Transport for NSW

# Great Western Highway Upgrade –Medlow Bath

## Addendum review of environmental factors

August 2023



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# Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



# Document control

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Prepared by Arenco and Transport for NSW.

# Executive summary

This document is an addendum Review of Environmental Factors (Addendum REF) for a proposed modification to the 'Great Western Highway Upgrade – Medlow Bath project' project approval (the Approved Project) required under Division 5.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of the Addendum REF is to describe the proposed modification, to document the likely impacts of the proposed modification on the environment, and to detail the protective measures (safeguards) that would be implemented when constructing and operating the proposed modification.

The proposed modification includes changes to the design of the pedestrian bridge, accessible footpath and lift and stair access to the Medlow Bath Train Station. *Disability Discrimination Act* ('DDA') compliance requirements and associated electrical service requirements are also addressed. Targeted consultation and collaboration with the community and key stakeholders has formed the basis of the proposed modification for this Addendum REF.

## The proposed modification

Transport for NSW (Transport) proposes a modification to the Great Western Highway Upgrade – Medlow Bath project as detailed in the project Review of Environmental Factors (REF) (July 2021) and supporting submission report (June 2022). The Project was determined on 14 September 2022.

The proposed modification to the approved project is linked to the bridge and accessible footpath designs for access across the Great Western Highway to Medlow Bath Train Station. The original design called for a three span bridge crossing both the Great Western Highway and railroad tracks. The original proposal included lifts on either side of the Great Western Highway, one on the rail station platform and one on Railway Parade.

The new proposal is for a single span bridge, crossing the Great Western Highway, with access from the new bridge to an existing footbridge and footpath. The new bridge will have a lift on the Western side of the Great Western Highway, with an accessibility compliant ramp on the eastern side of the highway. This ramp will lead to a reconstructed footpath to the existing pedestrian footbridge over the railway tracks. A second lift will be installed at this footbridge to accommodate access to the station for people with mobility issues.

Key features of the proposed modification include:

- Change from a three span bridge to a single span bridge
- Pedestrian bridge spanning across the Great Western Highway only
- Installation of a lift and stair access to the pedestrian bridge on the Western side of the Great Western Highway
- Installation of an accessible ramp from the pedestrian bridge on the Eastern side of the Great Western Highway
- Modification of the existing footpaths along the Great Western Highway to *meet Disability Discrimination Act* (DDA) compliance requirements
- Installation of a lift and stair access from the existing pedestrian rail bridge to the existing station platform
- Upgrade of pedestrian footpath along Railway Parade, including installation of Kiss and Ride areas
- Resurfacing of the platform surface to comply with DDA compliance requirements
- Upgrade of electrical systems, service conduits and rail infrastructure to support the accessibility upgrades to the station.

## Background

The approved Great Western Highway Upgrade - Medlow Bath project (referred to herein as the Approved Project) consists of upgrading a 1.2 kilometre section of the Great Western Highway (GWH) at Medlow Bath, between Railway Parade and around 330 metres south of Bellevue Crescent.

The aim of the Approved Project is to reduce congestion, deliver safer, more efficient and reliable journeys for those travelling in, around and through the Blue Mountains, and better connect communities in the Central West. This upgrade will provide a safer, more efficient link between Central West NSW and the Sydney Motorway network.

Key features of the Approved Project include:

- Upgrade of the existing highway to a four-lane divided carriageway allowing for two lanes of traffic in each direction, either side of a central median with planted trees
- Upgrade of the Bellevue Crescent intersection with new turning lanes, U-turn bay and traffic signals
- A new right turn lane providing access to the Hydro Majestic Hotel
- Improvements on Railway Parade to formalise parking provisions, U-turns and rail customer parking
- New indented bus bays on both sides of the highway close to Medlow Bath Station
- Construction of a new pedestrian bridge, stairs and lifts to provide an accessible path of travel between the bus bays, the Medlow Bath Station platforms and Railway Parade
- New shared path for pedestrians and cyclists on the western side of the highway
- Ancillary works such as the replacement of road surfaces, reconstruction works associated with local roads, driveways, footpaths, kerbs, gutters and retaining walls, drainage works and relocation of services.

## Need for the proposed modification

The Great Western Highway Upgrade – Medlow Bath Review of Environmental Factors (REF) was prepared for the road and station upgrade in July 2021 (referred to in this Addendum REF as the Project REF). The Project REF was placed on public display between 27 July 2021 and 5 September 2021 for community and stakeholder comment.

A submissions report (Great Western Highway Upgrade - Medlow Bath Submissions Report), dated June 2022, was prepared to respond to issues raised and the Project REF was determined in September 2022.

In response to community and stakeholder comments raised, the submissions report identified that the pedestrian bridge design and station precinct would continue through a series of 'design challenge' workshops to improve its fit with the surrounding heritage context.

The pedestrian bridge and accessible footpath to Medlow Bath Train Station is the subject of this Addendum REF.

The approved project REF highlighted the need for upgrades to infrastructure in the Medlow Bath area. To further ensure that the project meets its objectives in relation to DDA compliance, and address community and stakeholder concerns in relation to pedestrian access to the Station and surrounding areas this modification has been proposed. It considers community and stakeholder feedback and has been developed in consultation with community representatives, in relation to issues identified in previous designs.

## Proposal objectives

The key objectives of the proposed modification (which is the subject of this Addendum REF) are:

- An integrated design that responds to the high scenic and ecological values of the area
- Respect and celebrate heritage and cultural values, items, areas/precincts and sites in consultation with the community and stakeholders
- Design the project to seamlessly integrate with, interpret and express the landscape and settlement patterns that it traverses.

These objectives align with a sub-set of the original project objectives (as detailed in the approved REF for the approved project), as follows:

- Maintain and enhance local amenity and character to protect environmental and cultural assets
- Work to enhance local amenity in developing a design that preserves or reimagines local heritage values.

These modified project objectives have arisen in the context of community concerns with respect to the original proposed design of the pedestrian footbridge, and its perceived lack of integration into the heritage amenity and character of the area. As a consequence, community and stakeholders have been consulted throughout the design of this proposed modification to address previously raised concerns.

## Options considered

Three pedestrian bridge options were developed by a team led by a heritage architect. These were:

- Option 1 – A split bridge design, incorporating four (4) lifts and stairs, spanning the Great Western Highway and rail corridor. The design is less intrusive to the original project design, while maintaining the existing components of the design in the original location.
- Option 2 – A curved three span bridge design, incorporating three (3) lifts and stairs, and a ramp to reduce the intrusiveness of the design. The design is more fluid, while still maintaining the objectives of the project in the original location.
- Option 3 – A modified design involving a new footbridge and ramp combined with adjustments to the existing station footbridge. The new footbridge would span the Great Western Highway and incorporating a single lift and ramp to facilitate accessibility requirements. This design is the least intrusive design, although requiring the modification of the existing pedestrian rail bridge and surrounding footpaths to meet the objectives of the project in terms of accessibility.

A multi-criteria analysis assessed each option to determine the option that would best satisfy the project objectives. The preferred option (option 3) was chosen as the least intrusive design from an aesthetic and heritage perspective and the most integrated option from an amenity perspective.

## Statutory and planning framework

This Addendum REF has been prepared on behalf of Transport for NSW, which is the proponent and the determining authority for this assessment under Division 5.1 of the EP&A Act.

This Addendum REF is to be read in conjunction with the Project REF, Great Western Highway Upgrade – Medlow Bath (July 2021). The purpose of this Addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The proposed modification is categorised as development for the purpose of railway infrastructure facilities and road infrastructure facilities and is being carried out on behalf of a public authority. Under section 2.92 and section 2.109 of SEPP (T&I) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Therefore consent from council is not required.

## Community and stakeholder consultation

During the public display of the Project REF, various members of the community and Stakeholders submitted responses stating that the original design for the footbridge was not appropriate for the amenity of the Medlow Bath area. Within the Submissions Report, Transport agreed to continue through a series of 'design challenge' workshops to improve its fit with the surrounding heritage context. This included further consultation with selected community members and stakeholders to find solutions which better aligned to the heritage context and amenity of Medlow Bath.

Formal consultation on the progress of the Station Upgrade portion of the project has been held with Heritage NSW, Blue Mountains City Council, a local community group, Aboriginal representatives and informally with the wider community on multiple occasions. In August 2022, Transport advertised for community members interested in becoming a community representative in the Medlow Bath pedestrian bridge briefings team. Following the response from the community, five community members were selected along with nominated representatives from Blue Mountains City Council's heritage and disability access advisory groups.

Significant weighting was applied to all community feedback, including informal feedback received through digital portals in March regarding the three options. This included more than 40 email submissions received from community members outlining their preferred pedestrian bridge option as well as direct feedback from the pedestrian bridge briefings team.

## Environmental impacts

In order to identify the potential environmental impacts associated with building the proposal and the impacts associated with its operation, a number of specialist assessments have been completed. Potential environmental impacts during the construction and operation of the proposal have been identified which, with the implementation of appropriate safeguards and management measures, are not considered to be significant.

The main environmental impacts of the proposed modification are:

### Heritage

The proposed modification is more sympathetic to the heritage values of the existing local area, compared to the Approved REF design. Heritage NSW has been consulted on the proposed modification, along with extensive community consultation, and heritage designers and architects engaged, to develop the proposed modification. The proposed modification arose in response to community submissions and concerns in relation to the Approved REF's perceived adverse impacts on the amenity of heritage-listed Hydro Majestic Hotel and surrounding heritage-listed residences, and on the State-Significant heritage-listed Medlow Bath Station.

Based on the assessment detailed within the Statement of Heritage Impact (SoHI), the proposed modification will have:

- minor direct physical impacts on heritage fabric
- moderate adverse visual impacts on the heritage value
- minor adverse archaeological impacts on Medlow Bath Station.

### Biodiversity

Minor additional vegetation removal would be required for the modification proposal. Most of this vegetation including trees to be removed is located within the rail corridor. However, the impact on the overall biodiversity of the region is minimal. There is no impact on any listed species.

### Visual impact

The proposed modification is the least visually intrusive design option for the pedestrian footbridge. It has been developed in consultation with the local community and in response to community concern over the size/bulk of the Approved REF pedestrian footbridge design.

### Socio-economic

Community members' concerns have been taken into account and community representatives have been key collaborators in designing the best option for the proposed modification. The benefits are better integration with existing infrastructure and a better fit with the amenity of the local area, while ensuring full access for persons with disabilities and *Disability Discrimination Act* compliance.

## Justification and conclusion

The proposed modification meets the project objectives of ensuring full access for persons with disability and Disability Discrimination Act compliance, as well as maintaining and enhancing local amenity and character to protect environmental and cultural assets. In addition, it meets the objectives of the Addendum REF. Overall, the proposed amendments would be minor in terms of construction impacts.

Operationally, the proposed modification would have a greater beneficial impact compared to the Project REF design. The proposed modification as described in the addendum REF meets the project objectives but would result in some impacts to heritage and visual amenity as discussed in Section 6 of this addendum REF. Safeguards and management measures as detailed would ameliorate or minimise these expected impacts. The proposed modification would also improve the preservation of heritage material and the general amenity of the local area.

The approved project REF highlighted the need for upgrades to infrastructure in the Medlow Bath area. To ensure that the project meets its objectives including in relation to DDA compliance, and address community and stakeholder concerns in relation to heritage context, this modification is recommended. The proposed modification considers community and stakeholder feedback and has been developed via extensive consultation with community representatives, stakeholders and Heritage NSW.

# Table of contents

Executive summary ..... 5

1. Introduction ..... 13
1.1 Background ..... 13
1.2 Proposed modification overview ..... 15
1.3 Purpose of the report ..... 18

2. Need and options considered ..... 19
2.1 Strategic need for the proposed modification ..... 19
2.2 Proposal objectives and development criteria ..... 19
2.3 Alternatives and options considered ..... 22
2.4 Preferred option ..... 23

3. Description of the proposed modification ..... 24
3.1 The proposed modification ..... 24
3.2 Design ..... 26
3.3 Construction activities ..... 30
3.4 Ancillary facilities ..... 32
3.5 Public utility adjustment ..... 32
3.6 Property acquisition ..... 32

4. Statutory and planning framework ..... 33
4.1 Environmental Planning and Assessment Act 1979 ..... 33
4.2 Other relevant NSW legislation ..... 34
4.3 Commonwealth legislation ..... 37
4.4 Confirmation of statutory position ..... 37

5. Consultation ..... 38
5.1 Consultation strategy ..... 38
5.2 Consultation outcomes ..... 38
5.3 Ongoing or future consultation ..... 41

6. Environmental assessment ..... 42
6.1 Non-Aboriginal Heritage ..... 42
6.2 Biodiversity ..... 48
6.3 Visual Impact ..... 50
6.4 Other impacts ..... 56

7. Environmental management ..... 58
7.1 Environmental management plans ..... 58
7.2 Summary of environmental safeguards and management measures ..... 59
7.3 Licensing and approvals ..... 81

8. Conclusion ..... 81
8.1 Justification ..... 81
8.2 Objects of the EP&A Act ..... 82
8.3 Ecologically sustainable development ..... 83
8.4 Conclusion ..... 84

9. Certification ..... 85

10. EP&A Regulation publication requirement ..... 86

11. Terms and acronyms used in this addendum REF ..... 87

12. References ..... 89

Appendix A ..... 90

Appendix B ..... 91

Appendix C ..... 98

Appendix D ..... 103

Appendix E ..... 105

Appendix F ..... 106

Appendix G ..... 107

# Tables

Table 2-1 Urban Design Objectives and Principals ..... 20
Table 3-1 Modifications to Staging Activities as identified in the Project REF ..... 30
Table 5-1: Summary of issues raised by the community ..... 38
Table 5-2: Issues raised through Aboriginal community consultation ..... 39
Table 5-3: Issues raised through stakeholder consultation ..... 40
Table 6-1 Summary of changes in impact between Great Western highway REF and Proposed Modification (S. Van Der Linde-2023) ..... 44
Table 6-2 Tree Schedule for Proposed Modification - Extract from Arboricultural Impact Assessment Report (Dawes-2023) ..... 48
Table 6-3 Summary of Visual Impact Assessment (Sabu-2023) ..... 53
Table 7-1: Summary of safeguards and management measures ..... 59
Table 7-2: Summary of licensing and approval required ..... 81

# Appendices

**A** Figures

**B** Consideration of section 171(2) factors and matters of National Environmental Significance and Commonwealth land

**C** Statutory consultation checklists

**D** Neutral or beneficial effect on water quality assessment

**E** Statement of Heritage Impact

**F** Arboricultural Impact Assessment

**G** Visual Impact Assessment

# 1. Introduction

## 1.1 Background

The approved Great Western Highway Upgrade - Medlow Bath project (referred to herein as the Approved Project) consists of upgrading a 1.2 kilometre section of the Great Western Highway (GWH) at Medlow Bath, between Railway Parade and around 330 metres south of Bellevue Crescent.

The aim of the Approved Project is to reduce congestion, deliver safer, more efficient and reliable journeys for those travelling in, around and through the Blue Mountains, and better connect communities in the Central West. This upgrade will provide a safer, more efficient link between Central West NSW and the Sydney Motorway network.

Key features of the Approved Project include:

- Upgrade of the existing highway to a four-lane divided carriageway allowing for two lanes of traffic in each direction, either side of a central median with planted trees
- Upgrade of the Bellevue Crescent intersection with new turning lanes, U-turn bay and traffic signals
- A new right turn lane providing access to the Hydro Majestic Hotel
- Improvements on Railway Parade to formalise parking provisions, U-turns and rail customer parking
- New indented bus bays on both sides of the highway close to Medlow Bath Station
- Construction of a new pedestrian bridge, stairs and lifts to provide an accessible path of travel between the bus bays, the Medlow Bath Station platforms and Railway Parade
- New shared path for pedestrians and cyclists on the western side of the highway
- Ancillary works such as the replacement of road surfaces, reconstruction works associated with local roads, driveways, footpaths, kerbs, gutters and retaining walls, drainage works and relocation of services.

The Great Western Highway Upgrade – Medlow Bath Review of Environmental Factors (REF) was prepared for the road and station upgrade in July 2021 (referred to in this Addendum REF as the Project REF). The Project REF was placed on public display between 27 July 2021 and 5 September 2021 for community and stakeholder comment. A submissions report (Great Western Highway Upgrade - Medlow Bath Submissions Report), dated June 2022, was prepared to respond to issues raised and the Project REF was determined in September 2022. In response to community and stakeholder comments raised, the submissions report identified that the pedestrian bridge design and station precinct would continue through a series of design challenge workshops to improve its fit with the surrounding heritage context.

The pedestrian bridge and accessible footpath to Medlow Bath Station is the subject of this Addendum REF.

The extent of the Project (relevant to this Addendum REF) as shown in the approved REF is shown in Figure 1-1 and Figure 1-2. The extent of the works identified as the proposed modification are shown in Figure 1-3 and Figure 1-4.

### 1.1.1 Project REF designed pedestrian bridge

The Project REF pedestrian bridge comprised a three-span steel truss bridge extending across the full width of the widened Great Western Highway (about 60 metres), with abutments on the western side of the highway and on Railway Parade. Piers provided structural support on the eastern side of the highway and on the station platform. The submissions report slightly moved the project boundary north at the western footing of the proposed bridge. This allowed for a greater clearance of overhead wires and for the adjoining lot to be used for set down of materials during construction.

To provide access for pedestrians and cyclists, proposed new lifts and stairs would have been located on both sides of the highway, the station platform and Railway Parade. The stairs were proposed to be constructed from concrete, while the 17-person lifts would comprise steel structure with glazing, and canopies at the lift lobbies to provide weather protection.

In addition, it was proposed to provide an accessible path of travel across the highway and to the public transport services including the Medlow Bath Station and bus services on the Great Western Highway and Railway Parade.

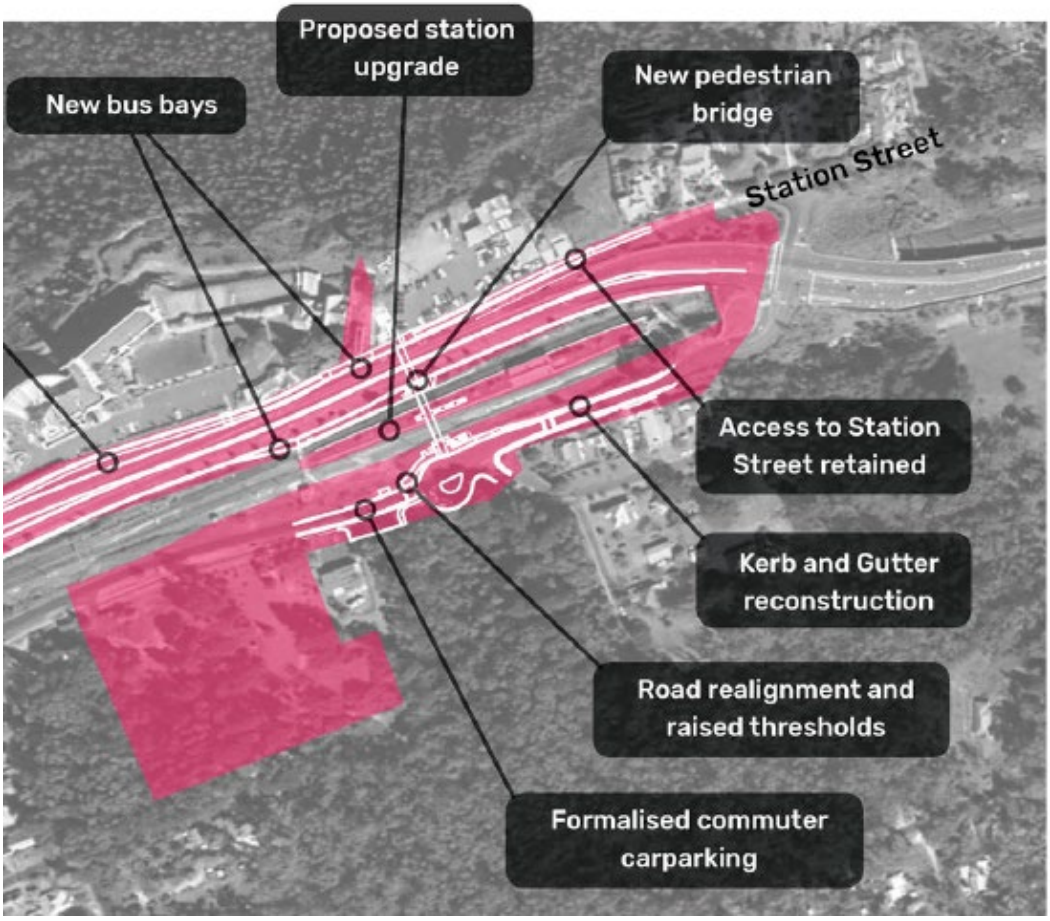



Figure 1-1 Extent of approved project relevant to this addendum REF (Spackman Mossop Michaels, 2021)

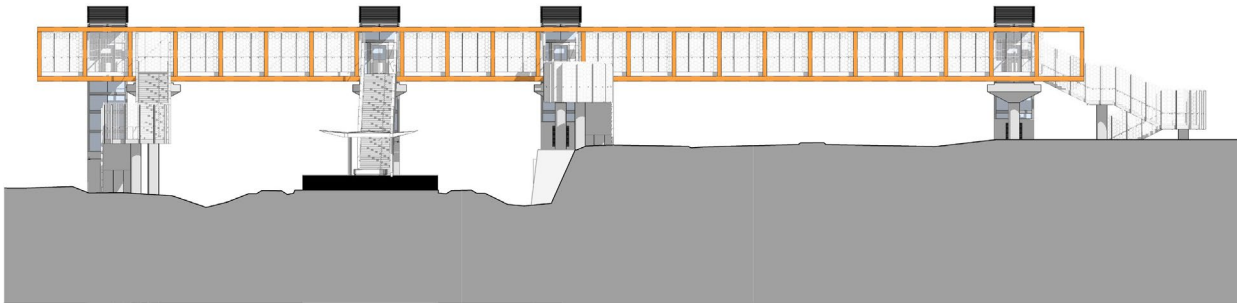


Figure 1-2 Indicative view of the Project REF designed pedestrian bridge looking south (MRB, 2021)

### 1.1.2 Project REF transport accessibility

The Project REF identified that the Medlow Bath Station accessibility upgrade was required as the station does not currently meet the requirements for the Disability Standards for Accessible Public Transport (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA). The Project REF identified the following accessible issues and that these would be further assessed during design:

- the existing paths from the public domain footpaths to the station entries are not currently compliant with DDA standards
- access to platforms is currently via a level crossing and steep ramp or stairs that are not compliant with DDA standards

- existing tactile ground surface indicators on the platform are non-compliant with DDA standards
- there are no existing accessible car parking spaces within the rail customer car park along Railway Parade.

## 1.2 Proposed modification overview

Following community feedback during the submission period for the Project REF, Transport agreed to further explore options for the design of the bridge and accessible footpaths to Medlow Bath Station (proposed modification). Key features of the proposed modification would include:

- Change from a three-span bridge to a single span bridge.
- Pedestrian bridge spanning across the Great Western Highway only.
- Installation of a lift and stair access to the pedestrian bridge on the Western side of the Great Western Highway. These elements are to be installed within the same location and footprint as per the Project REF, however the proposed modification design varies from the Approved Project REF design.
- Installation of an accessible ramp from the pedestrian bridge on the Eastern side of the Great Western Highway.
- Modification of the existing footpaths along the Great Western Highway to meet DDA compliance requirements.
- Demolition of existing stairs and a section of balustrade at the existing pedestrian rail bridge on the northern end of the platform. Installation of a lift and stair access from the existing pedestrian rail bridge to the existing station platform.
- Upgrade of the pedestrian footpath along Railway Parade, including installation of Kiss and Ride, bicycle hoops and forecourt areas.
- Resurfacing of the platform surface to comply with DDA compliance requirements
- Upgrade of electrical systems, service conduits and rail infrastructure to support the accessibility upgrades to the station.
- Removal of High Voltage undergrounding and stanchion relocation works from project scope

The location of the proposed modification is shown in Figure 1-3 and the proposed modification is shown in Figure 1-4. Section 3 describes the proposed modification in more detail.




Figure 1-3: Location of the proposed modification (SixMaps NSW, 2023)

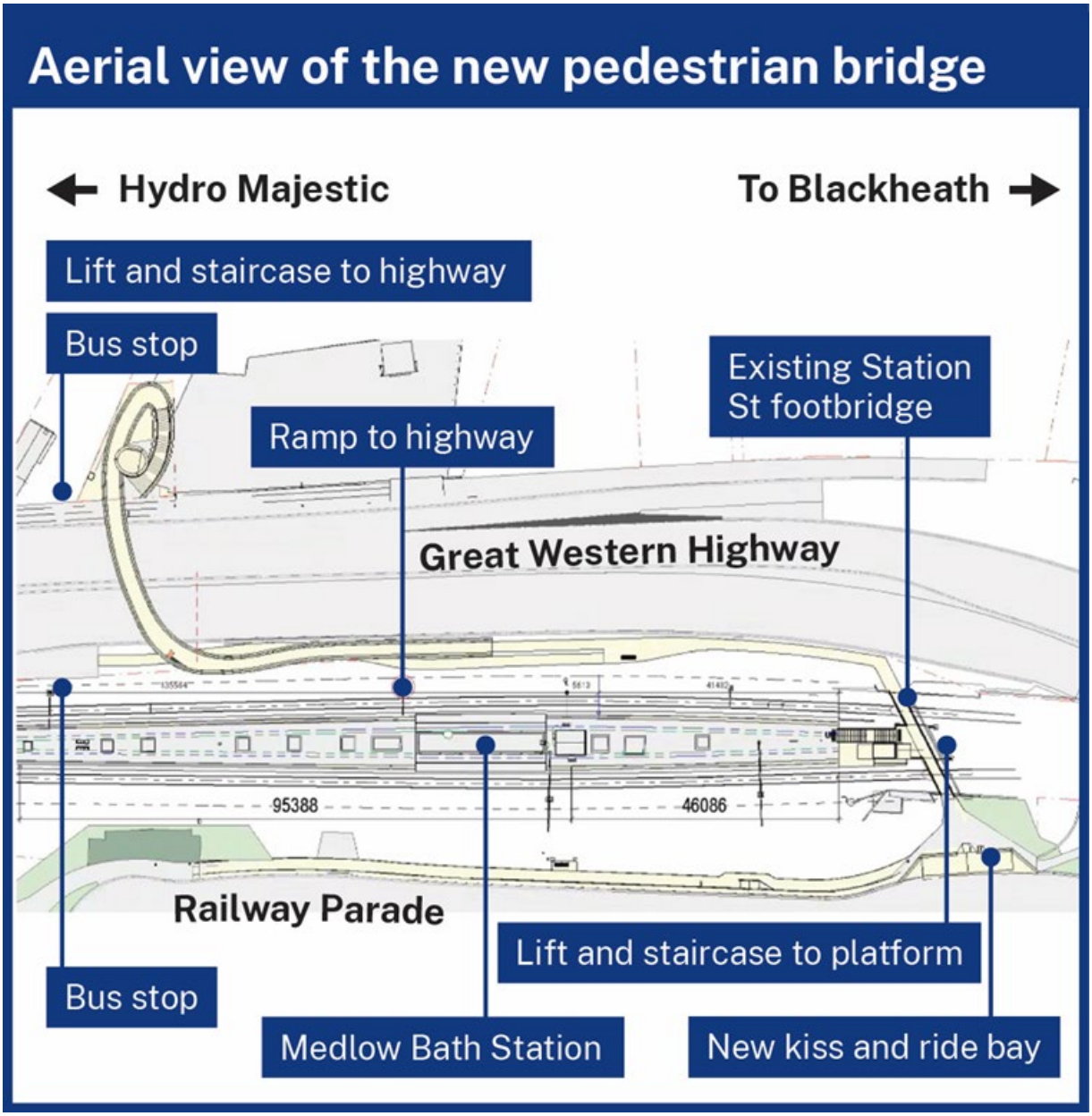



Figure 1-4: The proposed modification subject to detailed design (Systems Definition Review Submission, Arenco, Design Inc, TZG Architects and GHD, June 2023)

## 1.3 Purpose of the report

This addendum REF has been prepared by Arenco on behalf of Transport for NSW (Transport). For the purposes of these works, Transport is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the Project REF and submissions report for the project. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed work and assessment of associated environmental impacts has been undertaken in context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979* (DUAP, 1995/1996), *Roads and Road Related Facilities EIS Guideline* (DUAP, 1996), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so, the addendum REF helps to fulfil the requirements of Section 5.5 of the EP&A Act including that Transport examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

The findings of the addendum REF would be considered when assessing:

- Whether the proposed modification is likely to result in a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured
- The potential for the proposed modification to significantly impact any other matters of national environmental significance or Commonwealth land and therefore the need to make a referral to the Australian Department of Climate Change, Energy, the Environment and Water for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

# 2. Need and options considered

## 2.1 Strategic need for the proposed modification

Section 2 of the Project REF addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification is needed to provide suitable accessible access to Medlow Bath Train Station from the local area while being sympathetic to the heritage, the local context and character of Medlow Bath. The Approved Project without a pedestrian bridge would result in pedestrians crossing four lanes of traffic from Hydro Majestic and sites on Western GWH to reach the station concourse, which is deemed unsuitable with respects to safety and accessibility. Additionally, the current access to the station is not compliant with DDA requirements for all public transport hubs, and an existing level crossing further compromises safety for access by mobility impaired persons, carers/elderly and customers with prams or/and luggage who travel to and from the station platform.

The original three span bridge identified in the Project REF would have provided suitable access, with four lifts, accessible paths and upgraded access on the station platform, however resulted in numerous submissions from stakeholders and the community regarding its design. The submissions report therefore provided the commitment for the pedestrian bridge design and station precinct to progress through a series of design challenge workshops to improve its fit with the surrounding heritage context. The stakeholders and community had the following concerns:

- Adverse impacts on the amenity of the heritage listed Hydro Majestic Hotel and surrounding heritage listed residences
- Adverse impacts on the amenity of the state significant heritage listed Medlow Bath Station group
- Community concern over the size/bulk and overall design of the proposed bridge structure.

As a result, Transport engaged a Design and Construct Contractor to undertake a concept/optioneering phase prior to a new detailed design for the station access upgrade part of the project. Three pedestrian bridge options were developed by a team led by a heritage architect and a Heritage Design Report was prepared. This was followed by high level architectural concept designs which were presented to and reviewed by the pedestrian bridge design briefing team which was made up of community members who had applied and interviewed to participate, and Blue Mountains City Council representatives including members of their heritage and accessibility committees. Following a multi-criteria workshop (refer to Section 2.3.1), the successful option was chosen. This option consisted of a smaller bridge structure spanning the Great Western Highway with upgraded accessible footpaths, a ramp and two lifts. The proposed modification addresses the previously raised concerns, while still providing compliant access to the station.

## 2.2 Proposal objectives and development criteria

Section 2.4 of the Project REF identifies the proposal objectives and development criteria that apply to the proposed modification which include:

- Reduce actual and perceived safety risks
- Maintain and enhance local amenity and character, and protect environmental and cultural assets
- Provide a shared path for active transport users appropriately linked to the Great Blue Mountains Trail and public transport nodes
- Remove the railway level crossing and pedestrian refuge in favour of a physically separated and fully accessible structure to improve rail safety and provide for accessible public transport
- Work to enhance local amenity in developing a design that preserves or reinterprets local heritage values.

The modified proposal would continue to support the objectives of the Great Western Highway Upgrade – Medlow Bath project.

In addition, during the concept design phase (determining the appropriate option for the modification), several key objectives and principles were identified and detailed in Section 4.6 of the Heritage Design Report. These objectives are shown in Table 2-1.

