Penrith Station Upgrade Project

Statement of Heritage Impact

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Client: Transport for New South Wales

ABN: 18 804 239 602

Prepared by

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Executive Summary

A Station upgrade is proposed at Penrith Station to cater for future growth and to address the poor existing modal separation, safety issues, and accessibility requirements. Penrith is recognised as a regional city centre and the Station connects the new Thornton development in the north to the commercial centre of Penrith to the south. Currently there is a pedestrian footbridge across the railway but only the eastern half of the bridge can be accessed by the general public. As part of the Proposal, the pedestrian footbridge would be converted to unpaid access to increase capacity and extended over the interchange to reduce the pedestrian/vehicle conflict. A new paid concourse with a Family Accessible Toilet and Customer Information Window would also be constructed for customers. The improvements would in turn assist in supporting the growth in public transport use and would provide an improved customer experience for existing and future users of the Station.

The Penrith Railway Station Group (the Station) is identified as an item of State heritage significance, being listed on the State Heritage Register (SHR) (SHR #01222) and also identified as of heritage significance on the Penrith Local Environmental Plan (LEP) and the Sydney Trains Section 170 Heritage and Conservation Register.

AECOM Australia Pty Ltd (AECOM) was engaged by Transport for NSW (TfNSW) to assess the potential impacts to the heritage significance of the Station associated with the proposed upgrade. AECOM has provided advice to TfNSW as the design for the upgrade has been developed with a view to reducing the impacts. This report outlines the statutory considerations associated with the Proposal, provides a history of the Station, describes the Proposal and contains a Statement of Heritage Impact (SoHI) prepared following NSW Heritage Division guidelines (NSW Heritage Office, 2002). The report concludes by providing recommendations regarding the Proposal.

The Proposal would include the following key elements:

- existing pedestrian footbridge retained for unpaid access across the railway and extended further south;
- new stairs on both the northern and southern entrances of the pedestrian footbridge;
- new paid concourse accessible from the pedestrian footbridge with relocated ticket gates, new Customer Information Window, Family Accessible Toilet, store room and stairs to platforms;
- three replacement lifts to provide access to the platforms/interchange;
- new canopies for the existing footbridge and new stairs, lift landings, paid concourse, in addition to replacing platform canopies affected by works;
- reconfiguration of the southern transport interchange which would involve:
    - upgraded bus interchange with reversed traffic flow to include set down, pick up and layover spaces for buses, and shelters for weather protection for customers;
    - relocated kiss and ride and taxi rank (with shelters) on Belmore Street;
    - landscaping, paving and lighting for the interchange and forecourt area;
    - provision for a bike shed on the south-western side of the interchange (as part of the Bike and Ride Initiative);
- extension of the south-western car park with approximately 25 spaces (to offset some of the commuter parking removed for the long-term bus layover)
- establishment of a new Bus Driver's Amenities Room and Customer Service Manager's Office in the existing Platform 3 heritage building

A Penrith Station Conservation Study was prepared by Paul Davies Pty Ltd in 1999 to guide the conservation of the Station during the upgrade of the facilities undertaken in that year. As the Station is listed on the SHR, it is standard practice to have CMPs endorsed by the Heritage Council of NSW, however, there is no documentation that would indicate that this study received formal endorsement as a CMP. However, an examination of the Proposal in light of the significance of the Station, SHR listing details, the conservation policies contained in the conservation study, additional research, site inspection and the assessment detailed in this document indicates that the Proposal will not impact on the significance of the Station and the removal of clutter and the rationalisation of services on the Platforms will enhance the visual accessibility of the heritage buildings.

The following mitigation measures are recommended:

- An application under Section 60 of the *Heritage Act 1977* should be submitted to the Heritage Council of NSW for approval prior to works commencing. This Statement of Heritage Impact should be submitted with the supporting documentation for the approval.
- Archival recording of the Station as a whole prior to the commencement of construction following NSW Heritage Division guidelines *Photographic recording of heritage items using film or digital capture* (NSW Heritage Office, 2006) and *How to prepare archival records* (NSW Heritage Office, 1998). Copies should be provided to the NSW Heritage Division, Penrith Council, and Sydney Trains for future reference. In particular the following elements should be concentrated on:
    - Existing pedestrian footbridge, including all spaces (concessional spaces, toilets, offices, mail room) and canopies and interface with the heritage structures; and
    - The Platform 3 Heritage Building Foyer, current Station Manager's Office and Ticket/Booking Office.
- Opportunities for the retention of the pine and pepper trees associated with the garden associated with the Station Master's Residence be investigated during detailed design;
- During detailed design, opportunities to reinstate the heritage indicator boards removed from the Station should be explored, together with their interpretation;
- A heritage induction should be provided to all on-site staff and contractors involved in the Proposal. The induction should clearly layout the statutory obligations associated with State significant sites, the heritage constraints of the site, areas of archaeological potential and the management and mitigation measures in place to protect the significance of the Station;
- During construction, suitable measures should be put in place to ensure the retained heritage elements are protected from damage. Measures may include protective hoardings, use of spotters during the movement of equipment and other measures as necessary;
- It is recommended that an Archaeological Research Design and monitoring or excavation methodology should be developed to further explore the potential impacts to archaeological relics associated with the District Inspectors Office/Regional Railways Manager's Residence and the Weighbridge/Guard hut. Should impacts be anticipated following detailed design, a review of the approvals will be undertaken and a modification sought, which should include an Archaeological Research Design and Methodology and nominate an Excavation Director with a demonstrated track record of working with SHR listed items;
- Following completion of works, the State Heritage Register listing description and historical context should be updated to reflect the new works; and
- Sydney Trains should consider preparation of a Conservation Management Plan for the Penrith Railway Station Group.

1.0 Introduction

1.1 Proposal Background

The NSW Government is committed to facilitating and encouraging use of public transport, such as trains, by upgrading Stations to make them more accessible, and improving interchanges around Stations with other modes of transport such as bicycles, cars and buses.

A Station upgrade is proposed at Penrith Station to cater for future growth and to address the poor existing modal separation, safety issues, and accessibility requirements. Penrith is recognised as a regional city centre and the Station connects the new Thornton development in the north to the commercial centre of Penrith to the south. Currently there is a pedestrian footbridge across the railway but only the eastern half of the bridge can be accessed by the general public. As part of the Proposal, the pedestrian footbridge would be converted to unpaid access to increase capacity and extended over the interchange to reduce the pedestrian/vehicle conflict. A new paid concourse with a Family Accessible Toilet and Customer Information Window would also be constructed for customers. The improvements would in turn assist in supporting the growth in public transport use and would provide an improved customer experience for existing and future users of the Station.

The Penrith Railway Station Group (the Station) is identified as an item of State heritage significance, being listed on the State Heritage Register (SHR) (SHR #01222) and also identified as of heritage significance on the Penrith Local Environmental Plan (LEP) and the Sydney Trains Section 170 Heritage and Conservation Register. AECOM Australia Pty Ltd (AECOM) was engaged by Transport for NSW (TfNSW) to assess the potential impacts to the heritage significance of the Station associated with the proposed upgrade. AECOM has provided advice to TfNSW as the design for the upgrade has been developed with a view to reducing the impacts. This report outlines the statutory considerations associated with the Proposal, provides a history of the Station, describes the Proposal and contains a Statement of Heritage Impact (SoHI) prepared following NSW Heritage Division guidelines (NSW Heritage Office, 2002). This has been done with reference to the Conservation Strategy prepared by Paul Davies Pty Ltd in 1999. This report concludes by providing recommendations regarding the Proposal.

1.2 Site Identification

The Station is located in the suburb of Penrith, Sydney, NSW, on the Main Western line. It is served by Sydney Trains T1 Western Line services and NSW TrainLink Blue Mountains Line, Central West XPT and Outback Xplorer services. It is located at a distance of 55 km from Central Station. The railway line runs roughly east-west through the Station, which is bound to the north by a commuter car park and development land, and Belmore Street (Great Western Highway) to the south. The Station is within the Penrith Local Government Area, and is located in the parish of Castlereagh in the County of Cumberland. The location of the Station and the statutory curtilage is indicated in Figure 1.

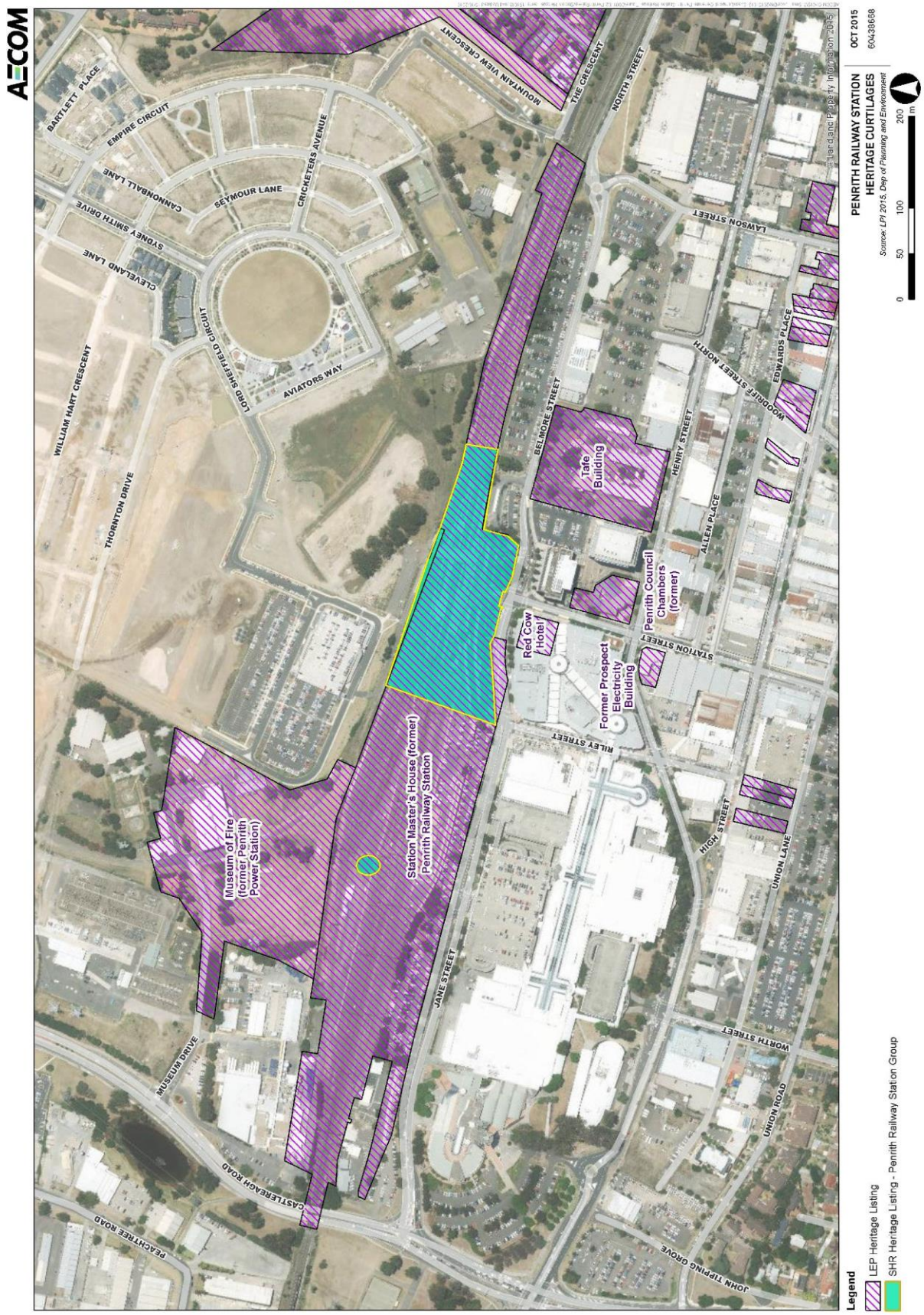


Figure 1 Proposal location context

1.3 Proposal Methodology

Heritage assessment in this report has been undertaken in accordance with the NSW Heritage Division *Assessing Heritage Significance* (NSW Heritage Office, 2001) and *Statements of Heritage Impact* (NSW Heritage Office, 2002).

The heritage assessment methodology undertaken as part of this assessment included:

- Desktop searches of relevant heritage registers;
- Review of the Proposal design drawings and supporting design and construction information (prepared by Laing ORourke and GHD);
- Review of the following key documents
    - Heritage register listings for identified sites;
    - Historic plans for the Station held by the Sydney Trains Plans Room;
- Background research into the historical development of the Station using the historic plans, historical aerials, newspapers and other primary and secondary historical sources as relevant and referenced in Section 9.0;
- Site inspections by AECOM staff assessing the existing character of the Proposal area and surrounding land uses; and
- Attendance and input into the heritage design co-ordination meetings.

1.4 Report Limitations

The purpose of this report is to identify and assess historic heritage and archaeological potential within the Proposal area.

Predictions have been made within this report about the probability of subsurface archaeological materials occurring within the site, based on surface indications and environmental contexts. However, it is possible that materials may occur in areas without surface indications and in any environmental context. These will be addressed in accordance with Transport for NSW's (TfNSW's) *Unexpected Heritage Finds Guideline* (Transport for NSW, 2015).

A summary of the statutory requirements regarding historical heritage is provided in Section 2.0. The summary is provided based on the experience of the authors with the heritage system in Australia and does not purport to be legal advice. It should be noted that legislation, regulations and guidelines change over time and users of the report should satisfy themselves that the statutory requirements have not changed since the report was written.

1.5 Authorship and Acknowledgements

This report has been prepared by Dr Susan Lampard, Senior Historic Heritage Specialist of AECOM. Luke Kirkwood, Principal Heritage Specialist of AECOM, undertook the technical and quality assurance review.

2.0 Statutory Context

2.1 Introduction

A number of planning and legislative documents govern how heritage is managed in New South Wales and Australia. The following section provides an overview of the requirements under each as they apply to the Proposal.

2.2 Commonwealth Legislation

2.2.1 Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) defines 'environment' as both natural and cultural environments and therefore includes Aboriginal and non-Aboriginal historic cultural heritage items. Under the Act, protected heritage items are listed on the National Heritage List (NHL) (items of significance to the nation) or the Commonwealth Heritage List (CHL) (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE). The RNE has been suspended and is no longer a statutory list; however, it remains as an archive. Penrith Railway Station has not been identified on the NHL, CHL or RNE.

Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of National Environmental Significance (known as a controlled action under the Act), may only progress with approval of the Commonwealth Minister for the Department of the Environment (DotE). An action is defined as a project, development, undertaking, activity (or series of activities), or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land; and
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

2.2.2 Disability Discrimination Act 1992 (Cwlth)

The Commonwealth *Disability Discrimination Act 1992* (DDA) aims to reduce, to the level possible, discrimination against people with a disability. The DDA requires that people are given equal opportunity to access public transport and buildings, including those with heritage significance. The Proposal is being undertaken, in part, to comply with the requirements of the DDA.

2.3 State Legislation

2.3.1 Environmental Planning and Assessment Act 1979 (NSW)

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include clauses requiring that heritage be considered during development applications and a schedule of identified heritage items be provided. The Penrith LEP 2010 applies to the Proposal and is discussed below. The EP&A Act also allows for the gazettal of State Environmental Planning Policies (SEPP). The Infrastructure SEPP is discussed below.

2.3.2 Infrastructure SEPP State Environmental Planning Policy (Infrastructure) 2007 (NSW)

SEPPs are environmental planning instruments which address planning issues within the State. SEPPs often make the Planning Minister the consent authority for the types of development they relate to. The *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP 2007) is of relevance to this Proposal.

Section 14 of ISEPP 2007 requires consultation with the local council if the development is likely to impact a local heritage item or heritage conservation area. This clause does not apply if the item is also a State heritage item, by virtue of being listed on the SHR. Clause 14 does not apply to the Proposal as the Penrith Station is listed on the SHR (SHR#01222).. Where an item is listed on the SHR, the requirement for approval under Section 57 of the *Heritage Act 1977* is considered to be sufficient to protect the heritage significance of any potentially impacted items

2.3.3 Heritage Act 1977 (NSW)

The *Heritage Act 1977* (as amended) was enacted to conserve the environmental heritage of New South Wales. Under Section 32, places, buildings, works, relics, moveable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the NSW State Heritage Register

(SHR). Items that are assessed as having State heritage significance can be listed on the SHR by the Minister on the recommendation of the NSW Heritage Council. Penrith Railway Station Group has been identified as of State heritage significance and is listed on the SHR as item number #01222.

Proposals to alter, damage, move or destroy places, buildings, works, relics, moveable objects or precincts protected by an IHO or listed on the SHR require an approval under Section 60. Demolition of whole buildings will not normally be approved except under certain conditions (Section 63). Some of the sites listed on the SHR or on LEPs may either be 'relics' or have relics associated with them. In such cases, a Section 60 approval is also required for any disturbance to relics associated with a listed item.

Under Section 170 of the *Heritage Act 1977*, NSW Government agencies are required to maintain a register of heritage assets. The Register places obligations on the agencies, but not on non-government proponents, beyond their responsibility to assess the impact on surrounding heritage items. The Penrith Railway Station has been identified on the RailCorp Section 170 Heritage and Conservation Register under database number 4801032.

2.4 Local Government

2.4.1 Penrith Local Environmental Plan 2010

Part 5 Section 5.10 of the Penrith LEP 2013 deals with heritage conservation within the area covered by this LEP. All items listed on the LEP are included in Schedule 5 of the document. The LEP states:

The objectives of this clause are as follows:

a) to conserve the environmental heritage of Penrith,

b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,

c) to conserve archaeological sites,

d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

Development consent is required for any of the following:

a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):

   i. a heritage item,

   ii. an Aboriginal object,

   iii. a building, work, relic or tree within a heritage conservation area,

b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,

c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,

d) disturbing or excavating an Aboriginal place of heritage significance,

e) erecting a building on land:

   i. on which a heritage item is located or that is within a heritage conservation area, or

   ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,

f) subdividing land:

   i. on which a heritage item is located or that is within a heritage conservation area, or

   ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

Schedule 5 of the LEP provides a list of identified heritage items, heritage conservation areas and archaeological sites. The Penrith Railway Station Group is identified as Item 188.

2.5 Other Considerations

A Conservation Strategy was prepared by Paul Davies Pty Ltd in 1999 to guide the conservation of the Station during the upgrade of the facilities undertaken in that year. As the Station is listed on the SHR, it is standard

practice to have CMPs endorsed by the Heritage Council of NSW, however, there is no documentation that would indicate that this study received formal endorsement as a CMP. Originally issued in 1999, the CMP is now out of date as it is generally recommended by Heritage Division guidelines that CMPs are reviewed every five years. Table 1 outlines the conservation policies which could be applied to the present Proposal. These are addressed in Section 6.3.

