GBA Heritage

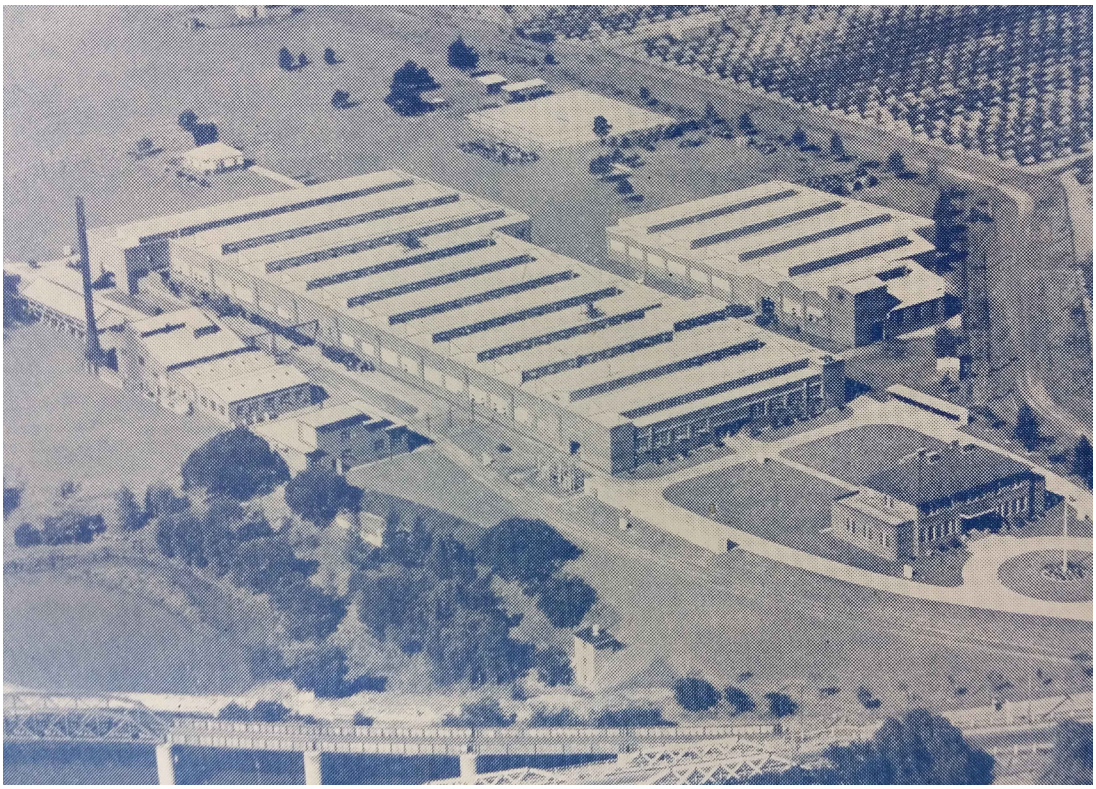
STATEMENT OF HERITAGE IMPACT

Moore Point Planning Proposal

Heritage Item: Former MM Cables Factory and Cable Makers Australia Factory Pty Ltd Group, including interwar administration building, factory and interiors (Item 76)

Proposed Works: Planning Proposal
Prepared For: Leamac Property Group

May 2024
Issue B



ACKNOWLEDGEMENT OF COUNTRY

GBA Heritage acknowledges the Traditional Custodians of the land that includes the subject site, and pay our respects to Elders past and present.

AUTHORSHIP

This report has been prepared by Dr Cameron Hartnell, Senior Heritage Consultant (PhD, M Herit Cons, M.ICOMOS), and Garry McDonald, Associate Director (B Sc Arch, B Arch, M.ICOMOS), of GBA Heritage, and has been reviewed by the Director, Graham Brooks. Unless otherwise noted, all of the photographs and drawings in this report are by GBA Heritage.

LIMITATIONS

This report only addresses the relevant heritage planning provisions and does not address general planning or environmental management considerations.

Recommendations have been made on the basis of documentary evidence viewed and inspection of the existing fabric. Archaeological assessment of the subject site is outside the scope of this report.

TERMINOLOGY

While the original use of a building at the west side of the subject site not definitively known and is understood to be a possible powerhouse, the building is identified as the powerhouse.

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MOORE POINT PLANNING PROPOSAL, MOOREBANK

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CONTENTS

1.0
THE HERITAGE CONTEXT

1.1 REPORT OVERVIEW

This Statement of Heritage Impact assesses the heritage impact of a proposed Planning Proposal for an area of 314,481 m^2 within the Moore Point Precinct. The analysis draws on the context of local strategic planning goals and includes provision of information about the heritage management framework that is applicable to the site, at both State and Local level.

Part of the subject site, 3 Bridges Road, is a heritage listed item identified on Schedule 5 of the *Liverpool Local Environmental Plan 2008* (LEP).

The subject planning proposal was granted Gateway Approval on 3 April 2023 from the Department of Planning and Environment (Department Ref: PP-2022-1602). The Gateway Determination included the following relevant conditions:

> *1 (f.)(iv.) Update mapping to propose amendments to the heritage map;*
>
> *3. An updated Master Plan and an Urban Design Report must be prepared, for endorsement by the Department prior to exhibition, to address the following:*
> *(D) The Urban Design Report is also to include:*
> *ii.) Propose a transition of FSR/height controls to minimise impact on heritage items, Georges River, Moore Lake and existing and proposed open spaces.*
>
> *7. A heritage assessment report which addresses any impact on heritage items on site, as well as adjoining heritage items to the precinct. The report must investigate adaptive reuse options which would allow for the buildings to be retained.*

This report is to be read in conjunction with, and in the context, of reports prepared by other disciplines.

This report also addresses the heritage requirements of the Local Planning Directions, under S9.1(2) of the *Environmental Planning and Assessment Act 1979*.

1.2 THE STUDY SITE

The area subject to this planning proposal is located north of Newbridge Road. It is described by NSW Land Registry Services (LRS) as:

- 3 Bridges Road - Lot 200 DP 1009044
- 5 Bridges Road - Lot 100 DP 775780
- 6 Bridges Road - Lot 10 DP 875626
- 8 Bridges Road - Lot 111 DP 1133744
- 11 Bridges Road - Lot 201 DP 1009044
- 16 Bridges Road - Lot 1 DP 329572
- 361 Newbridge Road - Lot 101 DP 827141

1.3 STATUTORY HERITAGE LISTINGS

3 Bridges Road is listed as an item of Local heritage significance in Schedule 5 of the *Liverpool Local Environmental Plan (LEP) 2008* as *Former MM Cables Factory and Cable Makers Australia Factory Pty Ltd Group, including inter-war administration building, factory and interiors*.

The subject site is located in the vicinity of the following items listed in Schedule 5 of the *Liverpool LEP 2008*:

No	Item	Listing
70	Light Horse Park	Local
72	Liverpool Railway Station Group	State
80	Liverpool College (TAFE) site	State
86	Pylons (former Liverpool Railway Bridge)	Local
87	Liverpool Weir	State
C01	Bigge Park Conservation Area	Local

Therefore, the property is subject to the heritage provisions of the *Liverpool LEP 2008* and the *Liverpool Development Control Plan (DCP) 2008* under the *Environmental Planning and Assessment Act 1979*. Liverpool City Council must take into consideration the potential impact of any proposed development on the heritage significance of the conservation area and heritage items in the vicinity.

Figure 1.1
Location map showing the subject site outlined in red
Source: Nearmap website

Figure 1.2
Location map showing the subject site outlined in red
Source: Nearmap website

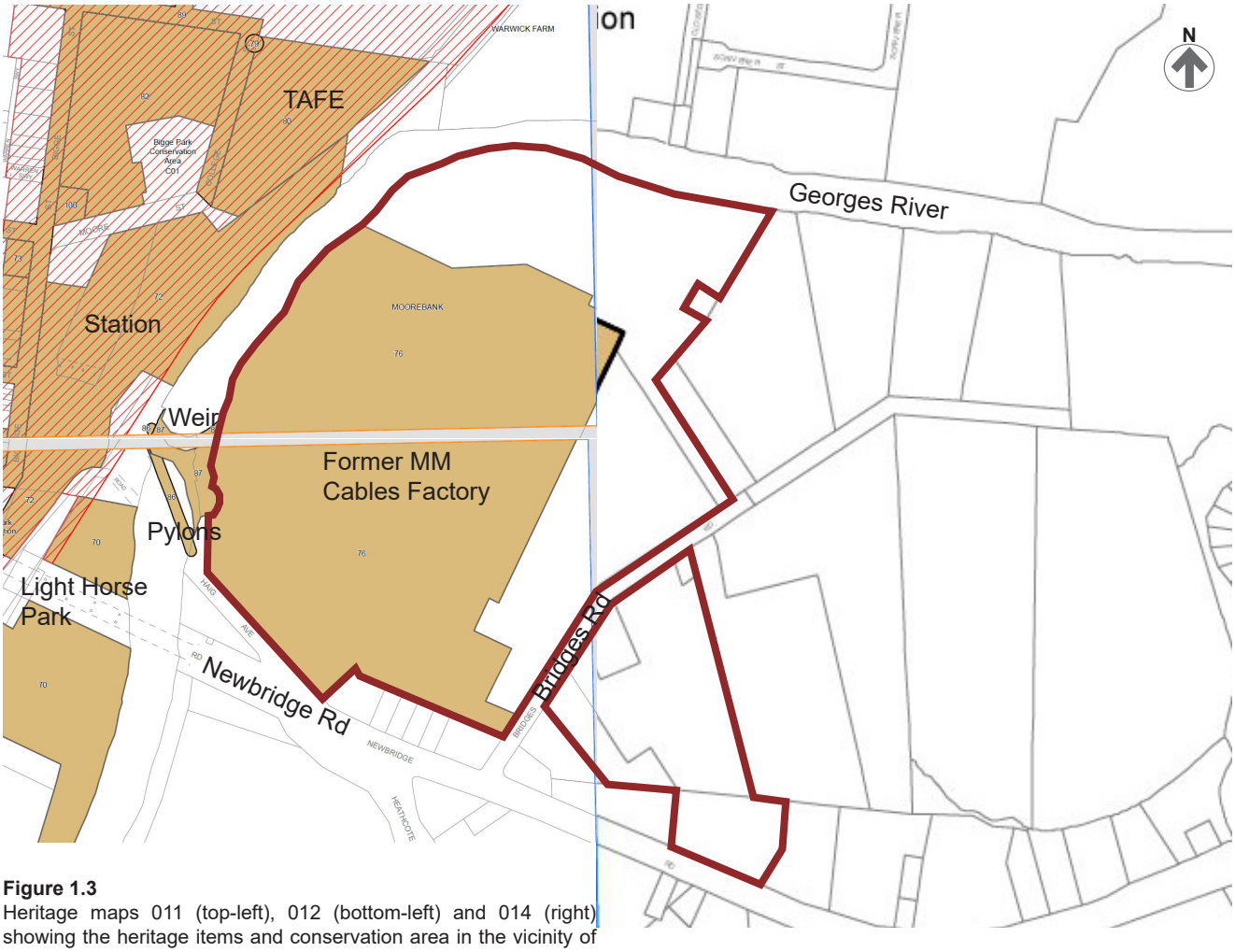


Figure 1.3
Heritage maps 011 (top-left), 012 (bottom-left) and 014 (right) showing the heritage items and conservation area in the vicinity of the subject site, which is outlined in red
Source: Liverpool LEP 2008

1.4 HISTORICAL OVERVIEW

1.4.1 BRIEF HISTORY OF LIVERPOOL

The Georges River, that forms the western boundary of the subject site, appears to have also been a demarcation between the indigenous peoples of the area. The Tharawal homeland was to the south of the river down to the south coast. The Gandangara people were to the west of the Georges River to the Blue Mountains, and the Darug were to the north of the river including to the Parramatta area.[1]

Early European exploration in the 1790s was motivated by the search for suitable arable land out to Parramatta and south to what became known as the Cowpastures. Early exploration was initially by boat up the Georges River from Botany Bay. Land grants followed from 1798 to 1805 in the Chipping Norton and Moorebank areas.[2]

Governor Lachlan Macquarie visited the various residences of the Georges River area in 1810 and noted in his diary:[3]

> *Having surveyed the ground and found it in every respect eligible and fit for the purpose, I determined to erect a township on it, and named it Liverpool in honour of the Earl of that title, now the Secretary of State for the Colonies. The Acting Surveyor, Mr Meehan, was at the same time directed to mark out the ground for the town, ...*

Thus Liverpool was the first of Macquarie's new official towns in the colony. The Liverpool weir was constructed in 1836 to supply water to the growing town, as well as a causeway across the river. It marked the division between salt and fresh water. The opening of the Liverpool railway station in 1856, and the telegraph line a few years later, resulted in the growth of Liverpool into a regional city.[4] Various industries, including wool processing and tanneries, used the Georges River with the result that it became heavily polluted.

1 Keating, 1996, 1-3.
2 Ibid., 9.
3 Ibid., 7.
4 Heritage Division website (Rosebank).

1.4.2 EARLY OWNERSHIP AND USE OF THE SITE

The area of the subject site was originally a part of the Thomas Moore estate, a Crown Grant of 1805, dating back to the earliest settlers in the district. Subsequently used for farming, it was to become orchards and dairying paddocks. The 25 acres of the site across the river from the railway station were owned by the Reeves and Deadman families, amongst others, in the 1920-30s.[5]

This farming area was about to change with the coming of the Second World War, and the realisation that imports would be increasingly restricted. Thus one of the new industries that was to be established was cable making, a critical component in many products and particularly necessary for the looming war effort.

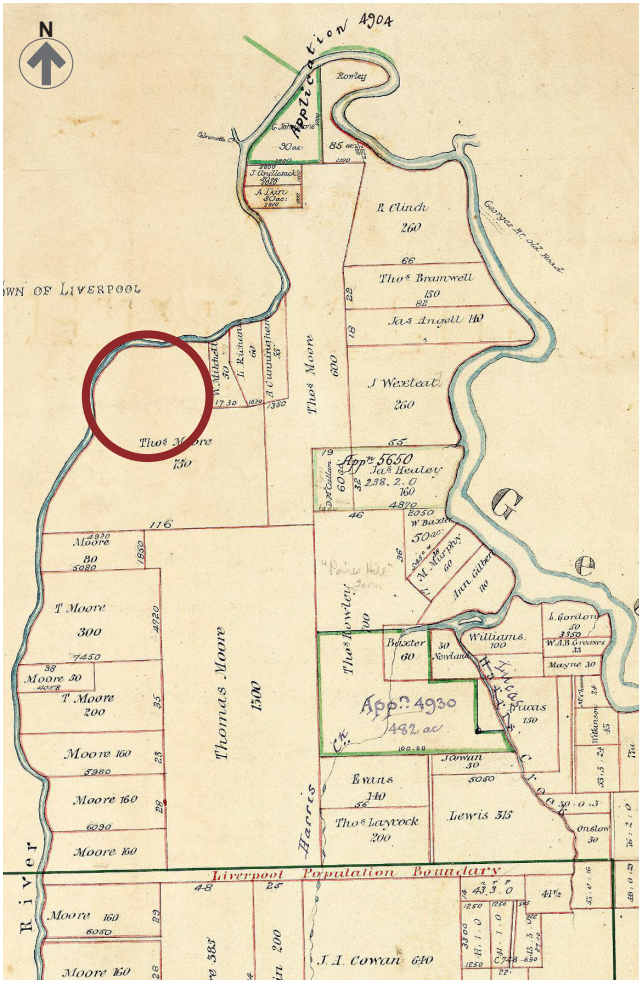


Figure 1.4
Undated Parish map showing the extensive land holdings of Thomas Moore along the eastern side of the Georges River
Source: LRS, Historical Land Records Viewer

5 Keating, 1996, 180.

Figure 1.5
1899 Parish Map showing the layout of Liverpool, the site and the alignment of Illawarra Road (currently Haig Avenue)
Source:. LRS, Historical Land Records Viewer

1.4.3 CABLE MAKING AND ITS ESTABLISHMENT IN AUSTRALIA

BRIEF HISTORY OF CABLE MAKING

The use of electric cables dates back to at least the eighteenth century, when experiments were conducted in Britain and Europe. In 1730, Stephen Gray conducted electrostatic charges several hundred feet long using a damp hempen line on silk threads.[6]

During 1812-1815, Baron von Schilling developed a prototype submarine cable made of copper wire insulated with Indian rubber, which he used to explode mines during the Napoleonic Wars.[7]

At the close of the nineteenth century, the manufacture of cables and wire in Great Britain became dominated by a consortium of companies, known as the Cable Makers Association (CMA).[8] With ready access to markets in the Commonwealth, the CMA established factories in America, South Africa, India and with the Second World War, in Australia. By 1947, the consortium included the Pirelli-General Cable Works Ltd., which operated out of Southampton.[9]

THE BEGINNING OF CABLE MAKING IN AUSTRALIA

The First World War was to provide the impetus for the construction of a rod rolling and wire drawing plant in Port Kembla. Up to the outbreak of war, British electrical cable companies sourced copper, zinc and lead principally from Germany. A potential alternative supply of metals was Australia, and in 1916, British Insulated and Helsby Cables Co Ltd, planned for the provision of capital and engineering skills for the proposed Port Kembla plant.[10]

Located adjacent to The Electrolytic Refining and Smelting Company of Australia, Metal Manufactures Ltd, was a consortium of Australian mining companies and the British cable company. The new plant produced its first copper rod for cable manufacture in 1918, was exported to Britain, to be subsequently imported back to Australia as telephone, telecommunications, and electrical power cables. This was to prove an expanding business during the following interwar period.[11]

As the Second World War approached, the Federal Government identified that British exports of cables were likely to be constrained and, in this context, Australia did not have a domestic source of supply of insulated cables. Australia was by then importing more than £500,000 worth annually.[12] The Government approached Metal Manufactures Limited and the Melbourne-based Olympic Tyre and Rubber Company Pty Ltd, who would be the principal suppliers of materials, to develop a local manufacturing capacity.

By 1939, Metal Manufacturers and CMA had agreed on forming Cable Makers Australia, and first proposed locating the factory in Port Kembla, where Metal Manufacturers were already producing copper wire.[13] Granville was also considered[14], before settling on the current site near Liverpool.

6 Cable Makers Australia, 1948.
7 Ibid.
8 Black, Robert M, 1983.
9 Cable Makers Australia, 1948.

10 Extent Heritage, 6, 2017.
11 Ibid.
12 Trove, *The Sun*, 'To Make Cables, Proposed New Industry", Monday 23 October 1939, 12.
13 Ibid.
14 Trove, *Cumberland Argus and Fruitgrowers Advocate*, 22 May 1940, 7.

The company chose Liverpool for several reasons:

- It was recognised that Australian industrial production needed to be spread out to minimise the potential losses from any military attack, including from the sea.
- The Moorebank site was conveniently situated adjacent to a main rail line, from which a branch line could be added.
- The location had access to water from the Georges River.
- Liverpool Council was also enthusiastic for industrial development and was supportive of the new company.

CABLE MAKERS AUSTRALIA PTY LTD

In August 1940, Cable Makers Australia Pty Ltd was formed with a head office in Melbourne and branch office in Sydney. The directors of the company were Sir Alexander Stewart (chairman), Sir George Julius, W R Caithness, J W Rutty, and P C Holmes Hunt.[15]

This leadership team included some of the most prominent and experienced industrial figures in the nation. Sir Alexander Stewart was an experienced engineer and prominent leader of Australian industrial concerns, including involvement in the establishment of the Australian industrial gas industry, and was chairman of Broken Hill South Ltd.

Sir George Julius was a mechanical engineer and inventor, was the president of the Electrical Association of Australia (1917-18), served on a government committee to inquire into electricity supplies (1925) and was chairman of the Commonwealth Committee on Secondary Industrial Testing and Research, which established the National Standards Laboratory.[16]

The strength of the company's leadership team would have ensured that the operations were well designed and operated, and had broad access to capital, markets and influential persons and groups, including the Commonwealth and State Governments.

15 Trove, *The Sun*, "Production Soon by Cable Makers", 28 April 1941, 10.

16 *Australian Dictionary of Biography*, Lack, John, "Stewart, Sir Alexander Anderson (1874-1956)" and Corbett, Arthur, "Julius, Sir George Alfred (1873-1946)", accessed online on 14 November 2017.

1.4.4 INITIAL CONSTRUCTION OF THE BUILDING

In August 1940, Sydney engineer Albert Leonard Blake, on behalf of a consortium headed by the British Insulated Callenders Cables Limited,[17] purchased 12 Lots of agricultural land, approximately 25 acres combined, on the banks of the George's River, between Illawarra Road (currently Haigh Avenue) and Haigh Avenue (now largely built over by the subject site).

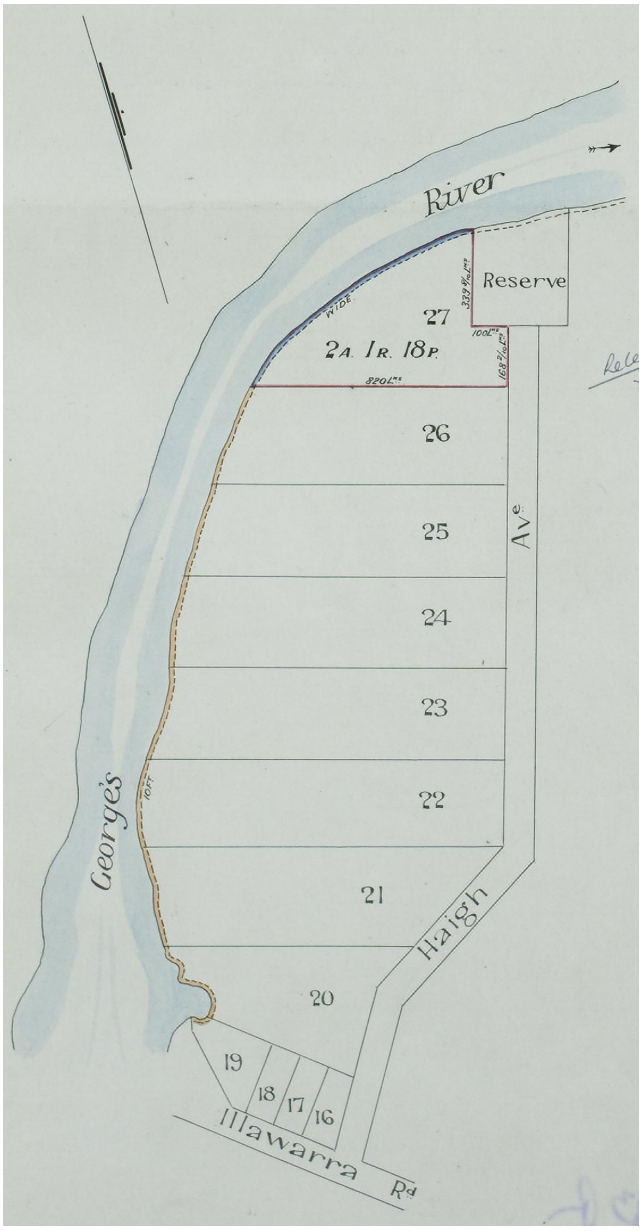


Figure 1.6
1926 Certificate of Title showing the 12 Lots that would eventually be sold to CMA with its initial purchase in 1940. Note the names of the perimeter roads at the time
Source: LRS, Historical Land Records Viewer

17 Keating, 1996, 180.

Blake wrote in his autobiography that the owners of the land (Deadman and Reeves):[18]

> *...were advised by me the site was acquired for defence purposes and this was the telling lever to consummate this worthwhile property.*

Blake then sold the land on to Cable Makers Australia, and would become the company's Sydney agent and General Manager.

