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BUILDING OUR FUTURE



Jane Street and Mulgoa Road Infrastructure Upgrade Review of Environmental Factors

Appendix H – Statement of Heritage Impact

October 2016



Jane Street and Mulgoa Road Infrastructure Upgrade, Penrith

Statement of Heritage Impact

Report to Arup

August 2016



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EXECUTIVE SUMMARY

Roads and Maritime Services (Roads and Maritime) proposes to undertake works to upgrade Mulgoa and Castlereagh Roads, and Jane and High Streets in Penrith. On behalf of Roads and Maritime, Arup is preparing a Review of Environmental Factors (REF) for the proposed development. The Preliminary Environmental Investigation identified a number of listed historical (non-Aboriginal) heritage items in the vicinity of the proposed development, but found that the potential for the presence of historical archaeological relics was low (NGH Environmental May 2014: 30-34).

In order to address the potential historical heritage impact of the proposed development Arup has commissioned Artefact Heritage to complete a Statement of Heritage Impact (SoHI) for the REF. The SoHI addresses historical (non-Aboriginal) heritage only. The potential Aboriginal heritage impact of the proposed development is addressed in a separate report (Artefact Heritage, in prep.).

Results

The proposed development is located at an intersection that has formed a significant element in the road network of the state and region from the earliest years of the nineteenth century. High Street was formerly part of the Great Western Road, leading from Sydney across the Blue Mountains. Castlereagh Road was formerly Proctor's Lane, connecting the main road to the settlements in the Hawkesbury. Mulgoa Road provided access to the estates and smaller settlements of the south west. The study area also includes part of the Main Western Line, the construction of which, in the 1860s, was fundamental to the early development of Penrith.

The proposed works have the potential to impact the following items of historical heritage significance:

- Penrith Railway Station Group.
- Penrith Ambulance Station.
- Woodriff Gardens.
- High Street alignment.
- Historical archaeological remains associated with earlier phases of High Street and Castlereagh Road, and with the occupation of properties along either side of High Street.

Recommendations

The following recommendations have been developed with regard to statutory requirements, the heritage significance of the study area, and best practice. They are intended to assist in the avoidance of impact where possible, and the mitigation of that impact where avoidance is not possible.

Prior to commencement of the proposed development:

- Detailed design should aim to avoid and/or reduce the identified heritage impact of the proposed works in the following way:
 - Minimise excavation within the footprint of the road pavements of High Street and the original alignment of Castlereagh Road.

- Minimise excavation on either side of High Street, to the west of Castlereagh Road.
 - Minimise the number of trees to be removed from Woodriff Gardens.
- Consultation should be undertaken with Penrith City Council regarding the potential impact on the listed heritage item Penrith Railway Station Group, in accordance with the requirements of the State Environmental Planning Policy (Infrastructure). Any recommendations made by Council in this regard should be incorporated into the program where possible.
- An archival record should be completed of the rail bridge passing over Castlereagh Road, and other associated elements to be removed; and those elements of Woodriff Gardens that will be removed. Copies of the record should be lodged with RailCorp, Penrith City Council, the local historical society and the Heritage Division.
- An archaeological management plan (AMP) should be prepared to guide works with the potential to affect archaeological remains of High Street and Castlereagh Road, and archaeological relics relating to the occupation of the properties on either side of High Street. The AMP is likely to recommend an initial stage of archaeological test excavation, to be undertaken in accordance with an Exception Notification, in order to confirm the potential for impact to relics.
- If impact to relics is confirmed, an Excavation Permit application should be lodged with the Heritage Division, in accordance with Sections 139-140 of the *Heritage Act 1977*, to address impact to relics on either side of High Street.

During the proposed development:

- A heritage induction should be incorporated into the general induction given to all members of the team working on the project. This should outline the history and heritage values of the study area, and the relevant requirements, including the unexpected finds procedure.
- An unexpected finds procedure should be incorporated into the works program, in accordance with the *Standard management procedure: Unexpected heritage items* (RMS March 2015).
- Any required archaeological investigation and recording should be undertaken prior to, or during the initial stages of, bulk excavation, in accordance with the recommendations of the archaeological management plan, and the conditions of the Excavation Permit (if required).
- Measures should be put in place to ensure against inadvertent impact to Penrith Ambulance Station and Peachtree Creek Bridge.

Following completion of the proposed development:

- Trees should be planted in Woodriff Gardens to replace any that have been removed as a result of the proposed development. The garden bed at the intersection of High Street and Castlereagh Road should be re-instated at the new intersection location.
- Analysis and reporting should be completed for any archaeological investigation and recording. Copies of the report should be lodged with Penrith City Council, the local historical society and the Heritage Division.

CONTENTS

| | | |
|------------|--|-----------|
| 1.0 | Introduction and background | 1 |
| 1.1 | Introduction | 1 |
| 1.2 | Study area | 1 |
| 1.3 | Scope of this assessment..... | 1 |
| 1.4 | Report authorship and acknowledgements | 2 |
| 2.0 | Legislative context and heritage listings | 4 |
| 2.1 | <i>Environmental Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)..... | 4 |
| 2.2 | <i>Heritage Act 1977</i> (NSW) | 4 |
| 2.3 | <i>Environmental Planning and Assessment Act 1979</i> | 7 |
| 2.4 | Non-statutory heritage registers | 9 |
| 2.5 | Summary of heritage listings | 9 |
| 3.0 | Historical Context | 13 |
| 3.1 | Penrith | 13 |
| 3.2 | The study area..... | 17 |
| 4.0 | Survey | 27 |
| 4.1 | Background..... | 27 |
| 4.2 | Site description | 27 |
| 5.0 | Historical heritage items and archaeological potential..... | 32 |
| 5.1 | Significance assessment | 32 |
| 5.2 | Heritage items..... | 32 |
| 5.2.1 | Penrith Railway Station Group | 33 |
| 5.2.2 | Penrith Ambulance Station | 34 |
| 5.2.3 | Peachtree Creek Bridge | 35 |
| 5.2.4 | Woodriff Gardens..... | 36 |
| 5.2.5 | High Street alignment | 36 |
| 5.3 | Historical archaeological potential | 37 |
| 6.0 | Heritage impact assessment..... | 41 |
| 6.1 | Proposed development..... | 41 |
| 6.2 | Potential heritage impact | 41 |
| 7.0 | Recommended mitigation measures..... | 46 |
| 8.0 | References | 49 |

FIGURES

| | | |
|------------|--|----|
| Figure 1: | Location of the study area. | 3 |
| Figure 2: | The curtilage of the Penrith Railway Station Group, as listed on the SHR. | 6 |
| Figure 3: | Penrith LEP 2010 Heritage Map (approximate location of the study area indicated in red). | 8 |
| Figure 4: | Listed heritage items within and in the vicinity of the study area. | 12 |
| Figure 5: | 'A map of the hitherto explored country contiguous to Port Jackson, lain down from actual survey' J. Walker, engraver, 1793, with ford marked in red. (Source: State Library of NSW). | 15 |
| Figure 6: | Castlereagh Parish Map c~1820 showing the northern portion of Woodriffe's grant. (Source: LPI Maps)..... | 15 |
| Figure 7: | Penrith Railway Station c1887, (source Penrith in Pictures)..... | 16 |
| Figure 8: | Subdivision of Penrith Park, c1882 (Sourced from Penrith in Pictures)..... | 16 |
| Figure 9: | Mulgoa Parish Map illustrating the location of the Western road, later the Great Western Highway c~ 1820, (Source: LPI Historical Maps Viewer)..... | 19 |
| Figure 10: | Detail of an 1833 plan showing the study area (Knapp, Plan of Capt. Woodriff's grant at Penrith, NLA Digital Collections, Maps MAP RM 1264). | 19 |
| Figure 11: | Detail of an 1858 plan, drawn up for the proposed railway (State Library NSW, Z/M3 811.112gme/1858/1). | 20 |
| Figure 12: | Detail of an 1876 plan showing the intersection of High Street and Castlereagh Road (LPI Crown Plan 3.2134). | 20 |
| Figure 13: | Detail of an undated plan, probably from the early to mid 1880s, drawn up for the duplication of the Main Western Line (LPI Crown Plan 1539.3000)..... | 21 |
| Figure 14: | Penrith Ambulance Station at its opening in 1936 (Penrith in Pictures). | 21 |
| Figure 15: | 1943 aerial showing the study area (LPI SIXMaps). | 22 |
| Figure 16: | The level crossing taking Castlereagh Road over the Main Western Line, undated image (Penrith in Pictures). | 23 |
| Figure 17: | Detail of a 1959 plan showing the intersection of High Street and Castlereagh Road (LPI Crown Plan 17506.3000). | 23 |
| Figure 18: | Detail of a 1959 plan showing the proposed realignment of Castlereagh Road (LPI Crown Plan 17563.3000). | 24 |
| Figure 19: | Detail of a 1961 plan showing the intersection of Mulgoa Road and High Street (LPI Crown Plan 19259.3000). | 25 |
| Figure 20: | 1966 aerial photograph showing the study area, oriented with east to the top (Penrith in Pictures, courtesy of Len Hutchinson). | 25 |
| Figure 21: | View of the RAAF Base and Jane Street from Penrith Plaza, c.1970s (Penrith in Pictures)..... | 26 |
| Figure 22: | 1986 aerial photograph showing the realignment of the Mulgoa Road intersection with High Street (Penrith in Pictures). | 26 |
| Figure 23: | The approximate locations of the structures shown in the 1876 (green) and c1880s (blue) plans in relation to the current layout of the study area. | 40 |

| | |
|--|----|
| Figure 24: Proposed development (Arup, 5/8/16, Drawing no. DS2014-005572-DC-RD-DRG-0051, Rev. 2). | 44 |
| Figure 25: The study area (yellow outline) and footprint of the proposed development (purple outline). | 45 |

TABLES

| | |
|--|----|
| Table 1: Summary of listed heritage items within and in the vicinity of the study area. Individual listings relating to the same overall item are grouped and shaded. | 10 |
| Table 2: NSW heritage significance assessment criteria. | 32 |
| Table 3: Assessed scale of heritage impact. | 41 |
| Table 4: Summary of impacts and mitigation measures | 48 |

1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

Roads and Maritime Services (Roads and Maritime) proposes to undertake works to upgrade Mulgoa and Castlereagh Roads, and Jane and High Streets in Penrith. On behalf of Roads and Maritime, Arup is preparing a Review of Environmental Factors (REF) for the proposed development. The Preliminary Environmental Investigation identified a number of listed historical (non-Aboriginal) heritage items in the vicinity of the proposed development, but found that the potential for the presence of historical archaeological relics was low (NGH Environmental May 2014: 30-34). In order to address the potential historical heritage impact of the proposed development, Arup has commissioned Artefact Heritage to complete a Statement of Heritage Impact (SoHI) for the REF.

1.2 Study area

The study area consists of Mulgoa and Castlereagh Roads, between Museum Drive in the north and Union Road in the south; a section of Jane Street extending approximately 130m to the east of the intersection with Castlereagh Road; and a section of High Street on either side of the Mulgoa Road intersection, approximately 350m in length; and a section of the Main Western Line to the west of Castlereagh Road, approximately 340m in length (Figure 1). The study area includes a 50m buffer around the road reserves and areas proposed for use as construction compounds.

The study area is located in the Penrith Local Government Area, and in the Parishes of Castlereagh and Mulgoa, County of Cumberland.

1.3 Scope of this assessment

The purpose of this report is to document the results of the assessment of the potential impact of the proposed development on historical (non-Aboriginal) heritage. The report supports the REF for the proposal. The scope of the investigation and assessment includes:

- Identification of listed heritage items within and adjacent to the study area.
- An overview of the historical development of the study area.
- A site inspection.
- Assessment of historical archaeological potential and significance within the study area, and identification of previously unlisted potential heritage items.
- Assessment of the potential impact of the proposed development on heritage items and areas of historical archaeological potential.
- Recommendations including proposed mitigation strategies for the management of heritage items and significant historical archaeological resources, in accordance with the relevant statutory requirements.

The SoHI addresses historical (non-Aboriginal) heritage only. The potential Aboriginal heritage impact of the proposed development is addressed in a separate report (Artefact Heritage, March 2016).

1.4 Report authorship and acknowledgements

This report was prepared by Alyce Haast (Consultant), with the assistance of Fenella Atkinson, (Senior Consultant). Mapping was completed by Alyce Howard (Consultant). Dr Sandra Wallace (Principal) provided review, management input and advice.

The assistance of the following people is gratefully acknowledged:

- Kathryn Nation and Leah Howell, Arup.
- Steve Randall, Deerubbin Local Aboriginal Land Council.
- Leica Wigzell, National Trust of Australia (NSW).

Figure 1: Location of the study area.



2.0 LEGISLATIVE CONTEXT AND HERITAGE LISTINGS

The historical heritage of the state is protected by Commonwealth and State legislation. This section includes a summary of the relevant Acts and the potential legislative implications for the proposed development. In addition, there are a number of non-statutory heritage registers; these have also been reviewed to identify known heritage items in the vicinity of the study area.

2.1 *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legislative framework for the protection and management of matters of national environmental significance, that is, flora, fauna, ecological communities and heritage places of national and international importance. Heritage items are protected through their inscription on the World Heritage List, Commonwealth Heritage List or the National Heritage List.

The EPBC Act stipulates that a person who has proposed an action that will, or is likely to, have a significant impact on a World, National or Commonwealth Heritage site must refer the action to the Minister for Sustainability, Environment, Water, Population and Communities (hereafter Minister). The Minister will then determine if the action requires approval under the EPBC Act. If approval is required, an environmental assessment would need to be prepared. The Minister would approve or decline the action based on this assessment.

A significant impact is defined as “an impact which is important, notable, or of consequence, having regard to its context or intensity.” The significance of the action is based on the sensitivity, value and quality of the environment that is to be impacted, and the duration, magnitude and geographic extent of the impact. If the action is to be undertaken in accordance with an accredited management plan, approval is not needed and the matter not need be referred to the Minister.

The EPBC Act provides protection for those properties within Australia that are inscribed on the World Heritage List. It also establishes the Commonwealth and National Heritage Lists, and provides protection for items included on these lists.

No sites within or in the vicinity of the study area are included on the World, Commonwealth or National Heritage Lists.

