

Meadowbank TAFE

Multi-Trades and Digital Technology Hub Multistorey Carpark Heritage Impact Assessment

Prepared by AMBS Ecology & Heritage for Gray Puksand

FINAL

May 2020

AMBS Reference: 19802

Document Information

Citation:	AMBS Ecology & Heritage 2019, Meadowbank Education Precinct Stage 2.1, Multistorey Carpark – Building J Heritage Impact Assessment. Consultancy report to Gray Puksand.
AMBS Ref:	19802
Versions:	Version 1: Draft Report issued April 2020 Version 2: Final Report issued May 2020
Recipient:	Barry Hackett, Gray Puksand
Approved by:	Jennie Lindbergh, AMBS Director Historic Heritage

Contents

1	Inti	roduction	1
	1.1	Study Area	1
	1.2	Methodology & Author	2
2	Leg	islative Context	4
	2.1	Heritage Act 1977	4
	2.2	Environmental Planning and Assessment Act	6
	2.2.	1 Ryde Local Environmental Plan (LEP) 2014	6
3	His	toric Context	8
	3.1	Early Settlement of the Area	8
	3.2	Railway and Development	9
	3.3	Mellor's Meadowbank Manufacturing Company	10
	3.4	GH Rhodes and Company	
	3.5	Meadowbank Manufacturing Company	
	3.6	Meadowbank TAFE	21
4	Sco	ppe of Works	22
5	En	vironmental Context	24
	5.1	Building J and Southern Entrance to TAFE Campus	24
	5.2	Heritage Items Adjacent to Proposed Works	25
	5.3	Conclusion	27
6	Ass	sessment of Archaeological Potential	28
7		nificance Assessment	
'	7.1	Previous Heritage Assessment – A Heritage Assessment for TAFE NSW N	
		us: Southern Precinct	
	7.2	Assessment Against Criteria	
	7.3	Statement of Significance	
8	Ass	sessment of Heritage Impact	
-	8.1	Statement of Heritage Impact	
9			
-	Ma	naging Change	
	Ma 9.1	naging Change	
P	9.1	naging Change Statutory Requirements raphy	34

Tables

Table 2.1 Heritage items and places within the immediate vicinity of the study area as listed o	n the
Ryde LEP 2014	7

Figures

Figure 1.1 Location of the Meadowbank TAFE precinct (outlined in red) (Source:Gray Puksand 2020)
Figure 2.1 State Heritage Register curtilage of the Ryde Pumping Station and Site (01634) (Source: https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=505387 2)
 Figure 2.2 Detail of Ryde LEP Heritage Map 6700_COM_HER_003_010_20160408, showing heritage items in the vicinity of the study area, TAFE precinct outlined in blue. 6 Figure 3.1 Detail of Parish Map, Hunters Hill (undated, likely dates to turn of the eighteenth century) The study area is located within the northern part of William Kent's grant of 160 acres (arrowed), (Source: NSW Land Registry Services, HLRV: http://hlrv.nswlrs.com.au/pixel.htm#).

Figure 3.2 The railway bridge over the Paramatta River at Meadowbank in its final stages of completion. Above: 1885, Below: View from the southern approach (1886), (Source: NSW
Government Printer, cited in AMC, 2010: 46)
Figure 3.3 Detail of the subdivision Plan of Helenie Estate (c.1892- early 1893), advertising 'Cheap Building Sites'. The detail shows that the block advertised is the block later purchased by GH
Rhodes and Co. The tramway associated with Mellor's Meadowbank Manufacturing Company is also illustrated, as well as the original 80ft x 65ft building of the works (arrowed). It should be
noted that at this time, the railway siding had not yet been constructed (Source: State Library
NSW, Meadowbank Subdivision Plans, IE9030300)12
Figure 3.4 Detail of Map of Municipality of Ryde' (late 1893). The map shows buildings on the site occupied by GH Rhodes & Co (northern building) and the Mellor's Meadowbank Manufacturing Company (southern building), the rail siding, and the tramway to the wharf across the study area
(shaded yellow) (Source: David Scobie Architects Pty Ltd, 2017: 9, Figure 4)12
Figure 3.5 Mellor Brothers' Stump Jump Plough, for which they had the sole patent (Source:
Australian Town and Country Journal, 1893: 23)13
Figure 3.6 Sketch map illustrating the location of the rail siding and tramway used by Mellor's
Meadowbank Manufacturing Company and GH Rhodes and Co. The bridge over the tramway at See Street is arrowed (Longworth & Fleming, 1998: 4)
Figure 3.7 Plan of Helenie Estate, identified as 'Property of Mellor's Manufacturing Co Ltd' (c. late
1893). The tramway and Mellor's building are shown, as well as the rail siding and GH Rhodes
and Co buildings. Note that more buildings associated with GH Rhodes and Co are present in this
plan than in Figure 3.4. The bridge over See Street is also arrowed (Source: State Library NSW,
Meadowbank Subdivision Plans, IE9030531)
Figure 3.8 Meadowbank Township Estate Subdivision Plans, showing blocks for auction surrounding
the 'Meadowbank Engineering Works' site. Left: 3rd Subdivision (c. early 1900s). Right: (1911),
the rail siding is arrowed (Source: State Library NSW, Meadowbank Subdivision Plans, IE:
9030554 and IE: 9030122 respectively)
Figure 3.9 Left: Photograph of Thomas White Memorial fountain taken by Andy Brill, 2015 (Source:
Trove, https://trove.nla.gov.au/version/255528294). Right: Photograph of historic house 'The
Laurels', behind Thomas White Memorial fountain (Source: Flickr, https://www.flickr.com/photos/angeljim46/17694711936)16
Figure 3.10 'Toastrack' O Class tram used in Sydney, produced by the Meadowbank Manufacturing
Company (1909) (Source: Museum of Applied Arts & Sciences, Object number: B1519, https://ma.as/208027)
Figure 3.11 Site plan of Meadowbank TAFE (1948) with former quarry face illustrated (arrowed), as
well as the planned footprints of the buildings and roads associated with the TAFE (NRS 4352, SB. 52/4856 in David Scobie Architects Pty Ltd, 2017: 23, Figure 19)
Figure 3.12 Current aerial view of Meadowbank TAFE, overlayed with 1948 Site Plan (see Figure 3.11),
showing the quarry face (arrowed) (Source: https://maps.six.nsw.gov.au/; David Scobie Architects Pty Ltd, 2017: 23, Figure 19)
Figure 3.13 Meadowbank Manufacturing Company workshops and sheds, rebuilt after the 1908 fire
(c.1922) (Source: University of Melbourne Library: https://digitised-
collections.unimelb.edu.au/handle/11343/193766)19
Figure 3.14 Aerial photograph showing the buildings of the Meadowbank Manufacturing Company, location of proposed Multistorey carpark in red. (March 1930), (David Scobie Architects Pty Ltd, 2017: 17, Figure 13)
Figure 3.15 1943 aerial of the Meadowbank TAFE precinct during the time of ownership of the Ryde
Council, following the closure of the Meadowbank Manufacturing Works, and prior to the
construction of Meadowbank TAFE campus. location of proposed Multistorey carpark indicted
in red. (Source: SIX, https://maps.six.nsw.gov.au/)
Figure 3.16 Diagram on the Certificate of Title issued for the TAFE site in 1949, showing the land and access roads (Source: CT 5950 f 10 cited in David Scobie Architects Pty Ltd, 2017: 19, Figure 15).
Figure 4.1 Ground floor GA schematics for proposed multistorey carpark (Gray Puksand 2020) 22
Figure 4.2 Level 1 GA schematics for proposed multistorey carpark (Gray Puksand 2020)22