**Table 2-1 Urban Design Objectives and Principals**

| Objective | Principles |
|---|---|
| Objective 1:<br>Develop and integrated design that responds to the high scenic and ecological values of the area | 1. Protect the integrity and scenic values of natural, rural and bushland areas |
| | 2. Maintain and enhance scenic landscape views and vistas |
| | 3. Avoid fragmentation or disturbance of high-quality bushland |
| | 4. Maximise the retention and reinstatement of mature trees, bushland and endemic vegetation |
| | 5. Provide for safe movement of fauna across the corridor where appropriate |
| | 6. Protect and enhance hydrological systems |
| | 7. Maximise the provision of green infrastructure that is in keeping with the Blue Mountains and Hartley Valley landscape |
| | 8. Minimise lighting intrusion in bushland and rural areas, through careful design |
| Objective 2:<br>Respect and celebrate heritage and cultural values, items, areas/precincts and sites in consultation with the community and stakeholders | 1. Protect Aboriginal and non-Aboriginal heritage, historic and culturally important sites, settings, items and artefacts (whether listed or not) including the history and heritage of the GWH itself |
| | 2. In collaboration with the Aboriginal community, design the highway to foster a connection to Country and living culture |
| | 3. Design the highway and its elements to strengthen heritage and cultural values |
| | 4. Retain and reinforce views towards cultural and historic elements and landscapes to strengthen the sense of place |
| | 5. Ensure that arrival sequences into settlements reflect the cultural and historic identity of places |
| | 6. Use culturally appropriate species in settings such as approaches to towns, settlements and historic places. |
| Objective 3:<br>Design the project to sensitively integrate with, interpret and express the landscape and settlement patters that it traverses | 1. Maintain and enhance the contrast between settlements and intervening bushland and pastoral areas, retaining and enhancing the existing spatial qualities |
| | 2. Sensitively integrate earthworks batters/ cuttings to fit with the area's unique landform |
| | 3. Ensure the project is consistent in scale and character to the existing built fabric and character |

| Objective | Principles |
|---|---|
| | 4. Help foster a clear sense of arrival for towns, settlements and places of interest along the route |
| | 5. Integrate with existing patterns including street layouts, the highway and rail alignment and land use interfaces |
| | 6. Provide visual separation between the highway and adjoining sensitive uses |
| | 7. Connect to the landscape setting by expressing the underlying geology |
| | 8. Use finishes that respond to the colours, textures and patterns of the natural landscape and built elements |
| | 9. Ensure treatments for residual lands are compatible with the character and use of adjoining land parcels |
| | 10. Maximise shared infrastructure (including shared utility corridors) in order to minimise the corridor footprint and hard surfaces while maximising opportunities for vegetation. |
| Objective 4:<br>Contribute to the functioning of communities and enhance local and regional connectivity | 1. Design the corridor to clearly distinguish between primary movement sections and settlements with community function |
| | 2. Ensure the route facilitates ease of interaction with, and access to, towns, settlements and places of interest |
| | 3. Sensitively integrate the upgrade with the public domain of towns, settlements and places of interest and enhance their respective safety and amenity |
| | 4. Enhance connectivity along and across the corridor for all modes and integrate with other movement and green grid systems, particularly in settlements and at places of interest |
| | 5. Investigate the potential for redundant road sections to facilitate the development of community places or attractions. |
| Objective 5:<br>Provide a memorable journey that positively contributes to the identity of the area | 1. Acknowledge the origin of the route as traditional Aboriginal pathways |
| | 2. Design for intuitive way-finding and a clear sense of orientation |
| | 3. Maintain and enhance the unique qualities and lifestyle of communities and destinations along the route |
| | 4. Design infrastructure elements to make a positive contribution within the local context |
| | 5. Maximise visual connections to surrounding areas and landmarks |
| | 6. Provide interest and variety along the route including within tunnel sections. |

## 2.3 Alternatives and options considered

### 2.3.1 Methodology for selection of preferred option

During the approvals process, the pedestrian bridge design used in the Project REF received negative feedback from the community, Blue Mountains City Council, and Heritage NSW on a number of grounds relating to negative impact on the State Heritage Listed station and Medlow Bath heritage precinct. As a result, Transport engaged an independent expert to undertake a concept design for three alternative options.

The three options were discussed and assessed by Blue Mountains City Council, local community groups and Transport during several workshops held between December 2022 and May 2023. Additionally, a separate meeting was held with Heritage NSW to discuss the options. A multi criteria analysis assessed each option to determine the option that would best satisfy all of; (i) the project objectives and (ii) the development criteria detailed in Section 2.4 of the Project REF and (iii) the new objectives identified in the Heritage Design Report (see Table 2-1 of this addendum REF).

### 2.3.2 Identified options

During the concept design, three (3) alternative designs were developed as options to replace the original Project REF design. These were:

- Option 1 – A split bridge design, incorporating four (4) lifts and stairs, spanning the Great Western Highway and rail corridor. The design is less intrusive to the original project design, while maintaining the existing components of the design in the original location.
- Option 2 – A curved three span bridge design spanning the Great Western Highway and rail corridor., incorporating three (3) lifts and stairs, and a ramp to reduce the intrusiveness of the design. The design is more fluid, while still maintaining the objectives of the project in the original location.
- Option 3 – A modified design involving a new footbridge and ramp combined with adjustments to the existing station footbridge. The new footbridge would span the Great Western Highway and incorporating a single lift and ramp to facilitate accessibility requirements. This design is the least intrusive design, although requires the modification of the existing pedestrian rail bridge and surrounding footpaths to meet the objectives of the project in terms of accessibility.

### 2.3.3 Analysis of options

The concept options were assessed using a multi criteria analysis process, which included the environmental, social, and economic impacts of the proposed options. Weightings were applied to each of the criteria during the assessment, including on the community preferred option, to determine which option would best satisfy all the project objectives and development criteria (see Section 2.4 of the Project REF) and the new objectives identified in the Heritage Design Report (see Table 2-1 of this addendum REF).

The principles informed the development of three options for a new footbridge in this historic context, prior to selection of a preferred option to develop through System Design Review (SDR) stage.

To ensure value for money (VfM) of the preferred Option, the project team carried out a qualitative multiple criteria assessment workshop on 15 March 2023 to rank the three options based on the following criteria:

- Customer Experience 15%
- Stakeholder Consultation / Community Group Feedback 20%
- Facility Operations and Maintenance 15%
- Constructability 10%
- Urban Design and Precinct Planning 10%
- Heritage NSW Feedback 20%
- Environment and Sustainability 10%

The outcome of the qualitative assessment ranked Option 3 highest scoring, followed by Option 2 then finally Option 1.

## 2.4 Preferred option

The concept design options for the modified project were assessed using a multiple criteria assessment process. This process identified Option 3 as the preferred option as it best addressed the objectives of the original project proposal (refer to Section 2.4 of the Project REF), additional objectives identified in Table 2-1. and constraints raised during the initial design development.

# 3. Description of the proposed modification

## 3.1 The proposed modification

Transport proposes to modify the Great Western Highway Upgrade – Medlow Bath Project to change the design of the pedestrian footbridge, lifts and accessible footpaths to Medlow Bath Station. The proposed modification is shown in Figure 3-1.

Key features of the proposed modification would include:

- Change from a three-span bridge to a single span bridge.
- Pedestrian bridge span across the Great Western Highway only.
- Installation of a lift and stair access to the pedestrian bridge on the Western side of the Great Western Highway. These elements are to be installed within the same footprint as per the Project REF, however the proposed modification design varies from the Project REF design.
- Installation of an accessible ramp from the pedestrian bridge on the Eastern side of the Great Western Highway.
- Modification of the existing footpaths along the Great Western Highway to meet DDA compliance requirements.
- Demolition of existing stairs and a section of balustrade at the existing pedestrian rail bridge on the northern end of the platform. Installation of a lift and stair access from the existing pedestrian rail bridge to the existing station platform.
- Upgrade of the pedestrian footpath along Railway Parade, including installation of Kiss and Ride, bicycle hoops and forecourt areas.
- Resurfacing of the platform surface to comply with DDA compliance requirements
- Upgrade of electrical systems, service conduits and rail infrastructure to support the accessibility upgrades to the station.
- Removal of High Voltage undergrounding and stanchion relocation works from project scope

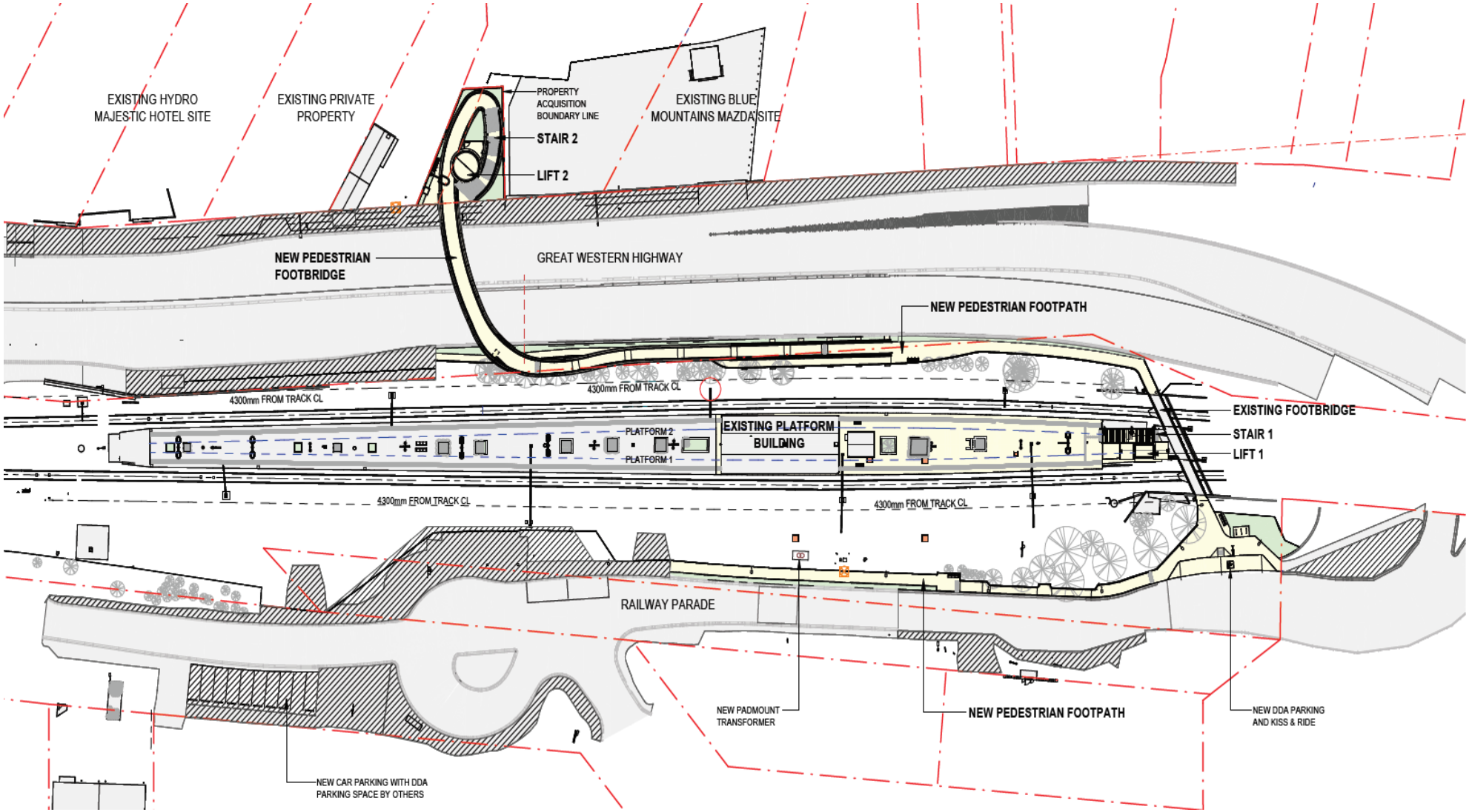



Figure 3-1: Key features of the proposed modification (subject to further detailed design)

## 3.2 Design

### 3.2.1 Design criteria

Generally, there is no proposed change to the design criteria for the project as described in Section 3.2.1 of the Project REF.

The only changes relate to the design of the Project REF bridge including limiting the bridge to a single span over the Great Western Highway, and minor changes to footpath widths to comply with accessibility requirements.

### 3.2.2 Engineering constraints

Key engineering constraints considered during the development of the proposed modification to the project include:

- Existing utilities: Multiple existing underground and above ground public utilities are located around the proposed modification and would be managed through the detailed design development.
- Operational traffic: access to the Great Western Highway, Station Street, Railway Parade and Bellevue Crescent would need to be maintained as there are no alternative detours available. Any closures would require coordination with Traffic Management Centre and significant community consultation and engagement.
- Urban Amenity and Heritage: The proposed modification is in close proximity to a number of notable heritage listed structures including the Hydro Majestic Hotel and Medlow Bath Station Group. The proposed modification would be heavily influenced by the need to maintain the heritage value and amenity of the surrounding area during the detailed design.
- Water Quality: The proposed modification does not change the impacts to the quality of receiving waters, maintaining a neutral impact. During detailed design and construction water quality concerns would be managed as detailed within the Project REF and Construction Environmental Management Plan (CEMP).
- Potential Contamination: The proposed modification does not change the impacts or potential for contamination to be encountered. During detailed design and construction potential contamination would be managed as detailed within the Project REF and CEMP.

### 3.2.3 Main features of the modification

**Design feature 1: Curved half bridge and accessible ramp**

The proposed modification includes a curved half bridge structure with accessible ramps and footpaths (refer to Figure 3-2). The proposed modification pedestrian bridge would sit within the Project REF construction footprint, with a lift and stairs on the western side of the Great Western Highway and an accessible compliant ramp on the eastern side.

Detailed design of this design feature will progress throughout 2023, with final details on the materials and finishes not expected until late 2023. Figure 3-3, Figure 3-4 and Figure 3-5 show the proposed design elevation views and a sample cross section of the expected final design.

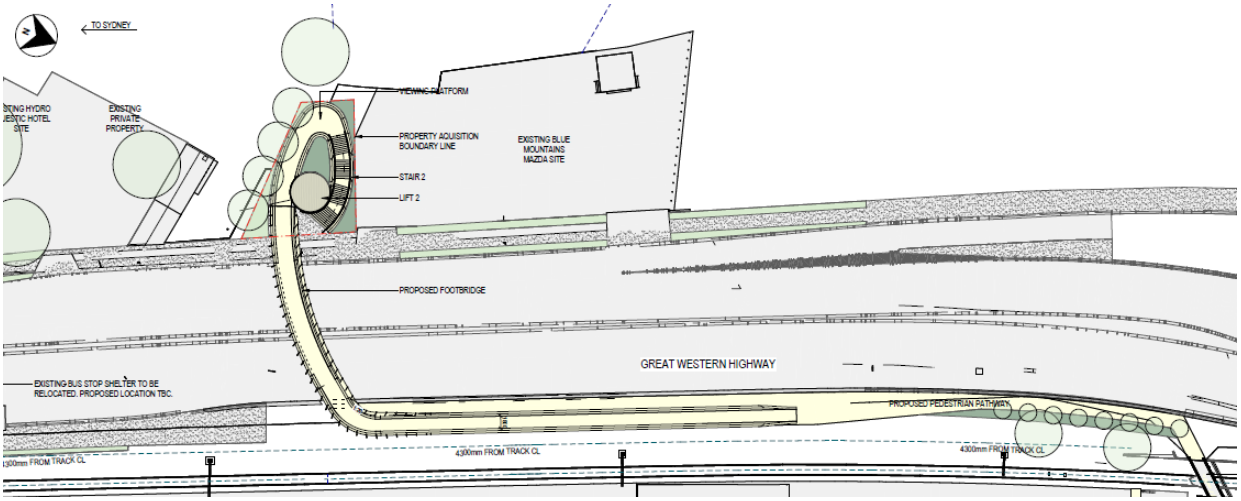
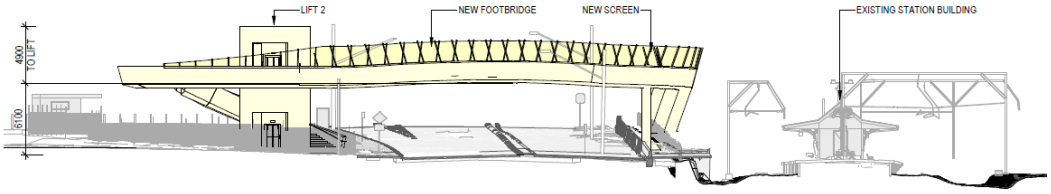
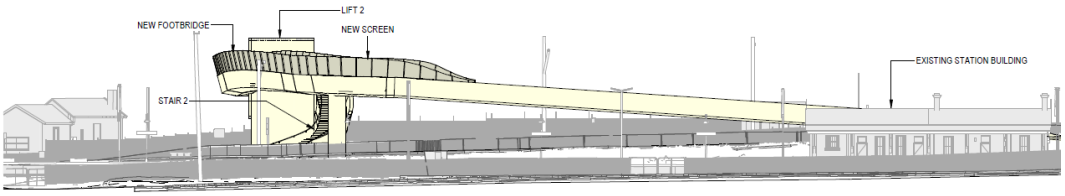



Figure 3-2 Layout of proposed footbridge and accessible ramp




1 OPTION 3 - SOUTH ELEVATION
SCALE 1 : 250

Figure 3-3 Southern elevation view of curved half bridge structure (subject to further detailed design)




2 OPTION 3 - EAST ELEVATION
SCALE 1 : 250

Figure 3-4 Eastern elevation view of curved half bridge structure (subject to further detailed design)

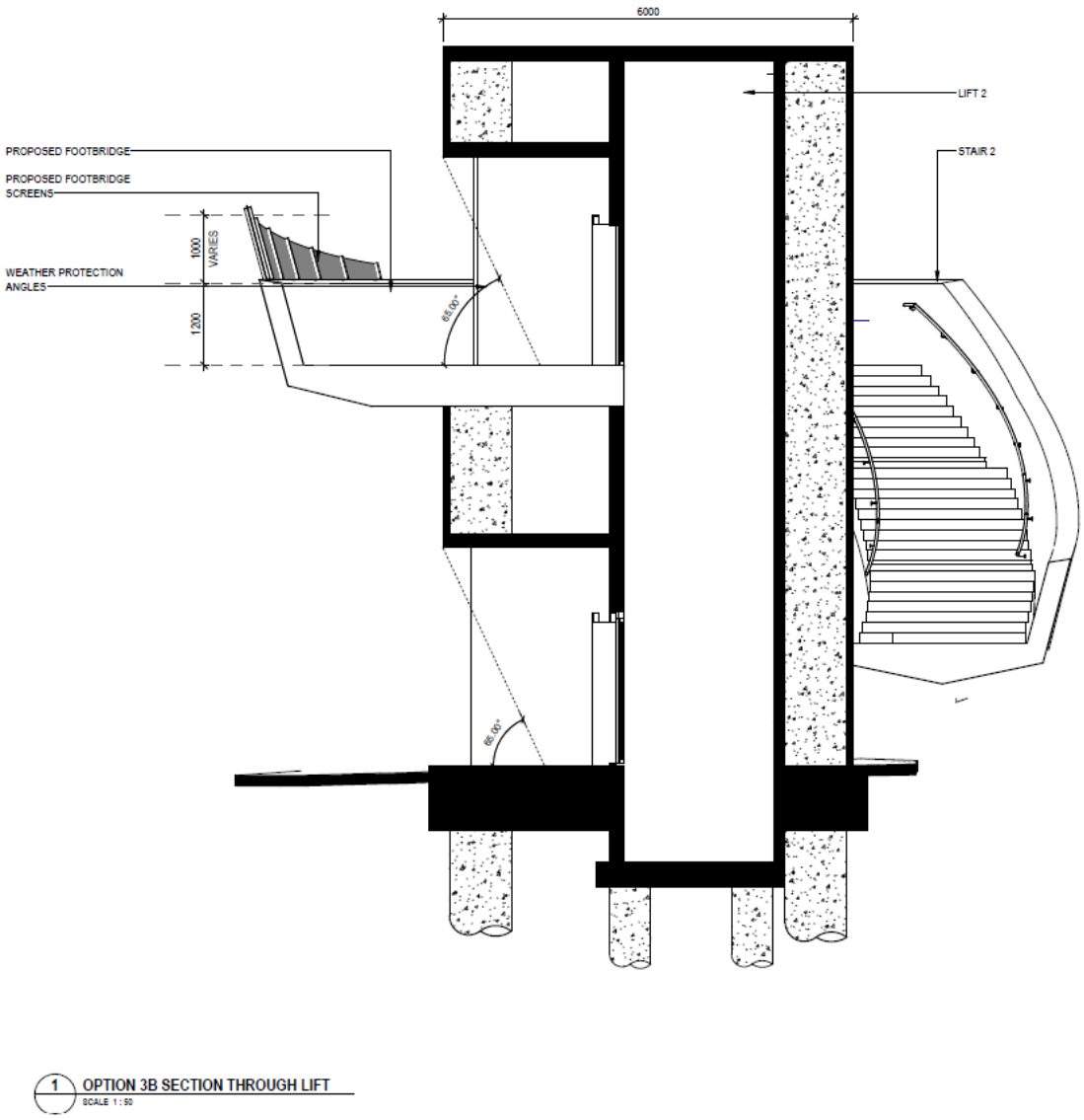



Figure 3-5 Sample cross section of lift and stairs (subject to further detailed design)

**Design feature 2: Modified platform landing, pedestrian rail bridge, lift and accessible footpaths**

Part of the proposed modification includes changes to the existing pedestrian rail bridge to incorporate a lift and relocated stairs (Figure 3-6), along with modifications to the existing platform to comply with accessibility requirements. Additionally, the installation of a DDA parking space, kiss and ride space and accessible footpath from the proposed modification ramp through to the roundabout on Railway Parade (Figure 3-6 and Figure 3-7).

These elements are currently undergoing detailed design development to ensure compliance with all accessibility requirements.

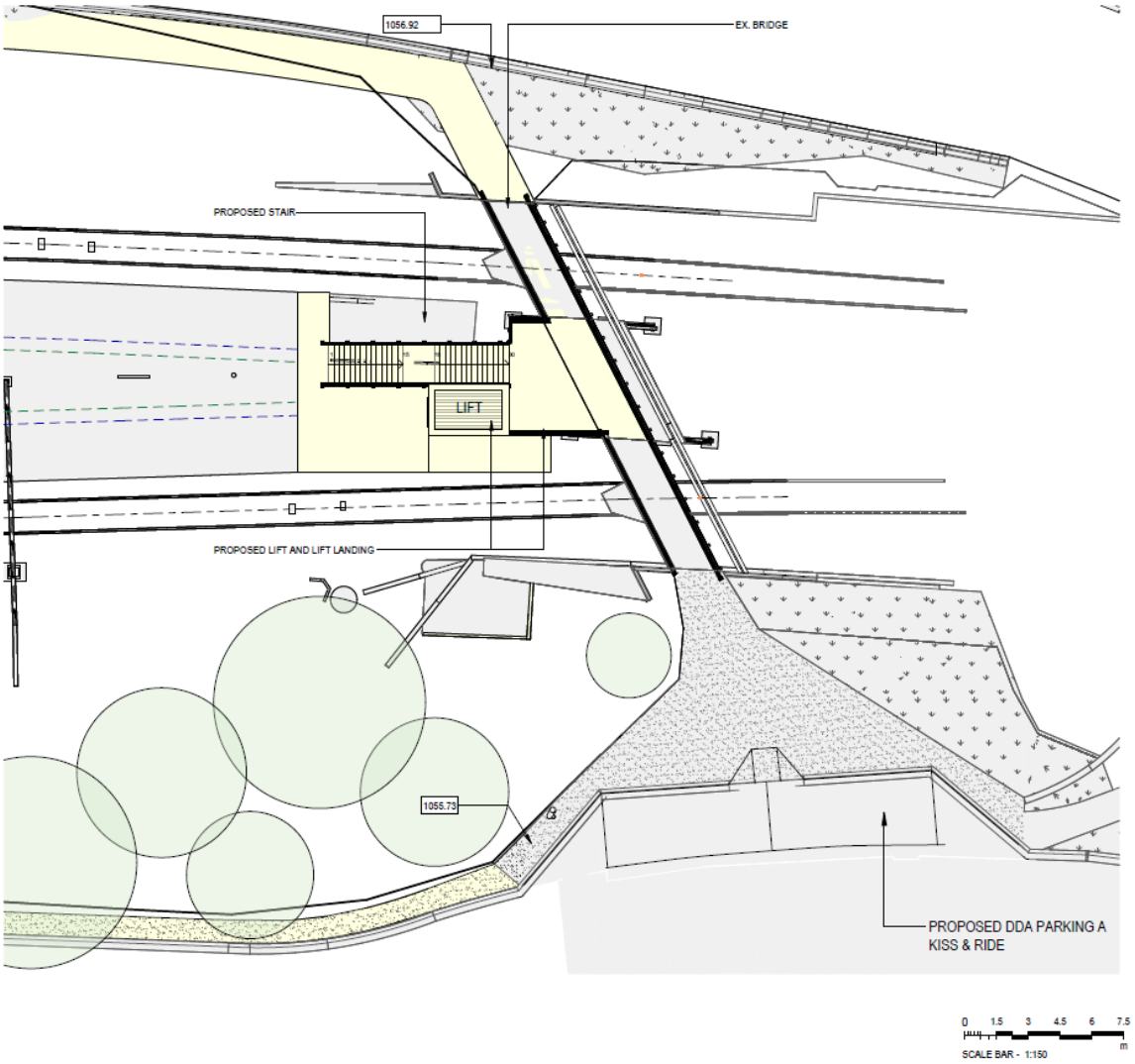



Figure 3-6 Layout of proposed platform landing, pedestrian bridge and DDA Parking/Kiss and Ride location (subject to further detailed design)

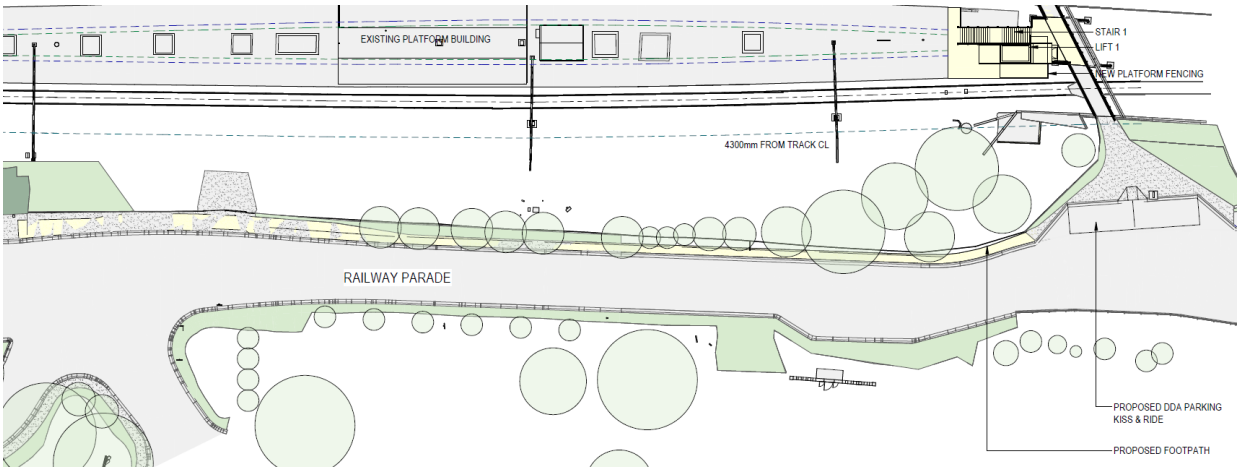



Figure 3-7 Layout of proposed accessible footpath currently undergoing detailed design development (subject to further detailed design)

## 3.3 Construction activities

### 3.3.1 Work methodology

Construction activities would be guided by a CEMP to ensure works are carried out to Transport specifications within the specified work area. The proposed work methodologies are described below.

The proposed construction work and methodology is indicative and detailed design development, detailed construction staging plans and methods would be determined by the construction contractor(s). In the event that the construction activities result in any environmental impacts additional to that assessed in the Project REF and this addendum REF, further environmental assessment would be required to be carried out and approved by Transport.

Generally, the proposed modification is consistent with the Project REF construction activities and staging (Refer to Section 3.2.4 of the Project REF), with the modification covering the following stages identified in Table 3-1:

**Table 3-1 Modifications to Staging Activities as identified in the Project REF**

| Stage | Approved Project REF Construction Work | Duration | Changes from Project REF |
|---|---|---|---|
| 5. Pedestrian Bridge | Construction of footbridge footings, piers and deflection wall<br>Construction of lift foundations<br>Installation of lift shafts, upper landings lift shaft services, lift cars, and fit out lift cars<br>Installation of lighting/CCTV/PA services to lift landings<br>Construction of lift landing canopies<br>Installation of line marking and signposting. | 72 Weeks | Construction of ramp footings, piers and ramp<br>Modification of existing footpaths<br>Accessibility upgrades along Railway Parade<br>No significant changes in duration of project – pending weather, design development and approvals. |
| 6. Station Upgrade | Site compound establishment, (erect fencing, tree protection zones, site offices, amenities, plant and material storage areas, removal of platform garden beds)<br>Relocation of overhead wiring portal<br>Undergrounding 11kV, relocation of stanchions on platform<br>Platform works including resurfacing, new tactiles and relocation of platform furniture<br>Upgrade power supply<br>Upgrade station services<br>Removal of level crossing<br>Demobilisation of site. | 72 Weeks | Undergrounding of 11kV and relocation of existing stanchions on platform no longer required<br>Additional footpath works around station approaches<br>No significant changes in duration of project – pending weather, design development and approvals<br>Slight adjustments to landscaping and footpaths in areas of previously anticipated lift and stair landing/forecourts at Railway Parade and GWH Eastbound side |

The final construction staging methodology would be refined during the detailed design development and detailed construction planning process.

### 3.3.2 Construction hours and duration

Consistent with the Project REF, construction would take approximately 20 months to build. Construction for the Great Western Highway - Medlow Bath Project started in early 2023 with early/enabling works and major construction for the Station Access Upgrade project expected to commence in September 2023. The majority of construction work would generally be carried out during standard work hours as follows:

- Monday to Friday 7am to 6pm

- Saturday 8:00 am to 1:00pm
- Sunday and public holidays, no work.

To minimise disruption to the Blue Mountains rail line and the Great Western Highway, it is anticipated that out of hours work would be required at nights and over weekends. All works would be as allowable in accordance with road occupancy licenses, rail possession and electrical permits requirements.

During scheduled out of hours work, potentially impacted sensitive receivers would be consulted and kept informed of construction progress to minimise any impacts. In addition, management and mitigation measures detailed within the CEMP would be implemented as required to further mitigate any construction impacts. This includes the development of an out-of-hours work protocol which would govern the management of work outside standard hours.

The work would be carried out in accordance with the *Interim Construction Noise Guideline* (ICNG) (Department of Environment and Climate Change, 2009). Prior advice would be given to the community regarding work hours, and any planned construction work that is proposed to be carried out outside standard work hours.

The original construction noise and vibration assessment is being adopted for the proposed modification until detailed design is completed. Upon completion of the detailed design process, an updated construction noise and vibration assessment would be undertaken and adopted in the noise and vibration management plan.

### 3.3.3 Plant and equipment

Plant and equipment requirements for the proposed modification are generally consistent with those identified in Table 16 (Construction source noise levels) of the Noise and Vibration Impact Assessment issued with the Project REF (Appendix I) (Mott MacDonald, 2021). Upon completion of detailed design development, an updated noise and vibration impact assessment would be completed, including an updated plant and equipment list.

### 3.3.4 Earthworks

Earthworks for the proposed modification are currently being determined through the detailed design development process, but are expected to be generally consistent with the Project REF. The total volume of earthworks involved within this portion of the project are relatively small when compared to the overall earthwork requirements. As such, any changes in earthworks within this portion of the project are unlikely to have any significant impact on the overall earthworks and associated impacts for the project.

