

Carrington Wire Works, Warrington

Archaeological Buildings Investigation



Oxford Archaeology North

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RSK ENSR Environment Ltd

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SUMMARY

Following a request from RSK ENSR Environment Ltd in August 2005, Oxford Archaeology North undertook a photographic survey and summary descriptive record of the former Carrington Wire complex in Warrington, Cheshire (centred on NGR SJ 612 892). The survey was intended to provide a basic record of 14 derelict buildings that remained on the site in advance of their demolition.

The former Carrington Wire site was not developed until the mid-19th century when it was used as a brick kiln and brickfield. The site was subsequently developed at the end of the 19th century by the Cheshire Lines Railway Engineering Works and Marshalling Yard prior to its use by the Coronation Wire Works in the 1920s and, subsequently, by Carrington Wire.

It would appear that few upstanding remains associated with the former use of the site survived, indeed most of the buildings on the site would appear to have been constructed within the past 100 years and were seemingly not part of the original works. However, a single building (Building 5) that clearly displayed several phases of continued use into the 21st century, probably originally functioned as a loading area associated with the Cheshire Lines Railway works that occupied the site some time around 1890, and provides the only remnant from this period.

Historic maps provided evidence of the site as being used continually as engineering works from 1894 until the buildings associated with the former Coronation Wire Works were constructed sometime during the 1920's. Many of these building survive along the west edge of the site bordering Battersby Lane.

The rest of the buildings on the site reflect the developments in the nail processing industry, although none of the buildings are listed and on an individual basis their architectural merit is low.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to express its thanks to Neil Fairburn, acting on behalf of RSK ENSR Environment Ltd, for commissioning and supporting the project. OA North are also grateful to Mark Leah, the Development Control Officer with Cheshire County Council, for his advice and support.

The building investigation was undertaken by Sean McPhillips, who also compiled the report. The report was edited by Ian Miller, who was also responsible for project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 A proposal has recently been submitted to redevelop a block of land occupied formerly by Carrington Wire Works, Warrington (Fig 1). Much of the proposal area is currently vacant, although 14 former industrial buildings on the site remain extant. However, the development proposal requires the demolition of these buildings.
- 1.1.2 In order to secure archaeological interests, it has been recommended that a rapid archaeological survey of the extant buildings be undertaken in advance of their demolition. This comprised a photographic survey, coupled with written descriptions of the buildings' type, fabric, form, phasing and structural detail.
- 1.1.3 In response to a request from RSK ENSR Environment Ltd, Oxford Archaeology North (OA North) was commissioned to carry out the survey, which was undertaken during August 2005.

1.2 SITE LOCATION AND GEOLOGY

- 1.2.1 The study area (centred on SJ 612 892) is situated on the eastern side of Battersby Lane, a short distance to the north-east of Warrington town centre. The site is bounded by Battersby Lane, Marsh House Lane, and the Warrington to Manchester railway line.
- 1.2.2 The solid geology of the general area consists of Lower Triassic Sandstones, with drift deposits of wind-blown sand of the Shirdley Hill Sand Group recorded above in the vicinity of the town centre (British Geological Survey 1967a; 1967b).

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 In response to a request from RSK ENSR Environment Ltd, OA North submitted a project design for a programme of archaeological building investigation (*Appendix 1*). The proposed methodology was broadly consistent with a Royal Commission on the Historical Monuments of England (RCHME) Level I type survey (RCHME 1996, 4). All work was consistent with the relevant standards and procedures provided by the Institute of Field Archaeologists.

2.2 BUILDINGS SURVEY

- 2.2.1 The buildings survey comprised the compilation of an annotated photographic record in black and white, colour slide and digital formats. The photographs captured the buildings' external appearance, the layout of principal rooms and circulation areas, and all external and internal detail relevant to the buildings' design, development and use. A full index to the photographic record generated during the course of the project is presented as *Appendix 2*.
- 2.2.2 The photographic record was coupled with a brief written description of the buildings' form, fabric, date, phasing and architectural details. This has been enhanced by the results obtained from a rapid assessment of available archive sources. In particular, historic mapping and the sequence of commercial trades' directories provided details of the buildings' development and occupiers.

2.3 ARCHIVE

2.3.1 A full archive of the work has been prepared to a professional standard in accordance with current English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The archive will be deposited with the Warrington Museum. In addition, a copy of the report will be forwarded to the County Sites and Monuments Record (SMR), and a summary sent to the National Monuments Record (NMR).

3. HISTORICAL BACKGROUND

3.1 INDUSTRIAL DEVELOPMENT OF WARRINGTON

- Post-medieval and modern Warrington remained largely within the medieval 3.1.1 town limits until the mid-19th century, with the exception of limited expansion to the north on the western side of Horsemarket Street (Donbavand and Wallworth 1772; Hall 1826; Ordnance Survey 1851). The town continued to act as a market centre for the surrounding agricultural hinterland and, around 1800, its Wednesday market was noted for its fish, cattle, and sheep (Farrer and Brownbill 1907, 317). However, industry was becoming an increasingly important part of Warrington's economy, particularly from the late 17th century. Two main factors have been identified as encouraging the growth of industry: firstly, improvements in the Mersey Navigation, with the river being made navigable from Liverpool to Warrington in 1690, and from Warrington to Manchester in 1720; and secondly, the position of the town on the best route across the Mersey and north into Lancashire (Grealey 1976, 20). Bank Quay was constructed in 1690, and allowed the town's manufacturers easy access to waterborne transport. In the mid-1720s, writers made reference to copper and sugar works, glass houses, pin workers, and sailcloth making, whilst Bailey's Northern Directory of 1781 listed additionally distillers, wine merchants, and manufacturers practising iron founding, tanning, and soap making (ibid). Although there is evidence for a great variety of manufacturing, the most significant industries have been identified as textile making, particularly linen and coarse textiles such as sailcloth, and metal working (ibid). Copper smelting was important for much of the 18th century. By 1825, sugar refining and copper working had largely ceased, but iron foundries and soap works were increasingly important, and supplemented the remaining established industries (Farrer and Brownbill 1907, 317).
- 3.1.2 Wire drawing was perhaps the form of economic activity most closely associated with Warrington during the 19th century, when the town became a world centre for the industry (Grealey 1976). This was due in part to the introduction of the 'Belgian Train' method of production, whereby grooved rolls worked the metal as it was forced through holes of diminishing size and variable section in succession (Smith 1891).
- 3.1.3 The origins of the modern wire-drawing industry in Warrington may be traced back to the early years of the 19th century, when Captain George Ainsworth entered into partnership with Nathaniel Greening. The latter was a practical wire-drawer who is reputed to come from the famous wire-works at Tintern Abbey (Ashmore 1969, 82). By 1812, Ainsworth was out of business and Greening had a new partner, John Rylands, who established a works of his own subsequently (*ibid*).