Figure 4.3 Level 2 GA schematics for prosed carpark (Gray Puksand 2020)
Figure 5.1 Northern aspect of building J. Note the curved window awnings and the staggard brick
siding. Also note the sandstone cliff face
Figure 5.2 Walkway through the sandstone cliff and building K. Note the bridge over the walkway connecting buildings J and K
Figure 5.3 Southern aspect of the walkway with sandstone cliff and building J located on top of the cliff. Note the vegetation along the cliff base
Figure 5.4 Detail of the sandstone cliff face. Note the drill marks for the blasting of the cliff
Figure 5.5 View north of the walkway between buildings K and J. Note the openess of the space in
contrast to the walkway between bui, dings A, B anf H
and building J to the right of the image. Meadow Bank train station is located to the left outside
of the image
J
Figure 5.8 South west aspect of the extant carpark entrance
Figure 5.9 Entrance to extant carpark from See Street
Figure 5.10 View from corner of See Street and Angus Street towards extant carpark. Note building J in background
Figure 5.11 View from corner of Angus and See St with study area to the right, note the monument
on the corner verge
Figure 5.12 The laurels to the left behind hedges and study area to right on other side of See Street.
27
Figure 6.1 Overlay with c.1893 plan (Figure 3.7) with the current aerial of the study area and
approximate location of the proposed multistorey carpark outlined in blue, showing the location
of the former railway siding (red dashed line), tramway (yellow dashed line) and buildings
associated with GH Rhodes & Co and Mellor's Manufacturing Company (northern and southern
red boxes respectively) (Source: (Source: https://maps.six.nsw.gov.au/; State Library NSW,
Meadowbank Subdivision Plans, IE9030531).
Figure 6.2 Detail of the eastern corner of the proposed multistorey carpark design (Gray Puksand
2020)
Figure 6.3 Detail of the eastern corner of the extant carpark with location of tramway tracks indicated
(Figure 3-7)

1 Introduction

AMBS Ecology & Heritage (AMBS) was commissioned by Gray Puksand to prepare a *Heritage Impact Assessment (HIA)* for the three stages of development associated with the Meadowbank Education Precinct Phase 2.1 project at Meadowbank TAFE in 2019. The project was declared a State Significant Development (SSD-10349) under Part 4, Division 4.1 of the *Environmental Planning & Assessment Act 1979* (EP&A Act). The Secretary's Environmental Assessment Requirements (SEARs) for the project were reissued on 28 August 2019 and Section 9 'Heritage' requires that the following is prepared as part of the Environmental Impact Statement (EIS) for the proposed development:

- Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on or adjacent to the site in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996).
- Address any archaeological potential and significance on the site and the impacts the development may have on this significance.

Gray Puksand advised AMBS in April 2020 of amendments to the design to the Multi Trades and Digital Technology Hub development. The updated design includes a new multistorey carpark located within the extant building J Staff carpark within the Meadowbank TAFE precinct. This assessment builds upon the assessment undertaken by AMBS in October 2019 and addresses specific impacts from the proposed new multistorey carpark.

Currently there are no listed heritage items within the study area; however, previous heritage assessments, undertaken by AMBS in 2019 and by David Scobie Architects Pty Ltd, Nov 2017 have identified the Meadowbank TAFE precinct as having local significance with a number of contributing items. These include Buildings A and B, the central College Green, and the former quarry and rock cutaway, which have been assessed as possessing exceptional heritage significance and recommendations made that they should be retained intact. However, this assessment has not been reflected in any heritage registers or lists.

This report will address impacts to all previously identified potential heritage items and the potential for archaeology within the development footprint.

1.1 Study Area

The study area, the Meadowbank TAFE precinct, is located at 57A Constitution Road (Lot 11, DP 1232584), within the suburb of Meadowbank in the Ryde Local Government Area (LGA) and historic Hunters Hill Parish, approximately twelve kilometres north-west of the Sydney CBD (outlined in red in Figure 1.1). The Meadowbank TAFE campus is government owned (by TAFE NSW), and covers an approximate 11 hectares. The block is bounded by Rhodes Street to the north-east, See Street to the south-east, Constitution Road to the south-west and the Main Northern Railway to the west (with Meadowbank Station situated to the south-west).





1.2 Methodology & Author

This report is consistent with the principles and guidelines of the *Burra Charter: The Australian ICOMOS Charter for the Conservation of Places of Cultural Significance 2013* and current best practice guidelines as identified in the *NSW Heritage Manual* (1996), published by the Heritage Office and Department of Urban Affairs and Planning, and associated supplementary publications.

This assessment builds upon the previous AMBS 2019 assessment that investigated the historical context of the study area, established historical themes and identified both the built and archaeological heritage significance of potential heritage items in accordance with the SHR criteria. A statement of heritage significance was prepared to explain the level of significance of identified heritage items, both built and archaeological. Constraints of the proposed multistorey carpark at building J Staff carpark will be identified and the assessment will provide mitigation measures in order to protect the identified heritage significance and areas of archaeological potential within the study area and surrounds.

Preparation of this report has been undertaken by Lian Ramage, AMBS Senior Historic Heritage Consultant with assistance from Victoria Cottle, Historic Heritage Consultant. Jennie Lindbergh, AMBS Director Historic Heritage has provided technical input and reviewed the report.

A site inspection was undertaken by Lian Ramage on 20 April 2020 to assess the specific impacts associated with the proposed multistorey carpark within building J Staff carpark on aspects of the identified heritage items within the TAFE precinct. All photographs in this report were taken by Lian at this time unless identified otherwise.

2 Legislative Context

The conservation and management of heritage items, places, and archaeological sites takes place within the framework of relevant Commonwealth, State or local government legislation. Non-statutory heritage lists and registers, ethical charters, conservation policies, and community attitudes and expectations can also have an impact on the management, use, and development of heritage items. The following describes the relevant statutory and non-statutory heritage listings for the study area.

The following statutory and non-statutory lists and registers have been reviewed to identify the location and significance of historic heritage items and places in the vicinity of the study area:

- World Heritage List (WHL)
- National Heritage List (NHL)
- State Heritage Register (SHR)
- Ryde Local Environmental Plan (LEP) 2014, Schedule 5
- Sydney Water Section 170 NSW State Agency Heritage Register (SW s.170)
- National Trust of Australia (NSW) Register
- Register of the National Estate (RNE)
- State Heritage Inventory (SHI)

No items or places within the study area, or its near vicinity, are included on the WHL or NHL.

2.1 Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) provides protection for heritage places, buildings, works, relics, moveable objects, precincts and archaeological sites that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal (historic) heritage significance. Where these items have particular importance to the people of NSW, they are listed on the State Heritage Register (SHR).

Part 4 Sections 57 to 69 of the Act address the statutory requirements for items and places listed on the SHR. Works which include demolition, damage or alteration of a heritage item or place require the approval of the Heritage Council of NSW or its delegates.

There are no items listed on the SHR within the study area, however, the '*Ryde Pumping Station and Site*' is adjacent to the campus in the north. It is listed as Item 01634, and the Statement of Significance is:

Ryde pumping station as a whole is highly significant as an internal component of the water supply system to much of Sydney. At its completion it was the largest water pumping station in Australia, and today retains considerable fabric and work practices which can be interpreted from that period. While much of the significant plant and equipment has been removed and replaced, it still maintains the overall function and values it was designed for. The significant curtilage includes only the buildings, works, archaeological evidence, machinery and equipment, sheds, and cultural landscape elements (including paths, drives, plantings etc.) up to 1930 listed in the following pages.

The Ryde Pumping Station site contains landscape elements of high significance and has the ability to demonstrate three important and distinct phases of its history by its pre-European vegetation remnants, farming phase remnants and the distinctive 1890s earthworks and group of 1920s plantings associated with, respectively, the 1890s site use, and 1920s major expansion, for the North Shore water supply.

The design of the main civic address both built, (pumping station and residence) and planted, demonstrates the high importance places on the site at this time of its development. The place continues to make an important contribution to the local townscape and serve as an outstanding landmark group.

The remnant 1920s plantings are likely to have associative value in being with the influence of JH Maiden Director of the Royal Botanic Gardens (1896-1924) and include mature species that are uncommon within the State Chilean Wine Palm (Jubaea chilensis). The place holds scientific value as a reserve for indigenous vegetation remnants.



Figure 2.1 State Heritage Register curtilage of the Ryde Pumping Station and Site (01634) (Source: https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=5053872).

Sections 139 to 146, Divisions 8 and 9 of Part 6 of the Act refer to the requirement that excavation or disturbance of land that is likely to contain, or is believed may contain, archaeological relics is undertaken in accordance with an excavation permit issued by the Heritage Council (or in accordance with a gazetted exception under Section 139(4) of the Act). An archaeological relic is defined as meaning *any deposit, artefact, object or material evidence that:*

(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

(b) is of State or local heritage significance.

In particular Section 139 refers to the need for a permit in certain circumstances:

(1) A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.

(2) A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.

2.2 Environmental Planning and Assessment Act

The Environmental Planning and Assessment Act 1979 (EP&A Act) is the main act regulating land use planning and development in NSW. The EP&A Act also controls the making of environmental planning instruments (EPIs). Two types of EPIs can be made: Local Environmental Plans (LEPs) covering local government areas; and State Environment Planning Policies (SEPPs), covering areas of State or regional environmental planning significance. LEPs commonly identify, and have provisions for, the protection of local heritage items and heritage conservation areas. The study area is located within the Ryde Local Government Area.