### 3.3.5 Source and quantity of materials

Source and quantity of materials is currently being determined through the detailed design development process. The quantities of materials are expected to differ to the REF design due to the reduction in the size of the bridge and increases in the amount of footpath work being undertaken. Where possible, recycled, reused, or reclaimed materials would be incorporated into the design, with sustainability design workshops currently being undertaken to improve the overall sustainability of the Station Upgrade project.

The proposed modification is not expected to have a significant adverse impact on the sustainability of the project, with the design process targeting significant sustainability outcomes to be incorporated into the design.

### 3.3.6 Traffic management and access

Traffic management and access would generally remain consistent with those described in Section 3.2.9 of the Project REF. The main deviation from the Project REF, is the closure of the pedestrian stairs from the original 1902 footbridge. These stairs are being removed and replaced to allow for the installation of a new lift. As such access to the station will be closed from the pedestrian footbridge for approximately 12 months. Impacts on commuters will be relatively minor, with pre-project modelling showing most commuters utilise the current level crossing, which will remain in place until the stairs reopen.

Changes to traffic management, such as temporary closures for installation of the over-road span of the pedestrian bridge will be managed through the Traffic Management Centre with community engagement and notification of any closures. Traffic Management for the Station Upgrade program is to be coordinated with the larger GWH Medlow Bath project throughout the duration of construction works.

## 3.4 Ancillary facilities

The proposed modification does not require any ancillary facilities not already identified in Section 3.3 of the Project REF.

## 3.5 Public utility adjustment

The proposed modification does not require any further Public Utility adjustments other than those already identified in Section 3.4 of the Project REF.

## 3.6 Property acquisition

The proposed modification does not require any further property acquisitions other than those already identified in Section 3.5 of the Project REF.

# 4. Statutory and planning framework

This chapter provides the statutory and planning framework for the proposed modification and considers the provisions of relevant state environmental planning policies, local environmental plans and other legislation.

## 4.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act (EP&A Act) establishes the system of environmental planning and assessment in NSW. The Project REF and proposed modification is subject to the environmental impact assessment and planning approval requirements of Division 5.1 of the EP&A Act. Division 5.1 of the EP&A Act specifies the environmental impact assessment requirements for activities undertaken by public authorities, such as Transport, which do not require development consent under Part 4 of the Act.

In accordance with Section 5.5 of the EP&A Act, Transport, as the proponent and determining authority, must examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the Project REF and proposed modification.

Section 171(2) of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) defines the factors which must be considered when determining if an activity assessed under Division 5.1 of the EP&A Act has or is likely to have a significant impact on the environment. Chapter 6 of the Addendum REF provides an environmental impact assessment of the proposed modification in accordance with Section 171(2) and Appendix B specifically responds to the factors for consideration under Section 171(2).

### 4.1.1 State Environmental Planning Policies

**State Environmental Planning Policy (Transport and Infrastructure) 2021**

Chapter 2 (Infrastructure) of the State Environmental Planning Policy (Traffic and Infrastructure) (SEPP (T&I) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.109 of the SEPP (T&I) permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent. Section 2.92 of SEPP(T&I) permits development on any land for the purpose of a railway or railway infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is for road and rail infrastructure and is to be carried out on behalf of Transport, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Precincts – Central River City)
- State Environmental Planning Policy (Precincts – Eastern Harbour City)
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021

Section 2.10 to 2.15 of SEPP (T&I) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by SEPP (T&I) (formally Infrastructure SEPP) (where applicable), is discussed in section 5 of this addendum REF.

**State Environmental Planning Policy (Biodiversity and Conservation) 2021**

Chapter 8 (Sydney Drinking Water Catchment) of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 relates to the use of land within the Sydney drinking water catchment. Section 8.11 of the

SEPP requires consideration of whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect (NorBE) on water quality before carrying out the activity. A neutral or beneficial effect assessment is included in Appendix D. The assessment concludes that the proposed modification would have a neutral effect on water quality.

Chapter 3 (Koala habitat protection 2020) and Chapter 4 (Koala habitat protection 2021) of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range. The SEPP identifies the areas of core koala habitat, encourages the inclusion of core koala habitat into environmental protection zones and requires management plans to be prepared prior to the granting of development consent within an area of core koala habitat.

The Blue Mountains LGA Is listed in Schedule 2 of the SEPP as land on which this koala habitat is applicable. However, the proposed modification does not require development consent from council as it would be assessed under Division 5.1 of the EP&A Act.

**Other SEPPs**

**State Environmental Planning Policy (Resilience and hazards) 2021**
Chapter 4 of the State Environmental Planning Policy (Resilience and hazards) 2021 provides a State-wide approach to the remediation of contaminated land for the purpose of reducing the risk of harm to human health and the environment. While development consent for the proposal is not required, the provisions of SEPP (Resilience and hazards) has still been considered in the preparation of this addendum REF.

Section 6.4 of the Project REF contains an assessment of the potential contamination impacts of the proposal. While some contaminants have been observed within or adjacent to the proposal modification area, it is not expected that any large-scale remediation (Category 1) work would be required as part of the proposal modifications. The proposed land use of the modifications would not differ to the existing use and, therefore, would be unlikely to be affected by any potential contaminants that exist within the road corridor. Excavation of the ground would be required for the foundations of the proposed new pedestrian bridge, however any contaminated materials found within these areas would be dealt with as per the relevant procedures and safeguards outlined in the CEMP.

### 4.1.2 Local Environmental Plans

**Blue Mountains Local Environmental Plan 2015**
The Blue Mountains Local Environmental Plan 2015 (Blue Mountains LEP) is the governing plan for the Blue Mountains LGA, including Medlow Bath. Detailed design development is currently underway, and will ensure the proposed modification is compliant with all the requirements if the Blue Mountains Local Environmental Plans (2015) as detailed within Section 4.1.2 of the Project REF.

## 4.2 Other relevant NSW legislation

### 4.2.1 Roads Act 1993

The *Roads Act 1993* (Roads Act) provides for the classification of roads and the declaration of public authorities for both classified and unclassified roads. It also regulates the carrying out of various activities in, on and over public roads.

Under Section 138(1) of the Roads Act, consent from the road authority is required for carrying out various activities in, on and over public roads. The Great Western Highway is a classified road and requires consent from the road authority to proceed. Approval would be sought for a road occupancy licence for the temporary closure of traffic lanes and, if required, the movement of over-sized vehicles during construction. Consent to carry out work on classified roads is not required as per Schedule 2 clause 5(1) of the Roads Act.

However, a road occupancy licence would need to be obtained as necessary prior to installation of the pedestrian bridge over the Great Western Highway. Additionally, short term ROLs may be required for other works based on safety concerns. These ROL requirements will be determined throughout the detailed design process.

### 4.2.2 Crown Lands Management Act 2016

The *Crown Lands Management Act 2016* provides the legislative framework for the administration of land that is vested in the Crown in NSW. Ministerial approval is required to grant a 'lease, licence, permit, easement or right of way over a Crown Reserve'. Consultation with the Department of Industry (Crown lands division) and a community engagement strategy is required under the Crown Land Management Act 2016 for any action affecting Crown Land use including licences and leases.

Further acquisition/leasing of Crown land to that described in the Project REF would not be required for the proposed modification..

### 4.2.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) sets out the assessment framework for threatened species and ecological communities for activities subject to assessment under Part 5 of the EP&A Act (amongst other types of development).

The proposed modification would not lead to a significant impact on communities and species protected under the BC Act (refer to section 6.2 and Appendix C). Therefore, a species impact statement or Biodiversity Development Assessment Report was not required.

### 4.2.4 Heritage Act 1977

An excavation permit is required to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation would or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. A permit is also required to disturb or excavate any land on which the person has discovered or exposed a relic. Section 139(4) of the *Heritage Act 1977* makes provision for the issuing of an exception in certain prescribed circumstances.

A major works (or standard) Section 60 approval is required for activities and works that have (or would have the potential to have) a moderate or greater impact on the heritage significance of a State heritage item. A Section 60 application is required for proposed works within the State Heritage Register (SHR) curtilage of Medlow Bath Railway Station (refer Section 6.1 of the Addendum REF). The approval would be obtained prior to works commencing, with works restricted to the conditions set out within the S60 Approval.

### 4.2.5 National Parks and Wildlife Act 1979

The harming or desecrating of Aboriginal objects or places is an offence under Section 86 of the *National Parks and Wildlife Act 1979* (NPW Act). Under Section 90, an Aboriginal heritage impact permit may be issued in relation to a specified Aboriginal object, Aboriginal place, land, activity or person or specified types or classes of Aboriginal objects, Aboriginal places, land, activities or persons.

The NSW Department of Planning and Environment has published the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (Department of Environment, Climate Change and Water, 2010).

The due diligence process and the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) (Roads and Maritime Services, 2011) has been undertaken as part of the Project REF and confirmed that an Aboriginal heritage impact permit (AHIP) is not required for the proposal (refer to Section 6.7 of the Project REF).

### 4.2.6 Land Acquisition (Just Terms Compensation) Act 1991

Based on the concept design, it is anticipated that property acquisition will remain unchanged from the Project REF. Transport would continue to consult with affected landowners during the development of the proposed modification.

### 4.2.7 Contaminated Land Management Act 1997

Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) imposes a duty on landowners to notify the Department of Planning and Environment, and potentially investigate and remediate land if contamination is above EPA guideline levels.

Based on the concept design, there are no changes to the risks associated with contaminated lands from those detailed within Section 6.4 of the Project REF.

Further sampling and assessment would be required during construction to determine final waste classification. Subsequent to this, any materials classified as Hazardous Waste may require treatment immobilisation approval in accordance with Part 10 of the Protection of the Environment Operations (Waste) Regulation 2014 prior to off-site disposal.

### 4.2.8 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) provides the legal framework for the management of air, noise, water and waste pollution. Under Section 48 of the POEO Act, scheduled activities (as defined in Schedule 1 of the Act) require an environment protection licence (EPL).

Part 3.2 of the POEO Act requires an environment protection licence for scheduled development work and the carrying out of scheduled activities (as set out in Schedule 1 of the POEO Act). Clause 35 of Schedule 1 of the POEO Act applies to road construction, meaning the construction, widening or rerouting of roads. The Approved Project and proposed modification is not declared to be a scheduled activity as it does not result in any of the following as per the schedule:

(a) the extraction or processing (over the life of the construction) of more than —

> (i) 50,000 tonnes of materials in the case of premises in the regulated area or in the local government areas of Bega Valley, Eurobodalla, Goulburn Mulwaree, Queanbeyan-Palerang Regional or Snowy Monaro Regional, or
>
> (ii) 150,000 tonnes of material in any other case,

(b) the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for a continuous length of at least —

> (i) 1 kilometre — where the road is in a metropolitan area and is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993, or
>
> (ii) 3 kilometres — where the road is in a metropolitan area and is classified, or proposed to be classified, as a main road (but not a freeway or tollway) under the Roads Act 1993, or
>
> (iii) 5 kilometres — where the road is not in a metropolitan area and is classified, or proposed to be classified, as a main road, freeway or tollway under the Roads Act 1993.

In addition, the POEO Act and the Protection of the Environment Operations (Waste) Regulation 2005 are the key pieces of legislation that regulate waste in NSW. They contain the requirements for managing, storing, transporting, processing, recovering and disposing of waste. Applying waste to land in NSW (such as temporary storage and reusing materials back into the construction of a road) may trigger various regulatory requirements such as the need to hold an EPL or pay the waste and environment levy. However, a 'resource recovery exemption' may be applicable for the land application if it is a genuine, fit for purpose, reuse of the waste rather than another path to waste disposal.

An exemption facilitates the use of specific waste materials outside of certain requirements of the waste regulatory framework. For each exemption, there is a corresponding 'resource recovery order' that specifies the requirements that must be met by suppliers of the material. The EPA has issued general resource recovery orders and exemptions for many materials including:

- excavated natural material
- excavated public road material
- raw mulch
- reclaimed asphalt pavement
- recovered aggregate.

These orders and exemptions may be used for the proposal without seeking approval from the EPA.

### 4.2.9 Waste Avoidance and Resource Recovery Act 2001

The purpose of the *Waste Avoidance and Resource Recovery Act 2001* is to develop and support the implementation of regional and local programs to meet the outcomes of a State-wide strategy for waste avoidance and resource recovery. It also aims to 'minimise the consumption of natural resources and final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste'.

Waste generation and disposal reporting would be carried out during the construction and operation of the proposal. Procedures would be implemented during construction to promote the objectives of this Act (refer to Section 6.12 of the Project REF).

## 4.3 Commonwealth legislation

### 4.3.1 Environment Protection and Biodiversity Conservation Act 1999

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) a referral is required to the Australian Government for *proposed 'actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land'*. These are considered in Appendix B and section 6 of the addendum REF.

A referral is not required for proposed road actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015.

Potential impacts to these biodiversity matters are also considered as part of section 6 of the addendum REF and Appendix C.

**Findings – matters of national environmental significance (other than biodiversity matters)**

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there would be no change to the findings of the determined activity and would be unlikely to cause a significant impact on matters of national environmental significance or the environment of Commonwealth land. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

**Findings – nationally listed biodiversity matters**

The assessment of the proposal's impact on nationally listed threatened species, endangered ecological communities and migratory species found that there is unlikely to be a significant impact on relevant matters of national environmental significance. Chapter 6 of the Project REF describes the safeguards and management measures to be applied and is summarised in Chapter 7 of this Addendum REF.

### 4.3.2 Native Title Act 1993

The *Native Title Act 1993* recognises and protects native title. The Act covers actions affecting native title and the processes for determining whether native title exists and compensation for actions affective native title. It establishes the Native Title Registrar, the National Native Title Tribunal, the Register of Native Title Claims and the Register of Indigenous Land Use Agreements, and the National Native Title Register. Under the Act a future act includes proposed public infrastructure on land or waters that affects native title rights or interest.

A search of the Native Title Tribunal Native Title Vision website was undertaken on 14 February 2020, with no Native Title holders/claimants identified.

## 4.4 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of railway infrastructure facilities and road infrastructure facilities and is being carried out on behalf of a public authority. Under section 2.92 and section 2.109 of SEPP (T&I) the proposed modification is permissible without consent. The proposed modification

is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from council is not required.

# 5. Consultation

## 5.1 Consultation strategy

The consultation strategy for the proposed modification remains consistent with the strategy described in Section 5 of the Project REF. The Communications Engagement Plan (CEP) prepared for the approved project would be applied to the proposed modification.

## 5.2 Consultation outcomes

Formal consultation on the progress of the Station Upgrade project has been held with Heritage NSW, Blue Mountains City Council, a local community group, Aboriginal representatives and informally with the wider community on multiple occasions. In August 2022, Transport advertised for community members interested in becoming a community representative in the Medlow Bath pedestrian bridge briefings team. Following the response from the community, five community members were selected along with nominated representatives from Blue Mountains City Council's heritage and disability access advisory groups.

Separate to this committee, Transport also consulted with the appointed Aboriginal Representative on matters of Aboriginal considerations on the Great Western Highway Upgrade Project of which the Medlow Bath Upgrade and proposed modification are a part.

The committee met with Transport on three occasions in December 2022, February 2023 and April 2023. The first meeting on December 2022 explored the ideas of heritage and how they relate to the Medlow Bath precinct design and accessibility.

The second meeting, in February 2023, showcased three potential bridge designs, known as Option 1, Option 2 and Option 3. These designs were then shared with the wider community via emails and interpersonal communication.

The third meeting, in April 2023, discussed the rationale and details of the decision-making process that occurred, with the resulting Option 3 bridge being selected.

Significant weighting was applied to all community feedback, including informal feedback received through digital portals in March regarding preferred bridge options.. This included more than 40 email submissions received from community members outlining their preferred bridge option as well as direct feedback from the pedestrian bridge briefings team about their preferred bridge option.

Further liaisons with the group are planned for July 2023 to discuss the colour, materiality and final form of the bridge.

**Table 5-1: Summary of issues raised by the community**

| Group | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| Residents | Visual impact of design<br>Accessibility to station, bus stop and footpaths<br>Increased walking distances/times<br>Grade of pedestrian paths<br>Safety of the design in relation to drop offs and the potential for illegal U-turns at the northern end of Railway Parade. | Detailed design underway and further consultation to be undertaken with Community, Blue Mountains City Council and Heritage NSW<br>Visual Impact Assessment undertaken – refer to Section 6.3 of the Addendum REF and Appendix G for details.<br>Heritage protection measures to be implemented in accordance with conditions of S60 Heritage |

| Group | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| | | Approval, once received. A statement of heritage impact has been prepared and is summarised in Section 6.1 of this Addendum REF and appended in Appendix E.<br>Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements.<br>A road safety audit would be completed as part of the project works to ensure the safety of all road users. |
| Local Business<br>Pot Belly at Medlow Café | Visual impact of design<br>Accessibility to station, bus stop and footpaths<br>Increased walking distances/times<br>Concerns about commuters parking at the northern end of the station and thereby taking up car spaces otherwise intended for the cafe<br>Grade of pedestrian path<br>Weather exposure due to increased walked distance from station to Hydro for elderly guest | Refer to above.<br>All footpaths and ramps are being designed in compliance with AS 1428.1 to ensure adequate grades and appropriate seating and rest areas.<br>Car parking spaces in front of the Pot Belly Café were not included within the project scope. A designated “Kiss and Ride” spot will be located across from the Pot Belly Café to take commuters.<br>Upgrades to Railway Parade will include parking adjacent the current RFS compound for rail commuters. |
| Local business<br>the Hydro Majestic | • Weather exposure due to increased walking distance from station to Hydro for elderly guests<br>• Discussions held on the 3 Options<br>• A preference against the use of ‘corten’ weathered steel was expressed. | All footpaths and ramps are being designed in compliance with AS 1428.1 to ensure adequate grades and appropriate seating and rest areas.<br>The steel bridge will be painted a neutral soft grey colour to reduce the visual impacts of the bridge. |

Table 5-2: Issues raised through Aboriginal community consultation

| Group | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| Medlow Bath Aboriginal Stake Holders Group | Accessibility concerns<br>Options for community involvement in artworks<br>Lighting impacts | Detailed design underway and further consultation to be undertaken with Community, Blue Mountains City Council and Heritage NSW<br>Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements<br>Detailed design underway and further consultation to be |

| Group | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| | | undertaken with Community related to artwork<br>Lighting will be designed in accordance with relevant Australian Standards. |

Blue Mountains City Council have been consulted about the proposed modification as per the requirements of section 2.10 and 2.11 of SEPP (Transport and Infrastructure) as a part of the Project REF. The proposed modifications do not significantly change these previously discussed impacts and as such further consultation is not required. The modifications relate to connection to the local stormwater network, which was already discussed during the Project REF, and the modifications to the works will result in less stormwater being collected and managed by the local stormwater network. The footpath modifications generally fall in line with footpath works already proposed during the Project REF.

In addition to monthly meetings (held on the third Thursday of the month) with Blue Mountains City Council where the project team updates Council on the general progress of the station upgrade project, Blue Mountains City Council representatives also attended Transport's community bridge design briefings along with selected local community members.

The community bridge design briefing team has met on the following dates:

- 9 December 2022 - Meeting #1 – Heritage values in Medlow Bath (community briefings team only)
- 14 December 2022 – Pop up stand Medlow Bath Railway Station (open to public)
- 17 December 2022 – Pop up stand Pot Belly at Medlow Café (open to public)
- 22 February 2023 – Meeting #2 – Design options (community briefings team only)
- 28 April 2023 – Meeting #3 – Preferred design option 3 design and rational explained (community briefings team only)
- 15 June 2023 – Regular Blue Mountains City Council monthly interface meeting
- 20 July 2023 – Regular Blue Mountains City Council monthly interface meeting
- 21 July 2023 – Meeting #4 – Materiality and design finishes (community briefings team only)

Issues that have been raised as a result of this consultation are outlined below in Table 5-3.

Various government agencies and stakeholders have also been consulted about the proposed modification including:

- Transport for New South Wales – Sydney Trains, NSW Trains, and former Roads and Maritime
- Ride Blue Mountains (Blue Mountains chapter of Bicycle NSW)
- Heritage NSW

Issues that have been raised as a result of consultation with these agencies and stakeholders are outlined below in Table 5-3.

**Table 5-3: Issues raised through stakeholder consultation**

| Agency | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| **Blue Mountains City Council (BMCC)** | Overall need for the pedestrian foot bridge and new ramps structures. | This remains unchanged from the original project proposal, and forms the justification in the Project REF. |
| **Blue Mountains City Council (BMCC)** | Ongoing landscaping and maintenance issues. | Low maintenance vegetation species will be utilised in the |

| Agency | Issue raised | Response / where addressed in addendum REF |
|---|---|---|
| | | landscaping in accordance with relevant design specifications. |
| Blue Mountains City Council (BMCC) | Impacts of the design on the heritage items surrounding the area. | Detailed design development will address the specific concerns related to impacts on heritage items. Specific materials and design details will be reviewed by a heritage architect and specialist consultants during development. A statement of heritage impact has been prepared and is summarised in Section 6.1 of this Addendum REF and appended in Appendix E. |
| Blue Mountains City Council (BMCC)<br><br>Community members | Accessibility concerns with preferred design in relation to the location of the bus stops on the highway and access for children using school buses.<br><br>Accessibility with increased walking distances for people coming from the southern end of Railway Parade. | Access to the bus stops do not form part of the project modification and fall within the original Project REF.<br><br>All footpaths and ramps are being designed in compliance with AS 1428.1 to ensure adequate grades and appropriate seating and rest areas. |
| Ride Blue Mountains | Cycling groups advocated for ramps on either side of the bridge as cyclists will not want to use a lift. | The project team explained the space constraints and why a ramp is not possible on the western side of the highway as it would create significant property impacts to Hydro and Mazda land. |

## 5.3 Ongoing or future consultation

Ongoing consultation will be required by the construction contractor and Transport to update the local property owners, road users, commuters and council of the modified project. Consultation activities will include:

- Project information provided through the project website: Medlow Bath | Transport for NSW | Community Analytics (caportal.com.au)
- Consultation with Blue Mountains City Council, Traffic Management Centre, local bus companies and local businesses will be ongoing in relation to staging plans, traffic management and temporary road closures
- Property owners identified will continue to be consulted about works affecting access, amenity or adjustments to their properties
- Notifications will be published in hard copy, online and on social media before commencement of any works, particularly those involving out-of-hours work or changes to road use
- Ongoing meetings with the community representative groups.

# 6. Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposed modification of the Great Western Highway Upgrade – Medlow Bath. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the guidelines Roads and Related Facilities EIS Guideline (DUAP, 1996) and Is an EIS required? (DUAP, 1999) the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021. The factors specified in section 171(2) of the Environmental Planning and Assessment Regulation 2021 are also considered in Appendix B.

Site-specific safeguards and management measures are provided to ameliorate the identified potential impacts.

## 6.1 Non-Aboriginal Heritage

This section summarises the assessed impacts on non-Aboriginal heritage values that are likely to occur when building and operating the proposal. A Statement of Heritage Impact (SoHI) was undertaken by RPS Group to support the Addendum REF, and is included as Appendix E.

### 6.1.1 Methodology

The SoHI was prepared in accordance with the relevant policies of Heritage NSW including NSW Heritage Manual Statements of Heritage Impacts, and Assessing Heritage Significance. The SoHI uses the method of investigation and analysis established by the Australia ICOMOS (International Council on Monuments and Sites) Charter for the Conservation of Places of Cultural Significance, The Burra Charter 2013 ('the Burra Charter').

This report also draws on relevant TfNSW (Sydney Trains) conservation guidelines and strategies, including:

- Conservation Guide: Railway Station Platforms
- Conservation Guide: Railway Bridges
- Conservation Guide: Railway Station Platform Furnishings
- Conservation Guide: Railway Gardens
- Railway Footbridge Heritage Conservation Strategy (2016)
- Heritage Platforms Conservation Management Strategy (2015).

### 6.1.2 Existing environment

Medlow Bath Railway Station (SHR No.01190, S170 Reference No. 4801011, Blue Mountains LEP Item MB003) can be accessed from both the north and south. The 1901 footbridge across the railway cutting at the northern end provides access via stairs to the single island platform. Access at the southern end of the station is via a ramp from a pedestrian level crossing linking the Great Western Highway to Railway Parade. The 1902 main six bay brick station building is situated toward the centre of the platform, with the small 1922 weatherboard signal room building immediately north. Garden beds with manicured plantings occur along the platform, however these have been heavily modified over the years and differ from the first garden beds established on the platform. The 1902 platform has been extended and resurfaced, with tactile indicators added along the platform edges. The footbridge stairs have been upgraded with new treads, anti-slip guards and hand rails. Opal totems, user information panels, wayfinding signage, seating and additional lighting have also been installed across the station, with some historic light posts still present.

Medlow Bath Railway Station SHR curtilage is bounded by Railway Parade to the east. Adjacent to the SHR curtilage lie The Former Post and Telegraph Store (Blue Mountains LEP Item MB008) and the former Station Master's cottage Urunga (Blue Mountains LEP Item MB017). These are located immediately opposite the platform building on Railway Parade and are clearly visible from Platform 1. Urunga is now a private residence, and the Former Post and Telegraph Store a café. From Park Street, Railway Parade inclines northward toward the rail overbridge, which is marked by a cross intersection with the Great Western Highway and Station Street. A pedestrian pathway from Railway Parade leads to the 1901 footbridge and Medlow Bath Railway Station.

The western side of Medlow Bath Railway Station SHR curtilage is bounded by the Great Western Highway. A concrete footpath runs between the two station entrances beside the highway. A bus shelter (identified for relocation in the Project REF) is located near the southern railway entrance on Great Western Highway. On the western side of Great Western Highway opposite the northern station entrance lies Melbourne House, Cosy cot, Sheleagh Cottage (Blue Mountains LEP Item MB019). In the rail reserve between the railway corridor and the highway lies Avenue of Trees (Blue Mountains LEP Item MB015) (identified for removal in the Project REF). All the original pines here have been removed and replaced.

### 6.1.3 Legislative Context

In NSW, environmental heritage is protected and managed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the *NSW Heritage Act 1977* and the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

### 6.1.4 Potential Impacts

The SoHI reviewed the proposed modification to determine changes required to complete construction. The impacts of these changes were then analysed against the Project REF, identifying potential impacts (refer to Table 6-1). Discussion of these impacts were then detailed and used to prepare the Section 60 Heritage Approval. The S60 approval would detail conditions of approval to be implemented by the Project. Overall the proposed modification would have a minor direct physical impact, a moderate adverse visual impact and a minor adverse archaeological impact to Medlow Bath Railway Station. Further the proposed modification would have generally little to no direct physical impact, moderate adverse visual impact and little to no adverse archaeological impact to heritage listed items in the vicinity. Overall the proposed modification has a reduced impact when compared to the Approved REF especially with regarding the construction of new pedestrian footbridge and alterations to the northern station entrance.

Table 6-1 Summary of changes in impact between Great Western highway REF and Proposed Modification (S. Van Der Linde-2023)

| Proposed element | REF Impact | Proposed Impact | Discussion |
|---|---|---|---|
| Construction of new pedestrian footbridge. | • Minor adverse physical<br>• Major adverse visual<br>• Moderate to major adverse archaeological | • Little to no physical<br>• Moderate adverse visual<br>• no archaeological | Previously the pedestrian bridge was proposed to span across both the Great Western Highway and Medlow Bath Station requiring four sets of lifts and stairs. The proposed modification - pedestrian footbridge now predominantly lies outside of the SHR curtilage and only spans the Great Western Highway and is separate from the rail infrastructure and heritage station. Additionally, the number of lifts has been reduced with the bridge now comprising a single lift on the western side of the Great Western Highway and a ramp on the eastern side of the highway beside the heritage station. The bridge's scale, form and materiality have changed to reduce visual impact further |
| Alterations to northern station entrance | • Minor adverse physical<br>• Moderate adverse visual<br>• Little to no archaeological | • Minor physical<br>• Moderate adverse visual<br>• Little to no archaeological | The adaptive reuse of the1901 footbridge is preferential to the closure originally proposed as it keeps the integrity of place and ensures that ongoing maintenance of the structure would occur. Replacement of the non-significant stair and introduction of a lift would have little to no impact on significant fabric. The original brick abutments and main steel trestles would not be impacted. The secondary mid-landing trestle would be removed |
| Platform upgrades | • Minor adverse physical<br>• Moderate adverse visual<br>• Minor archaeological | • Minor adverse physical<br>• Little to no visual<br>• Minor archaeological | As the pedestrian footbridge no longer spans the station, additional lighting along the platform is not required, reducing visual clutter. |
| Railway Parade works | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | Works for the proposed modification along Railway Parade largely occur outside of the SHR curtilage and have been reduced as civil works within Railway Parade are largely being carried out under the Approved REF. |
| Great Western Highway works | • Little to no physical<br>• Moderate adverse visual<br>• Moderate archaeological | • Little to no physical<br>• Minor adverse visual<br>• Minor archaeological | Works for the proposed modification along the Great Western Highway largely occur outside of the SHR curtilage and have reduced in scope to that in the Approved REF due to the reduced scope of the pedestrian footbridge. Size and location of the retaining wall has altered to reduce visual and archaeological impact. |
| Decommissioning and removal of existing level crossing | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to the decommissioning and removal of existing pedestrian level crossing. |
| Electrical upgrade work | • Moderate adverse physical<br>• Moderate adverse visual | • Minor adverse physical<br>• Little to no adverse visual<br>• Minor archaeological | The size and scale of the padmount transformer has been reduced for the proposed modification. |

| Proposed element | REF Impact | Proposed Impact | Discussion |
|---|---|---|---|
| | • Little to no archaeological | | |
| Relocation of overhead wiring structures (OHWS) | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | N/A | Removed from scope. |
| Underground 11kV aerial line | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | N/A | Removed from scope. |
| Ancillary work | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to ancillary work. |
| Ancillary facilities | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to ancillary facilities. |
| Bus Shelter (potential heritage item) | • Minor physical<br>• Moderate visual<br>• No archaeological | • Minor physical<br>• Moderate visual<br>• No archaeological | No change as the bus shelter will still require relocation |
| Impact to surrounding heritage items | • Little to no physical<br>• Moderate to major adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Moderate adverse visual<br>• Little to no archaeological | The pedestrian footbridge's scale, form and materiality have changed to reduce visual impact to surrounding heritage items. In particular, the footbridge has been designed to respond to its heritage setting and proximity to the Hydro Majestic. It generally will have a smaller footprint and be less visual imposing, further reducing the impact on distant items such as the Former Post and Telegraph and the sandstone railway culvert. |

### 6.1.5 Safeguards and management measures

Mitigation measures have been recommended to ensure that the proposed modification would not cause any further impact to heritage items than outlined in the SOHI. Some of these mitigation measures are already included in the Project REF and therefore are not replicated.

| Impact | Environmental safeguards | Responsibility | Timing | Reference |
|---|---|---|---|---|
| **Non-Aboriginal Heritage** | Detailed refinement:<br>The detailed design of the Proposed modification should be overseen by the Heritage Architect and aim to refine and<br>further minimise the impact of the project, with particular reference to:<br>a. high quality detailing and material selection consistent with the precinct and historic significance of Medlow Bath.<br>b. All new retaining walls and supporting structures to be integrated, unified in terms of materiality and finish and limit the perception of new work in the station environment. Landscaping should be retained and introduced to further reduce the impact of these elements.<br>Further additional specific measures are included in Section 9.3 and 9.4 of the Heritage Design Report | Contractor | Design | Statement of Heritage Impact (Jul 2023) Recommendation 1 |
| **Non-Aboriginal Heritage** | Works should be undertaken with care. To avoid impact to significant fabric during the construction of the proposal, it is recommended:<br>a. measures, as determined in consultation with a suitably qualified conservation specialist, must be put in place to protect significant fabric during proposed works, especially during bridge construction, resurfacing of the platform, removal of OHWS and installation of electrical pits.<br>b. machinery should be placed with sufficient clearance to significant heritage structures to avoid any inadvertent harm to significant fabric or incidental damage from vibration. To ensure this, works should be undertaken as per the TfNSW recommended minimum working distances for vibration intensive plant from sensitive receiver, or as outlined in any Noise and Vibration report undertaken for the proposal. If deemed appropriate, vibration monitoring of works in the vicinity of the Hydro Majestic, should be undertaken.<br>c. air brick raising and replacement on platform building is to be undertaken by an appropriately qualified bricklayer/builder with expertise in heritage buildings.<br>d. removal of heritage light poles<br>i. heritage light poles temporarily removed from the platform during works should be stored safely and securely on site until reinstated on the platform.<br>ii. heritage light poles removed from the decommissioned level crossing should be stored safely in a secure TfNSW facility for future use.<br>e. Detailed design of ancillary works and electrical and data services should be documented in an Illustrated Services Plan and approved by the Heritage Architect prior to the commencement of permanent services works.<br>i. installation of electrical and data services is to be completed in accordance with Sydney Trains (2017) Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites | Contractor | Construction | Statement of Heritage Impact (Jul 2023) Recommendation 4 |

| Impact | Environmental safeguards | Responsibility | Timing | Reference |
|---|---|---|---|---|
| | ii. Ancillary works should be undertaken in accordance with the following Sydney Trains guidelines:<br>– Conservation Guide: Railway Station Platform Furnishings (2012)<br>– Conservation Guide: Railway Station Platforms (2013)<br>– Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites (2017)<br>– Station Components Guide (2017) | | | |
| **Non-Aboriginal Heritage** | If the proposed works, or proposal area, are modified to those discussed in this report, additional heritage advice may be required to appropriately manage and mitigate any potential impacts caused by these changes | Contractor | Design and Construction | Statement of Heritage Impact (Jul 2023) Recommendation 7 |

## 6.2 Biodiversity

This section outlines the biodiversity values and potential biodiversity impacts for the construction and operation of the proposed modification. An Arboricultural Impact Assessment was undertaken by Dawes to support the Addendum REF, and is included as Appendix F.