The establishment of the new factory by Cable Makers Australia (CMA) had begun in mid-September 1940, with the levelling of the site.[19] By October, it had gained approval from the Department of Main Roads for its branch line to cross Illawarra Road,[20] and approval from Liverpool Council for the construction of a brick and reinforced concrete factory, office block and outbuildings, to cost an estimated £61,500.[21]

Further works received Council approval during 1941:

- May: a dining hall (cost £2,300),[22]
- July: three septic tanks,[23]
- August: an extension to the factory (£5,500)
- October: a brick maintenance shed (£1,200) and fibro bicycle sheds (£200).[24]

The company also constructed a boilerhouse, pump house and a possible powerhouse at this time. It is not known if the south-west section of Factory No. 2 was an original building but it had been erected by 1943.

As an indication of the significance of the new enterprise, the Federal Government passed the Cable and Wire Bounty Act, 1941, which paid a bounty of 4 shillings for each pound of copper wire used in the manufacture of rubber insulated cable and wire, with a limit to each company of £25,000.[25]

The architect for the new facility is not known but Concrete Constructions Pty Ltd undertook the construction works for the company. The company sourced as much equipment as it could from Australian sources and only imported specialist equipment from Great Britain.

Figure 1.7
1943 aerial photograph showing the original buildings, the Administration Building and first factory building
Source: SIX maps

Figure 1.8
1951 photograph showing the Administration Building, looking towards the north. Note the original turning circle
Source: SLNSW, September 1951 (d2-01599h)

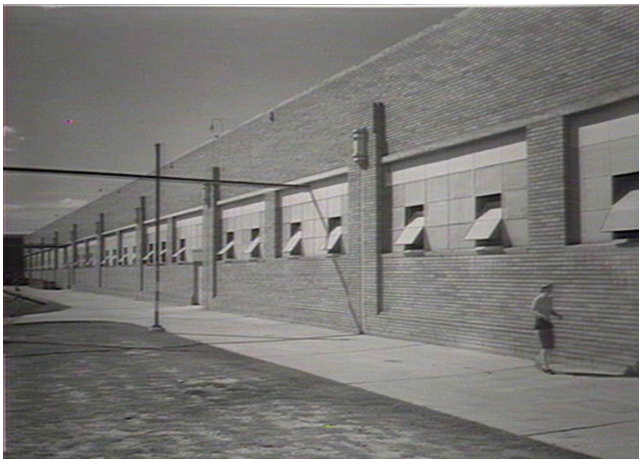


Figure 1.9
1945 photograph showing the original factory building, west elevation. Note the incorporation of the rainwater heads into the design of the engaged piers and the expressed concrete lintels
Source: SLNSW, April 1945 (d1-39793h)

18 Ibid.
19 Trove, *Liverpool News, "Municipal Council", 19 September 1940, 1.*
20 Trove, *Liverpool News*, "Municipal Council", 17 October 1940, 1.
21 Trove, *Liverpool News*, "Liverpool Buildings, £61,500", 31 October 1940, 4.
22 Trove, *Liverpool News*, "Liverpool Buildings", Thursday 1 May 1941, 2.
23 Trove, *Liverpool News*, "Septic Tanks", Thursday 24 July 1941, 3.
24 Trove, *Liverpool News*, "Liverpool Buildings", 30 October 1941, 3.
25 Trove, *Smiths Weekly*, "Olympic Tyres to Share £25,000 Copper Bounty", Saturday 1 November 1941, 9.

Figure 1.10
1926 Deposited Plan (11948) map with overlay of the subject site boundary
Source: LRS, HLRV, Volume 3741 Folio 93

The CMA factory was opened in late 1941 and started supplying the defence forces as well as the domestic market. The new factory supplied products to the military including the means of communication, electrical equipment for aircraft and aerodromes, coast and anti-aircraft defences, radio and radar, industry maintaining war supplies and "degaussing" ships.[26]

With the end of the war, Cable Makers Australia focused on supplying cables to the domestic market, which included a vast range of products available for housing, mining, transportation, communication and general industrial purposes.

Supply consisted of four main categories:

- Cables,
- Flexible cords,
- High tension cables, and
- Trailing cables, which used a range of materials such as copper, lead alloy, rubber and P.V.C. (Polyvinyl Chloride).[27]

1.4.5 SUBSEQUENT MAJOR PHASES OF DEVELOPMENT

By 1949, Cable Makers Australia began purchasing adjoining lands to allow expansion of the facility. By 1952, they had purchased an additional 12 Lots as well as the length of Haigh Avenue and a public reserve on the banks of the George's River, encompassing almost 31 acres of land east of the original site.[28]

The company steadily expanded the plant, both through adding to existing structures and building new ones. A 1961 aerial photograph shows Factories 1, 2 and 3 constructed to at least part of their current extent, and the foundations being prepared for Factory 4, and what is today the Joyce Factory, east of the subject facility. The later factory appears to have been sold to other interests in c.1988, when the associated Lot was formally defined as a separate land parcel.

The expansion of factory space reflected the use of new and changing technologies including:

- A fully automated, computer-controlled P.V.C. mixing plant.
- The production of copper wire for use in the manufacture of conductors.
- A continuous vulcanising line.
- Manufacturing using the silane cross linked system Sioplas E. on a commercial scale.
- The attachment of electrical plugs and sockets to leads by injection moulding.
- The development and manufacture of the Firestop range of cables that lowered fire risk.

1.4.6 5 BRIDGES ROAD

Between 1961 to 1969, a large brick factory with a saw-tooth roof was erected on 5 Bridges Road. By 1979, metal framed gabled sheds had been erected off its north end. By 1989, a gabled shed had been erected off its east side. By 2009, a new large gabled shed had been erected off the north end and the eastern shed expanded.

1.4.7 6 BRIDGES ROAD

A gabled building was erected at 6 Bridges Road between 1961 and 1969. The building remains on site today.

1.4.8 361 NEWBRIDGE ROAD

A four bay industrial building was erected on the site between 1961 and 1969. The building remains on the site today.

26 Cable Makers Australia, 1948
27 Ibid.
28 LRS, Historical Land Records Viewer, Land Titles Volume 6542 Folio 228, Volume 6145 Folio 250, and Volume 5862 Folio 9.

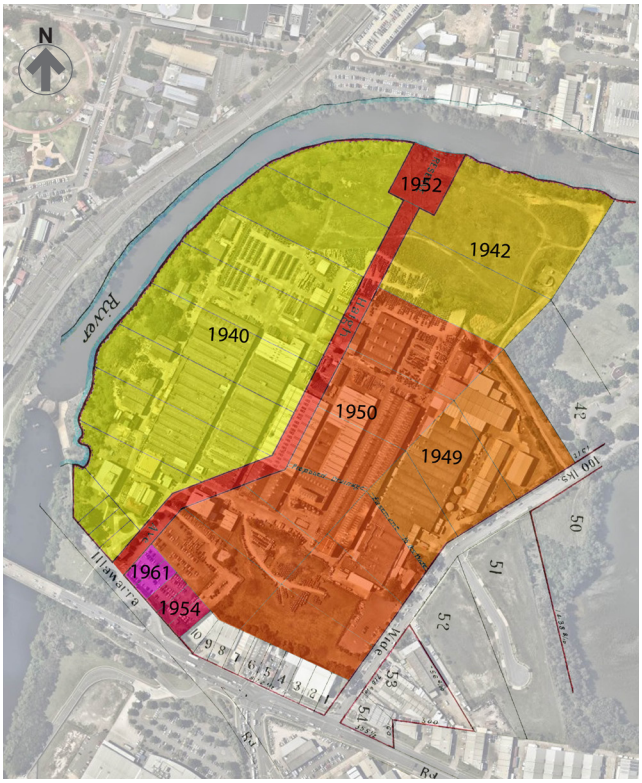


Figure 1.11
Overlay of post-WWII Lot purchases by Cable Makers Australia subsequent to the original 1940 purchase
Source:Preparation by GBA based on DP 11948 and Nearmap

Figure 1.12
1951 aerial photograph, showing the additions to Factory No.1, and the expansion of Factory No.2. Note the original Haigh Avenue, constrained the east expansion of Factory No. 2. Note the rows of orchard trees to the east of the original buildings
Source: Historical Imagery Viewer, ref: CCC466_16_112

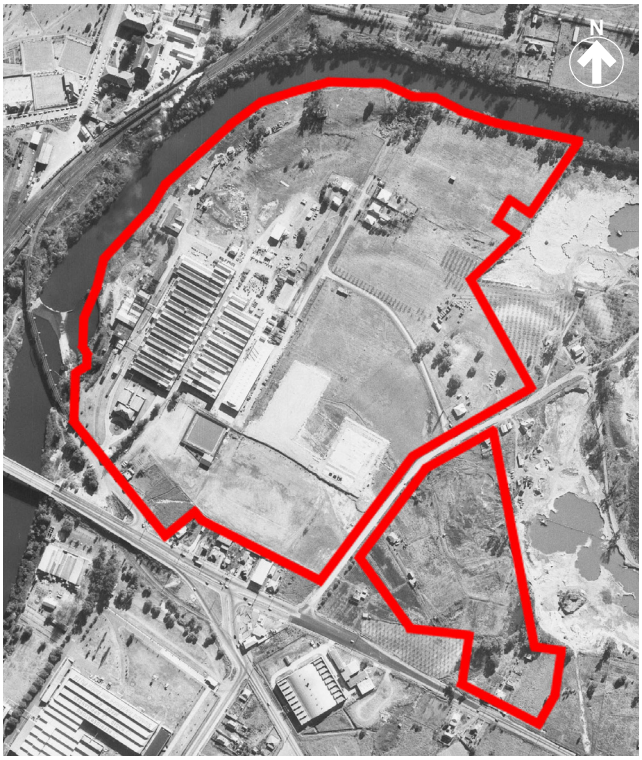


Figure 1.13
1961 aerial photograph, showing further additions to Factory No.1, No.2, the start on No.3, and the clearing for No.4. There is also a rear addition to the Administration Building. Note the remaining north alignment of Haigh Avenue, the railway bridge is still in place, and the upgrade of Newbridge Road
Source: Historical Imagery Viewer, ref: 1042_38_203

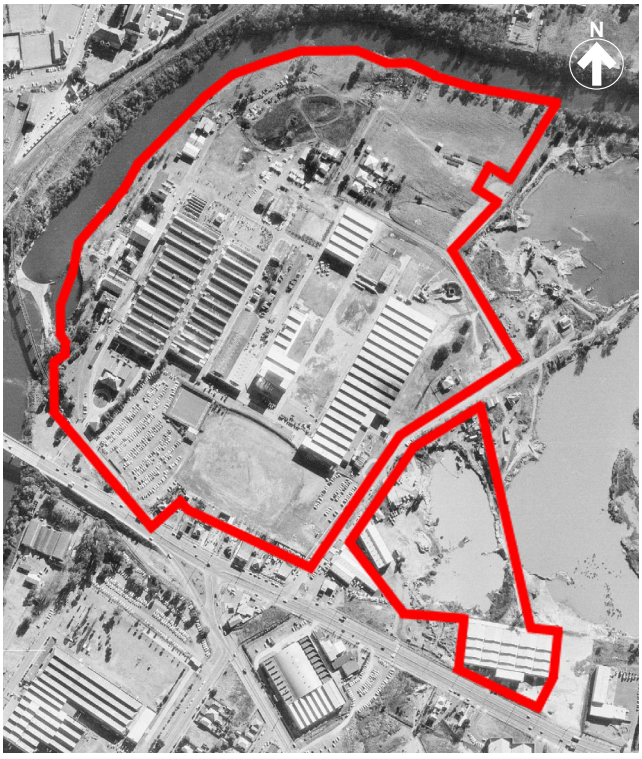


Figure 1.14
1970 aerial photograph, showing further additions to Factory No. 1 No. 2 the start on No.3 and the clearing for No.4. The buildings on 5 and 6 Bridges and 361 Newbridge Road have been erected
Source: Historical Imagery Viewer, ref: 1042_38_203

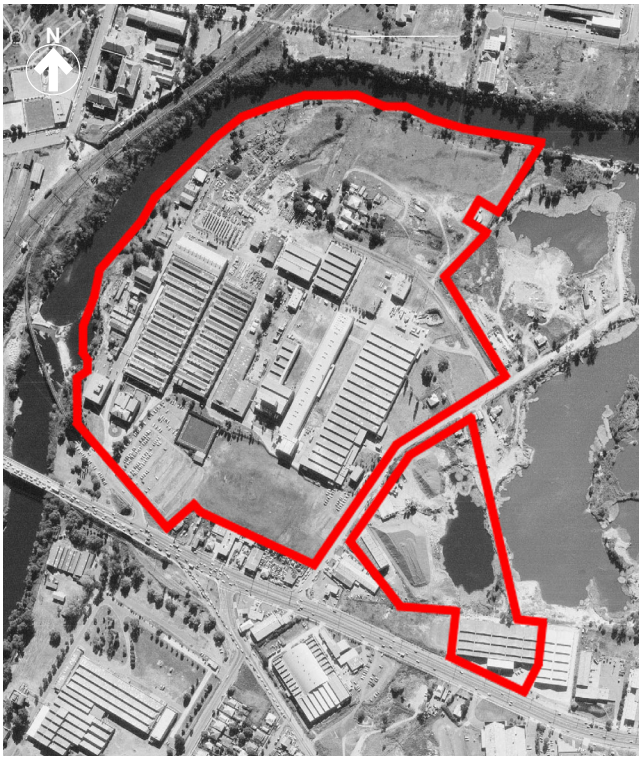


Figure 1.15
1979 aerial photograph, showing further additions of buildings to the north of the site
Source: Historical Imagery Viewer, ref: 2714_19_022

Figure 1.17
2004 aerial photograph of the subject site
Source: Historical Imagery Viewer, ref: 4869_07_137

Figure 1.16
1998 aerial photograph showing further 'infill' additions
Source: Historical Imagery Viewer, ref: 4452_12_107

Figure 1.18
2024 aerial photograph of the subject site
Source: Nearmap website

1.5 PHYSICAL ANALYSIS

1.5.1 INTRODUCTION

This section describes the current buildings and their context. It makes use of the historical evidence outlined in the previous section to understand the physical changes that have taken place. A detailed description of the buildings located on the heritage listed property 3 Bridges Road is included in Appendix A (Data Sheet Survey) of this report.

1.5.2 URBAN CONTEXT

The subject site is separated from the Liverpool CBD by the Georges River at which point there is a bend in the river. Together with Lake Moore to the east, the waterway forms a peninsular upon which the site is occupied, largely surrounded by parkland.

The site boundaries front the bend in the Georges River to the west, Haigh Park and Lake Moore to the east, and Newbridge Road to the south. Newbridge Road is the main eastern arterial road into Liverpool across Georges River. Access to the site is via Haigh Avenue that branches from each side of Newbridge Road with an underpass from the south, as well as Bridges Road.

The main south-east railway line runs along the eastern bank of Georges River, directly across from the subject site, and is lined with the Liverpool Railway Station, Bigge Park, the heritage listed Liverpool TAFE College and Liverpool Hospital to the north-west of the site. The western edge of the site falls down to the river where there are heritage listed items of a weir and remnant bridge pylons.

1.5.3 VIEWS TO AND FROM THE SITE

Given its riverside location, the western side of the site has significant views across Georges River towards the Liverpool CBD, although filtered by the mature planting along the river's edge. In particular, the new station buildings are evident, as well as the tower of Greenway's TAFE College from the north-west of the site.

The south aspect is towards a section of Light Horse Park, but views are limited by the raised embankment of Newbridge Road as it bridges Georges River. To the north the views from the site are across a relatively flat area of parkland. The views towards the east toward Haigh Park and Lake Moore are obscured by dense lines of trees.

There are elevated views towards the site from the Light Horse Bridge and Newbridge Road. Otherwise views into the site are limited by industrial buildings other than from the surrounding parkland.

Figure 1.19
Image of Georges River from Liverpool Weir, with the subject site on the right and the buildings of Liverpool Hospital on the distant shore

Figure 1.20
Image of the Liverpool Railway Station across Georges River, with the pylons of the original railway bridge on the left, and Liverpool weir in the foreground

Figure 1.21
Image of Liverpool College in the distance from the north side of the factory buildings

1.5.4 3 BRIDGES ROAD, DESCRIPTION OF THE BUILDINGS

The factory site is arranged with the visually dominant two storey administration building, entry and landscaping fronting Haigh Avenue, with factory buildings stretching in parallel lines behind, resulting in the creation of laneways.

The site consists of a core of large industrial buildings running in a generally north-south orientation, separated by 'laneways', with smaller administrative and ancillary buildings arranged around the perimeter. The Appendix contains Data Sheets with a description of each building, including the function, brief history and construction type. The buildings on the site can be summarised as:

- A two storey Administration Building that fronts the main entrance to the site from Haigh Avenue.
- A two storey 'gatehouse' entrance building.
- Large industrial buildings that have clerestory windows, top lit either by 'butterfly' or saw-tooth trusses that provide natural top light.
- A series of smaller ancillary buildings along the riverside eastern boundary, including a Powerhouse, Engineering Workshop, a Boilerhouse and an Engineering Store.
- Smaller industrial buildings along the north side of the site.

There is a carpark adjacent to the main entrance, and an open air storage area along the north side of the site.

The buildings are generally still in use and therefore are in fair to good condition. The Administration Building is vacant and has water ingress issues and consequently has a degree of deterioration. There are issues with identified hazardous materials on the site, which has involved remediation.

The Administration Building is relatively intact, although it has a large c.1960 addition to the back. The original industrial building, Factory No. 1, to the north has also been expanded with bays to the east, south and north. There is also a 'lean-to' added along the east side that has obscured much of the original elevation.

The Powerhouse is a three storey brick structure with a double height space on the west side of the building. There is a fibreglass addition with cross over walkway on the third floor. The Engineering Workshop is a three bay set of industrial buildings of one and two storeys. The Boilerhouse is a brick building with a double height interior space and remnant boiler equipment. The Engineering Store is a steel portal structure with clerestory window, clad in brick and metal sheet.

Figure 1.22
Image of the main entrance with the Administration Building beyond, and the Guard/entry building on the right. Note the original brick pillars to the gateway

Figure 1.23
Guard house /entry Building

Figure 1.24
The south-east corner of the original Factory No.1 (left) and No.2 (right). Note the gable parapets on the left and the tower to Factory No.2, which has had alterations to its roof

Figure 1.25
Image of the original Factory No.1, east elevation, showing the gable parapet and the 'butterfly' roof behind

Figure 1.26
Image of the interior of Factory No.1, showing the 'butterfly' roof and clerestory windows

Figure 1.27
West elevation of Factory No.1 at the south end, showing the original engaged piers and rainwater goods, and the intrusive higher addition on the right with the metal wall cladding. The Administration Building is on the far right

Figure 1.28
Detail of the west elevation of Factory Building No.1, showing the original engaged pier and rainwater goods, as well as the adjacent intrusive addition

Figure 1.29
Building of unknown original purpose, possibly a powerhouse

Figure 1.30
The east elevation of the Engineering Workshop

Figure 1.31
The north elevation of the Boilerhouse

Figure 1.32
The east elevation of the Engineering Store

1.5.5 OTHER BUILDINGS IN THE SUBJECT SITE

5 Bridges Road features a large factory building with a sawtooth roof and brick double height walls. There is a gabled addition on the north end constructed since 1998. There are a number of additional shed structures, both attached and detached, to the north and east of the main building. There is a two storey brick administrative building fronting Bridges Road.

6 Bridges Road features a single gabled industrial building clad in corrugated metal. There is a two storey brick structure, possibly used for administration, with a flat roof attached to the north end. There are single storey attached structures on the east and south sides.

361 Newbridge Road features a four bay factory with gable roofs. The factory features a double height space with brick lower walls and sheet metal and windows on the upper walls. There are three raised roof sections with clerestory windows to each bay. There is a two storey administrative building attached to the south end.

The properties of 8 and 11 Bridges Road are largely undeveloped.

Figure 1.33
The building at 6 Bridges Road
Source: Google Streetview

Figure 1.34
The administrative building at 5 Bridges Road
Source: Google Streetview

Figure 1.35
The factory building at 5 Bridges Road
Source: Google Streetview

Figure 1.36
The factory (left) and administrative (right) buildings at 361 Newbridge Road
Source: Google Streetview

1.6 PLANNING CONTEXT: LEP MAXIMUM HEIGHTS IN THE VICINITY

Liverpool has been recognised as a gateway city to the Western Sydney International Airport, the Western Sydney Aerotropolis and as the home to the Liverpool Innovation Precinct. As such, Liverpool aims to become Sydney's third CBD.

In keeping with the potential future growth of the city, Liverpool City Council rezoned 25 hectares in the CBD in order to encourage the establishment of businesses and to double the residential population of the city centre.[29]

The zoning of land on the east side of the CBD, in the vicinity of the subject site, demonstrates Council's vision for the management of the setting of heritage items in downtown Liverpool. The Height of Buildings Map from the *Liverpool LEP 2008*, provided as Figure 1.37, shows that tall buildings are permitted amongst and around heritage items and within a conservation area.

The State heritage listed Liverpool TAFE College is flanked by an area zoned to 35 metres to its north and west, and a small area zoned to 45 metres to its south. The State heritage listed Liverpool Railway Station is adjacent land zoned at 45 metres and 100 metres. The Bigge Park Conservation Area contains properties zoned to 24 metres, 28 metres, 35 metres and 100 metres. The Liverpool Public School and the Liverpool Courthouse are both zoned for buildings with a maximum height of 100 metres. Further height and FSR bonus provisions are also available within the Liviverpool CBD in key areas under Clause 7.5A of the *Liverpool LEP 2008*. Consideration of the heritage values of the conservation is nonetheless required.

With the current zoning in place, Council has established the regulatory foundation to have the setting of heritage items characterised by tall contemporary development of up to 100 metres.