2.2 *Heritage Act 1977* (NSW)

The NSW *Heritage Act 1977* (Heritage Act) is the primary piece of State legislation affording protection to items of environmental heritage in NSW. The Heritage Act is designed to protect both listed heritage items, and potential archaeological relics. Under the Heritage Act, ‘items of environmental heritage’ include places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values.

State Heritage Register

The State Heritage Register (SHR) was established under the Heritage Act. State significant items are listed on the SHR and are given protection from any activities that may damage or affect their heritage significance.

There are ten items listed on the SHR located in the vicinity of the study area:

- Penrith Railway Station Group, Great Western Railway, Penrith (No. 01222) (Figure 2).
- Fire and Rescue NSW Heritage Fleet, Museum Drive, Penrith (No. 01902).
- Shand Mason 7 inch Manual Fire Engine (1869), 1 Museum Drive, Penrith (No. 01898).
- NSW Fire Brigades No 10 Vehicle Number Plates, Castlereagh Road, Penrith (No. 01519).
- Ahrens Fox PS2 Fire Engine (1929), 1 Museum Drive, Penrith (No. 01717).
- Shand Mason Curricule Ladders (1898), 1 Museum Drive, Penrith (No. 01899).
- Dennis Big Fire Engine (1939), 1 Museum Drive, Penrith (No. 01718).
- Shand Mason Fire Engine (1891), Museum Drive, Penrith (No. 01716).
- Edward Smith Headquarters Switchboard (1909), 1 Museum Drive, Penrith (No. 01901).
- Ford 21W Fire Brigade Mobile Canteen (1942), Museum Drive, Penrith (No. 01900).

Nine of these listings are items held in the collection of the Museum of Fire.

Section 170 Registers

Section 170 of the Heritage Act, all government agencies must maintain a Heritage and Conservation Register that lists all heritage assets under their management and includes an assessment of the significance of each asset. Each agency must ensure that all items included in the Register are maintained with due diligence.

The Section 170 Registers were searched through the State Heritage Inventory.

There is one item listed on the Roads and Maritime Services Heritage and Conservation Register in the vicinity of the study area:

- Peachtree Creek Bridge, Great Western Highway, Penrith.

There is one item listed on the RailCorp Heritage and Conservation Register in the vicinity of the study area:

- Penrith Railway Station Group and Residence, Station Street, Penrith.

Archaeological relics

The Heritage Act protects archaeological relics from being exposed, moved, damaged or destroyed, and defines relics as follows:

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.

Section 146 of the Heritage Act requires that any discovery or location of a 'relic' is reported to the Heritage Council. Sections 139-145 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless in accordance with an excavation permit. If the proposed

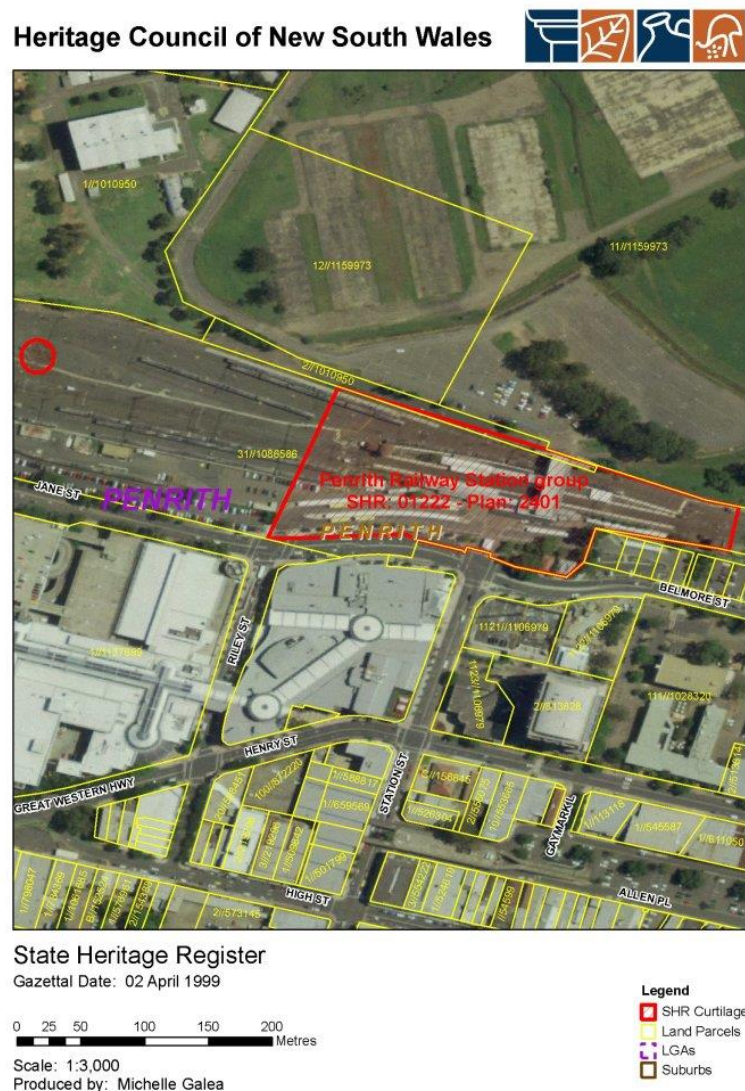
works are minor and would have minimal impact on the heritage significance of the place or site, they may be granted an exception under Section 139 (4), or exemption under Section 57 (2).

Works

'Works' are in a separate category to archaeological 'relics.' 'Works' refer to past evidence of infrastructure. 'Works' may be buried, and therefore archaeological in nature, however, exposure of a 'work' does not trigger reporting obligations under the Heritage Act. 'Works', as items of environmental heritage, have the potential to provide information that contributes to our knowledge of past practices, and good environmental practice recognises this. Roads and Maritime, for example, uses its *Standard Management Procedure: Unexpected Heritage Items*^[1] to manage the discovery of such items.

The potential for the presence of archaeological relics and works within the study area is addressed in Section 5.3.

Figure 2: The curtilage of the Penrith Railway Station Group, as listed on the SHR.



[1] Roads and Maritime July 2015: <http://www.rms.nsw.gov.au/documents/about/environment/protecting-heritage/managing-development/unexpected-archaeological-finds-procedure.pdf>

2.3 *Environmental Planning and Assessment Act 1979*

The *Environmental Planning and Assessment Act 1979* (the EP&A Act) establishes a framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered before land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

The EP&A Act allows two types of Environmental Planning Instrument (EPI) to be made to guide development; Local Environmental Plans (LEPs) and State Environmental Planning Policies (SEPPs). The following two EPIs are relevant to the study area and proposed development:

- Penrith Local Environmental Plan 2010 (Penrith LEP 2010).
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP 2007).

It is expected that the proposed development will be undertaken in accordance with ISEPP 2007, the provisions of which override Penrith LEP 2010. However, there remains a requirement to consider heritage items identified in the LEP, and these are addressed below.

Penrith LEP 2010

Schedule 5 of the Penrith LEP includes lists of identified heritage items, heritage conservation areas and archaeological sites within the Penrith Local Government Area.

There are three listed heritage items with recorded locations within the study area:

- Item 187, Station Masters house (former), Lot 31 DP1086586, Jane Street, Penrith (state significance).
- Item 188, Penrith Railway Station Group, Railway land, Jane Street, Penrith, Lot 31 DP 1086586 (state significance).
- Item 256, Penrith Ambulance Station, 668-672 High Street, Penrith, Lot 12 DP 37829 (local significance).

There are two listed heritage items in the vicinity of the study area:

- Item 257, Peachtree Creek Bridge Peachtree Creek, Penrith (local significance).
- Item 259, Penrith Power Station (former), 1 Museum Drive, Penrith, Lot 1 DP 1010950 (local significance).

There are no listed heritage conservation areas or archaeological sites within or in the vicinity of the study area.

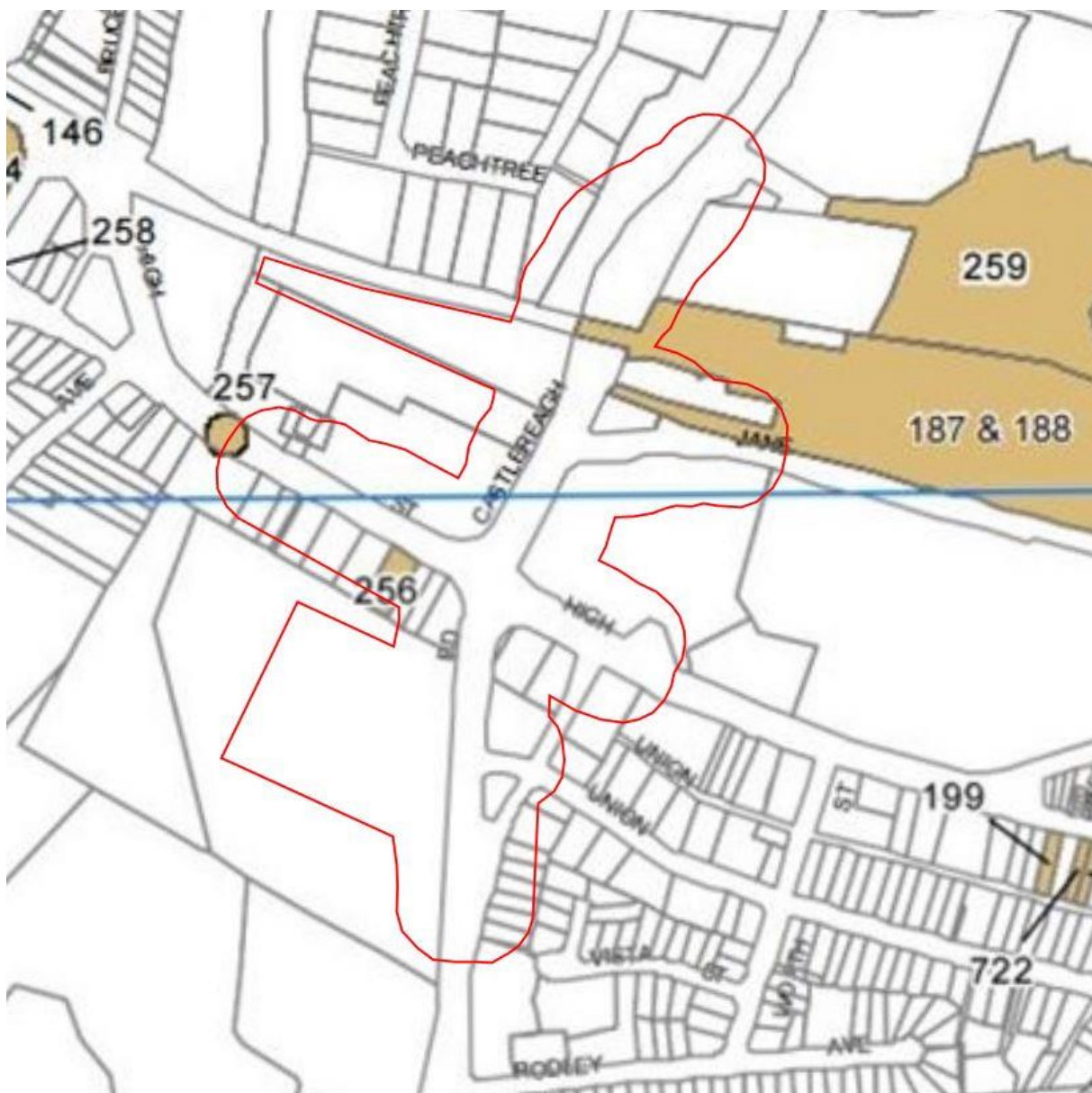
State Environmental Planning Policy (Infrastructure) (ISEPP) 2007

In 2007, the ISEPP was introduced to streamline the development of infrastructure projects delivered by state agencies, including Roads and Maritime. Generally, where there is conflict between the provisions of the ISEPP and other environmental planning instruments, the ISEPP prevails. Under the ISEPP, development for the purpose of a road or road infrastructure facilities may be carried out by a public authority without consent on any land. The ISEPP overrides the controls included in the LEPs and DCPs, and Roads and Maritime is required to consult with the relevant local councils only when

development 'is likely to have an impact that is not minor or inconsequential on a local heritage item (other than a local heritage item that is also a State heritage item) or a heritage conservation area'. When this is the case, Roads and Maritime must not carry out such development until it has:

- Had an assessment of the impact prepared.
- Given written notice of the intention to carry out the development, with a copy of the assessment, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located.
- Taken into consideration any response to the notice that is received from the council within 21 days after the notice is given (ISEPP Clause 14).

Figure 3: Penrith LEP 2010 Heritage Map (approximate location of the study area indicated in red).



2.4 Non-statutory heritage registers

In addition to the heritage registers established by State and Commonwealth legislation, there are a number of relevant non-statutory registers. The following registers were searched:

- Register of the National Trust of Australia (NSW).
- Register of the National Estate.

There is one item listed on both the Register of the National Trust and the Register of the National Estate that is in the vicinity of the study area:

- Power Station, Castlereagh Road, Penrith (RNT S9335).
- Museum of Fire, Castlereagh Road, Penrith (RNE ID 17328)

In addition, the Register of the National Trust has a listing for milestones along the Great Western Highway, marking the line of road between Parramatta and Penrith that was surveyed and constructed under Lachlan Macquarie. However, the westernmost of these is located in proximity to Kingswood Railway Station. None are identified in the listing within the current study area.

2.5 Summary of heritage listings

The above review of statutory and non-statutory heritage registers has identified 3 items within the study area and 14 items in the vicinity of the study area. These are listed in Table 1 and shown in Figure 4.

