the Air Ministry. Under the scheme in return for the construction costs of a new factory building and plant the companies would produce aero-engine components and receive payment on the basis of work produced (Collins and Stratton 1993). Under the scheme engine assembly and airframe manufacture was also carried out by Austin. The name, 'shadow', arose from the fact that the four firms were required to carefully co-ordinate or 'shadow' each other's production of components and completed engines (Collins and Stratton 1993, 50).

Once again with the onset of the Second World War workload shifted to military production and the first commission of the newly completed East Works was a contract for 900 Fairey Battle aircraft. By the end of the war the Longbridge works had produced nearly 3,000 aircraft, including Hurricanes, Stirling and Lancaster bombers as well as 36,000 'war effort' vehicles ranging from 8 hp utility estates to four wheel drive military trucks and ambulances, 100,000 suspension and drive gear units for Churchill Tanks, 2.5 million ammunition boxes, over 1.25 million ammunition shells and over half a million steel helmets (Anon nd).

In the post-war period the Austin company was to continue to develop and grow, with an increased export market developed by the new chairman and director Leonard Lord. In 1952 Austin merged with Nuffield Organisation and Longbridge became the new headquarters of the British Motor Corporation (BMC). The continuing history of the company has been well summarised in the Environmental Statement (Halcrow 2003), but suffice to say that over the following years the Longbridge works were to go through a series of mergers and management changes eventually leading to its present ownership under MG Rover Group. Throughout this time the North Works have continued in operation. The layout and various functions of the buildings were depicted on a plan produced by the company in 1961 (Collins and Stratton 1993, 181) and clearly show the North Works complete with an engine and tool factory and its own foundry and ancillary buildings. Although now redundant these buildings are almost entirely extant with the exception of the western ranges of the effluent

plant/cooling pond, which were replaced between 1937 and 1965, and the foundry, which was demolished some time after the surveying of the 1972 Ordnance Survey map.

Two long buildings (Sites Q and R) lying between the main North Works building and Longbridge Lane were demolished between 1978 and 1992. Various buildings to the west of the main building were demolished prior to 1955 in preparation for an extension to the main buildings

3.2 **Main building (Plates 1-33)**

The main building comprises a brick structure with corrugated iron sheeting cladding the first floor of the modern extensions to the north and west extents of the building. The footprint of the main building is principally rectangular with bays continuing west from its north-west corner and south from its south-east corner, the building covers an area of 2.03ha. The earliest phase of the building which is likely to date to the First World War is confined to the southern half of the building and comprises the south and east elevations encompassing six broad gabled aisles running east to west (Plates 1-33). Internally the gabled roofs are supported by wooden trusses over steel columns with ancillary steel support bars at each intersection (Plate 25). The main six bays are open plan with light provided through long rectangular windows along the north facing gable of the roofline (Plate 26). A number of brick machine bases are present which may date to the initial renovations of the building in the 1920s (Plates 27-28). The southernmost bays of the building are divided off from the main area, and are occupied by a workshop area (Plate 29) to the west and an engine room to the east which is entirely given over to the housing of various boilers, compressors and other machinery much of which dates to the latter half of the 20th century (Plates 30-31). No other fixtures or fittings of First World War date were observed within the main building.

Externally both the south and east elevations show clear signs of successive alterations. The eastern elevation is the more intact of the two and contains a considerable length of original English bond brickwork, comprising six gable ends of the main area (Plates 1-3) and the gable end of the engine room (Plate 4), all of which date to the buildings original construction between 1916 and 1917. A broad opening and several window openings have been blocked within the northern end of this elevation, however the greatest level of alteration is within the southern end of the elevation. A single storey gable end is evident against what is now the only surviving elevation of the boiler house of the former foundry (Plates 5-6). This correlates with the evidence of documentary sources, which show the footprint of the boiler house extending further east towards the line of the Midland Railway. The range also extended further to the south and the remnants of this are still extant, with the southern end of the elevation containing broken bricks (Plate 6) representing the former continuation and on the ground to the west of this the concrete and brick floor and footings are still visible in plan (Plate 7). Today the area formerly occupied by the boiler room and foundry houses a large rectangular structure of corrugated steel sheeting, which was erected following the demolition of the foundry post-1972.

The south elevation is coursed in English and stretcher bond and has been largely clad in corrugated metal sheeting at the western end (Plate 8). The western end of the elevation formerly extended beyond its present limit, however all that remains of this is a single skin of wall continuing westwards from the existing elevation (Plate 9). The presence of whitewash and the shadows of former fittings also indicate that it originally formed an internal wall (Plates 10-13). Secondary documentary sources (Collins and Stratton 1993) show a plan of the works dating to 1961, at this time the southern extent of the main building evidently lay further to the south and almost reaches the boundary of the Midland Railway's Halesowen Branch. As such this wall would have been within the foundry. Evidence of the former continuation to the south is present along the entire length of the elevation. As already mentioned at the west end this is in the form of white-wash and shadows, to the centre of the elevation and continuing to the east the remains of 'I' profile steel joists and spreader plates

are present (Plates 12-13). Several steel joists house the remains of steel trusses, but both members were evidently cut off at the face of the wall at the time of the demolition of the foundry (Plate 14). The palimpsest of steel joists, shadows of former fittings and associated scars present along the entire length of the south elevation reflect the almost continuous adaptation of the original structure and more noticeably the removal of the forge (Plates 13-23).

In addition to the extant southern elevations on the ground a number of 'I' profile steel stanchion bases cut off at ground level also indicate the former extents of the foundry (Plate 32), as do a number of cart rails (Plate 33) running both north to south and east to west, some of which would have been within the boiler room serving carts into which ash from the boilers was loaded (Collins and Stratton 1993). The stanchion bases are likely to date to the 1920 extension of the foundry.