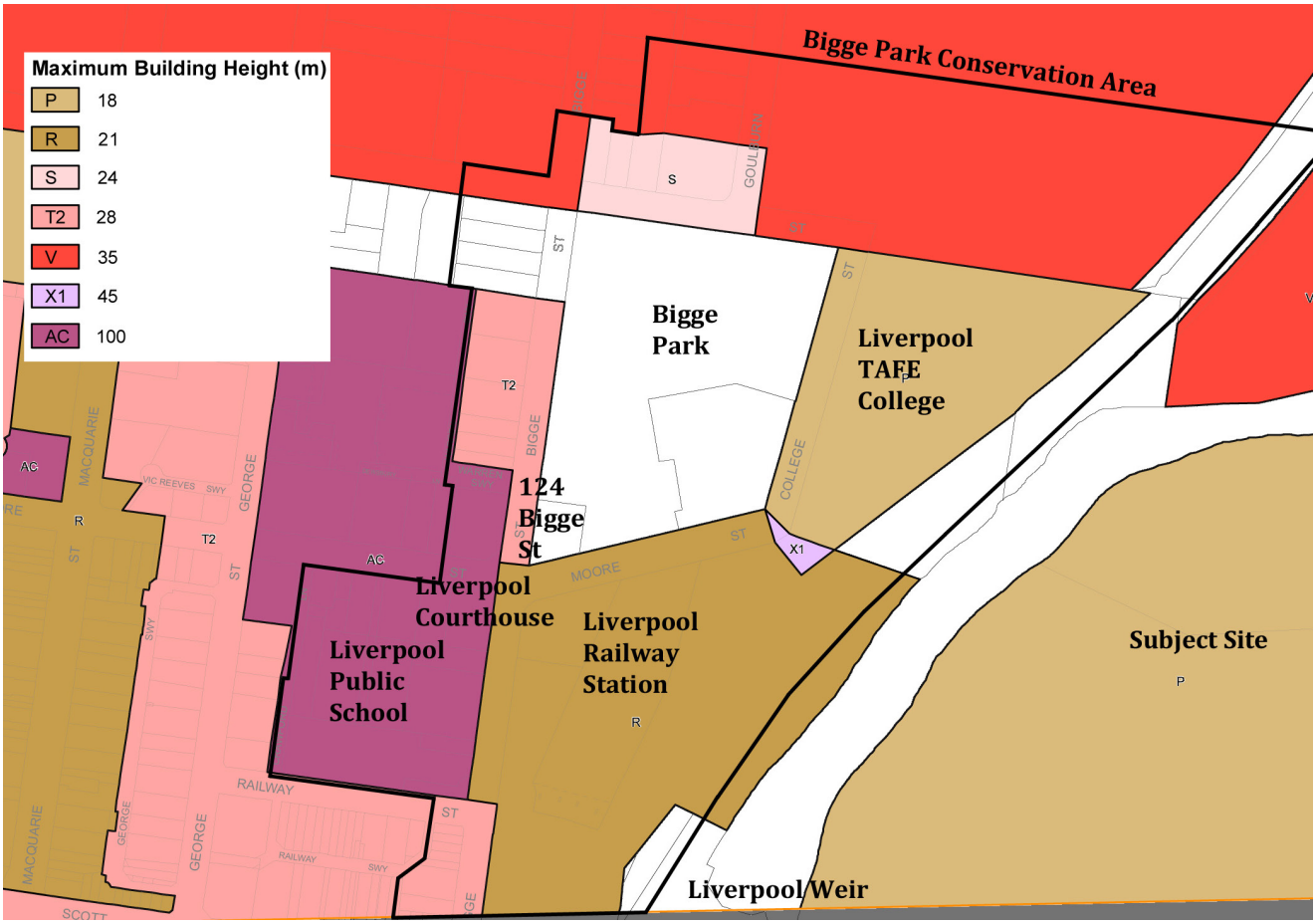


Figure 1.37
Height of Buildings Map showing that multi-storey buildings are permissible in the vicinity of heritage listed properties and within a conservation area. Map annotated by GBA Heritage
Source: Liverpool LEP 2008, Map 011

29 Liverpool City Council website.

2.0

SIGNIFICANCE ASSESSMENT

Article 1.2 of the *Burra Charter* states:

> *Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.*[1]

To ascribe cultural or heritage significance to an item, whether a place, building, object or custom, is to deem it to be valuable to our present and evolving society: something that should be part of future generations' heritage.

Heritage significance may be contained within and demonstrated by: the fabric of an item; its setting and relationship with other items; its recorded historical context; and its importance to certain groups of people. The assessed significance of an item may vary as more is learnt about the past, as its degree of rarity changes or as the value of its relationship to certain people or social values evolves.

Determining cultural significance is at the basis of all planning for places of historic value. A clear understanding of significance permits informed decisions about which items or parts of items should be retained and conserved, enhanced or at least not unduly altered, and thus guides the assessment of proposals for development and change.

Significance is assessed by comparing the item to a relevant sample of similar items, and by applying standard evaluation criteria to it. This section undertakes a comparative analysis of the subject item and assesses its significance against the criteria established by the Heritage Council of NSW.[2]

2.1 COMPARATIVE ANALYSIS

Assessment of the subject site has included comparison with, but was not limited to, the following Sydney buildings constructed in the same period.

Assessment of the subject site has included comparison with a number of industrial buildings from around the World War II-era. The following comparative examples are all local heritage items and there are no factory sites of that period in the NSW State Heritage Register. Some of these buildings have common features in terms of structure and building form, however most were in existence during the Interwar period.

2.1.1 INTERWAR PERIOD

Former Cyclone Fence and Gate Co factory
61-71 Mentmore Avenue, Rosebery

The Former Cyclone Fence and Gate Co. Factory is listed in Schedule 5 of the *Sydney LEP 2012* as an item of local heritage significance (Item 2263). The NSW Heritage Inventory provides the following Statement of Significance for the site, database entry number 5062475, with applicable extracts:

> *Purpose-built in 1937 for major wire fence manufacturers, Cyclone Fence and Gate Co, the former Cyclone factory represents the model industrial development of Rosebery during the inter-war period. The factory is historically significant for its connection to Australian manufacturing of building supplies during the mid-twentieth century and as evidence of this formerly widespread industry of Rosebery.*
>
> *The factory and office buildings represent a good example of a large low-scale industrial complex of southern Sydney from the inter-war period. The buildings demonstrate the industrial building typology which contains administrative and manufacturing in distinctly different building forms, including a single-storey factory over a large area, and a more architecturally distinctive office on the street frontage.*

1 Australia ICOMOS, The Australia ICOMOS Burra Charter, 2013
2 Heritage NSW, *Assessing Heritage Significance*, 2023

The office and factory buildings demonstrate good examples of inter-war utilitarian architecture with elements of the stripped classical, Art Deco and functionalist styles from this period. The buildings exhibit typical features of these styles including the heavy masonry construction, unadorned brick walls, pronounced symmetry and entrance on Morley Avenue, high parapet walls, vertical emphasis of the office building façade divided into bays by engaged piers, and contrasting horizontal emphasis of the attached factory. Decoration is characteristically restrained, limited to the stepped profile of the office parapet wall, contrasting brickwork for the continuous lintels along the factory façade, relief brickwork details, stepped recessed entry on Morley Avenue, and the pattern of vertically proportioned openings including original timber windows with horizontal glazing bars on Morley Avenue.

The former Cyclone factory forms part of one of the largest known collections of industrial and warehouse buildings of its kind in Australia, which records City of Sydney's past as one of only two historic industrial heartlands in Australia. This collection of buildings provides evidence of Australia's twentieth century transformation through industrialisation when Sydney became one of the largest industrialised cities in the South Pacific.

The buildings are of local heritage significance in terms of their historical, association, aesthetic and representative value.

Figure 5.1
Image of the administration building of the Cyclone Fence factory
Source: NSW Heritage Inventory

Figure 5.2
Image of the factory building of the Cyclone Fence factory with the administration building on the right
Source: NSW Heritage Inventory

The Cyclone factory is an example of an Interwar, inner city industrial site, typically with a more elaborate Administration Building fronting a simpler factory building behind. The design has similarities with the CMA building with the use of face brickwork, symmetry around the main entrance, engaged piers, flat parapet, and some decorative relief bricks and expressed vents.

The factory building, by contrast, has less detail other than string course brickwork, and the windows with horizontal glazing bars, typical of the period. Similar to the CMA buildings, the buildings are more of the Functionalist style than Art Deco in their detailing.

Former Coote & Jorgensen Engineers factory
602-612 Botany Road, Alexandria

The Former Coote & Jorgenson Engineers factory is listed in Schedule 5 of the *Sydney LEP 2012* as an item of local heritage significance (Item 2228). The NSW Heritage Inventory provides the following Statement of Significance for the site (in part), Heritage Item ID 5062450:

> *Built in 1937 and 1942 for machinery manufacturers, Coote & Jorgensen Engineers, this former factory represents the industrial development of Alexandria during the mid-twentieth century. It is historically significant for its connection to the Australian manufacturing of tanks and maritime craft for World War II and automotive and farm machinery during peacetime, and as evidence of this formerly widespread engineering industry in Alexandria. The factory buildings also provide evidence of other widespread industries in the area from their post-war uses for manufacturing chemicals, confectionery and moulding plastics. As such, the factory represents the development of new technology and products of the twentieth century, in particular the development of automated transport and equipment for Australian defence and agriculture, and the growing use of plastics and chemicals.*
>
> *The scale of the site and its buildings demonstrate the importance of the munitions and engineering industry for Sydney and Australia during the twentieth century and document the growth of this industry to support the war effort for World War II.*
>
> *The buildings also represent rare surviving examples of a government annex constructed for the Australian Cruiser Tank project, which was a significant engineering achievement for Australian industry. As former government annex 89, the site provides evidence of Australian 'shadow factories' constructed by the Commonwealth Department of Munitions, in the same manner as Great Britain, for civilian manufacture of munitions in the lead up to World War II. Two other known annexes associated with this project at the Hadfields Steels site and the Sonnerdale annex on Parramatta Road in Camperdown have been redeveloped or demolished.*
>
> *Aesthetically, the two buildings make important contributions to the streetscapes of Botany Road and Ralph Street. Both buildings represent good examples of mid-twentieth century factory buildings designed in the inter-war functionalist style. The buildings feature typical characteristics of the functionalist style including contrasting horizontal and vertical motifs, simple geometric massing and ornamentation, high parapet concealing sawtooth roofs, stepped skylines, curved corner elements, polychromatic face brickwork, relief decoration emphasising parallel lines, ornamentation concentrated along the parapet wall, steel multi-paned ribbon windows and monumental entrances. The Botany road building also demonstrates Art Deco elements with its pronounced symmetry and geometric decorative motifs.*
>
> *The two buildings demonstrate the industrial building typology which contains administrative and manufacturing uses in distinctly different building forms, including the characteristic sawtooth-roof factory located behind a more architecturally distinctive office or showroom on the street frontages. When first constructed, the buildings represented the latest in engineering workshop design of its time with the sawtooth roof construction designed to maximise natural light and welded steel frame with aluminium paint to minimise shadows.*

The Administration Building has more Art Deco detailing than the respective building on the CMA subject site, which is more Georgian Revival. However both buildings include curved walls at the corners, symmetry around the entry door, and the separation of the Administration Building from the factory building, one behind the other.

Unlike the CMA buildings, both of the Coote & Jorgensen buildings have saw-tooth roofs, and are adjoining, reflecting the inner city density. The CMA building in their semi-rural location was able to utilise space for a more formal landscaped entrance with round-about-driveway.

Figure 5.3
Image of the administration building of the Coote & Jorgensen factory, with the factory building to the rear, on the right
Source: NSW Heritage Inventory

Former British General Electric co
797 - 807 Botany Road, Rosebery

The former British General Electric Co. building is listed in Schedule 5 of the *Sydney LEP 2012* as an item of local heritage significance (Item 1372). The NSW Heritage Inventory provides the following Statement of Significance for the site, Heritage Item ID 2420465:

> *The building at 797-807 Botany Road, Rosebery was initially erected for the British General Electric Company, which had an important role in the fostering of the electric industry in Australia between 1910 and 1970.*
>
> *The facade has high aesthetic significance as an inter-war industrial structure and displays Art Deco stylistic features. In this regard the building is representative of the period, when materials and technology were used in a rational and economical fashion, and the Art Deco features were used as a final embellishment to highlight the important position that industrial buildings held as modern structures.*
>
> *The building is of historical significance for its ability to demonstrate the industrial expansion into the Rosebery area during the inter-war period, when the south was the only industrial growth area in Sydney.*
>
> *The building is of local heritage significance in terms of its historical, associative, aesthetic, technical and representative values.*

The former British General Electric building provides a contrast as an Interwar factory building that is of an earlier Art Deco design, being asymmetrical, highly varied parapet, and polychrome brickwork. Its internal factory structure also has a saw-tooth roof but runs in north-south direction, thus obtaining natural light from the east rather than the south.

Figure 5.4
Image of the administration building of the Coote & Jorgensen factory from the street, with the factory building to the rear (right)
Source: NSW Heritage Inventory

Former Walter Barr Pty Ltd factory
2-6 Birmingham Street, Alexandria

The former Walter Barr factory is listed in Schedule 5 of the *Sydney LEP 2012* as an item of local heritage significance (Item 2224). The NSW Heritage Inventory provides the following Statement of Significance for the site, Heritage Item ID 5062419:

> *Built in 1942 for plastic manufacturers, Walter Barr Pty Ltd, this former factory represents the industrial development of Alexandria during the mid-twentieth century. It is historically significant for its connection to the Australian manufacturing of plastic products and as evidence of this formerly widespread industry in Alexandria, which supported the manufacture of pharmaceuticals, cosmetics and alcohol. The former factory represents the development of new technology and products of the twentieth century, in particular the growing use of plastic.*
>
> *Products made at this factory supplied the Australian defence forces during World War II. It is also the site of innovations in compression-moulded plastic products designed and patented by Walter Barr for new appliances of the twentieth century including meter connection boxes, ice block trays and water filters. The patented Betts Bottle Capsule, used to seal and dress alcohol bottles, were one of the products made at this factory to supply the Australian market.*
>
> *The building represents a good example of a modest mid-twentieth century factory of Alexandria designed in the inter-war functionalist style. It features typical characteristics of the style including the dominant horizontal emphasis, high parapet, curved corners, decorative brickwork and engaged piers. The curved building frontage and its prominent corner site give the building landmark qualities in the local neighbourhood, where it marks the junction of two streets. The building makes an important contribution to the streetscapes of Birmingham Street and Gillespie Avenue, and is visible in the round from a number of near and distant vantage points.*
>
> *The building forms one of a group of modest industrial buildings on Birmingham Street from the inter-war and post-war periods, which give the street a distinct character. The age and original use of these buildings reinforce the industrial origin of the street name and twentieth century planning of this street and surrounding locality as the Birmingham of Australia.*

The former Walter Barr Pty Ltd factory forms part of one of the largest known collections of industrial and warehouse buildings of its kind in Australia, which records City of Sydney's past as one of only two historic industrial heartlands in Australia. This collection of buildings provides evidence of Australia's twentieth century transformation through industrialisation when Sydney became one of the largest industrialised cities in the South Pacific.

The former factory is of local heritage significance in terms of its historical, aesthetic and representative value.

The former Walter Barr factory addresses its street intersection location with curved corner brickwork, engaged piers, a stepped parapet, and banded string courses. Similar to the CMA factory building, the piers stop short of the top of the parapet. The main entry is defined by curved walls to each side, over which is a projecting canopy, also with curved corners.

The factory roof appears to have two sections of saw-tooth roofing, with glazing facing south.

Figure 5.5
Image of the administration building of the Walter Barr factory, indicating the street corner curved configuration, and the main entry to the right, also with curved walls and canopy. Note the engaged piers in relation to the top of the parapet
Source: NSW Heritage Inventory

2.1.2 SUMMARY

A comparative analysis of a number of other factory buildings located in Sydney, of the Interwar period as well as during the war, indicates that the Administration Building and Factory Building No. 1 of the CMA site exhibit some typical design features that are more of the stripped Classical, Functionalist style rather than the somewhat earlier Art Deco style.

In particular, there is an emphasis on a symmetrical layout with the Administration Building placed in front of the factory building. Unlike the restricted inner city sites, the semi-rural CMA site makes use of a formal landscape, with a frontal approach, complete with a grand turning circle.

The 'butterfly' roof structure of Factory No. 1, however, is relatively unusual, as opposed to the more typical use of saw-tooth trusses, with south facing glazing.

Other early site buildings, including Factory No. 2, the Powerhouse, the Engineering Workshop, the Boilerhouse and the Engineering Store, feature the horizontally emphasised mortar work but otherwise demonstrate typical vernacular mid-twentieth century industrial design that emphasise function over design.

The local heritage listing of the subject site is consistent with other comparative examples in Sydney. It is understood that there are no factory structures of the Interwar or WWII period listed on the NSW State Heritage Register.

2.2 ANALYSIS OF CULTURAL SIGNIFICANCE

The following commentary discusses how each of the criteria established by the New South Wales Heritage Office (now the Heritage Division of the NSW Office of Environment and Heritage) relate to the subject site.

The first statement under each Criterion is an existing assessment obtained from the NSW Heritage Inventory website for the *Pirelli Power Cables and Systems Building*, database number 1970078. The second statement under each Criterion is from a *Preliminary Industrial Heritage Assessment* prepared by *Extent Heritage*, February 2017. If GBA Heritage has made further comment for each Criterion, this has been added as noted.

Criterion (a) – Historic Significance
An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

NSW Heritage Inventory:

> *The site, as one of the first electrical cable factories in Australia, demonstrates the history of modern industrialisation in the country, State and Liverpool area. It also demonstrates the history of Australia's war efforts during World War II and the military technologies of the era.*

Extent Heritage assessment:

> *The Cable Makers Factory is a relic of the rapid government-sponsored development of technology-based industries in Australia in the early years of WW2. Along with the chemical manufacturing, explosives and ordnance manufacture, aircraft design and construction and the production of optical glass, the manufacture of electrical cables had never been undertaken locally and a major effort, involving Commonwealth, state and local government, private industry and academia, was required to establish these industries within a two – three year timeframe. (State)*
>
> *The Cable Makers Factory was a key manufacturing centre for electrical cable components for military manufacturing in Australia during WW2. The electrical and communication cables produced in the factory were critical to the manufacture of ships, aircraft, tanks, radar, radio and telephonic equipment for all branches of the armed forces during the war period. Postwar, electrical cables produced at Liverpool were favoured for many government and infrastructure projects throughout Australia, such as for traffic lights, electrical reticulation and mining development. (State)*
>
> *The establishment of the Cable Makers Factory in the Liverpool district was a significant event in the development of the district and was instrumental in its transition from a semi-rural area to a predominantly industrial centre within the Sydney metropolis. It was one of the largest employers in the area for much of the late twentieth century. (Local)*
>
> *The Cable Makers Factory at Liverpool was, for most of its years of operation, a paternalistically benevolent employer in the British Victorian tradition, with numerous in-house social and sporting groups, a regular in-house newsletter, a system of rewards and punishments and a welfare and literacy program. The factory site included bowling greens, sporting fields and tennis courts. This approach to employer/employee relations largely disappeared in the last three decades of the twentieth century. (Local)*

Criterion (b) - Historical Association
An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

NSW Heritage Inventory:

> *The site is associated with the history of Cable Makers Australia Ltd.*

Extent Heritage assessment:

> *The Cable Makers Factory at Liverpool is associated with the history and operation of Metal Manufacturers Ltd, a major Australian company (itself associated with Broken Hill Proprietary, Mt. Lyell Mining, Electrolytic Zinc and Imperial Chemical Industries) and, for much of its life, the majority owner of the Cable Makers Australia company. This association demonstrates the vertically integrated ownership that was a feature many major industrial activities in NSW. (State)*

The Cable Makers Factory at Liverpool is associated with the British Cable Makers' Association, an organisation of the major cable manufacturing enterprises in the UK. This organisation was instrumental in facilitating the rapid development of the Liverpool factory for wartime production. The Association was a key subject of the British Monopolies Commission in relation to its common pricing schemes in the post-war period. (Local)

GBA Heritage additional assessment:

The formation of Cable Makers Australia Pty Ltd in 1940 was associated with a team of prominent industrial managers, at a national level, to ensure the success of the new enterprise. The leadership team of directors included:

- *Sir Alexander Stewart, an engineer, was the first chairman of Commonwealth Industrial Gases Pty Ltd, and a number of other major industrial companies, including Broken Hill South Ltd.*
- *Sir George Julius, a mechanical engineer, was appointed chairman of the important Commonwealth Committee on Secondary Industries Testing and Research in 1936. Under his leadership the committee recommended the establishment of the National Standards Laboratory, a technical information service, and research into aero and automobile engines. During World War II he also served on the Central Inventions Board, the Australian Council for Aeronautics (as chairman) and the Army Inventions Directorate.*
- *Phillip Charles Holmes Hunt, an engineer, was an acknowledged leader of the gas industry in Australia, and acted as consultant to the Australian Gas Light Co., Sydney, the South Australian Gas Co., the Hobart Gas Co. and the Newcastle Gas and Coke Co. He was founder and first president of the Australian Gas Institute and chairman of the Gas Companies Association (later the National Gas Association, of which he was president.*

Criterion (c) - Aesthetic/Creative/Technical Achievement
An item is important in demonstrating aesthetic characteristics and/ or a high degree of creative or technical achievement in NSW (or the local area).

NSW Heritage Inventory:

The site indicates a level of technical achievement as a factory that pioneered the way for modern industrialisation in the Liverpool area. It also documents the military technologies of its era. Aesthetically the site exhibits architectural grandeur reinforced by its axial orientation, symmetrical massing and the incorporation of fashionable stylistic features (such as the central staircase and stair hall).

Extent Heritage assessment:

The original buildings of the Cable Makers Factory at Liverpool, in size, layout and geographic arrangement, demonstrate a Victorian-era industrial aesthetic in the placement of the grand and imposing Administration Building square to the entrance, behind a circular driveway around a garden bed, with the factory buildings ranged behind it in parallel rows, half hidden behind the Administration Building. The Administration Building presents a distinct character as the 'command centre' of the place, whilst shielding the public from the more prosaic activities carried out in the factory buildings behind. This aesthetic reflects a historic cultural philosophy which has largely disappeared in recent decades. (State)

The original buildings of the Cable Makers Factory at Liverpool are excellent examples of one particular stream of the Interwar Functionalist style of architecture, which featured rectangular red brick massing punctuated by rectangular openings, with minimal decoration. This style was favoured by institutional architects and is prevalent in Commonwealth (eg Middle Head military buildings) and NSW State government buildings (eg Sydney Technical College's Wattle Street buildings) of the late 1930s and 1940s. (Local)

GBA Heritage additional assessment:

The administration building exhibits detailing from the Interwar Functionalist style, such as the use of curved walling to the main entrance and each of the wings, as well as the use of horizontal banding in the form of string courses and the window glazing bars. Each of the wings has a flat parapet consistent with this style, however the main central element has a hipped roof and symmetrical form, including chimneys, that is more Interwar Georgian Revival. This includes the use of subtle quoins to the side of the windows.

The interior of the Administration building retains the Interwar Functionalist style, particularly with its central curved staircase, timber and metal balustrade, and Art Deco ceiling cornice and wall lights.

The original factory building, although obscured by later inappropriate additions to the south and west sides, exhibits Interwar Functionalist detailing along the western elevation. This side of the building displays modernist expressed concrete lintels to pairs of metal framed windows that are interrupted by engaged piers, and which are also incorporated into the plane of a base course. The piers are not full height, stopping half way through the parapet panel. The large rainwater heads and recessed downpipes are a part of the pier design including recessed corners at the top to give the appearance of a taper.

The roof structure of the factory building has 'butterfly' trusses that are relatively unusual in factory buildings, which are more likely to have south facing glazed saw-tooth trusses.

Criterion (d) - Social, cultural and spiritual
An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural, or spiritual reasons.

No entry for this Criterion

Extent Heritage assessment:

The Cable Makers Factory at Liverpool was, for most of its years of operation, a benevolent employer in the nineteenth century tradition, with numerous in-house social and sporting groups and other benefits. Many residents of Liverpool have worked at the factory at some time in the last seventy years and some may have a strong association with the place as a result of its social and cultural activities. This association has not been researched or proven. (Local)

Criterion (e) - Research potential
An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).

NSW Heritage Inventory:

There is the potential to gain more information on the site from further architectural, archaeological and documentary research.

Extent Heritage assessment:

The Cable Makers Factory at Liverpool demonstrates its Victorian industrial aesthetic in the placement of the Administration Building square to the entrance, the circular driveway and garden bed and the factory buildings ranged behind it in parallel rows, half hidden behind the Administration Building. The physical and architectural manifestations of this aesthetic were once common in Australia but there are few remaining locations where this original arrangement remains relatively intact and the Liverpool site has educational value in its demonstration of this character. (Local)

Criterion (f) - Rare
An item possesses uncommon, rare, or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).

NSW Heritage Inventory:

The site is the first major modern industrial building in the Liverpool area and is one of the earliest electrical cable factories in Australia.

Extent Heritage assessment:

The Cable Makers Factory was one of the largest manufacturing enterprises in the Liverpool region of Sydney at the time that it was established. (Local)

The Cable Makers Factory was the only significant manufacturer of rubber insulated electrical transmission cables in Australia for a decade after it was established. (Local)

GBA Heritage additional assessment:

The original factory building roof structure has a 'butterfly' truss system that is relatively unusual, differing from the more common saw-tooth truss.

Criterion (g) - Representative
An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments (or a class of the local area's cultural or natural places; or cultural or natural environments).

NSW Heritage Inventory:

The site is representative of a Functionalist style of architecture.