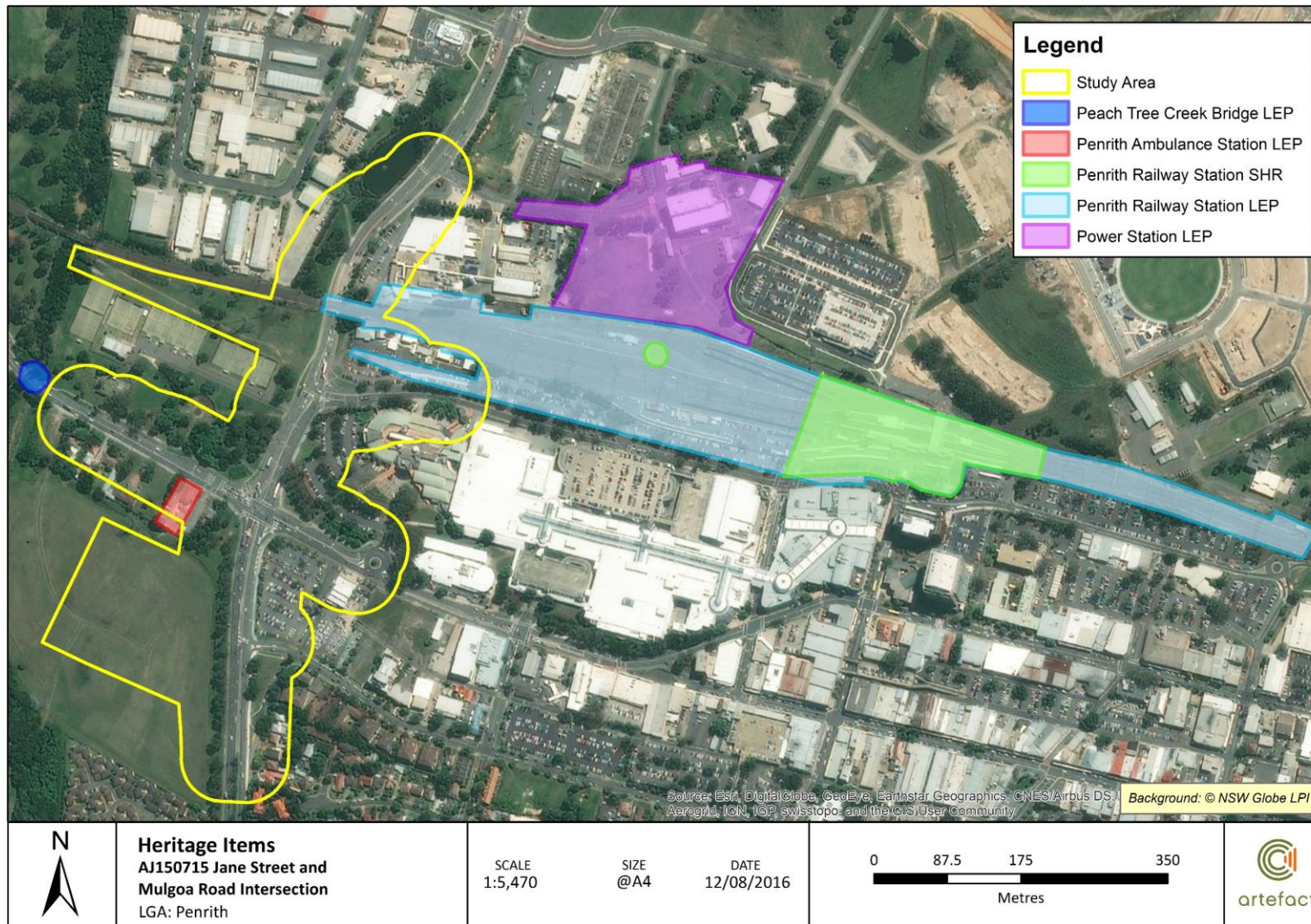
The location of the 'Station Master's house (former)' is included in Lot 31 DP 1086586, which property extends into the study area. However, it is a discrete item located on Belmore Street, and is not actually located within the study area. The Penrith Railway Station Group is listed in the Penrith LEP 2010, the SHR and the RailCorp s170 Register. The first listing extends within the study area, while the second two cover a smaller area and do not extend within the study area. Of the items in the vicinity of the study area, 12 relate to the former Power Station (now the Museum of Fire) and items in the collection.

Table 1: Summary of listed heritage items within and in the vicinity of the study area. Individual listings relating to the same overall item are grouped and shaded.

| Item | Listing name | Address | Listing | Location |
|-------------------------------|---|--|--|--------------------------------|
| Penrith Railway Station Group | Penrith Railway Station Group | Great Western Railway, Penrith | SHR No. 01222 | In the vicinity (approx. 225m) |
| | Penrith Railway Station Group | Railway land, Jane Street, Penrith (Lot 31 DP 1086586) | Penrith LEP 2010: Item 188 | Within |
| | Station Master's house (former), Lot 31 DP1086586 | Jane Street, Penrith (Lot 31 DP 1086586) | Penrith LEP 2010: Item 187 | Within |
| | Penrith Railway Station Group and Residence | Station Street, Penrith | RailCorp S170 Register | In the vicinity (approx. 225m) |
| Penrith Ambulance Station | Penrith Ambulance Station | 668-672 High Street, Penrith (Lot 12 DP 37829) | Penrith LEP 2010: Item 256 | Within |
| Peachtree Creek Bridge | Peachtree Creek Bridge | Peachtree Creek, Penrith | Penrith LEP 2010: Item 257 | In the vicinity (approx. 20m) |
| | Peachtree Creek Bridge | Peachtree Creek, Penrith | Roads and Maritime Services S170 Register | In the vicinity (approx. 20m) |
| Penrith Power Station | Penrith Power Station (former) | 1 Museum Drive, Penrith (Lot 1 DP 1010950) | Penrith LEP 2010: Item 259 | In the vicinity (approx. 55m) |
| | Power Station | Castlereagh Road, Penrith | Register of the National Trust: S9335 | In the vicinity (approx. 55m) |
| | Museum of Fire | Castlereagh Road, Penrith | Register of the National Estate: Registered ID 17328 | In the vicinity (approx. 55m) |
| | Fire and Rescue NSW Heritage Fleet | Museum Drive, Penrith | SHR No. 01902 | In the vicinity |
| | Shand Mason 7 inch Manual Fire Engine (1869) | 1 Museum Drive, Penrith | SHR No. 01898 | In the vicinity |

| Item | Listing name | Address | Listing | Location |
|------|---|---------------------------|---------------|-----------------|
| | NSW Fire Brigades No 10 Vehicle Number Plates | Castlereagh Road, Penrith | SHR No. 01519 | In the vicinity |
| | Ahrens Fox PS2 Fire Engine (1929) | 1 Museum Drive, Penrith | SHR No. 01717 | In the vicinity |
| | Shand Mason Curricle Ladders (1898) | 1 Museum Drive, Penrith | SHR No. 01899 | In the vicinity |
| | Dennis Big Fire Engine (1939) | 1 Museum Drive, Penrith | SHR No. 01718 | In the vicinity |
| | Shand Mason Fire Engine (1891) | Museum Drive, Penrith | SHR No. 01716 | In the vicinity |
| | Edward Smith Headquarters Switchboard (1909) | 1 Museum Drive, Penrith | SHR No. 01901 | In the vicinity |
| | Ford 21W Fire Brigade Mobile Canteen (1942) | Museum Drive, Penrith | SHR No. 01900 | In the vicinity |

Figure 4: Listed heritage items within and in the vicinity of the study area.



3.0 HISTORICAL CONTEXT

This history of the study area has been compiled from various primary and secondary sources. While it is considered that the investigation has been sufficient for the purposes of this study, it is acknowledged that other records may be available that may shed further light on the history of the study area.

The history of the study area, and in particular its agricultural, industrial and suburban development, has been shaped by the Hawkesbury-Nepean River, the Great Western Highway and the Main Western Line.

3.1 Penrith

Early European exploration

Exploration within the vicinity of the study area began in the early days of colonial settlement, with the first expedition being conducted in June 1789 by Captain Watkin Tench. The area was further explored by Tench and Lieutenant William Dawes the following year. Tench discovered a river as “broad as the Thames at Putney”, which was named the Nepean River by Governor Phillip in honour of the Under-Secretary of the Admiralty, Sir Evan Nepean.

Tench described the land west of the Nepean River as “a beautiful park, totally divested of underwood, interspersed with plains, with rich, luxuriant grass; but for want of burning off, rank, except where recently burnt.” The rich alluvial soil on either side of the river was attributable to the propensity for the river to flood, with Tench noting that “...it appears that some meadows bordering on the banks of the Nepean River are evidently at times overflowed from, the river...” A map of the colony from 1793 depicts the ford used by explorers to cross the river (Figure 5). Known as Emu Ford, this crossing was located slightly south of the current Victoria Bridge approximately 400 metres east of the current study area and was to be instrumental in the development of the region.

Early land grants – Rodley Farm

Land grants in the Nepean-Penrith area were made to a number of free settlers in the early 1800s, although squatters had been present on the eastern banks of the Nepean River since the 1790s. The first land grants in the region were awarded to Captain Daniel Woodriffe and Thomas Jamison in 1804 and 1805 respectively. Each was awarded 1000 acres along the Nepean River, with the current study area being within Woodriffe’s grant. Woodriffe received his grant for his role in putting down the Castle Hill rebellion (Tilghman 1967).

Woodriffe selected the land himself, named it Rodley Farm, and was allocated two men for a period of 12 months to make the land workable (NA 1977). This never eventuated as Woodriffe left the colony in 1804. During this time his land was leased as farm land, however when he did not return to the land many of his tenants became squatters. While settlement of the region was largely focused on the alluvial plains, floods in 1806, 1811 and 1867 caused some settlers to remove themselves to higher land. However, many of these returned due to the fertility of the alluvial flats.

Transport and communication - The Highway and the Railway

One of the most significant themes in the development of Penrith centres around the development of transport and communications routes to the west across the Blue Mountains and to the east to the markets of Sydney. The study area includes parts of the routes of the Great Western Highway and the Main Western Railway.

By 1813, non-Aboriginal occupation of the colony had expanded across the Cumberland Plain to the Hawkesbury- Nepean River at the foot of the Blue Mountains. By this time, a number of attempts had been made to cross the Great Dividing Range. The first successful crossing was made in 1813 by Gregory Blaxland, William Charles Wentworth and William Lawson, assisted by an Aboriginal guide and three convicts. The party followed a ridge running between the Grose and Cox River valleys to Mount York (RTA Environment Branch 2008). It is possible that this ridge was a route already in use by the local Aboriginal people (Karskens July 1990: 4).

Blaxland, Wentworth and Lawson reported the discovery of extensive land suitable for grazing in the Kanimbla and Hartley Valleys. Assistant surveyor George Evans was then sent to map their route (RTA Environmental Branch 2008: 5). In July 1814 William Cox was appointed Superintendent of Works for the construction of a road that followed the “track laid down on Mr. Evans map” (RTA Environmental Branch 2008: 5). The road was to be “at least 12 feet wide so as to admit 2 carts or other wheeled carriages to pass each other” (Karskens 1988: 18; RTA Environmental Branch 2008: 5-6). Development of the road systems provided the impetus for Penrith to develop as a regional centre. Between 1817 and 1821 George Druitt constructed a turn pike road linking Penrith to Prospect. The new road significantly reduced travel time for travellers. The road crossed the Woodriffe land grand dividing it in two. It is along this road that Penrith’s city centre developed (NOHC 2007: 21).

Development of the western goldfields increased traffic across the mountains in the 1850s (C&A & MW 1983: 38). Construction of the railway line in the 1860s required realignment of the road in places, as the two routes had to share the ridge line (C&A & MW 1983: 42). After the opening of the railway, the road was less used, and parts fell into decay (Karskens June 1988: 10).

Penrith railway station opened in 1863 as a single track line before being duplicated in 1886. When the railway was extended to the Blue Mountains, Penrith became an important rail centre where trains and crews were changed and passengers took refreshment. Employment options diversified with the railway with the greater access between Sydney allowing the development of tourism, and employment in the rail sector itself. However, the greater access also resulted in greater competition. With the development of the wheat fields in the west and the failure of local wheat crops in Penrith, the local economy transitioned to a focus on fruit and vegetable growing as well as dairying.

Subdivision and urbanisation

The earliest residential subdivision in the area occurred at St Mary’s in the 1840s however it did not become the predominant settlement pattern until the late 19th century.

“From a situation where very few town allotments had been available with land tied in large estates surrounding the village, Penrith moved into a position of oversupply of allotments, all unserviced. This did not foster orderly development, nor did it allow suitable allocation of open space... it also provided a legacy of hundreds of subdivided housing allotments.”(Proudfoot 1986)

The introduction of the railway to the study area prompted the development of a rapidly growing urban centre. Industrial development also increased as settlers shifted their focus away from an agrarian economy. Given the prevalence of large estates, urban development was initially limited to thin strips of land which was later enhanced by the subdivision of former large estates.

The railway and High Street formed the basis of the burgeoning town of Penrith with the earliest subdivisions of town allotments being sold in the 1860s (Sydney Morning Herald 21/11/1862). Woodriffe’s estate was divided in multiple stages, with the eastern end of High Street being subdivided as part of the third stage in 1879, although many of these blocks remained undeveloped

until 1900 (Casey 2007). Urbanisation resulted in the development of an urban worker class resulting in an increased demand for both housing and civic facilities. Local industries developed to meet those demands.

Figure 5: 'A map of the hitherto explored country contiguous to Port Jackson, lain down from actual survey' J. Walker, engraver, 1793, with ford marked in red. (Source: State Library of NSW).