### 6.2.1 Methodology

The proposed modification generally sits within the original project footprint, not extending beyond the boundaries already considered within the Project REF. As a result, the controls and impacts identified in the Project REF are consistent with the modified proposal, with the exception of some potential vegetation pruning/removal within the existing railway corridor.

An arborist assessed all vegetation within the rail corridor to determine the current health and ecological value of the vegetation. The arborist also provided advice on the ability of the vegetation to recover from pruning and construction works, to determine which vegetation could remain onsite.

Site inspections were conducted by the arborist on 8 May 2023 and 27 May 2023, identifying several trees, shrub groupings and man-made gardens. Each tree assessment was conducted as a ground-based Visual Tree Assessment (Mattheck & Breloer, 1994). This was an examination of the external features of the tree, assessing apparent vitality, presence of deadwood, dieback, physical defects, and decay. Internal or below-ground examinations were not performed. Trunk measurements of large diameter trees were obtained with a diameter tape measure. Diameter measurements were rounded up to the nearest 5cm. Tree height was generally estimated, although where line of sight permitted heights were measured with a laser inclinometer.

Landscape significance, based on the tree's contribution to the amenity of the area, with consideration of any ecological value, was also assessed. The collected data enabled an assessment of the health and structural condition of the tree.

### 6.2.2 Existing environment

The area within the rail corridor is isolated from the surrounding native bushland by urban development and the road/rail corridors and as such is of relatively low ecological value. The area of the modification is covered by non-native ground covers and tree cover as detailed in Figure 6-1 of the Project REF.

The arborist assessment identified 34 trees (Table 6-2), 2 groupings of shrubs and 15 platform gardens that fall within the proposed modification area with varying ages, significance, useful life and retention values (Refer to Appendix F - Dawes 2023 – Arboricultural Impact Assessment - Appendix 1 – Tree Schedule). The vegetation generally has a good to fair health and structure, with short to medium useful life expectancy. The arborist assessment has also classified the vegetation as low to medium significance with a low retention priority.

**Table 6-2 Tree Schedule for Proposed Modification - Extract from Arboricultural Impact Assessment Report (Dawes-2023)**

| ID | Botanical Name | Health | Structure | Age Class | Tree Significance | Useful life Expectancy | Priority for Retention |
|---|---|---|---|---|---|---|---|
| 1 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 2 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 3 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 4 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 5 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 6 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 7 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |
| 8 | *Prunus sp.* | Good | Fair | Semi Mature | Low | Medium | Low |

| ID | Botanical Name | Health | Structure | Age Class | Tree Significance | Useful life Expectancy | Priority for Retention |
|---|---|---|---|---|---|---|---|
| 9 | *Cupressus macrocarpa* | Good | Good | Mature | Medium | Medium | Medium |
| 10 | *Cupressus sp.* | Good | Good | Semi-Mature | Low | Medium | Medium |
| 11 | *Cupressus sp.* | Good | Good | Semi-Mature | Medium | Medium | Medium |
| 12 | *Cupressus macrocarpa* | Good | Good | Mature | Medium | Medium | Medium |
| 13 | *Eucalyptus sieberi* | Good | Good | Mature | Medium | Medium | Medium |
| 14 | *Cupressus sp.* | Good | Fair | Mature | Medium | Medium | Medium |
| 15 | *Cupressus x leylandii* | Good | Good | Juvenile | Low | Medium | Low |
| 16 | *Cupressus x leylandii* | Good | Good | Juvenile | Low | Medium | Low |
| 17 | *Cupressus sp.* | Good | Good | Mature | Medium | Medium | Medium |
| 18 | *Hakea sp.* | Good | Good | Semi-Mature | Medium | Medium | Medium |
| 19 | *Pinus sp.* | Good | Good | Semi-Mature | Low | Medium | Low |
| 20 | *Cupressus macrocarpa* | Good | Good | Mature | Medium | Medium | Medium |
| 21 | *Allocasuarina torulosa* | Good | Good | Mature | Medium | Medium | Medium |
| 22 | *Allocasuarina torulosa* | Good | Good | Mature | Medium | Medium | Medium |
| 23 | *Eucalyptus oreades* | Good | Good | Mature | Medium | Medium | Medium |
| 24 | *Eucalyptus oreades* | Good | Good | Mature | Medium | Medium | Medium |
| 25 | *Hakea sp.* | Good | Good | Mature | Medium | Medium | Medium |
| 26 | *Hakea sp.* | Fair | Fair | Over-mature | Medium | Short | Low |
| 27 | *Hakea sp.* | Fair | Fair | Semi-Mature | Medium | Medium | Medium |
| 28 | *Cupressus sp.* | Good | Good | Mature | Medium | Medium | Medium |
| 29 | *Cupressus sp.* | Good | Good | Mature | Medium | Medium | Medium |
| 30 | *Cupressus x leylandii* | Good | Good | Juvenile | Low | Medium | Low |
| 31 | *Allocasuarina torulosa* | Good | Fair | Juvenile | Low | Medium | Low |
| 32 | *Cupressus x leylandii* | Good | Good | Juvenile | Low | Medium | Low |
| 33 | *Allocasuarina torulosa* | Good | Good | Mature | Medium | Medium | Medium |
| 34 | *Allocasuarina torulosa* | Good | Good | Mature | Medium | Medium | Medium |

### 6.2.3 Potential impacts

**Construction**

Impacts have been identified along both the eastern and western sides of the rail corridor. Along the western boundary of the rail corridor a scaffold would be required for access during construction. This scaffold would impact shrubs along the corridor embankment, with significant pruning required. The assessment by the arborist has determined that this vegetation would withstand significant pruning, and would likely recover post construction. Two (2) trees were also identified as being at risk of outgrowing their positions. One of these trees, identified as T24, would need to be removed for work to proceed, although the arborist notes that both trees would inevitably require removal, irrespective of the proposed modification, to maintain rail reliability.

Along the eastern boundary of the rail corridor, several trees were recommended for removal or significant pruning to facilitate accessible compliant footpaths and new rail boundary security fencing. In total, fifteen (15) trees will need to be removed and a further twelve (12) will require pruning due to the proposed modification. The arborist has imposed limits to this pruning to maintain the health of these trees. An additional tree has also

been identified as a weed species that should be removed, although this tree is not currently proposed for removal.

**Operation**

The proposed modification would not generate any operational impacts to biodiversity not already identified in the Project REF. As such the impacts remain consistent with the Project REF.

**Conclusion on significance of impacts**

The modification is not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore a Species Impact Statement is not required.

The modification is not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the EPBC Act.

### 6.2.4 Safeguards and management measures

| Impact | Environmental safeguards | Responsibility | Timing | Reference |
|---|---|---|---|---|
| **Pruning of vegetation along the eastern boundary of the rail corridor.** | Pruning depth not to exceed the extent of green foliage. | Construction Contractor | Construction and as required during operation. | Medlow Bath Arboricultural Impact Assessment – Ref: AIA0061.3 |
| **Vegetation removal** | The trees earmarked for removal for the Proposed Modification (pedestrian bridge) would be offset in accordance with Transport for NSW's Vegetation Offset Guide. Any additional clearing identified for the station upgrade portion would also require tree offset planting. | Construction Contractor | Construction | Transport for NSW: Vegetation Offset Guide (DMS-SD-087, 2019) |

### 6.2.5 Biodiversity offsets

As the modification has minimal impacts on biodiversity, offsetting will remain consistent with conditions outlines within the Project REF. Removal of any vegetation will be managed in accordance with Transport requirements for offsetting of vegetation, based on the size and number of trees being removed. This is generally a replacement value of 2,4 or 8 trees, depending on the size of the tree removed. Arborist advice will be sort prior to removal of any vegetation, with the aim of preserving all remaining trees where possible.

## 6.3 Visual Impact

This section outlines the visual impacts for the construction and operation of the proposed modification. Refer to Appendix G for the visual impact assessment.

### 6.3.1 Methodology

The following steps have been taken in developing this visual impact assessment (VIA):

- Assess existing context and character
- Assess visibility of the proposal

- Identify key viewpoints
- Assess visual impacts
- Identify mitigation strategies to minimise visual impacts

The assessment of the existing context draws on the Urban Design report which covers land use and character, access and movement, and local context analysis, and includes diagrammatic maps. For this VIA, additional desktop analysis and a site visit to identify key viewpoints from public places was undertaken. All viewpoints are relatively close range – within the immediate station precinct – as the topography and built-up nature of the town centre means that the work would not be visible from further afield.

The visual impact grading matrix (Figure 6-1) was used to provide an overall rating of the visual impact of the proposed modification on each viewpoint. The grading uses a combination of sensitivity and magnitude to provide this overall rating.

'Sensitivity' refers to the quality of the view and how sensitive that view or character is to the proposed change.

'Magnitude' refers to the nature and scale of the project and its proximity to the viewer. For this project, because of its scale and the location on the Great Western Highway, the magnitude is considered to be moderate to high.

| Sensitivity \ Magnitude | High | Moderate | Low | Negligible |
|---|---|---|---|---|
| High | High | High-Moderate | Moderate | Negligible |
| Moderate | High-Moderate | Moderate | Moderate-low | Negligible |
| Low | Moderate | Moderate-low | Low | Negligible |
| Negligible | Negligible | Negligible | Negligible | Negligible |

Figure 6-1 Visual impact grading matrix (Design INC, 2023)

The assessment was undertaken at 5 viewpoints on the proposed modification compared to the assessment undertaken for the REF design as documented in Great Western Highway: Medlow Bath Urban Design, Landscape Character and Visual Impact Assessment Report (spackman mossop michaels, 2021).

### 6.3.2 Existing environment

Medlow Bath lies along the high ridge between the Megalong Valley and the Grose Gorge, which gives the village an elongated character, typical of the Blue Mountains settlements along GWH. Medlow. Due to its undulating topography and cleared open forest areas along the ridge line, the area partially opens to spectacular views towards Megalong Valley near the station for the motorists, while the eastern side is mostly enclosed by bushland. Bath is mostly environmental land (zoned as environmental conservation, environmental management, environmental living, and national parks) with the Hydro Majestic Hotel zoned as tourist infrastructure. The main part of the village lies on the eastern side of the railway line. The Hydro Majestic Hotel occupies most of the western side of the highway, with some residences located towards the north and south sides of the hotel. The housing stock is typically older single-storey detached residences, interspersed with guest-houses and retreats. Apart from the hotel and the walking tracks, there are no key anchor points to draw visitors. Commercial activities are limited to the Mazda dealership, United Petrol Station, small café on Railway Street and a homeware store on Station Street which opens 3 days a week.

Medlow Bath Park, located close to the station, is the only public open space in the precinct. It features dense trees, a playground, sheltered seatings and landscaped gardens. There are also several items of heritage significance in the vicinity including Hydro Majestic Hotel, original walking track complex behind the hotel, Former Post and Telegraph Store on Railway Parade (currently functioning as a café), Avenue of Radiata Pines and Stone Walling adjacent to the hotel.

The Great Western Highway and Railway Parade run parallel on each side of the rail corridor, which makes the station highly visible from both east and west. There is little buffer around the station making it vulnerable to high noise levels along the Highway. The west side of the rail corridor is visually dominated by the Hydro Majestic Hotel and a car dealership. The elevated views from the highway towards the west overlooking Megalong Valley are of high scenic value. Dense vegetation between Railway Parade and Portland Road separates the railway station and the residences towards the east.

The station has a single island platform, accessed via the existing pedestrian bridge at the north (which is less opted by the passengers due to its location away from the desire line for most users) and a non-compliant level crossing at south end of the station, both providing cross corridor connectivity to the village as well. Medlow Bath Railway Station group is a state heritage listed item including the station building, signal room, brick faced island platform and the concrete footbridge. The station building is an early Federation style brick building with gabled roof extending as an awning to platforms. Garden beds with manicured plantings are located along the platform.

### 6.3.3 Heritage and Cultural Considerations

Blue Mountains was the home of many Aboriginal groups who lived and moved around the region prior to European settlement. Six distinct tribal groups hold the traditional rights and custodial responsibilities for the region. There are: the Darug, the Gandangurra, the Wanaruah, the Wiradjuri, the Darkinjung and the Tharawal.

Medlow Bath also has a rich colonial history. It was a popular retreat for wealthy residents of Sydney in the late 19th and early 20th centuries, seeking respite in the cool and picturesque Blue Mountains. The historical development of Medlow Bath, including the establishment of guesthouses and retreats, showcases the region's historical significance as a leisure destination.

The Hydro Majestic Hotel, located in Medlow Bath, is an iconic heritage building that dates back to the early 20th century. It has played a pivotal role in the history of the region, attracting tourists and visitors with its grandeur and scenic location. The hotel is renowned for its Art Deco architecture and has hosted notable guests throughout its history.

Medlow Bath railway station group is a listed item under State Heritage Register (listing number:01190). It is significant as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900. The objective of the proposed design is to minimise any potential impacts on the SHR curtilage.

### 6.3.4 Analysis of Assessment

The visual impact assessment has been separated into five different viewpoints, detailed as below:

A. View from Station Street (looking south towards the proposed bridge)

B. View along the existing footpath, adjacent the Blue Mountains Mazda (looking south towards the proposed bridge)

C. View from the station platform (looking north towards the Great Western Highway)

D. View from Railway Parade adjacent the café (looking south towards the proposed bridge)

E. View along Great Western Highway (looking North towards the proposed bridge)

The summary of the assessment is as follows in Table 6-3.

Table 6-3 Summary of Visual Impact Assessment (Sabu-2023)

| View Point | Design | Sensitivity | Magnitude | Overall Rating | Comments |
|---|---|---|---|---|---|
| A | Project REF | High | Moderate | High-Moderate | The Project design is physically more substantial than the REF design due to the larger lift structure and thicker bridge soffit. Whereas the REF structure stood out due to its colouring, the colour and form of the proposed bridge allows the structure to be recessive, blending into the distance and sky. As the bridge is observed from a distance, the resulting visual impact of the design remains high-moderate, with no material change from the REF. |
| | Proposed | High | Moderate | High-Moderate | The sensitivity is considered to be high due to the residential nature of the properties, coupled with the use of sandstone and plantings to soften the adjacent infrastructure. Views further afield, in the future line-of-site of the bridge, are of a dense tree canopy, seen beyond the Great Western Highway. The bridge will be located some distance from this vantage point, with a moderate magnitude of impact |
| B | Project REF | Low | Moderate | Moderate-Low | The Project design is physically more substantial than the REF design due to the larger lift structure and thicker bridge soffit. Whereas the REF structure stood out due to its colouring, the colour and form of the proposed bridge allows the structure to be recessive, blending into the distance and sky. The REF design reinforced the horizontality of the bridge through its dark colour and expressed structure, with the stairs contrasting and creating visual clutter. The recessive nature of the new design, with a lighter colour and reduced expression of the structure results in the visual impact of the design being moderate, representing a minor increase from the REF. |
| | Proposed | Low | High | Moderate | The sensitivity of this view is considered to be low due to the adjacent land uses and the defining feature of the highway. The new bridge will be a significant visual intervention, largely obstructing the view to the rail corridor to the east of the highway and cutting across the distant view. Light colours, monolithic appearance and curved loop shape of the bridge blends in harmoniously with the surroundings. The bridge colour of a neutral soft light grey reduces the visibility of the bridge when set against the sky. The transparent mesh screens also reduces the visual bulk. Overall, the close proximity of the bridge to the view makes the magnitude of the visual impact high. |
| C | Project REF | N/A | N/A | N/A | The bridge in the REF design would stand out as a prominent architectural feature due to its size and material composition compared to the surroundings. The proposed design spans only the Great Western Highway and is separate from the rail infrastructure. This reduces the length of the bridge and eliminates the need for lift and stairs from Railway Parade. Additionally the station entry lift is proposed to be at the northern end of the platform, further away from this view point. Consequently, this new design causes minimal change to the existing view |
| | Proposed | Moderate | Negligible | Negligible | This view is representative of a number of views from the station platform. A significant portion of the current view composition is occupied by the existing rail and road infrastructure, particularly when observed by rail station users. Considering the existing infrastructure, the viewpoint's sensitivity to change is assessed as moderate. The scope of work on the east side of rail corridor is restricted to improving footpaths and landscaping. But the topographic conditions make the changes barely noticeable, resulting in a negligible visual impact. |

| View Point | Design | Sensitivity | Magnitude | Overall Rating | Comments |
|---|---|---|---|---|---|
| D | Project REF | Moderate | High | High-moderate | The REF design originally proposed a full-length bridge extending across the railway corridor, with lifts and stairs on Railway Parade and at the centre of the station platform, altering this view. In contrast, the proposed design now spans only the Great Western Highway, resulting in a shorter bridge length and eliminating the need for a lift and stairs from Railway Parade. Additionally, the station entry lift is planned for the northern end of the platform, away from this view. As a result, the new design effectively reduces the visual impact by minimising the built form. |
| | Proposed | Moderate | Moderate | Moderate | This viewpoint is representative of a number of views from the residences and local businesses along Railway Parade. The view's sensitivity is considered moderate due to the existing spatial character, which would be susceptible to alterations. . Addition of new built elements would have an impact on the SHR curtilage and visual connection to the and the green backdrop, making the view more responsive to modifications. The proposed design spans only the Great Western Highway and is separate from the rail infrastructure. This reduces the length of the bridge and eliminates the need for a lift from Railway Parade resulting in a significant reduction in visual impact The bridge will be positioned at a considerable distance from this viewpoint, with a low magnitude of impact. However, the new footpath and railings, along with the removal of existing vegetation will contribute to the magnitude of change. Therefore, the overall change within this view would be moderate. |
| E | Project REF | Moderate | Moderate | Moderate | Despite the Project design featuring a larger lift structure and thicker bridge soffit, the reduction in bridge length and elimination of extra lifts and stairs reduce the visual bulk. In contrast to the REF structure, the proposed bridge's color and form allow it to blend into the distance and sky, making it more recessive. While the REF design emphasised the bridge's horizontality through its dark color and expressed structure, creating visual clutter with contrasting lift structure, the Project design takes a more sympathetic approach, resulting in an overall low impact. |
| | Proposed | Moderate | Low | Moderate-low | The sensitivity of the area is evaluated as moderate due to various factors, including the presence of existing road infrastructure, the transient nature of viewers, and the significance of existing heritage items. The bridge stands out as a prominent architectural feature due to its scale. However, the half bridge design reduces its visual impact compared to the REF design by minimising its bulk. The use of a neutral soft light grey color, inspired by the Hydro Majestic, and the incorporation of transparent mesh further reduce the bridge's visibility against the sky. The proposed bridge structure will serve as a distinct landmark when traveling along the GWH, contributing to the character of the area |

### 6.3.5 Assessment Result

The proposed modification reduces the length of the bridge and eliminates the need for a lift from Railway Parade. As a result, there is a substantial reduction in the visual impact compared to the Approved REF design. Taking into account the scale of the proposed architectural components and their proximity to the existing infrastructure and heritage items, the visual impact on the Medlow Bath station and its surrounding area can be described as moderate. The design aims to alleviate this impact by incorporating a sleek and streamlined structure for the bridge, utilising subdued colours, and implementing landscape screening wherever feasible.

## 6.4 Other impacts

This section of the addendum REF provides a detailed description of the potential environmental impacts with negligible to minor impacts associated with the construction and operation of the proposed modification of the Great Western Highway Upgrade – Medlow Bath.

### 6.4.1 Existing environment and potential impacts

| Environmental factor | Existing environment | Potential impacts |
|---|---|---|
| Noise and Vibration | The existing Project REF details significant construction noise at times with potential for vibration impacts, particularly on heritage structures. The site contains the main freight rail corridor west, as well as the Great Western Highway, so intermittent noise is prevalent. Noise levels significantly reduce overnight, where the impacts of construction will be greatest, but these impacts would be managed by controls detailed in the Project REF and CEMP. | The proposed modification generally utilises the same activities, in varied amounts, resulting in similar impacts. These impacts would be managed through the controls already detailed within the Project REF and CEMP. An updated noise and vibration impact assessment would be completed upon completion of detailed design and construction staging planning to confirm the overall changes to the impacts are negligible. Changes to operational noise would be minimal, though improved from the Project REF due to the reduction in the number of lifts in operation. |
| Waste Management | The existing project REF and CEMP have identified waste volumes expected during construction, along with appropriate mitigation measures to minimise the waste generation. | Volumes of waste are likely to be reduced due to a reduction in the bridge structure size, although there will be some offset by increased footpath works. Overall impacts to the project will be negligible and managed through the existing controls detailed within the Project REF and CEMP. |
| Air Quality | The Project REF identified potential for air quality impacts during the construction period as a result of earth works. | The proposed modification is consistent with the project REF with reference to air quality impacts. |
| Surface Water and Ground Water | The Project REF has identified risks to both surface water quality, and potential for ground water impacts as a result of construction activities. | The proposed modification is consistent with the Project REF as the changes proposed will not change the potential risks or impacts. |
| Soil and Contamination | Risks associated with soils and contamination were identified within the Project REF as a result of construction activities and potential unknown contamination sources. | The proposed modification does not change the potential impacts or risks identified in the Project REF and as such are consistent with the Project REF. |
| Traffic | The Project REF identified potential for traffic impacts during construction period as a results of construction activities. | The proposed modification would have a negligible additional impact to the Project REF. Impacts will be managed by the management measures outlined in Section 7 and the Project REF. |
| Flooding | The Project REF has identified potential flooding risks as a result of managing run-off water. | The proposed modification would not adversely impact these risks, with a reduction in the changes from the existing conditions as a result of the reduced bridge spans. Impacts would be consistent with or less than those identified in the Project REF. |

| Environmental factor | Existing environment | Potential impacts |
|---|---|---|
| Property Acquisitions | The Project REF has identified some property acquisitions required to complete the project. | The proposed modification is consistent with the Project REF in relation to property acquisitions. |
| Community Impacts | The Project REF identified a number of potential impacts to community related construction activities | The proposed modification is consistent with the impacts identified in the Project REF. |
| Aboriginal heritage | There are no known Aboriginal sites identified within the proposed modification area through AHIMS search conducted by Transport on 15 August 2023. This supplements the Approved REF AHIMS searches conducted by MRB on 17 May 2021 of the proposal area (including a 200 metre buffer) and a previous search completed in 2019.<br>In addition, the proposed modification area has undergone extensive landscape modification and high level of disturbance from previous transport development which has been documented as part of previous Aboriginal heritage investigations (Jacobs, 2020). | The proposed modification is consistent with the Project REF with low likelihood of impact to any previously unidentified culturally sensitive items. |
| Landscape character | The Project REF identified three distinct landscape zones. The proposed modification is located within the zone identified as LC2–Medlow Bath Western Plateau (Great Western Highway side) and LCZ 3 – Medlow Bath East Village (railway parade side). LCZ2 is described as a Plateau adjacent to the Megalong Valley escarpment, rich in high visual and scenic qualities. LCZ 3 is described as having flat to gently undulating topography, predominantly low-density housing surrounded by remnant stands of woodland vegetation and mature planted exotics. | As identified in the Project REF, the proposed modification would result in a combination of temporary and permanent impacts to the existing landscape resulting from vegetation removal and construction activities. The landscape plan for the Proposed Modification would develop further during design in consultation with the wider Great Western Highway – Medlow Bath project to ensure a blended landscape. |
| Impact Fatigue | The Project REF has identified potential impact fatigue factors related to the project, particularly in relation to surrounding projects. | The proposed modification is consistent with the Project REF with reference to Impact Fatigue risks. |
| Cumulative impacts | The Project REF has identified potential cumulative impact fatigue factors related to the project, particularly in relation to surrounding projects. | The proposed modification is consistent with the Project REF with reference to cumulative impact risks. |

# 7. Environmental management

## 7.1 Environmental management plans

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposed modification. Should the proposed modification proceed, these management measures would be addressed if required during detailed design and incorporated into the CEMP and applied during the construction and operation of the proposed modification.

## 7.2 Summary of environmental safeguards and management measures

Environmental safeguards and management measures for the Great Western Highway Upgrade – Medlow Bath are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the detailed design phase of the proposed modification, the CEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1: Summary of safeguards and management measures