Extent Heritage assessment:

The original buildings of the Cable Makers Factory at Liverpool provide a representative example of the industrial aesthetic more associated with the Victorian era, whereby the factory was a micro-community in the manner of a modern fiefdom, with an internal class system based on the sharing of privilege amongst the upper echelons and a mostly benevolent paternalistic approach to the working class. (State)

The architectural stylisation of the original buildings of the Cable Makers Factory at Liverpool is representative of the architecture favoured and promulgated by the Commonwealth Department of Works in the 1935 - 1945 period. This style is ubiquitous in this historical context, with many examples at Defence Department sites (eg Middle Head, RAAF Richmond) and Defence-related factories (Lithgow Small Arms and Satellite Factories). It was similarly popular, for economic reasons, with State-government departments, such as education (Sydney Technical College) and health (Ryde Hospital). (Local)

The original buildings of the Cable Makers Factory at Liverpool are representative examples of large manufacturing buildings of the mid-twentieth century, with steel framing, brick curtain walls, concrete floors and riveted steel roof trusses mixing saw-tooth and gable profiles.
(Local)

The buildings of the Cable Makers Factory at Liverpool contain some representative examples of mid-twentieth century industrial machinery, with characteristic heavy cast-steel frames and manual controls and adjustments.

GBA Heritage additional assessment:

The Administration Building and original factory building are representative of the Interwar Functionalist style, with curved wall elements, and an emphasis on horizontality of detailing. The Administration Building also exhibits an Interwar Georgian Revival style with its symmetry, hipped roof and chimneys.

The original buildings of the site are representative of the range of structures required in a large mid-twentieth century buildings, including administration, factory building, powerhouse (possible), boilerhouse and engineering workshop.

2.3 STATEMENT OF SIGNIFICANCE

The following Statement of Significance for 3 Bridges Road, Moorebank has been sourced from the NSW Heritage Inventory, Heritage Item ID 1970078, *Pirelli Power Cables and Systems Building*:

> ***Statement of Significance:***
> *MM Cables Administration Building was one of the first electrical cable factories in Australia, It demonstrates the history of modern industrialisation in the country, State and Liverpool area. It also demonstrates the history of Australia's war efforts during World War II and the military technologies of the era. It is associated with the history of Cable Makers Australia Ltd. The factory indicates a level of technical achievement in pioneering the way for modern industrialisation in the Liverpool area. Aesthetically it exhibits architectural grandeur yet reflects a representative Functionalist architectural style. There is the potential to gain more information on the site from further architectural, archaeological and documentary research..*

Extent Heritage Statement of Significance:

> *The Cable Makers Factory is of State significance for its historical value as one of the important industrial activities established in Australia under the sponsorship and with the assistance of the Commonwealth Government during World War Two. Its links to the British cable-making companies and the Cable Makers' Association illustrate the then close relationship between Australia and Britain, in the period when Australia considered itself a part of the British Empire. It is also significant for its association with a group of heavy industrial concerns in Australia collectively linked through common ownership relating back to the BHP company.*
>
> *The Cable Makers Factory demonstrates a pre-War, post-Victorian industrial character through its architecture and arrangement of buildings and additionally expresses its origins through its use of the dominant architectural stylisation particular to government (particularly the Defence Department) and institutional buildings of the 1930s and 1940s. It has local significance as an important industry in Liverpool; it was a significant local employer and it played a significant role in the social and economic development of the area.*

GBA Heritage additional statement:

The establishment of Cable Makers Australia in 1940 has State significance for its association with a number of prominent people who played an important role in the establishment and management of national industries. Sir Alexander Stewart, Sir George Julius and PC Holmes Hunt were instrumental in the directorship of major companies, such as BHP South, and the gas industry, as well as advisory roles to the Commonwealth Government.

The original buildings of the Cable Makers Australia site are of Local significance in demonstrating an Interwar Georgian Revival style for the Administration Building, and behind it, a stripped Classical Functionalist style for the factory building, arranged in a symmetrical layout, including a formal landscape entrance with round about.

The original factory building has a relatively unusual 'butterfly' truss structure that provides both north and south facing highlight glazing, which differs from the more common saw-tooth truss. The west elevation of the factory building displays a refined use of engaged piers, with incorporated rainwater heads, and expressed concrete lintels providing a 'string' course over the paired windows.

The original buildings of the site are representative of the types of buildings required for the function of a mid-twentieth century factory complex, including administration, production, power, boilerhouse and engineering workshop.

2.4 GRADING OF SIGNIFICANCE

The buildings at 3 Bridges Road have been carefully assessed to determine a relative grading of significance into five levels. This process examines a number of factors, including:

- Relative age and original design quality
- Degree of intactness
- Extent of subsequent alterations
- Association with important people or events
- Intangible values
- Ability to demonstrate a rare quality, craft or construction process

Grading reflects the contribution the element makes to the overall significance of the item (or the degree to which the significance of the item would be diminished if the component were removed or altered).

EXCEPTIONAL SIGNIFICANCE
Rare or outstanding element directly contributing to a place or object's significance.

HIGH SIGNIFICANCE
High degree of original fabric.

Demonstrates a key element of the place or object's significance.

Alterations do not detract from its significance.

MODERATE SIGNIFICANCE
Altered or modified elements.

Elements with little heritage value, but which contribute to the overall significance of the place or object.

LITTLE SIGNIFICANCE
Alterations detract from its significance.

Difficult to interpret.

INTRUSIVE
Damaging to the place or object's significance.

Grading has been established as a valuable tool, to assist in developing appropriate conservation measures for the treatment of the building and its various elements. In general, good conservation practice encourages the focusing on change, or upgrading of, an historical building/site to those areas or components which make a lesser contribution to significance. The areas or components that make a greater or defining contribution to significance should generally be left intact or changed with the greatest care and respect.

Grading of Significance	Site Elements
EXCEPTIONAL	There are no elements of the subject site considered to be of Exceptional significance
HIGH	- Administration Building - Original Factory Building No.1, including front landscaping and circular drive - Front gate and piers
MODERATE	- Factory No. 2 - Guard House - Powerhouse - Engineering Workshop - Boilerhouse
LITTLE	- Rear addition to the Administration Building - North bays to Factories No. 1 and 2 - Factory Building No. 3 - Factory Building No. 4 - Factory Building No. 5 - The Engineering Store - All other remaining structures
INTRUSIVE	- West lean-to and south additions to Factory No.1 elevations

Figure 5.6
Overlay image of the subject site indicating the assessed relative levels of significance grading. Note the relative position of the administration building and factory buildings that results in laneways
Source: Nearmap website with GBA Heritage coloured overlay

2.5 CURTILAGE ANALYSIS

Heritage NSW (in the NSW Department of Planning and Environment) defines "heritage curtilage" as the area of land surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance.[3] Heritage curtilage can be classified as one of four types:

- Lot Boundary Heritage Curtilage
- Reduced Heritage Curtilage
- Expanded Heritage Curtilage
- Composite Heritage Curtilage

Given the site elements of Moderate and High heritage significance are located toward the west side of 3 Bridges Road, as shown on the significance plan provided in Figure 5.6, and that the remainder of the site features structures of little heritage significance, it is proposed that the site has a Reduced Heritage Curtilage.

The proposed curtilage encompases the site elements of moderate and high significance. The western side of Factory No.2 is included as the retention and management of this section of the building is deemed to be sufficient for the retention of a laneway example and for interpretation of the building, particularly as seen from the laneway between it and Factory No. 1.

The proposed Reduced Heritage Curtilage is provided in Figure 5.7.

The subject planning proposal includes a proposal to amend the LEP heritage map for the subject site, to align with the reduced heritage curtilage provided in Figure 5.7. GBA Heritage supports this amendment to the heritage map.

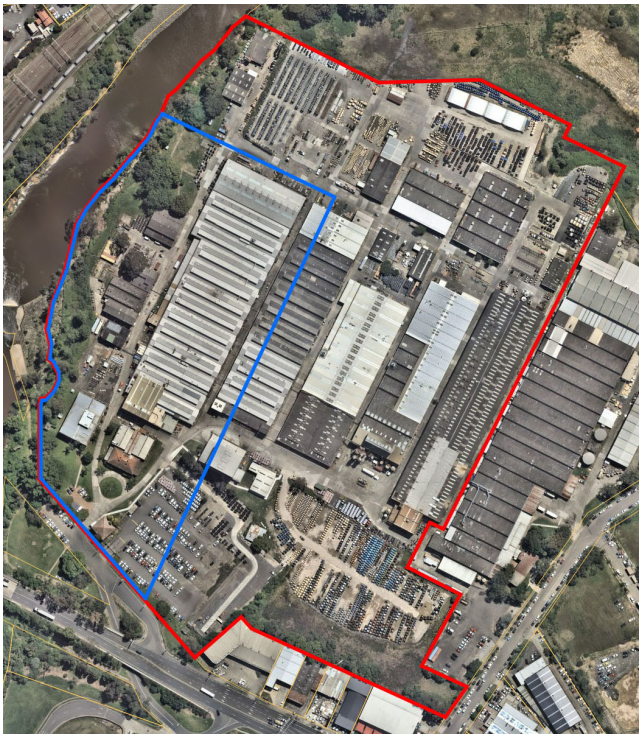


Figure 5.7
Aerial photograph of the heritage listed 3 Bridges Road property, showing the current extent of the mapped heritage item outlined in red and the proposed Reduced Heritage Curtilage outlined in blue
Source: Nearmap annotated by GBA Heritage

3 Warwick Mayne-Wilson, *Heritage Curtilages,* NSW Heritage Office and the Department of Urban Affairs and Planning, NSW, 1996

2.6 ESTABLISHED SIGNIFICANCE OF HERITAGE ITEMS IN THE VICINITY

The subject site is located within the vicinity of the following heritage items and conservation area:

- Light Horse Park (Item 70 - Local)
- Liverpool Railway Station Group (Item 72 - State)
- Liverpool College (TAFE) site (Item 80 - State)
- Pylons (former Liverpool Railway Bridge (Item 86 - Local)
- Liverpool Weir (Item 87 - State)
- Bigge Park Conservation Area (Local)

2.6.1 LIGHT HORSE PARK

The NSW Heritage Inventory contains the following Statement of Significance for *Light Horse Park,* Heritage Item ID 1970478:

> ***Statement of Significance**:*
> *This site has multiple associations from early settlement to the present time and significance in the history of the development of Liverpool and the role of the Light Horse Brigade in WWI. The park is set within a locality that has strong military associations and contains a poignant sculpture and other heritage items set within an attractive, aesthetically pleasing urban parkland. The park is representative of the incorporation of communal green space into town planning and the common practice of dedicating that space to an important event and/or person(s) in the history of Australia. The boiler which is placed within the park is a rare example of a 1900 steam boiler with a collapsible chimney.*

Figure 5.8
Light Horse Park
Source: NSW Heritage Inventory

2.6.2 LIVERPOOL RAILWAY STATION GROUP

The NSW Heritage Inventory contains the following Statement of Significance for the *Liverpool Railway Station group*, Heritage Item ID 5045545:

> ***Statement of Significance**:*
> *Liverpool station building is a good example of a third class station building in the centre of a large scale redevelopment of the site. It indicates the change in technology and approach to railway construction. Liverpool goods shed is a rare brick structure on the State system which is substantially intact with platforms and jib crane. It is located in an historic town and is the last remnant of the early station and yard complex at the site. It is rare as one of the last two surviving brick goods sheds in the State.*

Figure 5.9
A Liverpool Railway Station buiding
Source: NSW Heritage Inventory

2.6.3 LIVERPOOL TAFE COLLEGE

The NSW Heritage Inventory contains the following Statement of Significance for *Liverpool TAFE College (former Liverpool Hospital)*, Heritage Item ID 5053937:

> ***Statement of Significance**:*
> *The former Liverpool Hospital complex is of State significance as one of the oldest, substantially intact colonial hospital complexes in Australia. The former hospital is also State significant for its long-standing, continuous history of servicing the health needs of, first the convicts and then of the wider Liverpool community from 1810 to 1958.*
>
> *Built by convict labour, the main 1820s Colonial Georgian building (Block B), its design initiated by Governor Macquarie and attributed to Francis Greenway, is considered one of the finest colonial buildings remaining in Australia, demonstrating the high standard of workmanship carried out by the convict labour gangs. Convict labour was also used to construct the Gate-Keepers Cottages (Blocks S & T), c1820s, and the brick wall that continues, in the most part, to encircle the complex.*
>
> *The surviving complex of buildings associated with the hospital period (Blocks A, B, C, S, T, F & G), are a fine representation of the high standard of architectural design and construction in the colony. Flanking the main hospital building, the Edmund Blacket-designed Blocks A and C complement the original 1820s building while the Walter Liberty Vernon-designed Block F was a sympathetic addition to the complex, c1902.*
>
> *Liverpool Hospital is State significant for its associations with Governors Lachlan Macquarie (1810-21), Sir Thomas Brisbane (1821-25) and Sir Ralph Darling (1825-31), the Civil Architect, Francis Greenway (1816-22) and the Colonial/ Government Architects, Edmund Blacket (1849-54) and Walter Liberty Vernon (1890-1911).*
>
> *In situ archaeology of the original 1810 convict-built Macquarie hospital has State significance for its potential to demonstrate the development of hospital facilities from the earliest years of settlement, as well as the techniques and materials used by the convict labour gangs. The presence of pre-1850 archaeology is rare in NSW.*
>
> *There are few sites around Australia comparable to the former Liverpool Hospital complex which has State significance for its historic, associative, aesthetic, social, research, rarity and representative values.*

Figure 5.10
Block C at the Liverpool TAFE College
Source: NSW Heritage Inventory

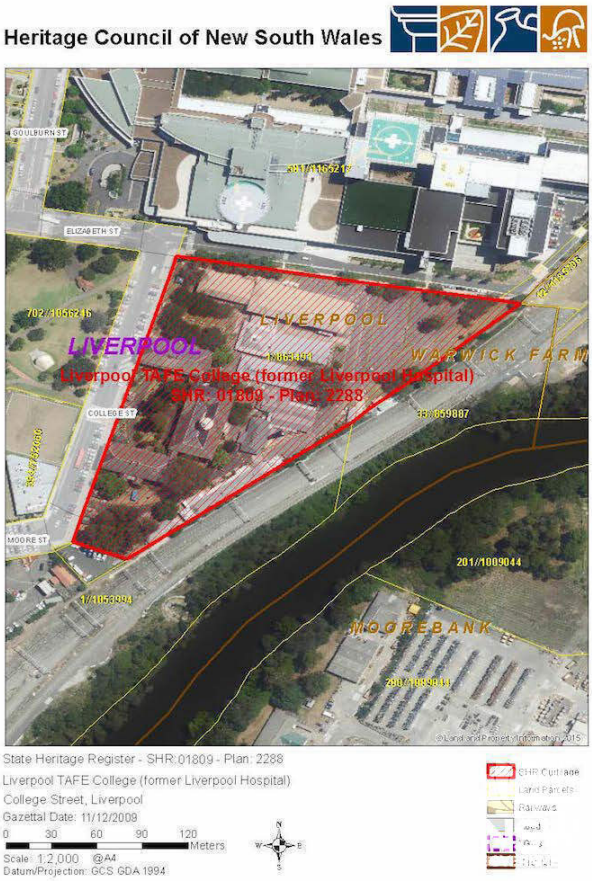


Figure 5.11
The heritage curtilage of the State heritage listing of the Liverpool TAFE College, outlined and hatched in red
Source: NSW State Heritage Register

2.6.4 PYLONS (FORMER LIVERPOOL RAILWAY BRIDGE)

The NSW Heritage Inventory contains the following Statement of Significance for *Pylons (former Liverpool Railway Bridge*, Heritage Item ID 1970470:

> ***Statement of Significance**:*
> *Liverpool footbridge & former railway bridge (both dismantled), demonstrate the rise and decline of the local rail network in the Liverpool area. The remaining pylon structures, spaning the Georges River, indicate a level of technical achievement in design and construction .*

Figure 5.12
The concrete pylons to the former Liverpool footbridge and railway bridge

Figure 5.13
A pylon from the former Liverpool footbridge and railway bridge

2.6.5 LIVERPOOL WEIR

The NSW Heritage Inventory contains the following Statement of Significance for Liverpool Weir, Heritage Item ID 5060394:

> ***Statement of Significance**:*
> *Liverpool Weir is state significant for its historical, historical association and rarity values. It is the only weir in NSW known to have been designed by master mason David Lennox. Before arriving in Australia in 1832, Lennox had occupied responsible positions in Britain for more than twenty years, working on many bridges including Telford's great suspension bridge over the Menai Straits and the stone-arch bridge over the Severn River at Gloucester. Lennox was Australia's first major bridge builder and is a significant figure in NSW's history. He was responsible for many bridges and other civil engineering works in NSW between 1832 and 1844, when he was appointed superintendent of bridges for the Port Phillip District in Victoria. For nine years he had charge of all roads, bridges, wharves and ferries and acted as advisor to various government departments. In this period he built fifty-three bridges. (ADB)*
>
> *Liverpool Weir was one of the first 'engineered' weirs built in the colony.*
>
> *Built in 1836, it is one of the earliest surviving stone weirs constructed in Australia and one of the few surviving weirs constructed in the early colonial era for the supply of water to a township.*
>
> *Liverpool Weir is an example of the construction of the colony's infrastructure by convict labour, in particular by convicts undergoing secondary punishment. It demonstrates the harsher punishment regime in NSW decreed by the British Government from the mid 1820s to the 1840s in order to revive the fear and dread of transportation. Under this system, re-offending convicts were put to work in gangs on constructing roads, bridges, other public works, timber-getting and lime-burning. Some convicts, including some of those in the Liverpool district, were sentenced to work in irons.*
>
> *Construction of the weir within the flowing and flood-prone Georges River was an achievement. It has survived despite damage from the first floods and others since, which necessitated repairs, stabilisation and extensions.*

Investigations in 1979 and repair work in 2007-08 have revealed much about the weir's original construction, the techniques adopted during repairs and extensions in the 1850s and the nature of subsequent extensions and repair works. Short of major intervention work, it is unlikely that further structural research and inspection will reveal more about the weir's construction.

Apart from extensions, a concrete road was partly built across the weir in the 1970s which was halted and later removed because of its impact on the weir's stability, and a fishway was built in 1997 through the right abutment.

Although the repair works, extensions and additions have had an adverse impact on the integrity of the original structure and have altered its appearance, Liverpool Weir is a rare 19th century water supply structure, and its original and repair fabric have historic and heritage significance.

While the weir has long ceased to function as a source for town water and as a George's River crossing, it has gradually developed other functions. It now provides water-based recreational opportunities. It has facilitated re-establishment of the natural migration of fish upstream with construction of the by-pass fishway in 1997. It maintains the (modified) stable condition of the upper Georges River (except for re-admitting fish migration) and it is now a control structure that restricts river bed lowering and bank erosion.

Liverpool Weir has local significance for its potential for research into changes in ecology from below to above the weir, during the 170 years of its existence.

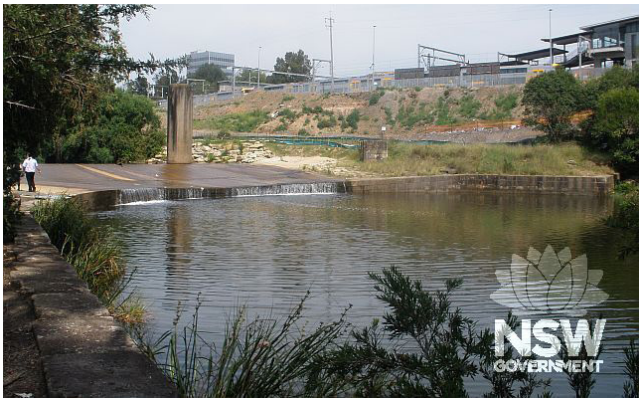


Figure 5.14
The Liverpool Weir. Part of the Liverpool Railway Station is visible (top-right)
Source: NSW State Heritage Register

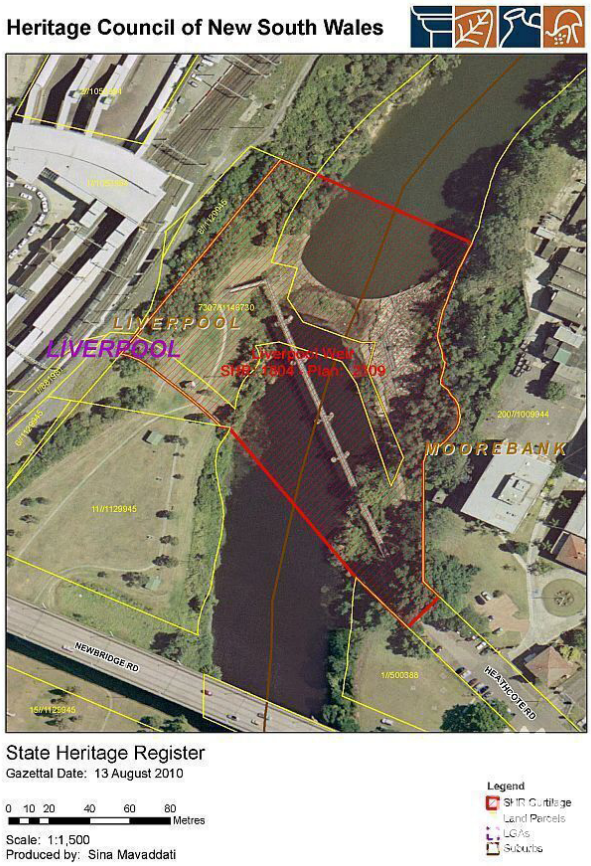


Figure 5.15
Liverpool Weir has an expanded heritage curtilage, shown on this aerial photograph with a red outline and hatched red fill
Source: NSW State Heritage Register

2.6.6 BIGGE PARK CONSERVATION AREA

The NSW Heritage Inventory contains the following Statement of Significance for the Bigge Park Conservation Area, Heritage Item ID 1970009:

> ***Statement of Significance**:*
> *Bigge Park CA, as part of the original early 19th century plan for the Town of Liverpool, demonstrates the history of early urban planning and land use in the Colony. Remaining features are representative of Governor Macquarie's early urban plans in the Colony. As part of the original survey of Liverpool it demonstrates the history of the early settlement of the city and is a physical link to the character of the early township. It indicates a level of technical achievement in its original design by key Colonial figures Governor Macquarie and Surveyor Meehan. It is a rare intact example of a modern urban centre that retains features of the original early 19th century town plan. The CA is aesthetically pleasing within the modern city centre. There is the potential to gain more information on the group from further architectural, archaeological, and documentary research.*

Other listed heritage items in the wider locality are separated from the subject site by intervening development and distance, and have no direct visual connection to the site.

3.0
PROPOSED WORKS

3.1 THE PROPOSAL

The *Moore Point Masterplan,* prepared by SJB in 2024, proposes a mixed use redevelopment of former industrial land north of Newbridge Road and bound by the Georges River.

The Masterplan site covers an area of 314,481 m^2. The Planning Proposal includes high rise development throughout much of the site including 30 envelopes of 20 floors or more. The planning proposal seeks to amend the *Liverpool LEP 2008* to transform the zoning from industrial to mixed-use and public recreation, including changes to floor space ratio, height of buildings and site-specific provisions.

Features of the Masterplan for the subject site include but are not limited to:

- Two pedestrian bridges across the Georges River linking to the Liverpool Train Station and to Elizabeth Street in Liverpool. It may be possible to reuse the heritage listed bridge pylons as the structural base to a new bridge.
- 32.09% open space including a riverfront pedestrian promenade.
- Adaptive reuse of most of Factory 1 for a commercial, retail and community use, including construction of one building devoted to (short-term) accommodation with a proposed maximum height envelope of RL136.

3.1.1 HERITAGE ASPECTS OF THE MASTERPLAN

The Moore Point Masterplan would allow the redevelopment of most of the subject site. It's implementation would require the demolition of all site features of little and intrusive relative heritage significance, excluding the Engineering Workshop and possibly the Administration Building addition.