Table 1 Conservation Strategy conservation policies of relevance to the Proposal

Conservation Policy Section and No.	Policy	Page No.
Section 5.2 - Policy 4	A new station structure may be constructed, provided it does not reduce the established significance of the place or compromise the setting for the extant station buildings	26
Section 5.3 - Policy 2	Extant early spaces must not be sub-divided for adaptive re-use	26
Section 5.3 - Policy 5	The refreshment room area should either be accessed from the street or from the platform. If from the street the former dividing wall to the former kitchen can be used for new openings, also the present roller shutter position could be used. Another entry could be achieved from the end of the original verandah.	26-27
Section 5.1.3 - Policy 1	Significant fabric within the buildings should be retained and conserved	27
Section 5.1.5 - Policy 1	The sub-surface archaeological resources of the site should be assessed as work takes place	28
Section 5.1.7 - Policy 1	New construction is allowable on the site but should not impose on the critical zone around the heritage buildings [critical zone not defined in CMP]. The following general guidelines could form the basis of a control plan for new work: - Highly serviced areas should ideally be in new buildings rather than introduce further services into the existing building. - New buildings are to be designed either in a neutral form that allows the significance buildings to be prominent or designed in a contemporary idiom that provides some juxtaposition for the existing buildings. The quality, sensitivity and contextual nature of the design solution is critical if contemporary design is proposed and will be a criteria for assessment of proposals - New construction should use a range of materials that draw from the site and which provide variety of material and detail to give a scale to the new development that fits with the context. Finishes that, in principle, are not appropriate to the site include: reinforced concrete in situ, pre-cast or tilt up, concrete block, etc. In is essential that new buildings on the site have a strong relationship to the present station buildings and draw their design inspiration from the form of the buildings. Key elements are: • Station buildings are linear • Have a strong horizontal emphasis with dominate awning forms • Have small scale pitched roofs with modulation, the use of lanterns and roof lights etc. • Have strong symmetry and presentation to trackside and streetside, but often differing presentations to each • Are designed as civic buildings with a formality that includes strong axis, forecourts • Are finely detailed showing excellence of use of materials and techniques • Are of substantial scale • New construction should derive its overall proportions from surrounding structures noting the balance of vertical and horizontal elements, the nature of openings, etc.	29
Section 5.1.8 - Policy 1	No new structures should be constructed which would obscure key views to and from the key buildings on the site.	29
Section 5.1.8 - Policy 2	A major vista to the station buildings should be retained across the transport interchange	29
Section 5.1.8 - Policy 3	New buildings shall be designed (or retained) to form a clear precinct structure, retaining landmarks, edges, views, vistas etc., new work should create a precinct quality that incorporates the station masters house, the station group and the new station	29

2.6 Summary of statutory controls

The Penrith Railway Station Group has been identified as holding State significance and is listed on the SHR, RailCorp S170 Heritage and Conservation Register and the heritage schedule of the Penrith LEP, as summarised in Table 2. The register search was extended to establish if there were surrounding registered items or conservation areas that may be affected by the Proposal. The search was limited to items that directly front the Station. Two items were identified: the Red Cow Hotel and the TAFE Building, both of which are located on the southern side of the railway line. The former Penrith Council Chambers and the former Prospect Electricity Building located on the Station and Henry Street intersections do not have view lines to or from the Station and are therefore considered not to be impacted by the Proposal. The closest item to the north is the Museum of Fire, located over 200 metres to the north west of the Station. The Museum of Fire does not have a frontage to the SHR listing, which the Proposal is confined to and will therefore not be impacted by the Proposal. The physical characteristics of the Station and the surrounding environment are described in Section 3.0.

Table 2 Listed heritage items within the Proposal Area

Heritage List	Sites within Proposal Area	Level of significance	Sites adjacent to the Proposal Area	Level of Significance
World Heritage List	None	n/a	None	n/a
National Heritage List	None	n/a	None	n/a
Commonwealth Heritage List	None	n/a	None	n/a
Register of the National Estate (non-statutory)	None	n/a	None	n/a
State Heritage Register	Penrith Railway Station Group (#01222)	State	None	n/a
Sydney Trains Section 170 Register	Penrith Railway Station Group and Residence (#4801032)	State	None	n/a
Penrith LEP 2010	Penrith Railway Station (188)	State	Red Cow Hotel (690) TAFE Building (689)	Local Local

3.0 Historical Context

3.1 Introduction

In order to appreciate the heritage significance of an item, it is important to understand the historical context in which it was constructed and the subsequent factors that have influenced its development. The following sections outline the development of the Penrith Railway Station. The majority of the information has been taken from *Penrith Station: conservation study* (Paul Davies Pty Ltd, 1999) and is kept brief as there are no direct impacts to fabric of heritage significance.

3.2 Indigenous History

Available sources indicate that Rooty Hill falls within the traditional country of the Darug people, who spoke the Darug (also spelt Dhaŕ-rook, Dharrook, Dhaŕook, Dharruk and Dharug) language. Darug is believed to have been spoken from the Hawkesbury River in the north, to Appin in the south, and from the coast west across the Cumberland Plain into the Blue Mountains.

In common with other regions of New South Wales (e.g., Attenbrow, 2010) and Australia more broadly (Peterson, 1976), available historical records suggest that the primary units of social organisation amongst the Darug were the clan and band. The size of the individual bands occupying the Cumberland Plain at contact appears to have varied considerably and was no doubt activity and season dependent (Attenbrow, 2010). However, an upper limit of around 60 individuals, consisting of several nuclear families, has been suggested. Individual band sizes notwithstanding, much larger groups of Aboriginal people, numbering in the hundreds, are known to have come together for events such as corroborees, ritual combats and feasts.

The post-contact history of the Darug-speaking peoples of the Sydney Region is primarily one of dispossession and loss, with traditional hunting and camping grounds rapidly claimed and settled by Europeans and populations decimated by introduced diseases such as tuberculosis and small pox (Attenbrow 2010: 14-15, 21-22). No known Aboriginal heritage sites are located in proximity to the Penrith Station.

3.3 Early Settlement

The land on which the Penrith Station was to be constructed, was initially granted to Captain Daniel Woodriffe (Figure 2). Bordering the Western Road, a major thoroughfare in the Colony and on the Nepean River, it was prized land.

3.4 Development of Rail

The first railway line in the Colony of New South Wales was the Main Western Line, which opened on 26 September 1855. The line ran from in the vicinity of present day Redfern Railway Station to Granville (then known as Parramatta Junction) and was a double track from Sydney to Newtown and a single track onward to Granville. The purpose of the line was to connect Sydney with the rural railways that were under construction across the Blue Mountains to Bathurst and across the Southern Highlands to Goulburn. The original intention of the line was not to serve the suburban population and, as a consequence, there were few Stations along the route (Paul Davies Pty Ltd, 1999). The line was extended to the west in sections: to Blacktown in 1860, Rooty Hill in 1861, South Creek (St Marys) in1862 and then Penrith in 1863.

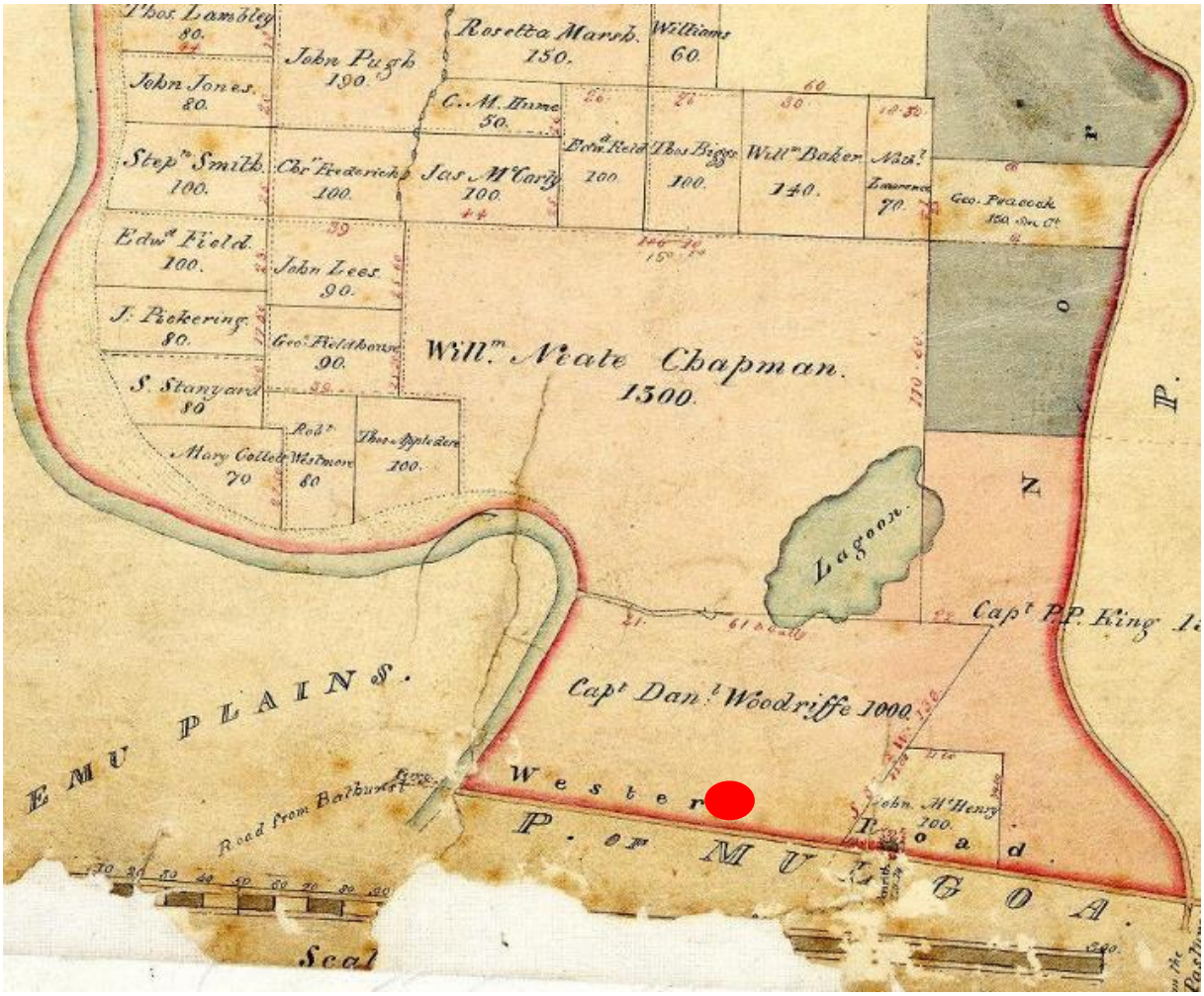


Figure 2 **Excerpt from an undated Parish of Castlereagh plan. Partial date reads 18_3. (Source: NSW Property & Information). Approximate location of Penrith Railway Station marked.**

3.5 Early Development of Penrith Railway Station

With the approach of the railway line towards Penrith, tenders were let for the construction of the Station building and warehouse. The tender was let to M. Jamison, A. Jamison and D. Forest (Paul Davies Pty Ltd, 1999:9), however, the time allowed for completion of the structures was insufficient and the buildings were incomplete when the track opened on 19 January 1863. On opening, the Station consisted of a side platform (now platform 3), platform building (part of the Station platform building on platform 3 belongs to this era), goods shed (now demolished) with a rail siding, a single track and a rail loop.

The Station platform building initially consisted of a centrally located booking office, with a refreshment room, small ticket office, Station master's room, male and female toilets and a ladies' waiting room arranged on either side. The building was constructed of face brick with sandstone quoining to the windows and doors. The roof was originally slate. A verandah was provided on the platform to provide protection for waiting passengers, which had an iron roof and decoratively painted valance (Figure 3, Figure 4). The platform was of timber.

Figure 3 Penrith Railway Station, c. 1862. Source: State Records of NSW Digital ID 17420_a014_a01400763

Figure 4 Class Z2508 (B205) locomotive at Penrith Railway Station (NSW), No date, post 1860. Source: State Records of NSW Digital ID 17420_a014_a01400531

The line through Penrith was duplicated in 1886 (Paul Davies Pty Ltd, 1999:10), with the addition of what is today track 2. In 1890, a building was erected to service the additional track (Station platform building on Platform 1/2). This building had men's toilets located at the eastern end with an adjacent men's waiting room, a centrally located

communal waiting area with a ladies waiting room and toilets at the western end, mirroring the men's at the other end. The building was altered in 1895, with the waiting room being converted into a refreshments room and other changes. A footbridge was erected at the Sydney (eastern end) to allow pedestrians safe access to the new platform (Figure 5). Davies (1999:10) indicates that the footbridge (since removed) may have been relocated from Parramatta.

Platform 3 Station Building was also altered in 1895, with the refreshment room being extended to take up the Sydney (eastern) end of the building and a new kitchen conjoined to the south eastern corner of the building.

Figure 5 Penrith Railway Station, c.1950. Source: State Records of NSW Digital ID 17420_a014_a01400766

3.6 Station alterations

The Station underwent further modifications to facilitate the electrification of the line, which was completed through Penrith in 1955. Figure 6 and Figure 7 shows the Platform 3 Station Building, probably soon before these modifications. The tracks were widened to accommodate the wider electric suburban cars, which necessitated cutting back the platforms. The original awning on the Platform 3 Station Building was removed and replaced with the current awning at this time. The first footbridge, relocated from Parramatta, was removed and replaced with a new footbridge.

Figure 6 Penrith Railway Station, c.1950. Source: State Records of NSW Digital ID 17420_a014_a01400765

Figure 7 Penrith Railway Station, c.1950. Source: State Records of NSW Digital ID 17420_a014_a01400764

3.7 Later alterations

In preparation for the Sydney Olympics, the NSW State Government undertook studies to facilitate the use of public transport by spectators. Penrith, as a Station providing access to rowing events at the Sydney International Regatta Centre on Penrith Lakes, was identified for renewal. The 1955 footbridge was removed and replaced with the current configuration of lifts, stairs and concourse in time for the 2000 Olympics. The extension on the south eastern corner of Platform 3 Heritage Building was opened up on the western and eastern sides to create a covered ticketing area, with ticket counter windows through into the main Station building.

Since then there has been no large scale alterations to the Station.

4.0 Physical Description

4.1 Introduction

This section provides a physical description of the Station to provide an understanding of the physical elements that contribute to the Station's State significance as well as surrounding heritage items.

4.2 Penrith Railway Station

The Station is located in the suburb of Penrith, Sydney, NSW, on the Main Western line. It is served by Sydney Trains T1 Western Line services and NSW TrainLink Blue Mountains Line, Central West XPT and Outback Xplorer services. It is located at a distance of 55 km from Central Station. The railway line runs roughly east-west through the Station, which is bound to the north by a commuter car park and development land and Belmore Street (Great Western Highway) to the south. The Station is within the Penrith Local Government Area, and is located in the parish of Castlereagh in the County of Cumberland. The location of the Station is indicated in Figure 1.

4.2.1 General Overview

The Station consists of one wayside platform and an island platform serving three tracks, with a fourth through track not being serviced by a platform. The platforms are numbered from one in the north to three in the south. There are buildings on each of the platforms, as described below. The Station can currently be accessed via stairs from the north, where a modern commuter carpark is located or Platform 3 from Belmore Street (Great Western Highway). Stairs and a lift are provided on Platform 3 to provide access to the concourse and Platform 1/2. A bus interchange has been created between Belmore Street and the Station (Plate 1, Plate 2), with a median strip of planted vegetation. Within the median strip, now separated from the Station by the bus interchange is the former Station Master's Residence. Across Belmore Street from the Station is located the Penrith Westfield's shopping precinct and government offices. Further at grade commuter car parking is provided to the west and east of the Station.

The Station is comprised of the following components, which are described individually below: Platform 3 Station Building, Platform 1/2 Station Building, Existing Pedestrian Footbridge (including toilets, customer luggage room and concessional spaces located on Platform 3 under the Footbridge) and Canopies, Water Column and Filler Spout, Water Tank, Turntable, Signal Box, Station Master's Residence and movable items. The heritage significance of these components is outlined in Table 4.

Plate 1 **Southern plaza/bus interchange from Belmore Street. View north.**

Plate 2 **Southern plaza/bus interchange from Station entrance. View east. Note Station Master's Residence behind truck.**

4.2.2 Platform 3 Heritage Building

The building on Platform 3 incorporates the original 1863 Station building. Constructed of face brick, with a corrugated iron roof, the building has been painted in russet, with cream detailing (Plate 3, Plate 4, Plate 5, Plate 6). The colour scheme follows on from a paint conservation report prepared in advance of the construction of the current footbridge (Donald Ellsmore Pty Ltd, 1999). The building is approached from the bus interchange and the only portion accessible to the public is the 1895 extension on the south eastern corner, which is open at the western and eastern ends to allow access to the ticketing windows, herein referred to as the Platform 3 Heritage

Building Foyer (Plate 7, Plate 8, Plate 9). The 1999 upgrade has removed the heritage fabric to a large degree, the floor has been tiled and the walls and (lowered) ceilings lined with modern downlights. A decorative column, inserted during the 1895 alterations to the space and stub wall section preserved. The windows on the southern façade appear to be original or early fabric, but the westernmost two windows have been affected by white ants.

The presentation of the Building to the Platform has been cluttered by the inappropriate placement of platform furniture in front of openings (Plate 10). The awning on the Platform (northern) side of the Building is supported on steel posts (Plate 5). This replacement awning was installed during the electrification of the line in 1956.

The remainder of the Platform 3 Station Building is used for rail operations purposes and contains a Customer Service Manager's Office, Communications Room, Ticketing/Booking Office, Male toilet/lockers, Control Room, Sign-on Room Meals Rooms, female toilet/lockers and Store room. The majority of these spaces have undergone significant modification to the fabric – with the ceilings being lowered and doors opened between connecting rooms (Plate 11). The original ceiling is retained in the Control Room, as shown in Plate 12.

Plate 3 **Platform 3 Station Building from the Southern Plaza/bus interchange. View north west.**

Plate 4 **Platform 3 Station Building eastern elevation. View west.**

Plate 5 **Platform 3 Station Building from Platform 3. View south-south east.**

Plate 6 **Platform 3 Station Building western elevation. View east.**

Plate 7 **Platform 3 Heritage Building Foyer. View east.**

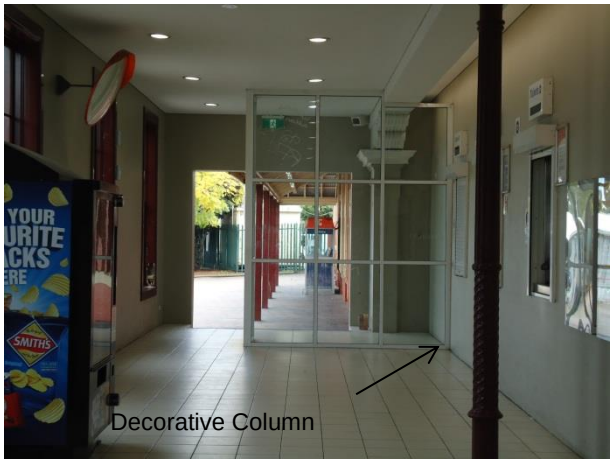


Plate 8 **Platform 3 Heritage Building Foyer. View west.**

Plate 9 **Platform 3 Heritage Building Foyer detail showing 1895 feature stub wall. View north.**

Plate 10 **Platform 3 Station Building indicating poor placement of platform furniture in front of openings.**

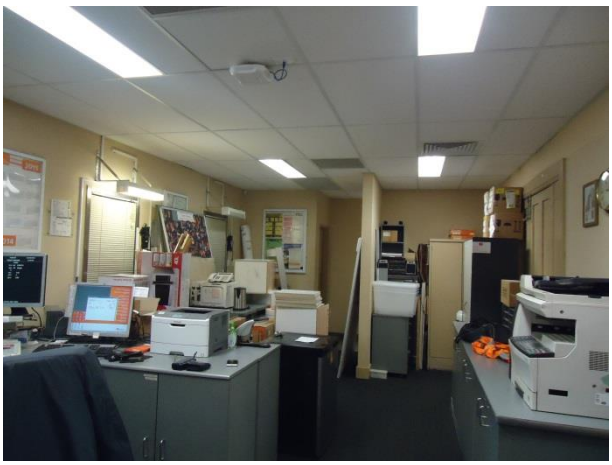


Plate 11 **Indicative interior of Platform 3 Station Building showing modifications.**

Plate 12 **Original ceiling in Control Room Platform 3 Station Building.**

4.2.3 Platform 1/2 Station Building

The Station building on Platform 1/2 sits opposite the Platform 3 Heritage Building. It has been classified by Sydney Trains as a third class type 4 building. The original section of the Building is centrally located, with later additions added to each end. Constructed of brick, the building has a hipped corrugated iron roof with a historical awning extant on the southern (Platform 2) side covering the original central section of the Building (Plate 13, Plate 14, Plate 15). It is supported on decorative cast iron posts and brackets with a timber valance. A modern awning has been added to fill the gap between the historical awning and the modern glass canopy structure constructed in 1999 (refer to Section 4.2.5). The modern awning is cantilevered, supported by unsympathetic steel columns that obscure the eastern elevation of the Building (Plate 13). The eastern elevation is further cluttered by services connecting from the new canopy to the Building, CCTV and wayfinding signage. The northern (Platform 1) side also has a centrally located awning, although it dates to a later period, based on the materials.