3.3 **North trade effluent plant / cooling pond (Plates 34-40)**

The north trade effluent plant / cooling pond was constructed in conjunction with the north power house between 1916 and 1917, to serve the North and West Works. The north trade effluent plant is a long rectangular two celled brick structure with an asphalt roof supported by a series of broad king post trusses (Plates 34-40). The two gable ends are clad in wooden boards which stop short of the concrete wall which runs down the centre of the building at a height of approximately 1.0m. A pair of tapped valves are present within the south elevation of the eastern half of the building, which would have been opened to enable the flow of water into the holding bays (Plate 38). The building is largely intact. There are no clear indications of any alterations, however it is feasible that the building has been re-roofed in the later half of the 20th century.

3.4 **North power house (Plates 41-47)**

The north power house (Plates 41-57) originally served both West and North works (Collins and Stratton 1993) and housed twelve Lancashire boilers which in turn fed three 1500 kw turbo generators, supplying 386 electric motors or between 0.5 and 200hp (*ibid*, 188). These original machines are no longer extant but would have been replaced as advances in engineering occurred over the proceeding 80 years. The building is constructed of brick and stands two storeys high with a broad pitched gabled roof over the western bay and a cast iron tank over the brickwork of the smaller eastern bay or water tower. The original fabric of the building is largely intact and shows little in the way of modifications with the exception of new machinery bridges and joists to the main building (Plates 41-42).

3.5 **Buildings fronting onto Bristol Road South (Plates 47-52)**

3.5.1 **Barclays Bank (Building 7)**

Building 7 does not appear on mapped sources until 1965, prior to this the land is Greenfield and has never been subject to development. As such a concise photographic record has been completed (Plate 52), but no further comment is necessary within the scope of this project.

3.5.2 **Multi use building (Building 8)**

The buildings fronting onto the Bristol Road South appear to be almost entirely of late 20th century date, and do not represent those buildings constructed during the First World War (Plates 47-51). Full analysis of the fabric was not possible as the building was clad with thick render. However a small area was exposed where a former window had been blocked in the south-east elevation and even here the fabric was certainly of late 20th century date. The current footprint of Building 8 first appears on mapped sources on the 1965 edition Ordnance Survey. Prior to this another building is present occupying almost the same area but within a

larger footprint. This building can be traced back to 1937 and prior to this the area is occupied by Longbridge House, which can be traced back to the 1886 edition Ordnance Survey and the Map of the Parish of Kings Norton, Worcester dating to 1840 (Birmingham City Council Library D11). Although full analysis of the extant fabric was not possible due to the render those areas observed at the base of each elevation and within the area of the blocking indicate that the structure was erected in the mid 1960s. There does not appear to be any survival of earlier fabric relating to the buildings which formerly occupied the site, although remains may survive below present ground level.

4. **Discussion**

The main development of the North Works has already been the subject of an extensive documentary study (Collins and Stratton 1993) as well as within the broader context of an Environmental Statement previously issued to the client (Halcrow 2003). The general background of the Longbridge Works has also been described above in Section 3.1.

The development of the North Works came as a direct result of the onset of the First World War and in this way reflects a similar expansion in several car manufacturing plants across the region, including Calthorpe Motor Co, based at Bordesley Green, Lanchester at Sparkbrook and Daimler Motor Co. Ltd in Coventry (Collins and Stratton 1993).

However, although the war work evidently created new opportunities for many car manufacturers across the Midlands, a great deal of small manufacturers who were not of a scale readily adapted to munitions work were harder hit by the decline in car trade and did not survive much beyond 1914 (Collins and Stratton 1993).

Following the war the North Works was converted for engine production and continued to evolve through the beginning of the 20th century, meeting the demands of a rapidly changing industry and consumer market. Surviving original elements of the North Works are confined to the east and south elevation of the main building, and all elevations of the north power house and trade effluent plant/cooling pond. Those buildings that survive have been subject to continuous adaptation, especially in the case of the main building where nothing remains of any original fixtures or fittings. Nevertheless the surviving eastern gable ends and interior provide an indication of the original design of the main building, which reflect Austin's drive towards mechanisation and a layout which would be viewed as a pioneer within the rapidly developing factory architecture of the early 20th century.

5. **Publication summary**

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An historic building recording project was undertaken at North Works, MG Rover, Longbridge, Birmingham (SP 0130 7750). The project was requested by Halcrow Group Limited, on behalf of St Modwen Developments Ltd, who intends to redevelop part of the MG Rover Works. The project is in part fulfilment of conditions for planning permission given by Birmingham City Council. The project aimed to produce a photographic and written analytical record of those buildings likely to date to the First World War and place them within the context of the West Midlands motor industry.

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expand from this time reaching its zenith by the late 1960s. Further buildings fronting onto the Bristol Road South were identified as dating to the mid 20th century and as such appear to post date the original construction phase of the North Works.

6. **The archive**

The archive consists of:

3	Fieldwork progress records AS2
9	Photographic records AS3
9	Black and white photographic films
180	Digital photographs (in both .jpeg and .tiff file format)
1	Compact disk

The project archive is intended to be placed at:

Birmingham City Museum

Chamberlain Square

Birmingham

B3 3DH

Tel: 0121 303 2834

Fax: 0121 303 1394

7. **Acknowledgements**

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, St Modwen Developments Ltd, Caroline Vickers (Halcrow Group Limited), Mike Hodder.