It is proposed to retain the following buildings:
- The Administration Building, including circular drive (High significance)
- The front gate and piers (High significance)
- Factory No. 1 (High significance)
- Western wall of Factory No. 2 (Moderate significance)
- The Powerhouse (Moderate significance)
- The Engineering Workshop (Moderate significance)
- The Boilerhouse (Moderate significance)
- The Engineering Store (Little significance)

It is proposed that Factory No. 1 and the retained ancillary buildings to its west should be adaptively reused. Potential uses include markets, community functions, commercial, food and beverage or other public uses.

The western wall of Factory No. 2 will be retained and the passage between it and Factory No.1 will be used as a pedestrian walkway, measuring approximately 7.4 metres in width. This is intended to interpret the laneways of the former use.

The Administration Building, including potentially its rear addition, will be retained and adaptively reused. The landscaped area to its south, including the turning circle, will remain undeveloped. As such, views from the historic entry gates to the Administration Building will remain.

The majority of Factory No.1 will be retained and conserved. The southern and western additions (Intrusive significance) will be removed. The original front (southern) facade will be reinstated. The southernmost nine original bays will be retained and conserved, including retention of the walls and roof trusses, including the butterfly roofs. The adjacent two bays to the north will be demolished to make way for the western extent of the east-west green spine. The northernmost two bays (high significance) and the later northern addition (little significance) will be retained and adaptively reused. The planning proposal includes provision for a building used for short-stay accommodation with a height limit of RL136 within the northern end of Factory No.1. It is proposed to retain some industrial equipment within the building, including machinery and gantry cranes, to be displayed as interpretation devices.

It is proposed that most of the urban grid to the masterplan adopt a 25° off north alignment, in keeping with the general alignment of former orchards and the main factory buildings in the extant cables factory.

It is proposed to adaptively reuse the buildings west of Factory 1, including retaining a sense of laneways.

3.1.2 DEVELOPMENT ADJACENT ON-SITE HERITAGE ITEMS

The proposed buildings immediately east of the 'heritage zone' will be 28 metres east from the line of the eastern wall of Factory No. 1, and approximately 22 metres east from the western elevation of Factory No. 2. These proposed buildings have the following characteristics:

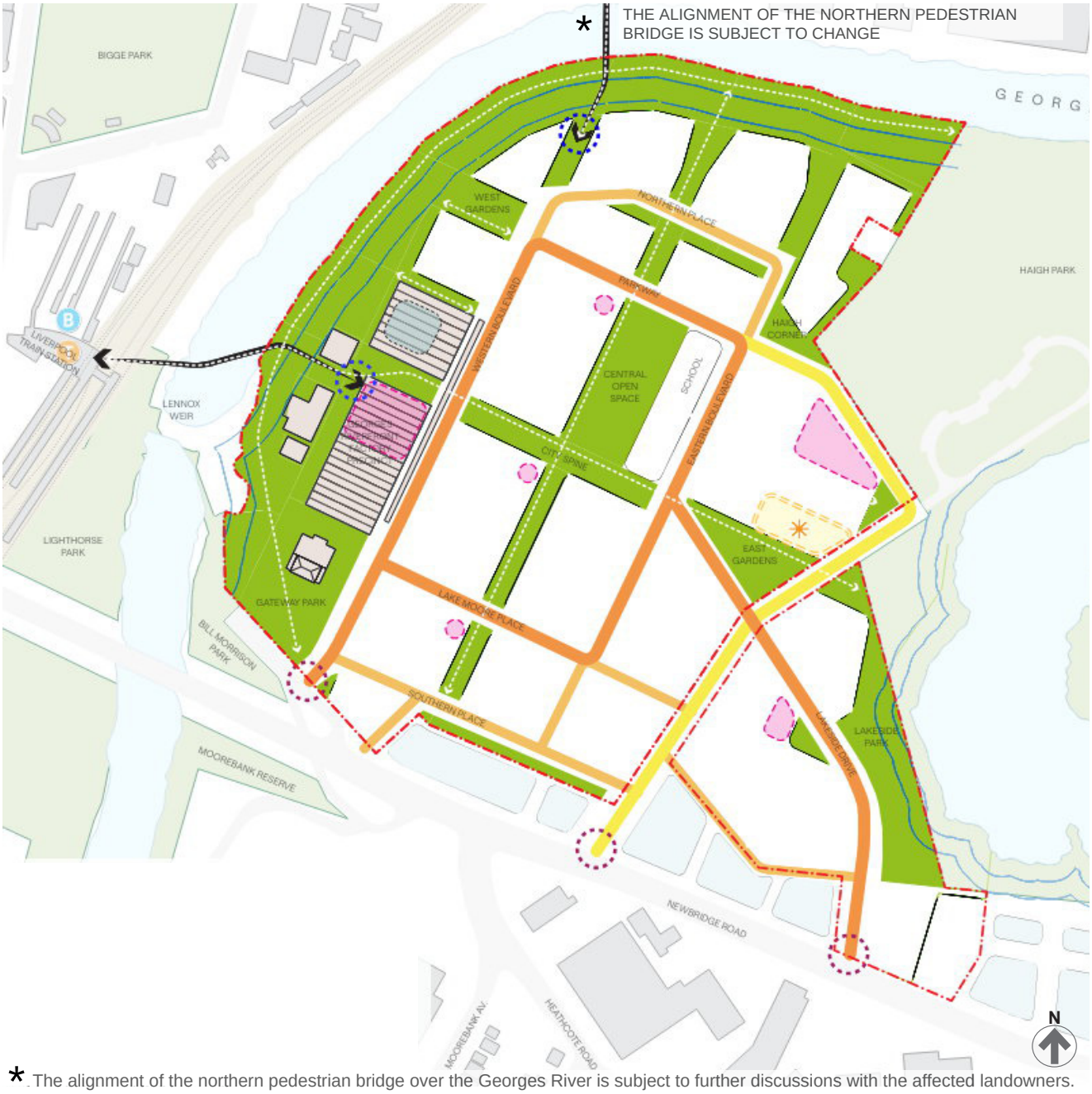
Block Number (refer Figure 3.2)	Podium Height fronting heritage zone	Tower setback from podium fronting heritage zone*	Height of proposed building envelope
(northern end of Factory No.1)	0 storeys	N/A	RL 136
11	4 storeys	6 metres	RL 136
14	4 storeys	6 metres	RL 136
17	6 storeys	6 metres	RL 136
20	6 storeys	6 metres	RL 136
No number - fronting Haigh Avenue	4 storeys	2 metres	RL 136

* The masterplan allows for a deviation whereby a maximum of 10% of the tower mass may intrude upon the setback.

3.1.3 DEVELOPMENT NEAR HERITAGE ITEMS IN THE VICINITY

The planning proposal includes building envelopes located along the east bank of the Georges River, across from and in the general vicinity of the heritage listed Liverpool Railway Station Group, the Liverpool College (TAFE) site and the Bigge Park Conservation Area. These proposed buildings have the following maximum building heights:

Block Number	Height of proposed building envelope
1	RL 136
2	RL 108/136
11	RL 136



* The alignment of the northern pedestrian bridge over the Georges River is subject to further discussions with the affected landowners.

Figure 3.1
The Moore Point structure plan. The buildings coloured grey are heritage buildings for retention, including the Administration Building, the front gate and piers, Factory No.1, the west wall of Factory No.2, the Powerhouse, the Engineering Workshop, the Boilerhouse and the Engineering Store. Together, these make up a 'heritage zone'. Note that the proposed concept scheme for two bridges would enter the curtilage of the Liverpool Weir and the boundary of the Bigge Park Conservation Area. The dotted circles represent the main entry points to the site
Source: Moore Point Masterplan Urban Design Report, SJB

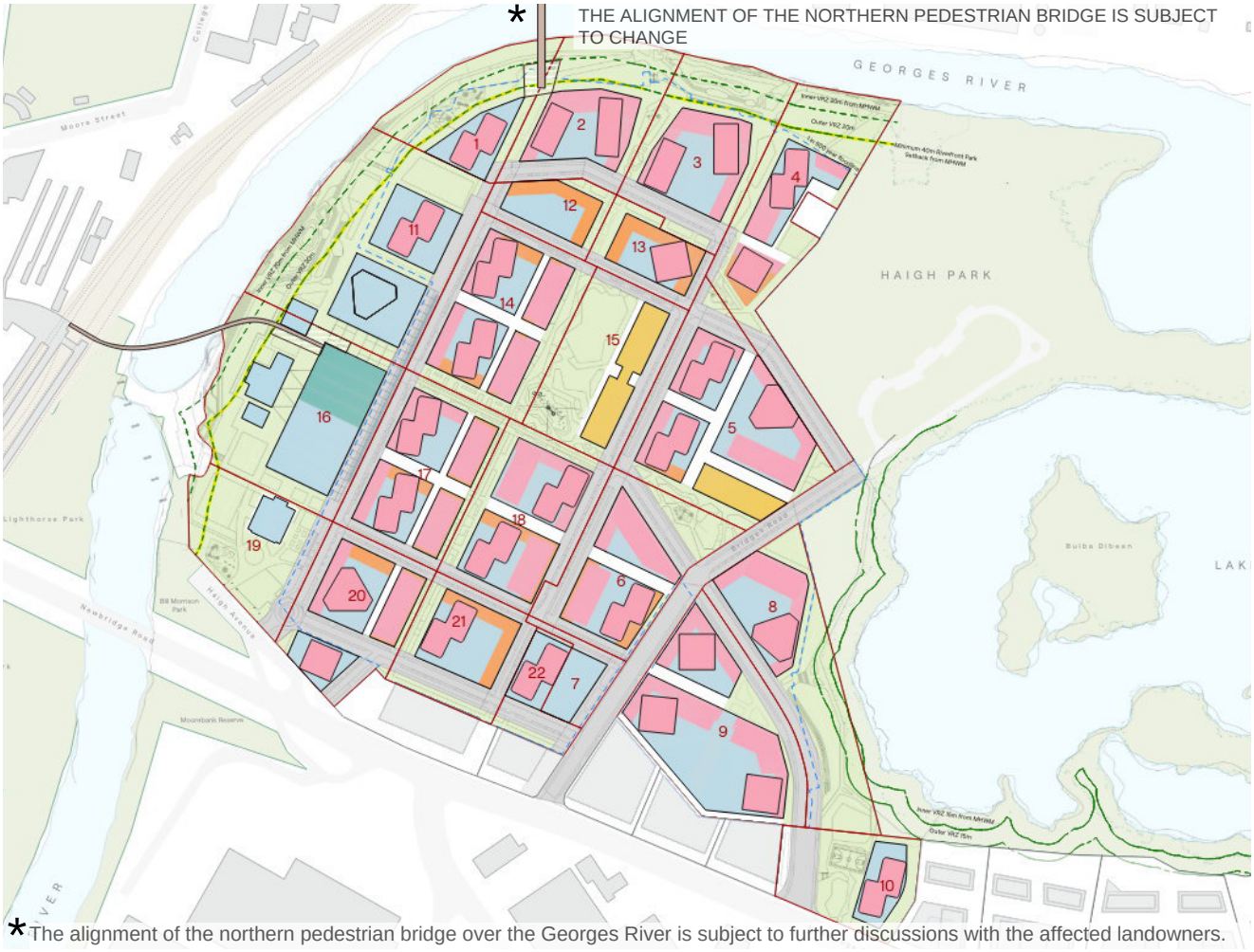
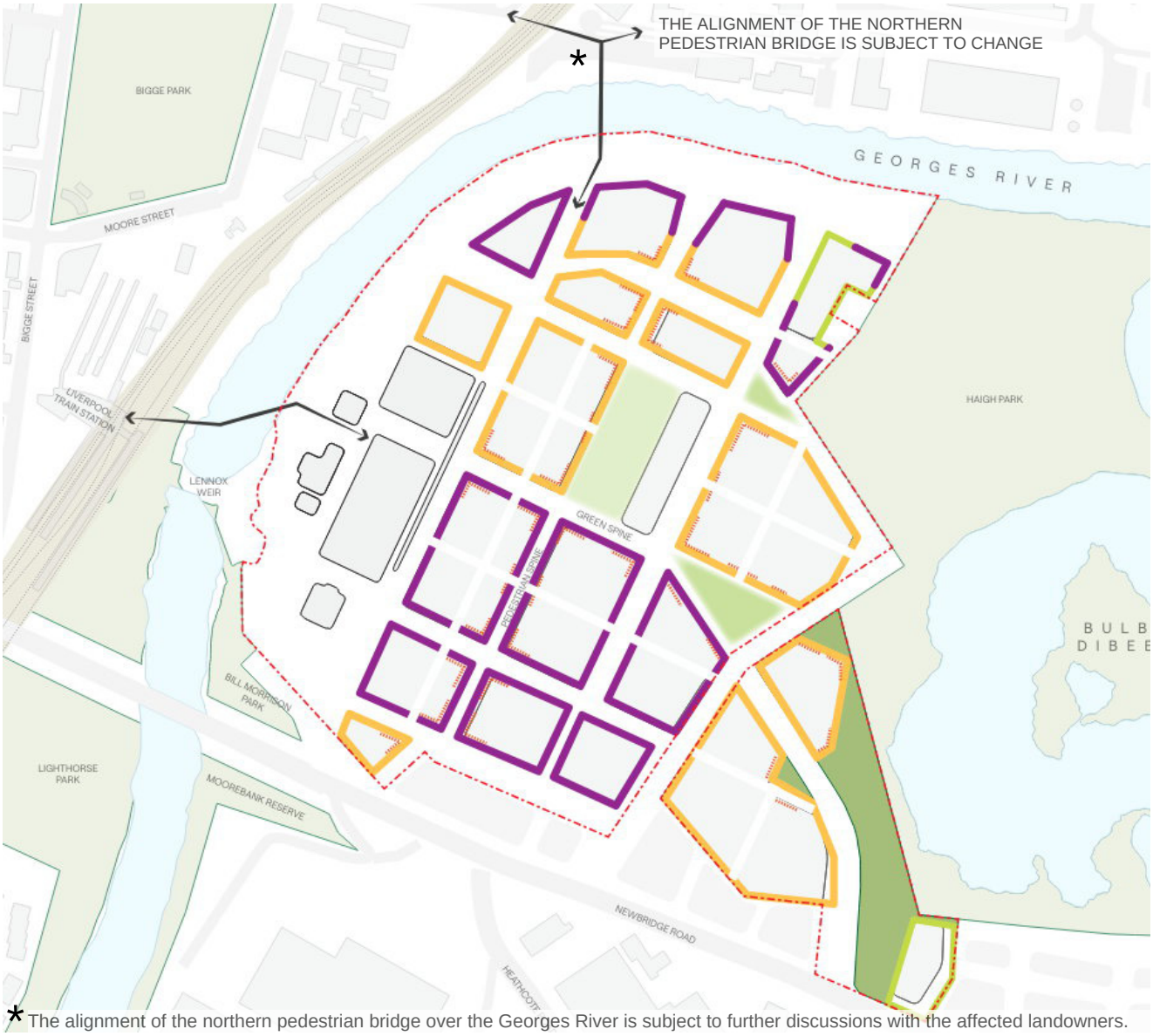


Figure 3.2
Masterplan test scheme, labelling the different building blocks. The pink is residential, the blue is commercial and the orange is short-term accommodation. Note the location of the two proposed bridges
Source: Moore Point Masterplan Urban Design Report, SJB



*The alignment of the northern pedestrian bridge over the Georges River is subject to further discussions with the affected landowners.

Figure 3.3
Plan indicating the number of storeys of the podia to the proposed planning proposal. Green is 2 storeys (9 metres) maximum, orange is up to 4 storeys (16 metres) maximum and purple is up to six storeys (24 metres) maximum
Source: Moore Point Masterplan Urban Design Report, SJB

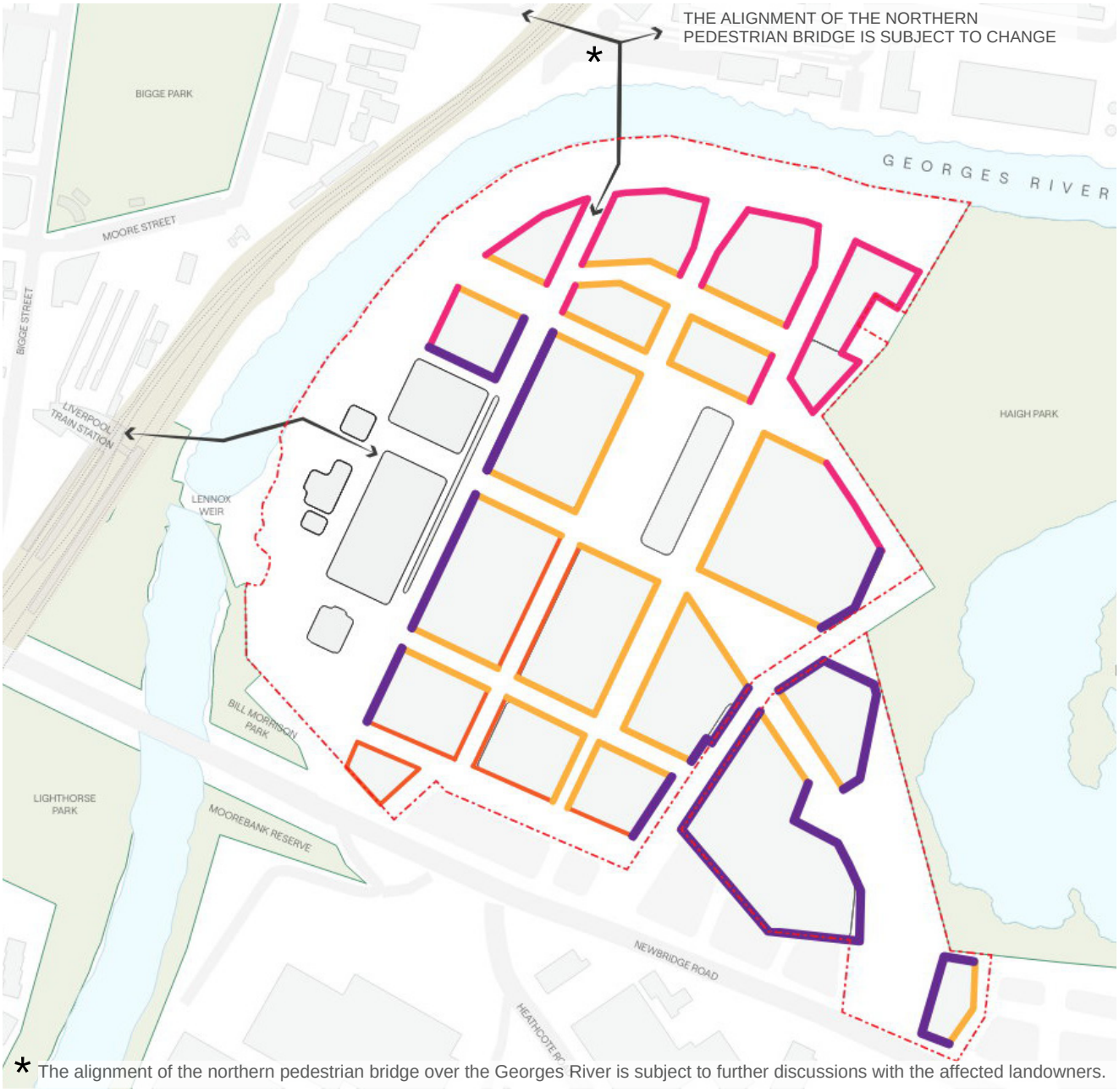
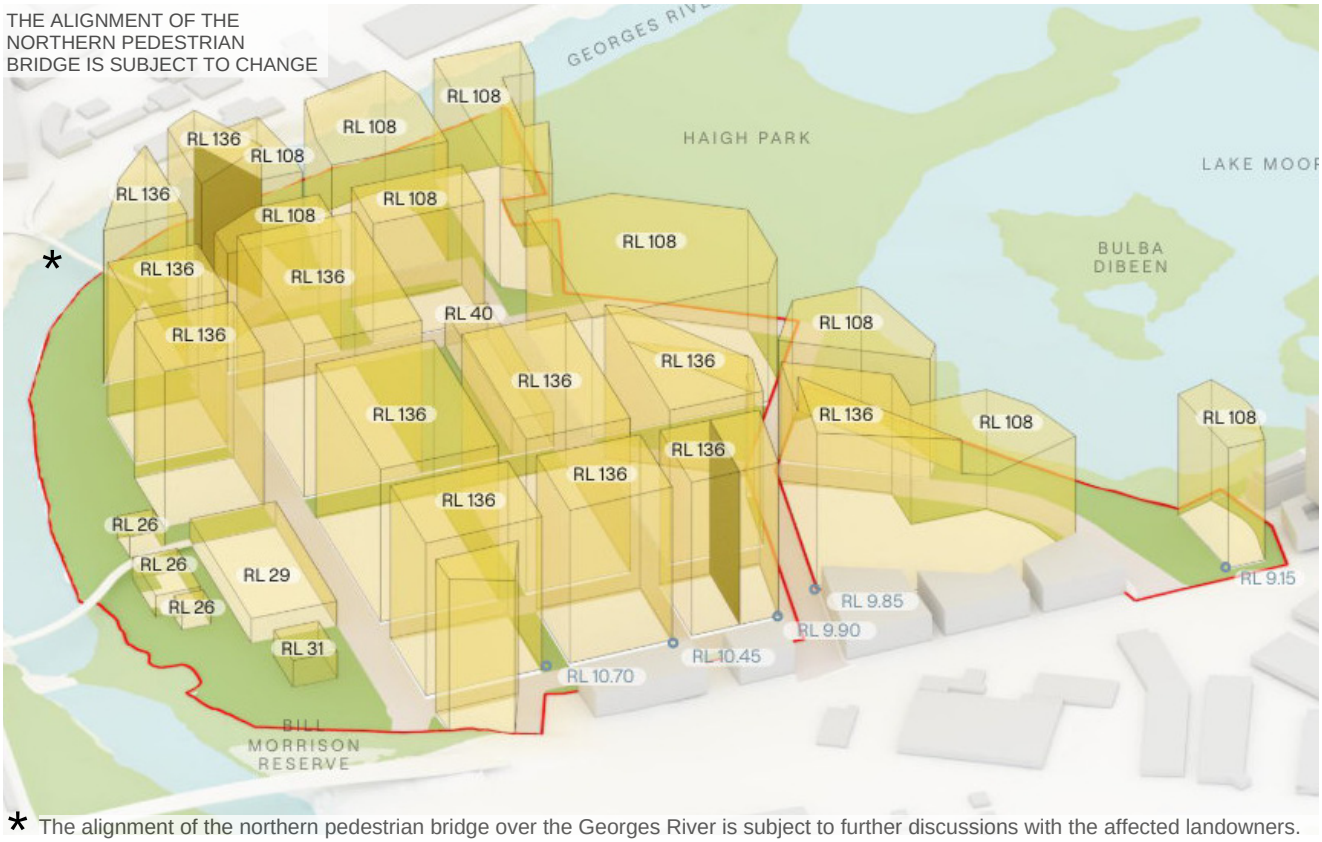


Figure 3.4
Plan showing the proposed setback of the towers from the podium. Red represents a 2 metre setback, orange represents a 3 metre setback, pink indicates a 4 metre setback and purple indicates a 6 metre setback. The buildings may deviate from the above by 10%. Note that all building blocks fronting the on-site heritage items have a 6 metre setabck
Source: Moore Point Masterplan Urban Design Report, SJB



* The alignment of the northern pedestrian bridge over the Georges River is subject to further discussions with the affected landowners.