Figure 6: Castlereagh Parish Map c~1820 showing the northern portion of Woodriffe's grant. (Source: LPI Maps)

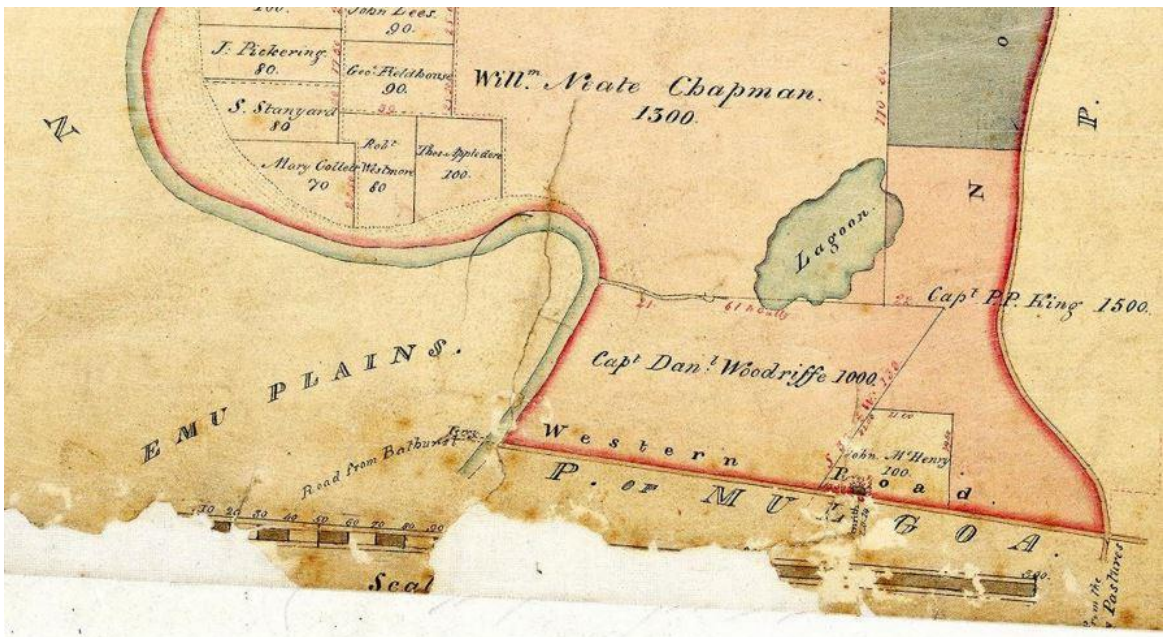


Figure 7: Penrith Railway Station c1887, (source Penrith in Pictures)

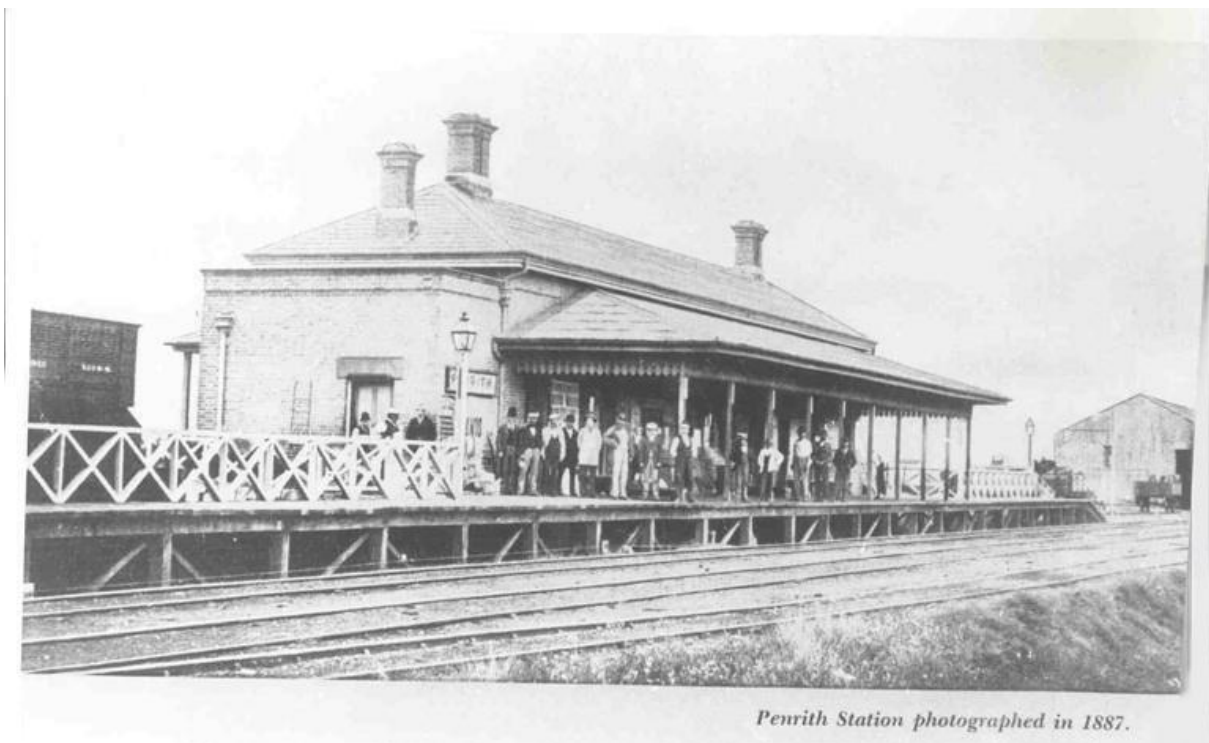
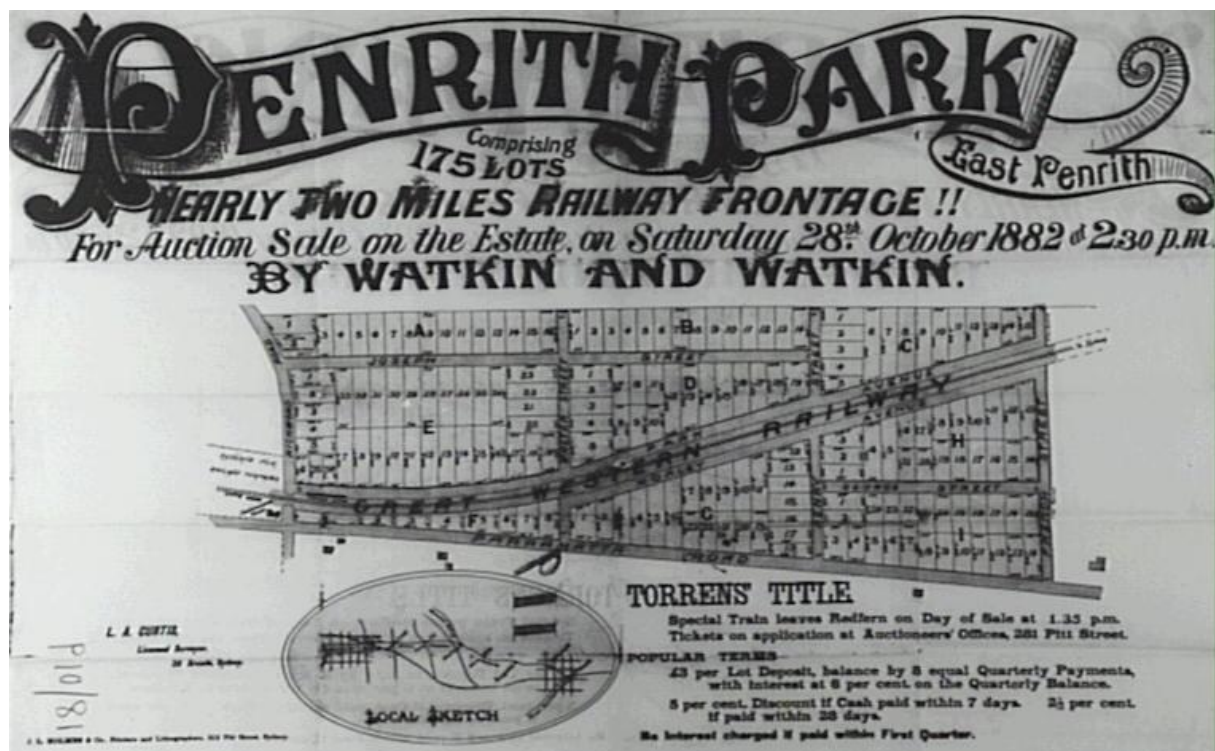


Figure 8: Subdivision of Penrith Park, c1882 (Sourced from Penrith in Pictures)



3.2 The study area

The study area is located within Woodriffe's 1000-acre land grant, Rodley Farm. As noted above, Woodriffe did not occupy the land himself, but it was leased to tenants. In 1811, George Druitt was awarded the tender to construct a turnpike or toll road connecting Penrith and Prospect. This formed a section of the Great Western Road and divided Woodriffe's estate in half (Figure 8). Through Penrith, the road followed the present alignment of High Street and Memorial Avenue, leading to a ferry crossing over the Nepean River.

The 1833 plan shows the Great Western Road (now High Street) running through the study area, incorporating two bridges where the road crosses small watercourses (Figure 10). Castlereagh Road and Mulgoa Road are also shown. Castlereagh Road formed the main route north to Richmond, while Mulgoa Road provided access between Penrith and the smaller settlements and farms on the upper Nepean to the south. The original intersection of Mulgoa Road and High Street was slightly to the east of the present intersection, on the present alignment of John Tipping Grove. Although Woodriffe's property had been subdivided by 1833, the plan does not show any development apart from gardens, orchards and cultivation adjacent to the roadways. The one exception is a gravel pit on the south side of High Street, immediately to the east of Peachtree Creek.

The Main Western Railway was extended through to Penrith in 1863. When the railway was extended across the Blue Mountains in the late 1860s, Penrith became an important rail centre where trains and crews were changed and passengers took refreshment (OEH 2015). As the population of the town increased, development of the town centre expanded. This development was concentrated to the east of the study area, in the vicinity of Station Street and close to the railway station.

The 1858 plan shows small allotments along High Street through the study area, suggesting that development followed the main route through town (Figure 11). Although this plan does not show any structures on these allotments, several were present by at least 1876 (Figure 12). This plan shows a track running in roughly the present alignment of Jane Street. However later images indicate that this track was actually to the north, and that Jane Street did not exist until relatively late.

The Main Western Line was duplicated through Penrith in 1886. A plan drawn up for this work shows the existing line of the railway through the study area (Figure 13). High Street is shown, again crossing two small watercourses in that stretch between Castlereagh Road and Peachtree Creek. There are four structures on the northern side of this part of the road, and one on the southern side. Castlereagh Road is named 'Proctor's Lane'. The Lane appears to cross the railway line at a level crossing. No structures are shown on either side of Proctor's Lane. Jane Street is not shown in this plan.

In 1928, the Penrith auxiliary of the Parramatta-Auburn ambulance and a public meeting endorsed the development of an ambulance station to service the Penrith district (Nepean Times 24/3/1928: 3). The station opened in 1936 at a cost of £2000 and was located on land donated by Frederick Jones; within the study area, on the south side of High Street. The original station included an ambulance garage, first aid room and staff facilities on the ground floor and a four bedroom residence on the top floor (Figure 14). It was designed by T.W. Hodgson and built by E.T. Ohlsson. The facilities were enlarged in 1970 (Penrith in Pictures, 2015).

The 1943 aerial photograph shows the railway line, Castlereagh and Mulgoa Roads, and High Street in the study area (Figure 15). Jane Street is not in existence at this time, although there is a drainage channel running along the alignment of what is now the northern side of the Street. This channel appears to take stormwater from the town centre to discharge in the Nepean. To the north of the drainage channel is a dirt track, which probably represents the track shown in the 1876 plan. Along High Street, to the east of Castlereagh Road, two of the structures shown in the 1876 plan appear still

to be standing at this time. To the west of Castlereagh Road, the earlier structures on the north side of High Street have been demolished, and new buildings have been constructed on the south side of the Street. This group includes the Ambulance Station, but the other buildings are likely to be residential.

The 1943 image also shows the RAAF base, which was located on the north side of High Street. The study area extends over parts of this property but does not appear to include the complex of buildings standing at this time. The base was established in the early 1940s, and remained through to the 1980s.

In 1955, the Main Western Line was electrified through to Penrith. At this time, the Castlereagh Road crossing remained a level crossing (Figure 16). However, traffic congestion had become an issue, and plans were drawn up in 1959 to construct an underpass, allowing the road to pass under the railway line (Figure 17 and Figure 18). This work involved realignment of Castlereagh Road; a curve was introduced to the road, moving it slightly to the west as it passed under the railway line. At the same time, High Street was widened, involving resumption of land along the northern side of the Street, on either side of the Castlereagh Road intersection. This required demolition of two structures to the east of the intersection.

The 1966 photograph shows Castlereagh Road on the new alignment, passing under the railway line (Figure 20). The RAAF base was still in existence at this time. The area between the base and Castlereagh Road had been redeveloped for what appears to be light industry. Jane Street had not yet been constructed, although the drainage channel still ran along this northern line. In the early 1970s, the first stage of Penrith Plaza was built, to the east of the RAAF base, outside the study area. It was probably at this time that Jane Street was laid out (see Figure 21).

Woodriff Gardens and the Woodriff Gardens tennis centre also date to c.1970. Planning for this development appears to have commenced in 1959, with a proposal put to Penrith Council by Nepean District Tennis Association. The proposal involved establishment of tennis courts, lawns, a park and gardens, and the naming of the park was decided 'to honour one of the old families of the district' ('Council Agrees'). The following year, the Council agreed to purchase of the land. Penrith Apex Club then suggested to Council the establishment of a park as part of a botanical gardens on the site, 'at the entrance to the city' ('Apex Park'). By 1972, Woodriff Gardens had been established in the layout they retain today. It has not been determined whether the Apex Club was involved in the works, but this was a characteristic activity for service clubs in this period.

In the mid-1980s, the Mulgoa Road intersection was realigned to intersect with Castlereagh Road, requiring an extension to the western end of Union Road. A photograph from 1986 shows this work in progress (Figure 22). The photograph also shows the light industrial area to the east of Castlereagh Road, in the area now occupied by the Civic Centre; and the tennis courts and Woodriff Gardens to the west of Castlereagh Road. The RAAF base property is still present, including buildings, hard stand, and rows of trees.

Major works subsequently undertaken within the study area include the construction of Penrith Civic Centre and Library, in the early 1990s. In addition, the underpass taking Castlereagh Road under the Main Western Line has been widened to allow construction of a footpath. The area to the north of Jane Street has been surfaced for use as a carpark, and the drainage channel has been covered over.

Figure 9: Mulgoa Parish Map illustrating the location of the Western road, later the Great Western Highway c~ 1820, (Source: LPI Historical Maps Viewer)



Figure 10: Detail of an 1833 plan showing the study area (Knapp, Plan of Capt. Woodriff's grant at Penrith, NLA Digital Collections, Maps MAP RM 1264).