8. **Personnel**

The fieldwork and report preparation was led by Anna Deeks. The project manager responsible for the quality of the project was Simon Woodiwiss. Fieldwork was undertaken by Anna Deeks and Marc Steinmetzer and illustration by Marc Steinmetzer.

9. **Bibliography**

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Halcrow Group Limited 2003 Section 12: Cultural Heritage in *Longbridge Technical Park Environmental Statement*, unpublished document dated November 2003

HEAS, 2004 *Proposal for an Historic building recording at MG Rover Works, Longbridge, Birmingham* Historic Environment and Archaeology Service, Worcestershire County Council, unpublished document dated 1st June 2004, **P2436**

IFA, 1999 *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*, Institute of Field Archaeologists

RCHME, 1996 *Recording historic buildings: a descriptive specification (3rd edition)*, Royal Commission on the Historical Monuments of England

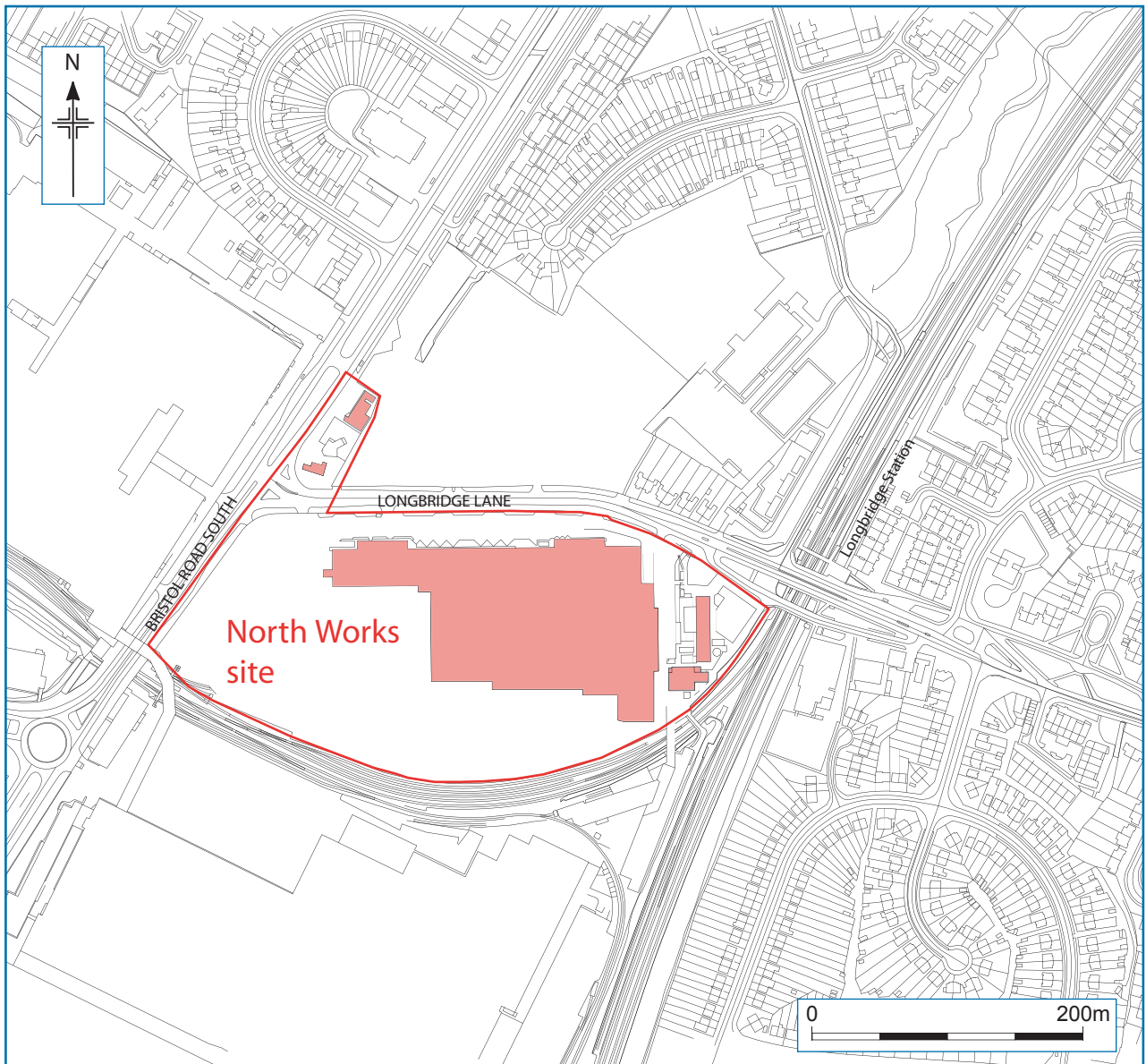
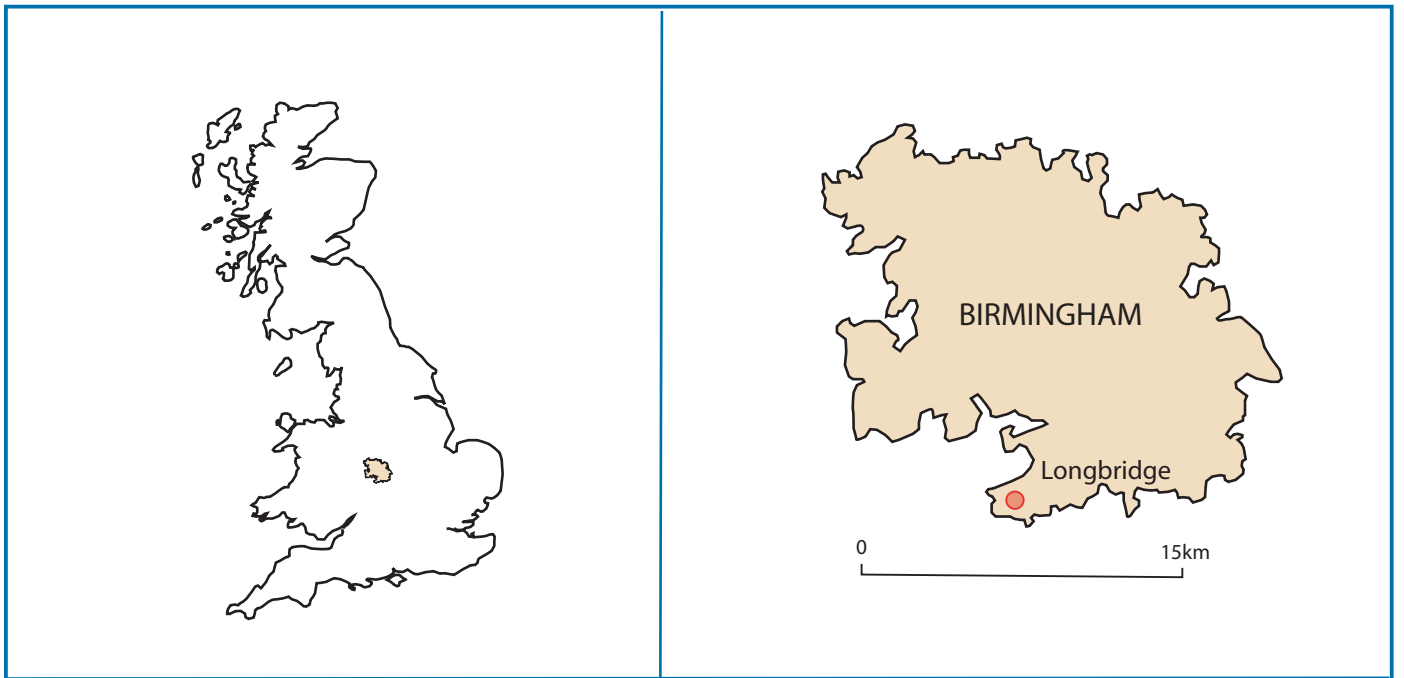
10. **Abbreviations**