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| GEN1 | General – minimise environmental impacts during construction | A CEMP will be prepared and submitted for review and endorsement of the Transport Environment Manager prior to commencement of the activity.<br>As a minimum, the CEMP would address the following:<br>• any requirements associated with statutory approvals<br>• details of how the project will implement the identified safeguards outlined in the REF<br>• issue-specific environmental management plans<br>• roles and responsibilities<br>• communication requirements<br>• induction and training requirements<br>• procedures for monitoring and evaluating environmental performance, and for corrective action<br>• reporting requirements and record-keeping<br>• procedures for emergency and incident management<br>• procedures for audit and review.<br>The endorsed CEMP will be implemented during the undertaking of the activity. The CEMP would be updated as required throughout the construction. | Contractor / TfNSW Project Manager | Detailed design / Pre-construction | |
| GEN2 | General – notification | All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity would be notified at least five days prior to commencement of the activity. | Contractor / TfNSW Project Manager | Pre-construction | |
| GEN3 | General – environmental awareness | All personnel working on site would receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular “toolbox” style briefings. | Contractor | Detailed design / Pre-construction | |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include:<br>• areas of heritage sensitivity/heritage items<br>• threatened species habitat<br>• adjoining residential areas requiring particular noise management measures<br>• alternative traffic arrangements. | | | |
| BIO1 | Biodiversity | A Flora and Fauna Management Plan will be prepared in accordance with Transport's Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) or DMS-SD-111 Vegetation Management (Protection and Removal) Guideline (Transport for NSW, 2019) and DMS-SD-113 Fauna Management Guideline (Transport for NSW, 2019) for rail activities and implemented as part of the CEMP. It will include, but not be limited to:<br>• plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas requirements set out in the Landscape Design Guideline (Roads and Maritime Services, 2018)<br>• pre-clearing survey requirements procedures for unexpected threatened species finds and fauna handling procedures addressing relevant matters specified in the Policy and guidelines for fish habitat conservation and management (Department of Primary Industries Fisheries, 2013)<br>• protocols to manage weeds and pathogens. | Contractor | Detailed design / Pre-construction | Section 4.8 of *QA G36 Environment Protection* |
| BIO2 | Removal of native vegetation | Areas for native vegetation and habitat removal will be minimised through detailed design. | Contractor | Detailed design | Appendix D |
| BIO3 | Removal of native vegetation | Pre-clearing surveys and habitat removal would be undertaken in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) or DMS-SD-113 Fauna Management Guideline (Transport for NSW, 2019) for rail activities.<br>Where possible, hollow bearing trees should be retained or relocated. | Contractor | Pre-construction | Appendix D |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| BIO4 | Removal of native vegetation | Vegetation removal would be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) or DMS-SD-111 Vegetation Management (Protection and Removal) Guideline (Transport for NSW, 2019) for rail activities. | Contractor | Construction | Appendix D |
| BIO5 | Removal of native vegetation | Native vegetation will be re-established in accordance with Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011). | TfNSW | Post construction | Appendix D |
| BIO6 | Removal of native vegetation | The unexpected species find procedure would be followed under the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) if threatened ecological communities, not assessed in the biodiversity assessment, are identified in the proposal area. | Construction contractor | Construction | Appendix D |
| BIO7 | Aquatic habitat | Aquatic habitats would be protected in accordance with Guide 10: Aquatic habitats and riparian zones of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) and Section 3.3.2 Standard precautions and mitigation measures of the Policy and guidelines for fish habitat conservation and management Update 2013 (Department of Primary Industries Fisheries, 2013). | Contractor | Construction | Appendix D |
| BIO8 | Injury and mortality of fauna | Fauna would be managed in accordance with Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011). | Contractor | Construction | Appendix D |
| BIO9 | Invasion and spread of weeds | Weed species would be managed in accordance with Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (Roads and Traffic Authority, 2011) or DMS-SD-110 Weed Management and Disposal Guide (Transport for NSW, 2019) for rail activities. | Contractor | Construction | Appendix D |
| BIO10 | Invasion and spread of pests | Pest species will be managed within the Proposal area. | Contractor | Construction | Appendix D |
| BIO11 | Invasion and spread of pathogens and disease | Pathogens would be managed in accordance with Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and | Contractor | Construction | Appendix D |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | managing biodiversity of RTA projects (Roads and Traffic Authority, 2011). | | | |
| BIO12 | Pruning of vegetation along the eastern boundary of the rail corridor. | Pruning depth not to exceed the extent of green foliage. | Contractor | Construction and as required during operation. | Medlow Bath Arboricultural Impact Assessment – Ref: AIA0061.3 Appendix F of Addendum REF |
| BIO13 | Removal of vegetation | The trees earmarked for removal for the Proposed Modification (pedestrian bridge) would be offset in accordance with Transport for NSW's Vegetation Offset Guide. Any additional clearing identified for the station upgrade portion would also require tree offset planting | Contractor | Construction | Transport vegetation offset guide |
| HYD1 | Blockage causing increased flooding potential | Develop a blockage assessment of the pavement and cross drainage strategy and implement the strategy. | Contractor | Detailed design /Pre-construction | Best practice |
| HYD2 | Overland flows causing localised flooding | Flow diversion bunds and sediment fencing are to be used for redirection of overland flows to dedicated management areas including sediment basins and ultimately to discharge locations. | Contractor | Construction | Best practice |
| WAT1 | Soil degradation and water pollution | A Soil and Water Management Plan would be prepared and implemented as part of the CEMP. The plan would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction.<br><br>The Soil and Water Management Plan would be reviewed by a soil conservationist on the Transport list of Registered Contractors for Erosion, Sedimentation and Soil Conservation Consultancy Services. The Plan would then be revised to address the outcomes of the review and implemented. | Contractor | Detailed design / Pre-construction | Section 2.1 of *QA G38 Soil and Water Management* |
| WAT2 | Soil degradation and water pollution | Site specific Erosion and Sediment Control Plan/s would be prepared and implemented as part of the Soil and Water Management Plan.<br>The Plan/s would include arrangements for managing wet weather events, including monitoring of potential high risk | Contractor | Detailed design / Pre-construction | Section 2.2 of *QA G38 Soil and Water Management* |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.<br>The site specific Erosion and Sediment Control Plan/s would be developed in accordance with the principles and requirements in Managing Urban Stormwater – Soils and Construction, Volume 1 (Landcom 2004) and Volume 2D (DECCW 2008), commonly referred to as the 'Blue Book'. | | | |
| WAT3 | Run-off velocity (scour) | Level spreaders would be installed at all discharge locations to the natural surface used to reduce velocity and depth of the flows reaching the natural watercourses /s.<br>New discharge outlets would be designed with appropriate energy dissipation and scour protection measures as required to minimise the potential for sediment disturbance and resuspension in the receiving waters. Outlet design and energy dissipation/scour protection measures would be informed by drainage modelling.<br>Check dams or velocity managing devices are installed into flow paths particularly in areas with steep gradients. | Contractor | Detailed design / Pre-construction | Best practice |
| WAT4 | Water quality | Maintenance requirements for all stormwater treatment systems and devices installed as part of the Proposal would be identified and included in relevant operational maintenance schedules/systems. | Principal Contractor<br><br>TfNSW | Post construction | Best practice |
| WAT5 | Spill containment | Dedicated diversion equipment would be implemented for the storage of spills to avoid direct discharge to receiving watercourses. | Contractor | Detailed design / Pre-construction | Best practice |
| WAT6 | Sediment run-off from construction site | Sediment basins would be designed and constructed for the collection of sediment runoffs through reduction of flow velocity. | Contractor | Construction | Section 2.2 of *QA G38 Soil and Water Management* |
| WAT7 | Sediment run-off from construction site | The extent of ground disturbance and exposed soil would be minimised to the greatest extent practicable to minimise the potential for erosion. | Contractor | Construction | Section 2.2 of *QA G38 Soil and Water Management* |
| WAT8 | Sediment run-off from construction site | Disturbed ground and exposed soils would be permanently stabilised and proposed landscaped areas would be suitably profiled and vegetated as soon as possible following disturbance to minimise the potential erosion. | Contractor | Construction | Section 2.2 of *QA G38 Soil and Water Management* |
| CON1 | Contaminated land | A targeted Phase 2 investigation providing general coverage of the proposed alignment and areas of potential | TfNSW | Detailed design / Pre-construction | Appendix G |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | contamination sources (including areas where fill would be encountered during construction and hydrocarbon migration from the United Petrol Station) would be undertaken. The investigation would address the potential risk that fill material may pose to construction workers and future users of the site. Assessments would be carried out in accordance with guidance made or endorsed by the NSW EPA. The contaminated land investigations would be carried out and the report verified by a suitably qualified and experienced environmental consultant. | | | |
| CON2 | Contaminated land | A Contaminated Land Management Plan would be prepared in accordance with the Guideline for the Management of Contamination (RMS, 2013) and implemented as part of the CEMP. The plan would include, but not be limited to:<br>• capture and management of any surface runoff contaminated by exposure to the contaminated land<br>• any further investigations required to determine the extent, concentration and type of contamination<br>• management of the remediation and subsequent validation of the contaminated land, including any certification required<br>• measures to ensure the safety of site personnel and local communities during construction.<br>If contaminated areas are encountered during construction, appropriate control measures would be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area would cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport Environment Manager and/or EPA. | Contractor | Detailed design / Pre-construction | Section 4.2 of *QA G36 Environment Protection* Appendix G |
| CON3 | Pollution from run-off | The following measures would be included to limit sediment and other contaminations entering receiving waterways:<br>• chemicals would be stored within a sealed or bunded area<br>• appropriate controls would be in place where plant is stored<br>• run-off from ancillary facilities would be controlled and treated before discharging into downstream waterways | Contractor | Construction | Additional safeguard |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | • vehicle movements would be restricted to designated pathways where feasible.<br>Areas that would be exposed for extended periods, such as car parks would be stabilised where reasonably practicable. | | | |
| CON4 | Accidental spill | A site specific emergency spill plan would be developed, and include spill management measures in accordance with the Transport Code of Practice for Water Management (RTA, 1999) and relevant EPA guidelines. The plan would address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport and EPA officers). The plan would be reviewed and updated throughout construction as necessary. | Contractor | Detailed design / Pre-construction | Section 4.3 of *QA G36 Environment Protection* |
| TRA1 | Traffic and transport | A Traffic Management Plan would be prepared and implemented as part of the CEMP. The plan would be prepared in accordance with the Traffic Control at Work Sites Manual (Transport, 2020) and QA Specification G10 Control of Traffic. The plan would include:<br>• confirmation of haulage routes<br>• measures to maintain access to local roads and properties<br>• site specific traffic control measures (including signage) to manage and regulate traffic movement<br>• measures to maintain pedestrian and cyclist access<br>• requirements and methods to consult and inform the local community of impacts on the local road network<br>• access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads.<br>• a response plan for any construction traffic incident<br>• consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic<br>• monitoring, review and amendment mechanisms. | Contractor | Detailed design / Pre-construction | *QA Specification G10* |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| TRA2 | Traffic and transport | The local bus operators would be consulted to confirm alternative temporary bus stop and operations during construction.<br>The local community would be notified about the agreed local temporary bus stop location, as coordinated and managed under the consultation strategy. | Contractor | Construction | TRA2 |
| TRA3 | Property access | Property access would be maintained where feasible and reasonable and property owners would be consulted before starting any work that may temporarily restrict or control access.<br>(Side) road and lane closures would be minimised where feasible and reasonable. | Contractor | Construction | TRA3 |
| NOI1 | Construction noise and vibration | A Noise and Vibration Management Plan would be prepared and implemented as part of the CEMP. The plan would generally follow the approach in the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) and include the following:<br>• the plan would consider potential vibration impacts associated with construction activities and would identify feasible and reasonable measures to mitigate these impacts, including safe working distances<br>• all potential significant noise and vibration generating activities associated with the activity<br>• feasible and reasonable mitigation measures to be implemented, taking into account Beyond the Pavement 2020: Urban design approach and procedures for road and maritime infrastructure planning, design and construction (Transport Centre for Urban Design, 2020)<br>• a monitoring program to assess performance against relevant noise and vibration criteria<br>• arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures<br>• contingency measures to be implemented in the event of non-compliance with noise and vibration criteria<br>• stakeholder engagement would be a key feature of these measures, particular with key stakeholders such as the Hydro Majestic Hotel. | Contactor | Detailed design / Pre-construction | Section 4.6 of *QA G36 Environment Protection* |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | • vibration sensitive receivers identified would require careful consideration when planning works and, dependent on the nature of the works, may require vibration monitoring throughout.<br>The plan would be reviewed and updated as necessary throughout construction. | | | |
| NOI2 | Out of hours works | As part of the Noise and Vibration Management Plan, an out-of-hours work protocol would be developed, including any requirements set under an EPL which defines:<br>• all scheduled and planned out-of-hours activities<br>• any oversized and other deliveries needing to take place out-of-hours as required by the police or other authorities for safety reasons ·<br>• other tie-in, utility connection and intersection work that may need to take place out-of-hours for road user safety issues<br>• out-of-hours emergency work needed to prevent the loss of life, property, to prevent harm or as agreed under negotiation with EPA and affected sensitive receivers<br>• the record-keeping process for capturing agreed and emergency out-of-hours work<br>• very noisy activities should, as much as reasonably practicable, be programmed for normal working hours. If the work cannot be undertaken during the day, it should be completed before 12:00am. In particular, there should be no jackhammering or saw cutting after midnight.<br>• all rail activities shall be undertaken in accordance with Section 6.1.1.2 of the CNVS, in particular any noise exceedances that require mitigation will be mitigated in accordance with Table 9 and Table 10 of the CNVS. | Contractor | Pre-construction/ Construction | Appendix I |
| NOI3 | Construction noise and vibration | All sensitive receivers (eg schools, local residents) likely to be affected would be notified at least seven days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification would provide details of:<br>• the Proposal<br>• construction period and construction hours | Contactor | Detailed design / Pre-construction | |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | • contact information for project management staff<br>• complaint and incident reporting how to obtain further information. | | | |
| NOI4 | Construction noise and vibration | The following general mitigation measures would be applied as reasonably practicable:<br>• limit work to daylight hours and only night works during notified road closures or rail shutdowns<br>• perform noisy work during less sensitive time periods<br>• select low-noise plant and equipment<br>• ensure equipment has quality mufflers installed<br>• use smaller/lower capacity plant in reference to the safe working distances<br>• concentrate noisy activities at one location and move to another as quickly as possible<br>• vehicle movements outside construction hours, including loading and unloading operations, should be minimised and avoided where reasonably practicable<br>• ensure equipment is well maintained and fitted with adequately maintained silencers<br>• use only necessary sized equipment<br>• implement worksite induction training, educating staff on noise sensitive issues and the need to make as little noise as reasonably practicable<br>• consider alternatives, such as manually adjustable or ambient noise sensitive types (“smart” reversing alarms) and closed-circuit TV systems<br>• consider installing temporary construction noise barriers<br>• install noise-control kits for noisy mobile equipment and shrouds around stationary plant, as necessary. | Contractor | Pre-construction / Construction | Section 6 of Appendix I |
| NOI5 | Construction noise | Noise management controls would be implemented early in the work program to benefit receivers while the Proposal is being built. Where possible at property treatments would be completed prior to road works commencing in consultation with acoustic engineers and suitable building contractors. | Contractor | Detailed design / Pre-construction | Appendix I |
| NOI6 | Construction noise and vibration | Plant would be located as far from residences as reasonably practicable, while still enabling the construction activities to | Contractor | Pre-construction / Construction | Appendix I |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | proceed. Plan for the use of lower noise/vibration generating equipment where reasonable and feasible. | | | |
| NOI7 | Construction vibration | Any proposed works within the minimum safe working distances would be undertaken with concurrent vibration measurements to ensure the cosmetic damage criteria are not exceeded at sensitive receiver locations. | Contractor | Construction | REF Table 6-27 Appendix I |
| NOI8 | Construction vibration – heritage structures | Vibration resulting from construction and received at any heritage structure would be managed in accordance with German Standard DIN 4150: Part 3 – 1999 Structural Vibration in Buildings: Effects on Structures. Where required, monitoring would be undertaken to ensure guideline values are achieved, or additional vibration mitigation measures developed to manage risks. | Contractor | Construction | REF Table 6-23 *Structural Vibration, Part 3: Effects of Vibration on Structures (DIN 4150-3)* Appendix I |
| NOI9 | Operational noise | Architectural treatment would be investigated for properties where there are predicted exceedances of the noise criteria. Where deemed warranted, architectural treatment would be implemented early in the construction program where reasonably practicable | Contractor | Detailed design | Appendix I |
| ABO1 | Aboriginal heritage | The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime Services, 2015) or for rail activities DMS-SD-115 Unexpected Heritage Finds Guideline (Transport for NSW, 2019) would be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where Transport does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the procedure) is not in place.<br>Work would only re-commence once the requirements of that procedure have been satisfied. | Contactor | Construction | Section 4.9 of *QA G36 Environment Protection* |
| HER1 | Non-Aboriginal heritage | A Non-Aboriginal Heritage Management Plan would be prepared and implemented as part of the CEMP. It would provide specific guidance on measures and controls to be implemented to avoid and mitigate impacts to Non-Aboriginal heritage. The plan would be prepared in consultation with Heritage NSW. | Contractor | Detailed design, Pre-construction | Section 4.10 of *QA G36 Environment Protection* |
| HER2 | Non-Aboriginal heritage | The detailed design would be developed and refined in consultation with heritage and urban design consultants. The | Contractor | Detailed design | Appendix J SoHI recommendation 1 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | detailed design would aim to further minimise the impact of the Proposal, with particular reference to the pedestrian bridge through the use of appropriate form, proportion and materials. Bulk should be minimised, and new built forms should be clearly separate from existing heritage fabric. Where appropriate, the detailed design should also respond to existing and significant architectural detail, such as the architectural detailing of the station building, or the footbridge. Detailed design should be undertaken in accordance with appropriate Sydney Trains and Transport guidelines, including:<br>• Railway Footbridges Heritage Conservation Strategy (NSW Government Architect's Office Heritage Group for Sydney Trains, 2016)<br>• Heritage Platforms Conservation Management Strategy (Australian Museum Consulting for Sydney Trains, 2015)<br>• Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites (Sydney Trains, 2017)<br>• Station Components Guide (Sydney Trains 2017). | | | |
| HER3 | State heritage | A Section 60 Heritage Act Application would be required for proposed works within the SHR curtilage of Medlow Bath Railway Station. The Application must be granted and relevant conditions of the Section 63 Heritage Act Approval must be completed prior to works commencing. | TfNSW | Pre-construction | Appendix J SoHI recommendation 2 |
| HER5 | Non-Aboriginal heritage awareness training | Works within the proposal area are being undertaken in an area of heritage significance. Prior to works commencing, contractors would be briefed as to the sensitive nature of the proposal area and informed of any recommended mitigation measures or controls required.<br>Non-Aboriginal heritage awareness training would be provided for all contractors and personnel prior to commencement of works to outline the identification of potential heritage items and associated procedures to be implemented in the event of the discovery of non-Aboriginal heritage materials, features or deposits (that is, unexpected finds), or the discovery of human remains | Contractor | Pre-construction | Appendix J SoHI recommendation 4 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| HER6 | Non-Aboriginal heritage protection of significant fabric | Works would be undertaken with care. To avoid impact to significant fabric during the construction of the Proposal the following is recommended:<br>• machinery should be placed with sufficient clearance to significant heritage structures to avoid any inadvertent harm to significant fabric or incidental damage from vibration as per the Transport recommended minimum working distances for vibration intensive plant (refer Table 6-27 of the REF). In particular, care should be taken when working near:<br>o Hydro Majestic's stone fence<br>o Medlow Bath Railway Station platform structures, platform edges and footbridge<br>o Former Post and Telegraph Store<br>o Urunga<br>o Melbourne House, Cosy Cot and Sheleagh Cottage, in particular Lot 1 Great Western Highway<br>o Sandstone Railway culvert<br>o archaeologically sensitive vacant land north of the United Petrol Station<br>• Protection of significant fabric – Hydro Majestic stone fence<br>o protective barriers or fencing should be erected between the works corridor boundary and the Hydro Majestic's stone fence for the duration of works within the vicinity of this significant fabric to ensure no inadvertent harm occurs, where warranted and reasonably practicable<br>o machinery and works should be placed with sufficient clearance to significant fabric and any associated protective barriers to avoid inadvertent harm from machinery or incidental damage from vibration<br>o vibration monitoring of the stone fence should be put in place for the duration of works<br>• Protection of significant fabric – Sandstone Railway culvert<br>o redundancy of the Sandstone Railway culvert should not include work to significant fabric | Contractor | Pre-construction | Appendix J SoHI recommendation 5 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | ○ if closure or blocking of the culvert is required, these works should be undertaken in a manner that would not impact significant fabric<br>○ if work to significant fabric is required, this should be undertaken in consultation with either a heritage architect or heritage consultant, and be conducted in a manner that minimises harm as much as practicable<br>• Protection of significant fabric – bus shelter (with mural)<br>○ measures should be put place to protect significant fabric of the bus shelter during its proposed removal and relocation<br>○ relocation position, and details of where and how it would be removed, stored and relocated, should be determined in consultation with Blue Mountains City Council<br>○ after relocation, conservation of the mural should be undertaken to prevent further loss, or to sympathetically reinstate missing portions<br>• Protection of significant fabric – advertising sign<br>○ if removal of the advertising sign is required for the Proposal, it should be salvaged and relocated<br>○ relocation position, and details of where and how it would be removed, stored and relocated, should be determined in consultation with Blue Mountains City Council<br>○ if removal of the advertising sign is not required for the Proposal, appropriate measures should be put in place to protect it during proposed works, such as the installation of protective barriers or fencing | | | |
| HER7 | Protection and management of trees | Management and protection measures recommended in the Arboricultural Impact Assessment should be implemented accordingly to ensure the protection and management of significant trees throughout the implementation of the Proposal. | Contractor | Pre-construction | Appendix J SoHI recommendation 6 |
| HER8 | Tree replacement | Trees removed as part of the Proposal within the heritage curtilage of Hydro Majestic (Item No.MB002), Avenue of trees (formerly Avenue of Radiata Pines) (Item No.MB015) or Medlow | Contractor | Construction | Appendix J SoHI recommendation 7 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Blue Mountains LEP 2015 Item No.MB026) would be replaced in a manner that is consistent with, and accurately reflect, the extent, nature and significance of the respective heritage item. The location, species and number of trees to be planted would be determined in consultation with the land owner, Blue Mountains City Council and a qualified arborist with reference to the identified heritage significance of the respective heritage item. | | | |
| HER9 | Protection and management of trees | A project arborist who conforms to the requirements of the AS 4970 is required to be nominated immediately after a Notice of Determination is issued, and they are to be provided with all related site documents | Contractor | Construction | |
| HER10 | Protection and management of trees | Prior to construction, assessment and documentation by the project arborist or person responsible for the specific work type, and the related documentation is to be issued to the Transport for NSW. | Contractor TfNSW | Pre-construction, Construction | |
| HER11 | Movable heritage | All moveable heritage identified as part of this assessment would be managed in accordance with a moveable heritage procedure. Moveable heritage identified on Hydro Majestic (Blue Mountains LEP Item No. MB002) land would be managed in accordance with Section 6.5, Conserving Moveable Heritage, in the Hydro Majestic Hotel, Medlow Bath, Conservation Management Plan (Graham Brooks and Associates, 2010). | Contractor | Construction | Appendix J SoHI recommendation 8 |
| HER12 | Before and after photographic record | Prior to construction, an archival photographic recording of the heritage items impacted by the proposed works is to be prepared in accordance with the NSW Heritage Division of the Department of Environment and Heritage guidelines titled "Photographic Recording of Heritage Items using Film or Digital Capture". The photographic should be prepared by a heritage consultant and must document significant heritage elements and items that would be impacted by the proposed works. The record should also document significant views and vistas as selected by the heritage consultant. This archival recording should include the following items as a minimum:<br>• Medlow Bath Railway Station Group (SHR No.01190, Transport Section 170 SHI No. 4801011, Blue Mountains | Contractor | Pre-construction, Operation | Appendix J SoHI recommendation 9 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | LEP 2015 Item No. MB003)<br>• Hydro Majestic (Item No. MB002)<br>• Former Post and Telegraph Store (Item No. MB008)<br>• Avenue of Trees (Item No. MB015)<br>• Urunga (Item No. MB017)<br>• Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019)<br>• Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Blue Mountains LEP 2015 Item No. MB026)<br>• Bus Shelter (potential heritage item)<br>• Sandstone Railway culvert (potential heritage item)<br>• Advertising sign (potential heritage item). | | | |
| HER13 | Heritage interpretation | A heritage interpretation plan would be formulated and implemented in accordance with the Heritage NSW, Interpreting Heritage Places and Items (Heritage Office (former) 2005) as part of the proposed upgrade of the Great Western Highway. This is to be undertaken with the consent and co-operation of authorised owners or land managers and Blue Mountains City Council.<br>Heritage interpretation should communicate the history of Medlow Bath, with reference to its identified heritage items, and enable audiences to engage with the significance of these places and the wider Blue Mountains area. It should be integrated into the broader cultural heritage design and heritage interpretation strategy for the overall Great Western Highway Katoomba to Lithgow Upgrade Program, and pick up themes relevant to the overall Great Western Highway route as well as Medlow Bath. | Contractor | Construction | Appendix J SoHI recommendation 10 |
| HER14 | Non-Aboriginal heritage | In the event that unexpected archaeological resources are identified in the course of the Proposal, all work in the affected area should cease, the area should be cordoned off, and Heritage NSW should be notified, in accordance with Section 146 of the Heritage Act 1977. The Transport (2016) Unexpected Heritage Finds Guideline or for rail activities DMS-SD-115 Unexpected Heritage Finds Guideline (Transport for NSW, 2019) should be adhered to. | Contractor | Construction | Appendix J SoHI recommendation 11 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| HER15 | Non-Aboriginal heritage | If the proposed works, or Proposal area, are modified to those discussed in this report, additional heritage advice may be required to appropriately manage and mitigate any potential impacts caused by these changes. | Contractor, TfNSW | Pre-construction, construction | Appendix J SoHI recommendation 12 |
| HER16 | Protection and management of trees | Site induction: All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work. | Contractor | Construction | |
| HER17 | Non-Aboriginal Heritage | Detailed refinement:<br>The detailed design of the Proposed modification should be overseen by the Heritage Architect and aim to refine and further minimise the impact of the project, with particular reference to:<br>a. high quality detailing and material selection consistent with the precinct and historic significance of Medlow Bath.<br>b. All new retaining walls and supporting structures to be integrated, unified in terms of materiality and finish and limit the perception of new work in the station environment. Landscaping should be retained and introduced to further reduce the impact of these elements.<br>Further additional specific measures are included in Section 9.3 and 9.4 of the Heritage Design Report | Contractor | Detailed design | Addendum REF Statement of Heritage Impact (Jul 2023) Recommendation 1 |
| HER18 | Non-Aboriginal Heritage | Works should be undertaken with care. To avoid impact to significant fabric during the construction of the proposal, it is recommended:<br>a. measures, as determined in consultation with a suitably qualified conservation specialist, must be put in place to protect significant fabric during proposed works, especially during bridge construction, resurfacing of the platform, removal of OHWS and installation of electrical pits.<br>b. machinery should be placed with sufficient clearance to significant heritage structures to avoid any inadvertent harm to significant fabric or incidental damage from vibration. To ensure this, works should be undertaken as per the TfNSW recommended minimum working distances for vibration intensive plant from sensitive receiver, or as outlined in any Noise and Vibration report undertaken for the proposal. | Contractor | Construction | Addendum REF Statement of Heritage Impact (Jul 2023) Recommendation 4 |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | If deemed appropriate, vibration monitoring of works in the vicinity of the Hydro Majestic, should be undertaken.<br>c. air brick raising and replacement on platform building is to be undertaken by an appropriately qualified bricklayer/builder with expertise in heritage buildings.<br>d. removal of heritage light poles<br>i. heritage light poles temporarily removed from the platform during works should be stored safely and securely on site until reinstated on the platform.<br>ii. heritage light poles removed from the decommissioned level crossing should be stored safely in a secure TfNSW facility for future use.<br>e. Detailed design of ancillary works and electrical and data services should be documented in an Illustrated Services Plan and approved by the Heritage Architect prior to the commencement of permanent services works.<br>i. installation of electrical and data services is to be completed in accordance with Sydney Trains (2017) Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites<br>ii. Ancillary works should be undertaken in accordance with the following Sydney Trains guidelines:<br>– Conservation Guide: Railway Station Platform Furnishings (2012)<br>– Conservation Guide: Railway Station Platforms (2013)<br>– Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites (2017)<br>– Station Components Guide (2017) | | | |
| HER19 | Non-Aboriginal Heritage | If the proposed works, or proposal area, are modified to those discussed in this report, additional heritage advice may be required to appropriately manage and mitigate any potential impacts caused by these changes | Contractor | Design and Construction | Statement of Heritage Impact (Jul 2023) Recommendation 7 |
| LAN1 | Proposal Design | The following principles are to continue to be incorporated into the overall design of the Proposal:<br>• the motorists experience and attract people to town centre through the feature planting characteristic of the Blue Mountains area<br>• screening of rail infrastructure where possible, using shrubs and trees, both native and exotic depending on the location | TfNSW | Detailed design | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | • rounding of cut and fill batters to help integrate into the existing landform and create a more naturalised appearance<br>• exploration of opportunities to reduce the Proposal footprint and need for temporary and ancillary sites to reduce impacts on surrounding landscape areas<br>• consolidating barriers and fences to increase visual access and pedestrian permeability in civic spaces<br>• selection of lighting, signage and bus stops to compliment the Great Western Highway character<br>• retention of views to existing non-aboriginal heritage items identified in the contextual analysis | | | |
| LAN2 | Bridge Design | The following principles are to continue to be incorporated into the design of the bridge:<br>• The simplification of the bridge forecourts to enhance sightlines and access and enable equitable access for all users,<br>• The refinement of the pedestrian bridge design to reduce its visual impact, by increasing the visual permeability, the positioning of the bridge to reduce the required height and the visual elongation of the bridge through the design of the bridge truss bays that extend beyond the lift structures,<br>• Maximising of opportunities to increase public amenity within the bridge forecourt and between proposed bus shelter/bus stops to enhance the public domain. | TfNSW | Detailed design | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |
| LAN3 | Accessibility | The design is to continue to provide improvements to cyclist and pedestrian access through new and upgraded, footpaths and shared paths to create a complete network around Medlow Bath Station, connecting into the existing network along the Great Western Highway between Katoomba and Leura. | TfNSW | Detailed design | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |
| LAN4 | Finishes of Structures | The design of new retaining walls to have finishes of a high standard and quality, that is in keeping with the Great Western Highway character | TfNSW | Detailed design | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| LAN5 | Landscaping | The following principles are to continue to be incorporated into the design of landscaping:<br>• Planting strategies that respond to the existing historical and local context of Medlow Bath,<br>• The planting of feature trees at the entry into Medlow Bath village, and to highlight access into Medlow Bath Station and proposed bus shelters,<br>• The introduction of buffer planting in front of the retaining wall at the southern entry into Medlow Bath to minimise visual impacts,<br>• Maximising of new tree planting where possible; within medians turning facilities, and verges to reduce the scale of the Proposal over time as the tree plantings mature. Consideration has been given to sight lines for motorists when identifying possible locations,<br>• Utilisation of native and endemic plantings along the highway outside of the village to consider pedestrians and cyclists using the existing trails as links to regional routes,<br>• Maximisation of revegetation with appropriate species along the highway to reduce perceived corridor width. | TfNSW | Detailed design | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |
| LAN6 | Design Integration | The following measures are to be adopted during the Detailed Design stage:<br>• All reasonable measures taken to minimise the loss of existing vegetation along the proposal corridor. Those measures would include minimise clearing of trees for construction access, rationalisation of maintenance access,<br>• Investigate the borrowed landscape and opportunities for additional tree plantings along the proposal corridor,<br>• Investigate opportunities to incorporate heritage qualities within the bridge design,<br>• Further opportunities investigated to increase landscape zones within the road corridor,<br>• Lighting and signage to be well-considered in its placement and should not detrimentally add to the visual impact,<br>• At locations where greater visual impacts have been | TfNSW / Contractor | Detailed design / Construction | Appendix K, UD, LC and VIA mitigation measures (Chapter 12) |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| | | identified, the specification and planting of more mature sized shrubs and trees would be adopted to help reduce the visual impact upon opening of the road since the proposed planting would take a number of years (approximately between 3 to 10 years) to establish at adequate height,<br>• Where site compounds are needed rehabilitate to previous state. | | | |
| LAN7 | Landscaping | In addition to LAN5 and LAN6, the Proposed Modification (pedestrian bridge) landscape design would be further developed in consultation with the wider Great Western Highway – Medlow Bath project to ensure landscaping elements are blended across the Project. | TfNSW / Contractor | Detailed design | This addendum REF |
| SOC1 | Property | A Property Acquisition Plan would be prepared and implemented in accordance with the requirements of the Property Acquisition (Just Terms Compensation) Act 1991. | TfNSW | Pre-construction | Standard safeguard |
| SOC2 | Community | A Communications Plan would be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The plan would include (as a minimum):<br>• identification of key stakeholders such as the Hydro Majestic Hotel, private residences and business, Blue Mountains City Council<br>• mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions<br>• contact name and number for complaints<br>• the plan would be prepared in accordance with the Community Involvement and Communications Resource Manual (Roads and Traffic Authority, 2008).<br>The Plan should be reviewed and updated as necessary throughout construction. | Contractor | Detailed design / Pre-construction | Standard safeguard |
| SOC3 | Construction | Access to private residential properties, businesses and the Hydro Majestic Hotel would be maintained throughout the construction period. | Contractor | Construction | Appendix L |

| No. | Impact | Environmental safeguards and management measures | Responsibility | Timing | Reference (Project REF) |
|---|---|---|---|---|---|
| CUM1 | Cumulative construction impacts | Other developers would be consulted:<br>• to obtain information about project timeframes and impacts. Identify and implement appropriate safeguards and management measures to minimise cumulative impacts<br>• to manage the interfaces of the Proposal's staging and programming in combination with the other projects occurring in the area. | TfNSW / Contractor | Pre-construction | REF Section 5.2 |
| CUM2 | Cumulative construction impacts | All environmental management plans (including but not limited to the Traffic Management Plan and Noise and Vibration Management Plan) would be prepared to consider other developments in the area.<br>These plans would be reviewed and updated as necessary throughout the construction phase. | Contractor | Pre-construction | REF Section 6.1.4, REF Section 6.5.4, REF Section 6.6.4, |
| CUM3 | Cumulative construction impacts | Ongoing consultation shall be carried out between proponents and construction contractors of nearby projects to identify and adequately mitigate any potential cumulative impacts of concurrent construction within the project. | TfNSW / Contractor | Detailed design / Pre-construction / construction | Submissions Report 8 and Appendix 8 |
| CUM4 | Cumulative construction impacts | Co-ordination of traffic and pedestrian management controls shall be undertaken to minimise cumulative traffic impacts. With specific traffic controls developed and implemented to address peak holiday periods. | TfNSW / Contractor | Detailed design / Pre-construction / construction | Submissions Report 8 and Appendix 8 |
| CUM5 | Cumulative construction impacts | Co-ordination of out of hours work shall be undertaken across the Great Western Highway East and the Medlow Bath upgrade in Medlow Bath to minimise out of hours work periods and minimise ongoing out of hours work noise to sensitive receivers and ensure respite periods are achieved where required. | TfNSW / Contractor | Detailed design / Pre-construction / construction | Submissions Report 8 and Appendix 8 |

## 7.3 Licensing and approvals

All relevant licenses, permits, notifications and approvals needed for the Great Western Highway upgrade – Medlow Bath and when they need to be obtained are listed in Table 7-2. Additional or changed licenses and approval requirements identified in this addendum REF are indicated by underlined and/or struck out font.

**Table 7-2: Summary of licensing and approval required**

| Instrument | Requirement | Timing |
|---|---|---|
| *Heritage Act 1977* (s60) | Permit to carry out activities to an item listed on the State Heritage Register (ie Medlow Bath Railway Station) or to which an interim heritage order applies from the Heritage Council of NSW. | Prior to start of the activity |
| *Roads Act 1993* (s138) | Road occupancy licence from Transport Management Centre and Blue Mountains City Council for work on Transport and council operated roads. | Prior to the start of the activity |

# 8. Conclusion

## 8.1 Justification

Due to stakeholder and community submissions during the Approved REF display period the development of an alternative design was required, with input from local authorities and community stakeholders. This alternative design (described in Section 3) has been assessed as the proposed modification in this addendum REF. The proposed modification would provide improved heritage outcomes, and benefits to the local community while maintaining the core design and engineering constraints.

The proposed modification would result in some minor increases in impact to vegetation, however would result in significant improvements in heritage outcomes, including preserving the amenity of surrounding area compared to the original design. Other minor impacts would be negligible and would be managed through the detailed design and construction staging planning processes.

Overall the proposed modification is considered to be justified. It has been developed to best meet the proposal objectives whilst minimising the construction impacts. It will also maintain the operational objectives of the project.

### 8.1.1 Social factors

As documented in Section 6, the proposed modification would have some minor short-term negative socio-economic impacts as a result of the disturbance and change that would occur during construction. The combined effect of construction noise, dust and general disturbance caused by construction activity, construction traffic, lighting and machinery movements would result in a general loss of amenity for residents, motorists, workers and others who live near the modified project area and those who visit the modified project area on a regular basis. These impacts are generally consistent with the approved project.

Overall the modified project would be considered to have positive social benefit in the long-term, through improvements to the transport network in and around the modified project area by improving accessibility in addition to the benefits detailed in the Project REF. Additionally, the concept design process have included significant community engagement, improving the overall outcomes of the project.