3.2 DEVELOPMENT OF THE CARRINGTON SITE

- 3.2.1 A recent study based on historic map analysis determined that the site was not developed prior to the occupation of a brick kiln and brickfield sometime around 1851. The site was then built over at the end of the 19th century during the construction of the Cheshire Lines Railway Engineering Works and Marshalling Yard (Fig 3).
- 3.2.2 Ordnance Survey maps from 1907 and 1928 show the site as being occupied by Engineering Works situated along similar building layouts. The Cheshire Lines Railway Engineering Works and Marshalling Yard was further developed in the 1920s when the site was taken over by the Coronation Wire Works (Fig 6). Several buildings from this period survived into the 21st century along the west edge of the site bordering Battersby Lane and Marsh House Lane.
- 3.2.3 By 1963 several large sheds were erected across the north edge of the site that bordered Marsh House Lane. Many of these sheds were later remodelled and survived into the 21st century used latterly for storage and nail processing by the Carrington Wire Works. Much of the buildings across the central area of the site derive from the latter half of the 20th century.

4. BUILDING INVESTIGATION RESULTS

4.1 INTRODUCTION

- 4.1.1 The principal objective of the building survey was to provide a photographic record, accompanied by location details and a brief descriptive record of the earliest structures on the site. The investigation was focused upon the exterior of the structures, although general internal record shots were taken, where possible.
- 4.1.2 The survey was targeted on 14 structures located on the site of the former Carrington Wire Works (Fig 2). All structures were commercial in nature, dating from between the second half of the 19th century and the 20th century.

4.2 SUMMARY DESCRIPTIONS

- 4.2.1 **Building 1:** a single storey north/south aligned building constructed of machine-made extruded bricks in English Garden Wall bond. The southern bay projected slightly with large window frontage, and was most probably the main goods reception. The brick wall extending from the south-west corner most probably blocked an earlier site entrance. The remainder of the structure comprised several bays with windows and doors in the east front elevation (Plate 35), which also had a chamfered brick plinth. The inclusion of several chimneys within the hipped slate roof suggests the structure was used as offices.
- 4.2.2 **Building 2:** a single storey building with stone floor and slate gabled roof with projecting timber louvre and metal framed skylights. The brick construction is unusual in that it comprised header bond with a row of stretchers every five courses, suggesting an importance of strength within the original bond (Plate 36). The structure had a plinth similar to Building 1, which incorporated a projecting doorway in the north elevation with open voussoir above. The building also has a similar projecting cornice. The east elevation had a corbelled projecting flue. The building was used as an electric sub-station and appears to be contemporary with Building 1, forming the southern side of the blocked gateway.
- 4.2.3 **Building 3:** a late 20th century east/west aligned two storey offices. The building was probably of block or concrete construction concealed with blue render (Plate 37). Its had a gambrel roof with central gablet on the front, southern elevation, above a projecting hipped porch.
- 4.2.4 **Building 4:** a north/south aligned late 20th century single storey brick structure constructed in English Garden Wall bond (Plate 38). The building had a single pitch roof rising to the west, and was butted at its south-west corner by a single storey toilet block in stretcher bond with a flat roof, which also butts Building 1.
- 4.2.5 **Building 5:** this building was situated along the north-east edge of the site, and was potentially the oldest surviving on the site. It is a two storey structure

(Plate 1), with shallow basement, constructed largely of machine-made brick, bonded with a grey speckled sandy mortar that at some stage was re-pointed with cement. It had a Welsh slate roof, hipped at the western side, with a chimney located just below the ridge on the eastern gable. The building comprised seven bays each of which, with the exception of the first floor in the western bay, had a window in the south elevation. This formed the front of the building which had two doorways (one of which was blocked, Plate 2), with a windowed porch attached to the east corner (Plate 17). The west-facing elevation comprised a blocked doorway at the south end, replaced with a wood framed entrance (Plate 9). The north-facing elevation comprised five windows along the first storey, with a loading platform and a projecting steel beamed hoist (Plate 4). The ground floor had a further four windows, two of which were blocked, and one of which was subsequently turned into a doorway. Directly below the loading platform in the upper storey was a large loading entrance, which was remodelled for a railed hung door (Plate 5). The east elevation was partially obscured by Building 7, however, three blocked windows along the first floor were observed. Two of these had flat glazed brick lintels (Plate 14), the other having an arched sandstone lintel. A blocked doorway with an iron runner above, was observed at ground floor level (Plate 16). At the northern end of the eastern elevation was a projecting brick tower, which appeared to be part of the original construction, and may originally have been a toilet tower (Plate 18).

- 4.2.6 Within the interior, the ground floor was split by an east/west aligned brick partition wall, with a blocked arched bay entrance at its east end (Plate 6). Within the northern part of the ground floor, the building contained several I-section steel rails associated with the loading gear that transected the entire room and terminated in the loading bay area (Plates 7 and 8). The floor comprised patterned stone and brick sets. The loading bay room also contained a MDF style constructed office annexe that was positioned next to a spiral staircase connecting the first floor. A large office with plaster rendering occupied the south area of the building (Plate 10). A similar constructed office was built at the west end of the building on the first floor (Plate 15).
- 4.2.7 The first floor interior comprised whitewashed brick walls within a single room. A total of three blocked windows were observed along the east dividing wall, located at the west end of the building. A row of wooden stairs was observed at the east end of the room (Plate 13), which had a wooden floor and a brick blocked doorway into the projecting tower at the northern end (Plate 12). The roof structure (Plate 11) comprised six timber queen post trusses with braced princess posts, demonstrating the large span of the structure. Each pitch had two trenched purlins supporting the rafters which had the remains of lath and wash undersealing. Two of the trusses, which had iron stirrup supports to the posts (typical of the later 19th century) had panelled infilling.
- 4.2.8 **Building** 6: the building (Plates 21, 22, 23 and 30) comprised a late 20th century addition to the southern side of Building 7. It was brick construction to c2.5m below corrugated iron sheeting, which also covered the pitched roof. Two large projections along the southern face comprised a chemical plant and an addition to the main processing area.