The EP&A Act also requires consideration to be given to environmental impacts as part of the land use planning process. In NSW, environmental impacts include cultural heritage impacts and as such any required Review of Environmental Factors (REF), Environmental Impact Statement (EIS) or Environmental Impact Assessment (EIA) should incorporate an assessment of European heritage. The consent authority is required to consider the impact on all heritage values.

2.2.1 Ryde Local Environmental Plan (LEP) 2014

The study area is within the Ryde Local Government Area (LGA) and is subject to the Ryde LEP 2014. Schedule 5 'Environmental Heritage', Part 1 'Heritage Items' identifies the historic objects or places of heritage significance within the study area. There are no listed heritage items for any of the buildings within the study area. The identified heritage listed items within the vicinity of the study area, their location and details are summarised in Figure 2.2and Table 2.1 below.



Figure 2.2 Detail of Ryde LEP Heritage Map 6700_COM_HER_003_010_20160408, showing heritage items in the vicinity of the study area, TAFE precinct outlined in blue.

Item ID	Item	Address	Property Description	Listing
155, 01634, 4572724	Ryde Pumping station and site	948 Victoria Road, West Ryde	N/A	LEP, SHR, SW s.170
37	Meadowbank shops	58-64 Constitution Road, Meadowbank	Lots B, C, D and Local E, DP 27200	LEP
115	Fountain (Meadowbank Manufacturing Works Monument)	Corner Angas and See Streets, Meadowbank	N/A	LEP
116	Attached dwellings	Corner 1A Angas and 34 See street	Lots 1 and 2, DP1063126	LEP

Table 2.1 Heritage items and places within the immediate vicinity of the study area as listed on the Ryde LEP 2014.

3 Historic Context

3.1 Early Settlement of the Area

At the time of European settlement, the Aboriginal people of the Sydney region were organised into named territorial groups. It is generally accepted that the area from Sydney Cove to Rose Hill (Parramatta) on the northern side of the Parramatta River was Wallumetta of the Wallumattagal (Wallumedegal) people (Attenbrow 2010:22). The Wallumedegal people spoke 'the Sydney Language' which was not named at European contact but has been referred to as Eora (Smith 2015:5). According to Attenbrow (2010:35), the term Eora was not used in colonial accounts or by early linguists but is today used to describe the original inhabitants of the area between Port Jackson and Botany Bay or sometimes people of the whole Sydney region. In Tindale's Aboriginal Tribes of Australia (1974) the map depicts Eora extending from Broken Bay to Botany Bay and beyond Parramatta to the west. The Encyclopaedia of Aboriginal Australia describes *them as people of the southeast region, present day Sydney, neighbours of the Ku-ring-gai, Tharawal, and Dharug peoples* (Horton quoted in Attenbrow 2010:35).

European settlement of the northern banks of the Paramatta River began in the 1790s when Governor Philip granted small parcels of land in the modern suburbs of Meadowbank, Ermington, Ryde and Rhodes. Land grants formed a means of encouraging European settlers to become self-sufficient and to produce food for the colony, and an inducement for ex-convicts to remain in the country. In 1792, Governor Philip granted small parcels of land just north of the Paramatta River to eight marines and ten ex-convicts. In light of the grantees' military background, the area became known as the Field of Mars, after the Roman god of war (Phippen 2008).

More substantial grants were made to colonial officials in later years, beginning with surgeon Willian Balmain's grants of 220 and 105 acres in 1794. These parcels of land, which he named 'Meadow Bank' were located on the river flats adjacent to the Field of Mars. In 1799, 160 acres on the river front was granted to William Kent, and by the turn of the century most of the land close to the river had been alienated (Figure 3.1). This included the long-ridged headland on the southern banks of the river between Bray's Bay and the flats, which had been granted to an F Meredith and a S O Donnelly. Part of the land granted to William Kent was later sold to Wolfenden Kenny in 1822 and later Isaac Shepherd in 1831, a local-born son of ex-convicts James Shepherd and Ann Thorns. Isaac Shepherd built a large two-storey sandstone house on the property (just north of the Paramatta River), known as 'Helenie'; his estate became known as the Helenie Estate. Shepherd went on to become a member of the Legislative Assembly and a wealthy pastoralist (Martin, 1998: 1, 6). Helenie Estate was conveyed to Isaac Shepherd's daughter, Mary Elizabeth Bowden in August 1876, and in October 1890, she applied to bring the land under the Real Property Act (David Scobie Architects Pty Ltd, 2017: 8). In 1892, 54 acres of William Kent's grant was issued to Mary Elizabeth Bowden, of Newlands, Parramatta, widow (David Scobie Architects Pty Ltd, 2017: 8).

Further inland the land was granted to settlers on the condition that their allotments be cleared and employed for agriculture. However, most early settlers had little farming experience and had varying success at producing productive crops. Despite the aid of Government stores, which provided settlers with seed, tools and a year's food rations, many lived in debt and poverty. By the end of the eighteenth century, more than half of the first settlers at the Field of Mars and the Eastern Farms had given up and sold their farms (Australian Museum Consulting [AMC], 2015: 8).

In contrast, settlers of the early nineteenth century were able to consolidate their holdings and establish productive market gardens and orchards in the same areas (Greeves 1970:22). Ex-convict William Mobbs, for instance, purchased 80 acres of land on the Field of Mars and successfully grew citrus and stone fruits from cuttings taken from the Government Farm. His orchard, like many surrounding garden plots, would have flourished thanks to the nutrient-rich soils along the banks

of the Parramatta River. In the 1820s and 1830s a few larger estates and farms with substantial houses were constructed, however development of the region was slow and dominated by pastoral holdings (Phippen 2008).



Figure 3.1 Detail of Parish Map, Hunters Hill (undated, likely dates to turn of the eighteenth century) The study area is located within the northern part of William Kent's grant of 160 acres (arrowed), (Source: NSW Land Registry Services, HLRV: http://hlrv.nswlrs.com.au/pixel.htm#).

3.2 Railway and Development

The most significant impetus to Meadowbank's development was the construction of the Strathfield to Hornsby railway line, which linked the Sydney and Newcastle railways. The Government's preferred route for the line followed recommendations made by John Whitton, Engineer-in-Chief of the NSW Railways. Whitton initiated surveys in the mid-1870s, but construction was delayed until 1881 when Government funds were finally granted. In anticipation of the railway, the managers of the large Meadowbank Estate carried out their first subdivision on the western side of the railway line in 1883 and later, in 1888. It was anticipated that the railway and the resulting Meadowbank subdivision would bring a new class of residents to this part of the Ryde municipality, with some of the blocks surrounding the Meadowbank Station being sold to professional gentlemen who commuted to city offices (Phippen, 2008).

The Main North Line, also known as the Homebush to Waratah railway, was officially opened between Strathfield and Hornsby in 1886. It was later extended to the Hawkesbury River in 1887; the Meadowbank Station was opened on 1 September 1887 as 'Meadow Bank' and was renamed in November 1927 as 'Meadowbank' (NSW Rail.net, https://www.nswrail.net/ locations/ show.php?name=NSW:Meadowbank). The Hawkesbury River Railway Bridge was completed in 1889; it was heralded as the last link in the line, uniting the eastern States from Adelaide to Brisbane by rail. The construction contract for the Homebush to Hawkesbury River section was awarded to local firm Amos & Co. who were also required to construct a bridge between Rhodes

and Meadowbank stations spanning the Paramatta River. It features a wrought iron box-girder lattice design with cast-iron cylinders (Figure 3.2) (Singleton, 1956: 45-46).

The subdivision of large estates along the railway between Strathfield and Berowra continued through the 1900s, 1910s and 1920s, gradually filling in the land with suburban housing. Strips of shops servicing the local community were developed on small blocks of land opposite most of the suburban railway stations, such as those west of Meadowbank Station and south of the study area, which are listed on the Ryde LEP 2014 as containing significance at a local level.



Figure 3.2 The railway bridge over the Paramatta River at Meadowbank in its final stages of completion. Above: 1885, Below: View from the southern approach (1886), (Source: NSW Government Printer, cited in AMC, 2010: 46).