### 8.1.2 Biophysical factors

The proposed modification is located within cleared rail and road reserve, consequently vegetation clearing has been minimised. Some clearing of non-native vegetation would be required. However, as identified in Section

6.2, the vegetation clearing would not significantly impact threatened species, populations or ecological communities or their habitats.

## 8.2 Objects of the EP&A Act

| Object | Comment |
|---|---|
| 1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources. | The proposed modification is located within the road and rail corridor of Great Western Highway at Medlow Bath and has a small disturbance footprint relative to the Approved Project. The proposed modification would not significantly impact on natural and artificial resources.<br>An integrated design is proposed that fits with the existing high visual qualities, ecology and character of Medlow Bath and the Blue Mountains setting.<br>There would be some impact to the environment, including clearing of vegetation, however these are safeguarded (refer to Chapter 6 and 7). |
| 1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment. | One of the proposal objectives is to maintain and enhance the local amenity and character and protect environmental and cultural assets. The proposed modification would improve pedestrian connectivity along and across the corridors. As well as preserve local heritage assets and enhance local amenity and character through sensitive urban design. Ecological sustainable development is addressed in Section 8.3. |
| 1.3(c) To promote the orderly and economic use and development of land. | The proposed modification is predominantly contained within the existing road and rail corridor and is consistent with the development of the land. |
| 1.3(d) To promote the delivery and maintenance of affordable housing. | Not relevant to the proposed modification. |
| 1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats. | Section 6.2 of this addendum REF addresses the biodiversity assessment for the proposed modification and identifies appropriate mitigation and management measures to avoid, minimise and mitigate potential impacts to threatened and other species of native animals and plants, ecological communities and their habitats. |
| 1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage). | The proposed modification would minimise impacts to the integrity of heritage sites, and cultural values of the community within the proposal. Environmental assessment addressing potential impacts and appropriate mitigation and management measures to preserve non-Aboriginal heritage and Aboriginal heritage and promote the sustainable management of built and cultural heritage is discussed in Section 6.1 |
| 1.3(g) To promote good design and amenity of the built environment. | The proposed modification contributes to the good design and amenity of Medlow Bath. One of the key features of the proposed modification is the construction of a new pedestrian bridge that connects the Great Western Highway, Medlow Bath Station and new indented bus |

| Object | Comment |
|---|---|
| | bays on both sides of the Highway in line with Transport Access Program requirements. The design of the pedestrian bridge and other features of the proposal would be sensitive to the locality to promote good design and amenity to the built environment |
| 1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants. | The proposal would provide safe continuous access to transport services. |
| 1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State. | Not relevant to the proposed modification. |
| 1.3(j) To provide increased opportunity for community participation in environmental planning and assessment. | The community and relevant other key stakeholders have been consulted throughout the strategic and concept design of the proposal, assisting to shape the proposed modification to address the needs of the community. Consultation would be ongoing throughout detailed design and during construction of the proposal. Community involvement in the proposal is discussed in Chapter 5. |

## 8.3 Ecologically sustainable development

### 8.3.1 The precautionary principle

Principle 15 of the United Nations Conference on Environment and Development 1992 (the Rio Summit) defined the precautionary principle: "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". In 2000, a European Union communication further refined the definition to account for action where scientific evidence is "insufficient, inconclusive or uncertain". Also realised was the responsibility placed on the developer to prove their actions as being safe and act in instances where there is uncertainty.

In all cases impact assessment is a subjective process. It relies on professional judgement and interpretation. Consequently, precaution has been built into the assessment carried out and reported in this addendum REF. This includes adopting a number of worst-case assumptions, such as all noise-generating equipment operating at its maximum output at the same time in the same location, or the assumption of the worst-case vegetation impact within the modified project area

This addendum REF has been prepared using the precautionary principle and appropriate mitigation measures are outlined to address all of the potential impact identified for the modified project.

Additional environmental assessment would be carried out where there is an identified inconsistency with this addendum REF as well as the project REF. This again would ensure that uncertainty is identified, addressed and resolved throughout the project's design lifecycle by implementing precaution at all stages.

### 8.3.2 Intergenerational equity

Social equity is concerned with the distribution of economic, social and environmental costs and benefits. Inter-generational equity introduces a temporal element with a focus on minimising the distribution of costs to future generations.

The economic benefits in the form of freight efficiency and development potential for surrounding areas for the current and future generation were identified. In addition, benefits that the project provides to current and future generations of local communities and the surrounding region that would maintain or enhance the health, diversity and productivity of the environment were identified.

### 8.3.3 Conservation of biological diversity and ecological integrity

Preserving biological diversity and ecological integrity requires that ecosystems, species and genetic diversity within species are maintained.

Landscape strategy was developed and implemented which reflected the structure and species of locally endemic flora to ensure that biological diversity in the local area is maintained. Also, site selection criteria were established for construction phase facilities that include minimising native vegetation clearance.

### 8.3.4 Improved valuation, pricing and incentive mechanisms

The principle of internalising environmental costs into decision making requires consideration of all environmental resources which may be affected by the carrying out of a project, including air, water, land and living things.

Environmental issues were considered as key matters in the route selection process and in the economic and financial feasibility assessments for the project. The value of the project to the community in terms of improved safety was recognised.

Mitigation measures for the avoidance, reuse, recycling and management of waste during construction and operation are to be implemented.

## 8.4 Conclusion

This addendum REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration where relevant, of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species, populations and ecological communities and their habitats and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives but would still result in some impacts to heritage and visual amenity as discussed in Section 6 of the addendum REF. Safeguards and management measures as detailed in this addendum REF would ameliorate or minimise these expected impacts. The proposed modification would also improve the preservation of heritage material and the general amenity of the local area. On balance the proposed modification is considered justified, and the following conclusions are made.

### 8.4.1 Significance of impact under NSW legislation

The proposed modification would not result in a change to the findings of the project REF and subsequent submissions report and would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from council is not required.

### 8.4.2 Significance of impact under Australian legislation

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

# 9. Certification

This addendum review of environmental factors provides a true and fair review of the proposed modification in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposed modification.

[redacted]

[redacted]
Environmental Engineer
Arenco

Date: 18/08/2023

I have examined this addendum review of environmental factors and accept it on behalf of Transport for NSW.

[redacted]

[redacted]
Senior Project Manager
Transport for NSW

Date: 22/08/2023

# 10. EP&A Regulation publication requirement

| Respondent | Yes/No |
|---|---|
| Does this REF need to be published under section 171(4) of the EP&A Regulation? | Yes |

# 11. Terms and acronyms used in this addendum REF

| Term /acronym | Description |
|---|---|
| BC Act | *Biodiversity Conservation Act 2016 (NSW).* |
| BMCC | Blue Mountains City Council |
| CEMP | Construction / Contractor's environmental management plan |
| DDA | *Disability Discrimination Act 1992* (Commonwealth) |
| DSAPT | Disability Standards for Accessible Public Transport |
| EIA | Environmental impact assessment |
| EP&A Act | *Environmental Planning and Assessment Act 1979* (NSW). Provides the legislative framework for land use planning and development assessment in NSW |
| EPBC Act | *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process. |
| ESD | Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased |
| FM Act | *Fisheries Management Act 1994* (NSW) |
| Heritage Act | *Heritage Act 1977* (NSW) |
| LALC | Local Aboriginal Land Council |
| LEP | Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act. |
| LoS | Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. |
| NES | Matters of national environmental significance under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.* |
| NPW Act | National Parks and Wildlife Act 1974 (NSW) |
| Roads and Maritime | NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all function are now managed by Transport for NSW |
| SEPP | State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act. |
| SEPP (Biodiversity and Conservation) | State Environmental Planning Policy (Biodiversity and Conservation) 2021 |
| SEPP (Planning Systems) | State Environmental Planning Policy (Planning Systems) 2021 |
| SEPP (Precincts – Central River City) | State Environmental Planning Policy (Precincts – Central River City) 2021 |
| SEPP (Precincts – Eastern Harbour City) | State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 |

| Term /acronym | Description |
|---|---|
| **SEPP (Precincts – Regional)** | State Environmental Planning Policy (Precincts – Regional) 2021 |
| **SEPP (Precincts – Western Parkland City)** | State Environmental Planning Policy (Precincts – Western Parkland City) 2021 |
| **SEPP (Resilience and Hazards)** | State Environmental Planning Policy (Resilience and Hazards) 2021 |
| **SEPP (Transport and Infrastructure)** | State Environmental Planning Policy (Transport and Infrastructure) 2021 |
| **Transport** | Transport for New South Wales |
| **TSC Act** | *Threatened Species Conservation Act 1995* (NSW) |
| **QA Specifications** | Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW. |

# 12. References

Van der Linde (2023) Great Western Highway Upgrade – Medlow Bath Station Upgrade – Statement of Heritage Impacts

Sabu (2023) Medlow Bath Station Upgrade Addendum Visual Impact Assessment

Daws (2023) Arboricultural Impact Assessment – Medlow Bath Station

Spackman mossop michaels (2021) Great Western Highway Upgrade: Medlow Bath – Urban design concept, landscape character and visual impact assessment report

# Appendix A

## Figures

**Figure 1:** (Figure 3-1 of Addendum REF) Proposed modifications footprint – Sourced by Arenco utilising SixMaps



**Figure 2:** (Figure 1-4 Proposed modification subject to detailed design – Developed by Arenco, Design Inc, TZG Architects and GHD for Systems Definition Review (SDR) Submission (June 2023)

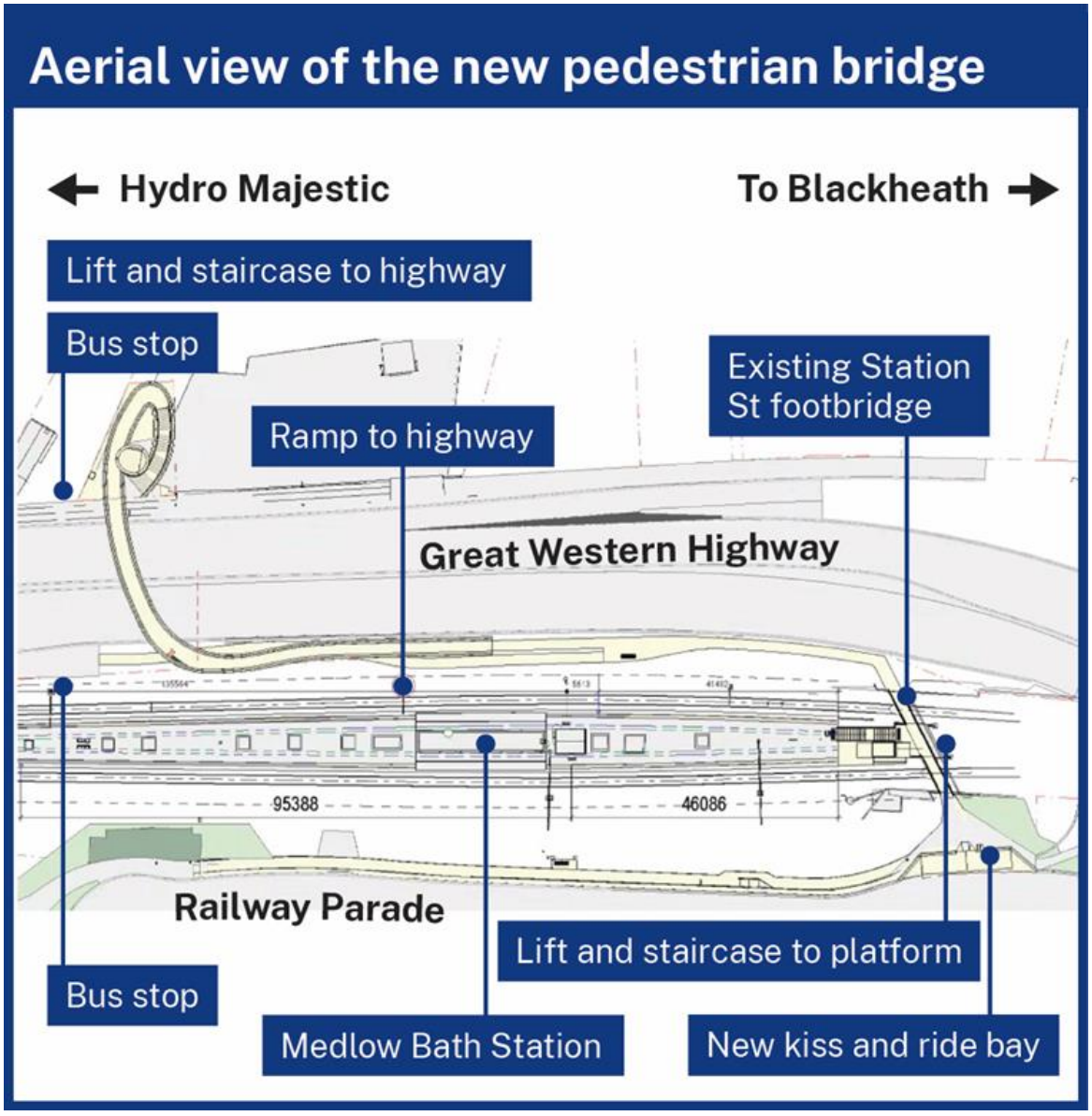


**Figure 3:** (Figure 3-1 of Addendum REF) Key features of the proposed modification (subject to further detailed design)

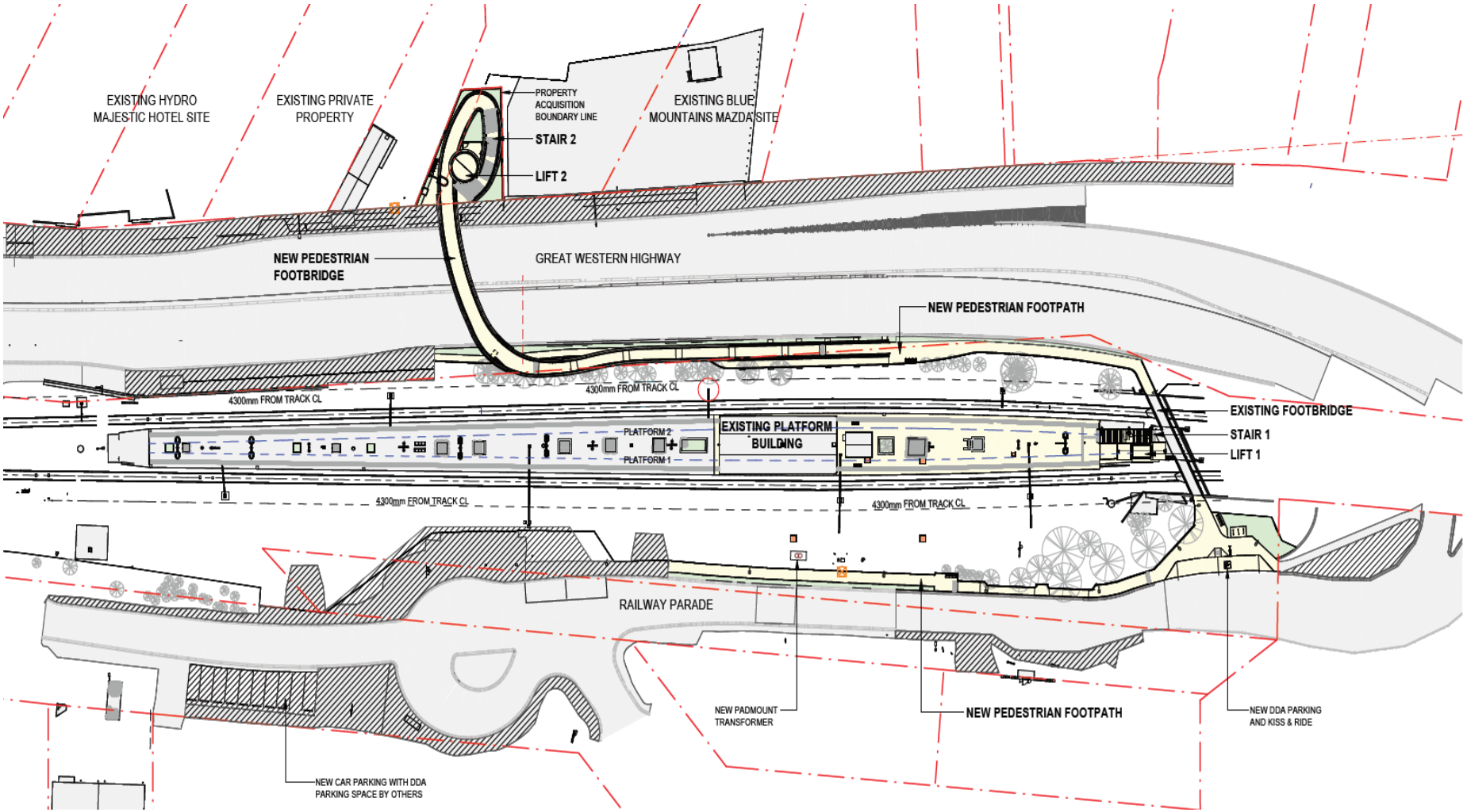


**Figure 4:** (Figure 3-2 of Addendum REF) Layout of proposed footbridge and accessible ramps

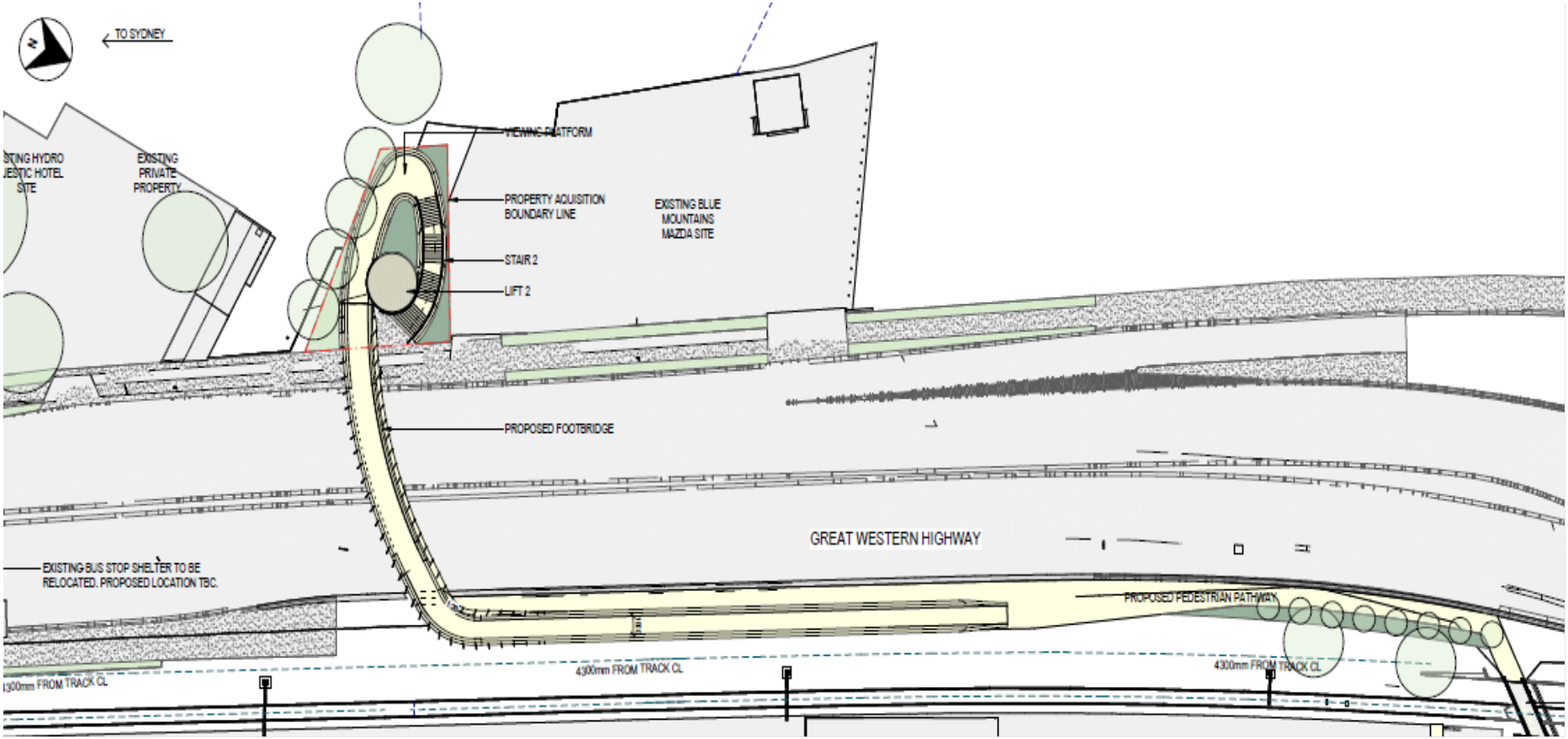


**Figure 5:** (Figure 3-3 of Addendum REF) Southern elevation view of curved half bridge structure (subject to further detailed design)

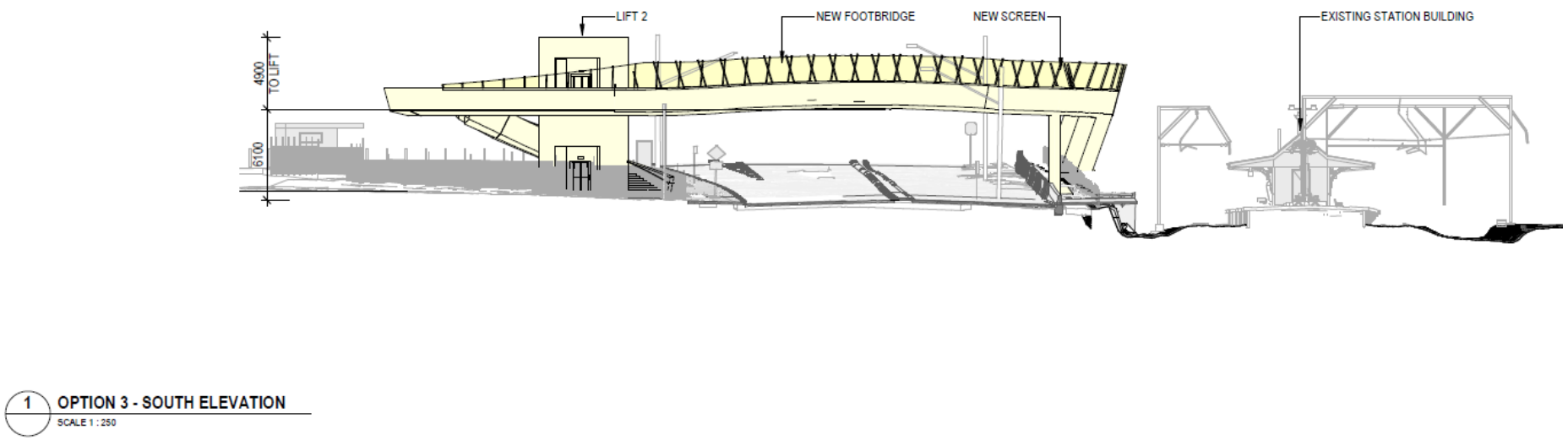



**Figure 6:** (Figure 3-4 of Addendum REF) Eastern elevation view of curved half bridge structure (subject to further detailed design)

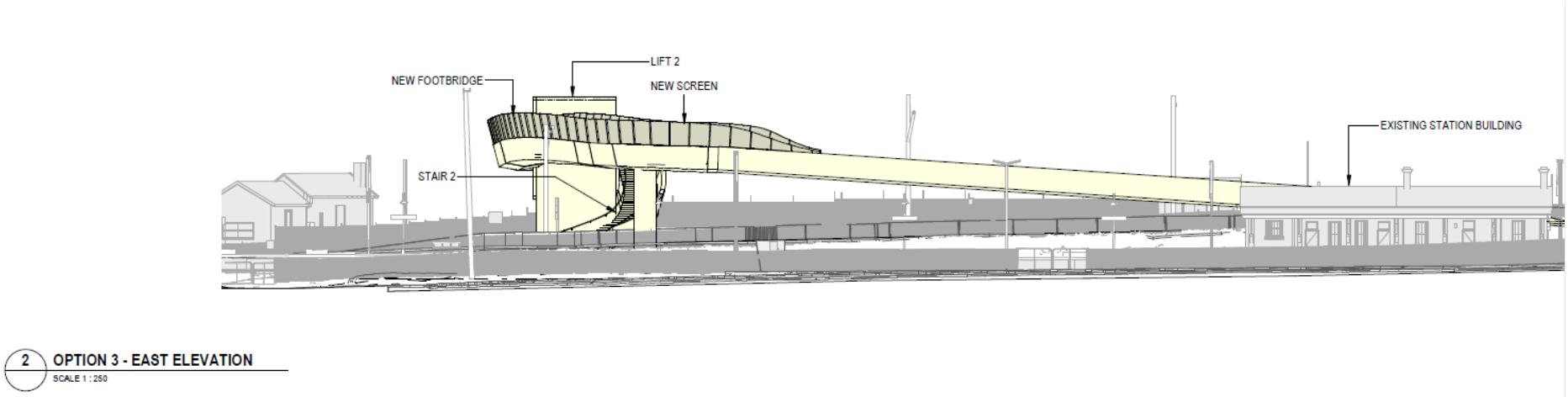


**Figure 7:** (Figure 3-5 of Addendum REF) Sample cross section of lift and stairs (subject to further detailed design)

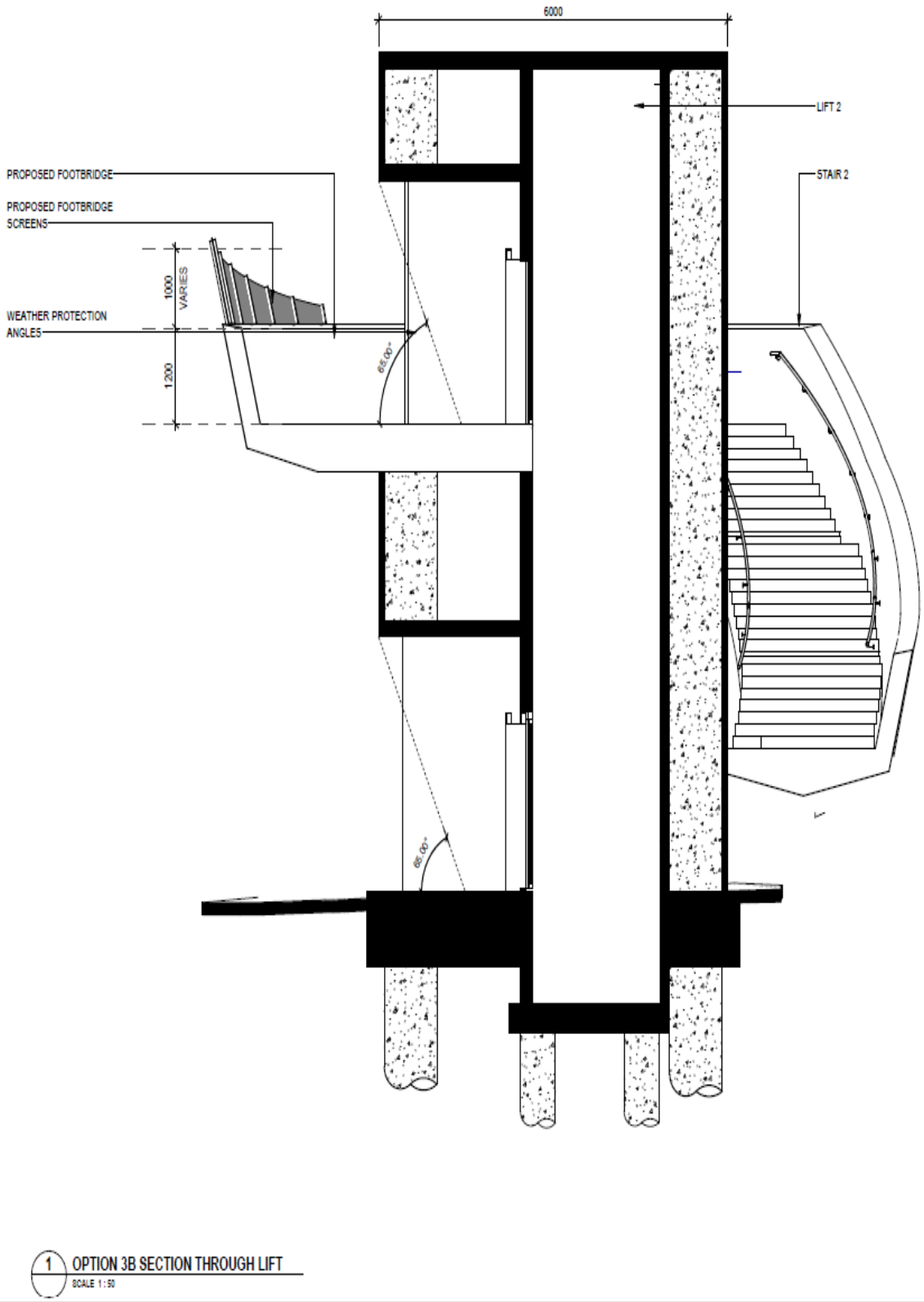


**Figure 8:** (Figure 3-6 of Addendum REF) Layout of proposed platform landing , pedestrian bridge and DDA Parking/Kiss and Ride location (subject to further detailed design)