NMR National Monuments Record.

SMR Sites and Monuments Record.

WCRO Worcestershire County Records Office.

WSM Numbers prefixed with 'WSM' are the primary reference numbers used by the Worcestershire County Historic Environment Record.



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Location of the site.

Figure 1

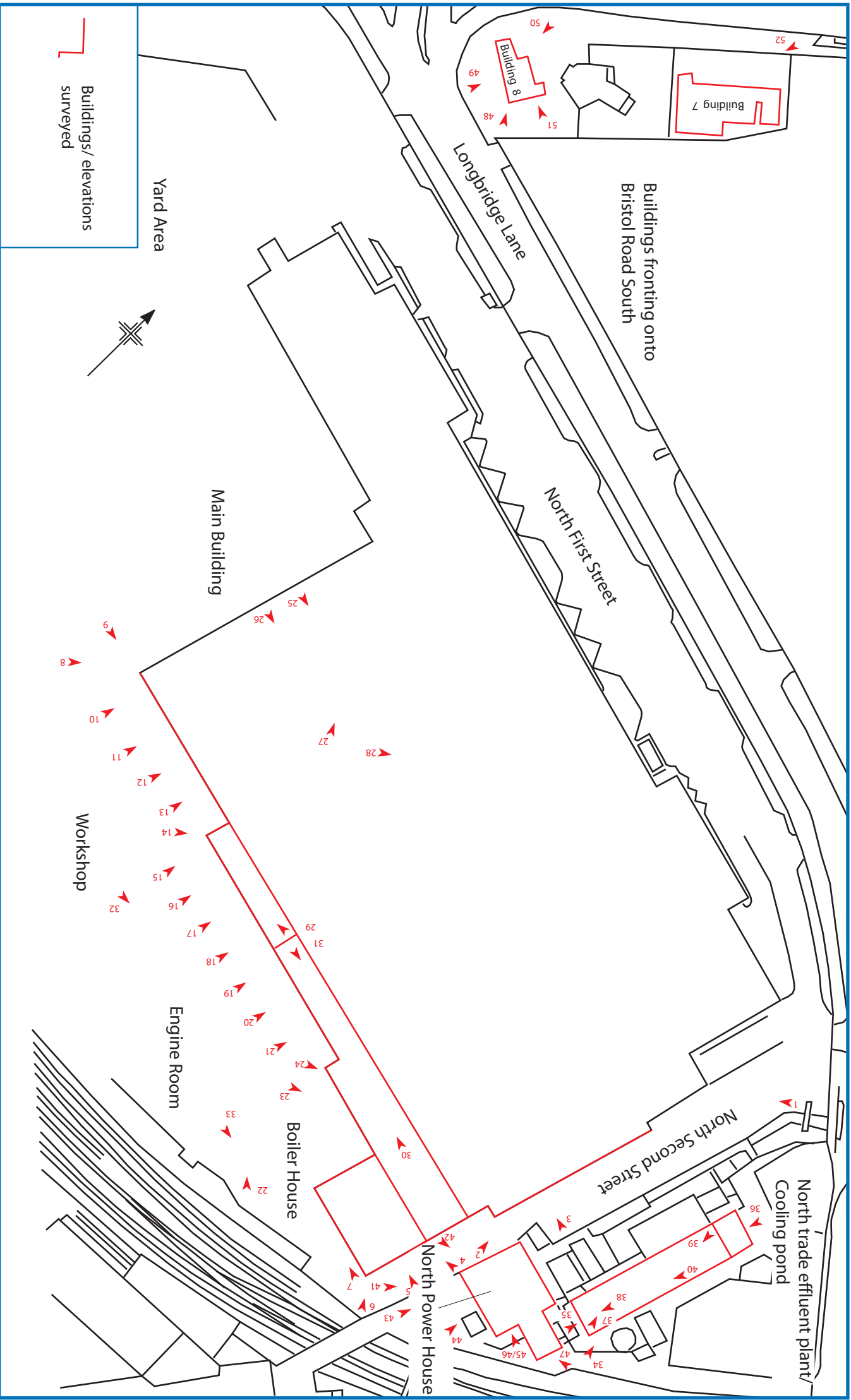


Fig. 2 : Location and direction of plates(After Johnson, Poole and Bloomer, dwg no. DS821/06) Do not scale from this drawing

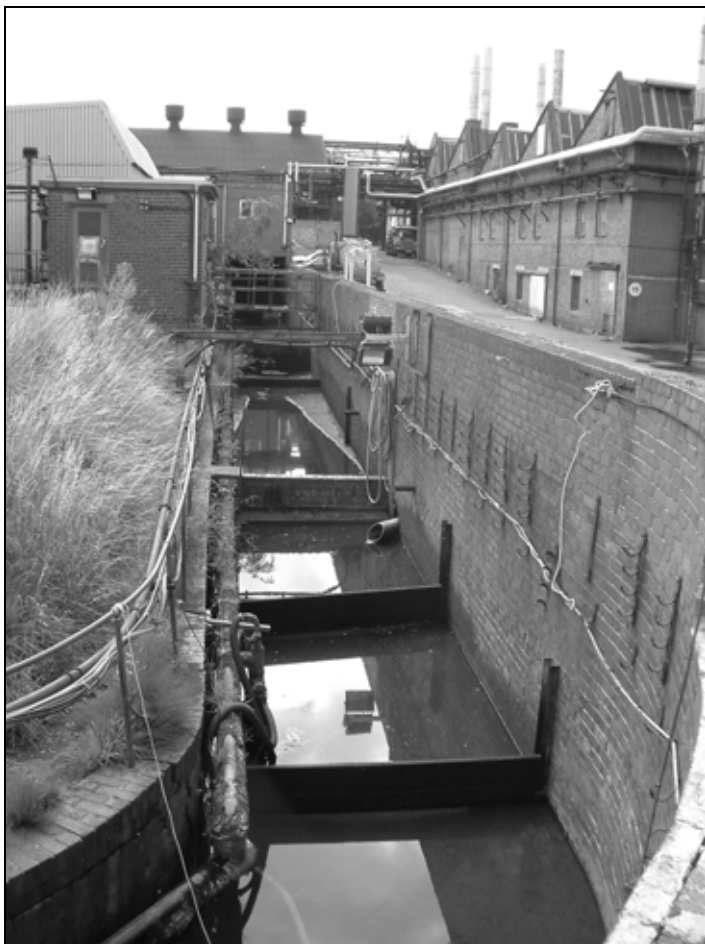


Plate 1: Eastern elevation of main building, looking south-east.



Plate 2: Eastern elevation of main building, looking north-west.



Plate 3: Detail of gabled end of east elevation, looking west.



Plate 4: Southern end of east elevation of main building showing gable end of former engine room and shadow of gabled building.



Plate 5: Detail of shadow of gabled building on east elevation of 'main building'.



Plate 6: South end of east elevation showing broken end of wall which formerly continued to south..



Plate 7: Ground to south of main building showing remains of original extent of boiler house



Plate 8: General view of south elevation, looking north-east



Plate 9: West end of southern elevation showing break in brickwork where building has been reduced in size



Plate 10: Western end of southern elevation with remains of whitewash and shadows of fittings



Plate 11: General shot of west end of south elevation with remains of white wash.



Plate 12: General shot of west end of south elevation with remains of white wash and remains of steel joists and spreader plates.