3.3 Mellor's Meadowbank Manufacturing Company

In 1890, following the opening of the Main North Line, approximately 100 acres of the Helenie Estate on the northern bank of the Parramatta River was sold to Mellor Brothers, a South Australian manufacturing company. The Mellor Brothers were attracted to the area because of the good access to rail and river transport, and in 1891 established the Mellor's Meadowbank Manufacturing Company on the site east of the railway line; as a branch factory of their Adelaide based company established in 1842. The company was established with a capital of £50, 000 (Sydney Mail and New South Wales Advertiser, 1892: 518). The first general manager of the company was Mr Walter Charles Barton, who had managed their Adelaide company for eleven years; he resided near the railway bridge in *a large stone mansion which was purchased with the estate*, presumably Isaac

Shepherd's 'Helenie' (*Sydney Mail and New South Wales Advertiser*, 1892: 518; *Cumberland Mercury*, 1893:2). A new Certificate of Title was issued to the company for various parcels of land including 56 acres 1 rood 35 perches on 12 July 1893 (David Scobie Architects Pty Ltd, 2017: 9).

According to the *Sydney Mail and New South Wales Advertiser*, the Mellor's Meadowbank Manufacturing Company were building a shed in September 1892 with the dimensions of 80 feet x 65 feet (illustrated as the arrowed building in Figure 3.3) (1892: 518). This original building was described as *a little iron shed* in *The Cumberland Mercury*, which in 1893 had been *converted into the moulding room*, where all iron and other castings are made (1893: 2).

In September 1892, a tram line was laid from the manufacturing companies along public road reserves to the Helenie wharf at Charity Point; it was constructed with steel rails and steel sleepers at a cost of £1200 (Figure 3.3 and Figure 3.4) (*Sydney Mail and New South Wales Advertiser*, 1892: 518). A low ridge, roughly following the line of See Street, was traversed by the tramway through a deep cutting; a bridge was built over the tramway cutting to carry See Street (Figure 3.6 and Figure 3.7), (Longworth & Fleming, 1998: 3). In addition to the tramway, the construction of a private siding from Meadowbank railway station, into the Mellor's Meadowbank Manufacturing Company works on the eastern side of the line, was commenced in late 1892. The siding was 11 chains in length cost £1000 and was officially opened in October 1894 (Figure 3.4 and Figure 3.7) (Sydney Mail and New South Wales Advertiser, 1892: 518; Singleton, 1956: 86, Martin, 1998: 29-30).

Mellor's Meadowbank Manufacturing Company began manufacturing agricultural implements including *stump-jump implements, strippers, windmills, pumps, horse-rakes, wheat separators, ploughs, harrows, scarifiers, shares and other agricultural and general implements*; they were the first company to introduce stump jump ploughs into the state, for which they held the sole patent rights in the country (Figure 3.5) (Martin, 1998: 30; Mudgee Guardian and North-Western Representative, 1921: 16; Australian Town and Country Journal, 1893: 23). They also patented their improvements to wool presses on 23 December 1891 (David Scobie Architects Pty Ltd, 2017: 8).

The company grew to be one of the largest engineering companies in the state, along with Clyde Engineering, Richie Brothers and Tulloch Limited. By 1895, the Meadowbank works was considered to be 'one of the brightest and busiest little centres of industrial interest in the neighbourhood of Sydney' (MAAS: https://collection.maas.museum/object/213013; Martin, 1998: 31).

BLAXLANDS ESTATE For Particulars & E DLY TO LL&C. VER SYDNEY.

Figure 3.3 Detail of the subdivision Plan of Helenie Estate (c.1892- early 1893), advertising 'Cheap Building Sites'. The detail shows that the block advertised is the block later purchased by GH Rhodes and Co. The tramway associated with Mellor's Meadowbank Manufacturing Company is also illustrated, as well as the original 80ft x 65ft building of the works (arrowed). It should be noted that at this time, the railway siding had not yet been constructed (Source: State Library NSW, Meadowbank Subdivision Plans, IE9030300).



Figure 3.4 Detail of Map of Municipality of Ryde' (late 1893). The map shows buildings on the site occupied by GH Rhodes & Co (northern building) and the Mellor's Meadowbank Manufacturing Company (southern building), the rail siding, and the tramway to the wharf across the study area (shaded yellow) (Source: David Scobie Architects Pty Ltd, 2017: 9, Figure 4).



Figure 3.5 Mellor Brothers' Stump Jump Plough, for which they had the sole patent (Source: Australian Town and Country Journal, 1893: 23).

3.4 GH Rhodes and Company

In the early 1890s, Helenie Estate was *surveyed and cut up into suitable parts, consisting of factory sites and residential allotments*, a portion of the land was sold to the Gas and Water works, while approximately five acres was purchased by another agricultural implement manufacturer, GH Rhodes and Company (*Sydney Mail and New South Wales Advertiser*, 1892: 518; *Cumberland Mercury*, 1893: 2).

GH Rhodes and Co operated as agents for Henry Simon Ltd of Manchester until late 1893 when the manufacturing works assigned its business to its creditors; it was in this year that Henry Simon established an Australian office in York Street and later George Street in Sydney (Baxter; Gresswell & Stephenson: 1; David Scobie Architects Pty Ltd, 2017: 12). Henry Simon was world renowned for his connections to inventions respecting roller flour; in 1878 he was responsible for the design and in 1881, building of the first complete roller flour milling plant, for McDougall Bros (Australian Town and Country Journal, 1895: 24; Baxter; Gresswell & Stephenson: 1; Henry Simon Manchester 18978: <http://www.henrysimonmilling.com/eng/overview/16/Heritage>).

During its operation, GH Rhodes and Co shared the tramway and rail siding with the Mellor's Meadowbank Manufacturing Company (Figure 3.7). In April 1895 it was reported that Henry Simon, 369 George Street and Meadowbank filed a patent for a *machine for separating foreign substances from wool, flock and the like, April 9* that was manufactured at Meadowbank (Evening News, 1895: 5). The machine was trialled in May 1895, and it was stated that *with the aid of this machine, every particle of wool is saved to the owner (Australian Town and Country Journal,* 1895: 24).



Figure 3.6 Sketch map illustrating the location of the rail siding and tramway used by Mellor's Meadowbank Manufacturing Company and GH Rhodes and Co. The bridge over the tramway at See Street is arrowed (Longworth & Fleming, 1998: 4).



Figure 3.7 Plan of Helenie Estate, identified as 'Property of Mellor's Manufacturing Co Ltd' (c. late 1893). The tramway and Mellor's building are shown, as well as the rail siding and GH Rhodes and Co buildings. Note that more buildings associated with GH Rhodes and Co are present in this plan than in Figure 3.4. The bridge over See Street is also arrowed (Source: State Library NSW, Meadowbank Subdivision Plans, IE9030531).

3.5 Meadowbank Manufacturing Company

On the 27 February 1895, the Mellor's Meadowbank Manufacturing Company Ltd was wound up. The land was offered at auction on 5 July 1895, and on 8 October 1895, the land was transferred to John Howard Agnas of Adelaide, who was likely responsible for the establishment of the Meadowbank Manufacturing Company Ltd. From March 1897, various parts of the land were sold off; in December 1897, the part of Helenie Estate originally occupied by GH Rhodes and Co was officially transferred to Henry Simon (Australia) Ltd, in the same year they became a private limited company; this company later became world famous as the Simon Engineering Group (Baxter; Gresswell & Stephenson: 1). Following Agnas' death, in December 1904, The Meadowbank Manufacturing Company was transferred to Susanne Angas (his widow), John Alexander Thomson and Leonard William Bakewell. The small portion of the estate owned by Henry Simon Ltd was transferred to Susanne Angas on 21 August 1905, thus the total block was absorbed into the same ownership (David Scobie Architects Pty Ltd, 2017: 12-15).

In 1908, the number of employees at Meadowbank Manufacturing Company reaches almost 400, including engineers, fitters, blacksmiths, timber mill hands of all grades, carpenters, joiners, painters, decorators, foremen, works managers, business managers, accountants, clerks, errand boys, carters, labourers etc (Cumberland Argus and Fruitgrowers Advocate, 1908: 10). The growth of the Meadowbank Manufacturing Company in the early twentieth century led to suburban development of the local area, with numerous subdivisions occurring and houses being constructed by and for company employees (Figure 3.8). For example, Milton – Federation Queen Anne Style Dwelling (Item 70 on the Ryde LEP 2014, 22 maxim Street) was built in 1910 for Richard Springall, engineer, at the Meadowbank Manufacturing Company. Additionally, a house built by the manager of the company (from 1901 to 1910), Thomas Granville William White, stands today in the nature strip bound by See and Agnas Streets and Constitution Road (building footprint can be seen in 1911 subdivision plan, Figure 3.8). The house was formerly known as Bartonville, and is currently 'The Laurels' nursing home. Following White's death in 1910, a sandstone memorial fountain was erected by the Manufacturing Company's employees, in front of the residence (at the apex of See and Agnas Streets); the monument is Item 115 on the Ryde LEP 2014 (Figure 3.9). Following WWI, the Meadowbank works also trained large numbers of returned soldiers as engineering workers (Martin, 1998: 29-30).