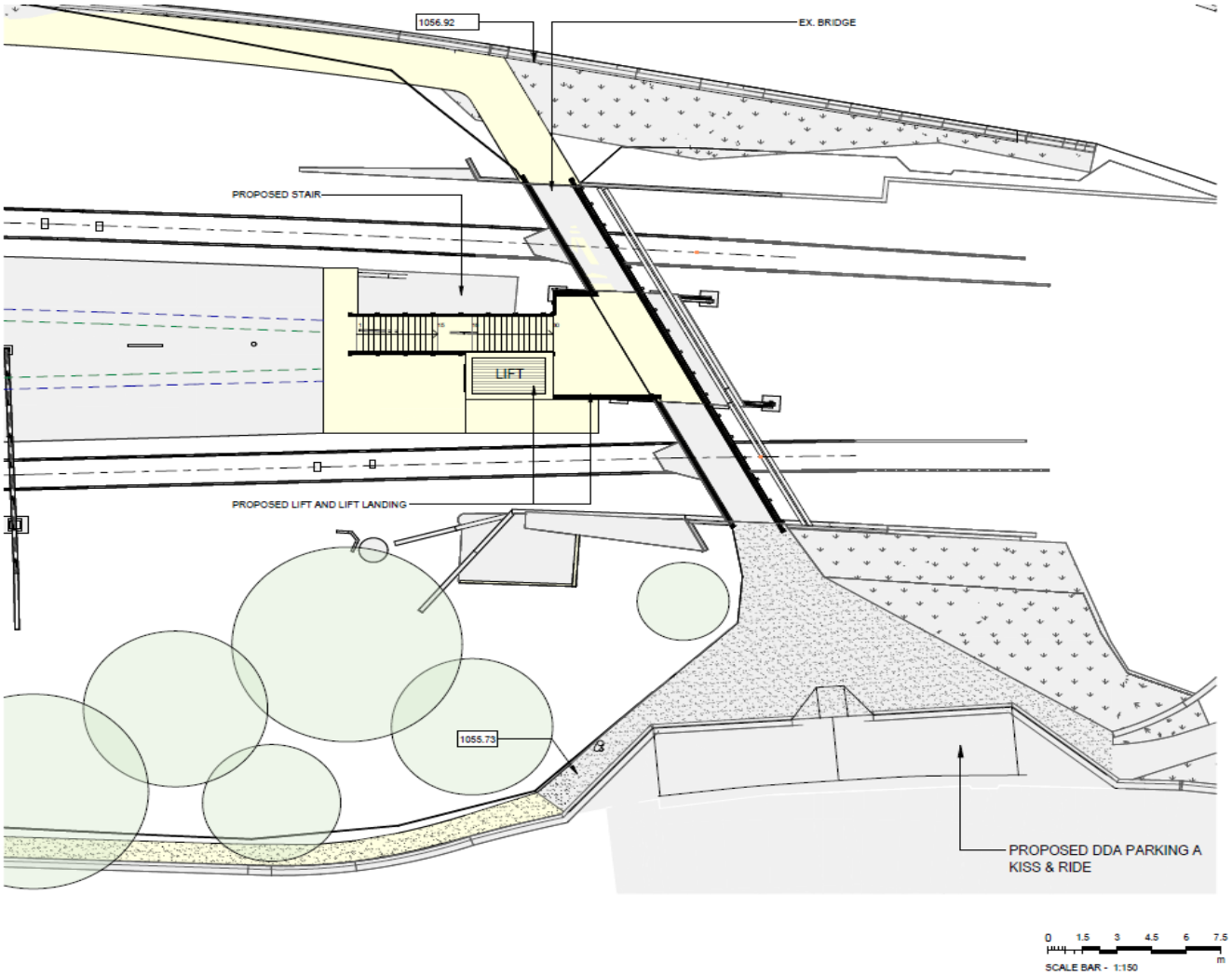
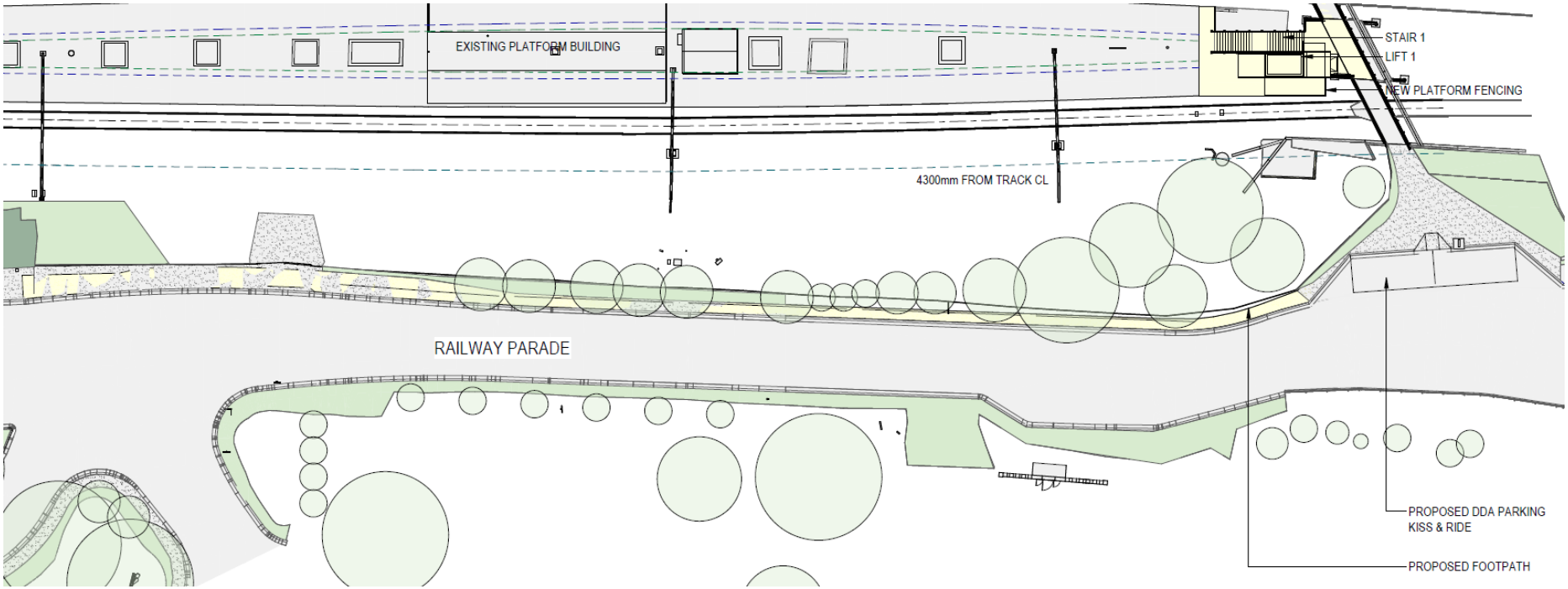


**Figure 9:** (Figure 3-7 of Addendum REF) Layout of proposed accessible footpath currently undergoing detailed design development (subject to further detailed design)



# Appendix B

## Consideration of section 171(2) factors and matters of National Environmental Significance and Commonwealth land

# Section 171(2) checklist

In addition to the requirements of the Is an EIS required? (1995/1996) guideline and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the addendum REF, the following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

| Factor | Impact |
|---|---|
| **Any environmental impact on a community?**<br><br>Construction of the proposed modification would result in some short-term negative impacts due to<br>• construction noise due to the use of construction plant and machinery for the proposed modification during and outside of standard work hours for the duration of construction<br>• visual amenity due to the removal of vegetation and the construction of the proposed modification<br>• pedestrian and traffic impacts due to an increase in construction vehicles and heavy vehicles transporting materials to and from the proposal, temporary detours for pedestrians, traffic and safety management measures temporarily reducing speed limits within the construction area, and temporary traffic changes resulting in increased traffic.<br><br>Environmental impacts on the community would be mitigated following the safeguards and mitigation measures within this Addendum REF (refer to Chapter 7). The construction of the proposed modification would result in long term minor positive improvements to road and pedestrian safety and accessibility within the community, and maintenance and enhancement of the local amenity and character of Medlow Bath including the protection of environmental and cultural assets. This would result in a positive net benefit to the community. | Short term, minor (negative)<br><br>Long term, minor (positive) |
| **Any transformation of a locality?**<br><br>The proposed modification would temporarily transform the locality during construction due to the visual amenity, traffic and noise impacts from construction works.<br><br>The proposed modification would result in the long term transformation of the locality through the accessibility improvements and a new pedestrian bridge in Medlow Bath resulting in long term improvements to safety and access. | Short term, minor (negative)<br><br>Long term, minor (positive) |
| **Any environmental impact on the ecosystems of the locality?**<br><br>Construction of the proposed modification would result in the removal of native vegetation and about 34 trees in the rail corridor. The proposed modification would have the potential to involve the fauna injury or mortality, impacts from construction noise, light and vibration.<br><br>Furthermore, operation of the proposed modification would have the potential to result in light impact and cumulative biodiversity impacts. The proposal would have a minor negative impact on the ecosystems of the locality in both the short term and the long term. Mitigation and management measures are proposed to minimise impacts on the ecosystems to the locality (refer to Chapter 7). | Short and long term, minor (negative) |
| **Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?**<br><br>During construction, the proposal would temporarily reduce the visual amenity of the locality due to the removal of vegetation, and visibility of the construction works. | Short term, minor (negative) |

| Factor | Impact |
|---|---|
| During operation, the proposed modification would be visible to residents, businesses and travellers through Medlow Bath. The proposed pedestrian bridge is being designed sympathetic to the existing natural, social, and cultural values of the locality to minimise aesthetic impacts. Further, landscaping would be implemented during operation of the proposed modification to mitigate visual amenity impacts of the proposal.<br><br>During construction there would be additional construction traffic movements and traffic impacts on the Medlow Bath locality, and to travellers passing through Medlow Bath along the Great Western Highway. During operation, safety aspects of the locality are anticipated to be improved.<br><br>No scientific or recreational values of the locality are anticipated to be impacted due to the proposal. | Long term (neutral) |
| **Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?**<br><br>The proposed modification would have minor direct physical impacts, moderate adverse visual impacts and minor adverse archaeological impacts on Medlow Bath Station based on the assessment detailed within the SoHI. Mitigation measures would be detailed by the S60 Heritage Approval and would be implemented by the construction contractor. | Short and long Term, minor physical -moderate visual (negative) |
| **Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)?**<br><br>The proposed modification would remove potential habitat for native fauna species; however this would be minimal (about 34 trees).<br>The proposal is not considered to have a significant impact on any threatened or endangered species or threatened ecological community. Mitigation and management measures are outlined in Chapter 7 to minimise biodiversity impacts due to the proposed modification. | Short term, minor (negative) |
| **Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?**<br><br>No species would be endangered as a result of the proposed modification with mitigation measures proposed. Vegetation removal would be minimised following the mitigation and management measures outlined in Chapter 7. | Nil |
| **Any long-term effects on the environment?**<br><br>Vegetation would be removed, however the landscape would be revegetated in accordance with the Project's urban design and landscape plan.<br><br>There would be long term visual amenity impacts due to the construction of the new pedestrian bridge. The proposal would minimise any adverse impacts due to the proposal through sensitive design, and by completing progressive landscaping of the proposal area. The mitigation and management measures for the proposal are outlined in Chapter 7 to minimise environmental impacts due to the proposal. | Long term, major (negative) |
| **Any degradation of the quality of the environment?**<br><br>Short term impacts are likely due to the construction activity. Safeguards identified in Section 7.2 would reduce these impacts. | Short term, minor (negative) |
| **Any risk to the safety of the environment?**<br><br>The proposed modification is likely to temporarily reduce safety along the road during construction due for the works being over the existing highway and pedestrian detours being required. This would be managed | Short term, minor (negative) |

| Factor | Impact |
|---|---|
| through appropriate signage and a traffic management following an appropriate traffic management plan.<br><br>The proposed modification would improve safety for road and rail users due to improved shared path and pedestrian bridge amenity. The proposed modification would improve access to local business, properties and to local roads adjacent to the highway within Medlow Bath that would also result in improvements to pedestrian safety during operation of the proposal. | Long term, major (positive) |
| **Any reduction in the range of beneficial uses of the environment?**<br><br>The proposed modification would not result in the reduction in the range of beneficial uses of any property.<br>During construction, minor traffic impacts due to an increase in heavy vehicle movements and interruptions to traffic flow would temporarily reduce the beneficial use of the local roads and Great Western Highway at Medlow Bath during the construction phase.<br><br>In the long term there would be no reduction in the range of existing beneficial uses of the environment. The proposed modification is being designed sensitively to the existing features of the locality. | Short term, minor (negative)<br><br>Long term (neutral) |
| **Any pollution of the environment?**<br><br>The proposed modification could potentially result in minor short-term water pollution from sediments, soil nutrients, waste, and spilt fuels and chemicals. Management of water quality impacts would be undertaken in accordance with the mitigation measures outlined in Chapter 7.<br>The proposed modification would result in minor short-term noise and air pollution from plant and machinery and the generation of dust during construction. Management of noise, vibration and air quality impacts would be undertaken in accordance with the mitigation measures outlined in Chapter 7. | Short term, minor (negative) |
| **Any environmental problems associated with the disposal of waste?**<br><br>The waste streams generated during construction of the proposed modification are common and would pose no difficulty in their disposal. Waste would be recycled wherever possible. | Nil |
| **Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?**<br><br>None of the resources required to construct this proposal are, or are likely to become, in short supply | Nil |
| **Any cumulative environmental effect with other existing or likely future activities?**<br><br>The proposed modification forms part of the Great Western Highway Upgrade - Medlow Bath upgrade delivered by separate Contractors. There is potential cumulative impacts due to the proposed modification and associated construction works within the locality such as combined traffic impacts, visual amenity for travellers along the highway, and minor air impacts from plant and vehicle emissions, however this was all considered in the Approved Project REF – refer to cumulative impact safeguards in Section 7.2. The proposed modification is not anticipated to generate any major environmental impacts.<br><br>Operation of the proposal would likely result in an overall positive cumulative impact due to the combined accessibility and safety benefits of the upgraded transport corridor in Medlow Bath. | Short term, minor (negative)<br><br>Long term, major (positive) |
| **Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?** | Nil |

| Factor | Impact |
|---|---|
| The proposed modification is not located within a coastal zone | |
| **Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1.**<br>Refer to Section 4 for how the proposed modification aligns to the applicable planning statements and plans for the area. | N/A |
| Other relevant environmental factors | In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to section 6 of this assessment. |

# Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposed modification should be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water.

Under the EPBC Act strategic assessment approval a referral is not required for proposed road actions that may affect nationally listed threatened species, populations, endangered ecological communities and migratory species. Impacts on these matters are assessed in detail as part of this addendum REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

| Factor | Impact |
|---|---|
| **Any impact on a World Heritage property?**<br>The proposed modification is not expected to impact on a World Heritage property as there are no World Heritage listed items located in the proposed modification area or within close proximity to the Approved Project and proposed modification proposal area.<br>The Greater Blue Mountains World Heritage Area is located over two kilometres from the proposal area and would not be impacted by the proposal. | Nil |
| **Any impact on a National Heritage place?**<br>The proposed modification is not expected to impact on a National Heritage place as there are no National Heritage listed items located in or within close proximity to the Approved project or proposed modification area. The Greater Blue Mountains National Heritage Area is located over two kilometres from the proposal area and would not be impacted by the proposal. | Nil |
| **Any impact on a wetland of international importance?**<br>The proposed modification is not expected to impact on a wetland of international importance as there are no wetlands of international importance (as listed in the RAMSAR convention) located in or within close proximity to the proposal area. | Nil |
| **Any impact on a listed threatened species or communities?**<br>The proposed modification would not have a significant impact on threatened or endangered species or communities. However, would have the potential to impact on habitat for threatened flora and fauna, and migratory birds due to the proposed removal of 34 trees. This is negligible to the Approved project that is proposed to remove 0.34 hectares of vegetation. | No change (minor impact) |
| **Any impacts on listed migratory species?**<br>The Approved Project was identified to have a minor impact on habitat for migratory birds due to the proposed removal of 0.34 hectares of vegetation. The proposed modification would result in additional vegetation (about 34 trees and some vegetation that would have a negligible impact to that previously assessed in the Approved Project REF. The proposed modification would not have a significant impact on migratory bird species. | No change (minor impact) |
| **Any impact on a Commonwealth marine area?**<br>The proposed modification would not impact on a Commonwealth marine area as there are no Commonwealth marine areas located in or within close proximity to the proposal. | Nil |

| Factor | Impact |
|---|---|
| **Does the proposed modification involve a nuclear action (including uranium mining)?**<br>The proposed modification relates to road and rail infrastructure and does not involve a nuclear action. | Nil |
| **Additionally, any impact (direct or indirect) on Commonwealth land?**<br>The proposed modification is not located on Commonwealth land and would not result in any impact (direct or indirect) on Commonwealth land. | Nil |

# Appendix C

## Statutory consultation checklists

# Matters of National Environmental Significance and Commonwealth land

### Certain development types

| Development type | Description | Yes / No | If 'yes' consult with | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Car park** | Does the project include a car park intended for the use by commuters using regular bus services? | No | | Section 2.110 |
| **Bus depots** | Does the project propose a bus depot? | No | | Section 2.110 |
| **Permanent road maintenance depot and associated infrastructure** | Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities? | No | | Section 2.110 |

### Development within the Coastal Zone

| Issue | Description | Yes / No / N/A | If 'yes' consult with | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Development with impacts on certain land within the coastal zone** | Is the proposal within a coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land? | NA | | Section 2.14 |

Note: See interactive map Coastal management - (nsw.gov.au). Note the coastal vulnerability area has not yet been mapped.

Note: a certified coastal zone management plan is taken to be a certified coastal management program.

### Council related infrastructure or services

| Development type | Potential impact | Yes / No | If 'yes' consult with the relevant local council(s). | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Stormwater** | Are the works likely to have a substantial impact on the stormwater management services which are provided by council? | No | | Section 2.10 |
| **Traffic** | Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area? | No | | Section 2.10 |
| **Sewerage system** | Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system? | No | | Section 2.10 |
| **Water usage** | Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water? | No | | Section 2.10 |
| **Temporary structures** | Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow? | No | | Section 2.10 |
| **Road and footpath excavation** | Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance? | No | Blue Mountains City Council, Transport for NSW, Roads and Maritime Service, Traffic Management Centre | Section 2.10 |

### Local heritage items

| Development type | Potential impact | Yes / No | If 'yes' consult with the relevant local council(s). | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Local heritage** | Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works?<br>If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential? | No | Blue Mountains City Council | Section 2.11 |

### Flood liable land

| Development type | Potential impact | Yes / No | If 'yes' consult with | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Flood liable land** | Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent? | No | | Section 2.12 |
| **Flood liable land** | Are the works located on flood liable land? (to any extent). If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance | No | | Section 2.13 |

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.

### Public authorities other than councils

| Development type | Potential impact | Yes / No | If 'yes' consult with the relevant local council(s). | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **National parks and reserves** | Are the works adjacent to a national park or nature reserve, or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act? | No | | Section 2.15 |
| **National parks and reserves** | Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone? | No | | Section 2.15 |
| **Aquatic reserves and marine parks** | Are the works adjacent to an aquatic reserve or a marine park declared under the *Marine Estate Management Act 2014*? | No | | Section 2.15 |
| **Sydney Harbour foreshore** | Are the works in the Sydney Harbour Foreshore Area as defined by the *Sydney Harbour Foreshore Authority Act 1998*? | No | | Section 2.15 |
| **Bush fire prone land** | Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land? | No | | Section 2.15 |
| **Artificial light** | Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory) | No | | Section 2.15 |
| **Defence communications buffer land** | Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in section 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011). | No | | Section 2.15 |

| Development type | Potential impact | Yes / No | If 'yes' consult with the relevant local council(s). | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Mine subsidence land** | Are the works on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*? | No | | Section 2.15 |

## SEPP (Precincts – Central River City) 2021 and SEPP (Precincts – Western Parkland City) 2021

| Development type | Potential impact | Yes / No | If 'yes' consult with the relevant local council(s). | SEPP (Transport and Infrastructure) section |
|---|---|---|---|---|
| **Clearing native vegetation** | Do the works involve clearing native vegetation (as defined in the Local Land Services Act 2013) on land that is not subject land (as defined in cl 17 of schedule 7 of the *Threatened Species Conservation Act 1995*)? | No | | Section 3.24 |

# Appendix D

## Neutral or beneficial effect on water quality assessment

# Neutral or beneficial effect assessment

Chapter 8 (Sydney Water Drinking Catchment) of SEPP (Biodiversity and Conservation) relates to the use of land within the Sydney drinking water catchment. In accordance with Section 8.11 of the SEPP, Transport for NSW is required to consider whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect on water quality before carrying out the activity.

| Factor | | Impact |
|---|---|---|
| 1 | **Are there any identifiable potential impacts on water quality?**<br><br>**What pollutants are likely?**<br><br>**During construction and/or post construction?** | Potential pollutants are sediments (fine and coarse), hazardous chemicals and contaminants such as oil/fuel during the construction period only. |
| 2 | **For each pollutant, list the safeguards needed to prevent or mitigate potential impacts on water quality (these may be DPE Water endorsed current recommended practices and/or equally effective other practices)** | Sediments will be prevented from entering the waterways through the use of erosion and sediment controls during the construction period. These will include covers for exposed soils, sediment fences and drain protection all in accordance with Blue Book design guidelines.<br>Hazardous chemicals and fuels will only be stored in bunded areas identified on environmental control maps. Spill kits will be available in these areas and use of these chemicals onsite will also require a spill kit to be present. Additionally, the volumes of chemicals used will be minimal to reduce the risk of a spill. |
| 3 | **Will the safeguards be adequate for the time required? How will they need to be maintained?** | Yes. Controls will be designed in accordance with Blue Book design principles to withstand the seasonal weather conditions. Chemical storage will be minimal, and in accordance with current guidelines. |
| 4 | **Will all impacts on water quality be effectively contained on the site by the identified safeguards (above) and not reach any watercourse, waterbody or drainage depression?**<br><br>**Or will impacts on water quality be transferred outside the site for treatment? How? Why?** | All potential impacts will be contained within the site and will not reach any other watercourse, water body or drainage depression. |
| 5 | **Is it likely that a neutral or beneficial effect on water quality will occur? Why?** | Based on the activities and environmental controls and safeguards to be in place, water quality will remain neutral. |

# Appendix E

## Statement of Heritage Impacts

# GREAT WESTERN HIGHWAY UPGRADE - MEDLOW BATH STATION UPGRADE

## Statement of Heritage Impact



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## Approval for issue

S. van der Linde 5 July 2023

This report was prepared by RPS within the terms of RPS' engagement with its client and in direct response to a scope of services. This report is supplied for the sole and specific purpose for use by RPS' client. The report does not account for any changes relating the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report. RPS does not accept any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report.

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# EXECUTIVE SUMMARY

## Project overview

Transport for NSW (TfNSW) proposes to upgrade the Great Western Highway from Katoomba to Mount Victoria in the Blue Mountains, which includes an approximate 1.2 kilometre section of the Great Western Highway at Medlow Bath. The Medlow Bath component includes works to Medlow Bath Railway Station in line with the Transport Access Program (TAP).

Medlow Bath Railway Station is listed on the State Heritage Register (SHR 01190). As such, Arenco, on behalf of Transport for NSW, has engaged RPS to prepare a Statement of Heritage Impact (SOHI) for proposed works to Medlow Bath Railway Station (the Proposal) to support a Section 60 application under the *Heritage Act 1977.*

The Medlow Bath Station upgrade will improve the accessibility of the station and safe crossing of the highway for all sections of the community including people with a disability, carers with prams, older persons, children, commuters, and visitors to the Blue Mountains. Upgrading public transport precincts ensures integrated, inclusive access to public transport networks and providing opportunities for the economy, communities, and environment of NSW. The Proposal would also improve accessibility of the station in line with the requirements of the Commonwealth *Disability Discrimination Act 1992* (DDA) and the *Disability Standards for Accessible Public transport 2020* (DSAPT).

## Proposal overview

The Proposal is limited to works within, or immediately adjacent to, Medlow Bath Railway Station. Key features of the Proposal include:

- Works within SHR curtilage of Medlow Bath Railway Station:
  - construction of a new pedestrian footbridge across the widened Great Western Highway to Medlow Bath station, specifically the cantilevered footpath extension over the western cutting at a high level on the western rail boundary
  - alterations to northern station entrance, including demolition and replacement of the existing stair and introduction of a lift and new stair including screens where required by Rail Standards and a platform extension for access to the new lift
  - upgrades to station platform, including resurfacing entire platform and regrading the accessible path along the platform
  - modification of platform planter beds including new plantings and replacing existing planter wall logs with brickwork
  - provision of an accessible path between the kiss and ride, accessible parking and station on Railway Parade
  - decommissioning and removal of the existing level crossing
  - electrical upgrade work, including provision of a new padmount transformer in the rail corridor
  - new services routes (Low Voltage (LV) and communications) along the entire station platform, and associated services pits
  - conversion of the former signal box and minor building modifications that may be required to accommodate new or upgraded electrical equipment including a main switchboard, new or upgraded station communications equipment and other station services
  - new stormwater drainage connections for the new footbridge, lifts and canopies to existing systems
  - upgrades to services, utilities and lighting, including new light poles on platforms to provide compliant lighting along platforms and new compliant strip drains around the platform building
  - improvement to station security and communication systems

  - relocation and/or modification of station furniture and fixtures for DSAPT compliance including lowering help points and removal of a payphone
  - provision of wayfinding signage and other station signage as required for the new work
  - remove / modify the existing fencing, and install new fencing
  - tree and shrub trimming and removal.
- Works outside the SHR curtilage of Medlow Bath Railway Station:
  - construction of a new pedestrian footbridge across the widened Great Western Highway to Medlow Bath station, specifically the pedestrian bridge and associated landing on the western side of the Great Western Highway
  - construction of a retaining wall along the eastern side of the widened Great Western Highway behind the bus stop
  - provision of accessible paths between the bus stops on the eastern and western sides of the widened Great Western Highway and the new footbridge stair and lift entries
  - provide landscaping alongside the footpaths on GWH and Railway Parade
  - remove / modify the existing fencing, and install new fencing.

## Heritage significance

Medlow Bath Railway Station is included on the State Heritage Register (SHR) (SHR No. 01190) and RailCorp Section 170 Heritage and Conservation Register (SHI No. 4801011). It is also identified as an item of State significance on the *Blue Mountains Local Environmental Plan (LEP) 2015* (Item MB003).

The station is part of an interrelated cultural landscape supported by surrounding local heritage items. This concept is further explored throughout the Heritage Design Report (HDR) in Appendix A.

## Summary of key heritage impacts and conclusions

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

- The footbridge extent has been limited to only span the Great Western Highway and is separate from the rail infrastructure and heritage station precinct.
- Retaining significant components while upgrading the station to comply with safety and DSAPT requirements, enables the continued use of the station.
- Upgrading the existing northern station entrance with DDA compliant stair and lift retains the functionality of the 1902 footbridge and historic station approach.
- Retention and upgrading of garden planters along the platform retains the overall visual character of the station.
- Upgrades to the communications facilities in the former Station Master's Office of the platform building, which has previously been heavily modified, confines impact to previously impacted areas.
- Material palette and design taking cues from the surrounding context to ensure upgrades are as least visually intrusive as possible.
- Adaptive reuse of the former signal box ensures long term maintenance of an otherwise disused element of rail infrastructure.

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

- While no significant views and vistas are formally identified for the heritage item, the visual connection between the historic elements of the Medlow Bath precinct form an interrelated cultural landscape. The introduction of a new built form of this scale immediately adjacent to the heritage item has a direct impact on the urban visual landscape in which the heritage item sits. This visual impact has been mitigated to some degree through the bridge's design form and materials that respect the bridge's

surroundings while clearly providing visual separation between old and new (see *Medlow Bath Station Upgrade Visual Impact Assessment* (DesignInc 31 May 2023)). The new footbridge also provides a vantage point from which to view some of the surrounding heritage items.

- Installation of Installation Main Switch Board (IMSB) within the signal room. The signal room is considered a rare intact example of a separate platform level signal box along Blue Mountains Line. Installation of an IMSB would alter the interior of the signal room, requiring penetrations to the floor and walls and alteration of the door swing. This impact has been mitigated through use of a fire rated cupboard which fits through the current signal room door, removing the need to alter the door size. The signal room has been flagged for adaptive reuse and the proposal is designed to be largely reversible. Further, the reuse of the building ensures that despite being an unmanned station, the building will be maintained.
- Excavation works within the platform for the upgrade of services may impact potential archaeological resources. Recommendations for the management of archaeological potential have been included in this SOHI to minimise impact to potential archaeological resources.

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

- Both a tunnel and pedestrian underpass have previously been explored as alternatives to the pedestrian footbridge. TfNSW workshops determined that an underpass was not a viable option from a public security and customer safety and experience point of view. Further, the tunnel option was also costed by a quantity surveyor and it was determined that the tunnel would cost an additional $24.6M compared to the footbridge option and add six months to the construction program.
- TfNSW also considered a do-nothing option. This option was discounted as a direct, safe access for pedestrians was required across the highway and rail corridors to replace the connection that is currently provided by the pedestrian refuge and level crossing.

Overall, the Proposal would have a **minor direct physical impact**, a **moderate adverse visual impact** and a **minor adverse archaeological impact** to Medlow Bath Railway Station.

Mitigation management recommendations are presented in Section 9 of this SOHI.

# Contents

**Executive summary** ..... **ii**
Project overview ..... ii
Proposal overview ..... ii
Heritage significance ..... iii
Summary of key heritage impacts and conclusions ..... iii

**1 INTRODUCTION** ..... **1**
1.1 Project Background ..... 1
1.2 Proposal area ..... 1
1.3 Purpose of this SOHI and approach ..... 1
1.4 Limitations ..... 2
1.5 Authorship ..... 3

**2 LEGISLATIVE CONTEXT** ..... **5**
2.1 World Heritage Convention ..... 5
2.1.1 World Heritage List ..... 5
*2.2 Environment Protection and Biodiversity Conservation Act (Cth) 1999* ..... 5
2.2.1 National Heritage List ..... 5
2.2.2 Commonwealth Heritage List ..... 5
*2.3 Heritage Act (NSW) 1977* ..... 5
2.3.1 State Heritage Register ..... 6
2.3.2 Section 170 Heritage and Conservation Register ..... 6
2.3.3 Relics Provisions ..... 6
*2.4 Environmental Planning and Assessment Act 1979* ..... 6
2.4.1 Blue Mountains Local Environmental Plan 2015 ..... 7
2.4.2 Potential heritage items ..... 7
2.4.3 Blue Mountains Development Control Plan 2015 ..... 7
2.5 Summary ..... 7

**3 HISTORICAL CONTEXT** ..... **10**
3.5 Medlow Bath Railway Station ..... 27
3.5.1 Early Development (1881- 1940s) ..... 27
3.5.2 Post War (1945) - Present ..... 28

**4 DESCRIPTION AND PHYSICAL EVIDENCE** ..... **36**
4.1 Landscape setting and features ..... 36
4.2 Proposal area ..... 38
4.2.1 Medlow Bath Railway Station ..... 38
4.2.2 Railway Parade ..... 56
4.2.3 Great Western Highway ..... 60

**5 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL** ..... **63**
5.1 Analysis of documentary resources and the proposal area ..... 63
5.2 Assessment of archaeological potential ..... 63

**6 ASSESSMENT OF SIGNIFICANCE** ..... **66**
6.1 Established assessment of heritage significance ..... 66
6.1.1 Medlow Bath Railway Station Group (SHR No.01190, TfNSW Section 170 SHI No. 4801011, Blue Mountains LEP 2015 Item No.MB003) ..... 66
6.1.2 Hydro Majestic (Blue Mountains LEP 2015 Item No.MB002) ..... 68
6.1.3 Former Post and Telegraph Store (Blue Mountains LEP 2015 Item No.MB008) ..... 69
6.1.4 Avenue of Trees (Blue Mountains LEP 2015 Item No.MB015) ..... 69
6.1.5 Urunga (Blue Mountains LEP 2015 Item No.MB017) ..... 70
6.1.6 Melbourne House, Cosy Cot, Sheleagh Cottage (Blue Mountains LEP 2015 Item No.MB019) ..... 70

6.1.7 Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Blue Mountains LEP 2015 Item No.MB026) .....71
6.2 Assessment of significance of potential heritage items .....72
6.2.1 Bus Shelter .....72
6.2.2 Sandstone railway culvert .....73

**7 THE PROPOSAL .....74**
7.1 Proposal background .....74
7.2 Description of proposal .....74
7.3 Proposal design development .....77
7.3.1 Previous options considered 2019-2021 .....77
7.3.2 Heritage Council of NSW Approvals Committee Meeting 1 February 2022 .....77
7.3.3 TfNSW Underpass Viability Workshops May 2022 .....78
7.3.4 Heritage Council of NSW Approvals Committee Meeting 31 May 2022 .....78
7.3.5 Other options considered .....79
7.3.6 Heritage Council of NSW Approvals Committee Meeting 5 July 2022 .....82
7.3.7 Heritage design principles .....82
7.3.8 New options considered .....83
7.3.9 Preferred design option .....87
7.3.10 The proposal - The Half Bridge .....88

**8 HERITAGE IMPACT ASSESSMENT .....91**
8.1 Heritage impact discussion .....91
8.1.1 Construction of a new pedestrian footbridge .....91
8.1.2 Alterations to northern station entrance .....92
8.1.3 Platform upgrades .....93
8.1.4 Railway Parade .....95
8.1.5 Great Western Highway .....96
8.1.6 Decommissioning and removal of existing pedestrian level crossing .....96
8.1.7 Electrical upgrade work (including padmount transformer) .....97
8.1.8 Ancillary work .....98
8.1.9 Ancillary facilities .....99
8.2 Impact to surrounding heritage items .....99
8.3 Visual impact assessment .....101
8.4 Overview of heritage impact .....102
8.5 Summary of changes in impact between the Great Western Highway REF and the proposal .....103

**9 RECOMMENDATIONS .....106**

**10 REFERENCES .....108**

## Tables

Table 1.1: Medlow Bath design drawings .....2
Table 2.1: Heritage listings in relation to the proposal area .....8
Table 3.1: Key dates and events for Medlow Bath Railway Station .....10
Table 5.1 Levels of archaeological potential .....63
Table 7.1: Other options considered by DesignInc (four options remaining after workshops with TfNSW highlighted grey) .....80
Table 7.2: Options comparison – Testing against Heritage Design Principles (TZG 2023) .....85
Table 8.1: Defining levels of impact .....91
Table 8.2: Visual impact assessment (DesignInc 31 May 2023) .....101
Table 8.3: Summary of changes in impact between the Great Western Highway REP and the proposal .....103