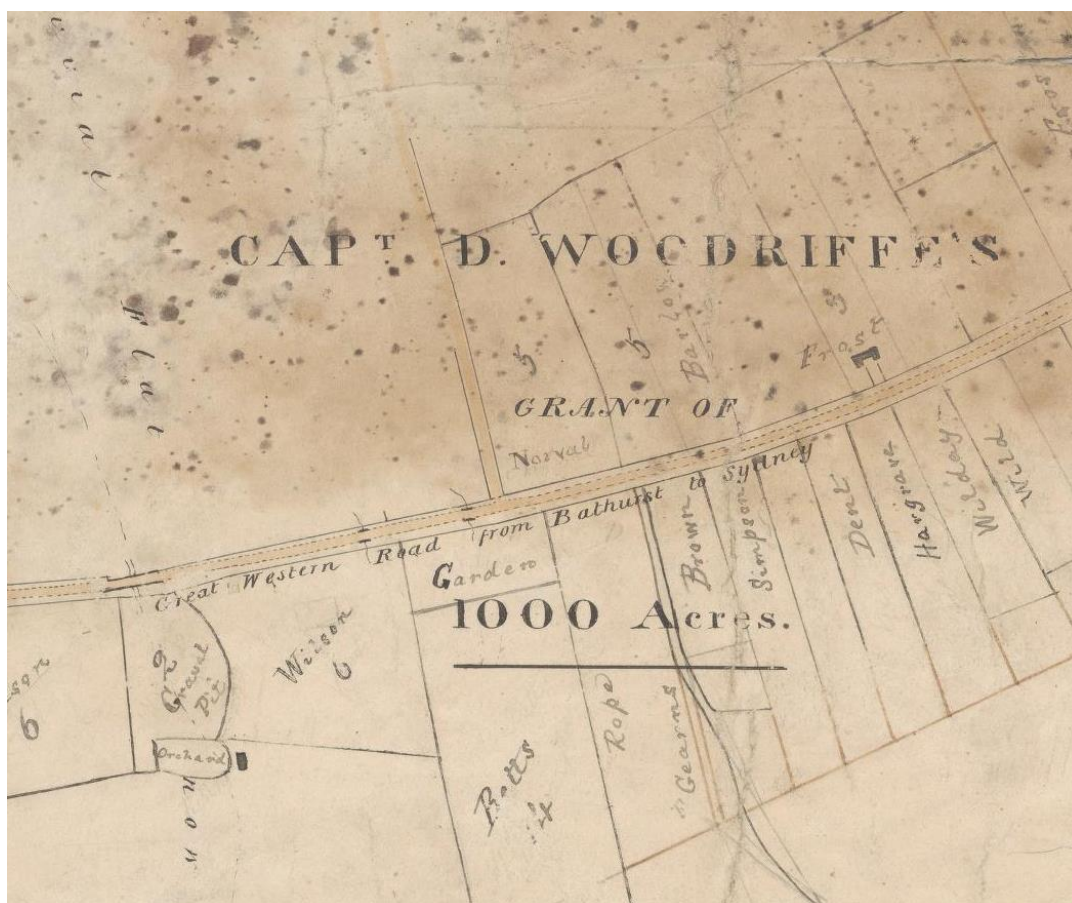


Figure 11: Detail of an 1858 plan, drawn up for the proposed railway (State Library NSW, Z/M3 811.112gme/1858/1).

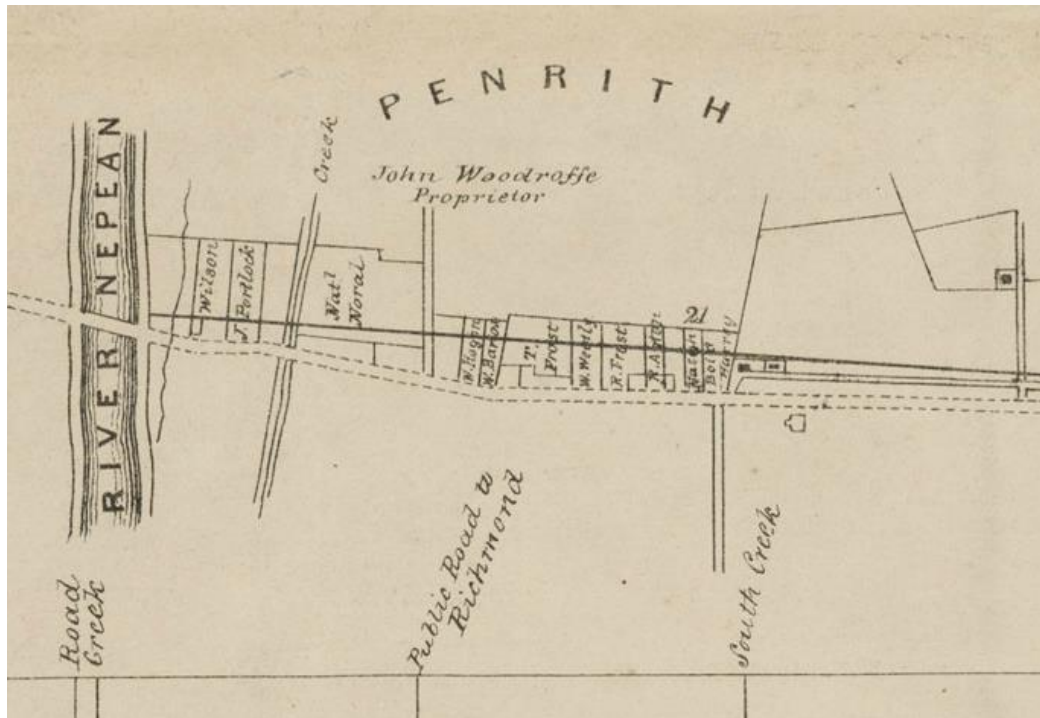


Figure 12: Detail of an 1876 plan showing the intersection of High Street and Castlereagh Road (LPI Crown Plan 3.2134).

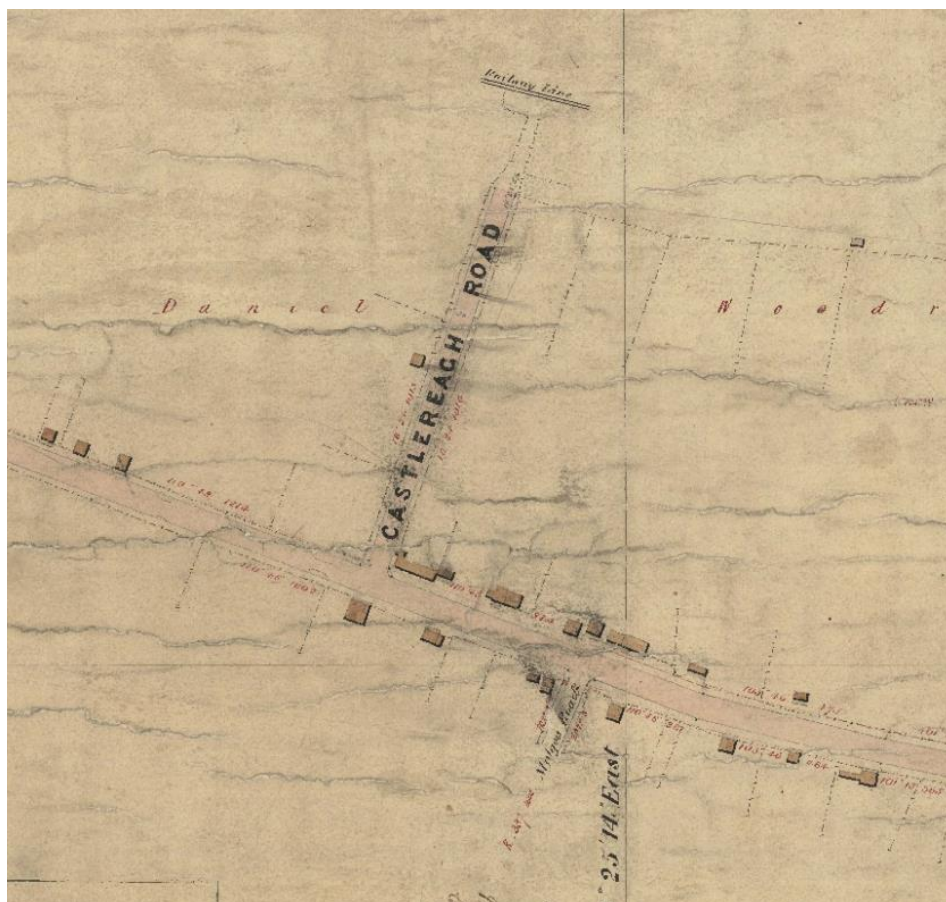


Figure 13: Detail of an undated plan, probably from the early to mid 1880s, drawn up for the duplication of the Main Western Line (LPI Crown Plan 1539.3000).



Figure 14: Penrith Ambulance Station at its opening in 1936 (Penrith in Pictures).



Figure 15: 1943 aerial showing the study area (LPI SIXMaps).

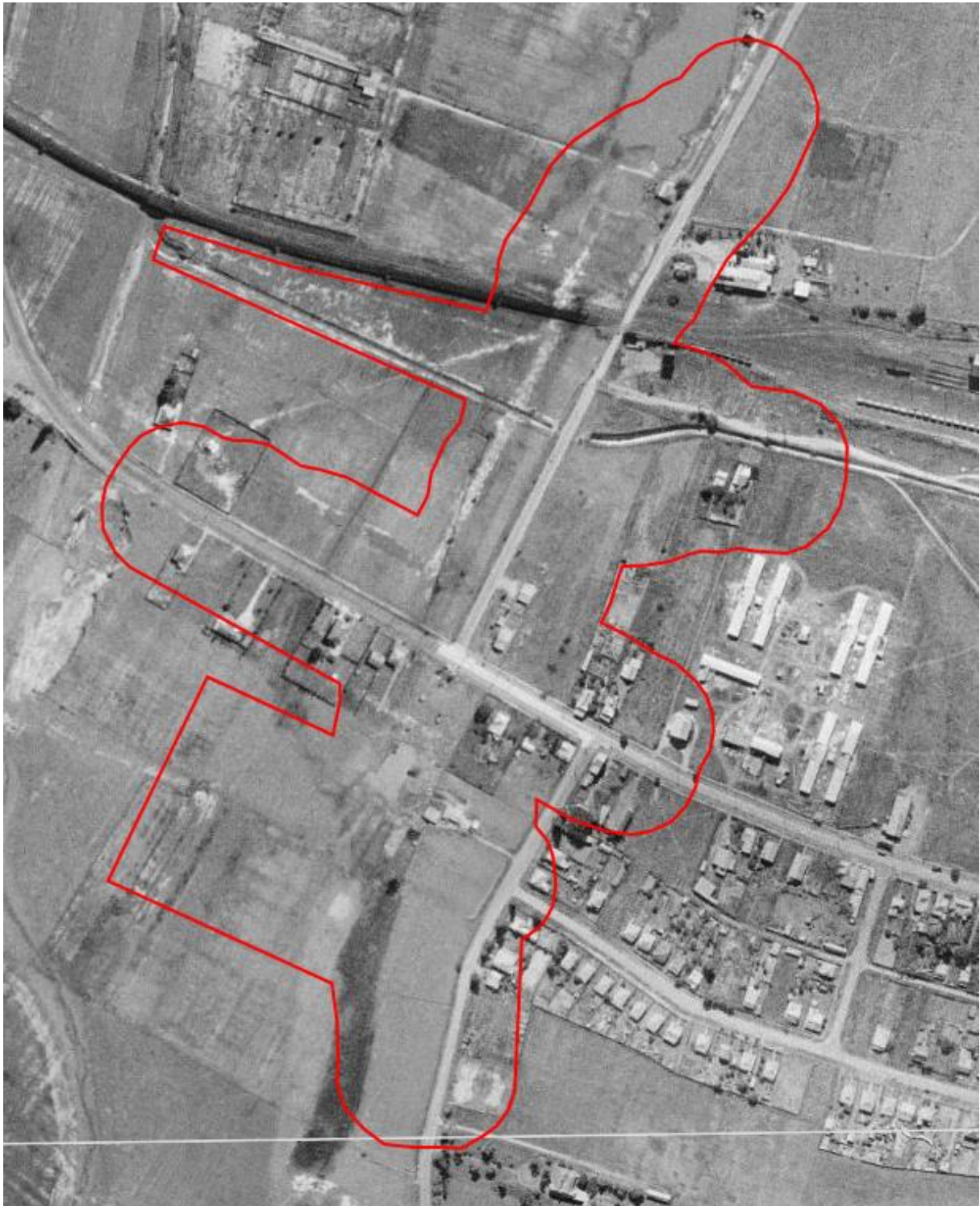


Figure 16: The level crossing taking Castlereagh Road over the Main Western Line, undated image (Penrith in Pictures).



Figure 17: Detail of a 1959 plan showing the intersection of High Street and Castlereagh Road (LPI Crown Plan 17506.3000).

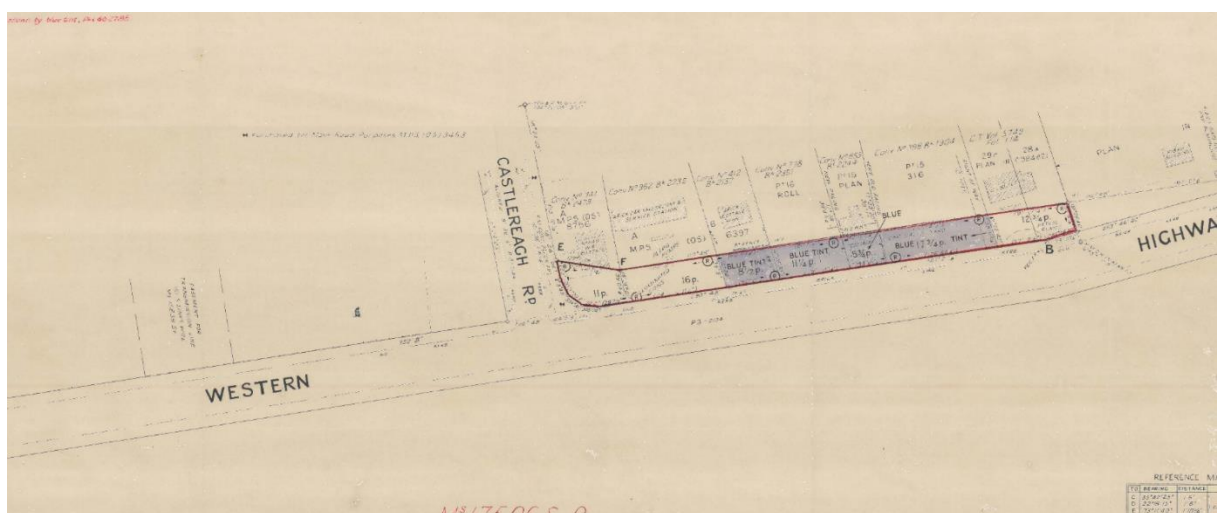


Figure 18: Detail of a 1959 plan showing the proposed realignment of Castlereagh Road (LPI Crown Plan 17563.3000).