The interior of the building has undergone numerous modifications to meet the evolving needs of the Station (Plate 16). Most recently, the centrally located room has been refurbished as a conference/meeting room with the adjacent room as a kitchen. The toilets located on the northern façade have also recently been upgraded.

Plate 13 **Platform 1/2 Station building eastern elevation. View west.**

Plate 14 **Platform 1/2 Station building showing original awning on Platform 2. View east.**

Plate 15 **Platform 1/2 Station building showing Platform 1 side. View east.**

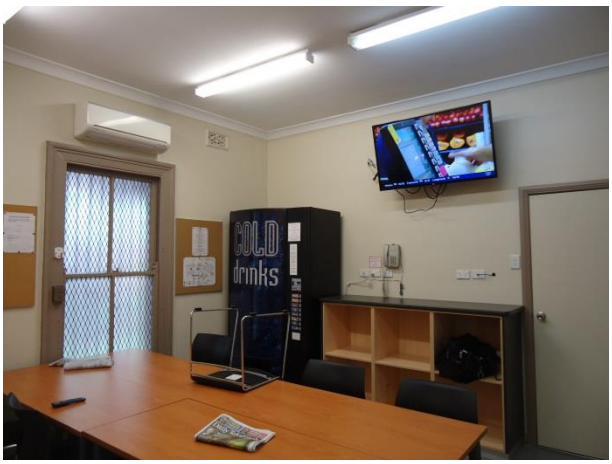


Plate 16 **Platform 1/2 Station building indicative interior.**

4.2.4 Existing Pedestrian Footbridge and Canopies (1999)

The Existing Pedestrian Footbridge (the Footbridge) is constructed of concrete and steel and completely replaced the earlier 1955 footbridge, which was in the same location. The Footbridge is focused on the Great Western Highway (i.e. Belmore Street) and the movement of passengers from the commercial area of the city centre and the bus interchange into and out of the Station (Plate 17), and also across the railway. The eastern alignment of the Footbridge allows for unpaid access across the railway, accessible via a lift and stairs at either end. The Footbridge is separated through the middle with paid access to the station platforms from the western side,

The Footbridge provides stair and lift access from Platform 1/2 and Platform 3 via the existing paid concourse (Plate 18). The Station can be exited on the northern side, where the new commuter car park has been constructed, via a lift or stairs. The stairs have a tiered canopy and have been placed on the eastern side of the footbridge to create minimal visual interference with the historic structures to the west (Plate 19).

Within the footprint of the footbridge on Platform 3 in a separate building are two concessional spaces, currently leased to a news agency and food retailer (Plate 20). Also integrated within the footbridge is a mail room, customer luggage room , male, female and family accessible toilets and office space (Plate 21).

The concourse level of the footbridge is enclosed in glass to allow views of the Blue Mountains and heritage buildings to the west, although the view is somewhat obscured by the catwalk and associated hand rail (Plate 22, Plate 23). Views to the east and the water tank, small signal box and water column are completely obscured by the placement of signage. The roof of the structure has a curved form and is angled towards the west to create an observation deck for the Blue Mountains (Plate 17).

Extending from the footbridge on each platform are canopies, which cover the gap between the footbridge and the awnings associated with the historic platform buildings (Plate 24, Plate 25, Plate 26). These are supported on steel columns connected to concrete plinths, which extend to about half a metre in height. Around the plinths seating, vending machines, signage, disability access ramp boxes and other items have been placed. This creates a cluttered space that obscures the heritage building and detracts from the historical significance of the Station (Plate 25). The central section of the roof is covered with corrugation iron with the awnings being of glass. The canopy extends into the entry plaza and provides cover for the ticket barriers on the Belmore Street entrance.

Plate 17 **Station entrance and concourse façade. View north east.**

Plate 18 **Platform 3 stairs to concourse.**

Plate 19 **Northern existing stairs showing tiered canopy. View north west.**

Plate 20 **Concessional spaces under the Existing Pedestrian Footbridge.**

Plate 21 **Indicative of mailroom and customer luggage room within existing Pedestrian Footbridge.**

Plate 22 **Existing Pedestrian Footbridge concourse.**

Plate 23 **View west towards the Blue Mountains and across heritage buildings from the Existing Pedestrian Footbridge concourse.**

Plate 24 **Existing Pedestrian Footbridge, view west from Platform 3.**

Plate 25 **Platform 1/2 showing canopy.**

Plate 26 **View of Existing Pedestrian Footbridge and canopy from Platform 1.**

4.2.5 Water Column and Filler Spout (1956)

A water column and filler spout are located on the Up (Sydney/eastern) end of Platform 1/2 (Plate 27). The nine inch vertical cast iron pipe curves and discharges into a trough, which was operated by a man standing on the surrounding wooden platform. The platform is accessed via a ladder attached to the western side.

4.2.6 Water Tank (1921)

The water tank is located approximately 15 metres from the Up (Sydney/eastern) end of Platform 3. The tank, with a capacity of 20,000 gallons, is elevated on steel posts with central nogging and two levels of steel cross bracing (Plate 28).

Plate 27 Water column and filler spout. View north.

Plate 28 Water tank. View south-south east.

4.2.7 Turntable (1896)

The turntable is located within the rail corridor and as there are to be no direct or indirect impacts, the item was not inspected for this Proposal. The following description is taken from the SHR listing:

> *It is a cast iron and steel manual operation turntable centrally pivoted with each end moving on a circular rail line. It supports one set of a standard gauge railway line on hardwood sleepers flanked by timber decking and timber balustrades along each side. The turntable is 60' long and revolves within a cement paved dish having sandstone edge walls. The end locking plates are stamped 'TT17'. At each end are the stub ends of 2 railway tracks.*
>
> (NSW Heritage Office, 1999)

4.2.8 Signal Box (1956)

The Signal Box is located on the Down (country/western) end of Platform 1/2. The Signal Box is of face brick with a polygonal footprint and tiled hipped roof. A series of windows on the top floor provide views up and down the tracks from the control room (Plate 29).

A second signal box is located adjacent to the through track on the northern side of the Station, opposite the water tank (Plate 30).

Plate 29 **Signal Box on Platform 1/2. View north west.**

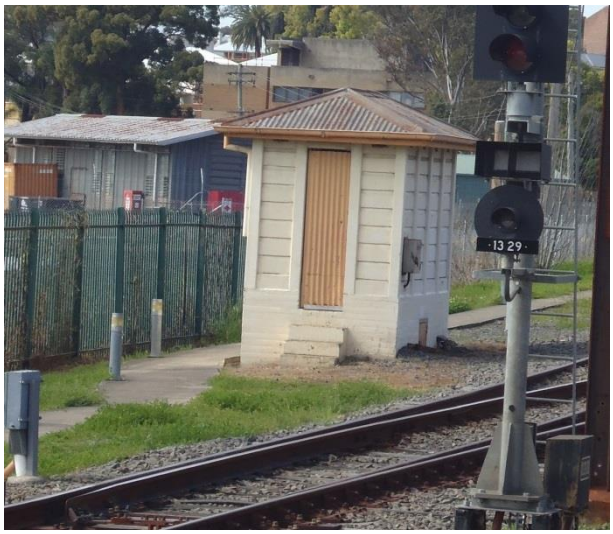


Plate 30 **Weatherboard signal box.**

4.2.9 Station Master's Residence (1878)

The former Station Master's Residence has been separated from the Station by the construction of the bus interchange. The Residence is a rendered brick building of two-storeys, which addresses the Great Western Highway and is currently vacant (and fenced off). Sydney Trains is proposing to undertake some soil remediation works and are considering options for the use of the Residence for when the remediation has been completed, and any changes would be subject to a separate approval/s. The Proposal will not impact directly on the Residence, but will would have a minor impact and alter the view lines between the Station and the Residence, as shown in Plate 2.

4.2.10 Moveable Items

The SHR listing does not identify any movable heritage items. During the inspection, a set of scales was noted in the mail room within the modern footbridge on Platform 3. The style and condition of the scales suggest it dates from the 1980s at the earliest (Plate 31). The item is not considered to be of heritage significance and no recommendations are made regarding the future of this item.

Sydney Trains have additionally identified that the indicator boards were recently removed from Penrith Station and have been accessioned into the State Movable Collection managed by Transport Heritage NSW (Plate 32). It has been suggested that there is an opportunity that the indicator boards could be returned to the Station as part of the upgrade. This opportunity will be explored during the detailed design.

Plate 31 **Scales in Platform 3 customer luggage room.**

Plate 32 **Indicator boards (covered) in ticketing area in 2009. Source: Sydney Trains.**

4.2.11 Archaeological Potential

A review of the survey field books (State Records Series 15243 item 176 and 209) for the railway line through Penrith was undertaken to determine whether there were early Woodriffe grant in proximity to the line. The initial survey of the line between Parramatta and Penrith took place in 1858. While the survey recorded numerous buildings in proximity to the line through Parramatta, it did not identify any in the vicinity of the then proposed site of the Penrith Station (Figure 8). There are no indications that the Station was sited near pre-existing structures, the archaeological relics of which could be impacted by the proposal.

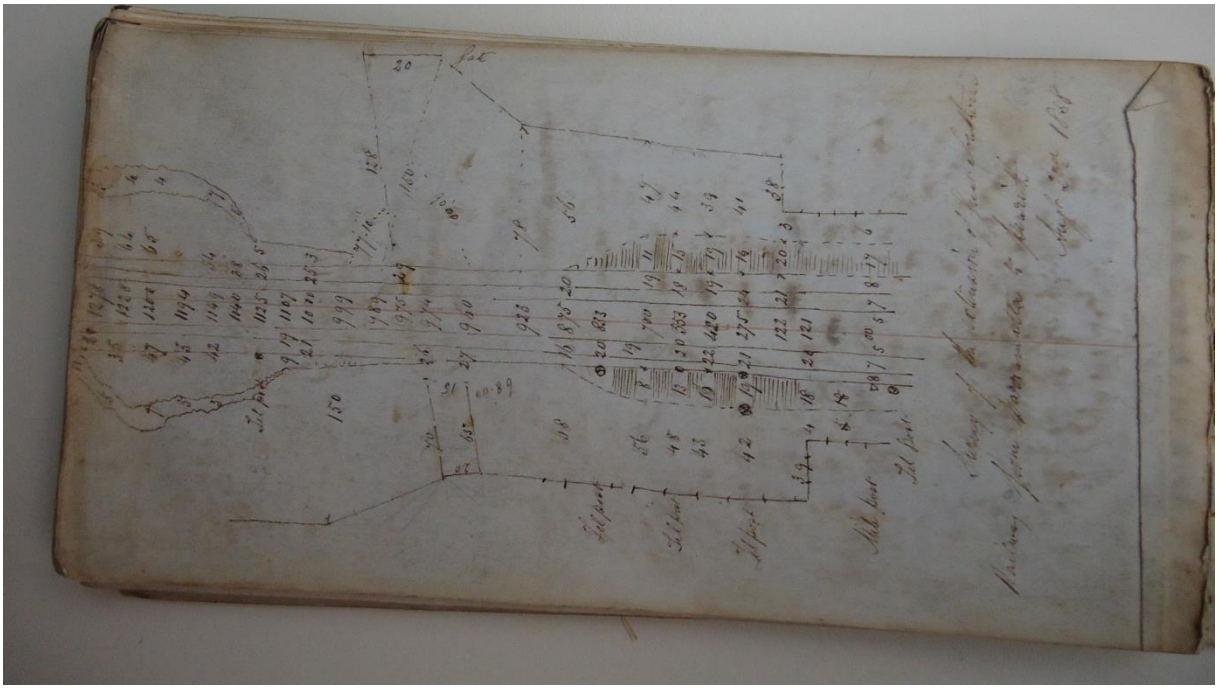


Figure 8 Excerpt from 'Survey field books: GWR working survey from Parramatta to Penrith' Held by State Records. Series 15243, item 176

An examination of historic plans and an aerial photograph from 1943 indicates several areas of archaeological sensitivity. While the Conservation Strategy provides conservation policies around archaeology, the document contained no detailed assessment of the archaeological potential of the site and does not provide archaeological sensitivity mapping. As the ground disturbance associated with the Proposal will mainly be in areas already disturbed by previous works, being the construction of the Existing Pedestrian Footbridge, and in the bus interchange area, this assessment will focus on the bus interchange.

Three plans of the Penrith Station are available, with dates of 1912 (Figure 9), 1921 (Figure 10) and 1943 (Figure 11). The 1912 plan shows the Station Master's Residence (1878) with an unidentified structure to the north west. On the 1921 plan this structure is identified as the District Inspector's Office, which by 1943 had been extended and converted into the Regional Railways Manager's Residence. The Residence is fenced and also boasts a garage, separate "Lav" (lavatory) and water tank. To the north of the Residence is a weatherboard store. These structures are shown on the 1943 aerial as being set amongst grass. As the Regional Railways Manager's Residence is shown as being of weather board construction, it is considered likely that it was constructed on timber posts and the archaeological relics are likely to be reasonably ephemeral. It is unclear whether the lavatory was connected to the sewer, Penrith Station being connected in 1941, but if it pre-dated the sewer connection, a long-drop style lavatory could prove a rich source of archaeological deposits.

Also shown in the 1912 plan are a range of structures associated with the operation of the weighbridge. These are shown in the 1921 plan, but have been thinned from six to three buildings by the 1943 plan and aerial. Based on this comparison of plans, the archaeological sensitivity of the current bus interchange is shown on a current aerial in Figure 13.

In addition to the archaeological potential, a comparison of the 1943 aerial photograph in conjunction with the ecological report (Biosis Research Pty Ltd, 2015) provides an indication of the extent of remnant vegetation associated with the Station Master's Residence. The ecological report indicates that a pine tree (*Pinus* sp.) and a pepper tree (*Shinus ariera*) are likely to date from the establishment of the Station Master's Residence. The 1943 aerial does indicate trees in similar locations to the two trees in question and it is considered likely that the pine and pepper tree in question date to at least 1943 and are therefore associated with the Station Master's Residence.

1 – Station Master's Residence
2 – District Inspectors Office/ R.R. Manager's Residence
3 – Structures associated with the weighbridge

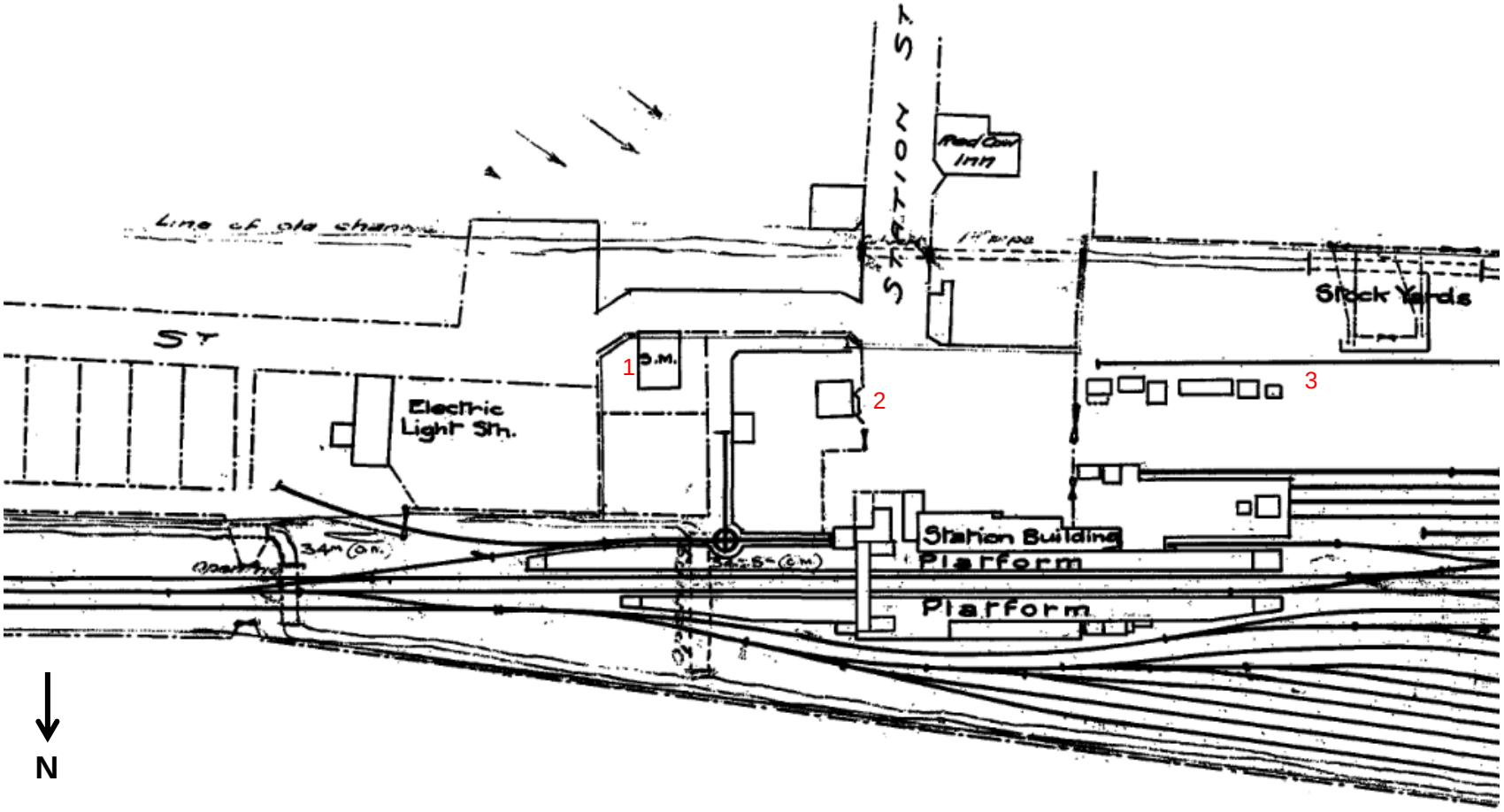


Figure 9 Excerpt from March 1912 plan "Penrith: Drainage in Station Yard". Source: Sydney Trains Plan Room CV0070185

1 – Station Master's Residence
2 – District Inspectors Office/ R.R. Manager's Residence
3 – Structures associated with the weighbridge