- 4.2.9 **Building 7.** a large processing shed (Plate 28) of similar construction to Building 6, but with multi-pitched roof. Internally (Plate 20) the roof structure comprised metal L-section lattice trusses with gussett plate and similar section metal purlins typical of the late 19th and early 20th centuries. A series of steel I-section stanchions supported a network of hydraulic gantries. Set within the concrete floor were several pits, tanks and machine platforms (Plates 32 and 33) associated with the wire making process.
- 4.2.10 *Building &* this structure appeared to represent the earliest survival of the processing sheds (Buildings 6-8). It had extruded brick walls (Plates 25, 34 and 44), in English Garden Wall bond, with internally buttressed gables, and had a similar roof structure to Building 7, covered with corrugated sheeting and incorporating several skylights (Plate 24). As with Building 7, it also incorporated several later gantries (Plate 29), supported on I-section steel stanchions, and associated pits and tanks.
- 4.2.11 **Building 9**: this comprised a low of single storey, flat-roofed, prefabricated offices, set onto a concrete base. Several entrances were observed on the western side (Plate 39), accessed via metal stairs.
- 4.2.12 **Building 10**: north/south aligned rectangular shed (Plate 40), similar in construction style to Building 7. It was last used as a machine shop and engineering department.
- 4.2.13 *Building 11*: a single storey brick structure in English Garden Wall bond located in the south-western corner of the site. It comprised a garage/workshop with a segmentally arched three-light window and large sliding door in the front, eastern elevation (Plate 41). The roof was most probably originally Welsh slate, but was replaced in the late 20th century with corrugated aluminium sheeting.
- 4.2.14 *Building 12*: effluent plant treatment, comprising a circular concrete effluent tank and two rectangular, steel-framed corrugated metal sheds (Plate 42). A further small corrugated shed was located on a metal gantry above the effluent tank, with a further inspection gantry located in the angle between the two associated sheds.
- 4.2.15 *Building 13*: this comprised two brick extensions butting the eastern elevation of Building 7 (Plates 26 and 27). Both were single storey, with single pitched corrugated metal roofs, with the northern two bays, constructed in English Garden Wall bond, appearing to represent the earlier addition. This part was slightly taller, and had a window in each bay in the eastern elevation, with a further window in the northern elevation. Any external access was removed by the addition of a single bay to the south, also in English Garden Wall bond, with a window in the eastern elevation and a doorway in the southern elevation.
- 4.2.16 *Building 14*: a single storey brick extension to Building 7, infilling the reentrant angle to the north of Building 5. It was of brick construction, in English Garden Wall bond, and had a pitched, corrugated metal, roof. It had

several blocked apertures in the western gable (Plate 43), and appeared to have been used latterly as a storage area.

4.3 CONCLUSIONS:

- 4.3.1 The survey has demonstrated that few buildings pertaining to the Cheshire Lines Railway survived. However, map regression has shown that the layout of the site has changed little, in particular the north perimeter wall along Marsh House Lane, and west perimeter wall along Battersby Lane. A single blocked entrance within the Battersby Lane wall was observed behind Buildings 1 and 2, that may be associated with the original access to the wire works (Fig 3).
- 4.3.2 Building 5 probably represents the west edge of a single rectangular range as shown on the 1894, 1907, 1928 and 1937 Ordnance Survey maps. Evidence of the building having been part of this range was demonstrated along the east external elevation, with two blocked doorways along the first floor that seemingly connected the central range (Fig 5). It would seem that this building was initially used by the Cheshire Lines Railway, and later by the Coronation Wire Works (Fig 4), although by 1963 the building was drastically reduced and was partly redesigned for offices.
- 4.3.3 Architectural features possibly associated with the Coronation Wire Works were observed in a processing shed (Building 7). The building retained roof structure details typical of the late 19th and early 20th centuries and maybe part of the original storage area.
- 4.3.4 The use of the site as a nail processing factory in the latter half of the 20th century was evident throughout the surviving structures, such as the three large processing sheds (Buildings 6-8) that retained concrete-lined tanks and machine platforms across the shed floor. The rest of the buildings (Buildings 10-14) reflected the continued development of the site such as a machine shop and storage area. Further developments were observed with the erection of offices (Buildings 3 and 9) and a chemical treatment area (Building 12).

5. BIBLIOGRAPHY

5.1 PRIMARY AND CARTOGRAPHIC SOURCES

Donbavand, D, and Wallworth, J, 1772 Plan of the town of Warrington in Lancashire from an accirate survey in the year 1772, unpubl ms, Warrington Local Studies Library, drawer RM2

Hall, HT, 1826 Plan of the town of Warrington in the year 1826, London

Ordnance Survey 1:2500 Map, published 1894

Ordnance Survey 1:2500 Map, published 1907

Ordnance Survey 1:2500 Map, published 1928

Ordnance Survey 1:2500 Map, published 1937

Ordnance Survey 1:2500 Map, published 1963

5.2 SECONDARY SOURCES

Ashmore, O, 1969 The Industrial Archaeology of Lancashire, Newton Abbot

English Heritage, 1991 Management of Archaeological Projects, 2nd edn, Swindon

Farrer, W, and Brownbill, J (eds), 1908 The Victoria History of the County of Lancashire, 2, London

Grealey, S, 1976 The Archaeology of Warrington's Past, Warrington

Hall, D, Wells, CE, and Huckerby, E, 1995 *The Wetlands of Greater Manchester*, Lancaster Imprints, **3**, Lancaster

RCHME, 1996 Recording Historic Buildings: A Descriptive Specification, 3rd edn, Swindon

Smith, JB, 1891 A Treatise Upon Wire, its Manufacture and Uses, London

UKIC, 1990 Guidelines for the Preparation of Archives for Long-Term Storage, London

APPENDIX 1: PROJECT DESIGN

July 2005

Oxford Archaeology North

CARRINGTON WIRE WORKS, WARRINGTON

ARCHAEOLOGICAL SURVEY PROJECT DESIGN

Proposals

The following project design is offered in response to a request from Mr Neil Fairburn, of RSK, for an archaeological photographic survey of the former Carrington Wire Works in Warrington.

1. CIRCUMSTANCES OF PROJECT

- 1.1.1 A proposal has recently been submitted to redevelop a block of land occupied formerly by Carrington Wire Works, Warrington (Fig 1). Much of the proposal area is currently vacant, although 14 former industrial buildings on the site remain extant. However, the development proposal requires the demolition of these buildings.
- 1.1.2 In order to secure archaeological interests, it has been recommended that a rapid archaeological survey of the extant buildings be undertaken in advance of their demolition. This comprised a photographic survey, coupled with written descriptions of the buildings' type, fabric, form, phasing and structural detail.
- 1.1.3 Oxford Archaeology North (OA North) has considerable experience of the recording of historic buildings together with evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 20 years. Fieldwork has taken place within the planning process and construction programmes, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North has recently undertaken the recording of Piercy Street Foundry, Ancoats, St George's School, Tyldesley, Greater Manchester, and Hilltop Barn, Longridge, Higher Hills, Tockholes, the Old Post Office Barn near Burscough, Lower Alston Farm, and Ashton Hall Barn, all in Lancashire, as well as many other post-medieval buildings further afield.
- 1.1.4 OA North has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. OA North and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct. OA North is an IFA registered organisation, number 17.

2. OBJECTIVES

- 2.1 The principal objective of the building survey is to provide a photographic record of the former industrial unit, accompanied by location details, and a brief descriptive record. This will be undertaken to RCHME Level I-type standard, and will comprise the following stages:
 - Ruilding Investigation: to undertake a visual inspection and photographic survey of the building to RCHME level I-type survey standard. The survey will result in the compilation of an annotated photographic record which will show the buildings' external appearance, the overall appearance of principal rooms, any structural or decorative detail that is relevant to the buildings' design, and detail of internal features of especial architectural interest. The photographic survey will be complimented with brief written descriptions of the buildings' type, function and date;

? **Report and Archive:** a report will be produced for the Client within six weeks of completion of the fieldwork. The report will incorporate the results obtained from the survey, which will be place the buildings into their historical and architectural context. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990).