Figure 3.8 Meadowbank Township Estate Subdivision Plans, showing blocks for auction surrounding the 'Meadowbank Engineering Works' site. Left: 3rd Subdivision (c. early 1900s). Right: (1911), the rail siding is arrowed (Source: State Library NSW, Meadowbank Subdivision Plans, IE: 9030554 and IE: 9030122 respectively).



Figure 3.9 Left: Photograph of Thomas White Memorial fountain taken by Andy Brill, 2015 (Source: Trove,
https://trove.nla.gov.au/version/255528294). Right: Photograph of historic house 'The Laurels', behind
Thomas White Memorial fountain (Source: Flickr,
https://www.flickr.com/photos/angeljim46/17694711936).

They later produced railway rolling stock and tramcars, assembled Ford Motel T cars and manufactured a range of stationary oil engines (MAAS: https://collection.maas.museum/object /213013). The firm manufactured trams of various classes, and over 600 O Class trams, among other rolling stock such as brake vans, coal wagons and suburban carriages. O-Class Trams were numerically the largest class of tramcar in Australia and the most advanced and fastest during the first half of the twentieth century. Meadowbank Manufacturing Company constructed several

batches of O-Class trams from 1908 until 1914, with the fleet totalling 626 cars (an example can be seen in Figure 3.10), (MAAS: https://collection.maas.museum/object/208027). A large fire in June 1908 destroyed the wood machinery and carriage building shops and some completed railway carriages ready for delivery; 100 men lost their jobs, and the damage was estimated at £15,000 (Goulburn Evening Penny Post, 1908:4). In the months following the fire, *the company set to work with renewed vigour, and has not only succeeded in rebuilding the structures destroyed but has erected a new and special workshop for use in connection with the tramcar contract* (Evening News, 1908: 5). By 1913, the company had regained their production capacity, were employing around 600 men and producing four tram cars every week (Cumberland Argus and Fruitgrowers Advocate, 1913: 8).



Figure 3.10 'Toastrack' O Class tram used in Sydney, produced by the Meadowbank Manufacturing Company (1909) (Source: Museum of Applied Arts & Sciences, Object number: B1519, https://ma.as/208027).

A 1948 site plan of the TAFE showing planned roads and building footprints also shows a quarry face within the southern portion of the TAFE precinct (Figure 3.11). Previous heritage assessments suggest the quarry face aligned with See Street, was along the same alignment as Railway Street, and would have aligned with the former tramway suggesting that the quarry may have been associated with the construction of the tramway in the early 1890s (David Scobie Architects Pty Ltd, 2017: 22). An overlay of the 1948 plan and a recent aerial of the TAFE precinct shows us that the quarry face originally ran from the south of building H and along the alignment of the northern face of building J (Figure 3.12). The remains of the southern portion of the quarry face are extant with the TAFE precinct encompassing the sandstone quarry face.



Figure 3.11 Site plan of Meadowbank TAFE (1948) with former quarry face illustrated (arrowed), as well as the planned footprints of the buildings and roads associated with the TAFE (NRS 4352, SB. 52/4856 in David Scobie Architects Pty Ltd, 2017: 23, Figure 19).



Figure 3.12 Current aerial view of Meadowbank TAFE, overlayed with 1948 Site Plan (see Figure 3.11), showing the quarry face (arrowed) (Source: https://maps.six.nsw.gov.au/; David Scobie Architects Pty Ltd, 2017: 23, Figure 19).

An article in the *Cumberland Argus and Fruitgrowers Advocate* suggests that the quarry was in use in the early twentieth century; the article discussed a letter from the Meadowbank Manufacturing Company read at a Ryde Council meeting in 1913. The letter discusses flooding of the manufacturing premises from See Street during heavy rainfall; the company asked for council to follow up on promises made to alter the plan of drainage so as to prevent flooding as well as repair the *road to the punt* (referred to as Punt-road). The letter stated *The Mayor said that he had seen the manager of the works and made arrangements for a quarry there. If the matter went to the Works Committee, he could arrange for Mr. Trigg* (manufacturing company manager) *to meet the committee, and if the works asked for were carried out, the council would be given facilities for getting stone for years to come* (Cumberland Argus and Fruitgrowers Advocate, 1913: 8). The issues of flooding at Meadowbank Manufacturing Company were ongoing in the ensuing years; an additional article discusses another letter from the Meadowbank Manufacturing Company regarding proposed repairs to Punt-road that was read at a Ryde Council meeting in 1916. The letter stated *As in the past...we shall be very pleased to help the council in the matter, and offer you free of cost all the stone you may require from our works quarry...On a previous occasion, when we gave ballast stone for this road it was used elsewhere, so that this time we trust you will complete the punt road first (Cumberland Argus and Fruitgrowers Advocate, 1916: 8).*

On 16 January 1923, the land was transferred to Ernest Samuel Trigg, who had been general manager of the Manufacturing Company since the early 1900s. Trigg reconstructed the company and in February 1923, he signed the Memo and Articles of a new Meadowbank Manufacturing Company Ltd along with Rosabelle Irene Trigg (wife) and William Arthur Trigg. On 8 March 1923, the land was transferred to Meadowbank Manufacturing Company Ltd, and was set to continue to manufacture railway and tramway rolling stock. The buildings on the site at this time can be seen in Figure 3.13 and Figure 3.14 (David Scobie Architects Pty Ltd, 2017: 16).



Figure 3.13 Meadowbank Manufacturing Company workshops and sheds, rebuilt after the 1908 fire(c.1922)(Source:UniversityofMelbourneLibrary:https://digitised-collections.unimelb.edu.au/handle/11343/193766).



Figure 3.14 Aerial photograph showing the buildings of the Meadowbank Manufacturing Company, location of proposed Multistorey carpark in red. (March 1930), (David Scobie Architects Pty Ltd, 2017: 17, Figure 13).

The Great Depression forced manufacturing companies, including the Meadowbank Manufacturing Company, to lay off employees; the Sydney Morning Herald reported that an estimated 15,000 men in the metal trades industry were idle in September 1930 (SMH, 1930: 9). The Meadowbank Manufacturing Company was closed in 1930, and by April 1939 the siding was no longer in operation (Singleton, 1956: 102). Following the closure of the Manufacturing Works, The Council of the Municipality of Ryde acquired the land on 14 July 1939, and a new Certificate of Title was issued on 27 August 1942 (David Scobie Architects Pty Ltd, 2017: 17). In 1943, the site was vacant, with the Manufacturing Company building demolished, as seen in Figure 3.15.



Figure 3.15 1943 aerial of the Meadowbank TAFE precinct during the time of ownership of the Ryde Council, following the closure of the Meadowbank Manufacturing Works, and prior to the construction of Meadowbank TAFE campus. location of proposed Multistorey carpark indicted in red. (Source: SIX, https://maps.six.nsw.gov.au/).

3.6 Meadowbank TAFE

On 13 December 1945, the site of the former Meadowbank Manufacturing Works was transferred to HM King George VI under the Public Instruction Act of 1880, and was resumed for use as a Technical College. In 1945, the Public Works Department prepared drawings of the college buildings including two 2-storey blocks (Buildings A and B that are still extant), estimated to cost £58,000 (David Scobie Architects Pty Ltd, 2017: 20). The resumption of the site was gazetted on 29 March 1946 and was notified under the Public Instruction Act of 1912 on 31 October 1946. A new Certificate of Title was issued to the Minister of Public Instruction for most of the site that became the Meadowbank College of Technical and Further Education (TAFE) on 11 April 1949 (Figure 3.16) (David Scobie Architects Pty Ltd, 2017: 19).



Figure 3.16 Diagram on the Certificate of Title issued for the TAFE site in 1949, showing the land and access roads (Source: CT 5950 f 10 cited in David Scobie Architects Pty Ltd, 2017: 19, Figure 15).