Figure 3.5 (above)
Structure plan envelope, showing the proposed maximum RL for the building envelopes. All buildings surrounding the on-site retained heritage buildings have a maximum height of RL 136
Source: Moore Point Masterplan Urban Design Report, SJB

Figure 3.6 (below)
Section drawing showing the proposed access north-west route in relation to Factory No.1 (left), the western wall of Factory No.2 (centre-left) and a proposed building (right) The space between factories no. 1 and 2 is proposed to be a pedestrian laneway
Source: Moore Point Masterplan Urban Design Report, SJB

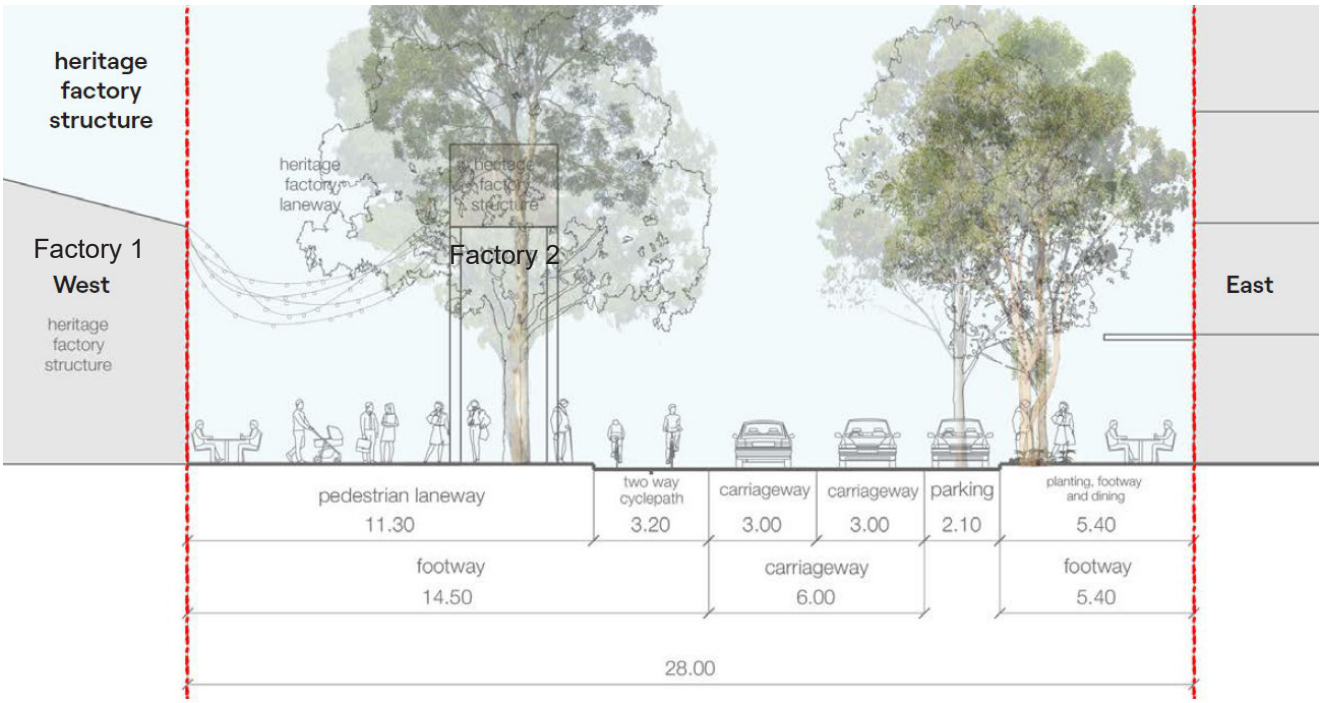


Figure 3.7
Artistic impression of the proposal from the vicinity of the Liverpool Weir looking north-east. The adapted Engineering Workshop, Boilerhouse and Engineering Store are visible, The riverfront area is proposed to be parkland and a speculative design is provided
Source: Moore Point Masterplan Urban Design Report, SJB

Figure 3.8
Artistic impression of the adapted heritage buildings west of Factory No.1. Part of the power station is visible (far left), the Engineering Workshop is visible (centre), the Boilerhouse is visible in the background and part of Factory No.1 is visible (right)
Source: Moore Point Masterplan Urban Design Report, SJB

Figure 3.9
Artistic impression of the completed development by the Georges River at the north end of the site. The image is dated as it shows three new bridges rather than two
Source: Moore Point Masterplan Urban Design Report, SJB

4.0

HERITAGE IMPACT ASSESSMENT

4.1 MATTERS FOR CONSIDERATION

The NSW Department of Planning and Environment has published the following matters for consideration to be used in assessing impacts of a development proposal.[1]

4.1.1 FABRIC AND SPATIAL ARRANGEMENTS

It is proposed to retain a group of building elements located between Haigh Avenue and the northern end of Factory No.1, and between the western wall of Factory No. 2 and the Georges River. These buildings have been assessed as having varying degrees of significance.

It is proposed to adaptively reuse the retained buildings for commercial purposes, in order that they have an ongoing functional use. Factory No.1 has a Functionalist exterior design that has the capacity for a limited amount of alteration while retaining the building's significance. The other industrial buildings, including the Powerhouse, the Engineering Workshop, the Boilerhouse and the Engineering Store, have vernacular designs that allows for the sensitive adaptation of the structures while remaining interpretable as historic industrial structures.

Generally, the heritage approach is to remove later intrusive additions, and reconstruct elements, based on historic photographs.

The planning proposal includes the adaptive reuse of Factory No.1, including the demolition of the western and southern additions, which have Intrusive significance. Their demolition will reveal more of the original building and will have a positive heritage impact. Demolition of the southern addition will allow for the possible reconstruction of the original front (south) facade to the building, which was a notable example of functionalist architecture.

It is proposed to remove two factory bays to allow for the construction of the western end of the east-west green spine. The proposal would retain 12 bays of the factory building, which is a considerable internal space representing the retention of extensive design features and building elements. The addition of a through street will also encourage the engagement, both visual and economic, between the building and passing members of the public.

The planning proposal also includes the provision of space for a high-rise tower within the northern footprint of Factory No.1. The proposed building is designated for short-stay accommodation. The proposed building would require the alteration of three factory bays, none of which are original parts of the building and were constructed in phases between 1951-1979. As such, this northern end of the building has reduced heritage sensitivity.

The proposed tower will retain the eastern and western brick factory walls and parts of the factory-era roofs, such that the original function of this part of the building will remain interpretable. The proposed short-term accommodation use will bring an ongoing economic base to any shops and food and beverage businesses operating from the retained heritage buildings.

It is proposed to retain the western wall of Factory No.2, which measures approximately 185 metres in length. As per the section drawing in Figure 3.6, of an 11.3 metre wide, north-south aligned pedestrian walkway, there is approximately 3.9 metres between the western factory elevation to the kerb. As such, it may be possible to retain part of the roof framing to improve the interpretability of the building. The proposal requires a wide opening for the east-west green spine but otherwise retains the remainder of the wall. The planning proposal will allow for the interpretation of Factory No.2 and the reasonable retention of an original laneway space.

The Administration Building has the capacity to be sensitively adapted for economic or community uses. It will retain a spatial relationship with the turning circle landscape and original entry gate.

1 Heritage NSW, *Guidelines for Preparing a Statement of Heritage Impact*, Department of Planning and Environment, 2023

The proposed works to the 'heritage zone' will generally retain the spatial arrangements of the retained buildings. The proposed tower within Factory No.1 will retain the factory's western and eastern brick walls, and will thereby retain the building's spatial relationship with other historic buildings.

The proposed western bridge to Liverpool Railway Station will require the construction of an entry ramp into the 'heritage zone', which will cause a partial disruption of the visual relationship of the historic buildings. This eastern end of the bridge can be designed to have a low height and have visual permeability, thereby allowing views across the bridge to historic buildings beyond. The proposed western bridge has the potential to have a minor and acceptable impact on the spatial arrangements of the retained historic buildings. The routing of the bridge to the south side of the Liverpool Weir, including the reuse of the heritage listed bridge pylons, may have an acceptable impact on the significance of the weir and pylons, and should be considered.

The proposal will retain a number of different spatial relationships currently extant in the 'heritage zone' that are of particular sensitivity, including:

- The visual and spatial relationship of the front gate, the turning circle and landscaping, the Administration Building and Factory No.1 (High heritage sensitivity)
- The relationship between Factory No.1 and Factory No.2, expressed as an industrial laneway (Moderate heritage sensitivity).
- The relationship between the western ancillary buildings and Factory No.1 (Moderate heritage sensitivity), also with a laneway.

The planning proposal would allow for the acceptable management of heritage fabric and significant spatial relationships.

4.1.2 SETTING, VIEWS AND VISTAS

The planning proposal includes the provision for multi-storey buildings in and around the retained historic buildings. All building envelopes adjacent to and within the 'heritage zone' are proposed to have a maximum height of RL136.

A significant consideration in the assessment of heritage impact is the proximity of the heritage sensitive precinct around Bigge Park, west of Georges River.

The planning proposal would alter the potential setting of the retained buildings from low rise to high rise buildings. The changed setting would have an acceptable heritage impact because:

- The proposed building envelopes are at or towards the edges of the 'heritage zone'. As such, the near-view setting within much of the zone will remain low-rise. The proposed high-rise envelopes will mostly be visible as background elements.
- Visual impacts of the new developments can partly be mitigated through the sensitive design of the podium facades.
- As Sydney is a growing city, heritage items are increasily sited near multi-storey development. This change has largely been accomplished without major negative impacts upon heritage items. Residents have been generally comfortable with the changing heritage context of the city. Liverpool City Council is supportive of multi-storey development near heritage items in the Liverpool CBD, as demonstrated by the zoning maps in the *Liverpool LEP 2008*.

The planning proposal will be in the vicinity of several heritage items, including Light Horse Park, the Liverpool Railway Station Group, the Liverpool College (TAFE) site, former Liverpool Railway bridge pylons, the Liverpool Weir and Bigge Park Conservation Area.

The Liverpool Railway Station Group and the Liverpool College (TAFE) site are both identified as having State heritage significance in the *Liverpool LEP 2008*. Both sites are located adjacent to the Georges River and the proposal has the potential to impact the setting of these items. Liverpool City Council has already changed the planning context to these two items by raising the maximum building height zoning around them, including an area zoned to up to 100 metres. The historic part of the Liverpool Railway Station is around 300 metres away from the proposed multi-storey building envelopes, which will have little impact on the item's setting.

The proposed multi-storey building envelopes are over 100 metres from the Liverpool College site, and will likely be visible as background elements in some sensitive views within and to the site. The college is around 200 metres from an area currently zoned for a maximum building height of 100 metres. As such, the subject planning proposal would have a larger impact on the setting of the college than the existing zoning. There is not as yet a visual impact analysis to test the views of the proposal from the area of Bigge Park.

Light Horse Park is significant for its historic associations and for historic structures within its boundaries. The setting of the park is not identified as having heritage sensitivity and is already characterised by urban development. The planning proposal will have an acceptable impact on the setting of the park.

The sensitive aspect of the setting to the former Liverpool Railway bridge pylons is its context across the Georges River. The planning proposal would raise the permittable building heights in the background of the pylons, and would have minimal impact on its significant setting. The planning proposal will have an acceptable impact on the setting of the bridge pylons.

Liverpool City Council has zoned the Bigge Park Conservation Area to include development of up to 100 metres high. The planning proposal would add high-rise development to the setting of the area already defined by dense urban development. The proposed high-rise envelopes would be a background element to the conservation area. Whether proposal will have an acceptable impact on the setting of the conservation area, needs to be tested with a visual impact analysis.

The planning proposal includes a bridge from the northern end of the site with one access ramp leading to an area within the the Bigge Park Conservation Area. The access ramp would be located in an area characterised by contemporary hospital buildings and a car park, which has little heritage sensitivity. The proposed bridge has the capacity to be designed to be sympathetic to the conservation area.

The planning proposal includes the construction of a bridge from the 'heritage zone' to the Liverpool Railway overpass. The proposed bridge will pass through the heritage curtilage of the Liverpool Weir, which is listed on the State Heritage Register. As such, the bridge will impact on the setting of the weir. Negative impacts on the setting of the weir will be mitigated if the proposals in Section 5.3 *Recommended Mitigation Measures* is adopted.

Views from the site
The planning proposal will generally retain significant views from the subject site to heritage items in the vicinity, views to the historic buildings within the subject site, and significant views within the subject site.

Views from the 'heritage zone' east towards heritage items on the other side of the Georges River, including the contemporary buildings of the Liverpool Railway Station and Greenway's tower in the Liverpool TAFE site, will be retained, and will become publically accessible. The planning proposal allows for foreshore works that may provide new views of the Liverpool Weir from within the site. The proposed development at the northern end of the site will reduce but not remove views of the TAFE tower. Generally, views of heritage items from the site will be retained as part of the planning proposal.

Views to the site
Elevated views of the subject site are generally only afforded from Light Horse Bridge. Views to the historic site buildings are partly obscured by mature trees. This existing view will generally be retained as part of the planning proposal.

Views within the site
The planning proposal would retain two significant views within the subject site. The views between the front gate, the turning circle, the Administration Building and Factory No.1 express a Victorian attitude to the design of factory sites and will be retained. The views between Factory No.1 and Factory No.2 express the historical and functional approach to the factory's operations, and will be retained.

4.1.3 LANDSCAPE

It is proposed to have 32% open space in the planning proposal site, including possible parks, pathways and landscaping around the retained heritage buildings. The proposed landscaping has the capacity to encourage visitation to the 'heritage zone' by local residents and visitors, which would have a positive heritage impact. As per regulations over the management of trees, the proposed landscaping has the potential to be designed sympathetically with the heritage significance of the site and will have an acceptable heritage impact.

4.1.4 USE

It is proposed to adaptively reuse the retained historic buildings on the subject site for commercial uses. Some possible uses raised in the Urban Design Report, by SJB, include retail, food and beverage and a marketplace within Factory No.1. Factory No.1 is mostly open plan punctuated by regularly spaced support columns. The factory building is well suited to adaptive reuse for a range of commercial purposes, including as a marketplace.

The ancillary buildings to the west of Factory No.1, including the Powerhouse, the Engineering Workshop, the Boilerhouse and the Engineering Store, are largely functional buildings with vernacular design features that appear to be suitable for adaptive reuse for a range of commercial and community purposes. These buildings have the capacity to undergo some physical adaption while still being interpretable as former industrial buildings. The Administration Building has three intact facades in the Functionalist style. Internally, the original building is largely intact, with evidence of later changes. As such, some internal alterations may be possible that are sympathetic to the heritage significance of the building. The Administration Building is suitable for a limited range of commercial uses, such as for offices, but is also suitable for community uses.

The proposed uses of the retained historic site buildings has the potential to be sympathetic to the physical makeup and significance of the buildings.

4.1.5 DEMOLITION

The heritage listing card for the subject site identifies the Administration Building and Factory No.1 as being significant. It is proposed to retain a greater number of buildings than is officially recognised in the heritage listing. This has the benefit of creating a heritage precinct that enhances the 'cultural' depth of the whole development.

It is proposed to demolish part or all of two buildings of Moderate significance: most of Factory No.2 and the guard house. Neither of these buildings is identified in the heritage listing card as being significant. Demolition of part of Factory No.2 is partly mitigated by the retention of the western wall and possibly part of the roof trusses, which will allow some interpretation of the building's former scale, design and function. The guard house is not an original building but was constructed in 1969. Its demolition can be mitigated by its archival documentation before its demolition.

All other buildings proposed for demolition are of Little or Intrusive significance. Their demolition will have an acceptable heritage impact.

4.1.6 CURTILAGE

This report proposes that the site have a reduced heritage curtilage that extends across the 'heritage zone', with a buffer to the north and east.

All buildings and landscape features of High significance and most buildings of Moderate signficance within the curtilage will be retained. The Engineering Store building will also be retained. Most of the existing visual and spatial relationships within the curtilage will be retained and celebrated. The proposal will have an acceptable impact on the heritage significance of structures and landscape features within the reduced heritage curtilage.

4.1.7 MOVEABLE HERITAGE

It is proposed that remnant historic cable manufacturing equipment and potentially discarded equipment is displayed within the heritage zone. The display will contribute to the interpretability of the site and have a positive heritage impact. There should be an audit of available equipment for assessment and potential retention

4.1.8 ABORIGINAL CULTURAL HERITAGE

An assessment of Aboriginal Cultural Heritage has been undertaken by Austral Archaeology and submitted as part of the Planning Proposal.

4.1.9 HISTORICAL ARCHAEOLOGY

An archaeological assessment has not been made as part of this report.

4.1.10 NATURAL HERITAGE

An assessment of natural heritage has not been made as part of this report.

4.1.11 CONSERVATION AREAS

The subject site is not located within the boundaries of a Heritage Conservation Area.

4.1.12 CUMULATIVE IMPACTS

The planning proposal includes the retention and adaptive reuse of a greater number of buildings and a landscape element than is identified as significant in the heritage listing card for the site. The proposal would bring suitable uses to the retained buildings and would likely require acceptable physical alterations. Cumulatively, the proposal will have an acceptable heritage impact, subject to further view analysis and response.

4.2 HERITAGE OBJECTIVES OF THE LIVERPOOL LEP 2008

The planning proposal is considered to be generally acceptable but with qualifications, from a heritage perspective, for the following reasons:

- A greater number of buildings are proposed for retention than are identified as significant in the heritage listing card for the subject site.
- A range of structures are proposed for retention that express different aspects of the industrial process, from administration to manufacturing, power generation and engineering support. The proposed 'heritage zone' will have powerful interpretation potential for understanding the former function of this industrial site.
- The proposed use of the retained buildings for new economic purposes is appropriate as it can be sensitively achieved without compromising the heritage significance of the buildings.
- The spatial relationships between the retained buildings will generally be maintanined. The relationship of the front gate to the Administration Building and to Factory No.1 is highly significant and will be retained.
- Important views within the 'heritage zone' will be retained.

Qualifications

- The visual impact on the HCA requires further analysis as part of a Stage 2 development application.
- The proposed building envelopes at the north-west corner of the subject site may have an impact on the Liverpool College (TAFE) site, but needs to be further analysed.
- The proposed bridge to the Liverpool Railway Station will pass through the heritage curtilage of the Liverpool Weir, and will have some impact on its setting.
- The above impacts can be appropriately addressed if the Recommended Mitigation Measures in Section 5.3 of this report are adopted.

If the Recommended Mitigation Measures are adopted, the proposal would be considered to be consistent with the relevant heritage objectives of the *Liverpool LEP 2008,* which are:

5.10 Heritage conservation
(1) Objectives
The objectives of this clause are as follows:
(a) to conserve the environmental heritage of Liverpool,
(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views...

4.3 HERITAGE GUIDELINES OF THE LIVERPOOL DCP 2008

The proposed development is generally consistent with the guidelines of the *Liverpool DCP 2008* that relate to the development of heritage items in the vicinity of heritage items:

17. Heritage and Archaeological Sites
Objectives
a) to conserve the heritage significance of heritage items and heritage conservation areas of Liverpool including associated fabric, setting, curtilage and views;
d) to promote and encourage heritage conservation and the consideration of the heritage context in development;
e) to encourage the retention and appropriate development of significant items;
f) to encourage a high standard of contemporary design in the heritage context;
h) to enhance the amenity and heritage values of the Liverpool local government area;
Controls
Development of heritage items

3. All development of heritage items must be designed to respect the heritage significance of these places in terms of:
- *Setting;*
- *Scale;*
- *Form;*
- *Materials and colours;*
- *Fenestration;*
- *Fencing;*
- *Landscaping.*

4. Original fabric and landscape elements that contribute to the significance of a heritage item should be retained;

6. Additions should maintain the integrity of the heritage item by retaining the significant fabric and form of the place and should be smaller in height and scale than the existing building to maintain views and vistas to the heritage item;
Development in the vicinity of a heritage item

12. Development in the vicinity of a heritage item shall be designed to respect and complement the heritage item in terms of:
• Scale;
• Materials, colours and finishes;
• Building and street alignment;
• Landscaping and fencing.

13. Development in the vicinity of heritage items is to minimise the impact on the setting of the heritage item by:
• Retaining and respecting significant views to and from the heritage item;
• Retaining original or significant landscaping (especially plantings associated with the heritage item);
• Providing an adequate area around the place to allow interpretation of the heritage item.
Adaptive Reuse

20. Adaptive reuse of a heritage item or places within a heritage conservation area should involve minimal change to the significant fabric of the place, particularly features that contribute to the streetscape;

21. Adaptive reuse of a heritage item or places within a heritage conservation area should consider significant associations and meanings of the place.

The analysis in Section 4.1 of this report demonstrates that the proposal is generally consistent with the objectives of conservation of identified heritage structures from the original use of the site, including proposed adaptive reuse. However, as noted above, there are concerns with views from the HCA and SHR listed item of the TAFE in particular. A view analysis is required to test the potential impact of the planning proposal.

4.4 LOCAL PLANNING DIRECTIONS

The Local Planning Directions under S9.1(2) of the *Environmental Planning and Assessment Act 1979* includes the following:

3.2 Heritage Conservation
Direction 3.2
(1) A planning proposal must contain provisions that facilitate the conservation of:
(a) items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area,

Comment
The above analysis demonstrates that the subject planning proposal is consistent with this direction.

5.0

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 SUMMARY OF PROPOSAL

- 3 Bridges Road, Moorebank is listed as an item of local heritage significance in Schedule 5 of the *Liverpool LEP 2008*. The heritage listing card refers to the Administration Building and Factory No.1 as the significant site elements.
- The planning proposal site is located in the vicinity of several listed heritage items, including Light Horse Park, Liverpool Railway Station Group, Liverpool College (TAFE) site, Pylons (former Liverpool Railway Bridge), Liverpool Weir, Bigge Park Conservation Area.
- Other listed heritage items in the wider locality are separated from the subject site by intervening development and have no direct visual connection to the site.
- It is proposed to rezone much of the site for multi-storey development, demolish much of the site while retaining a core of buildings and a landscape feature generally of Moderate or High heritage significance, and constuct two bridges across the Georges River.

5.2 SUMMARY OF IMPACT ASSESSMENT

- It is proposed to retain the Administration Building (including front landscaping) and Factory No.1, as well as part of Factory No.2, the front gate and piers, the Powerhouse, the Engineering Workshop, the Boilerhouse and the Engineering Store, which will form a 'heritage zone' on the site.
- It is proposed to adaptively reuse the retained buildings for economic and community uses.
- The retained buildings have the capacity to be sensitively adaptively reused while conserving the significance of the structures.
- It is proposed to provide approximately 11,000 residential units, which will support long term economic uses for the retained historic buildings..
- The proposed multi-storey building within the northern end of Factory No.1 will physically impact a part of the building that is a later addition, and has the potential to have an acceptable heritage impact. However, it also has the potential to creatively activate the precinct.
- The proposed 'heritage zone' will generally retain the historic spatial relationships between the retained buildings. The highly significant relationship of the front gate to the Administration Building (including front landscaping) to Factory No.1 will be retained.
- Significant views within the subject site, including from the front gate to the Administration Building and down the laneway between Factory No.1 and Factory No.2 will be retained.
- Existing views from the site to the Liverpool Railway Station and the tower of the Liverpool College (TAFE) site will be generally retained, and will become publically available.
- The planning proposal will provide new views to the Liverpool Weir from the western shoreline of the subject site and from the proposed bridge to the Liverpool Railway Station.
- The proposed bridge to the Liverpool Railway Station and the height of the proposed building envelopes at the north-west corner of the site will have a visual impact on the heritage significance of heritage items in the vicinity, and should be subject to the Recommended Mitigation Measures provided in Section 5.3.
- The proposal is consistent with the Local Planning Directions under S9.1(2) of the *Environmental Planning and Assessment Act 1979*.

- Future development of the site for residential and commercial purposes will require approval from Liverpool City Council and will be subject to the heritage provisions of the *Liverpool LEP 2008* and the guidelines of the *Liverpool DCP 2008*, and will be assessed accordingly.