3. METHODOLOGY

3.1 BUILDING INVESTIGATION

- 3.1.1 *Photographic Archive:* a photographic archive will be produced utilising a 35mm camera to produce both black and white contact prints and colour slides. Photographs will also be taken in digital format. The archive will comprise general shots of the building and its surroundings.
- 3.1.2 *Interpretation and Analysis:* a visual inspection of the building will be undertaken utilising the OA North buildings *pro-forma* sheets. An outline description will be maintained to RCHME Level I-type survey. This level of recording is the simplest form of record designated (RCHME 1996, 4), and is essentially a visual record, supplemented by the minimum information needed to identify the building's location, age and type.

4. REPORT

- 4.1 The results of the survey will be submitted in report format, illustrated with the relevant drawings.
- 4.2 One bound and one unbound copy of the report will be submitted to the Client. The Development Control Officer with Cheshire Archeology Service will also be sent a copy of the report, which will be provided both as paper copy and in a suitably digital form. A copy of the report will also be supplied to the Local Planning Authority responsible for the planning decision. Any subsequent work arising from this survey will be subject to separate consideration in liaison with the Development Control Officer and the Client.

5. ARCHIVE

5.1 The results of the buildings investigation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project, in accordance with UKIC guidelines. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA.

5.2 It is intended that the archive be deposited with Warrington Museum. An index to the archive will be forwarded to the Cheshire Sites and Monuments Record, and a further copy can be made available for deposition in the National Archaeological Record.

6. HEALTH AND SAFETY

- OA North provides a Health and Safety Statement for all projects and maintains a Safety Policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (3rd Edition, 1997). OA North will liaise with the Client/main contractor to ensure all health and safety regulations are met. A risk assessment will be completed in advance of any on-site works.
- 6.2 OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.
- Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

7. CONFIDENTIALITY

- 7.1 The report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; it is not suitable for publication, save as a note, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.
- Any proposed variations to the project design will be agreed with the Assistant County Archaeologist in co-ordination with the Client. OA North will arrange a preliminary meeting, if required, and the Assistant County Archaeologist will be informed of the commencement of the project in writing.

APPENDIX 2: CATALOGUE OF PHOTOGRAPHS

BLACK AND WHITE 35MM FILMS

FRAMES	DESCRIPTION	DIRECTION
F1: 2	Building 5: South external elevation general view	N
F1: 3	Building 5: Blocked doorway at west end of south external elevation	N
F1: 4, 5	Building 5: Doorway at east end of south external elevation	N
F1: 6	Building 5: West external elevation	NW
F1: 7, 8	Building 5: North external elevation	SE
F1: 9	Building 5: Loading bay in north external elevation	SE
F1: 10, 11	Building 5: First floor internal view of loading bay	NW
F1: 12, 13	Building 5: First floor internal view of north wall	NW
F1: 14	Building 5: First floor internal view of south wall	SE
F1: 15	Building 5: First floor internal view of south wall	SW
F1: 16	Building 5: Porch at east end of south external elevation	NW
F1: 17	Building 5: Extension butting east external elevation	N
F1: 18,19	Building 5: First floor blocked windows in east external elevation	SW
F1: 20	Building 5: Blocked doorway in east external elevation	SW
F1: 21	Building 5: Blocked doorway in east external elevation	NW
F1: 22	Building 5: Detail of first floor blocked window at south end of east external elevation	SW
F1: 23	Building 7: Loading bay at west end of south external elevation	N
F1: 24	Building 6: West external elevation	Е
F1:25	Building 6: West end of south external elevation	N
F1: 26	Building 6: General view of south external elevation	NE
F1: 27	Building 6: West external elevation of chemical shed butting south elevation	E
F1: 28, 29	Building 6: South external elevation of chemical shed butting south elevation	NW
F1: 30	Building 6: East external elevation of chemical shed	W

F1: 31	Building 6: Loading bay doorway at east end of south external elevation	N
F1: 32	Building 6: West elevation of shed extension along the south elevation	Е
F1: 33	Building 6: South elevation of shed extension	N
F1: 34	Building 6: South elevation of shed extension	NE
F3: 1	Building 6: East external elevation	W
F3: 2	Building 7: East external elevation	NW
F3: 3	Building 13: South and east external elevations	NW
F3: 4	Building 13: Window within south east external elevation	W
F3: 5	Building 13: East external elevation	W
F3: 6	Building 13: North external elevation	S
F3: 7	Building 7: Loading bays within east external elevation	W
F3: 8	Building 7: North loading bay	NW
F3: 9	Building 7: Loading bays within east external elevation	SW
F3: 10	Building 7: West elevation of shed extension	Е
F3: 11	Building 7: Doorway in east external elevation	W
F3: 12	Building 8: Loading bay in east external elevation	W
F3: 13	Building 7: Shed interior roof detail	Е
F3: 14, 15	Building 8: General interior view of shed	S
F3: 16, 17	Building 7: Blocked loading bay and doorway within west end of south external elevation	N
F3: 18	Building 14: West external elevation	NW
F3: 19	Building 14: West external elevation	SE
F3: 20	Building 14: South external elevation	NW
F3: 21	General shot of west perimeter wall	W
F3: 22	Building 4: North external wall	S
F3: 23	Building 4: General shot of interior showing gas pipes	SW
F3: 24	Building 4: East external elevation	SW
F3: 25	Building 4: South external elevation	NW

F3: 26	Building 1: East external elevation	NW
F3: 27	Building 1: East external elevation	SW
F3: 28	Building 1: South external elevation	N
F3: 29	Building 2: North external elevation	SW
F3: 30	Buildings 5, 6 and 7: General view	NE
F3: 31	Buildings 6 and 7: General view	NE
F3: 32	Building 6: Loading bay	N
F3: 33	Buildings 7 and 8: General view	W
F3: 34	Buildings 3, 9 and 6: General view	NW
F5: 1	Building 3: North external elevation	S
F5: 2	Building 9: West external elevation	NE
F5: 3	Building 10: East external elevation	SW
F5: 4	Building 10: South external elevation	N
F5: 5, 6	Building 11: East external elevation	W
F5: 7	Buildings 10: West external elevation	NE
F5: 8	Building 12: North external elevation	NE
F5: 9	Building 12: West external elevation	NE
F5: 10	Building 12: East external elevation	W
F5: 11	Building 12: General view	NW
F5: 12	General view along west edge of site	N
F5: 13	Buildings 3 and 10: General view	N