Scope of Works 4

The scope of works addressed in this assessment encompasses the redevelopment of the ground level Building J Staff carpark into a multistorey carpark. The proposed site is bounded by See Street to the east, TAFE buildings F and G and internal access roads to the north and building J to the west and south. The proposed site of the multistorey carpark is currently occupied by a large ground level carpark utilised by TAFE. The new multistorey carpark comprises construction of three levels with at ground floor and two upper storeys. The proposed height of the carpark does not overshadow building J (Figure 4.1 - Figure 4.4).



GROUND FLOOR CARPARK

Figure 4.1 Ground floor GA schematics for proposed multistorey carpark (Gray Puksand 2020)



Figure 4.2 Level 1 GA schematics for proposed multistorey carpark (Gray Puksand 2020)



Figure 4.3 Level 2 GA schematics for prosed carpark (Gray Puksand 2020)



Figure 4.4 Elevation schematics for proposed multistorey carpark (Gray Puksand 2020)

5 Environmental Context

The TAFE precinct comprises three discrete portions, the northern portion containing the College Green and the library, the central portion buildings A, B, D, E, F and H and the southern portion encompassing buildings K and J, the sandstone cliff and small grassed area opposite the local shops. The precinct can be characterised overall by the large-scale industrial/educational style of the buildings, mature trees and green spaces throughout the campus within a suburban environment. The location of Meadowbank Railway Station, to the south-west, is a significant aspect of the industrial history of the precinct, with its association of the former commercial activities with the railway and the former rail siding.

The TAFE buildings present a disparate collection of buildings that have been built for purpose in a haphazard manner. The precinct has evolved over a period of years, initially with the construction of buildings A and B in the 1940s. The area undergoing development for the new Multistorey carpark currently encompasses a ground level carpark located in the southern portion of the precinct. The proposed Multistorey carpark adjacent to building J is a substantial addition to the campus and will impact upon the visual amenity of the southern portions of the campus. Therefore, the following encompasses all external aspects of the southern portion of the TAFE precinct.

The 2019 AMBS assessments have provided in-depth analysis of buildings and the heritage characteristics for all three portions of the TAFE precinct. Therefore, the following analysis only makes reference to buildings and precincts assessed previously and as such those details have not been reproduced here. The southern portion comprises the area identified for the multistorey carpark and the following encompasses this area only.

5.1 Building J and Southern Entrance to TAFE Campus

The architectural style of building J differs significantly from the buildings of the central portion of the campus; however, the design has referenced some overall aesthetic elements from buildings A and B with the curved window awnings and the staggered brick siding (Figure 5.1). The southern precinct has retained some physical evidence of former activities as evidenced by the sandstone cliff, it is likely that this is the remnant quarry face as is noted in the 1948 plan of the new TAFE buildings (see Figure 3.12 above, and Figure 5.2). Building J sits atop this sandstone cliff with a bridge connecting the ground floor to the top floor of building K which sits at the base of the quarry face (Figure 5.2). The visual amenity of this portion of the precinct presents a more expansive landscape with a pleasant walkway between the sandstone cliff and building K (Figure 5.3). The cliff face also provides evidence of the former blasting with drill holes visible along the cliff face (Figure 5.4). The sandstone cliff and vegetation planted along the base and top offers pedestrians a reprieve from the somewhat overwhelming egress from the covered walkway between Buildings A, B and H (Figure 5.5). The southern entrance to the TAFE precinct is through a small grassed area opposite local shops and Meadowbank train station (Figure 5.6). The area identified for the new multistorey carpark is located behind building J on top of the cliff with the eastern portion bounded by See Street and is currently used as a ground level carpark (Figure 5.7 - Figure 5.10). Visual aspects of the southern portion of the TAFE precinct from the proposed multistorey carpark is hindered by building J with this building dominating the north western visual corridor. The view towards the central portion of the TAFE precinct is dominated by the mature trees surrounding building F. There is a visual separation between See Street and the extant carpark and the TAFE precinct with mature hedges and trees lining the boundary.

5.2 Heritage Items Adjacent to Proposed Works

There are two locally listed heritage items adjacent to the proposed multistorey carpark. Item 115, Fountain Monument located on the corner of Angas and See Streets and item 116, Attached Dwellings located at 1A Angas and 34 See street (Figure 5.11 and Figure 5.12). The fountain memorialises Thomas Granville William White (d. 1910), works manager of the Meadowbank Manufacturing Works. The nursing home, 'the Laurels' located at 1A Angas and 34 See Street (formerly Bartonville) the former residence of the Meadowbank Manufacturing Company's Manager. The visual corridor from these heritage items to the north and west are dominated by the extant Meadowbank TAFE buildings. However, the mature trees that line See Street and the trees within the building J Staff carpark soften the visual discord between the heritage items (Fountain monument and the 'Laurels') and the large scale TAFE buildings.



Figure 5.1 Northern aspect of building J. Note the curved window awnings and the staggard brick siding. Also note the sandstone cliff face.



Figure 5.2 Walkway through the sandstone cliff and building K. Note the bridge over the walkway connecting buildings J and K.



Figure 5.3 Southern aspect of the walkway with sandstone cliff and building J located on top of the cliff. Note the vegetation along the cliff base.



Figure 5.4 Detail of the sandstone cliff face. Note the drill marks for the blasting of the cliff.



Figure 5.5 View north of the walkway between buildings K and J. Note the openess of the space in contrast to the walkway between bui,dings A, B anf H.



Figure 5.6 Small green open area at the southern entrance of the TAFE precinct, building K to the left and building J to the right of the image. Meadow Bank train station is located to the left outside of the image.



Figure 5.7 View form the north east corner of the proposed carpark with northern aspect of building J.



Figure 5.8 South west aspect of the extant carpark entrance.



Figure 5.9 Entrance to extant carpark from See Street.



Figure 5.10 View from corner of See Street and Angus Street towards extant carpark. Note building J in background.





Figure 5.11 View from corner of Angus and See St with study area to the right, note the monument on the corner verge.

Figure 5.12 The laurels to the left behind hedges and study area to right on other side of See Street.

5.3 Conclusion

The southern precinct presents as an open space with visual harmony between the built structures (J and K) and the natural environment (the sandstone cliff face, the small grassed area opposite the local shops and building J Staff carpark) where the large-scale buildings do not dominate the landscape as much as the northern and central precincts. The ad hoc construction of the TAFE buildings is evident with differing architectural styles and materials used throughout with little consideration of the heritage aspects of the earliest buildings on site, A and B which has contributed to the cumulative impacts to the heritage significance of these buildings. The heritage items located on See Street opposite the proposed multistorey carpark have undergone cumulative visual impacts from surrounding residential development and the extant large scale TAFE buildings.

6 Assessment of Archaeological Potential

Historical research undertaken for this assessment and previous assessments has identified the first built structure on the portion of land encompassing the TAFE precinct was large stone house, 'Helenie' constructed by Isaac Sheppard in 1831, located to the south outside of the current TAFE precinct. The next phase of occupation in the late 1890s was by GH Rhodes & Co and Mellor's Manufacturing Company, both manufacturers of agricultural implements. Both companies also constructed large scale sheds and warehouses with the first recorded industrial structure being Mellor's 80 feet x 65 feet shed in September 1892. A tramway constructed with steel rails and sleepers was also laid from the manufacturing companies along public road reserves to the Helenie wharf at Charity Point. In addition to the tramway, the construction of a private siding from Meadowbank railway station, into the Mellor's works, on the eastern side of the line, was commenced in late 1892. The siding was 11 chains in length and was used by both manufacturing companies. The TAFE precinct was occupied by manufacturing companies until the 1930 Depression, when the Meadowbank Manufacturing Company closed and the buildings were then demolished in 1943. The site was resumed in 1945 for use as a technical college. The development of the built structures on the TAFE site is well documented with the first buildings, A and B constructed in 1948 still extant on site.

Development of the TAFE precinct since the late 1940s and the layout of the buildings has likely protected archaeological resources associated with the first phase of agricultural buildings of both GH Rhodes & Co. and the Mellor's Manufacturing Company in those areas of the precinct that have not undergone development. Although the TAFE precinct as whole has an early history of large-scale commercial activities dating from the late 1800s with the Mellor's Meadowbank Manufacturing Co. and G. H. Rhodes and Co. the location of the former buildings are not within the footprint of the proposed multistorey carpark. However, Figure 6.1 presents an overlay of the c.1893 plan with a current aerial of the TAFE precinct. We can see that the area north of the extant building J Staff carpark has the potential to contain possible remnants of the tram line.