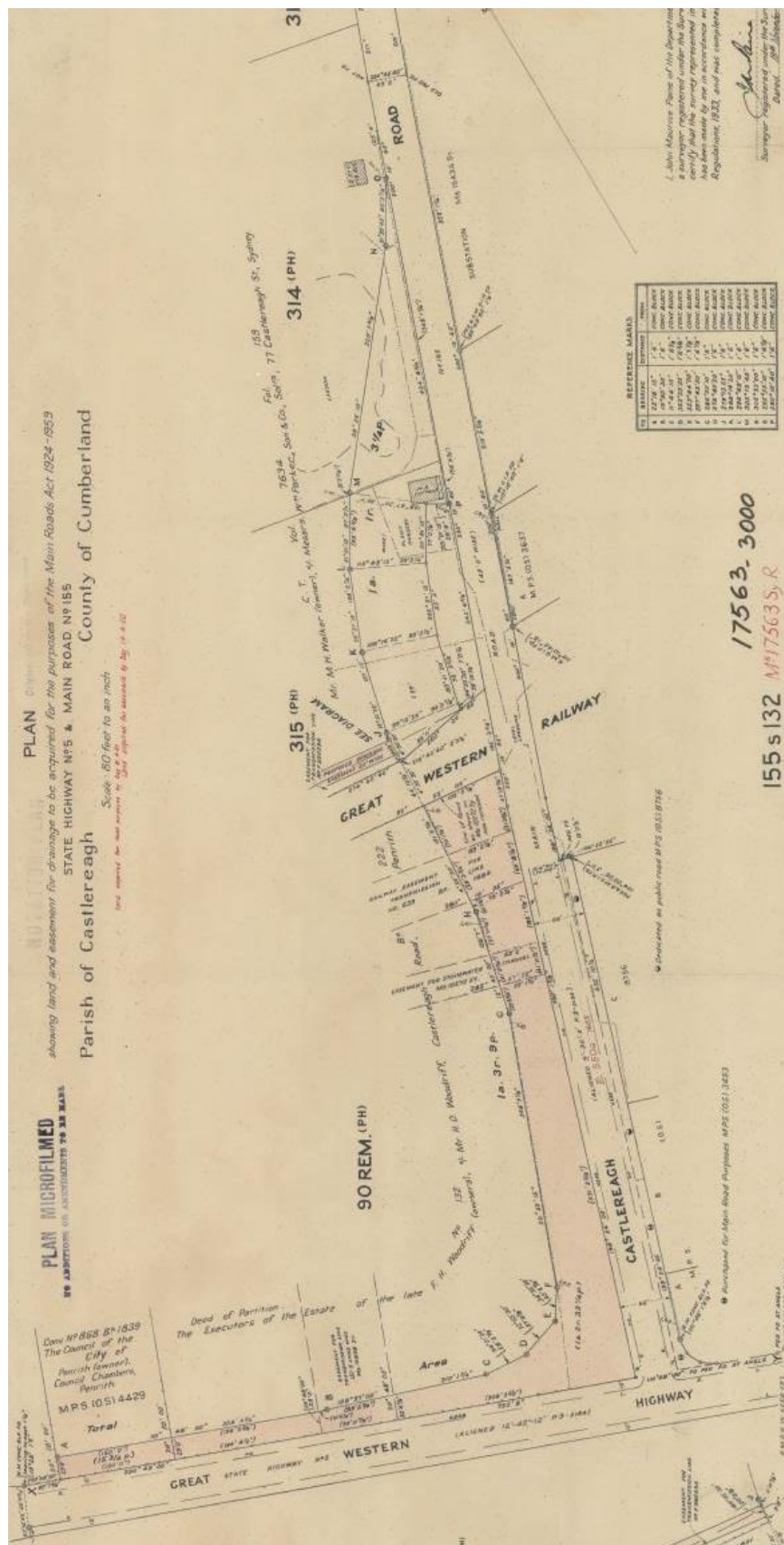


Figure 19: Detail of a 1961 plan showing the intersection of Mulgoa Road and High Street (LPI Crown Plan 19259.3000).

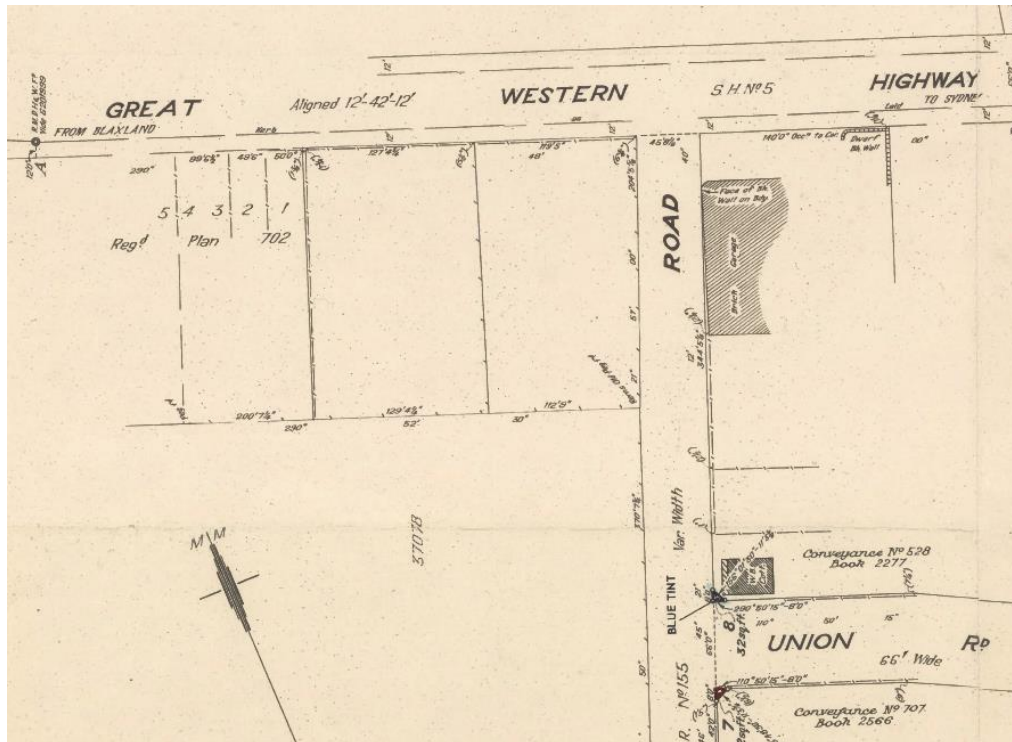


Figure 20: 1966 aerial photograph showing the study area, oriented with east to the top (Penrith in Pictures, courtesy of Len Hutchinson).



Figure 21: View of the RAAF Base and Jane Street from Penrith Plaza, c.1970s (Penrith in Pictures).



Figure 22: 1986 aerial photograph showing the realignment of the Mulgoa Road intersection with High Street (Penrith in Pictures).



4.0 SURVEY

4.1 Background

A site inspection of the study area was conducted on 5 November 2015 by Fenella Atkinson (Senior Archaeologist) and Alyce Haast (Archaeologist). The survey was targeted at those areas identified through the desktop research as likely to have historical heritage values; in particular, previously identified heritage items and areas of former structures. The aim of the inspection was to identify and assess any areas of archaeological potential, unlisted heritage items or heritage views and vistas within the study area. The inspection was undertaken on foot and a photographic record was made.

4.2 Site description

The study area is generally comprised of bituminised road corridors surrounded by grassed fields, bitumen carparks and residential and commercial structures (Plates 1-4). The study area was dominated by heavily modified landforms showing high levels of earth movement associated with, not only the development of the road network, but also adjacent development including the Civic Centre, Westfield Shopping Centre (Penrith Plaza) and the Woodriff Gardens Tennis Centre. Disturbance related to underground services is apparent throughout the study area with several service ports evident. The study area is dominated by modern development with minimal exposures in which to assess historic archaeological potential.

The area of Jane and High Streets is dominated by commercial and government facilities and includes substantial areas of paved carpark and landscaped gardens. These facilities appear to be relatively recent additions to the landscape and the Civic Centre includes underground parking. To the south of High Street is the Penrith Ambulance Station, the main structure of which dates to 1936. Adjacent to the Ambulance Station are houses representing a variety of architecture styles (Plate 5). Many of these are likely to date to the mid-20th Century.

The tennis court facility to the north of High Street is built upon an artificially raised terrace representing significant earth movement (Plate 6). Evidence of service trenches is located between the tennis courts and Peachtree Creek. Woodriff Gardens is located to the south of the tennis facilities and consists of a landscaped garden area with several pathways. The High Street and Castlereagh Road boundaries of the Gardens are bordered with medium and large trees (Plate 7). A garden bed on the intersection has been planted to spell 'PENRITH'.

Two of the proposed compound areas are presently open grassed areas, crossed by an overhead transmission line. There are drainage channels running through the southern area, and evidence of underground services through the northern area.

The survey included inspection of the three listed heritage items within and in close proximity to the study area. These are described below.

Rail Underpass

The rail underpass is located on Castlereagh Road and consists of a metal crossbeam structure (Plates 8-11). It is supported by concrete pylons located on either side of the road width. The eastern pylon abuts the exposed soil profile which remains unsupported. The western side of the concrete pylon has had additional sandstone retaining walls relating to the development of pedestrian access away from the road corridor. This appears to be a later addition possibly in relation to services or to expand the vehicular carrying capacity between the pylons. Signage indicating recent (1990) galvanisation of portions of the steel beams suggests the underpass has undergone a continued process of maintenance since development.

The bridge is within the listing for 'Penrith Railway Station Group' that is included in the Penrith LEP 2010. It is not included in the equivalent listings in the SHR and RailCorp s170 Register.

Peachtree Creek Bridge

Peachtree Creek Bridge is located on High Street, immediately adjacent to the study area, and consists of a concrete slab bridge with concrete supports and decorative sandstone pitching (Plates 12-14). The bridge has been extended to the south to incorporate pedestrian access and is bound by metal supports. There is clear evidence of the addition in the abutments located underneath the bridge.

Peachtree Creek Bridge is listed in the Penrith LEP 2010 and the Roads and Maritime Services s170 Register.

Penrith Ambulance Station

Penrith Ambulance Station is located on High Street and consists of multiple red brick buildings with varying architectural styles (Plate 15-17). The original ambulance building consists of a second story building with multiple design features within the brickwork including an upright herringbone pattern between the first and second floor windows. This building contains a single garage and engraved stone illustrating its official opening in 1936 as well as insignia of the central district ambulance service. A second building has been added to the original to the east of the original featuring additional garage space and additional living quarters. The addition matches the original buildings construction of red brick with a flat roof.

Penrith Ambulance Station is listed in the Penrith LEP 2010.

Plate 1: Jane Street towards intersection, western aspect.



Plate 2: High Street/Mulgoa Road intersection, north western aspect.



Plate 3: View of Jane Street intersection from Castlereagh Road, southern aspect.



Plate 4: Jane Street, view of Penrith railway station group LEP in buffer zone, western aspect.



Plate 5: Example of housing located on Great Western Highway.



Plate 6: Artificially raised terrace related to the tennis courts.



Plate 7: Woodriff Gardens, looking across the intersection from the south-east.



Plate 8: Landscape context view of rail underpass, north west aspect.



Plate 9: View of rail underpass, northern aspect.



Plate 10: View of pedestrian underpass extension, north western aspect.



Plate 11: View of underside of pedestrian underpass.



Plate 12: View of concrete railing of Peachtree Creek Bridge.



Plate 13: View of concrete pillars including evidence of recent pedestrian bridge extension.



Plate 14: Pedestrian bridge addition to the south of original Peachtree Creek Bridge.



Plate 15: Front of Ambulance Station showing original 1936 construction.



Plate 16: 1970s eastern extension of Ambulance station.



Plate 17: Back of ambulance station illustrating additional structures.



5.0 HISTORICAL HERITAGE ITEMS AND ARCHAEOLOGICAL POTENTIAL

The following section contains an overview of the historical heritage values of the study area. It includes a summary of the identified heritage items and historical archaeological potential of the study area, and an initial assessment of significance. For the listed heritage items, the information and significance assessment is taken largely from the existing heritage listings.

5.1 Significance assessment

Heritage significance is assessed in accordance with the criteria outlined in the significance assessment guidelines provided by the Heritage Division of the Office of Environment and Heritage (Heritage Office 2001). The criteria specified by the Heritage Division encompass the four values identified in the *Burra Charter*, historical significance, aesthetic significance, scientific significance and social significance (Australia ICOMOS 2013); and also consider representativeness and rarity values (Table 2). The heritage assessment guidelines also include two thresholds (state or local) for assessing the relative level of significance of heritage items.

Table 2: NSW heritage significance assessment criteria.

| Criterion | Explanation |
|-----------|---|
| A | 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). |
| B | An item has a 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). |
| C | An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or in the local area). |
| D | An item has a strong or special association with a particular community or cultural group in NSW (or local area) for social, cultural or spiritual reasons. |
| E | An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or cultural or natural history of the local area). |
| F | 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). |
| 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 a class of the local area's cultural or natural places; or cultural or natural environments). |

5.2 Heritage items

There are two listed heritage items within or extending into the study area, and one immediately adjacent to the study area:

- Penrith Railway Station Group.
- Penrith Ambulance Station.

- Peachtree Creek Bridge.

One further listed item was identified in the vicinity; the former Penrith Power Station (see Section 2.5). However, the results of the site inspection indicated that this item was located at some distance from the study area and was unlikely to be affected by the proposed development. The investigation undertaken for the present assessment resulted in the identification of two additional unlisted heritage items extending into the study area:

- Woodriff Gardens.
- High Street alignment.

5.2.1 Penrith Railway Station Group

There are four statutory heritage listings relating to the Penrith Railway Station Group. The listings on the SHR and RailCorp S170 Register cover the station buildings and platforms, the former Station Master's residence and the turntable. The Station Master's residence is also listed as a heritage item in the Penrith LEP 2010. These items are all outside the study area, to the east. The closest element is the turntable, which is located approximately 220m to the east of the study area.