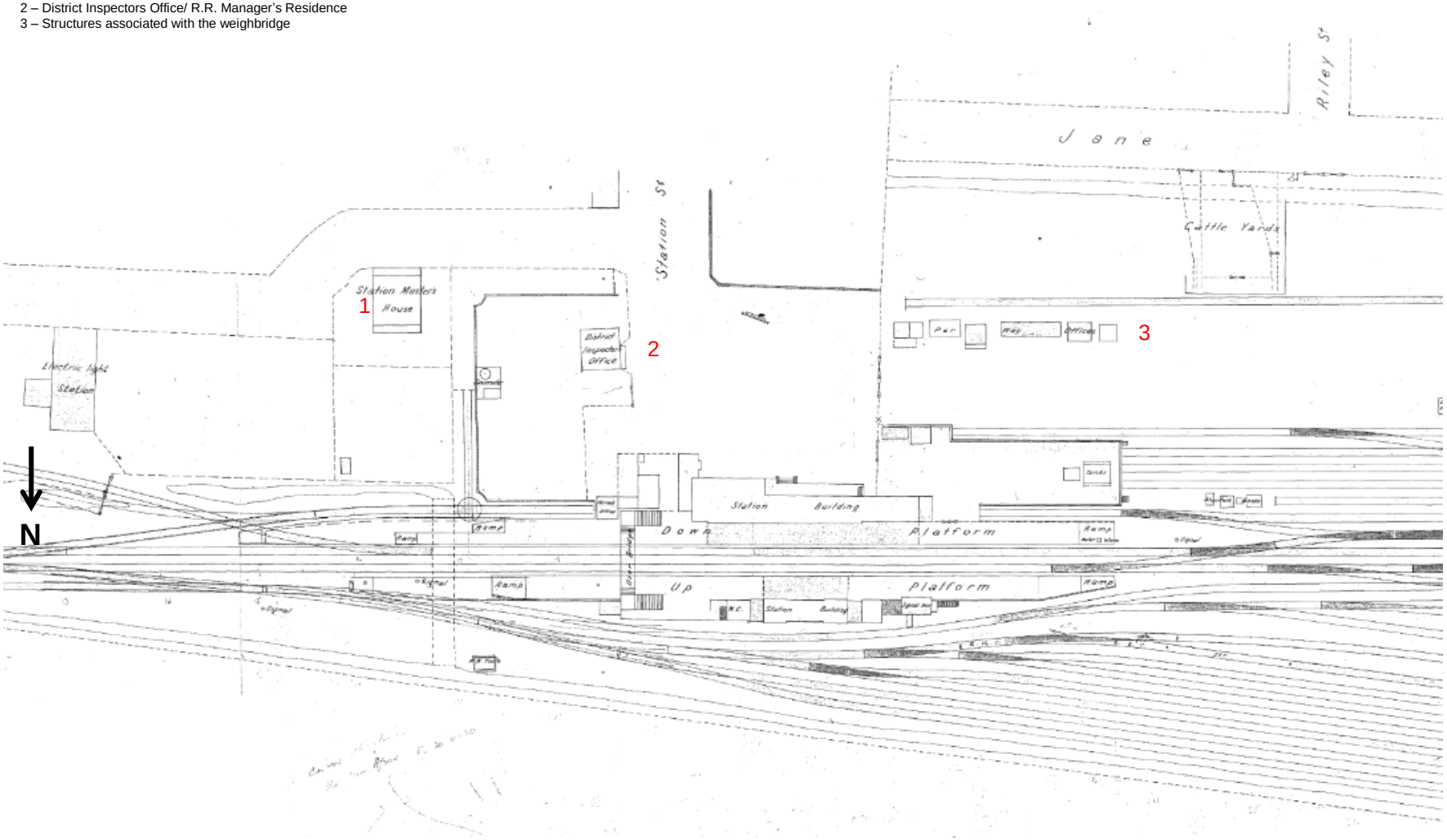


Figure 10 Excerpt from January 1921 plan "Penrith". Source: Sydney Trains Plan Room CV0055739

1 – Station Master's Residence
2 – District Inspectors Office/ R.R. Manager's Residence
3 – Structures associated with the weighbridge
4 – R.R. Manager's Residence Lavatory

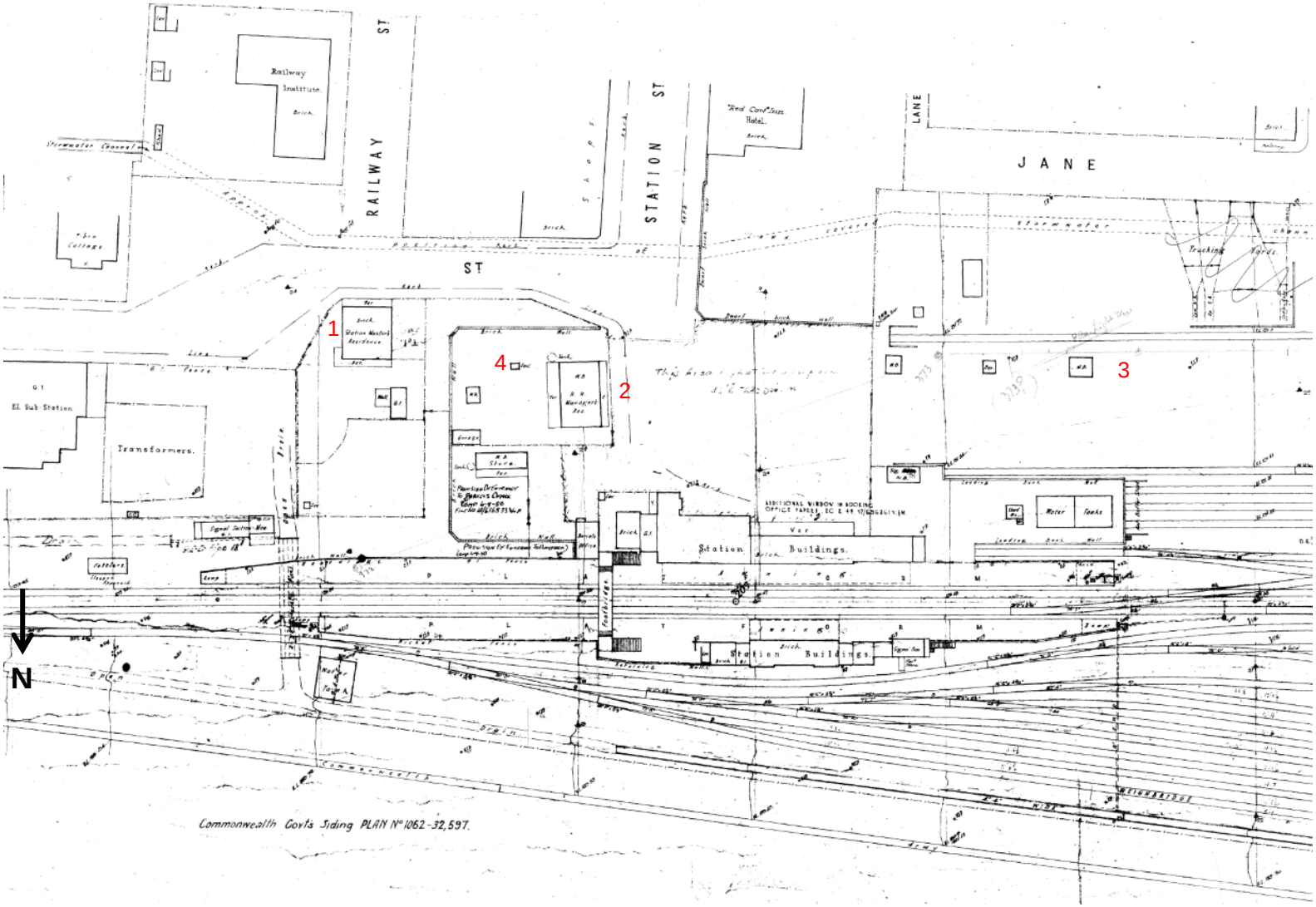


Figure 11 Excerpt from December 1943 plan "Penrith: Detail survey of station arrangements". Source: Sydney Trains Plan Room CV0236654

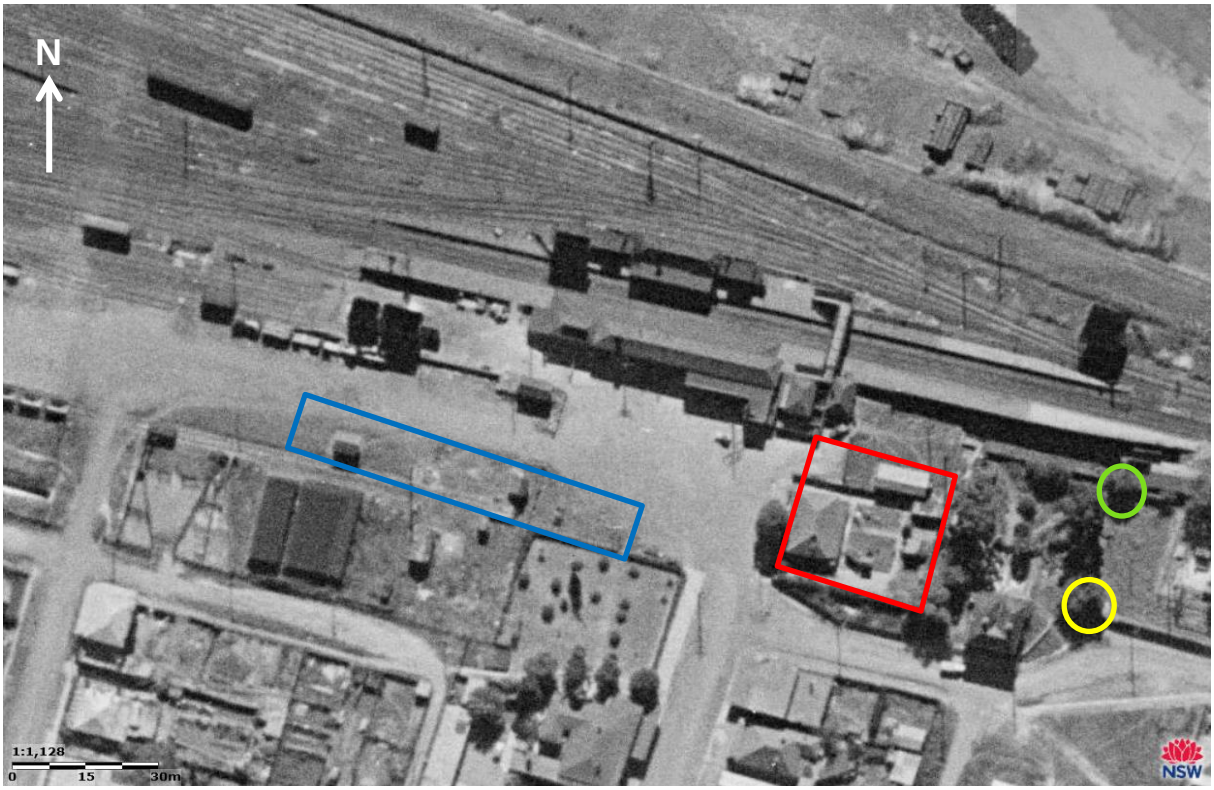


Figure 12 Excerpt of the 1943 Sydney aerial showing Penrith Railway Station. Source: NSW Government.

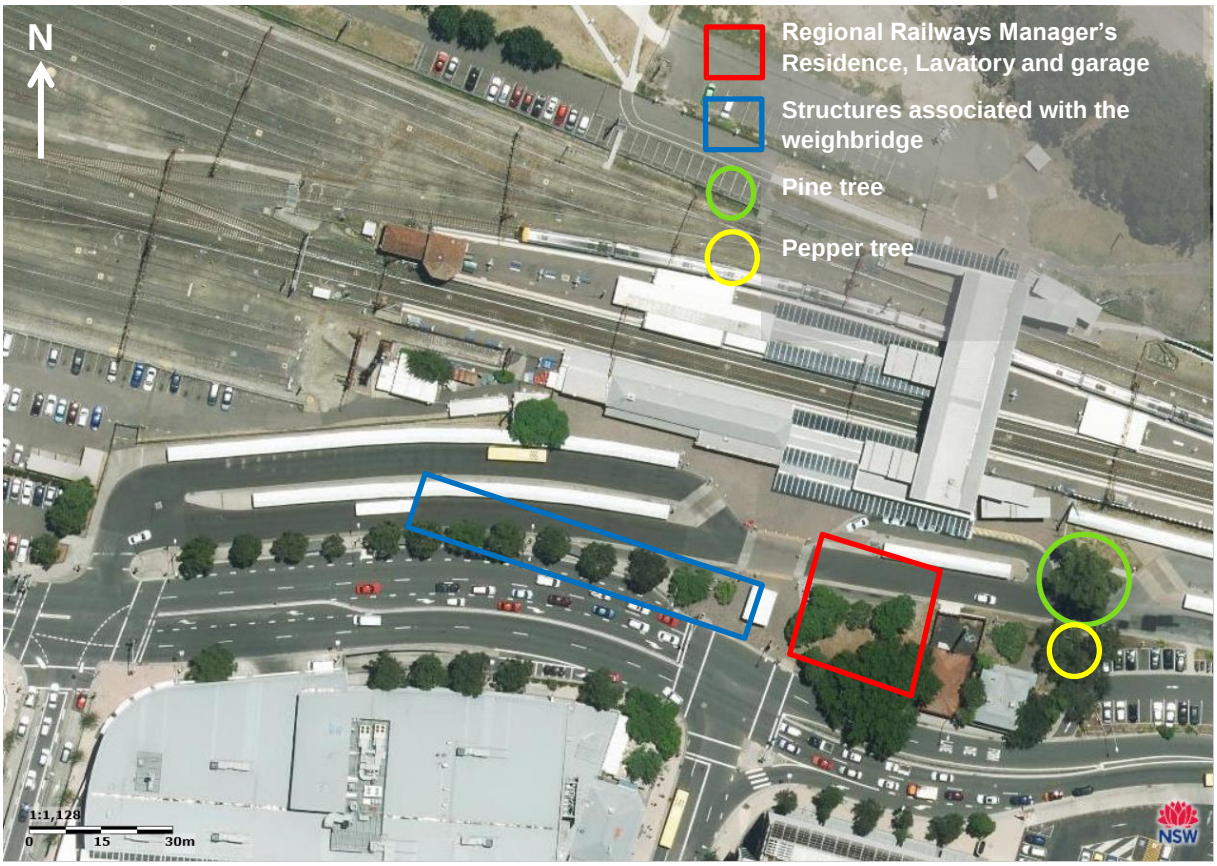


Figure 13 Areas of archaeological sensitivity. Base map source: NSW Government.

4.2.12 Grading of Significant Elements

As different elements of an item can have a different contribution to its heritage significance, it is sometimes useful to define which elements are of significance and which may detract from its significance. The NSW Heritage Division (NSW Heritage Office, 2001:11) use the grading criteria provided in Table 3.

Table 3 Grading of significance criteria (from NSW Heritage Office, 2001:11)

Grading	Justification	Status
Exceptional	Rare or outstanding element directly contributing to an item's local and State significance.	Fulfils criteria for local or State listing.
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.
Intrusive	Damaging to the item's heritage significance	Does not fulfil criteria for local or State listing.

An examination of the fabric of the Penrith Station, in light of the significance assessment above, has graded the various elements of the Station. The results are provided in Table 4.

Table 4 Penrith Railway Station grading of fabric

Grading	Element meeting criteria
Exceptional	– Platform 1/2 building; – Platform 3 building; – Water Tank; – Water Column and Filler Spout; – Signal Box; – Station Master's Residence; – Turntable
High	– Nil
Moderate	– Nil
Little	– Nil
Intrusive	– Existing Pedestrian Footbridge and Canopies

4.3 Red Cow Hotel

The Red Cow Hotel is listed on the Penrith LEP as an item of local heritage significance located on the western corner of the Great Western Highway and Station Street. The heritage component of the establishment is a two storey structure constructed of red brick. It is surrounded on the northern and eastern sides by a balcony and verandah supported on timber posts on concrete plinths. The Hotel is set back from the Great Western Highway by approximately 13 metres. This area is used as a beer garden, containing semi-permanent canopies, with the northern boundary planted with mature trees. There are limited views between the Red Cow and the Penrith Railway Station, which is located approximately 70 metres to the north. The sight lines are obscured by the previously mentioned beer garden, the Highway, bus interchange and mature vegetation within the curtilage of the Hotel and the bus interchange.

4.4 TAFE Building

The TAFE campus contains three blocks of institutional style buildings. The northern-most of these appears to have been constructed in the late 1980s or early 1990s. The frontage of the TAFE to the Great Western Highway is comprised of a 40 metre wide carpark, with the northern boundary being planted with maturing trees. There are no view lines between the Penrith Railway Station and the TAFE due to the vegetation and parked cars.

5.0 Significance Assessment

5.1 Introduction

In order to understand how a development will impact on a heritage item it is essential to understand why an item is significant. An assessment of significance is undertaken to explain why a particular item is important and to enable the appropriate site management and curtilage to be determined. Cultural significance is defined in *The Australia ICOMOS Charter for Places of Cultural Significance 2013* (the Australian ICOMOS Burra Charter, 2013) as meaning "aesthetic, historic, scientific, social or spiritual value for past, present or future generations" (Article 1.2). Cultural significance may be derived from a place's fabric, association with a person or event, or for its research potential. The significance of a place is not fixed for all time, and what is of significance to us now may change as similar items are located, more historical research is undertaken and community tastes change.

The process of linking this assessment with an item's historical context has been developed through the NSW Heritage Management System and is outlined in the guideline *Assessing Heritage Significance*, part of the NSW Heritage Manual (Heritage Branch, Department of Planning). The *Assessing Heritage Significance* guidelines establish seven evaluation criteria (which reflect four categories of significance and whether a place is rare or representative) under which a place can be evaluated in the context of State or local historical themes. Similarly, a heritage item can be significant at a local level (i.e. to the people living in the vicinity of the site), at a State level (i.e. to all people living within NSW) or be significant to the country as a whole and be of National or Commonwealth significance.

In accordance with in the guideline *Assessing Heritage Significance* (NSW Heritage Office, 2001), an item will be considered to be of State significance if it meets two or more criteria at a State level or local heritage significance if it meets one or more of the criteria outlined in Table 5. The Heritage Council require the summation of the significance assessment into a succinct paragraph, known as a Statement of Significance. The Statement of Significance is the foundation for future management and impact assessment.

Table 5 Significance assessment criteria

Criterion	Inclusions/Exclusions
Criterion (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).*	The site must show evidence of significant human activity or maintains or shows the continuity of historical process or activity. An item is excluded if it has been so altered that it can no longer provide evidence of association.
Criterion (b) *– an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local to area).*	The site must show evidence of significant human occupation. An item is excluded if it has been so altered that it can no longer provide evidence of association.
Criterion (c) *– an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).*	An item can be excluded on the grounds that it has lost its design or technical integrity or its landmark qualities have been more than temporarily degraded.
Criterion (d) *– an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.*	This criterion does not cover importance for reasons of amenity or retention in preference to proposed alternative.
Criterion (e) *– an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area). Significance under this criterion must have the potential to yield new or further substantial information.*	Under the guideline, an item can be excluded if the information would be irrelevant or only contains information available in other sources.
Criterion (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).*	An item is excluded if it is not rare or if it is numerous, but under threat. The item must demonstrate a process, custom or other human activity that is in danger of being lost, is the only example of its type or demonstrates designs or techniques of interest.
Criterion (g) *– an item is important in demonstrating the principal characteristics of a class of NSW's (or local area's):* - *Cultural or natural places; or* - *Cultural or natural environments.*	An item is excluded under this criterion if it is a poor example or has lost the range of characteristics of a type.