COLOUR SLIDE 35MM FILM

FRAMES	DESCRIPTION	DIRECTION
F2: 2, 3	Building 5: West external elevation general view	NE
F2: 4, 5	Building 5: South external elevation	N
F2: 6, 7	Building 5: Doorway at east end of south external elevation	N
F2: 8, 9	Building 5: North external elevation	SE
F2: 10	Building 5: Loading bay in north external elevation	SE
F2: 11, 12	Building 5: First floor internal view of loading bay	NW
F2: 13, 14	Building 5: First floor internal view of north wall	NW
F2: 15	Building 5: First floor internal view of south wall	SE
F2: 16	Building 5: First floor internal view of south wall	SW
F2: 17	Building 5: Porch at east end of south external elevation	NW
F2: 18	Building 5: Toilet tower attached to east external elevation	N
F2: 19, 20	Building 5: First floor blocked windows in east external elevation	SW
F2: 21	Building 5: Blocked doorway in east external elevation	SW
F2: 22	Building 5: Blocked doorway in east external elevation	NW
F2: 23	Building 5: Detail of first floor blocked window at south end of east external elevation	SW
F2: 24	Building 7: Loading bay at west end of south external elevation	N
F2: 25	Building 6: West external elevation	Е
F2:26	Building 6: West end of south external elevation	N
F2: 27	Building 6: General view of south external elevation	NE
F2: 28	Building 6: West external elevation of chemical shed butting south elevation	E
F2: 29	Building 6: South external elevation of chemical shed butting south elevation	NW
F2: 30	Building 6: South external elevation of chemical shed butting south elevation	NE
F2: 31	Building 6: East external elevation of chemical shed butting south elevation	W
F2: 32	Building 6: Loading bay doorway at east end of south external elevation	N

F2: 33	Building 6: West elevation of shed extension along the south elevation	Е
F2: 34	Building 6: South elevation of shed extension	N
F2: 35	Building 6: South elevation of shed extension	NE
F4: 2	Building 6: East external elevation	SW
F4: 3	Building 7: East external elevation	NW
F4: 4	Building 13: South and east external elevations	N
F4: 5	Building 13: Window within south east external elevation	W
F4: 6	Building 13: East external elevation	W
F4: 7	Building 13: North external elevation	S
F4: 8	Building 7: Loading bays within east external elevation	W
F4: 9	Building 7: North loading bay	NW
F4: 10	Buildings 7 and 13: General view of east external elevation	SW
F4: 11	Building 7: North elevation of shed extension	E
F4: 12	Building 7: Loading bay doorway in east external elevation	W
F4: 13	Building 8: Loading bay in east external elevation	W
F4: 14	Building 7: Shed interior roof detail	Е
F4: 15, 16	Building 8: General interior view of shed	S
F4: 17, 18	Building 7: Blocked loading bay and doorway within west end of south external elevation	N
F4: 19	Building 14: West external elevation	NW
F4: 20	Building 14: West external elevation	SE
F4: 21	Building 14: South external elevation	NW
F4: 22	General shot of west perimeter wall	W
F4: 23	Building 4: North external wall	S
F4: 24	Building 4: General shot of interior showing gas pipes	SW
F4: 25	Building 4: East external elevation	SW
F4: 26	Building 4: South external elevation	NW
F4: 27	Building 1: East external elevation	NW
F4: 28	Building 1: East external elevation	SW

F4: 29	Building 1: South external elevation	N
F4: 30	Building 2: North external elevation	SW
F4: 31	Building 2: East external elevation	NE
F4: 32	Buildings 1, 5, 6 and 7: General view	N
F4: 33	Building 6: General view	NE
F4: 34	Building 9: General view	W
F4: 35	Building 6: Loading bay	N
F4: 36	Building 12: General view	NW
F4: 37	Buildings 5, 6 and 7: General view	N
F6: 2	Building 3: North external elevation	S
F6: 3	Building 9: West external elevation	NE
F6: 4	Building 10: East external elevation	SW
F6: 5	Building 10: South external elevation	N
F6: 6, 7	Building 11: East external elevation	W
F6: 8	Building 10: West external elevation	NE
F6: 9	Building 12: South external elevation	NE
F6: 10	Building 12: West external elevation	N
F6: 11	Building 12: North external elevation	S
F6: 12	Building 12: General view	NW
F6: 13	General view along west edge of site	N
F6: 14	Building 3: South external elevation	N

DIGITAL IMAGES

FRAME	DESCRIPTION	DIRECTION
P1010032	Building 5: South elevation	N
P1010033	Building 5: Doorway in west elevation	SE
P1010035	Buildings 5: Open doorway in south elevation	N
P1010036	Building 5: Blocked doorway in south elevation	N
P1010037	Building 5: North elevation	Е
P1010038	Building 5: North elevation	Е
P1010039	Building 5: Loading bay in north elevation	E
P1010040	Building 5: Arched entrance within partition wall on the ground floor	SE
P1010041	Building 5: General view of ground floor interior	E
P1010042	Building 5: Metal rail loading gear within ground floor	S
P1010043	Building 5: Office on ground floor	S
P1010044	Building 5: Metal rail loading gear within ground floor	NW
P1010045	Building 5: Ground floor interior	Е
P1010046	Building 5: Partially blocked doorway in west wall	W
P1010047	Building 5: General view of first floor showing the east wall	Е
P1010048	Building 5: Roof trusses	SW
P1010049	Building 5: Blocked dooway within east wall on first floor	E
P1010050	Building 5: Stairs connecting to ground floor	N
P1010052	Building 5: Detail of roof trusses	W
P1010053	Building 5: First floor doorway	Е
P1010054	Building 5: South wall interior	SE
P1010056	Building 5: Blocked doorway next to fire exit on first floor	Е
P1010057	Building 5: General view of east wall on first floor	W
P1010058	Building 5: First floor office	SE
P1010059	Building 5: Blocked doorway within east external wall	NW
P1010060	Building 5: Blocked doorway on first floor of east external wall	W

P1010061	Building 5: North wall extension	NW
P1010062	Building 5: Porch attached to south external elevation	NW
P1010063	Building 8: General view of interior	N
P1010064	Building 8: Nail warehouse sign	Е
P1010065	Building 6: General view of interior	S
P1010066	Building 1: 1 st floor, general view	W
P1010067	Building 7: Machine platforms	SW
P1010068	Building 8: Offices inside the west wall	NE
P1010069	Building 7: Guard rails	Е
P1010070	Building 8: West external wall	NE
P1010071	Building 7: Guard railed tanks within shed floor	NE
P1010072, P1010073	Buildings 7 and 8: Tanks within floor of sheds	N
P1010074,	Building 7: Bright Wire Receiving Area Sign	Е
P1010075	Building 8: Blocked doorway at east end of building	Е
P1010076	Building 7: General view of interior	N

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- Figure 2: Location of photographs
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- Figure 4: Extract from the Ordnance Survey Map1907
- Figure 5: Extract from the Ordnance Survey Map1928
- Figure 6: Extract from the Ordnance Survey Map1937
- Figure 7: Extract from the Ordnance Survey Map1963

PLATES

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- Plate 3: Doorway at east end of south external elevation of Building 5
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- Plate 5: Loading bay along north external wall in Building 5
- Plate 6: View of north room interior in Building 5
- Plate 7: Girder rails running below ceiling of ground floor in Building 5, looking south
- Plate 8: Girder rails running below ceiling of ground floor in Building 5, looking north
- Plate 9: Doorway in west wall of Building 5
- Plate 10: Ground floor interior of the south room in Building 5
- Plate 11: First floor ceiling in Building 5
- Plate 12: Blocked doorway within the east wall of Building 5
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- Plate 14: Blocked window within the east wall of Building 5
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- Plate 26: General view of Building 13, looking north
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- Plate 36: North elevation of Building 2
- Plate 37: North elevation of Building 3
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- Plate 40: South elevation of Building 10
- Plate 41: East elevation of Building 11
- Plate 42: General view of Building 12