The fourth statutory listing for the Penrith Railway Station Group, in the Penrith LEP 2010, covers the whole of Lot 31 DP 1086586, and extends into the study area. That part of the curtilage within the study area includes:

- A section of the Lion Co. establishment, to the north of the railway line, on the eastern side of Castlereagh Street.
- A section of the carpark between Jane Street and the railway line, on the eastern side of Castlereagh Street. It is likely that this area represents part of the former open drainage channel.
- A section of the rail corridor itself, including the railway as it passes over Castlereagh Street. This section of the line was rebuilt in the early 1960s, as part of the construction of the underpass. Further works may have subsequently been undertaken when the underpass was widened.

The first two of these areas do not appear to relate to the history or use of the railway, and are likely to have been included in the heritage curtilage only as a result of the listing of the whole of Lot 31.

Significance

The current LEP listing for the Penrith Railway Station Group does not have a detailed entry and significance assessment in the State Heritage Inventory. The SHR listing has the following statement of significance:

Penrith Railway Station is of state significance as an early railway site with buildings dating from the 1860s and as a former terminus for a number of years during the extension of the railway line over the Blue Mountains. The 1860s and 1890s station buildings are relatively intact examples of Victorian second-class and third-class station buildings and remain as important landmarks in the townscape of Penrith. The station was instrumental in the development of the main western railway line across the mountains and an important terminus for changing locomotives to cross the Blue Mountains as well as pushing trains towards Sydney.

The Penrith station master's residence is of state significance for its long association with Penrith station since 1878 and as only one of four known two storey residences constructed in the metropolitan region demonstrating its importance as a major terminus station on the NSW network. The residence is of aesthetic significance as a landmark within the Penrith station precinct and the town centre of Penrith providing a tangible link with the establishment of Penrith as an important railway location. Its simple Victorian Georgian detailing and lack of embellishment demonstrate the design and construction techniques of late 19th Century railway residences where aesthetic qualities and embellishments were restricted due to a balance between status and financial restraint.

The Penrith signal box is significant as evidence of Penrith station's role in assisting the railway traffic management between Sydney and the Blue Mountains since 1956. It is an unusual example of post World War II period Functionalist style railway signal boxes due to its polygonal signal tower presenting a design more like an airport control tower than a signal box. The signal box is a dominant feature within the station's setting when approached from the Down side.

The turntable at Penrith is significant as a railway relic from the early days of the operation of the locomotive depot that once existed immediately west of the Penrith station until 1956 and as the last physical reminder of what was a large locomotive depot and later coaling facility. While dating from 1896, the turntable represents an important function that was in existence at the station opening in 1863 when it was an important terminus.

The water tank, filler spout and water column are important surviving items of infrastructure supporting steam locomotive operation, denoting the close affiliation Penrith station has with steam train operations over the Blue Mountains.

That part of the railway line that extends into the study area is considered to be of local, rather than state, significance. It follows the original alignment of the line, as constructed in the early 1860s and duplicated in the 1880s. However, this section of the line was rebuilt in the 1960s, and is related more to modifications made to accommodate local traffic conditions.

5.2.2 Penrith Ambulance Station

Penrith Ambulance Station is located within the study area, at 668-672 High Street. The listing for this item consists of Lot 12 DP 37829, which includes the original 1936 ambulance station building. The operational property includes the adjacent lot to the east; Lot 7 DP 37702, which includes a late-twentieth century structure.

The significance is assessed as follows:

| Criterion | Assessment |
|-----------------------|---|
| A – Historical | <p>Penrith Ambulance Station has historic significance as the site of the first ambulance station within the Penrith district. Penrith Ambulance Station provided medical services to a number of surrounding areas. It is considered to represent a local example of the NSW historical theme of health.</p> <p>The establishment of Penrith Ambulance Station represents a substantial undertaking by the local community who were responsible for raising the funds for its development.</p> |

| | |
|-------------------------------|--|
| B – Associative | The ambulance station has a historic connection to Frederick Jones who donated the land for the ambulance station and was heavily invested in industry and social causes both within Penrith and further afield (Nepean Times 25/08/1938:4-5). |
| C – Aesthetic | The original structure of Penrith Ambulance Station represents an example of interwar Edwardian architecture. The 1970 extension to the station represents an example of post war international style. |
| E – Research Potential | As a continually operating ambulance station since its inception, Penrith Ambulance Station has the potential to inform a number of research questions relating to the development of medical care in the region as well as the developing facilities of a regional ambulance station. |
| G – Representative | Penrith Ambulance Station is representative of multiple periods of ambulance station development with extant structural remains relating to its early construction and use as well as its development and subsequent enlargement in the 1970s. The site is largely intact and representative of both time periods of ambulance station construction. |

Penrith Ambulance Station is of heritage significance at a local level. It is associated with Jones, a prominent local identity, and with the development of the town as a regional centre in the mid-twentieth century and the provision of services to the local population. The main structure and associated elements, which date to the establishment in 1936, demonstrate stylistic and functional elements which relate to the history of this type of building.

5.2.3 Peachtree Creek Bridge

Peachtree Creek Bridge carries High Street across Peachtree Creek and is located immediately to the west of the study area. There has been a crossing in approximately this location since the construction of the road in 1811, and the documentary evidence indicates that there was a bridge at this location from at least 1833. The current bridge may date to c1920, although modifications and additions have subsequently been made.

Significance

The listing for the item, as reproduced in the State Heritage Inventory, contains the following statement of significance:

The bridge is of local significance because it can demonstrate a pattern in the area's history, the design and re-design of Penrith around the all-important crossing of the Nepean River. From the perspective of technical significance the bridge is a good example of an early reinforced concrete bridge which has been successively modified to reflect the changing demands of the road system. This has required both widening and modified alignment. The structure has the capacity to demonstrate the design and construction features of concrete slab road bridges of the 1920s (or earlier) and 1940s. Being widened during World War II, it also has some historical significance as part of the essential infrastructure of the country on a potentially key supply route. It is visible from surrounding grassed areas accessible to the public.

5.2.4 Woodriff Gardens

Woodriff Gardens are not listed on a heritage register. The Gardens are a public park located on the north-western corner of High Street and Castlereagh Road. The exact date of establishment of the Gardens has not been established for the present study, but was in c1970. Located opposite the Civic Centre, to the east, and the Ambulance Station, to the south, they form an important component of the character of this part of Penrith. The establishment of a park in this location was considered appropriate to the 'entrance to the city'; and the park was named to recognise one of the earliest non-Aboriginal families in the area. The Gardens and tennis centre were planned and developed in partnership with the Nepean District Tennis Association, and it is possible that the Penrith Apex Club was also involved.

The evidence presently available suggests that the Gardens may be of heritage significance according to the following criteria:

| Criterion | Explanation |
|--------------------|--|
| C - Aesthetic | The Gardens contribute to the character of the important intersection of Mulgoa and Castlereagh Roads and High Street. Although the main centre of Penrith is located to the east, these main routes through the region are recognised by the placement of a number of civic elements, being the Gardens, Penrith Ambulance Station and the recent Civic Centre and Library. The plantings in the Gardens have since been reflected in plantings surrounding the Civic Centre, opposite, and along Mulgoa Road to the south. |
| G - Representative | The establishment of the Gardens is considered to be characteristic of the creation of formal parks by local government and service clubs during the late twentieth century. The location of the Gardens, on the intersection of two of the main routes through the region, supports the interpretation of the park as representative of the civic character of the town. |

Woodriff Gardens are considered to be of local heritage significance as part of a civic precinct situated on the two main roads through the town. Although they are relatively late in date, the creation of this type of formal garden is characteristic of the historical development of New South Wales towns in the mid to late twentieth century.

5.2.5 High Street alignment

High Street was constructed as part of the Great Western Road in c.1811. The alignment within the study area appears to follow the original road alignment. High Street is of local heritage significance, due to its role in the early development of the town of Penrith, on the road from Sydney across the Blue Mountains, and at the Nepean River Crossing. The alignment is also of state significance, as it was once part of the alignment of the Great Western Road, one of the earliest routes through the colony.

High Street is considered to be of heritage significance according to the following criteria:

| Criterion | Explanation |
|----------------|---|
| A - Historical | High Street is part of the original alignment of the Great Western Road, one of the main routes in the early colonial road network. |
| F – Rarity | The alignment itself is rare, as this was one of only a few main roads built through the colony in this period. |

The heritage significance of the potential archaeological remains relating to High Street is addressed in Section 5.3 below.

5.3 Historical archaeological potential

Analysis of the results of the investigation undertaken for this SoHI indicate the following areas of historical archaeological potential within the study area:

- High Street.

High Street was constructed as part of the Great Western Road in c.1811. The heritage significance of the alignment is addressed in Section 5.2.5 above. The road has been subject to upgrades including widening and resurfacing since construction. However, earlier road remains have been uncovered in places during the recent Roads and Maritime upgrade works to the Great Western Highway across the Blue Mountains. This indicates that remains could survive within the High Street road corridor. These may include earlier road pavements and sub-base, and culverts and/or bridges where the road passed across two small watercourses. Such potential remains would be of state significance, as they relate to one of the major early colonial transport routes. Investigation of the remains would provide information relating to the construction and use of the road that is not available from documentary sources. These potential remains are considered to be works, rather than relics as defined by the *Heritage Act 1977*.

The potential archaeological remains associated with High Street are considered to be of heritage significance according to the following criteria:

| Criterion | Explanation |
|------------------------|--|
| C - Aesthetic | The potential exists for the presence of remains relating to the early nineteenth century construction and use of the Great Western Road. If present, these remains derive from the remarkable technical achievement of the initial planning and construction of the road. |
| E – Research potential | If remains relating to the earliest period of the construction and use of the road, they have the potential to contribute to an understanding of the early development of the state. Details such as construction techniques and material sources would add to the knowledge of this period. Remains dating from the mid-nineteenth century and later would have much lower research potential |
| F – Rarity | Any remains relating to the early nineteenth century construction, are rare, as this was one of only a few main roads built through the colony in this period. |
| G - Representative | Remains relating to the construction of the road would represent the construction techniques of the period. |

- Castlereagh Road, including the former alignment between Jane Street and Museum Drive.

Castlereagh Road historically has been a more minor route, but also dates to the early nineteenth century. Remains of the road dating to the period before the realignment in c1960 could survive along the former alignment to the east. These may include earlier road pavements and sub-base.

Castlereagh Road is considered to be of heritage significance according to the following criteria:

| Criterion | Explanation |
|------------------------|---|
| A – Historical | Castlereagh Road is an important route in the development of the local region, giving access from the north to the Great Western Highway. |
| E – Research potential | Archaeological remains from the early nineteenth century may survive in places. Such remains have the potential to provide historical detail relating to the construction and use of the road that is not available from documentary sources. |
| F – Rarity | Castlereagh Road is one of a small number of local roads dating to the early nineteenth century, and is therefore rare |
| G - Representative | Remains from earlier phases of the construction and use of the road may demonstrate characteristics of local roads, such as the materials used and construction techniques. |

Castlereagh Road was an important component of the local transport network from the early nineteenth century onwards, and remains may survive from the early period of its history. Such potential remains would be of local significance, as they relate to an early regional network, connecting small settlements and properties to the major routes. Investigation of the remains would provide information relating to the construction and use of the road that is not available from documentary sources. These potential remains are considered to be works, rather than relics as defined by the *Heritage Act 1977*.

- Former alignment of Mulgoa Road, on the present line of John Tipping Grove.

Mulgoa Road historically has been a more minor route, but also dates to the early nineteenth century. Remains of the road dating to the period before the realignment in 1986 could survive in the present John Tipping Grove road corridor. These may include earlier road pavements and sub-base.

The former alignment of Mulgoa Road is considered to be of heritage significance according to the following criteria:

| Criterion | Explanation |
|------------------------|---|
| A – Historical | Mulgoa Road is an important route in the development of the local region, giving access from the north to the Great Western Highway. |
| E – Research potential | Archaeological remains from the early nineteenth century may survive in places. Such remains have the potential to provide historical detail relating to the construction and use of the road that is not available from documentary sources. |
| F – Rarity | Mulgoa Road is one of a small number of local roads dating to the early nineteenth century, and is therefore rare |
| G - Representative | Remains from earlier phases of the construction and use of the road may demonstrate characteristics of local roads, such as the materials used and construction techniques. |

Mulgoa Road was an important component of the local transport network from the early nineteenth century onwards, and remains may survive from the early period of its history. Such potential remains would be of local significance, as they relate to an early regional network, connecting small settlements and properties to the major routes. Investigation of the remains would provide information relating to the construction and use of the road that is not available from documentary

sources. These potential remains are considered to be works, rather than relics as defined by the *Heritage Act 1977*.

- Former structures along High Street.

The documentary evidence indicates that a number of structures that are no longer extant have been located along each side of High Street (Figure 23). Any remains of these structures are likely to have been impacted by earthworks undertaken for the widening of High Street and Castlereagh Road, the realignment of Mulgoa Road, and the construction of the carparks to the east of Castlereagh and Mulgoa Roads. However, ground disturbance does not appear to have been as substantial alongside High Street to the west of Castlereagh Road. It is considered that archaeological remains relating to the occupation of this area in the mid to late nineteenth century may survive.

| Criterion | Explanation |
|------------------------|---|
| A - Historical | Development along this stretch of High Street is likely to have commenced in the mid-nineteenth century, and relates both to the early development of the town and to the provision of services for travellers. |
| E – Research potential | Archaeological remains relating to the mid to late nineteenth century occupation of this area would provide information about the early history of Penrith that is otherwise unavailable through documentary sources. |
| F – Rarity | Development within Penrith in the mid to late nineteenth century was relatively sparse. Archaeological remains of structures along the main roads in particular is likely to have been impacted by subsequent development |

Remains relating to the construction and occupation of structures along High Street may survive, although they are likely to have been impacted to various degrees by subsequent development, in particular road works. The remains would be of local heritage significance, associated with the early commercial and residential development of the town. Investigation of these remains would provide information relating to this occupation.

- Light industrial area and RAAF base.