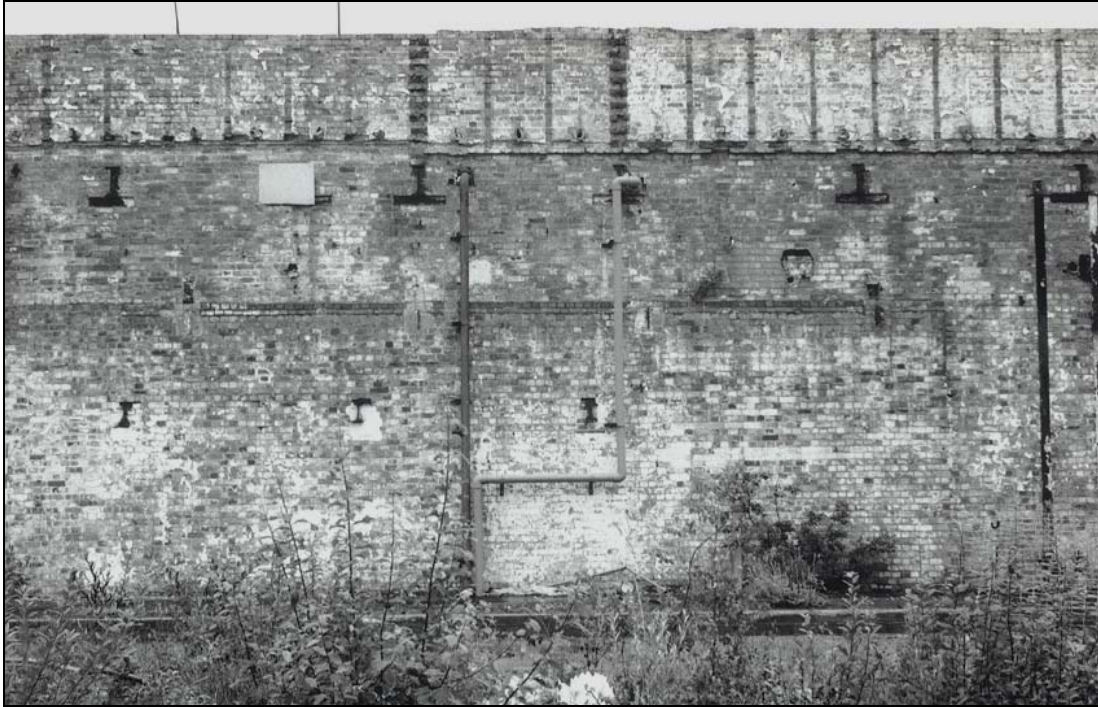


Plate 13: Central area of south elevation showing cut off remains of steel joists and spreader plate, brick returns and other 'T' bar supports.



Plate 14: Detail of junction between workshop bay and southern limit of main building.



Plate 15: South elevation of workshop, formerly internal elevation within foundry.



Plate 16: South elevation at junction between workshop and engine room. Remains of joists and support beams at the top of elevation reflect former continuation of building to south.



Plate 17: South elevation of engine room, formerly internal elevation within foundry.

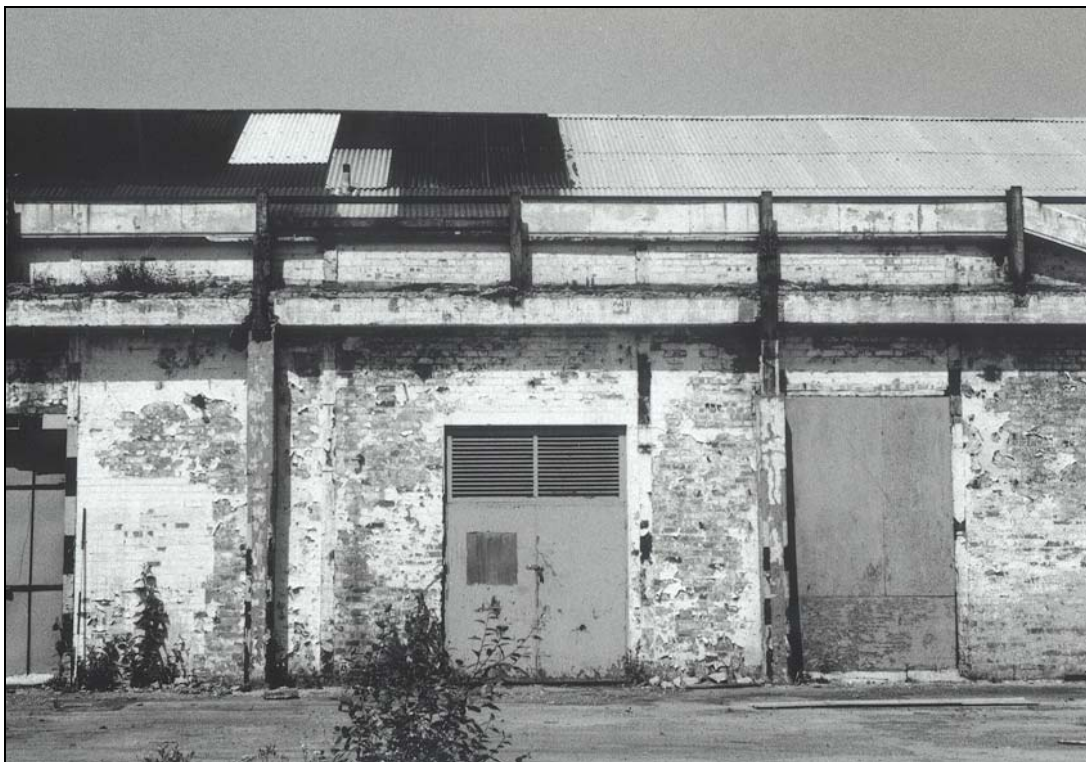


Plate 18: South elevation of engine room, formerly internal elevation within foundry.