Figure 6.1 Overlay with c.1893 plan (Figure 3.7) with the current aerial of the study area and approximate location of the proposed multistorey carpark outlined in blue, showing the location of the former railway siding (red dashed line), tramway (yellow dashed line) and buildings associated with GH Rhodes & Co and Mellor's Manufacturing Company (northern and southern red boxes respectively) (Source: https://maps.six.nsw.gov.au/; State Library NSW, Meadowbank Subdivision Plans, IE9030531).

The concept designs for the multistorey carpark, as outlined in section 4 of this report, proposes excavations of the building J Staff carpark. Figure 6.2 and Figure 6.3 below presents a comparison of the eastern corner of the proposed carpark and the likely archaeological feature associated with the former tramway. It should be noted that due to the accuracy of historical mapping it is often difficult to precisely determine the exact location of potential archaeological deposits and features. However, the area presenting archaeological potential for the building J Staff carpark can be determined as the eastern corner, specifically where the entrance and exit of the multistorey carpark is proposed.



Figure 6.2 Detail of the eastern corner of the proposed multistorey carpark design (Gray Puksand 2020).



Figure 6.3 Detail of the eastern corner of the extant carpark with location of tramway tracks indicated (Figure 3-7).

7 Significance Assessment

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. The value of this resource to a community can be evaluated by assessing its cultural and natural heritage values. *Cultural significance* and *heritage value* are terms used to express the intangible and tangible values of an item, place or archaeological site, and the response that it evokes in the community. Assessment of significance provides the framework for the development of management strategies to protect an item or place for future generations. As such, the following assessment of the significance of the TAFE Precinct, is based on the research provided in the previous sections.

7.1 Previous Heritage Assessment – A Heritage Assessment for TAFE NSW Meadowbank Campus: Southern Precinct

In 2017, David Scobie Architects Pty Ltd, 2017 prepared a heritage assessment of the TAFE precinct in which the precinct as a whole was identified as having significance at a local level. In addition, specific buildings and items were identified as having significance at exceptional, high, moderate, low or intrusive level. The proposed multistorey carpark area, building J Staff carpark, assessed in the 2017 report was identified as having little significance. However, the 2017 assessment identified that the tramway route is of high significance and is an early indication of the occupancy of the site prior to TAFE NSW and hence it must remain capable of interpretation. The assessment recommended that it may be modified subject to argument and drawings showing there are no reasonable alternatives to the proposal.

Based on the site inspection and historical investigations undertaken for this assessment we have determined that the assessment of the tramway in the 2017 report was correct and that potential archaeological features should be protected.

7.2 Assessment Against Criteria

The 2019 AMBS assessment included a comprehensive assessment of identified built and archaeological heritage for the Phase 2.1 works, the Multi Trades and Digital Technology Hub development. In light of the proposed design updates which include the addition of a new multistorey carpark the following assess only those impacts associated with the new multistorey carpark. The following assessment and statement of significance should be considered an addendum to the AMBS 2019 significance assessment.

Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area);

The potential archaeological deposits associated with the former tramway represent an early phase of occupation of the TAFE precinct with the potential tracks present. These archaeological remains present the evolution of the local area from large scale industrial manufacturing to its current use as a centre for education.

The archaeological resources associated with the former tramway satisfy this criterion at a local level.

Criterion (b) 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 local area);

The Meadowbank Manufacturing Company was one of the largest employers of the area and is recorded as employing 400 people in 1908. The local residential growth of Meadowbank can be

linked directly to the company with numerous subdivisions occurring and houses constructed by and for company employees. Therefore, archaeological resource represents a strong association with the local community of Meadowbank. This is evidenced with two extant houses currently listed on the Ryde LEP, one built for engineer Richard Springall in 1910 (22 Maxim Street) and the other for the manager Thomas Granville in c.1911 (now 'The Laurels' nursing home).

The archaeological resources associated with the former tramway satisfy this criterion at a local level.

Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);

The archaeological resources associated with the former tramway present a record of technical achievements of the late nineteenth century with the remains of tramway tracks and possibly contain evidence of early construction techniques.

The archaeological resources associated with the former tramway satisfy this criterion at a local level.

Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area);

By 1908, the Meadowbank Manufacturing Company is recorded as employing 400 people. The development of the local area can be directly linked to the former manufacturing companies, with a growing work force new homes and facilities were needed. Numerous subdivisions occurred and houses were being constructed by and for company employees. The archaeological resource represents an strong association with the local community of Meadowbank having provided work in the local area leading to the subsequent development of the area as is evidenced with two extant houses currently listed on the Ryde LEP, one built for engineer Richard Springall in 1910 (22 Maxim Street) and the other for the manager Thomas Granville in c.1911 (now 'The Laurels' nursing home).

The archaeological resources associated with the former tramway satisfy this criterion at a local level.

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

The areas of archaeological potential relating to the commercial occupation of the study area by G. H Rhodes and Co. and the Mellor's Meadowbank Manufacturing Company have the potential to provide information relating to the operation of these early businesses that historical documentation does not currently provide. The archaeological resources associated with the former tramway are intrinsically linked to these former commercial companies and would provide contributing evidence of the operation of these businesses.

The potential archaeological resources associated with the former tramway satisfies this criterion at a local level.

Criterion (f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area);

The archaeological resources likely to be present are a record of the early industrial use of the TAFE precinct and provide a rare insight into the commercial activities of the Meadowbank area.

The potential archaeological recourses satisfy this criterion at a local level.

Criterion (g) 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 the local area).

The historical research undertaken in this assessment has not demonstrated any principal characteristics of a class of the local areas cultural or natural places or cultural or natural environments.

The potential archaeological resources do not satisfy this criterion.

7.3 Statement of Significance

The archaeological resources associated with the former tramway are intrinsically linked to the late nineteenth – early twentieth century commercial activities of GH Rhodes and Co. and the Mellor's Meadowbank Manufacturing Company. These resources are likely to be extant within the building J Staff carpark and could potentially provide information pertaining to one of the first large scale commercial activities in Meadowbank.

The Meadowbank TAFE precinct has significance at a local level with specific contributory-built items being buildings A and B and the former stone quarry. The potential archaeological resources associated with the late nineteenth – early twentieth century commercial activities also contribute to the precinct's local significance.

8 Assessment of Heritage Impact

The Meadowbank TAFE precinct contains built (buildings A and B and the stone quarry face) and archaeological heritage items (buildings and associated infrastructure of the commercial phase of the site) associated with the first phase of the education precinct and the early twentieth century commercial activities which presents a record of the sites continuing development. Items of local heritage significance (Fountain Monument and 'The Laurels') are also situated adjacent to the proposed works. The impacts of the proposed multistorey carpark on the local heritage values of the precinct and adjacent items is assessed below.

The following aspects of the proposal respect or enhance the heritage significance of the item or conservation area for the following reasons:

The proposed multistorey carpark will not affect the physical fabric or historic significance of the built heritage items associated with the TAFE precinct or the adjacent heritage items. The proposed multistorey carpark enables the continuing development of the precinct as an education centre.

The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures to be taken to minimise impacts:

The proposed multistorey carpark would have minor impacts on the visual amenity of the immediate area of the two locally significant heritage items; Fountain Monument and The Laurels. These items are associated with the early twentieth century phase of commercial activities of the precinct and cumulative visual impacts of the TAFE precinct has already occurred through its continued development since the 1940s. The visual amenity associated with buildings A and B and the stone quarry face will not be affected by the proposed carpark.

There is a possibility that physical impacts to potential archaeological resources will occur. Potential archaeological resources associated with the former tramway are located in the eastern corner of the development area. Where redesign is not possible an archaeological program of monitoring under a section 140 permit is advised to ensure that archaeological resources are protected.

The following sympathetic solutions have been considered and discounted for the following reasons:

The proposed scope of works has been developed with the aim of the continued development and improvement of the Meadowbank TAFE precinct. No alternative sympathetic or otherwise proposals have been considered.

8.1 Statement of Heritage Impact

The local heritage significance of the Meadowbank TAFE precinct is associated with the early twentieth century commercial occupation by Mellor's Meadowbank Company, GH Rhodes and Company and Meadowbank Manufacturing works and the continued use and development of the site as a centre for education.

The proposed multistorey carpark will enable the continued development of the Meadowbank TAFE precinct with improved facilities and associated infrastructure. As such the minor impacts of the proposed carpark are considered acceptable.