- Should the Recommended Mitigation Measures be adopted, the proposed planning proposal will be consistent with the heritage requirements and guidelines of the *Liverpool LEP 2008* and the *Liverpool DCP 2008*.

- Amendment of the LEP heritage map for 3 Bridges Road as per the reduced heritage curtilage provided in Figure 5.7 of this report is consistent with the heritage significance of the site.

5.3 RECOMMENDED MITIGATION MEASURES

- The proposed bridge from the subject site to the Liverpool Railway Station should:
  - be positioned as far away from the footprint of the Liverpool Weir as practical and reasonable.
  - consideration is given to the reuse of the historic pylons for the proposed bridge, which may have heritage, structural and environmental advantages. The pylons are built of concrete and appear to be of 'robust' construction.
  - have a sympathetic design with the Liverpool Weir.
  - have a creative design that contributes to the aesthetic qualities of this part of the Georges River.
  - Include a position to view the Liverpool Weir, which includes interpretation signage that explains the history and significance of the weir.
  - Have minimal bulk and have visual permeability at its eastern end, by the retained historic buildings, to have minimal impacts on views across the area.
- Building blocks 1, 11 and the northern end of Factory No.1, may be reconsidered following a visual impact assessment from the HCA and Bigge Park.
- The guard house should be photographically archivally recorded prior to its demolition.
- A visual impact assessment and analysis should be prepared from the area of Bigge Park to the subject site, including for the Liverpool TAFE. This would allow for a more informed heritage assessment of the heritage items in the vicinity, as well as for the project as a whole.

5.4 CONCLUSION

- Subject to the recommended mitigation measures in Section 5.3 of this report, GBA Heritage recommends the application to Council for approval.

6.0
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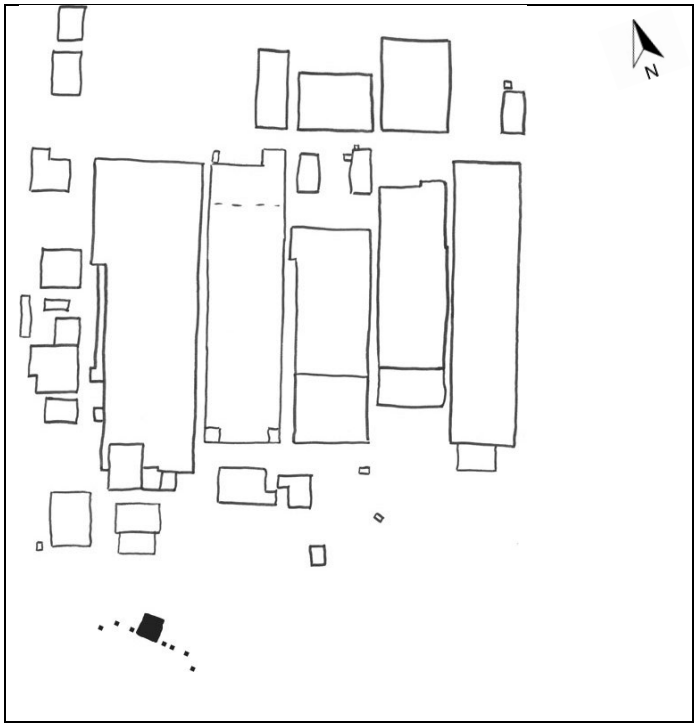
APPENDIX ONE: DATA INVENTORY SHEETS - PRYSMIAN CABLES FACTORY

APPENDIX A:
DATA INVENTORY SHEETS
PRYSMIAN CABLES FACTORY


#1
Scrap
Recovery
#2
Cable Stocks
Drum
Shop
Factory #9
Factory #8
Cable Despatch
/ Flexible Cords
Cable
Testing
C.B
Store
Garage
Engineering
Store
Factory #1
Factory #2
Factory #3
Factory #4
Factory #5
Toilet
B.H.
Engineering
Workshop
Power
House
Rubber
Compounding
ILS
Admin
Building
Office
Club
House
Guard
House
N

Guard House
(incl. front gate and piers)



Relative Heritage Significance:

Guard House: Moderate.
Front Gate: High.

Physical Description and overall Condition:

Late twentieth century style two storey brick building with aluminium framed fixed and double hung windows. Terracotta tile hipped roof. Interior is a modern fitout.

The building is in good condition.

The building is associated with a c.1941 front gate, with 7 brick and sandstone piers, and iron gates.

History:

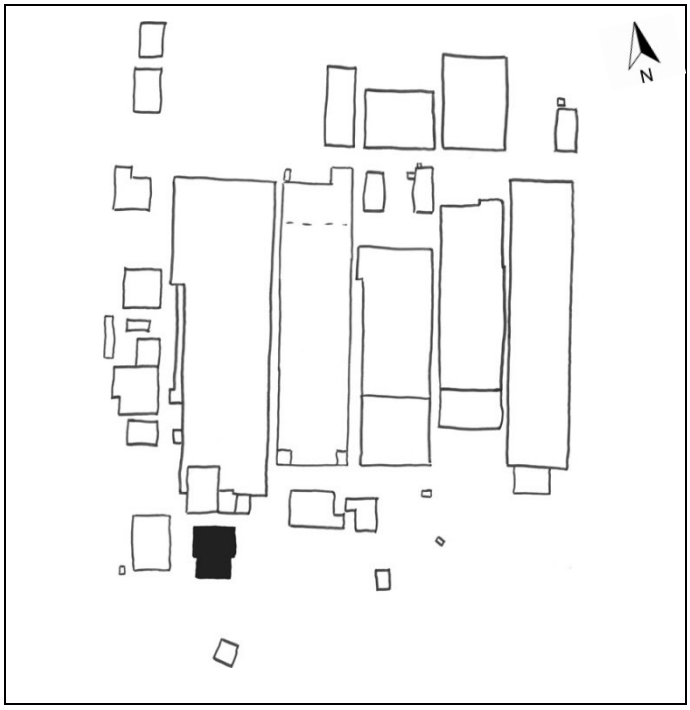
The gates were constructed in c.1941. The current guard house building was constructed in 1969 and replaced the previous building which was constructed on this site in c.1941.

The building previously housed a Credit Union, now currently is used as a 'guard house' and for storage of archives.

Figure A1.1:
View towards the guard house from the entrance, facing north-east

Figure A1.2:
Pier and gate west of the guard house

Administration Building
(Incl. landscaping and circular drive)



Relative Heritage Significance:

The original (front) section of the building has High relative significance, and the later rear addition has Little relative heritage significance.

The c.1941 landscaping and circular drive at the front of the building has high relative heritage significance.

Physical Description and overall Condition:

Exterior: Two storey brick structure with brick cavity decorative element on south facade, likely for ventilation purposes. Façade has the original 1940s window typology. On original façade of building there is subtle brick quoining around the edges of the windows.

Interior: The southern section of the building is the original portion. The building is accessed via a set of stairs clad in slate, which are likely to be a later addition. Both ground and upper levels of the original building have light weight partition walls, some later additions, to provide office spaces. On both levels of the original building there are original timber doors and hardware with wide timber architraves.

Later rear addition has light weight partitions, false ceilings and aluminium skirting. These additions demonstrate limited architectural merit.

The building is in fair condition. The building has issues with water ingress, which has damaged some ceilings.

History:

The original (front) section of the structure was constructed in c.1941.

The rear wings were constructed pre-1961.

Figure A2.1:
Image of the Administration Building looking northwest

Figure A2.2:
Image of the Administration building looking southwest, showing the later rear addition

Figure A2.3:
Existing entrance into the Administration Building

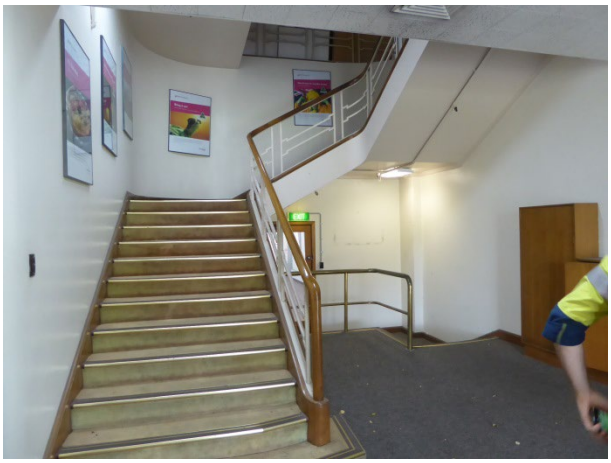


Figure A2.4:
Foyer stairs within the Administration Building, on the ground floor

Figure A2.5:
Section of ceiling in the first floor of the admin building removed due to water ingress damage

Figure A2.6:
Partitioned spaced within the Administration Building

Figure A2.7:
Original double timber doors with transom in the Administration Building

Figure A2.8:
Original landscaping elements at the front of the Administration Building, including a circular driveway, flag pole and grassed lawn

Second Office

Relative Heritage Significance:

Little.

Physical Description and overall Condition:

1970's brick and concrete building with aluminium framed windows.

The building is in fair condition.

History:

Constructed prior to 1979.

Figure A3.1:
East façade of the Second Office

Factory No.1

Relative Heritage Significance

The building has High relative heritage significance. The last addition to the north is assessed as having Little relative heritage significance while lean-to on the west elevation and southern addition have Intrusive relative heritage significance.

Physical Description and overall Condition

Exterior

Double brick structure with header bricks along a number of the lower brickwork courses of the building.

Galvanised iron rainwater heads on each façade.

Butterfly roof with steel framed clerestory windows.

Corrugated asbestos cement roofing.

Multi-pane steel framed awning sash windows with concrete lintels on each façade of the building.

Interior

Steel trusses with exposed steel columns and beams.

Five former cable manufacturing machines are retained on a mezzanine level.

There are three areas of original wood block flooring in the building.

The building is in good condition.

History:

The building was constructed in 1941.

By 1951: Expansion of rear 3 bays east.

By 1961: Expansion of all bays east and 1.5 more bays added to the north (rear) end.

By 1969: Expansion of rearmost bay.

By 1979: Rearmost section added.

By 1989: Southernmost (front) structures added.

By 2017: Small southern (front) structure added.

Figure A4.1:
External view of the eastern side of Factory #1. The original c.1941 elevation was demolished and the factory extended east by 1961

Figure A4.2:
External view of the southern end of Factory #1. Portions of the original front facade is visible (right) as are 1979-89 later additions (left)

Figure A4.3:
Interior of Factory #1 with butterfly roof

Figure A4.4:
Interior of Factoy #1 showing a later north addition

Figure A4.5:
Section of wood block flooring in Factory #1

Figure A4.6:
Detail view of a galvanised iron rainwater hood

Figure A4.7:
1943 aerial of the site showing the construction of the first portion of the factory building
Source: Six Maps

Figure A4.8:
1989 aerial of the site showing Factory 1 with later additions to the north completed and south and expansion to the east
Source: Department of Finance, Services & Innovation

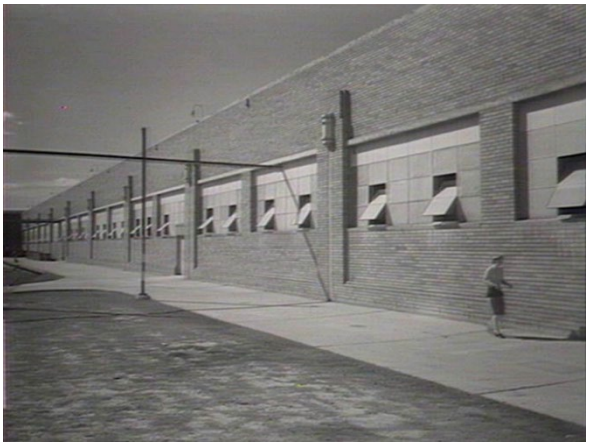


Figure A4.9:
1945 photograph of the western elevation to Factory 1
Source: State Library of NSW, Ref: d1/39793h

Figure A4.10:
Portion of a c.1945 photograph looking north showing the front and west facades to factory 1 prior to the construction of numerous later additions. Part of the Administration Building is visible to the right
Source: Liverpool City Council, Ref: HL000551

Factory No.2

Relative Heritage Significance:

Moderate relative heritage significance, with later northern bays assessed as having Little relative heritage significance.

Physical Description and overall Condition:

The original building is double brick with a two storey tower on the south-east of the original building, originally with a gable roof. The tower roof has been subsequently altered, the date of which is unknown.

Galvanised iron rainwater heads on each building facade.

Butterfly roof with steel framed clerestory windows on the east and west.

Multi-pane steel framed awning sash windows on each façade of the building.

Corrugated asbestos cement roofing.

Contemporary section to the north of the building is a portal frame structural system clad in a metal profile with concrete slab floor.

The building is in good condition.

History:

Original building was the first two small bays of the building, built in 1943.

By 1951 there were 5 bays added to the north, with variation in bay lengths forming a diagonal.

There were 9½ complete length bays by 1961.

There were twelve bays constructed by 1979.

The northern building end was constructed by 1994.

Figure A5.1:
View of the original portion of the building facing north-hwest

Figure A5.2:
Photographof the roadway running between Factory 1 (right) and Factory 2 (left), facing south

Figure A5.3:
The west side of the original section of Factory 2, at its southern end

Figure A5.4:
Interior of Factory 2 showing the structural system and butterfly roof

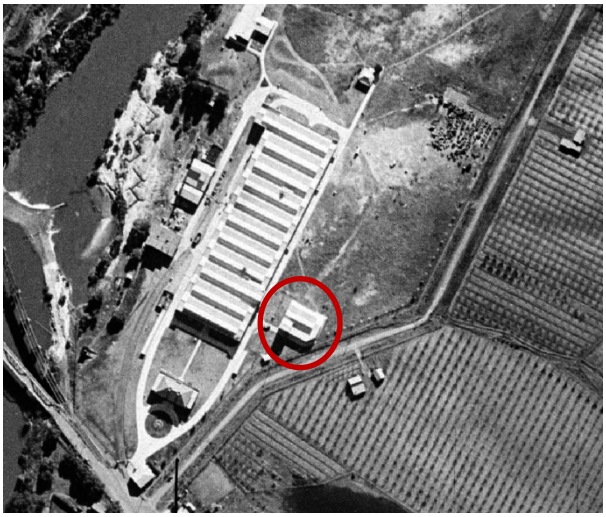


Figure A5.5:
1943 aerial of the site, showing the intial portion of Factory 2, outlined in red
Source: Six Maps

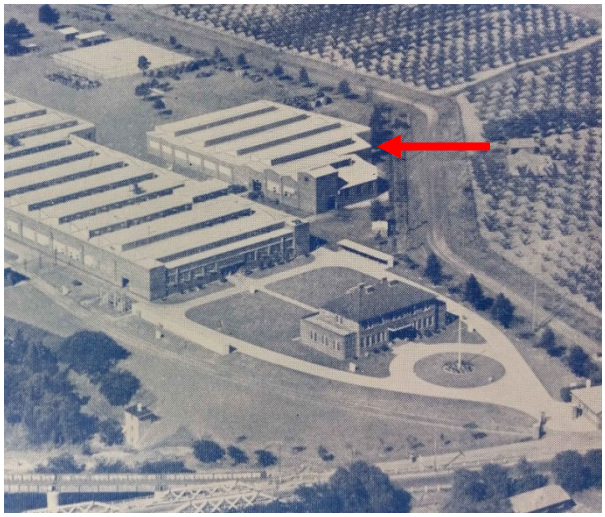
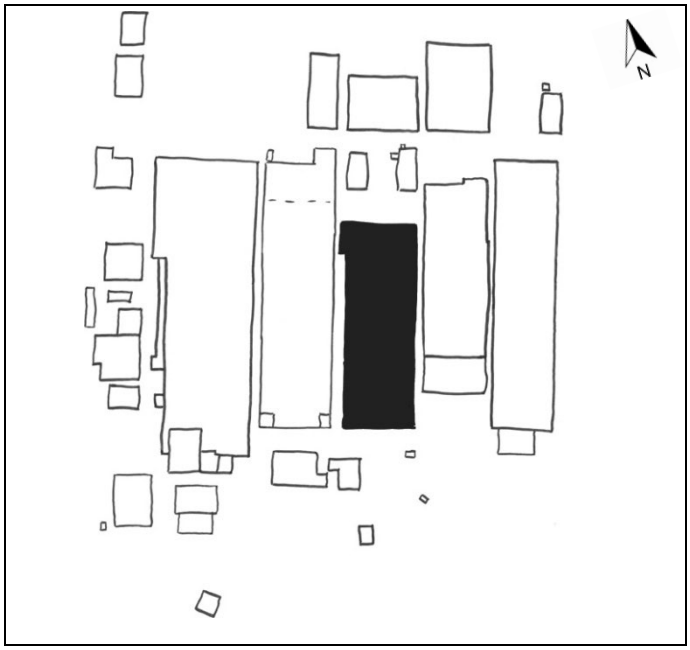


Figure A5.6:
Poriton of a 1948 oblique aerial photograph looking north-east, an expanded Factory 2, indicated with a red arrow, behind Factory 1 and the Administration Building
Source: C.M.A. Catalogue, 1948

Factory No.3



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Exterior

Steel portal frame building with an asbestos cement/aluminium roof, built over three time periods.

Double brick external walls with concrete lintels above the multi-panel aluminium framed awning windows on each façade of the building.

The building comprises two bays – the one to the east is the later addition. There is a clear brickwork joint shown on the façade for the two bays distinguishing the original and later sections.

Later aluminium downpipes.

Interior

The interior of the later addition features a precast tilt up concrete panel system between the original and later bays of the building. The later bay also has a single span steel portal frame that is similar to the original bay's structural system.

The building is in good condition.

History:

The western front section was built by 1961.

The eastern front portion was constructed by 1969.

The rear section was constructed by 1989.

Figure A6.1:
External façade of Factory 3

Figure A6.2:
External view of Factory showing the later addition

Figure A6.3:
Interior view showcasing the steel portal frame structural system

Figure A6.4:
Later addition tilt up concrete panels seperating the original factory from the later addition

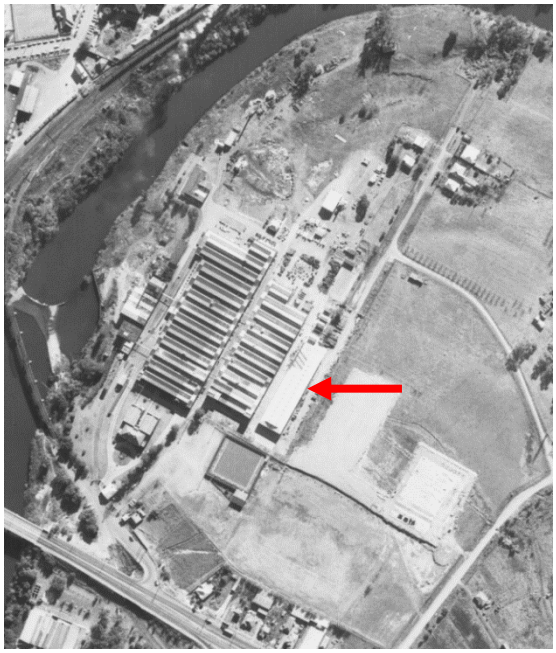
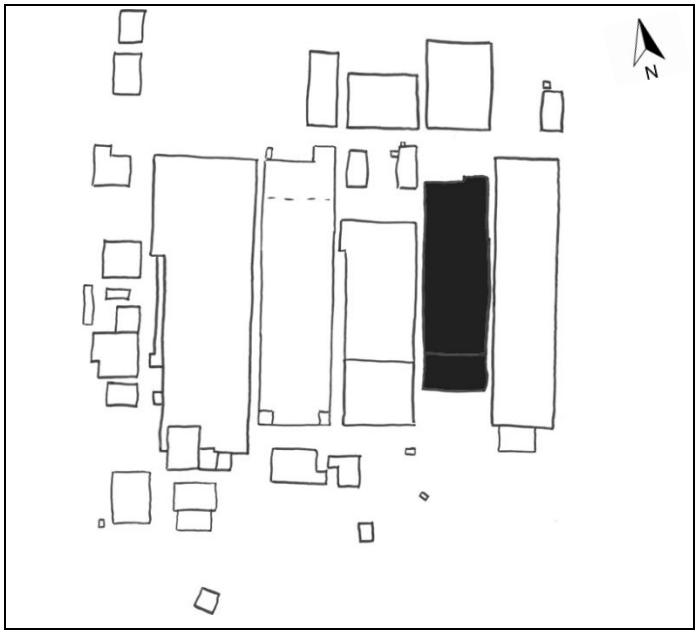


Figure A6.5:
1961 aerial illustrating the early construction of Factory 3, with a single bay
Source: Department of Finance, Services & Innovation

Factory No.4



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

The building has a double brick exterior with squint brickwork along the sixth and seventh courses of the original brickwork. The upper level is a metal sleet profile wall cladding. The later addition is precast concrete and a metal profile cladding with steel louvres.

The pre 1969 portion of the building is steel framed with a precast upper level. The portion of the building constructed post 1989 is a saw tooth roof with lean-to. The building is in good condition.

History:

Earthworks for its initial construction can be viewed in the aerial of 1961.

The south and western section of the building were constructed by 1969.

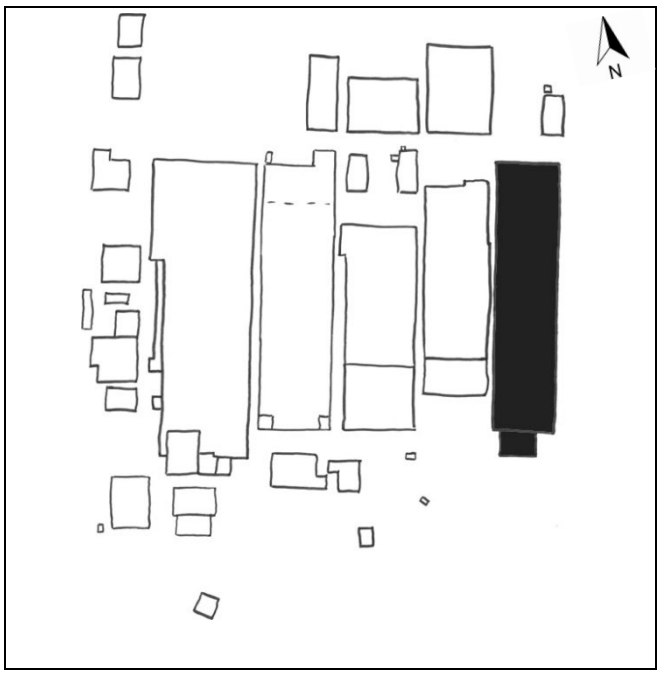
The rear section of the building was constructed before 2017.

Figure A7.1:
External view of Factory 4 showing the east façade

Figure A7.2:
External view of Factory 3 showing the east façade, with precast concrete panels, louvres and metal sheet wall cladding

Figure A7.3:
Interior of the original portion of the building

Factory No.5



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

The building is divided into two halves. The west section was constructed prior to 1979 and has a steel portal frame and concrete slab. The roof within this bay has a ventilation system that allows the release of smoke from the building. The east portion of the building was constructed pre 1989 and has a steel portal frame and double 'T' beam at the entrance of the building. A portion of the façade on the rear is a metal profile. The building is in good condition.

History:

Constructed by 1979: Western and front sections.

Constructed by 1989: Eastern Section.

Figure A8.1:
North façade of the building – west section, front elevation

Figure A8.2:
North façade of Factory 5 – east section, front elevation

Figure A8.3:
Steel portal frame structural system of Factory 5

Factory No.8

Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Steel framed saw tooth roof with translucent fibre glass along east and west.

Multi paned aluminium framed windows to the south of the building.