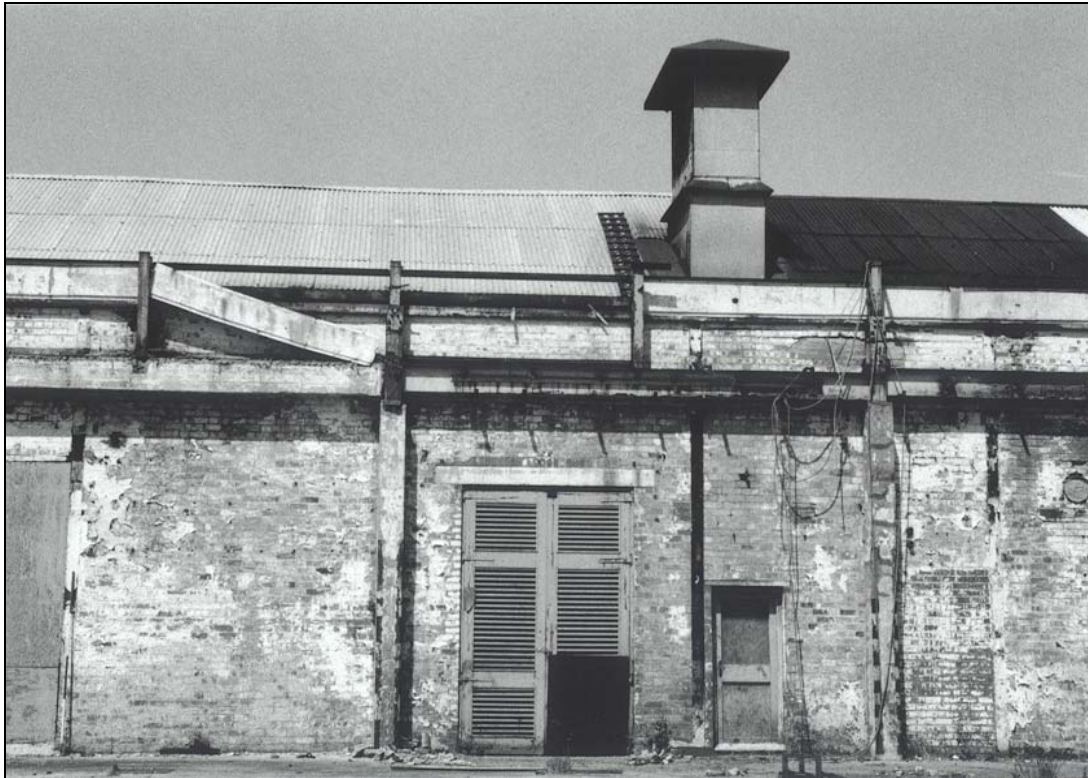


Plate 19: South elevation of engine room, formerly internal elevation within foundry.



Plate 20: South elevation of engine room, formerly internal elevation within foundry.



Plate 21: South elevation of engine room, formerly internal elevation within foundry.



Plate 22: General shot of south elevation, looking north-east.



Plate 23: South elevation of engine room, formerly internal elevation within foundry.



Plate 24: Detail of steel joist and trusses cut off at wall following demolition of foundry.



Plate 25: Detail of trusses within main building.



Plate 26: General view along aisled bay of main building, looking east.



Plate 27: Detail of remains of brick machine bed within main building

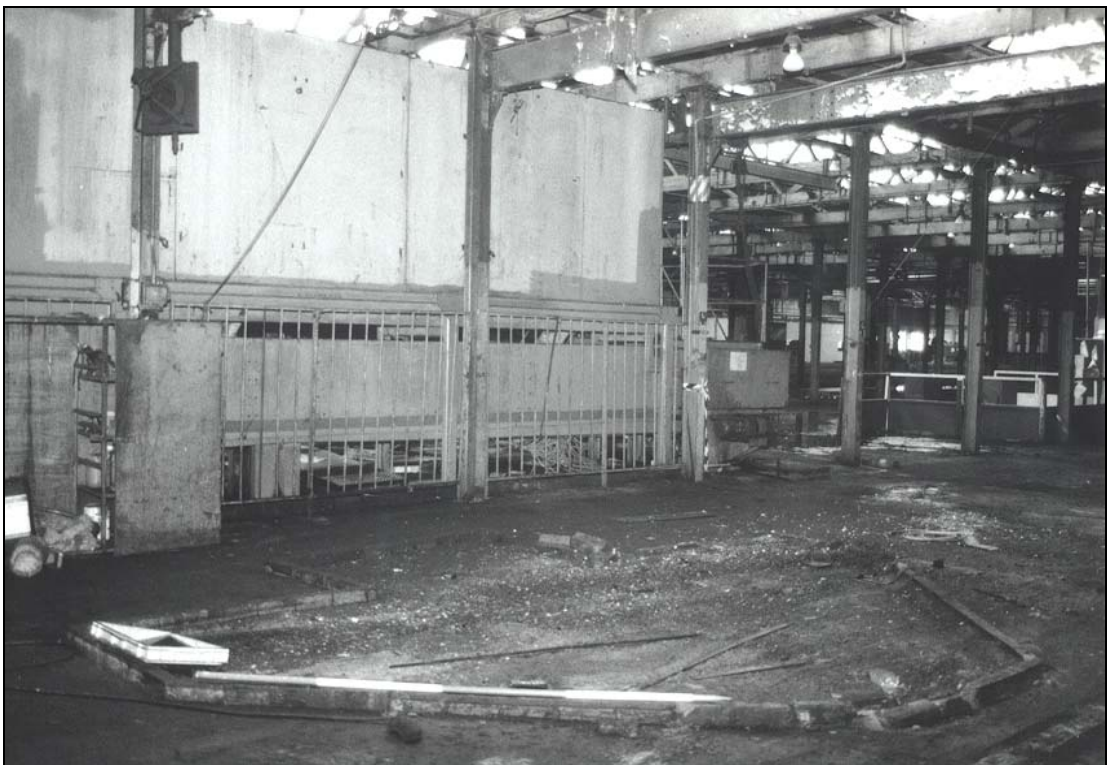


Plate 28: Detail of brick machine bed within main building.



Plate 29: Workshop at southern end of main building, looking west.



Plate 30: Engine room at southern end of main building, looking west.