9 Managing Change

Heritage places contribute to an understanding and character of a community by providing tangible evidence of its history and identity. At times of change, they help to preserve a connection to the past, and can provide a point of reference for interpreting the past to future generations. Article 15 of the Burra Charter refers to managing *change*, which should be guided by the *cultural significance* of the *place* and its appropriate interpretation. The Burra Charter process also recognises that the development of preferred conservation options requires consideration of a range of other factors which could affect the future of a place. These include:

- requirements of the owner, in this instance TAFE NSW;
- the physical condition of the place; and
- statutory obligations or issues related to heritage and safety requirements.

The proposed works for the multistorey carpark outlines final designs in section 4 of this assessment. The designs have the potential to disturb archaeological deposits as outlined in section 6 of this report, specifically the eastern corner of the carpark. The visual impacts of the multistorey carpark will not significantly impact identified built heritage aspects of the TAFE precinct as the visual amenity is encompassed by building J, matures trees throughout the precinct and See Street. There will be minor visual impacts to the two locally listed heritage items located on See Street however in light of the cumulative visual impacts that have already occurred these visual impacts are considered minor.

The protection of archaeological resources is through avoidance of development (or any subsurface impacts) in the areas of archaeological potential. Where this is unavoidable then redesign of the development to minimise impacts should be considered.

9.1 Statutory Requirements

This assessment has determined that the Meadowbank TAFE precinct is significant at a local level with contributing items comprising the potential archaeological resources. Presently the Meadowbank TAFE precinct is not listed as an item on the Ryde LEP, however the proposed works will need to be undertaken in accordance with Ryde LEP 2014 *Part 5 clause (2) Requirement for consent: (c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, and (e) erecting a building on land: (i) on which a heritage item is located or that is within a heritage conservation area.*

The Heritage Act 1977 Division 9, Protection of Certain relics, section 139 (1) states the following; A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.

Therefore, any works within the areas identified as containing archaeological potential should only be undertaken under a Section 140 Excavation Permit, as determined by the Heritage Council of NSW. This report should be updated to include a research design and management strategy for the archaeology in the study area and submitted as supporting documentation to the excavation permit Application.

Bibliography

Apperly R, Irving R, Reynolds P (1994) A Pictorial Guide to Identifying Australian Architecture. Angus and Robertson Publishers

Australia ICOMOS (2013) The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013. Burwood

Australian Museum Consulting (2010) *Northern Sydney Freight Corridor Heritage Impact Assessment: Rhodes – Hawkesbury River*. Consultancy report to Parsons Brinckerhoff and GHD.

Australian Museum Consulting (2015) *Meadowbank Underbridge Travelling Gantry and Access Stairs Design Heritage Impact Assessment.* Consultancy report to SMEC Australia.

Australian Town and Country Journal (15 April 1893), *Patent Disc Threshing Header, The Stump Jump Plough*, page 23. Available from: http://nla.gov.au/nla.news-article71197864 Accessed on 7/06/2019.

Australian Town and Country Journal (18 May 1895), *Wool Dagging Machine*, page 24. Available from: http://nla.gov.au/nla.news-article71229994 Accessed on 17/06/2019.

Attenbrow, V (2010) *Sydney's Aboriginal Past: investigating the archaeological and historical records.* University of New South Wales Press. Sydney.

Baxter, R; Gresswell, M & Stephenson, P (Date N/A) *The History of Henry Simon Australia*. Available from:

<https://catalogue.millsarchive.org/uploads/r/mills-archive-

2/1/3/2/132bdf5ec900eb41294ae44731a36f8bd05bd89cf053107547594d778ccfb754/The_Histo ry_of_Henry_Simon_Australia.pdf> Accessed on 17/06/2019.

Cumberland Argus and Fruitgrowers Advocate (23 May 1908), *Meadowbank*, page 10. Available from: http://nla.gov.au/nla.news-article85981393 Accessed on 5/06/2019.

Cumberland Argus and Fruitgrowers Advocate (11 January 1913). *Meadowbank*, page 8. Available from: <http://nla.gov.au/nla.news-article85972522> Accessed on 5/06/2019.

Cumberland Argus and Fruitgrowers Advocate (26 April 1913) *Meadowbank,* page 8. Available from: <http://nla.gov.au/nla.news-article85968312> Accessed on 17/06/2019.

Cumberland Argus and Fruitgrowers Advocate (2 December 1916) *Passing the Company's Offer*, page 8. Available from: http://nla.gov.au/nla.news-article86080309> Accessed on 24/06/2019.

Cumberland Mercury (21 October 1893) *Places of Interest, By the "A.E": The Stump Jump Implement Manufactory, Meadowbank,* page 2. Available from: http://nla.gov.au/nla.news-article252753137 Accessed on 11/06/2019.

David Scobie Architects Pty Ltd (Nov 2017) *A Heritage Assessment for TAFE NSW Meadowbank Campus: Southern Precinct*. Report for TAFE NSW Property and Logistics Group.

De Belin, F (2014) *Games of Stones...The Big Stone Alignment Posts of Ryde.* Proceedings of the 19th Association of Public Authority Surveyors Conference, Pokolbin, New South Wales, Australia, 31 March – 2 April 2014.

Evening News (18 April 1895) *Patents and Inventions*, page 5. Available from: http://nla.gov.au/nla.news-article108094413 Accessed on 17/06/2019.

Evening News (8 September 1908). *A Mile of New Trams being Built at Meadowbank, Two Hundred Men at Work*, page 5. Available from: http://nla.gov.au/nla.news-article114753430 Accessed on 5/06/2019.

Gray Puksand (16 July 2019) TAFE NSW Meadowbank Phase 2.1 Concept Design Report. Issue A.

Goulburn evening Penny Post (4 June 1908), *The Meadowbank Fire*, page 4. Available from: http://nla.gov.au/nla.news-article98788462> Accessed on 5/06/2019.

Henry Simon Manchester, 1878 (2018). Available from: http://www.henrysimonmilling.com/eng/overview/16/Heritage Accessed on 17/06/2019.

Longworth, J & Fleming, G. (1998) 'Mellor's Meadowbank Manufacturing Company Tramway', *Light Railways* 143, pp: 3-5.

Martin, M (1998) A Pictorial History of Ryde. Kingsclear Books: Alexandria.

Mudgee Guardian and North-Western Representative (28 April 1921), *Meadowbank Manufacturing Co,* page 16. Available from: http://nla.gov.au/nla.news-article155652619 Accessed on 6/06/2019.

Museum of Applied Arts & Sciences, *Meadowbank Manufacturing Co. Builders Plate.* (Object number: B2517-21). Available from: https://collection.maas.museum/object/213013 Accessed on 6/06/2019.

Museum of Applied Arts & Sciences, '*Toastrack' O-class tram used in Sydney, 1909*'. (Object number: B1519). Available from: < https://collection.maas.museum/object/208027> Accessed on 6/06/2019.

NSW Heritage Office (1996) *NSW Heritage Manual*. NSW Heritage Office, Department of Urban Affairs & Planning, Parramatta.

(rev. 2002) Statements of Heritage Impact.

NSW Heritage Branch (2009) Assessing Significance for Historical Archaeological Sites and 'Relics'. NSW Heritage Branch, Department of Planning, Parramatta. https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/ArchSignificance.pdf

NSW Rail Net, *Meadowbank Station,* Available from: <https://www.nswrail.net/locations/show.php?name=NSW:Meadowbank> Accessed on 7/06/2019.

Office of Environment & Heritage SHI Inventories for State Heritage Register Item:

'Ryde Pumping Station and Site'. Available from:

https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=505 3872 Phippen, A (2008) *Dictionary of Sydney: Meadowbank*. Available from: http://www.dictionaryofsydney.org/entry/meadowbank Accessed on 4/06/2019

Singleton, C. C (1965) 'The Short North – The Sydney – Newcastle Link Railway,' *The Australian Railway Historical Society Bulletin* 16, No 329, pp 41-51; No 332, pp 101-110.

Sydney Mail and New South Wales Advertiser (3 September 1892), *Agricultural Machine Factories* – *Meadowbank*, p.518. Available from: http://nla.gov.au/nla.news-article162186717 Accessed on 6/06/2019.

Sydney Morning Herald (2 September 1930), *Metal Trades, Some Works Close, 15,000 Men Idle,* page 9. Available from: http://nla.gov.au/nla.news-article16684975> Accessed on 6/06/2019.

TAFE NSW, *Meadowbank*. Available from: <https://www.tafensw.edu.au/locations/northern-sydney/meadowbank> Accessed on 4/06/2019.

Tindale, N. (1974) Aboriginal Tribes of Australia: their terrain, environmental controls, distribution, limits and proper names. University of California Press. Berkely.