To the east of Castlereagh Street, between Jane and High Streets, was a light industrial area and an RAAF base, developed and occupied in the mid to late twentieth century. Associated remains are likely to have been significantly impacted by excavation for the construction of Penrith Civic Centre and Library. Fragmentary remains may exist in places where excavation has not been as deep, for instance in the area of the Council carpark. However, due to the late date of this occupation, the documentary record is relatively rich, and material remains would not be expected to provide substantial additional historical information. These potential archaeological remains are therefore considered not to be of heritage significance.

Figure 23: The approximate locations of the structures shown in the 1876 (green) and c1880s (blue) plans in relation to the current layout of the study area.



6.0 HERITAGE IMPACT ASSESSMENT

6.1 Proposed development

Roads and Maritime proposes to upgrade the section of Castlereagh Street between Museum Drive and Union Road, including the intersections with Jane and High Streets (Figure 24 and Figure 25). The upgrade is intended to improve traffic flow and travel times and develop infrastructure for future expansion. The proposed development includes the following components:

- Additional northbound lane on Mulgoa Road and Castlereagh Road.
- Additional southbound lane on Mulgoa Road and Castlereagh Road.
- Longer left turn lane along Mulgoa Road for vehicles turning onto the Great Western Highway.
- Widening the existing rail underpass to allow three lanes of traffic in each direction on Castlereagh Road and a left turn on to Jane Street.
- Upgrading the Mulgoa Road and High Street intersection, including construction of turning lanes.
- Upgrading the T-intersection of Jane Street and Castlereagh Road, including construction of turning lanes.
- Possible relocation of an underground service, presently running along the northern side of the Main Western Line, to the southern side of the line.
- Three temporary construction compounds: on the western side of Mulgoa Road, opposite the Union Road intersection; on the western side of Castlereagh Road, between the Main Western Line and the Woodriff Garden Tennis Centre; on the eastern side of Castlereagh Road, to the north of the Main Western Line.

6.2 Potential heritage impact

The assessment of impact has been undertaken in accordance with the Heritage Division guidelines (Heritage Office & DUAP 2002), and the level of impact is assessed as outlined in Table 3.

Table 3: Assessed scale of heritage impact.

| Level of impact | Description |
|-----------------|--|
| Major | The proposed works would directly impact defining elements inherent to the item's heritage significance such as built fabric, archaeological remains, defining landscape characteristics and/or associated aesthetic elements. This would permanently impact the integrity/intactness of the item and the heritage significance of the item would be lost. |
| Moderate | The proposed works would impact defining elements inherent to the item's heritage significance such as built fabric, archaeological remains, defining landscape characteristics and/or associated aesthetic elements. Although the integrity/intactness of the item would be impacted, some defining elements of the item would be retained. Therefore, there is potential for the heritage significance of the item to be retained. |

| Level of impact | Description |
|-----------------|--|
| Minor | The proposed works would impact defining elements inherent to the item's heritage significance such as built fabric, archaeological remains, defining landscape characteristics and/or associated aesthetic elements. However, these impacts are not considered to detract from the heritage significance of the item. |
| Nil | The proposed works would not impact defining elements inherent to the item's heritage significance such as built fabric, archaeological remains, defining landscape characteristics and associated aesthetic elements. The works are not considered to detract from the heritage significance of the item. |

Penrith Railway Station Group

The proposed development would involve replacement of the existing rail bridge carrying the Main Western Line across Castlereagh Road. This would result in removal of fabric dating to the 1960s, but would not affect the key components of the Group, being the Station buildings, Station Master's residence and turntable. The proposed development would allow the continued operation of the railway line along the alignment established in the 1860s.

The proposed development would have a moderate impact on this item.

Penrith Ambulance Station

The works would not involve any impact to the listed curtilage of the property, as they would not extend within Lot 12 DP 37829, and would not affect fabric associated with the original 1936 establishment. The works would involve encroachment into the northern boundary of the neighbouring property Lot 7 DP 37702. As this neighbouring property is part of the Ambulance Station, as presently operating, the encroachment would affect the setting of the 1936 Ambulance Station.

The proposed development would have a minor impact on this item.

Peachtree Creek Bridge

The proposed development does not involve works affecting the Peachtree Creek Bridge.

The proposed development would have no impact on this item.

Woodriff Gardens

The proposed development would encroach into the park along the High Street and Castlereagh Road boundaries. It would result in the removal of the garden bed at the intersection, with plantings that form 'PENRITH', and may also require removal of trees near the boundaries.

The proposed development would have a moderate impact on this item.

High Street alignment

The proposed development would involve widening of High Street on either side of the intersection with Mulgoa Road. However, the current alignment would be retained in use.

The proposed development would have no impact on this item.

Historical archaeological remains

- High Street.

The extent of excavation required within the footprint of the present High Street road pavement is not presently known. It has been assumed that partial excavation will be required in this area. This work would result in removal of any remains of the earlier road within those areas subject to excavation. However, remains would be conserved in those areas that are not subject to excavation.

The proposed development would have a moderate impact on this item.

- Castlereagh Road, including the former alignment between Jane Street and Museum Drive.

The extent of excavation required within the footprint of the present Castlereagh Road road pavement is not presently known. It has been assumed that partial excavation will be required in this area. Excavation along the original alignment, to the south of the Jane Street intersection, would result in removal of any remains of the earlier road within those areas subject to excavation. However, remains would be conserved in those areas that are not subject to excavation.

The proposed development would have a moderate impact on this item.

- Former alignment of Mulgoa Road, on the present line of John Tipping Grove.

The proposed development does not involve works affecting the former alignment of Mulgoa Road.

The proposed development would have no impact on this item.

- Former structures along High Street.

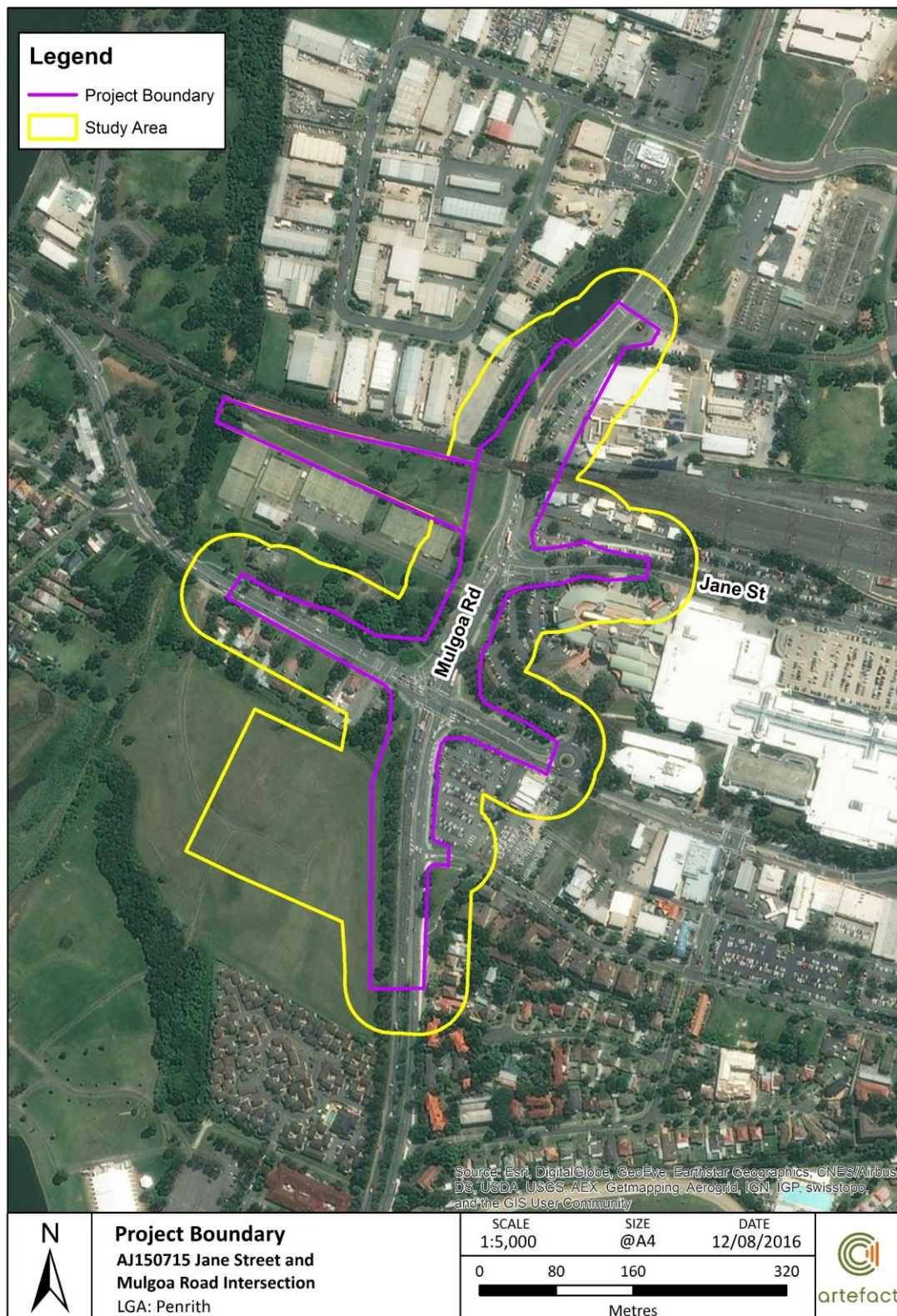
The proposed development would require excavation along the northern side of High Street, to the west of Castlereagh Road; and on the south side of High Street, immediately to the west of Mulgoa Road. These works would result in removal of any archaeological remains related to earlier occupation of the area, in those locations subject to excavation. These remains are likely to be more discrete than archaeological remains relating to the early roads, and the proposed works therefore have the potential to entirely remove them. These archaeological remains are considered to be of local significance, and are therefore relics as defined and protected by the *Heritage Act 1977*.

The proposed development would have a major impact on this item.

Figure 24: Proposed development (Arup, 5/8/16, Drawing no. DS2014-005572-DC-RD-DRG-0051, Rev. 2).



Figure 25: The study area (yellow outline) and footprint of the proposed development (purple outline).



7.0 RECOMMENDED MITIGATION MEASURES

The following recommendations have been developed with regard to statutory requirements, the heritage significance of the study area, and best practice. They are intended to assist in the avoidance of impact where possible, and the mitigation of that impact where avoidance is not possible.

Prior to commencement of the proposed development:

- Detailed design should aim to avoid and/or reduce the identified heritage impact of the proposed works in the following way:
 - Minimise excavation within the footprint of the road pavements of High Street and the original alignment of Castlereagh Road.
 - Minimise excavation on either side of High Street, to the west of Castlereagh Road.
 - Minimise the number of trees to be removed from Woodriff Gardens.
- Consultation should be undertaken with Penrith City Council regarding the potential impact on the listed heritage item Penrith Railway Station Group, in accordance with the requirements of the State Environmental Planning Policy (Infrastructure). Any recommendations made by Council in this regard should be incorporated into the program where possible.
- An archival record should be completed of the rail bridge passing over Castlereagh Road, and other associated elements to be removed; and those elements of Woodriff Gardens that will be removed. Copies of the record should be lodged with RailCorp, Penrith City Council, the local historical society and the Heritage Division.
- An archaeological management plan (AMP) should be prepared to guide works with the potential to affect archaeological remains of High Street and Castlereagh Road, and archaeological relics relating to the occupation of the properties on either side of High Street. The AMP is likely to recommend an initial stage of archaeological test excavation, to be undertaken in accordance with an Exception Notification, in order to confirm the potential for impact to relics.
- If impact to relics is confirmed, an Excavation Permit application should be lodged with the Heritage Division, in accordance with Sections 139-140 of the *Heritage Act 1977*, to address impact to relics on either side of High Street.

During the proposed development:

- A heritage induction should be incorporated into the general induction given to all members of the team working on the project. This should outline the history and heritage values of the study area, and the relevant requirements, including the unexpected finds procedure.
- An unexpected finds procedure should be incorporated into the works program, in accordance with the *Standard management procedure: Unexpected heritage items* (RMS March 2015).

- Any required archaeological investigation and recording should be undertaken prior to, or during the initial stages of, bulk excavation, in accordance with the recommendations of the archaeological management plan, and the conditions of the Excavation Permit (if required).
- Measures should be put in place to ensure against inadvertent impact to Penrith Ambulance Station and Peachtree Creek Bridge.

Following completion of the proposed development:

- Trees should be planted in Woodriff Gardens to replace any that have been removed as a result of the proposed development. The garden bed at the intersection of High Street and Castlereagh Road should be recreated.
- Analysis and reporting should be completed for any archaeological investigation and recording. Copies of the report should be lodged with Penrith City Council, the local historical society and the Heritage Division.

Table 4: Summary of impacts and mitigation measures

| Item | Listing | Impacts to fabric | Impacts to archaeological remains | Impacts to setting | Mitigation measures |
|---|---|-------------------|-----------------------------------|--------------------|--|
| Penrith Railway Station Group | Penrith LEP 2010 | Moderate | Nil | Low | Consultation with Council, in accordance with the conditions of ISEPP 2007. Archival recording of rail bridge. |
| Penrith Ambulance Station | Penrith LEP | Nil | Nil | Minor | Exclusion zone to be set up around item during construction, to avoid inadvertent impact. |
| Peachtree Creek Bridge | Penrith LEP | Nil | Nil | Nil | Exclusion zone to be set up around site during construction. |
| Woodriff Gardens | n/a | Moderate | Nil | Moderate | Archival recording of garden elements to be removed. Replanting of removed trees with the same or similar species. Recreation of the garden bed at the intersection of High Street and Castlereagh Road. |
| High Street archaeological remains | n/a | Nil | Moderate | Nil | Archaeological management plan. Archaeological excavation and/or monitoring (as required) and recording. |
| Castlereagh Road archaeological remains | n/a | Nil | Moderate | Nil | Archaeological management plan. Archaeological excavation and/or monitoring (as required) and recording. |
| Mulgoa Road archaeological remains | n/a | Nil | Nil | Nil | None. |
| Former structures along High Street – archaeological relics | Relics provisions of the <i>Heritage Act 1977</i> | Nil | Major | Nil | Archaeological management plan. Excavation permit application (if required). Archaeological excavation and/or monitoring (as required) and recording. |

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