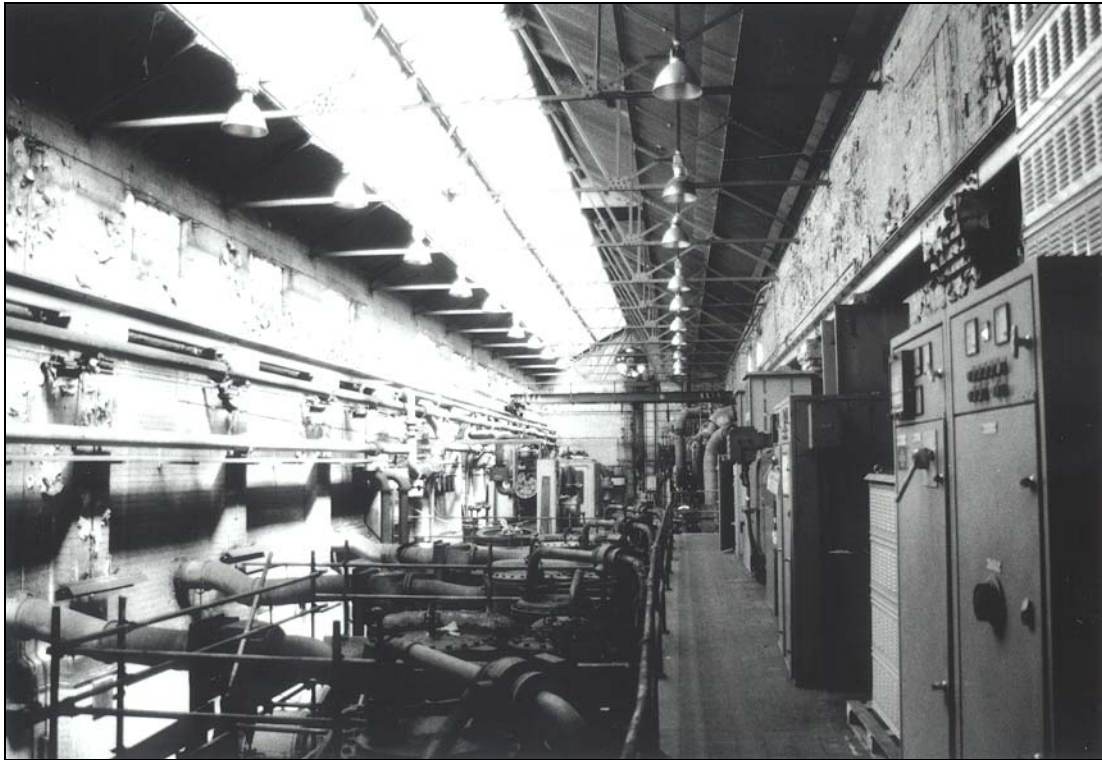


Plate 31: Engine room at southern end of main building, looking east.



Plate 32: Steel stanchion base within concrete pad representing former limits of foundry building.



Plate 33: Narrow gauge rails which would have served boiler room.



Plate 34: North trade effluent plant/ cooling pond, looking north-west.



Plate 35: Gable end of north trade effluent plant/ cooling pond, looking north-west.



Plate 36: North trade effluent plant/ cooling pond, looking south.



Plate 37: Internal shot of north trade effluent plant/ cooling pond, looking north-west.

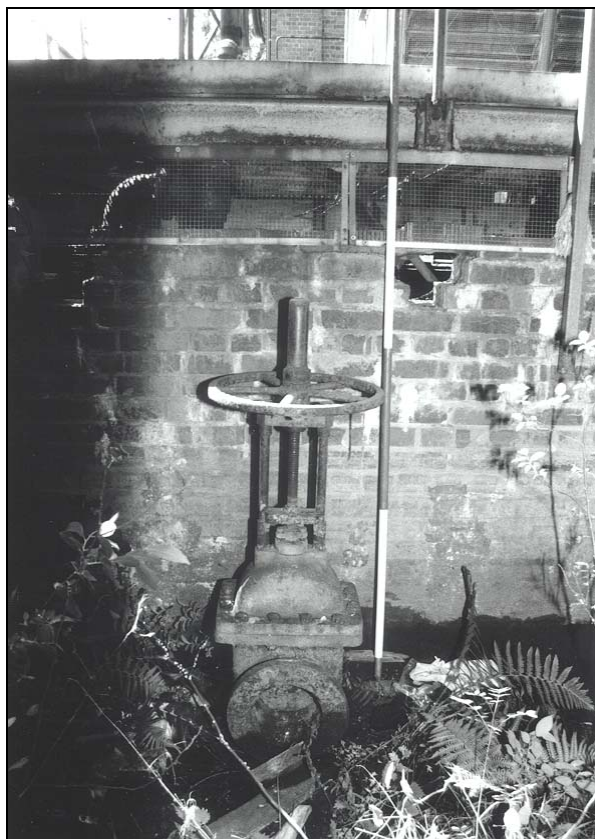


Plate 38: Detail of tapped valve in southern elevation of north trade effluent plant/ cooling pond.



Plate 39: Internal shot of north trade effluent plant/ cooling pond, looking south-east.



Plate 40: Detail of king post truss within north trade effluent plant/ cooling pond.



Plate 41: North power house, looking north-east.



Plate 42: West elevation of north power house, looking north-east.



Plate 43: South elevation of north power house, looking north.



Plate 44: South elevation of north power house tower, looking north.



Plate 45: East elevation of north power house, looking west.



Plate 46: East elevation of north power house, looking west.



Plate 47: East elevation of north power house tower, looking west.



Plate 48: South-east and south west elevations of building 8 fronting onto Bristol Road South, looking north-west.



Plate 49: South west elevation of building 8 fronting onto Bristol Road South, looking north.



Plate 50: North-west elevations of building 8 fronting onto Bristol Road South, looking south-east.



Plate 51: Detail of blocked window opening in south-east elevation of building 8 fronting onto Bristol Road South, looking north-west.



Plate 52: Building 7 fronting onto Bristol Road South. Looking south-east