5.2 Penrith Railway Station

The heritage significance of the Station has been assessed against the criteria in the SHR and Sydney Trains S170 Heritage Register listings. The assessed significance is provided in Table 6 provides the significance assessment from the SHR listing.

Table 6 Significance assessment – Penrith Railway Station Group

Significance Criteria	Application of Criteria
Historical significance SHR criteria (a)	Penrith Station Group is of historical significance as an early railway site with buildings dating from the 1860s and as a former locomotive depot for a number of years during the extension of the railway line over the Blue Mountains. The Signal Box is historically important as evidence of Penrith Station's role in providing assistance to the management of the increased railway traffic between Sydney and the Blue Mountains since 1956. The Station Master's (SM) residence is of historical significance as it was built for the accommodation of the Penrith Station Master in 1878 when the Station was instrumental in the changing of the locomotives of the trains to cross the Blue Mountains as well as pushing trains towards Sydney. The residence had served successive Station Master's for many years and has been used for various community operations until the early 2000s. The historical visual link between the Station and the residence is important, which remains relatively intact today with some interruption by the adjoining ancillary building to the west. The water tank, filler spout and water column are important surviving steam locomotive supporting infrastructure dating from 1921, which denote the close affiliation Penrith Station has with steam train operations over the Blue Mountains, an association that started in 1863. Apart from the Station buildings, the turntable is now the oldest item of railway structure remaining at Penrith dating from 1896. It is also the last item remaining from the former Penrith locomotive depot.
Historical association significance SHR criteria (b)	Penrith Station was closely associated with Driver John Heron and The Heron train was a daily commuter train to and from Sydney that was named after him. This association is considered to be of secondary significance.
Aesthetic significance SHR criteria (c)	The Station buildings are good examples of second class and third class Station buildings despite the changes made over the years. They feature typical design characteristics of such roadside railway Station buildings in the 1860s and 1890s, such as a large central brick building flanked by attached wing, simple hip roofs with multiple brick chimneys, a symmetrical layout and platform awning supported on cast iron columns with decorative bracketing. The signal box is of aesthetic significance as a dominant feature within the Station's setting presenting a design more like an airport control tower than a signal box. It is an unusual example of post World War II period Functionalist style railway signal boxes due to its polygonal signal tower and flat roofed stepped down wing featuring multi-paned glazing to Up, Down and rail side elevations of the control room of the tower, and a polygonal hipped and tiled roof with wide eaves. Penrith SM's residence is of aesthetic significance as a landmark within the Penrith Station precinct and the historic town of Penrith. It is a simply detailed symmetrical building demonstrating the construction techniques of the late 19th Century 'type 4' railway residences, where aesthetic qualities and embellishments were restricted due to a balance between status and financial restraint. The water tank, filler spout and water column are engineered structures of the steam industrial age that possess a robust functional aesthetic well suited to railway environs. The turntable is an excellent example of a 19th Century cast iron turntable demonstrating technology of such structures at the time.
Social significance SHR criteria (d)	The place has the potential to contribute to the local community's sense of place and can provide a connection to the local community's history.

Significance Criteria	Application of Criteria
Technical/Research significance SHR criteria (e)	The signal box has a moderate degree of technical research potential as it retains its original communication and control desk, CTC panel and staff signalling equipment. These features, however, are found at many other signal boxes in the railway network. Penrith SM's residence has research potential in providing physical evidence on the construction techniques of a two-storey type 4 Station Master's residence built in the late 19th century. The water tank, filler spout and water column are of technical and research significance demonstrating the equipment used in providing large quantities of water very quickly to steam locomotives. The turntable is of technical and research potential demonstrating the equipment used in steam locomotive operations.
Rarity SHR criteria (f)	Penrith Station Group features a number of rare items including a filler spout and water column, which are one of a few such facilities remaining in operating condition on the system. The signal box is one of a series of five similar signal boxes built in the Functionalist style, the others being Granville, Clyde, Blacktown and Auburn. There are many good examples of Inter-War Functionalist style signal boxes in the railway network. Penrith SM's residence is 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. However, better examples exist at Lithgow and other regional locations. Penrith turntable is one of a decreasing number of turntables on the system, and rare in the metropolitan network.
Representativeness SHR criteria (g)	Penrith Station Group is a representative example of railway Station arrangements combining a range of buildings and structures dating from the 1860s, 1890s and post-war period to the present day including Victorian second class and third class roadside Station buildings, a signal box, water tower, water column and filler spout, footbridge and overhead booking office. The water tank is one of approximately 13 (2009) water tanks remaining in-situ in the Sydney metropolitan area, the others include Eveleigh and Cardiff although most are now unused. The signal box is representative of the style of signal box built on the Main Western Line after World War II. Penrith Station Master's residence is a representative example of a type 4 two-storey residences built in the late 19th Century demonstrating the balance between the status and financial restraint at the time. The turntable is a good example of similar types surviving in rural centres.

5.2.1 Statement of Significance

The following statement of significance is taken from the SHR listing (NSW Heritage Office, 1999):

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.

5.3 Other Heritage Items

There are no significance assessments available for the Red Cow Hotel or TAFE Building. It is assumed that the Red Cow Hotel is of historical significance, being constructed over 100 years ago and contributing to the development of the local area and aesthetic significance as a recognisable heritage item. It may also meet other significance criteria, however, it is outside the scope of this report to undertake a full significance assessment. The potential impacts of the Proposal are assessed against the assumed significance under these two criteria.

The significance of the TAFE Building is a little less clear. The site does not appear to contain heritage structures and may have been listed for its archaeological potential (criterion e), although no research has been undertaken to substantiate whether the site might contain archaeological relics or deposits, being outside the scope of this report. It may also have been listed for its social significance (criterion d) to the local community as an education institution. As with the Red Cow Hotel, it is outside the scope of this report to undertake a full significance assessment and the impacts of the Proposal are assessed against the assumed significance outlined above.

5.4 Discussion

The existing significance assessment, prepared in October 2010, captures the heritage significance of the Station and it is therefore unnecessary to undertake a reassessment. However, it is noted that the assessment under Criterion G (representativeness) refers to a footbridge and overhead booking office. The footbridge in question, constructed in the 1950s, was demolished to make way for the modern footbridge (1999). Reference to this element is therefore no longer relevant. The reference to the overhead booking office appears to be in error – there is no indication that Penrith was ever provided with an overhead booking office. The booking office has always been located within the Station Platform Buildings. It is considered that these two elements are not of relevance to the Station and are not addressed in the following assessment of impacts.

6.0 Proposal Outline

6.1 Introduction

The following sections provide a detailed description of the proposed works associated with the Proposal. Following on from this is an outline of the interpretation strategy, which has been identified as a means of mitigating some of the impacts, including removal of the footbridge. A detailed assessed of the potential impacts to heritage significance is then presented.

6.2 Proposal Drivers

Improving transport customer experience is the focus of the NSW Government transport initiatives. Transport interchanges, train Stations and commuter car parks are important gateways to the transport system and as such play a critical role in shaping the customer experience and perception of public transport.

The upgrades are designed to drive a stronger customer experience outcome, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres. The Proposal would also assist in responding to forecasted growth in the region and as such would support growth in commercial and residential development.

The specific objectives of the Penrith Station Upgrade are to:

- improve customer safety and enhance pedestrian and bus network links through the reconfiguration of the bus, taxi, kiss and ride and bicycle zones within the interchange
- provide a station with improved accessibility for all, including those with a disability, the ageing and parents/carers with prams by minimising conflict points and crowding points, and by improving modal separation to provide a safer interchange
- improve cross-corridor connections by creating a new paid concourse allowing for increased capacity for unpaid access across the existing pedestrian footbridge and new stairs
- improve customer experience and amenity through improved facilities including canopies for weather protection, a new Customer Information Window and Family Accessible Toilet, Passenger Information Display boards and new wayfinding in and around the station
- improve the integration of the station and interchange with its current and future urban context, and create a positive addition to the public domain.

The Proposal is also consistent with planning strategies in NSW, including *NSW 2021 –Making NSW Number One* (Department of Premier and Cabinet, 2011) and the *NSW Long Term Transport Master Plan* (TfNSW, 2012a).The Proposal would also ensure that Penrith Station would meet legislative requirements under the *Disability Standards for Accessible Public Transport 2002* (DSAPT).

6.3 Proposal Description and Heritage Impacts

6.3.1 Demolition

The Proposal proposes the demolition of the following elements, as shown on Drawings TAP-C4003-PE-AR-2051, TAP-C4003-PE-AR-2052 and TAP-C4003-PE-AR-2053:

- existing pedestrian footbridge to deck level. Demolition would include elements such as the roof, façade and two lifts.. The suspended concrete deck (floor) would be retained for use as an unpaid cross-corridor access;
- access stairs to the north and south of the Station, onto Platform 1/2 and Platform 3, including part of the associated canopies;
- female/male toilets, Family Accessible Toilet, customer luggage room and ticketing office and concessional spaces on Platform 3;
- lift shafts on Platform 1/2 and Platform 3;
- glazed canopies at the northern and southern Station entrance;
- ticket barriers and associated modern fencing in the southern Station entrance (to be relocated to the paid concourse);
- a free-standing canopy at the eastern end of Platform 1/2;

- removal of ticketing windows and glass screen in the Platform 3 Heritage Building Foyer;
- removal and relocation of platform seating; and
- removal of eight trees including a pine and pepper tree thought to be associated with the Station Master's Residence garden.

The demolition of these items will not impact on fabric of heritage significance. The ticketing windows and glass screen in the Platform 3 Heritage Building Foyer are modern and were probably inserted when the existing pedestrian footbridge was constructed in 1999. The removal of these items is not considered to constitute an adverse heritage impact.

Six of the trees proposed for removal are Jacaranda trees (*Jacaranda mimosifolia).* The 1943 aerial photograph (Figure 12) indicates these trees are located in what was the rear yard of the Regional Railways Manager's Residence. They are not evident in this photograph and appear to post-date the demolition of the residence and are probably associated with the construction of the bus interchange. The trees have no historical significance and their removal does not constitute a heritage impact.

The pine and pepper tree do seem to be present on the 1943 aerial and are considered to date from the establishment of the Station Master's Residence garden. The removal of these two trees is considered to be an adverse heritage impact. The removal of the pine tree is required as it located within the new lanes of the bus interchange and an alternate route is not possible due to the design constraints and requirements for the safe operation of buses. The pepper tree is located close to the bus lane and it may be possible to retain this tree and this has been included as a recommendation to be investigated during detailed design in Section 8.0.

6.3.2 Construction

The Proposal includes the construction of the following key structures and facilities:

- existing pedestrian footbridge retained for unpaid access across the railway and extended further south; with new glass façade to the west to allow for views of the Blue Mountains and heritage buildings;
- new stairs on both the northern and southern entrances of the pedestrian footbridge;
- new paid concourse accessible from the pedestrian footbridge with relocated ticket gates, new Customer Information Window and Cleaner's Store Room and Family Accessible Toilet on paid concourse (Drawing TAP C34003-PE-AR-2101.A.TB) and a Family Accessible Toilet and Customer Luggage Room on Platform 3 and stair to platforms;
- three replacement lifts to provide access to the platforms/interchange;
- new canopies for the existing footbridge and new stairs, lift landings, paid concourse, in addition to replacing platform canopies affected by works;
- insertion of solar photovoltaic cells on roof of unpaid concourse, as shown on Drawing C34003-PE-AR-2102.A.TB):
- infill canopy to match existing on Platform 1;
- new fencing along southern side of station including a section of glazed fencing along the Platform 3 heritage building extent;
- establishment of a new Bus Driver's Amenities Room and Customer Service Manager's Office in the existing Platform 3 heritage building;
- fit-out of two spaces within the Platform 3 Heritage Building to facilitate a change of use (see Drawing TAP-C34003-PE-AR-2053.A.TB):
    - current Station Manager's Office fit-out for use as a store;
    - current Ticket/Booking Office fit-out for use as a training room;
- re-grading and resurfacing of platform (as required)
- reconfiguration of the southern transport interchange which would involve:
    - upgraded bus interchange with reversed traffic flow to include set down, pick up and layover spaces for buses, and shelters for weather protection for customers;
    - relocated kiss and ride and taxi rank (with shelters) on Belmore Street;
    - landscaping, paving and lighting for the interchange and forecourt area;

- extension of the south-western car park with approximately 25 spaces (to offset some of the commuter parking removed for the long-term bus layover);
- provision for a bike shed on the south-western side of the interchange (as part of the Bike and Ride Initiative); and

- ancillary works including services diversion and/or relocation, alterations to traffic signals, Station power supply upgrade, minor drainage works, adjustments to fencing, lighting and seating, improvements to Station communication systems with new infrastructure (including lighting, CCTV cameras, Passenger Information Display boards and Opal card readers) and wayfinding signage.

The complete package of plans and renders, together with the proposed finishes, can be found in the attached supporting documentation.

6.3.2.1 Heritage Impact Discussion

The impact to heritage significance are discussed in more depth in Section 6.6, but are outlined here.

The construction of the southern entrance stairs to the pedestrian footbridge and bus interchange canopies will impose minor additional visual barriers between the former Station Master's Residence and the Station. This visual link has already been attenuated by the construction of the bus interchange, construction of the Communications Facility (located directly adjacent to the west of the Station Master's Residence) and the growth of a vegetation screen. The negative impact will be somewhat moderated by the additional views of the Station Master's Residence from the new paid concourse. The footprint of the stairs also sits within an area of archaeological sensitivity, as shown in Figure 13, as being the former location of a weatherboard structure first used as a District Inspectors Office and then the Regional Railways Manager's Residence.

The impacts to heritage significance associated with the proposed construction is discussed in more detail in Table 8 and Table 9, however in general, the Proposal will have limited impacts to the heritage significance of the Station and also has positive heritage outcomes.

The construction works within the Platform 3 Heritage Building Foyer to create a new Bus Driver's Amenities Room and Customer Service Manager's Office is unlikely to impact on fabric of heritage significance. The space has been significantly altered since its construction in 1880 as an extension of the original 1863 Platform Station Building. The alterations to the space can be seen through comparison of a plan from 1895 showing the open plan arrangement in use while it was a refreshment room (Figure 14) and changes approved in 1954 (Figure 15) compared with the existing layout (Figure 16). The two retained heritage elements, being the decorative cast iron column and the stub wall (Plate 7, Plate 8, Plate 9), will be retained within the refurbishment of this space.

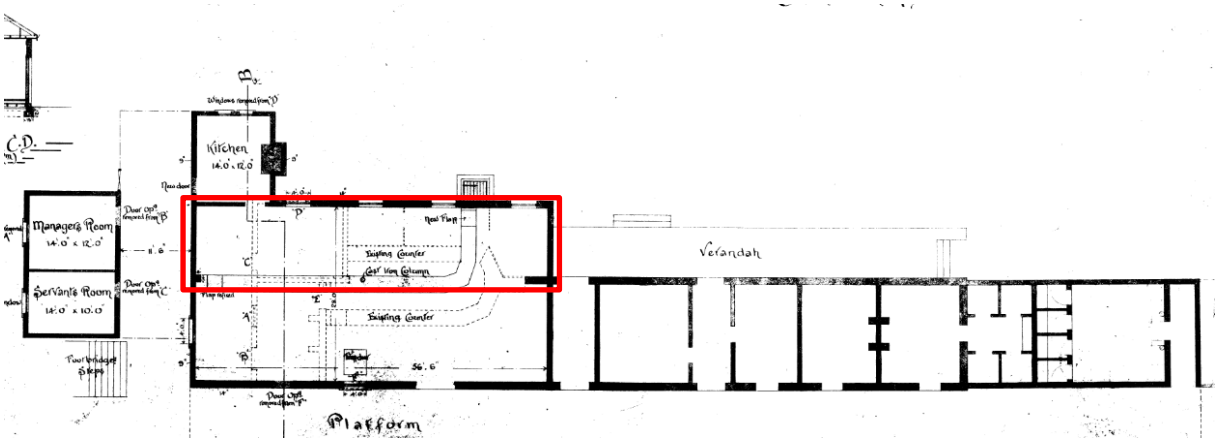


Figure 14 **Plan of Platform 3 Station Building with proposed layout of refreshment room. Approved 15 November 1895. Source: Sydney Trains Plan Room CV0053516. Approximate area of works highlighted. Note: Kitchen has since been demolished.**

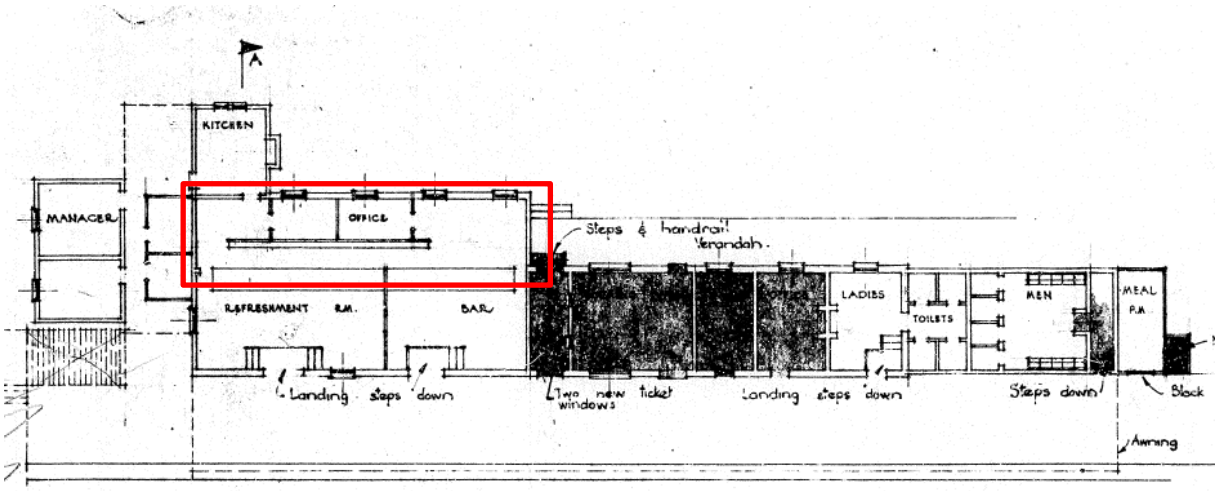


Figure 15 **Plan of Platform 3 Station Building with proposed layout to be implemented during electrification works. Approved 19 January 1954. Source: Sydney Trains Plan Room CV0053352. Approximate area of works highlighted. Note: Kitchen since has been demolished.**

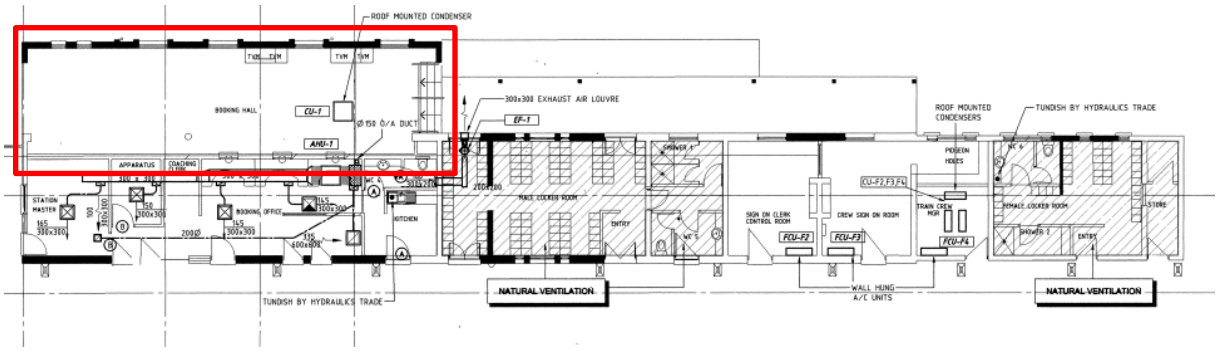


Figure 16 **Plan of Platform 3 Station Building showing existing layout. As built 22 December 2000. Source: Sydney Trains Plan Room CV0023836. Approximate area of works highlighted. Note: Kitchen has been demolished.**

6.3.3 Temporary Enabling Works

The existing pedestrian footbridge will be retained and provide customer access to the Station during construction of the new paid concourse. As such, there is no requirement for a temporary footbridge during construction. Therefore, temporary enabling works will consist of two crane pad locations located to the east of the existing pedestrian footbridge on the north and south of the railway line. Adjacent to the northern crane pad will be a temporary construction compound containing site offices, amenities, laydown and storage areas for materials.