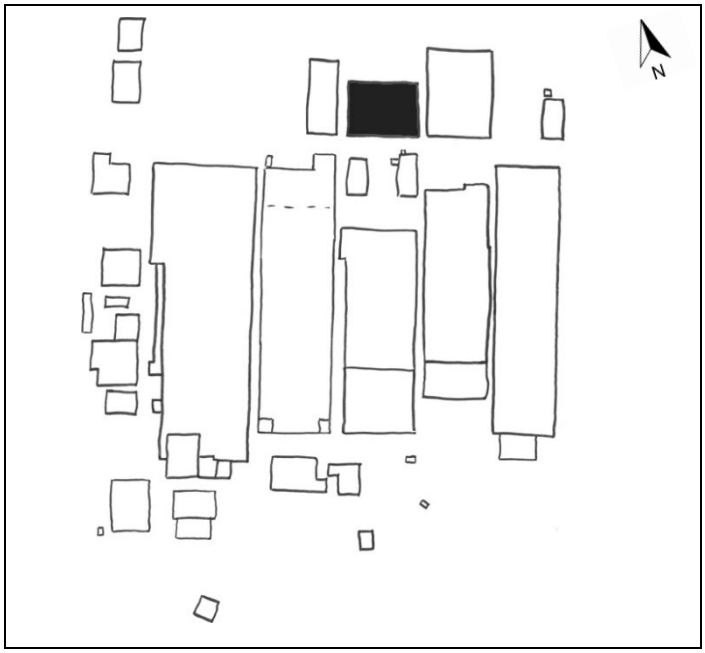
The building is in good condition.

History:

This building was constructed by 1979.

Figure A9.1:
External view of the building showing the east façade

Factory No.9



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Brick structure with concrete slab.

Saw tooth roof with aluminium framed clerestory windows.

Copper rainwater pipes.

Fibre cement mezzanine offices.

The building is in good condition.

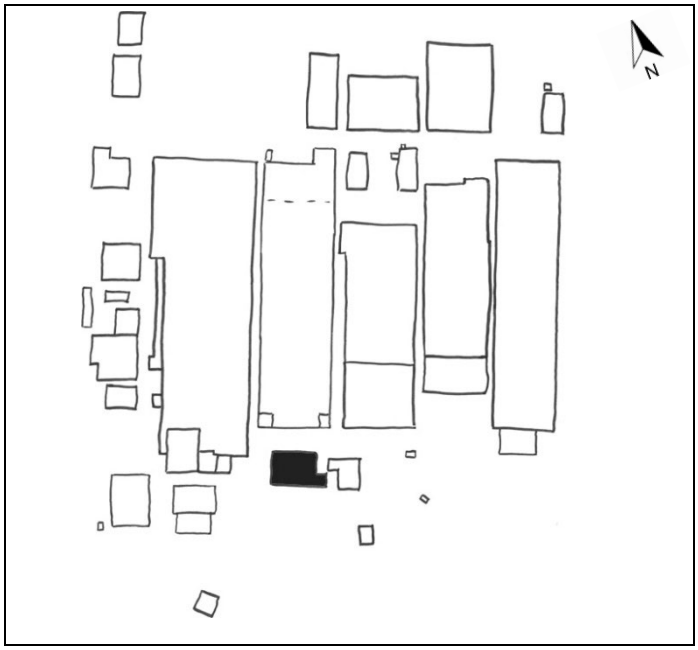
History:

This building was constructed by 1969.

Figure A10.1:
External view of Factory 9, facing Northeast

Figure A10.2:
Interior of Factory 9 showing the mezzanine offices

Rubber Compounding



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Early 1990's structure with a brick lower ground floor, metal wall cladding profile upper levels and aluminium framed windows. The building has a number of roof levels, including a lean-to single storey brick structure on the north side of the building.

The building is in fair condition.

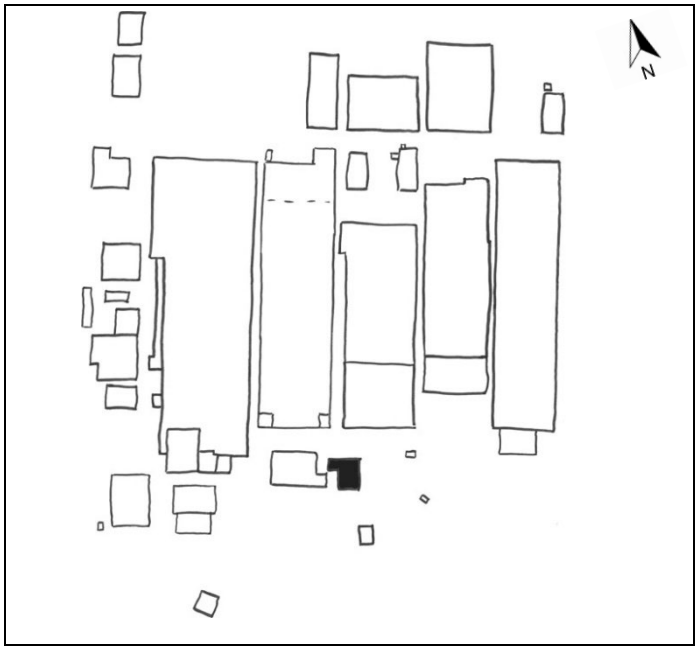
History:

Constructed after 1989.

Figure A11.1:
Exterior view of the building looking southeast

Figure A11.2:
View of the ILS building viewed facing north

ILS Building



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

A modern two storey L-shaped building, with single storey lean-to on the south side of the building. Brick and metal wall cladding profile exterior with aluminium framed windows.

History:

Constructed after 1989.

The condition of the building is fair.

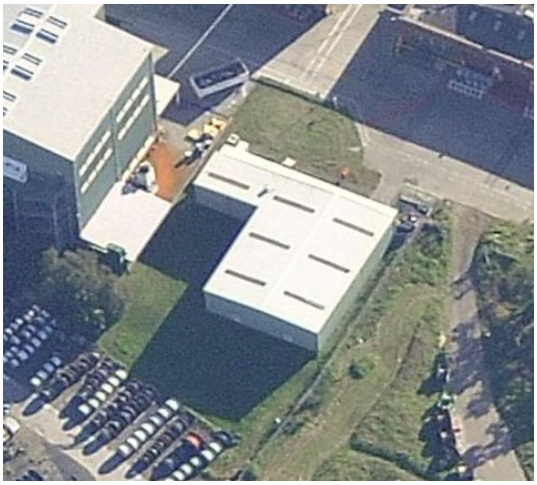
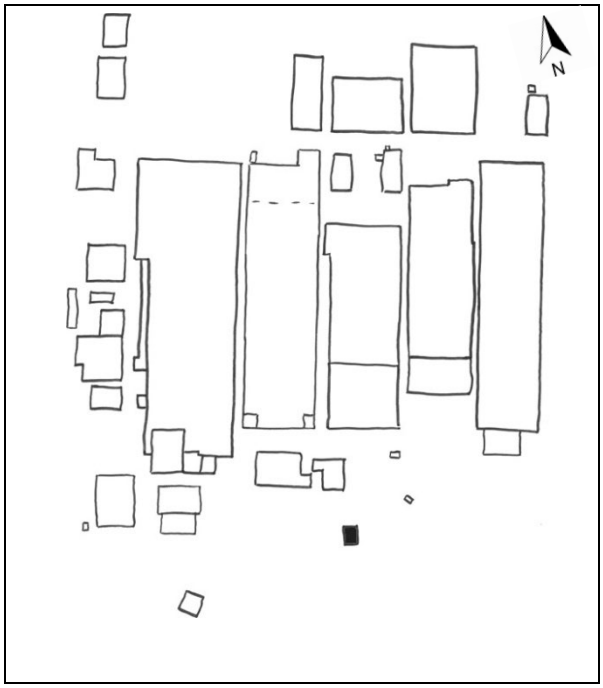


Figure A12.1:
Aerial view of the ILS building, looking north

Club House



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Single storey gable roof, weatherboard cladding and timber framed windows. Portions of the building's exterior are clad in asbestos cement. There is a timber return veranda. The internal walls are asbestos cement sheet. The building has timber floorboards and exposed steel trusses.

The building is in poor condition.

History:

The Club House was constructed by 1961, at the south-east corner of the lawn bowls green.

Figure A13.1:
East façade view of the Club House

Figure A13.2:
Interior of the Club House illustrating the trusses

Figure A13.3:
Image of the former lawn bowls facility
Source: Liverpool City Council, Ref: HL000560

Unknown building – Powerhouse?

Relative Heritage Significance:

Moderate.

Physical Description and overall Condition:

3 level concrete slab roofs leading to a double height space on the west side of the building.

Multi-pane aluminium framed awning windows on the ground floor.

Concrete lintels over a number of the building's openings.

Fibre glass addition with cross over walkway to the south.

Squint brickwork along two courses around the building façade.

Exterior fire doors are embossed with the date 1939.

Has retained the early 'No Smoking' signs.

The building is in fair condition.

History:

This building is visible on a 1943 aerial photograph of the site. It was likely constructed in c.1941. Later additions may well have been constructed onto the building.

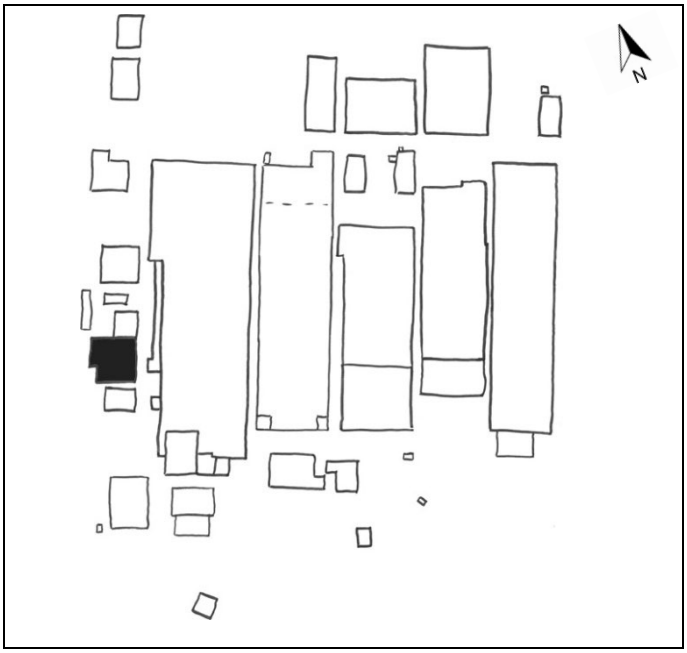
Figure A14.1:
South façade of building

Figure A14.2:
West façade of the building

Figure A14.3:
East façade of the building

Figure A14.4:
Embossed fabrication information on a fire door to the building

Engineering Workshop



Relative Heritage Significance:

Moderate.

Physical Description and overall Condition:

Two storey addition to the south, with steel framed first floor.

Saw tooth roof addition to the north of the building.

This building is in fair to good condition.

History:

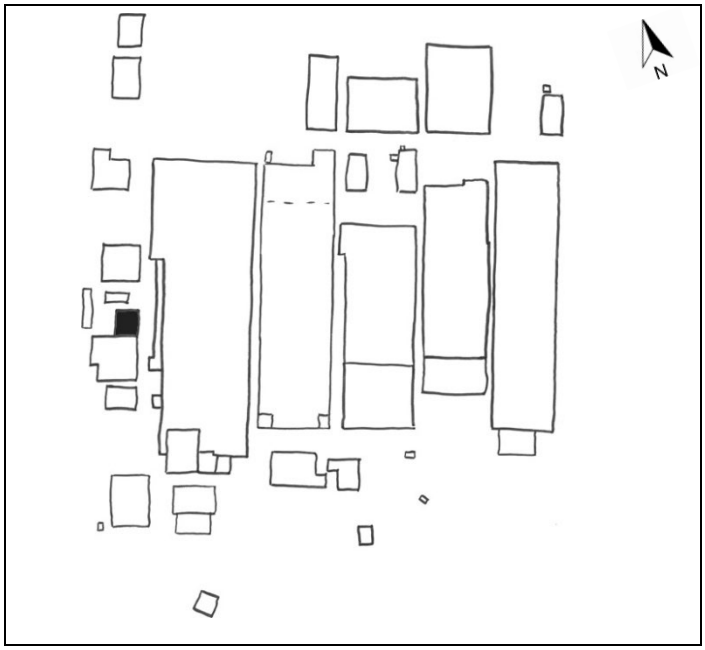
The original section of this building is the small bay adjacent to the Boiler House. This section is considered to have been constructed prior to 1943. By 1951 there were two small bays constructed and the current three large bays with the west addition were constructed by 1961.

Figure A15.1:
East façade of the Engineering Shop

Figure A15.2:
East façade of the Engineering Shop showing the later north addition to the building

Figure A15.3:
Interior of the north addition ahowing the saw tooth roof

Boiler House



Relative Heritage Significance:

Moderate.

Physical Description and overall Condition:

Brickwork with curved upward roof.

Ventilation openings in the external brickwork facades.

Corrugated iron roofing.

Multi-pane aluminium framed awning windows on the north and south sides of the building.

There are currently two old boilers still in place.

The building was extended to the south in later years.

There is asbestos cement cladding within the building.

This building is in poor to fair condition.

History:

The main building was constructed prior to 1943. There has been some alterations to the building with the north-west stack being removed, dates of these alterations are unknown.

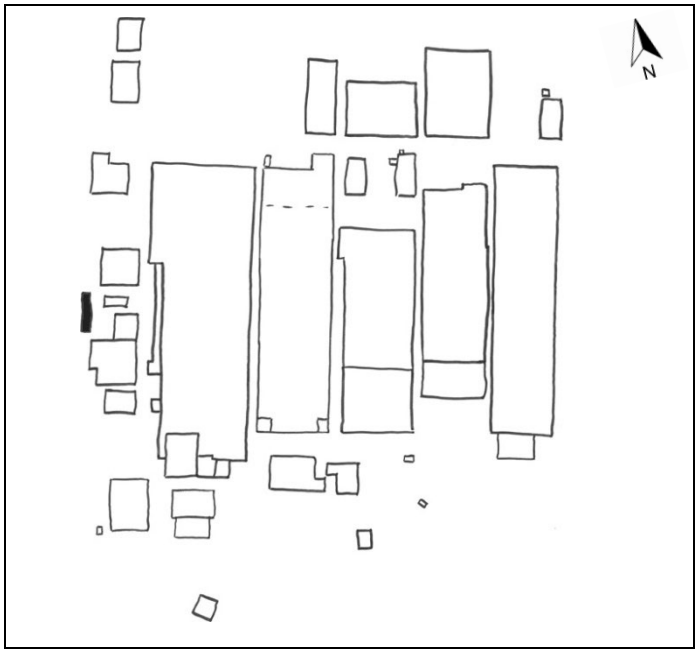
Figure A16.1:
North façade of the Boiler House

Figure A16.2:
West façade of the Boiler House

Figure A16.3:
c.1941 image of the Boiler House under construction
Source: Liverpool City Council, Ref: HL000561

Figure A16.4:
Interior of the Boiler House

Toilet



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Brick single storey building with terracotta vents and a concrete slab flat roof.

The building is in good condition.

History:

Believed to have been constructed by 1979.

The building is currently an amenities block.

Figure A17.1:
Exterior of the building

Workshop (Demolished)

History:

Constructed by 1979.

Demolished late-2017.

Figure A18.1:
2011 aerial photograph of the northern facade of the former workshop
Source: Nearmap

Figure A18.2:
2011 aerial photograph of the front (eastern) facade of the former workshop
Source: Nearmap

Engineering Store

Relative Heritage Significance:

Moderate.

Physical Description and overall Condition:

Steel portal structural frame with lean-to roofs on the east side of the building. Structure is clad in brick and metal wall cladding profile. It has multi-pane aluminium framed awning windows on the ground floor and there is a concrete lintel above entrance.

The aluminium framed clerestory windows are a later addition.

Corrugated asbestos cement roofing.

The building is in fair condition.

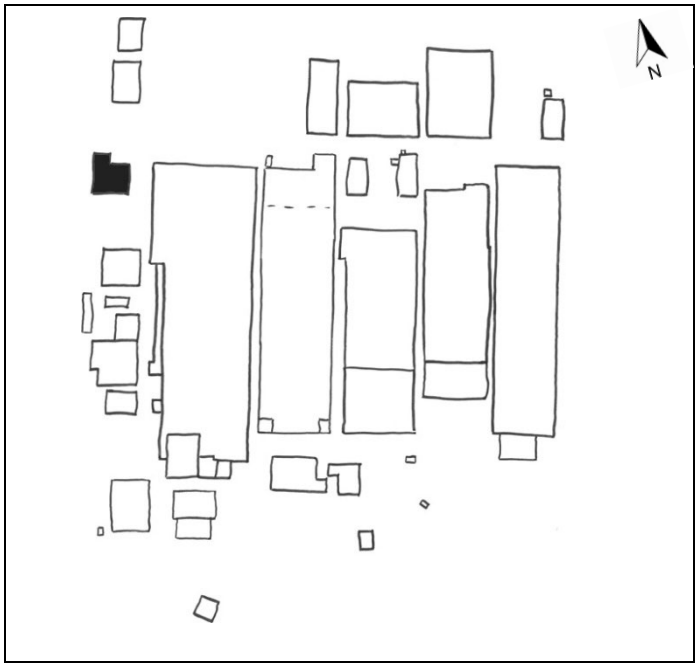
History:

Constructed by 1969.

Figure A19.1:
East façade of the Engineering Store

Figure A19.2:
Interior of the building showing the steel structure

Canteen (demolished)

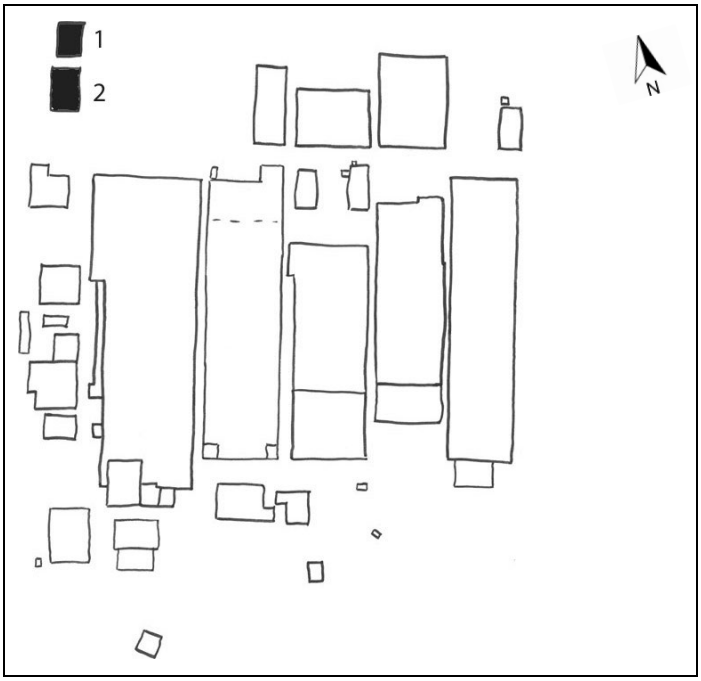


History:

Original building constructed Between 1943-1945. The southern front gable was added by 1961. Building demolished in 2020.

Figure A20.1:
West façade of the Canteen

Scrap Recovery Buildings No. 1 & 2



Relative Heritage Significance:

Scrap Recovery Building No.1: Little.
Scrap Recovery Building No. 2: Little

Physical Description and overall Condition:

Building 1 is two attached skillion roofed steel frame structures with metal profile wall cladding.

Building 2 is two bays of steel portal frames with asbestos cement corrugated roofing and metal profile wall cladding.

Both buildings are in fair condition.

History:

Building 1 was constructed by 1969.

The northern portion of building 2 was built by 1969. The southern portion was constructed by 1979.

Figure A21.1:
Scrap Recovery Building No. 1

Figure A21.2:
Scrap Recovery Building No. 2

Drum Shop

Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Portal Steel construction clad in corrugated iron with two roller door garages on the south side of the building.

Aluminium framed windows located on the east and west facades of the building.

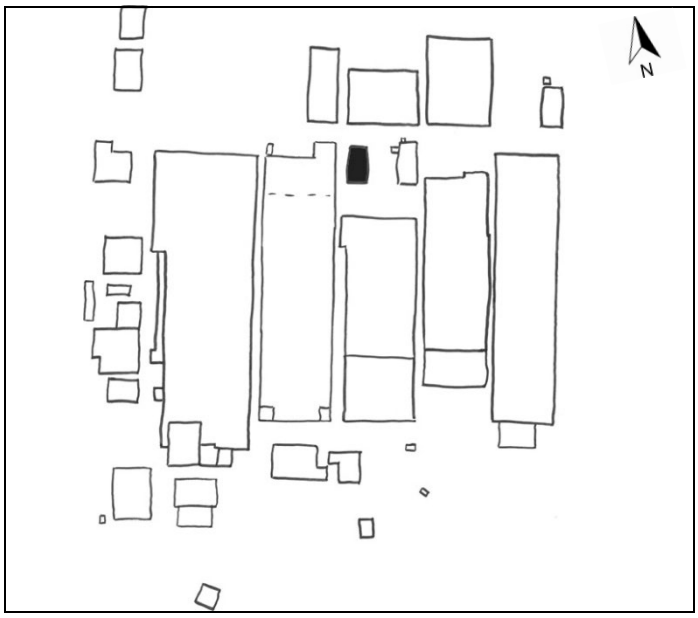
The building is in fair condition.

History:

Constructed by 1969 and expanded to the north by 1989.

Figure A22.1:
South façade of the Drum Shop

Carbon Black Store



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Steel portal frame with corrugated asbestos cement roofing with fibreglass roof lights.

Corrugated steel wall cladding with few openings.

The building is in fair condition.

History:

The building was constructed by 1979.

Figure A23.1:
South façade of the Carbon Black Store

Figure A23.2:
Interior showing the steel portal frame

Maintenance Store

Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Steel portal frame structure with corrugated metal roofing and wall cladding.

The building is in fair condition.

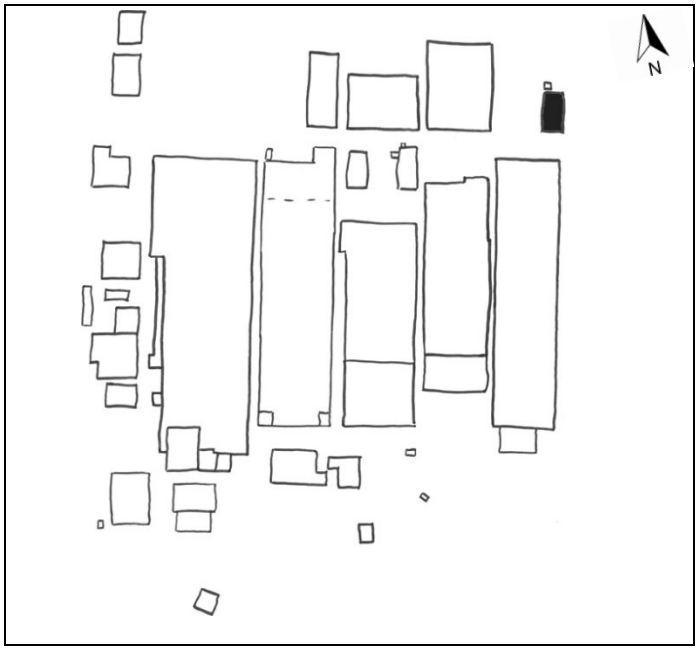
History:

This building was constructed by 1979.

Figure A24.1:
East façade of the Maintenance Store

Figure A24.2:
West façade of the Maintenance Store

Cable Testing



Relative Heritage Significance:

Little.

Physical Description and overall Condition:

Steel portal frame structure system with corrugated iron cladding.

History:

Constructed by 1969.

Figure A25.1:
Portal frame interior of Cable Testing Building. Note the steel frame gantry structure in the foreground