Plate 43: West elevation of Building 14

Plate 44: West elevation of Building 8

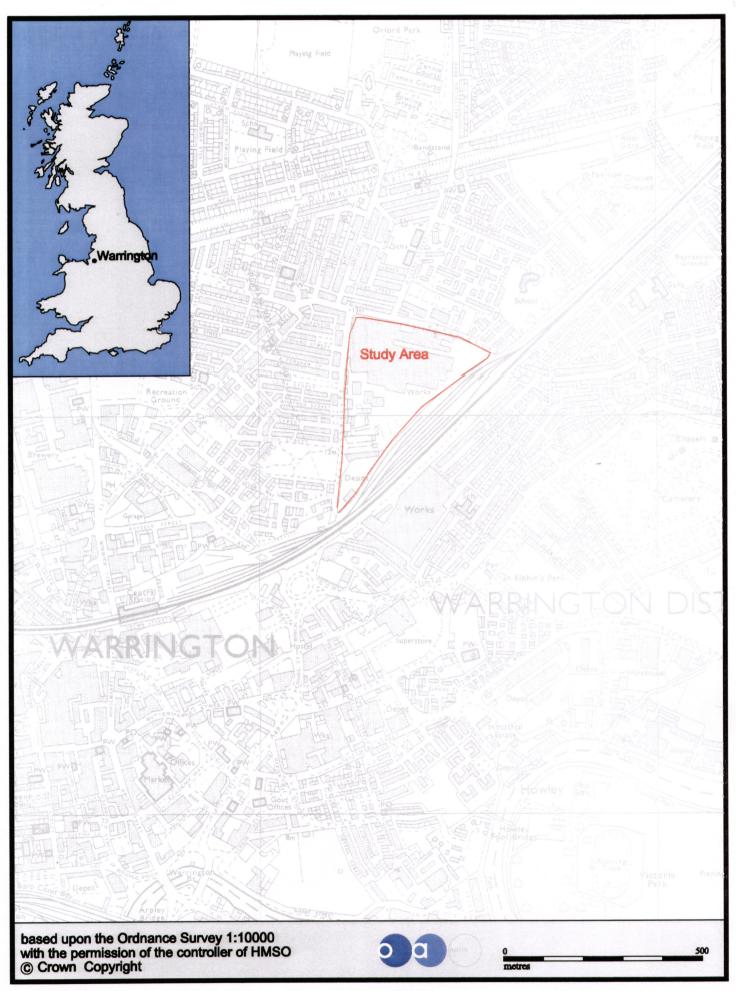


Figure 1: Location Map

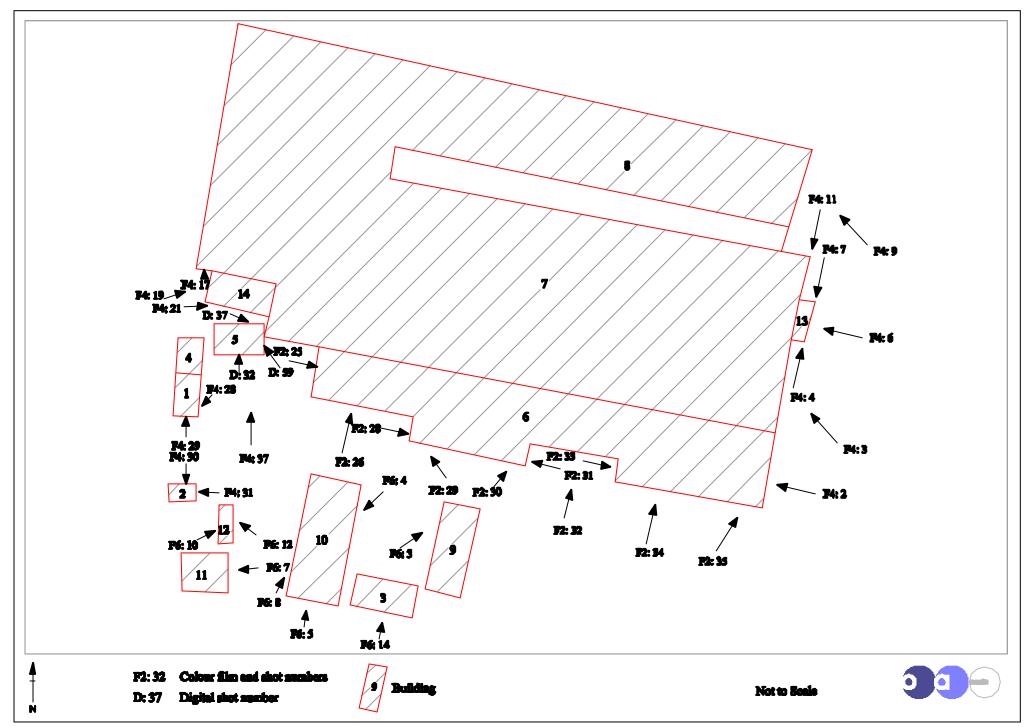


Figure 2: Location of photographs

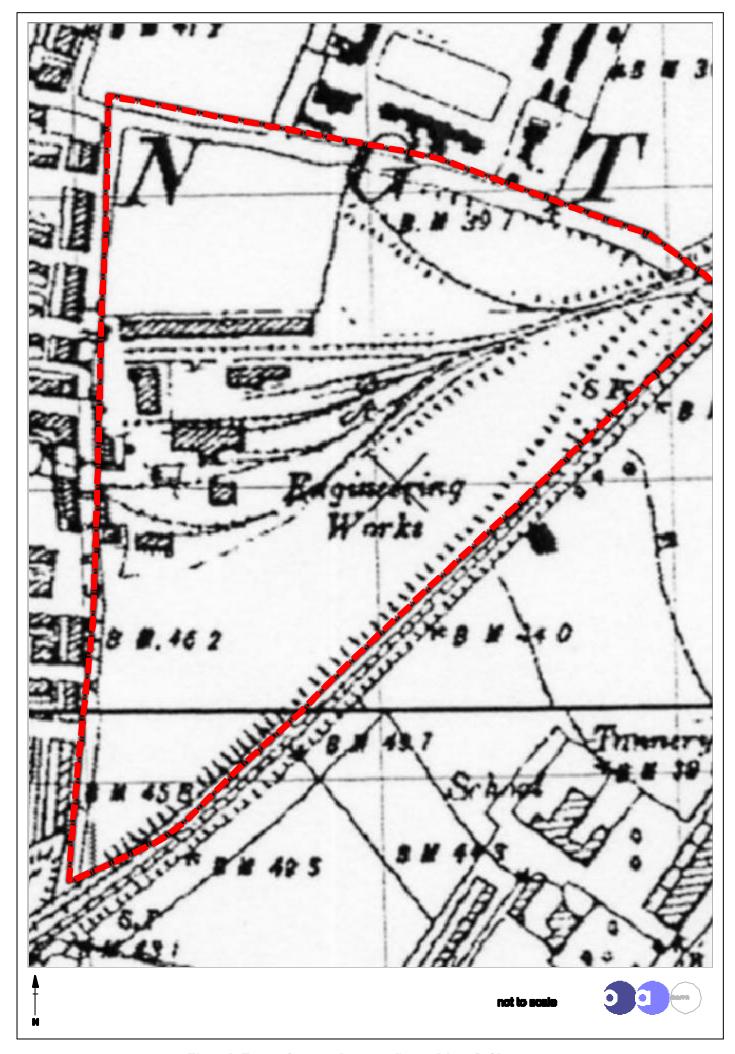


Figure 3: Extract from the Ordnance Survey Map of 1894

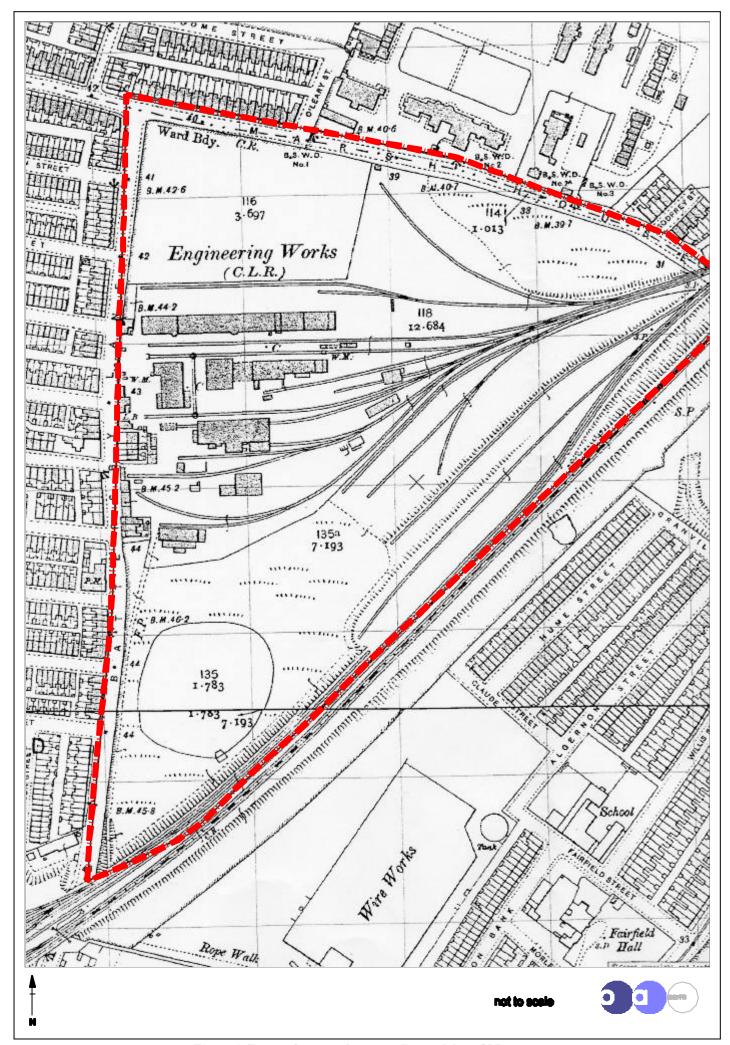


Figure 4: Extract from the Ordnance Survey Map 1907

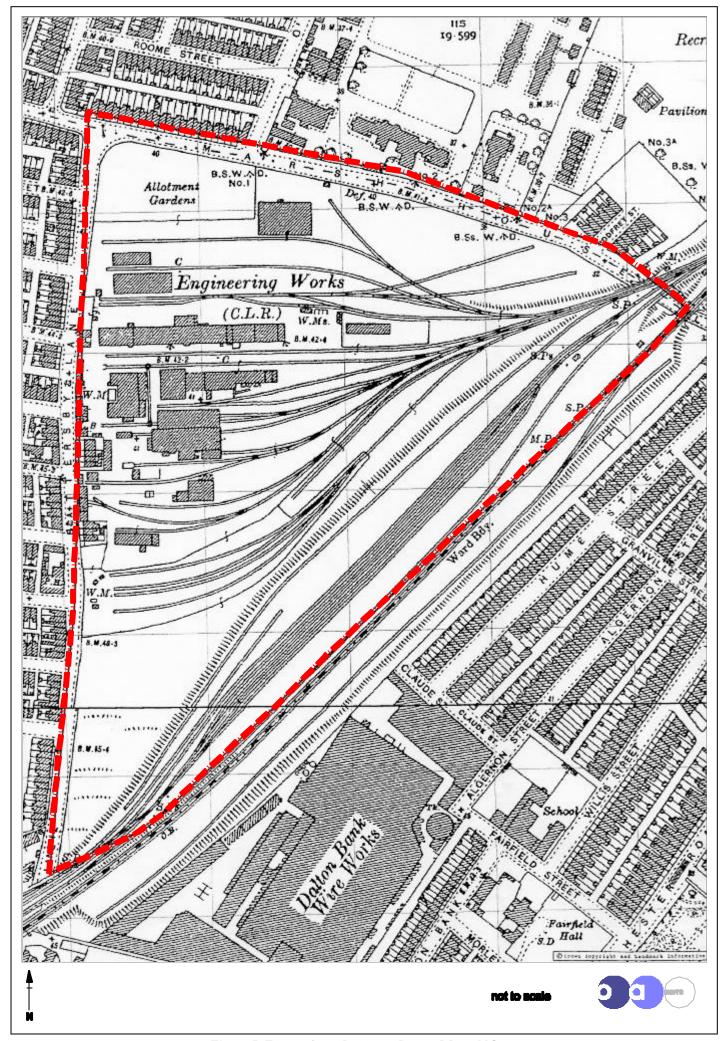


Figure 5: Extract from Ordnance Survey Map 1928

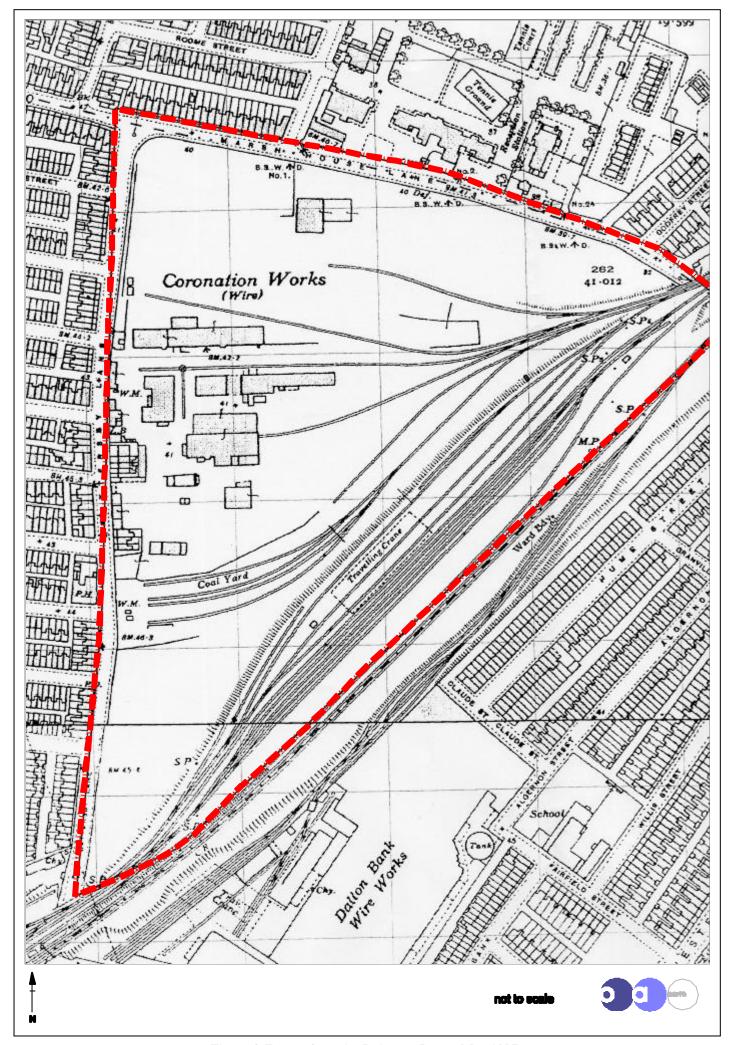


Figure 6: Extract from the Ordnance Survey Map 1937

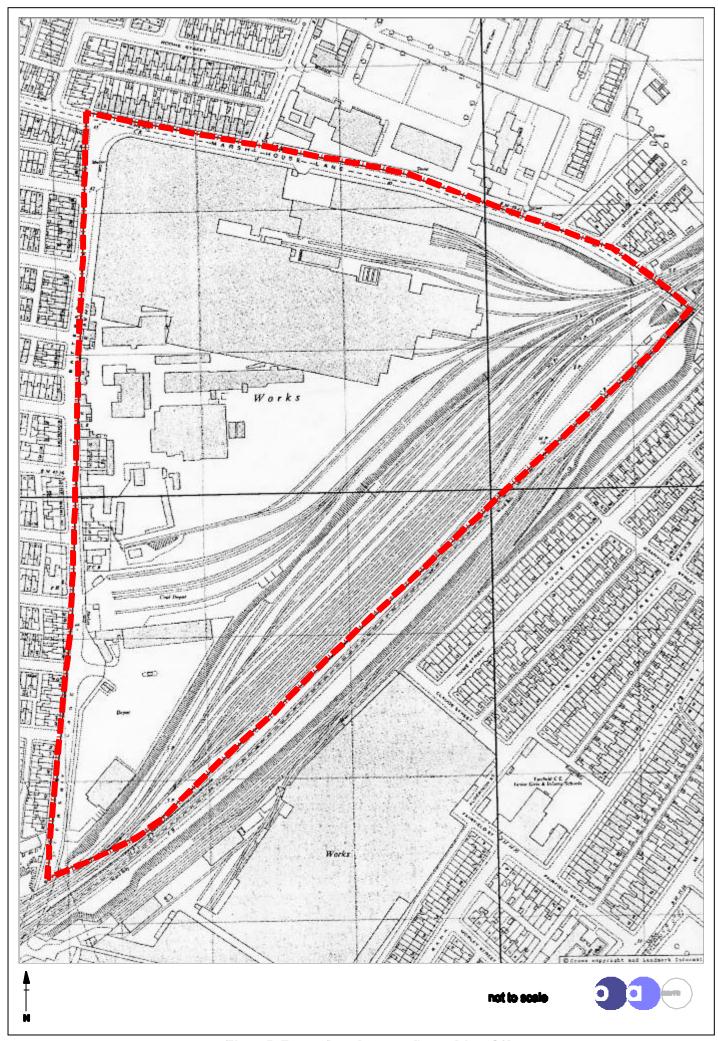


Figure 7: Extract from Ordnance Survey Map 1963



Plate 1: General view of Building 5, looking north



Plate 2: Blocked doorway at west end of south external elevation of Building 5



Plate 3: Doorway at east end of south external elevation of Building 5



Plate 4: North external elevation of Building 5, looking south/east



Plate 5: Loading bay along north external wall in Building 5