An overlay of the proposed locations for the crane pads and temporary construction compound indicates the area to the north of the railway line was used as a stockpile area, while that to the south was within the garden associated with the Station Master's Residence (Figure 17). It is considered that ephemeral evidence of the garden layout and plantings is unlikely to have survived the construction of the modern landscaping and bus interchange. Neither area is considered to hold archaeological potential.

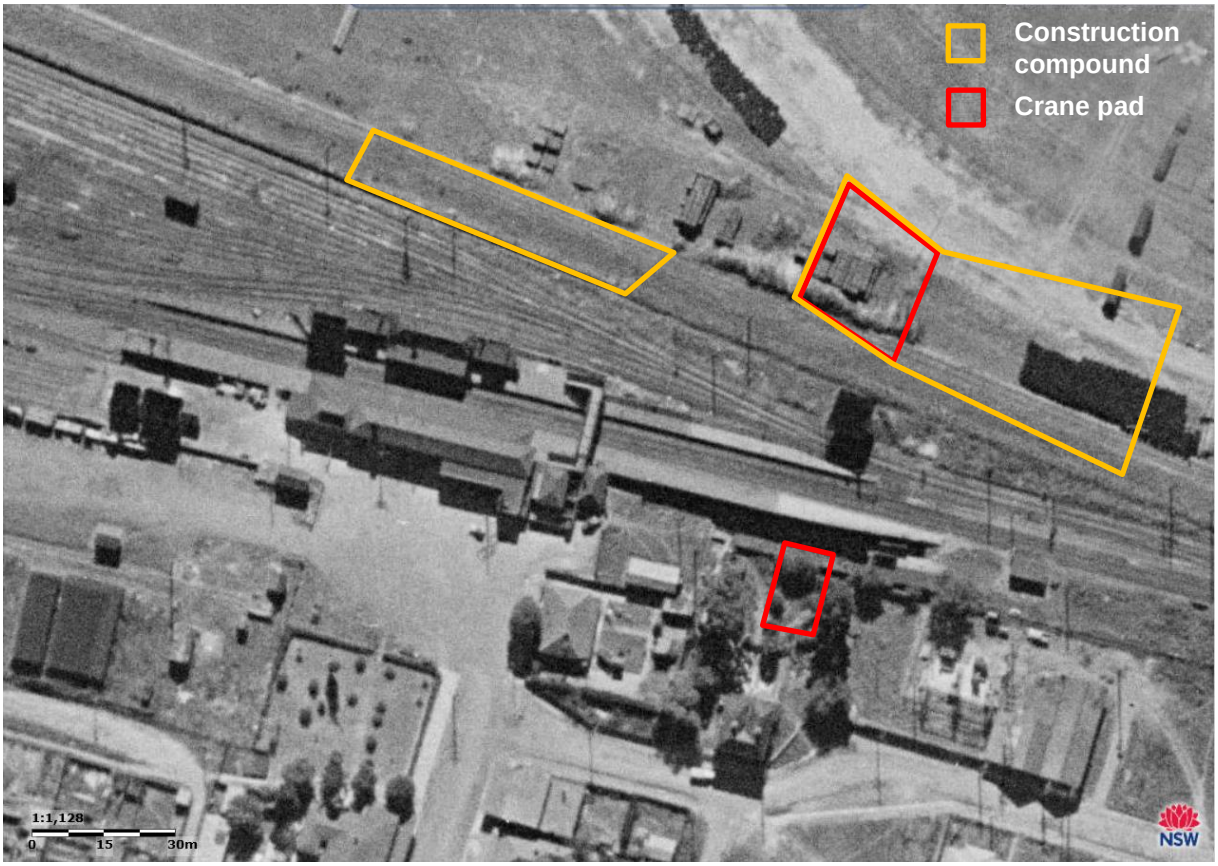


Figure 17 Overlay of approximate location of proposed temporary works on 1943 aerial. (Source: NSW Property and Information)

6.3.4 Services and Landscaping

The Proposal has been designed to avoid relocation of services where feasible, however, further investigation is required. It is possible that some services may require relocation, including existing electrical infrastructure or rail utilities. These would be assessed and, if necessary, a separate modification will be lodged.

The Proposal includes three trenches for the provision of electrical supply for lighting associated with the alterations to the bus interchange and canopies on the platforms. The proposed trenches have indicative dimensions of 900 mm deep and 600 mm wide. The locations of the proposed trenches are shown on Figure 18. The trenches on Platform 1/2 and 3 are considered unlikely to impact on archaeological deposits or relics.

The approximate location of the trench within the bus interchange area is shown on Figure 19, indicating that the trench has the potential to pass through a small structure located within the forecourt area shown on a 1943 plan as being the weighbridge operator/guard's room. As with the footing for the southern entrance stairs, the utilities route may also impact on the archaeological relics of a structure shown on a 1921 plan as being the District Inspectors Office and by 1943 as the Regional Railways Manager's Residence (refer Section 4.2.11).

The landscaping plan (Drawing TAP-C4003-PE-UD-2001.A.TB) indicates the proposed landscaping. It is proposed that the Southern Plaza will be paved in dry-pressed brick in a mix of historically appropriate colours.

The selection of proposed landscaping trees is sensitive to the heritage character of the Station and includes era appropriate Moreton Bay fig (*Ficus macrophlla),* jacaranda (*Jacaranda mimosifolia*) and Illawarra flame tree (*Brachychiton acerifolius*). It is considered that the proposed landscaping will not have a negative impact on the historic significance of the Station.

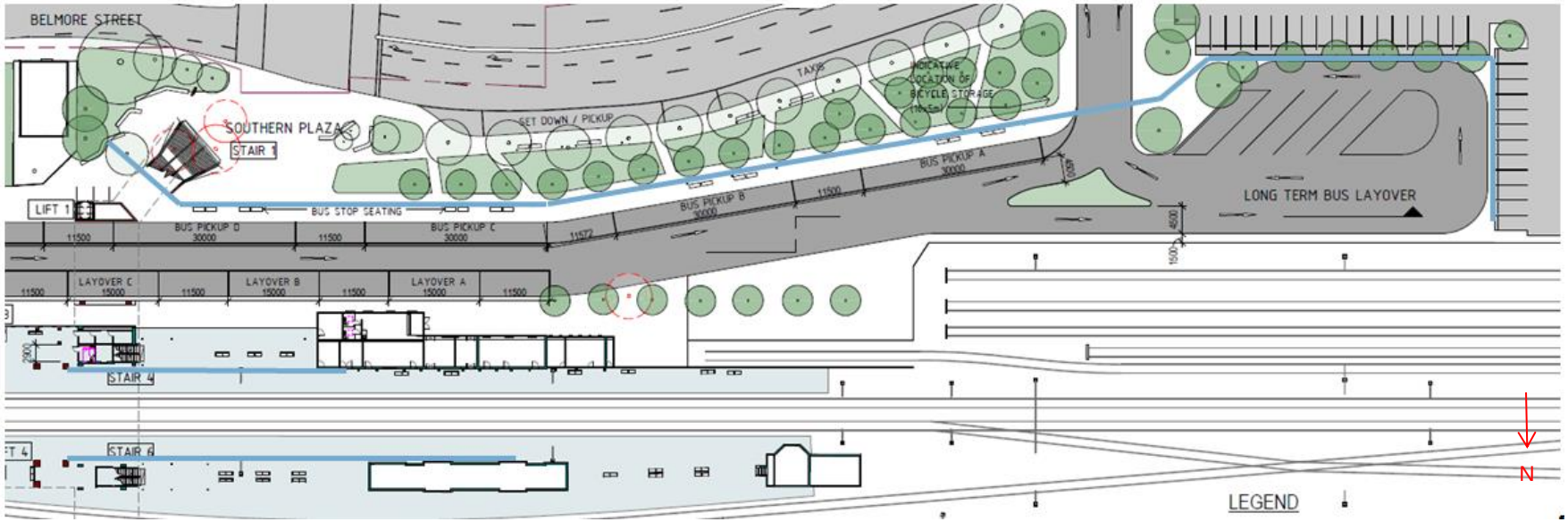


Figure 18 Indicative location of required utilities route. (Source Laing O'Rourke)

Figure 19 Approximate location of proposed utilities trench through bus interchange on 1943 aerial. Source: NSW Government.

6.4 Design Options

AECOM was engaged by TfNSW in 2013 to develop a concept design for a Station upgrade at Penrith that would improve modal separation, safety and accessibility in and around the Station and interchange. The design also aimed to better integrate the Station with the Penrith City Centre as well as meet key architectural, engineering and urban design objectives. The design development also accommodated the forecast Sydney Trains patronage growth (which is the estimated 2036 daily customer patronage + 15 per cent) and changing travel patterns.

An assessment of Penrith Station and surrounds was undertaken to identify key deficiencies and opportunities with regards to accessibility and customer experience. The findings of the assessment were presented in AECOM's *Penrith Station Precinct – Station Capacity and Interchange Upgrade Concept Plan Project* (AECOM, 2013). Identified needs included:

- modal separation between pedestrians, taxis and buses;
- accessible ticket facilities;
- improved facilities for future growth;
- pedestrian footbridge and concourse width to cater for future growth;
- additional signage to improve wayfinding;
- improved lighting and passive surveillance; and
- additional seating and shelter for interchange facilities.

Options for improving access, safety and amenity and Penrith Station were developed following a succession of workshops between various groups within TfNSW, Sydney Trains and the project design team. Consultation with other key stakeholders (including Penrith City Council, UrbanGrowth, BusWays, Blue Mountains Bus Company and Heritage Division, OEH) was also undertaken as part of the development of the concept design.

The *Penrith Station Precinct – Station Capacity and Interchange Upgrade Concept Plan Project* report considered three station options and three transport interchange options. The three interchange options comprised:

- **Option 1:** a new south-western transport interchange located approximately 160 metres from the existing station access (southern side), with vehicle access via a central intersection
- **Option 2**: a new central southern transport interchange with a reversed traffic flow so that buses would enter via a driveway from Belmore Street and exit via the Riley Street intersection
- **Option 3:** a new south-eastern transport interchange located approximately 100 metres from the existing station access (southern side) with vehicle access via a central intersection.

The station pedestrian footbridge options included the following:

- **Option A:** partial retention of the existing pedestrian footbridge as a paid concourse, with a new pedestrian footbridge
- **Option B:** complete demolition of the existing pedestrian footbridge, with a new pedestrian footbridge and paid concourse
- **Option C:** retention of the existing footbridge which would be extended into the interchange, along with a new paid concourse to the west

Each interchange option was paired with a station option to create a total of nine concept design options. Four options – Option 1A, 2A, 2B and 3C were progressed through to the next phase of analysis and workshops.

The four options were presented to an internal stakeholder workshop and assessed in a multi-criteria analysis that included consideration of factors such as customer experience, accessibility, engineering constraints, modal integration and cost to select a preferred option to be taken forward for refinement and further assessment.

6.4.1 Justification for the preferred option

Option 2A (partial retention of the pedestrian footbridge as a paid concourse along with a new pedestrian bridge, and a central southern transport interchange option) was selected as the preferred option as it provided the greatest benefits for customer experience and precinct/modal integration benefits.

The south-eastern and south-western transport interchange options (Options 1 and 3) did not support accessibility and customer experience objectives due to the distance from the station entrance, when compared with the central

interchange (Option 2). Option A for the station was considered to provide better precinct integration and customer experience when compared with the other station options (Options B and C).

However there were a number of design refinements from the preferred Option 2A that resulted from a review process that considered customer experience, heritage and urban design principles, cost and constructability in more detail. These key refinements included:

- full retention of the existing pedestrian bridge (and extension into the interchange) with a new paid concourse on the eastern side – the retention of the pedestrian footbridge had cost and constructability benefits, but unlike earlier concepts that proposed retention with a new paid concourse on the western side, locating the new paid concourse to the eastern side would have a more positive heritage outcome by removing the need to construct a new bridge structure close to existing station heritage buildings
- relocation of a Bus Driver's Amenities Room and Customer Service Manager's Office into the Platform 3 heritage building – this removed the need to install a new amenities building inside the heritage curtilage and promotes adaptive reuse.

A description of the Proposal (Option 2A including subsequent design refinements) is presented in Section 6.3.

6.4.2 Design refinements based on heritage considerations

In the *Architecture & Urban Design Report: Concept Design Stage,* GHD WestonWilliamson provide the following design intent with regard to the historic heritage significance of the Station:

> *The heritage approach to the upgrade of Penrith Station, at its most fundamental level is to remove the late twentieth century clutter and complexity from the site, as far as is possible, and provide new simple self-contained forms for the concourse and stairs that do not compete with the much smaller and finely scaled heritage buildings. There remains a requirement to provide covered protection to the platform areas and this, by necessity, will continue to abut the heritage buildings. However, the removal of other associated structures and clutter, including the intricate design of the canopies will provide a cleaner, lighter and more traditionally characteristic form along the platforms.*
>
> (GHD WestonWilliamson, 2015:18)

During the design process a number of alterations and refinements were made. Two of these have been mentioned in Section 6.4.1, being the relocation of the paid concourse to the eastern side of the existing pedestrian bridge away from the heritage elements and the integration of the Bus Driver's Amenities Room and Customer Service Manager's Office into the Platform 3 Heritage Building. Other refinements to reduce the heritage impacts included:

- Removal of some bus shelters to ensure views of the Platform 3 Heritage Building are retained within the Plaza;
- Locating the proposed bicycle shed to a location on the south-western side of the bus interchange to reduce visual clutter;
- Rationalisation of service connections between the modern canopy and the eastern elevation of the Platform 1/2 Heritage Building (refer to Figure 20);
- Removal of insensitively located structural support on the eastern elevation of the Platform 1/2 Heritage Building; and
- Relocation of seating in front of the Platform 3 Heritage Building, which currently obscures windows and doors.

Figure 20 Indicative elements of clutter to be removed, relocated or consolidated on Platform 1/2. Source: GHD WestonWilliamson, 2015:30

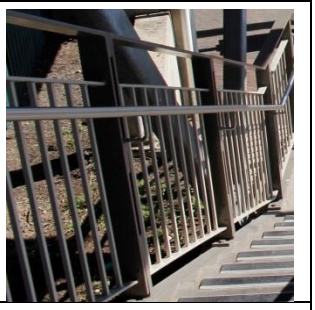
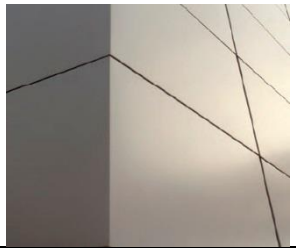
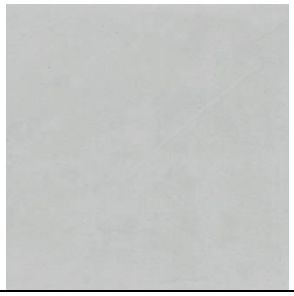
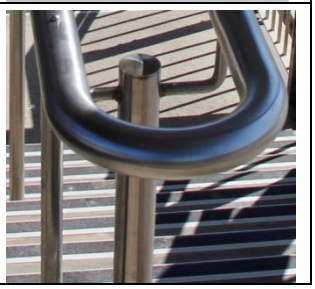
6.5 Materials and Finishes

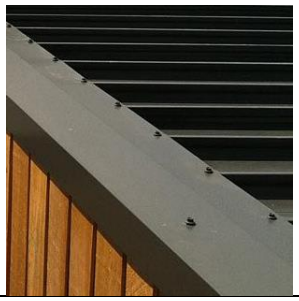
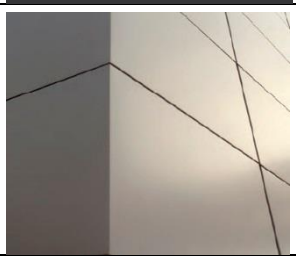
The indicative materials and finishes are described below, but will be subject to review as part of the detailed design process:

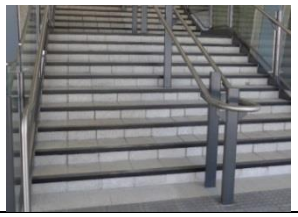
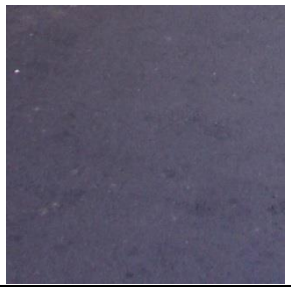
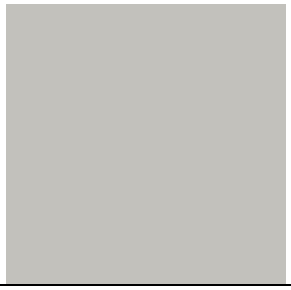
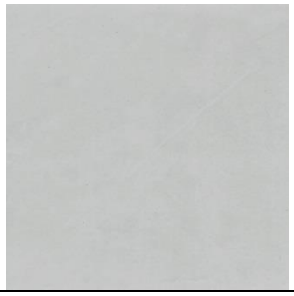
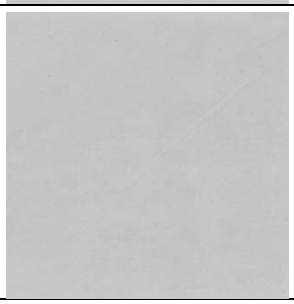
- The footbridge will be of concrete and steel to match the existing;
- The concourse soffit is proposed to be made of natural timber-like finish panels to link with the timbered Blue Mountains to the west;
- Recessed light fittings and service channels for CCTV cameras, speakers and signage to maintain the clean lines of the folded surface of the soffit, which is intended to create plays of light and shadow;
- The soffit will flatten towards the roof edge to create a continuously profiled edge to give the roof a thinner appearance. The edge profile will be of aluminium finished in dark grey;
- The protection screens will be glazed, but unframed at the top to “soften the elevation towards the Heritage buildings and contribute to a better integration of the new structure with the existing Station” (GHD WestonWilliamson 2015:25);
- The glazed balustrade posts and handrails will be in brushed stainless steel to reduce visual impact; and
- The main canopy columns of steel will be painted dark grey to ensure visibility for the visually impaired.

The indicative materials and finishes are shown in Table 7. As the design progresses from concept to detailed design it may be necessary to alter the materials and finishes. The Heritage Council of NSW will be provided with a final materials and finishes schedule prior to the commencement of construction (refer Section 8.0)

Table 7 Indicative materials and finishes. Source: GHD Westonwilliamson, 2015:Appendix B

ITEM	MATERIAL	FINISH & COLOUR	INDICATIVE IMAGE
FOOTBRIDGE GLASS FACADE	Clear laminated safety glass	Low Iron glass Clear 3M Scotchshield security film to internal side	
STAIRS BALUSTRADES	Steel post	Painted light grey	
LIFT SHAFTS GLAZED CLADDING (above 900mm from finish floor level)	Clear laminated safety glass	Low E coating 3M Scotchshield security film to external side	
LIFT SHAFTS METAL CLADDING (below glazing) & ARCHITRAVE	Aluminium	Powder coated champagne	
LIFT SHAFT CONCRETE WALLS	Concrete	Anti-graffiti coating	
GLAZING POST, HANDRAILS & CLAMPING PLATES	Stainless steel	Smooth finish	

ITEM	MATERIAL	FINISH & COLOUR	INDICATIVE IMAGE
ROOF SOFFIT	Suspended natural timber-like finish panels	Clear coating	
ROOF EDGES	Colorbond type Roofing System	Painted, matt dark grey colour	
ROOFS	Colorbond type Roofing System	Painted, grey colour	
LOUVRES	Framed metal louvre with bird mesh	Charcoal colour	
CANOPIES & STAIRS EXPOSED STRUCTURE	Welded/bolted steel plates	Painted, matt dark grey colour	
CONCOURSE ROOMS CLADDING	Aluminium	Champagne colour	

ITEM	MATERIAL	FINISH & COLOUR	INDICATIVE IMAGE
FOOTBRDIGE & CONCOURSE FLOOR	Concrete	Slip resistant finish Sealed	
STAIRS FLOOR	Concrete Stair nosing	Slip resistant finish Carborundum strip, black colour	
PLATFORM FLOOR	Asphalt bitumen	Colour and finish to match existing platform floor	
PLATFORM WALLS	Brick/block work	Smooth render, painted light grey	
PLATFORM STRUCTURAL COLUMNS & WALLS	In situ Concrete	Smooth finish Full height clear anti-graffiti coated	
EXPOSED FOOTBRIDGE & CONCOURSE DECK STRUCTURE	Precast concrete	Natural	

ITEM	MATERIAL	FINISH & COLOUR	INDICATIVE IMAGE
METAL FENCES	Standard TfNSW fencing to match existing	Powder coated white to match existing	
GLAZED FENCES	Clear laminated safety glass Vertical metal post	Low Iron glass Clear 3M Scotchshield security film to internal & external side Vertical posts painted white	
SHELTERS	Steel frame without glazed back panels	Painted matt grey	
HERITAGE BUILDING SOLID INFILL	Bricks	Painted to match existing colour palette and finish	
HERITAGE BUILDING NEW DOORS	Recessed wood door with concrete lintel	Painted to match existing colour palette and finish	

ITEM	MATERIAL	FINISH & COLOUR	INDICATIVE IMAGE
LANDSCAPE FLOORING	Brick-on edge paving	Red, Brown and Blue randomly mixed	
PUBLIC SEATS	Precast concrete	Smooth finish Clear anti-graffiti coated	
STREET LIGHTS FOR SOUTHERN PLAZA	Multipole light pole in aluminium	Natural colour	

6.6 Impacts to Heritage Significance

Table 8 assesses the potential heritage impacts associated with each element of the Proposal. Table 9 summarises the potential impacts to the heritage significance of the Station arising from the Proposal.

In summary, there are components of the Station that will not be impacted by the Proposal. These include the water tank and water column and the signal box. The impact to these items is considered to be neutral.

Table 8 indicates that the proposed works are not considered to have an impact on the heritage significance under the historic, associative, social, rarity or representative criterion.

There will be impacts to the aesthetic significance of the Station, some of which will be positive and some negative. On the positive side, the views towards the Station Platform Buildings will be opened up from the concourse of the replacement footbridge and the works will declutter the platforms to increase visibility of the Station Platform Buildings at ground level. Views between the Station Master's Residence and the Station will be further impacted by the proposed insertion of the southern entrance stairs. Views towards the Station from Belmore Street will be neutrally impacted – the existing shelters in the bus interchange will be removed, but will be replaced. The location of these shelters has been chosen in an attempt to limit the impact. The in-filling of a canopy section on Platform 1 will have a negative impact by further enclosing the heritage building. The replacement of some sections of canopy will have a neutral effect.

Table 8 Proposal heritage impact assessment

Impact Type	Action	Impact to Heritage Significance
Demolition	Existing pedestrian footbridge to deck level. Demolition would include elements such as the roof, façade and two lifts (the two existing lifts to be removed would be reused within the Sydney Trains network, if feasible). The suspended concrete deck (floor) would be retained for use as an unpaid cross-corridor access.	The demolition of the existing pedestrian footbridge is not considered to impact on the heritage significance of the Station.
	Access stairs to the north and south of the Station, onto Platform 1/2 and Platform 3, including part of the associated canopies.	The stairs and associated canopies are not heritage items and demolition will not detrimentally impact the heritage significance of the Station.
	Female/male toilets, Family Accessible Toilet, customer luggage room and ticketing office and concessional spaces on Platform 3.	These elements are not of heritage significance and their removal is not considered a negative impact
	Lift shafts on Platform 1/2 and Platform 3.	The removal of the lift shafts does not constitute a negative heritage impact.
	Glazed canopies at the northern and southern Station entrance.	The glazed canopies are not heritage elements and may be removed without heritage impact
	Ticket barriers and associated modern fencing in the southern Station entrance (to be relocated to the paid concourse)	The ticketing barriers, modern fencing and glass screen were inserted during the 1999 Upgrade. The reversal of these works will not have a negative heritage impact
	A free-standing canopy at the eastern end of Platform 1/2.	The canopy is not significance fabric and its removal is not considered to impact on the heritage significance of the Station.
	Removal of ticketing windows and glass screen in the Platform 3 Heritage Building Foyer	The ticketing windows and glass screen were inserted during the 1999 Upgrade. The reversal of these works will not have a negative heritage impact.
	Removal and relocation of platform seating.	The relocation of the platform seating will have a positive heritage outcome. Some of the seating currently sits in front of doors or windows of the heritage platform buildings, which disrupts the legibility of the rhythm of the buildings.
	Removal of eight trees including a pine and pepper tree thought to be associated with the Station Master's Residence garden.	The removal of the six Jacaranda trees planted as part of the bus interchange upgrade is not considered to impact on the heritage significance of the Station. The removal of the pine and pepper tree is considered to be a negative heritage impact and it is recommended that their retention be investigated during detailed design. However, it is noted that the pine tree is located within the new lanes of the bus interchange and an alternate route is not possible due to the design constraints and requirements for the safe operation of buses.

Impact Type	Action	Impact to Heritage Significance
Construction	Existing pedestrian footbridge retained for unpaid access across the railway and extended further south; with new glass façade to the west to allow for views of the Blue Mountains and heritage buildings.	Retention of the existing pedestrian footbridge is considered to have a neutral heritage impact. The extension to the south will further attenuate the relationship between the Station Master's Residence and the Station and is considered a minor negative impact. It will, however, open views from the concourse towards the Blue Mountains and heritage platform buildings.
	New stairs on both the northern and southern entrances of the pedestrian footbridge.	The new stairs on the northern entrance will not impact visually or otherwise on the heritage significance of the Station. The stairs proposed for the southern entrance will create a visual barrier between the Station Master's Residence and the Station. This is considered a negative heritage impact.
	New paid concourse accessible from the pedestrian footbridge with relocated ticket gates, new Customer Information Window and Cleaner's Store Room and Family Accessible Toilet on paid concourse (Drawing TAP C34003-PE-AR-2101.A.TB) and a Family Accessible Toilet and Luggage Room on Platform 3 and stairs to platforms.	The new paid concourse and auxiliary structures on Platform 3 will be located either within the footprint of the existing pedestrian footbridge or to the east away from the Platform Heritage Buildings. The overall form of the replacement structure will be reduced in height by between four and six metres and the form and materials will better integrate into the Station group, thereby reducing the visual impacts. This component of the works is considered to have a positive heritage impact.
	Three replacement lifts to provide access to the platforms/interchange.	The construction of three replacement lifts is considered to be neutral.
	New canopies for the existing footbridge and new stairs, lift landings, paid concourse, in addition to replacing platform canopies affected by works.	The construction of the new canopies will have a neutral to positive impact, essentially replacing the existing canopies with a reduced number.
	Installation of solar photovoltaic cells on roof of unpaid concourse, as shown on Drawing C34003-PE-AR-2102.A.TB).	The solar photovoltaic cells will not be visible and the impact is therefore considered to be neutral.
	Infill canopy to match existing on Platform 1.	Further enclosing the heritage buildings with canopies and other infrastructure reduces the visibility of the building and is considered a negative impact.
	New fencing along southern side of station including a section of glazed fencing along the Platform 3 heritage building extent.	The glazed fence will open views of the southern and eastern elevation of the Platform 3 Heritage Building and is considered neutral.
	Establishment of a new Bus Driver's Amenities Room and Customer Service Manager's Office in the existing Platform 3 heritage building;	The fit-out of the current Platform 3 Heritage Building Foyer is considered positive. The works will not impact on fabric of heritage significance, but will sub-divide what was historically an open space. The alternative, however, is to leave the area vacant and the construction of a structure at the western end of the forecourt/bus interchange, which is not a positive outcome.

Impact Type	Action	Impact to Heritage Significance
	Fit-out of two spaces within the Platform 3 Heritage Building to facilitate a change of use (see Drawing TAP-C34003-PE-AR-2053.A.TB): • current Station Manager's Office fit-out for use as a store; and • current Ticket/Booking Office fit-out for use as a training room.	The proposed fit-outs will not impact on fabric of heritage significance or move existing internal walls. The impact is considered to be neutral.
	Re-grading and resurfacing of platform (as required).	Re-grading and resurfacing of Platforms is considered to have a neutral impact – it will not impact on fabric of heritage significance.
	Reconfiguration of the southern transport interchange which would involve: • upgraded bus interchange with reversed traffic flow to include set down, pick up and layover spaces for buses, and shelters for weather protection for customers; • relocated kiss and ride and taxi rank (with shelters) on Belmore Street; • landscaping, paving and lighting for the interchange and forecourt area; • extension of the south-western car park with approximately 25 spaces (to offset some of the commuter parking removed for the long-term bus layover); • provision for a bike shed on the south-western side of the interchange (as part of the Bike and Ride Initiative).	The reconfiguration of the southern transport interchange will open some space between the bus interchange and the Platform 3 Heritage Building, which is considered positive, as is the landscaping and paving. The weather shelters will replace those that are existing and while obscuring views towards the Station, will have a neutral impact; The kiss and ride and taxi rank with associated shelters will not impact the heritage significance of the Station; The extension of the car park will have no heritage impacts; The bike shed is to be located adjacent to the southern stairs and will be integrated into the impact associated with the stairs, as discussed above; The bike shed is to be located adjacent to the southern stairs and will be integrated into the impact associated with the stairs, as discussed above.
	Ancillary works including services diversion and/or relocation, alterations to traffic signals, Station power supply upgrade, minor drainage works, adjustments to fencing, lighting and seating, improvements to Station communication systems with new infrastructure (including lighting, CCTV cameras, Passenger Information Display boards and Opal card readers) and wayfinding signage.	The ancillary works will probably have a neutral effect, depending on the extent of the works involved, which is to be determined during detailed design.
Temporary Enabling Works	Construction compound and crane pad locations.	The construction compound and crane pad locations are not within areas of archaeological significance and will have a neutral impact on the significance of the Station.

Impact Type	Action	Impact to Heritage Significance
Services and Landscaping	Services	The excavation of trenches to provide electricity to the proposed bus shelters and associated with the construction of the southern entrance stairs. One of these trenches passes through an area formerly the location of the Regional Railway Manager's Residence. It is recommended that an Archaeological Research Design and Excavation or Monitoring Methodology be prepared and submitted to the Heritage Council of NSW, or its delegate, for approval.
	Landscaping	The proposed removal of a pine from the bus interchange area constitutes a negative heritage impact. Interrogation of an historical aerial photograph indicates these two trees are likely to date from the establishment of the garden associated with the Station Master's Residence. As such, they contribute to the physical demonstration of the historical significance of the Station. It is recommended that retention of the trees be investigated during detailed design.

Table 9 Assessment of impacts to the heritage significance of the Penrith Railway Station Group

Action	Impact to Heritage Significance
Historical significance SHR criteria (a)	**Penrith Station Group is of historical significance as an early railway site with buildings dating from the 1860s and as a former locomotive depot for a number of years during the extension of the railway line over the Blue Mountains. The Signal Box is historically important as evidence of Penrith Station's role in providing assistance to the management of the increased railway traffic between Sydney and the Blue Mountains since 1956.** **The Station Master residence is of historical significance as it was built for the accommodation of the Penrith Station Master in 1878 when the Station was instrumental in the changing of the locomotives of the trains to cross the Blue Mountains as well as pushing trains towards Sydney. The residence had served successive Station Master's for many years and has been used for various community operations until the early 2000s. The historical visual link between the Station and the residence is important, which remains relatively intact today with some interruption by the adjoining ancillary building to the west.** **The water tank, filler spout and water column are important surviving steam locomotive supporting infrastructure dating from 1921, which denote the close affiliation Penrith Station has with steam train operations over the Blue Mountains, an association that started in 1863. Apart from the Station buildings, the turntable is now the oldest item of railway structure remaining at Penrith dating from 1896. It is also the last item remaining from the former Penrith locomotive depot.**
Demolition	The demolition of the modern footbridge (including the existing toilets, customer luggage room etc.) and elements of the associated canopies will not impact on the elements that contribute to the historical significance of the Station. The Station Platform Buildings, Station Master's Residence and the infrastructure associated with steam locomotives will remain in their current positions. The one exception to this is the removal of a glass partition in the current ticketing hall within Station Platform Building 3. However this is a modern wall and will not impact on heritage fabric. The Proposal will also remove clutter from the Platforms and clear views towards the Station buildings, which is considered a positive heritage outcome.
Construction	The construction will involve the replacement of the stairways and lifts on Platforms 1/2, 3 and the northern and southern side of the tracks. This will not negatively impact on the historical significance of the Station. The footbridge provides an opportunity to design a replacement that is more sensitive to its historical location. This includes lowering the overall height of the roof line, the opening of views to the west and the east to maintain or re-create visual access to heritage elements within the Station Group and removal of clutter from the platforms to open views towards heritage elements. The visual link between the Station Master's Residence and the Station will be impacted through the construction of the stairway, although this link has already been attenuated by the insertion of the bus interchange between the Residence and the Station and the plantings that currently screen views.
Temporary Enabling Works	The location of the crane pads and site accommodation/material laydown areas will not impact on the historic significance of the Station.
Services & Landscaping	The proposed removal of a pine and pepper tree from the bus interchange area constitutes a negative heritage impact. Interrogation of an historical aerial photograph indicates these two trees are likely to date from the establishment of the garden associated with the Station Master's Residence. As such, they contribute to the physical demonstration of the historical significance of the Station. It is recommended that retention of the trees be investigated during detailed design.

Action	Impact to Heritage Significance
	The selection of proposed landscaping trees is sensitive to the heritage character of the Station and includes era appropriate Moreton Bay fig (*Ficus macrophlla),* jacaranda (*Jacaranda mimosifolia*) and Illawarra flame tree (*Brachychiton acerifolius*). It is considered that the proposed landscaping will not have a negative impact on the historic significance of the Station.
Historical association significance SHR criteria (b)	Penrith Station was closely associated with Driver John Heron and The Heron train was a daily commuter train to and from Sydney that was named after him. This association is considered to be of secondary significance.
Demolition	The associative significance of the affiliation of the Station with Driver John Heron is intangible and will therefore not be impacted by the proposed works.
Construction	
Temporary Enabling Works	
Services & Landscaping	
Aesthetic significance SHR criteria (c)	The Station buildings are good examples of second class and third class Station buildings despite the changes made over the years. They feature typical design characteristics of such roadside railway Station buildings in the 1860s and 1890s, such as a large central brick building flanked by attached wing, simple hip roofs with multiple brick chimneys, a symmetrical layout and platform awning supported on cast iron columns with decorative bracketing. The signal box is of aesthetic significance as a dominant feature within the Station's setting presenting a design more like an airport control tower than a signal box. It is an unusual example of post World War II period Functionalist style railway signal boxes due to its polygonal signal tower and flat roofed stepped down wing featuring multi-paned glazing to Up, Down and rail side elevations of the control room of the tower, and a polygonal hipped and tiled roof with wide eaves. Penrith SM's residence is of aesthetic significance as a landmark within the Penrith Station precinct and the historic town of Penrith. It is a simply detailed symmetrical building demonstrating the construction techniques of the late 19th Century 'type 4' railway residences, where aesthetic qualities and embellishments were restricted due to a balance between status and financial restraint. The water tank, filler spout and water column are engineered structures of the steam industrial age that possess a robust functional aesthetic well suited to railway environs. The turntable is an excellent example of a 19th Century cast iron turntable demonstrating technology of such structures at the time.
Demolition	The modern footbridge, stairs and associated modern canopies do not contribute to the aesthetic significance of the Station and their removal will make way for a more sensitive design. It is considered that the replacement elements will have a positive impact. The proposed removal of the pine and pepper tree thought to be associated with the Station Master’s Residence garden is considered to be a

Action	Impact to Heritage Significance
	negative impact to the aesthetic heritage significance of the Station. The trees provide an indication of the former extent and layout of the garden, which has been largely lost through the insertion of the bus interchange, which has cut the Station Master's Residence off from the Station. It is recommended that the retention of these trees be investigated during detailed design.
Construction	The replacement design is more sensitive to the aesthetic significance of the Station and will be lower in profile, will provide increased opportunities to view heritage elements from the concourse through then new glass facade and the interface between the canopies and historic buildings will be better managed to have a positive impact. The enclosing of Platform 1/2 Heritage Building through the construction of a section of in-fill canopy will have a negative aesthetic impact.
Temporary Enabling Works	The temporary enabling works (ie crane pads and site compounds) are located on the north eastern and south eastern sides of the existing footbridge, which will remain in place during construction of the paid concourse and essentially block views between the Heritage Buildings and the enabling works areas. Therefore there will be no or limited views of the crane pads and site accommodation/material laydown areas from the Heritage Buildings. It is considered that the temporary works will not impact on the aesthetic significance of the Station.
Services & Landscaping	The selection of species for planting are appropriate to the Station's era and it is considered that the landscaping will have a positive effect by providing a softer environment within the bus interchange area. The selection of brick paving within the southern plaza is also considered appropriate.
Social significance SHR criteria (d)	The place has the potential to contribute to the local community's sense of place and can provide a connection to the local community's history.
Demolition	The proposed works will not impact on the connection the local community has to the Station and may improve it by increasing views to the historic elements.
Construction	
Temporary Enabling Works	
Services & Landscaping	
Technical/Research significance SHR criteria (e)	The signal box has a moderate degree of technical research potential as it retains its original communication and control desk, CTC panel and staff signalling equipment. These features, however, are found at many other signal boxes in the railway network. Penrith SM's residence has research potential in providing physical evidence on the construction techniques of a two-storey type 4 Station Master's residence built in the late 19th century. The water tank, filler spout and water column are of technical and research significance demonstrating the equipment used in providing large quantities of water very quickly to steam locomotives. The turntable is of technical and research potential demonstrating the equipment used in steam locomotive operations.
Demolition	The proposed works include the excavation of trenches to provide electricity to the proposed bus shelters and associated with the construction of the southern entrance stairs. One of these trenches passes through an area formerly the location of the Regional Railway
Construction	

Action	Impact to Heritage Significance
Temporary Enabling Works	Manager's Residence. It is recommended that an Archaeological Research Design and Excavation or Monitoring Methodology be prepared and submitted to the Heritage Council of NSW, or its delegate, for approval.
Services & Landscaping	
Rarity SHR criteria (f)	Penrith Station Group features a number of rare items including a filler spout and water column, which are one of a few such facilities remaining in operating condition on the system. The signal box is one of a series of five similar signal boxes built in the Functionalist style, the others being Granville, Clyde, Blacktown and Auburn. There are many good examples of Inter-War Functionalist style signal boxes in the railway network. Penrith SM's residence is 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. However, better examples exist at Lithgow and other regional locations. Penrith turntable is one of a decreasing number of turntables on the system, and rare in the metropolitan network.
Demolition	The proposed works will not directly impact on the items identified as being rare. These will remain in situ, with some potential to increase recognition of these items through the opening of views and the provision of interpretation.
Construction	
Temporary Enabling Works	
Services & Landscaping	
Representativeness SHR criteria (g)	Penrith Station Group is a representative example of railway Station arrangements combining a range of buildings and structures dating from the 1860s, 1890s and post-war period to the present day including Victorian second class and third class roadside Station buildings, a signal box, water tower, water column and filler spout, ~~footbridge and overhead booking office*~~. The water tank is one of approximately 13 (2009) water tanks remaining in-situ in the Sydney metropolitan area, the others include Eveleigh and Cardiff although most are now unused. The signal box is representative of the style of signal box built on the Main Western Line after World War II. Penrith Station Master's residence is a representative example of a type 4 two-storey residences built in the late 19th Century demonstrating the balance between the status and financial restraint at the time. The turntable is a good example of similar types surviving in rural centres.
Demolition	The proposed works will not impact on items identified as contributing to the representative significance of the Station, namely the Station platform buildings, signal box, water tower, water column and filler spout.
Construction	
Temporary Enabling Works	
Services & Landscaping	

* As discussed in Section 5.3, the footbridge in question was removed to construct the present modern footbridge and there is no indication Penrith had an overhead booking office. It is considered that these elements are not relevant to the representativeness of the Station.