Plate 6: View of north room interior in Building 5



Plate 7: Girder rails running below ceiling of ground floor in Building 5, looking south



Plate 8: Girder rails running below ceiling of ground floor in Building 5, looking north



Plate 9: Doorway in west wall of Building 5



Plate 10: Ground floor interior of the south room in Building 5



Plate 11: First floor ceiling in Building 5



Plate 12: Blocked doorway within the east wall of Building 5



Plate 13: Fire exit stairs to the ground floor along the east end of Building 5

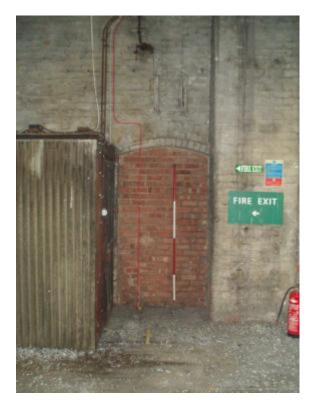


Plate 14: Blocked window within the east wall of Building 5



Plate 15: Office within the west end of Building 5



Plate 16: Blocked doorway along east external elevation of Building 5



Plate 17: Porch attached to the east end of Building 5



Plate 18: Remains of a possible toilet tower attached to the east wall of Building 5



Plate 19: South entrance into Building 7



Plate 20: Interior of Building 7, looking east



Plate 21: South (west) elevation of Building 6



Plate 22: South (centre) elevation of Building 6



Plate 23: South (east) elevation of Building 6



Plate 24: East elevation of Buildings 7 and 8



Plate 25: East elevation of Building 8



Plate 26: General view of Building 13, looking north



Plate 27: East elevation of Building 13



Plate 28: General view of Buildings 6 and 7, looking north/east



Plate 29: Interior of Building 8, looking west



Plate 30: Interior of Building 6, looking south



Plate 31: Nail warehouse sign in Building 8



Plate 32: Machine platforms in Building 7



Plate 33: Concrete tanks in Building 7



Plate 34: Internal east wall elevation in Building 8



Plate 35: East elevation of Building 1, looking south/west



Plate 36: North elevation of Building 2



Plate 37: North elevation of Building 3



Plate 38: North elevation of Building 4



Plate 39: West elevation of Building 9



Plate 40: South elevation of Building 10



Plate 41: East elevation of Building 11



Plate 42: General view of Building 12



Plate 43: West elevation of Building 14



Plate 44: West elevation of Building 8