Table 10 Conservation strategy conservation policies of relevance to the Proposal

Conservation Policy Section and No.	Policy	Page No.	Proposal Response
Section 5.2 - Policy 4	A new station structure may be constructed, provided it does not reduce the established significance of the place or compromise the setting for the extant station buildings	26	The proposed footbridge will not reduce the established significance and will recover some of the view lines.
Section 5.3 - Policy 2	Extant early spaces must not be sub-divided for adaptive re-use	26	The establishment of the Bus Driver's Amenities Room and Customer Service Manager's Office will subdivide the current Platform 3 Heritage Building Foyer. However, this is considered preferable to the construction of a new structure in the bus interchange and the Foyer having no function. The existing spaces within Platform 3 Heritage Building will be repurposed, but will not require the sub-division of existing spaces.
Section 5.3 - Policy 5	The refreshment room area should either be accessed from the street or from the platform. If from the street the former dividing wall to the former kitchen can be used for new openings, also the present roller shutter position could be used. Another entry could be achieved from the end of the original verandah.	26-27	The refreshment room (Platform 3 Heritage Building Foyer) will retain the current access from the western and eastern facades.
Section 5.1.3 - Policy 1	Significant fabric within the buildings should be retained and conserved	27	The decorative cast iron column and stub wall will be retained and incorporated into the Bus Driver's Amenities Room.
Section 5.1.5 - Policy 1	The sub-surface archaeological resources of the site should be assessed as work takes place	28	This SoHI has assessed the sub-surface archaeological resource of the bus interchange. It is recommended that an Archaeological Research Design and Monitoring or Excavation Methodology be prepared for approval by the Heritage Council of NSW or its delegate.
Section 5.1.7 - Policy 1	New construction is allowable on the site but should not impose on the critical zone around the heritage buildings. The following general guidelines could form the basis of a control plan for new work: - Highly serviced areas should ideally be in new buildings rather than introduce further services into the existing building. - New buildings are to be designed either in a neutral form that allows the significance buildings to be prominent or designed in a contemporary idiom that provides some juxtaposition for the existing buildings. The quality, sensitivity and contextual nature of the design solution is critical if contemporary design is proposed and will be a criteria for assessment of proposals - New construction should use a range of materials that draw from the site and which provide variety of material and detail to give a	29	The CMP does not define the critical zone around the heritage buildings, however, the current separation between the heritage buildings and the footbridge will be maintained and some of the unsympathetic clutter will be removed from the platforms. The design of the replacement footbridge is sensitive to the heritage significance of the Station and conforms to those guidelines of relevance.

Conservation Policy Section and No.	Policy	Page No.	Proposal Response
	scale to the new development that fits with the context. Finishes that, in principle, are not appropriate to the site include: reinforced concrete in situ, pre-cast or tilt up, concrete block, etc. In is essential that new buildings on the site have a strong relationship to the present station buildings and draw their design inspiration from the form of the buildings. Key elements are: • Station buildings are linear • Have a strong horizontal emphasis with dominate awning forms • Have small scale pitched roofs with modulation, the use of lanterns and roof lights etc • Have strong symmetry and presentation to trackside and streetside, but often differing presentations to each • Are designed as civic buildings with a formality that includes strong axis, forecourts • Are finely detailed showing excellence of use of materials and techniques • Are of substantial scale • New construction should derive its overall proportions from surrounding structures noting the balance of vertical and horizontal elements, the nature of openings, etc.		
Section 5.1.8 - Policy 1	No new structures should be constructed which would obscure key views to and from the key buildings on the site.	29	The construction of the southern entrance stairs will further attenuate the former visual link between the Station Master's Residence and the Station. The construction does not comply with the policy in the Conservation Strategy. However, it is necessary for the replacement footbridge to span the bus interchange lanes to provide modal separation for pedestrian safety, to allow for increased capacity and to allow for future rail expansion plans, which will see the addition of two tracks on the southern side of the Station.
Section 5.1.8 - Policy 2	A major vista to the station buildings should be retained across the transport interchange	29	Views across the Southern Plaza will be retained.
Section 5.1.8 - Policy 3	New buildings shall be designed (or retained) to form a clear precinct structure, retaining landmarks, edges, views, vistas etc., new work should create a precinct quality that incorporates the station masters house, the station group and the new station	29	The Proposal has worked to form a clear precinct structure. It will create a landmark entry plaza, which will reinvigorate the space.

7.0 Statement of Heritage Impact

7.1 Introduction

The objective of a Statement of Heritage Impact (SOHI) is to evaluate and explain how the proposed development, rehabilitation or land use change will affect the heritage value of the site and/or place. A SOHI should also address how the heritage value of the site/place can be conserved or maintained, or preferably enhanced by the proposed works. This report has been prepared in accordance with the NSW Heritage Office & Department of Urban Affairs and Planning *NSW Heritage Manual* (1996) and NSW Heritage Office *Statements of Heritage Impact* (NSW Heritage Office, 2002). The guidelines pose a series of questions as prompts to aid in the consideration of impacts due to the Proposal, based on the type of proposed works. The Proposal involves the demolition of a building or structure as well as major additions to the Station. The guideline suggests the following questions be used to direct discussion in relation to these two modification types:

Demolition:

- Have all options for retention and adaptive re-use been explored?
- Can all of the significant elements of the heritage item be kept and any new development be located elsewhere on the site?
- Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?
- Has the advice of a heritage consultant been sought? Have the consultant's recommendations been implemented? If not, why not?

Major additions:

- How is the impact of the addition on the heritage significance of the item to be minimised?
- Can the additional area be located within an existing structure? If no, why not?
- Will the additions visually dominate the heritage item?
- Is the addition sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered?
- Are the additions sympathetic to the heritage item? In what way (e.g. Form, proportions, design)?

The Proposal also proposes modifications to the Platform 3 Heritage Building Foyer to allow for the creation of a Bus Driver's Amenities Room and Customer Service Manager's Office and the repurposing of two further spaces. To address the potential impacts of these proposed works, the following questions have been added:

- What changes to the fabric are required as a result of the creation of the Bus Driver's Amenities Room/Customer Service Manager's Office?

These questions will be addressed, based on the impacts to the heritage significance of the Station, as outlined in Section 6.0.

7.2 Demolition – Process Questions

Have all options for retention and adaptive re-use been explored?

The existing pedestrian footbridge (including the concessional spaces, toilets, customer luggage room etc) will be retained to the bridge level and will be extended to the east to create a paid concourse area and south over the bus interchange lanes to provide modal separation. However, the existing pedestrian footbridge is not considered to be of heritage significance and does not require retention to retain the significance of the Station Group.

Can all of the significant elements of the heritage item be kept and any new development be located elsewhere on the site?

The existing pedestrian footbridge is not considered to be of heritage significance. The partial demolition will not directly impact on any items that contribute to the heritage significance of the Station.

Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?

The existing pedestrian footbridge is not of heritage significance and its complete retention and conservation is not desired. The proposed replacement structure is more sensitive to the heritage significance of the Station and is considered an improvement.

Has the advice of a heritage consultant been sought? Have the consultant's recommendations been implemented? If not, why not?

TfNSW has sought advice from a number of sources. Internally, heritage advice has been provided by Ron Turner, TfNSW Senior Project Manager – Heritage. Additionally, TfNSW engaged Dr Susan Lampard of AECOM to provide independent heritage advice and to produce this SoHI. TfNSW also sought advice from Orwell and Phillips Architects, prior to the engagement of AECOM, in August 2014. Laing O'Rourke and GHD have engaged Paul Davies to provide advice to them with regard to the potential impacts of the design on the heritage significance of the Station. The input of these heritage consultants has been incorporated into the discussion and is specifically addressed in Section 6.3. The advice of the heritage consultants has been addressed and incorporated into the design.

7.3 Major Additions – Process Questions

How is the impact of the addition on the heritage significance of the item to be minimised? Are the additions sympathetic to the heritage item? In what way (eg. Form, proportions, design?)

The impact of the upgraded footbridge, including the associated replacement of the lifts, Family Accessible Toilet and customer luggage room, has been minimised through placement, form and proportions. The upgraded footbridge will have a reduced form. The new section of the footbridge (i.e. the paid concourse) has been placed on the eastern side, away from the Station Platform Buildings, which will preserve the current space separation between the footbridge and heritage Station Platform Buildings. On Platform 1/2 the stairs between the concourse and the Platform are being removed and placed away from the Station Platform Building, which would help to increase the space and visibility of the Station Platform Buildings. This will be complimented through the rationalisation of services and clutter in front of the Station Platform Building to produce a better heritage outcome.

The overall height of the roof structure is being reduced by between four and six metres. The projecting roof profile of the existing pedestrian footbridge will be replaced with a shallow pitched butterfly roof, which will sit within the heritage precinct, rather than being a visually dominant feature. The unpaid section is located on the western side and the proportions will be wide enough to allow pedestrians to pause and observe the views towards the heritage Station Platform Buildings and the Blue Mountains through the glass facade. The profile of the canopy on the southern entrance stair has also been minimised to reduce visual impacts.

The northern entrance stairs have been placed so that there will be no heritage impacts.

Can the additional area be located within an existing structure? If not, why not?

The initial concept included the construction of a Bus Driver Amenities building in the interchange area. Through consultation, it has been determined that a better heritage outcome can be reached if these facilities are integrated into the current Platform 3 Heritage Building Foyer, currently used as a ticketing hall. Following the upgrade, ticketing services will be provided on the paid concourse of the pedestrian footbridge and the Platform 3 Heritage Building Foyer would no longer have a function. The conversion of this space into a Bus Driver's Amenities Room and Customer Service Manager's Office will provide a function for this space, but will also result in it being unnecessary to add a further structure to the bus interchange, thereby retaining views to the heritage Platform 3 Station Building.

Will the additions visually dominate the heritage item?

While the additions will be visible, there will be less impact than the current footbridge. The integration of the Bus Driver's Amenities Room and Customer Service Manager's Office into the Platform 3 Station Building has the effect of reducing the visual impact of providing the necessary amenities on the Station Group. The location of sundry facilities, such as the bike shed has been carefully considered to ensure they do not create a visual barrier or dominate the plaza area. The existing bus shelters clutter the interchange and reduce the visibility of the Station. The replacement shelters will likewise be a visual barrier, however the selection of materials and the placement has been considered to lessen the overall impact from the current level.

The glazed fence proposed for the southern side of the Station will maintain views between the southern plaza and the Station. Glazing has been selected to reduce the visual impact.

Is the addition sited on any known, or potentially significant archaeological deposits? If so, have alternative positions for the additions been considered?

The majority of the works will be undertaken within the disturbance footprint of the existing modern footbridge and is therefore considered unlikely to impact on archaeological deposits. The landing for the stairs in the southern plaza sits in proximity to the former location of a weather board structure shown on a 1921 plan as being the District Inspectors Office and by 1943 as the Regional Railways Manager's Residence. The extant plans indicate the structure was of weatherboard and it is therefore considered that the foundations were likely to have consisted of timber piles.

The proposed location of the crane pads and temporary works compound are not considered to be of archaeological potential. The excavation of trenches to provide electricity to the proposed bus shelters and associated with the construction of the southern entrance stairs. One of these trenches passes through an area formerly the location of the Regional Railway Manager's Residence. It is recommended that an Archaeological Research Design and Excavation or Monitoring Methodology be prepared and submitted to the Heritage Council of NSW, or its delegate, for approval.

What changes to the fabric are required as a result of the creation of the Bus Driver's Amenities Room?

The creation of the Bus Driver's Amenities Room and Customer Service Manager's Office will involve the infilling of the existing ticketing windows in the Platform 3 Heritage Building Foyer and the openings no longer required in the western and eastern facades. The replacement doors will be selected to match the existing doors in the Station and will therefore minimise the visual impacts. This will be achieved with recessive, matching brickwork and will be painted to match the existing. The northern wall of the Foyer is not original, being constructed as part of the 1999 upgrade of the Station, and therefore these works will not have a heritage impact. The two elements considered to be of heritage significance within the space, being the decorative cast iron column and the stub wall will be retained and incorporated into the final design.

It is possible that the windows on the southern façade will need to be treated for security purposes. The design of the security treatments will be developed during detailed design and provided to the Heritage Council of NSW for approval prior to construction.

No changes to heritage fabric would be required for the change in use of the other Platform 3 Heritage Building rooms to enable the repurposing of the Station Manager's Office as a store and the Ticket/Booking Office fit-out for use as a training room.

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8.0 Recommendations and Conclusions

A Station upgrade is proposed at Penrith Station to cater for future growth and to address the poor existing modal separation, safety issues, and accessibility requirements. Penrith is recognised as a regional city centre and the Station connects the new Thornton development in the north to the commercial centre of Penrith to the south. Currently there is a pedestrian footbridge across the railway but only the eastern half of the bridge can be accessed by the general public. As part of the Proposal, the pedestrian footbridge would be converted to unpaid access to increase capacity and extended over the interchange to reduce the pedestrian/vehicle conflict. A new paid concourse with a Family Accessible Toilet and Customer Information Window would also be constructed for customers. The improvements would in turn assist in supporting the growth in public transport use and would provide an improved customer experience for existing and future users of the Station.

The Penrith Railway Station Group (the Station) is identified as an item of State heritage significance, being listed on the SHR (#01222) and also identified as of heritage significance on the Penrith LEP and the Sydney Trains Section 170 Heritage and Conservation Register. AECOM was engaged by TfNSW to assess the potential impacts to the heritage significance of the Station associated with the proposed upgrades.

The Proposal would include the following key elements:

- existing pedestrian footbridge retained for unpaid access across the railway and extended further south;
- new stairs on both the northern and southern entrances of the pedestrian footbridge;
- new paid concourse accessible from the pedestrian footbridge with relocated ticket gates, new Customer Information Window, Family Accessible Toilet, store room and stairs to platforms;
- three replacement lifts to provide access to the platforms/interchange;
- new canopies for the existing footbridge and new stairs, lift landings, paid concourse, in addition to replacing platform canopies affected by works;
- reconfiguration of the southern transport interchange which would involve:
    - upgraded bus interchange with reversed traffic flow to include set down, pick up and layover spaces for buses, and shelters for weather protection for customers;
    - relocated kiss and ride and taxi rank (with shelters) on Belmore Street;
    - landscaping, paving and lighting for the interchange and forecourt area;
    - provision for a bike shed on the south-western side of the interchange (as part of the Bike and Ride Initiative);
- extension of the south-western car park with approximately 25 spaces (to offset some of the commuter parking removed for the long-term bus layover)
- establishment of a new Bus Driver's Amenities Room and Customer Service Manager's Office in the existing Platform 3 heritage building

A Penrith Station Conservation Study was prepared by Paul Davies Pty Ltd in 1999 to guide the conservation of the Station during the upgrade of the facilities undertaken in that year. As the Station is listed on the SHR, it is standard practice to have CMPs endorsed by the Heritage Council of NSW, however, there is no documentation that would indicate that this study received formal endorsement as a CMP. However, an examination of the Proposal in light of the significance of the Station, SHR listing details, the conservation policies contained in the conservation study, additional research, site inspection and the assessment detailed in this document indicates that the Proposal will not impact on the significance of the Station and the removal of clutter and the rationalisation of services on the Platforms will enhance the visual accessibility of the heritage buildings.

The following mitigation measures are recommended:

- An application under Section 60 of the *Heritage Act 1977* should be submitted to the Heritage Council of NSW for approval prior to works commencing. This Statement of Heritage Impact should be submitted with the supporting documentation for the approval.
- Archival recording of the Station as a whole prior to the commencement of construction following NSW Heritage Division guidelines *Photographic recording of heritage items using film or digital capture* (NSW Heritage Office, 2006) and *How to prepare archival records* (NSW Heritage Office, 1998). Copies should be provided to the NSW Heritage Division, Penrith Council, and Sydney Trains for future reference. In particular the following elements should be concentrated on:

  - Existing pedestrian footbridge, including all spaces (concessional spaces, toilets, offices, mail room) and canopies and interface with the heritage structures; and
  - The Platform 3 Heritage Building Foyer, current Station Manager's Office and Ticket/Booking Office.
- Opportunities for the retention of the pine and pepper trees associated with the garden associated with the Station Master's Residence be investigated during detailed design;
- During detailed design, opportunities to reinstate the heritage indicator boards removed from the Station should be explored, together with their interpretation;
- A heritage induction should be provided to all on-site staff and contractors involved in the Proposal. The induction should clearly layout the statutory obligations associated with State significant sites, the heritage constraints of the site, areas of archaeological potential and the management and mitigation measures in place to protect the significance of the Station;
- During construction, suitable measures should be put in place to ensure the retained heritage elements are protected from damage. Measures may include protective hoardings, use of spotters during the movement of equipment and other measures as necessary;
- It is recommended that an Archaeological Research Design and monitoring or excavation methodology should be developed to further explore the potential impacts to archaeological relics associated with the District Inspectors Office/Regional Railways Manager's Residence and the Weighbridge/Guard hut. Should impacts be anticipated following detailed design, a review of the approvals will be undertaken and a modification sought, which should include an Archaeological Research Design and Methodology and nominate an Excavation Director with a demonstrated track record of working with SHR listed items;
- Following completion of works, the State Heritage Register listing description and historical context should be updated to reflect the new works; and
- Sydney Trains should consider preparation of a Conservation Management Plan for the Penrith Railway Station Group.

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