# Plates

Plate 3.1: Blaxland Crossing the Blue Mountains by F.A. Sleap and J. MacFarlane 1881 (Source: State Library of Victoria item 49349757) ..... 12
Plate 3.2: Convicts building road over the Blue Mountains, New South Wales, 1883 (Source: National Library of Australia object 135505644) ..... 13
Plate 3.3: William Cox's road over the Blue Mountains descending Mount York 1974 (Source: TfNSW RMS image HO27865) ..... 13
Plate 3.4: Hydro-Majestic Hotel advertisement (Source: National Library of Australia object 136185419) ..... 21
Plate 3.5: Medlow Bath stables early 1900s (Source: National Library of Australia object 146216810) ..... 21
Plate 3.6: Mark Foy with his wife, son and guests outside the Belgravia end of the Hydro around 1906 (Source: Smith 2020, 55) ..... 22
Plate 3.7: The Hydro Majestic from above 1938, showing Avenue of Trees running north between the Great Western Highway and the railway (Source: Blue Mountains City Library item 000095) ..... 22
Plate 3.8: Medlow Bath from above, around 1930, showing the Hydro Majestic overlooking the valley in the foreground and the limited development of Medlow Bath on the eastern side of the railway in the background (Source: National Library of Australia object 162354898) ..... 24
Plate 3.9: Medlow Bath from above, around 1930, looking south along the Great Western Highway showing Avenue of Radiata pines and Medlow Bath Railway Station to lower left (Source: National Library of Australia object 162355018) ..... 25
Plate 3.10: Medlow Bath from above, around 1930, showing Hydro Majestic to foreground and Medlow Bath township to rear (Source: National Library of Australia object 162355132) ..... 26
Plate 3.11: Post and Telegraph Office, Former around 1983 (Source: Kaldy 1983, 65) ..... 27
Plate 3.12: Elizabeth Foy with Mark Foy Jr and unidentified friends on original wooden Medlow Bath station, outside waiting room, December 1901 (Source: Smith 2020, 25) ..... 29
Plate 3.13: American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy around 1906 (Source: Blue Mountains City Library item 000837) ..... 30
Plate 3.14: American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy around 1906 (Source: National Library of Australia object 146217717 and Smith 2020, 47) ..... 31
Plate 3.15: Snow at Medlow Bath Station, Blue Mountains, New South Wales around 1935 (Source: National Library of Australia object 141914096) ..... 34
Plate 3.16: Medlow Bath Railway Station around 1950, showing Station building, signal room and platform plantings (Source: Blue Mountains City Library item 000734) ..... 34
Plate 4.1: View north showing Great Western Highway (centre), Main Western Line (right) and Hydro Majestic Hotel (left) (RPS 2020) ..... 36
Plate 4.2: View south across the rail overbridge at the northern end of town, showing Railway Parade (left) and Great Western Highway (right) (RPS 2020) ..... 37
Plate 4.3: View north along Railway Parade showing Medlow Bath Railway Station (left) and residential area (right) (RPS 2020) ..... 37
Plate 4.4: View south west of rail cutting at northern end of Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003), showing footbridge (RPS 2020) ..... 38
Plate 4.5: View south across Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003) from pedestrian overbridge (RPS 2020) ..... 39
Plate 4.6: View north of footbridge and brick faced rail tunnel from Platform 1 (RPS 2020) ..... 39
Plate 4.7: View south east of Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003) buildings from Great Western Highway (RPS 2020) ..... 40
Plate 4.8: View south along Platform 1 showing platform buildings (RPS 2020) ..... 40
Plate 4.9: View north east of weatherboard signal room from Platform 2 (RPS 2020) ..... 41
Plate 4.10: South façade of station building from Platform 1 (RPS 2020) ..... 41

Plate 4.11: View north east from Platform 1 showing Former Post and Telegraph Store (Blue Mountains LEP Item MB008) (left) and Urunga (Blue Mountains LEP Item MB017)(right) (RPS 2020)....42
Plate 4.12: View south east showing railway reserve between platform and Railway Parade (RPS 2020)....42
Plate 4.13: View south along Platform 1 (RPS 2020)....43
Plate 4.14: View of proposed pedestrian overbridge location, looking west from platform across Great Western Highway to vacant block of land (RPS 2020)....43
Plate 4.15: View north along platform where proposed pedestrian overpass would be installed (RPS 2020)....44
Plate 4.16: View north along platform showing modern user infrastructure (RPS 2020)....44
Plate 4.17: View south along platform toward southern station entrance, showing Hydro Majestic (Blue Mountains LEP Item MB002 ) (right) (RPS 2020)....45
Plate 4.18: View east across tracks from level crossing, showing water tank (RPS 2020)....45
Plate 4.19: Southern level crossing and station entrance from Great Western Highway showing repurposed heritage light poles (RPS 2020)....46
Plate 4.20: View north west across rail reserve of proposed pedestrian overpass location (RPS 2020)....47
Plate 4.21: Station building west façade showing existing lighting to awning (RPS 2021)....48
Plate 4.22: Station building, detail of existing drain around exterior base of building (RPS 2021)....48
Plate 4.23: Station building east façade showing help point and previous penetrations to brickwork around door to former waiting room (RPS 2021)....49
Plate 4.24: Station building west façade showing public telephone mounted to building (RPS 2021)....49
Plate 4.25: Existing conduits to exterior of station building (RPS 2021)....50
Plate 4.26: Concrete base of former luggage scales on Platform 2 outside Station Master's office (RPS 2021)....50
Plate 4.27: Station building Station Master's office east aspect showing significant fabric with electrical modifications (RPS 2021)....51
Plate 4.28: Station building Station Master's office north aspect showing significant fabric with electrical modifications (RPS 2021)....51
Plate 4.29: Station building Station Master's office north aspect showing existing communications box (RPS 2021)....52
Plate 4.30: Station building Station Master's office floor detail showing previous modifications and current condition (RPS 2021)....52
Plate 4.31: Station building Station Master's office south aspect showing current condition (RPS 2021)....53
Plate 4.32: Signal room west façade showing metal window grill and accessibility ramp (RPS 2021)....54
Plate 4.33: Signal room north façade showing accessibility ramp to east façade (left) and repairs to weatherboards (RPS 2021)....54
Plate 4.34: Signal room north aspect noting all signalling equipment has been removed and the current use is infrequent storage (RPS 2021)....55
Plate 4.35: Signal room south east aspect, showing inwards swinging door (right) and insulation and flue (left) (RPS 2021)....55
Plate 4.36: View toward Railway Parade from Platform 1 showing rail corridor, Former Post and Telegraph Store (left) and Urunga (right) (RPS 2021)....56
Plate 4.37: View north along Railway Parade from Park Street showing Medlow Bath Railway Station (left) and Urunga (right) (RPS 2020)....57
Plate 4.38: View west across Railway Parade and Medlow Bath Railway Station from Park Street (RPS 2020)....57
Plate 4.39: Front façade of Urunga (Blue Mountains LEP Item MB017) as seen from Park Street (RPS 2020)....58
Plate 4.40: Rear of Urunga (Blue Mountains LEP Item MB017) (RPS 2020)....58
Plate 4.41: Front façade of Former Post and Telegraph Store (Blue Mountains LEP Item MB008) as seen from Railway Parade (RPS 2020)....59
Plate 4.42: Rear of Former Post and Telegraph Store (Blue Mountains LEP Item MB008) (RPS 2020)....59

Plate 4.43: Northern end of Railway Parade showing station entrance (left) and rail overpass cross intersection (RPS 2020) ....60
Plate 4.44: View south showing Medlow Bath Railway Station (left) and Great Western Highway (right) (RPS 2020) ....61
Plate 4.45: View north of Avenue of Trees (Blue Mountains LEP Item MB015) showing aged pine tree stumps (right) immediately adjacent to railway line (RPS 2020) ....61
Plate 4.46: View east of Medlow Bath Railway Station from Great Western Highway, showing potential heritage item Bus shelter (RPS 2020) ....62
Plate 4.47: View west of shop and residence at Lot 1 Great Western Highway, part of Melbourne House, Cosy Cot, Sheleagh Cottage (Blue Mountains LEP Item MB019) (RPS 2020) ....62
Plate 7.1: Visualisation looking north from Great Western Highway (TZG May 2023) ....89
Plate 7.2: Visualisation looking south from Great Western Highway (TZG May 2023) ....89
Plate 7.3: View of Lift 2 on the western side of Great Western Highway in the vicinity of the Hydro Majestic Hotel (TZG May 2023) ....90
Plate 7.4: View north along platform with new lift and stairs to existing footbridge in distance (TZG May 2023) ....90

## Figures

Figure 1.1: Location of the proposal ....4
Figure 2.1: Heritage items in relation to the proposal area, excluding World and National listed Greater Blue Mountains Area located around 2.5km to the east. ....9
Figure 3.1: Parish of Blackheath 1890 (Source: HLRV) ....15
Figure 3.2: Parish of Kanimbla 1890 (Source: HLRV) ....16
Figure 3.3: Belgravia Estate sales advert 1890 (Source: National Library of Australia object 230300144) ....17
Figure 3.4: Buckingham Park Estate sales advert (Source: National Library of Australia object 230299961) ....18
Figure 3.5: Katoomba crown land sales advertisement 1895 (Source: National Library of Australia object 230232863) ....19
Figure 3.6: Plan of Medlow Bath Railway Station, around 1930 (Source: TfNSW) ....32
Figure 3.7: Plan “Medlow Bath extension of platform to 600FT” 1943 (Source: TfNSW) ....33
Figure 3.8: 1943 aerial image of Medlow Bath Railway Station (Source: Six Maps) ....35
Figure 5.1: Areas of archaeological potential within the s60 Application area ....65
Figure 7.1: Schematic of the proposal (Source: DesignInc) ....76
Figure 7.2: The three design options tested again the Heritage Design Principles (TZG 2023) ....84

## Appendices

Appendix A TZG Heritage Design Report
Appendix B TfNSW consultation summary

# 1 INTRODUCTION

Transport for NSW (TfNSW) is upgrading the Great Western Highway from Katoomba to Mount Victoria in the Blue Mountains, which includes an approximate 1.2 kilometre section through Medlow Bath. The Medlow Bath component includes removal of road and rail level crossings, necessitating the construction of a new footbridge over the highway for safe pedestrian movements. In addition, the opportunity has been identified to deliver an accessibility upgrade to Medlow Bath Railway Station as part of the project.

Arenco, on behalf of TfNSW, has engaged RPS to prepare a Statement of Heritage Impact (SOHI) for the proposed Medlow Bath footbridge and station upgrade (the 'Proposal').

Medlow Bath is a significant cultural landscape as evidenced by the heritage listings of the many places in the vicinity of the site. The heritage sites are historically interrelated and the relationships between sites remain important.

This SOHI assesses the impact of the Proposal on the significance of Medlow Bath Railway Station, which is included on the State Heritage Register (SHR) and RailCorp Section 170 Heritage and Conservation Register. It is also identified as an item of State significance on the *Blue Mountains Local Environmental Plan* (LEP) 2015. This SOHI also assesses potential impacts to surrounding heritage items within the immediate vicinity of the Proposal.

This report is to assist in consideration of an application under s60 of the *Heritage Act (NSW) 1977* for works within the SHR curtilage of Medlow Bath Railway Station and an addendum to the SOHI prepared as part of the determined Great Western Highway Review of Environmental Factors (REF).

## 1.1 Project background

A SOHI was previously prepared for the Great Western Highway REF for Medlow Bath at a 20 per cent Design Stage (RPS 2021). The Medlow Bath REF was placed on public display from 27 July to 5 September 2021. The subsequent Submissions Report, published in June 2022 highlighted the location and form of the pedestrian bridge, which extended across the highway, into the heritage curtilage of the station and across to Railway Parade, as being of particular interest to the various parties who made submissions. As a response to the submissions received from the NSW Heritage Council, Blue Mountains City Council (BMCC) and the local community, TfNSW has embarked on a heritage-led design process to develop a contextually appropriate response for a highway crossing and accessible station entrance. This SOHI has been prepared to support a Section 60 application to undertake works within the SHR curtilage of Medlow Bath Railway Station and as an addendum to that prepared for the REF.

The heritage-led design process leading to this assessment and application is comprehensively documented in the Medlow Bath Station Upgrade–Heritage Design Report (TZG Architects, June 2023) (Appendix A).

## 1.2 Proposal area

The proposal area comprises the SHR curtilage of Medlow Bath Railway Station and the proposed footbridge spanning from the Great Western Highway to Medlow Bath Railway Station and Railway Parade (the 'proposal area'). Medlow Bath Railway Station is located on the Main Western line, servicing the Blue Mountains township of Medlow Bath. It is bounded by the Great Western Highway to the west and Railway Parade to the east.

The proposal area is defined in Figure 1.1.

A number of construction compounds are also planned to accommodate site sheds, access, storage and fabrication of structures. Ancillary areas are shown on Figure 1.1.

## 1.3 Purpose of this SOHI and approach

The purpose of this SOHI is to assess the impact of the Proposal on the significance Medlow Bath Railway Station and surrounding heritage items. The proposed works assessed in this report are detailed in the design drawings listed in Table 1.1.

This report has been prepared in accordance with the relevant policies of Heritage NSW including NSW Heritage Manual *Statements of Heritage Impacts*, and *Assessing Heritage Significance.* This report uses the method of investigation and analysis established by the Australia ICOMOS (International Council on Monuments and Sites) *Charter for the Conservation of Places of Cultural Significance, The Burra Charter 2013* ('the Burra Charter').

This report also draws on relevant TfNSW (Sydney Trains) conservation guidelines and strategies, including:

- *Conservation Guide: Railway Station Platforms*
- *Conservation Guide: Railway Bridges*
- *Conservation Guide: Railway Station Platform Furnishings*
- *Conservation Guide: Railway Gardens*
- Railway Footbridge Heritage Conservation Strategy (2016)
- *Heritage Platforms Conservation Management Strategy (2015).*

**Table 1.1: Medlow Bath design drawings**

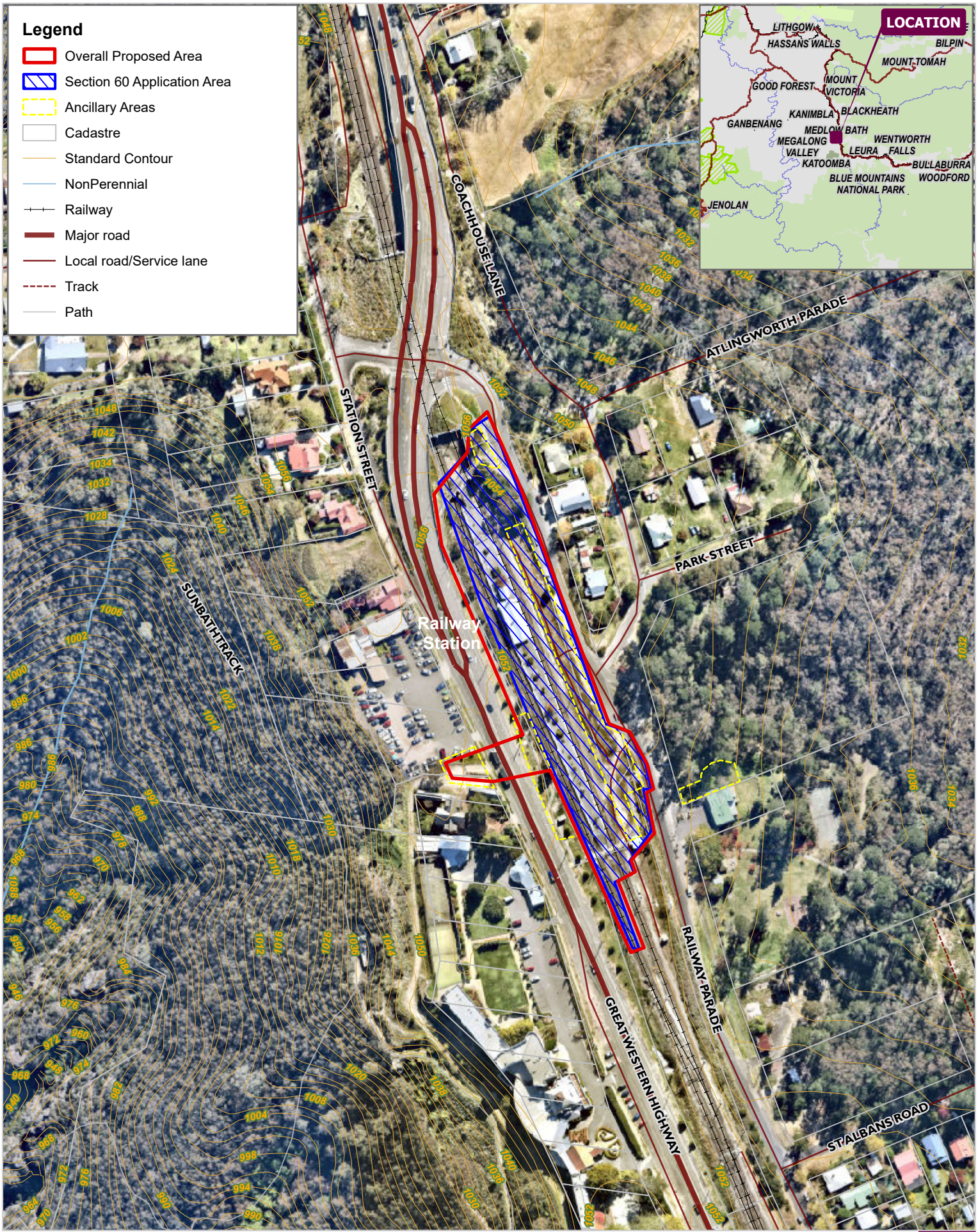
| Drawing Set No. | Title | Date |
|---|---|---|
| 150496-MED-AR-M3D-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESSIBILITY UPGRADE, ARCHITECTURAL | 30.06.2023 |
| 150496-MED-AR-M3D-30901 | MEDLOW BATH STATION ACCESS UPGRADE MATERIALS AND FINISHES SCHEDULE | 30.06.2023 |
| 150496-MED-AR-M3D-30902 | MELDOW BATH STATION ACCESS UPGRADE FURNITURE, FIXTURES AND EQUIPMENT SCHEDULE | 30.06.2023 |
| 150496-MED-CO-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, COMMUNICATIONS AND SECURITY | 31.05.2023 |
| 150496-MED-CV-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, CIVIL | 31.05.2023 |
| 150496-MED-EB-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, EARTHING AND BONDING | 31.05.2023 |
| 150496-MED-HY-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, HYDRAULIC | 31.05.2023 |
| 150496-MED-LA-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, LANDSCAPE | 31.05.2023 |
| 150496-MED-LV-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, ELECTRICAL | 31.05.2023 |
| 150496-MED-ME-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, MECHANICAL | 31.05.2023 |
| 150496-MED-ST-DRG-30001 | GREAT WESTERN HIGHWAY UPGRADE PROGRAM, MEDLOW BATH STATION ACCESS UPGRADE, STRUCTURAL | 31.05.2023 |

## 1.4 Limitations

This SOHI has been prepared for the purposes of an application to the Heritage Council of NSW (or its delegate) in relation to the State Heritage Register listing of the site. It assesses the impact of the Proposal on the significance of State Heritage Register Item, Medlow Bath Railway Station (SHR No. 01190), and surrounding heritage items for consideration under s60 of the *Heritage Act (NSW) 1977.*

## 1.5 Authorship

Sarah van der Linde (Senior Heritage Consultant) and Dr Gary Marriner (Senior Heritage Consultant) prepared this SOHI. It has been reviewed by Natalie Green (Senior Principal Environmental Consultant).




## LOCATION OF THE PROPOSAL AREA

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 1.1
**VERSION:** C
**DATE EXPORTED:** 20/06/2023
**TECHNICIAN:** Natalie.Wood

0 20 40 60 80 m

SCALE 1:2,500
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

# FIGURE 1.1


IMPORTANT NOTE
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# 2 LEGISLATIVE CONTEXT

In NSW, environmental heritage is protected and managed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the NSW *Heritage Act 1977* and the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

## 2.1 World Heritage Convention

The General Conference of UNESCO adopted the Convention Concerning the Protection of World Cultural and National Heritage (World Heritage Convention) on 16 November 1972, and it came into force on 17 December 1975. The World Heritage Convention aims to promote international cooperation to protect places of outstanding cultural significance.

### 2.1.1 World Heritage List

The Greater Blue Mountains Area is listed the World Heritage List (WHL) (Reference No. 917) and is located within the vicinity of the proposal area, around 2.5 kilometres to the east.

## *2.2 Environment Protection and Biodiversity Conservation Act (Cth) 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the principal environmental Act at a Commonwealth level. It provides for the protection and management of nine matters of national environmental significance as defined in the Act. Matters of national environmental significance include but are not limited to flora, fauna, ecological communities and heritage places of national and international importance.

In addition, the EPBC Act applies to actions with a significant impact on the environment where the actions affect, or are taken on, Commonwealth land, or are carried out by a Commonwealth agency (even if that significant impact is not on one of the nine matters of 'national environmental significance').

The EPBC Act requires approval from the Minister for actions with a significant impact on places included on the National Heritage List or Commonwealth Heritage List.

### 2.2.1 National Heritage List

The National Heritage List was established under the EPBC Act to protect places of outstanding significance to Australia.

The Greater Blue Mountains Area is listed the National Heritage List (Place No.105999) and is located within the vicinity of the proposal area, around 2.5 kilometres to the east.

### 2.2.2 Commonwealth Heritage List

The Commonwealth Heritage List was established under the EPBC Act to protect places owned and managed by Commonwealth agencies.

There are **no places** on the Commonwealth Heritage List within or near the proposal area.

## *2.3 Heritage Act (NSW) 1977*

The NSW *Heritage Act 1977* (the Act) is the principal Act for the management of NSW's environmental heritage. It establishes the State Heritage Register (SHR) and includes provisions for Interim Heritage Orders, Orders to Stop Work and archaeological relics (both on land and underwater within the limits of the State). It also requires government agencies to maintain a Heritage and Conservation Register.

To assist management of NSW's environmental heritage, the Act distinguishes between assets of state and local significance:

- state significance refers to significance to the state in relation to the historical, archaeological, architectural, cultural, social, natural or aesthetic value of an item
- local significance refers to significance to an area in relation to the historical, archaeological, architectural, cultural, social, natural or aesthetic value of an item.

Items may be of state and local significance. Items of local significance may or may not be of significance to the state.

### 2.3.1 State Heritage Register

The State Heritage Register (SHR) identifies places and objects of importance to the whole of NSW.

**Medlow Bath Railway Station Group is listed on the State Heritage Register (SHR No.01190).**

### 2.3.2 Section 170 Heritage and Conservation Register

Section 170 of the Act requires government agencies to establish a Heritage and Conservation Register that identifies all assets of environmental heritage that it owns or occupies. Government agencies are required to provide the NSW Heritage Council notice of any intention to remove an asset from a Section 170 Heritage and Conservation Register, transfer ownership of an asset included on a Section 170 Heritage and Conservation Register, cease to occupy an asset on a Section 170 Heritage and Conservation Register or demolish an item included on a Section 170 Heritage and Conservation Register and assets must be maintained with due diligence in accordance with the *State Agency Heritage Guide* (NSW Heritage Office 2005*)*. Proposals to alter or demolish assets of State significance must be referred to the NSW Heritage Council.

**Medlow Bath Railway Station Group is listed on the TfNSW RailCorp Section 170 Heritage and Conservation Register (SHI No.4801011).**

### 2.3.3 Relics Provisions

Historical archaeological resources or ‘relics’ are defined by the Act. Section 139 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. It applies to all land in New South Wales that is not included on the SHR. A relic is an archaeological deposit, resource or feature that has heritage significance at a local or State level. The definition is no longer based on age. A 'relic' is defined by the Heritage Act as: “Any deposit, object or material evidence:(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b ) which is of State or Local significance.” It should be noted that not all remains that would be considered archaeological are relics under the NSW Heritage Act.

Works impacting archaeology within he SHR curtilage would be managed through S60 approval process, while those outside the SHR curtilage would be managed in accordance with the relics provision of the Heritage Act.

## *2.4 Environmental Planning and Assessment Act 1979*

The *Environmental Planning and Assessment Act 1979* (EP&A Act) regulates land-use planning and assessment for NSW. The Proposal is being assessed through a Review of Environmental Factors (REF) under Division 5.1 of the EP&A Act, specifically as development without consent to be determined by TfNSW.

### 2.4.1 Blue Mountains Local Environmental Plan 2015

The Blue Mountains Local Environmental Plan (LEP) 2015 sets out various planning, development and environmental controls for the Local Government Area (LGA) of the Blue Mountains City Council. Schedule 5 of the LEP identifies heritage items important to the LGA.

The following heritage items listed on the Blue Mountains LEP 2015 are located in the immediate vicinity of the proposal area. Their locations in relation to the proposal area is shown in Figure 2.1.

- Hydro Majestic (Item No. MB002)
- Medlow Bath Railway Station Group (Item No. MB003)
- Former Post and Telegraph Store (Item No. MB008)
- Avenue of Trees (Item No. MB015)
- Urunga (Item No. MB017)
- Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019)
- Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Conservation Area No. MB026).

### 2.4.2 Potential heritage items

The SOHI prepared by RPS (July 2021) to support the REF for the Great Western Highway upgrade, Medlow Bath, identified Medlow Bath Bus Shelter and Sandstone Railway culvert as potential heritage items. The bus shelter is located within the road reserve beside the railway within the Proposal area, while the sandstone railway culvert is located around 100 metres south of the SHR curtilage for Medlow Bath Railway Station.

### 2.4.3 Blue Mountains Development Control Plan 2015

The *Blue Mountains Development Control Plan (DCP) 2015* outlines the planning, design and environmental objectives and controls against which Blue Mountains City Council assesses Development Applications (DAs).

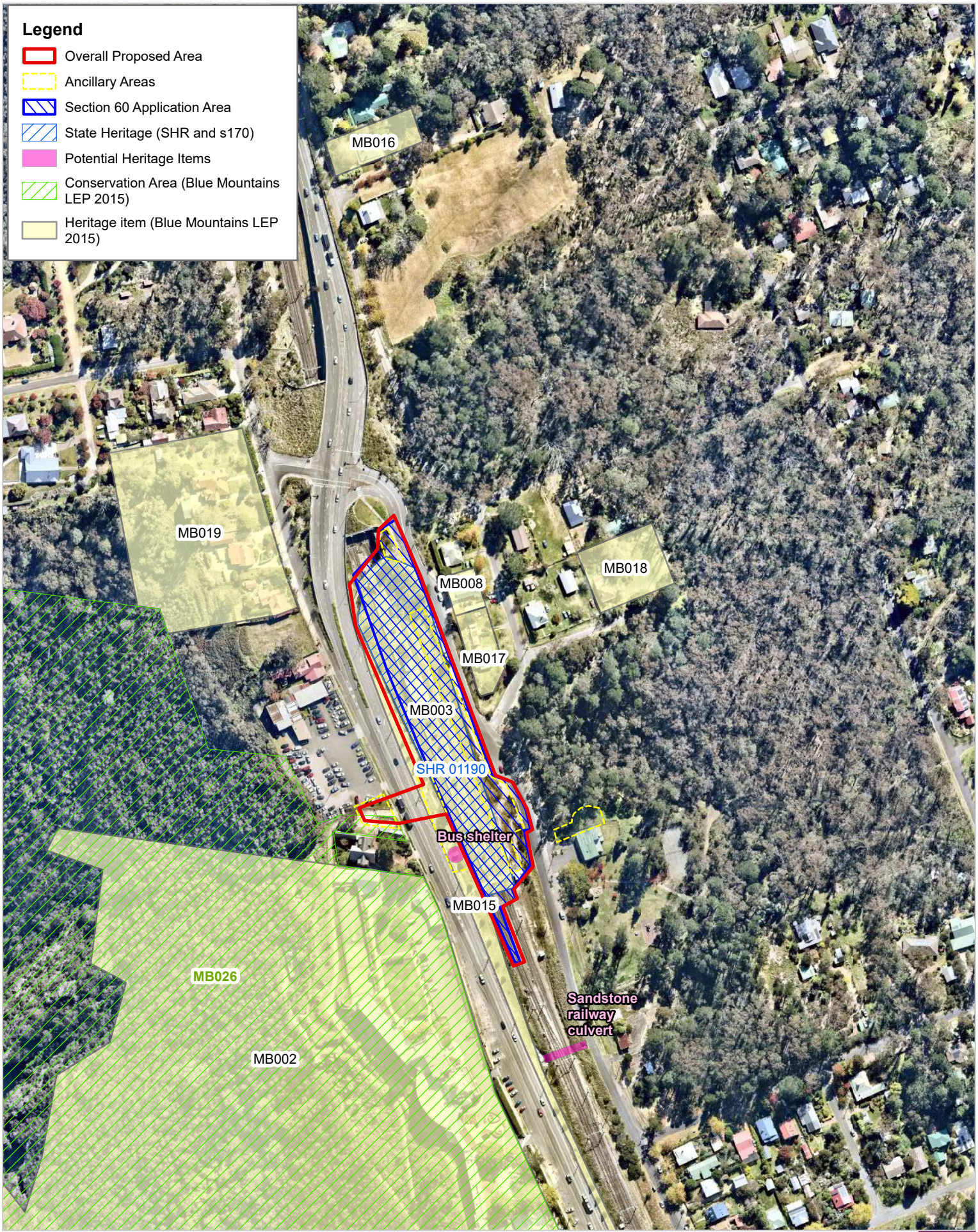
The *Blue Mountains DCP 2015* requires significant development in the vicinity of a heritage item, heritage conservation area, archaeological site or Aboriginal site to submit a Heritage Impact Statement which addresses potential impacts and mitigation of impacts.

## 2.5 Summary

The heritage listings in relation to the proposal area are summarised in Table 2.1, with locations shown in Figure 2.1. It is noted that the World and National heritage listed Greater Blue Mountains Area is located around 2.5 kilometres east of the proposal area and is therefore not shown on Figure 2.1 nor discussed further in the report due to its distance and lack of impact.

**Table 2.1: Heritage listings in relation to the proposal area**

| Item | Listing No. | Register | Significance | Location |
|---|---|---|---|---|
| Greater Blue Mountains Area | 917<br>105999 | World Heritage List<br>National Heritage List | World/National | Around 2.5km east of project area |
| Hydro Majestic | MB002 | Blue Mountains LEP 2015 | Local | Vicinity of proposal area |
| Medlow Bath Railway Station Group | 01190<br>4801011<br>MB003 | State Heritage Register<br>Section 170<br>Blue Mountains LEP 2015 | State | Proposal area |
| Former Post and Telegraph Store | MB008 | Blue Mountains LEP 2015 | Local | Adjacent to proposal area |
| Avenue of Trees | MB015 | Blue Mountains LEP 2015 | Local | Adjacent to proposal area |
| Urunga | MB017 | Blue Mountains LEP 2015 | Local | Adjacent to proposal area |
| Melbourne House, Cosy Cot, Sheleagh Cottage | MB019 | Blue Mountains LEP 2015 | Local | Vicinity of proposal area |
| Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) | MB026 | Blue Mountains LEP 2015 | Local | Adjacent to proposal area |
| Medlow Bath Bus Shelter | NA | NA – potential heritage item | Local | Adjacent to proposal area |
| Sandstone railway culvert | NA | NA – potential heritage item | Local | Vicinity of proposal area |




# HERITAGE ITEMS IN RELATION TO THE PROPOSAL AREA

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 2.1
**VERSION:** C
**DATE EXPORTED:** 22/06/2023
**TECHNICIAN:** Natalie.Wood

0 20 40 60 80 100 m

SCALE 1:3,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

## FIGURE 2.1

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# 3 HISTORICAL CONTEXT

The following history is limited to the post-contact use of the area. The Aboriginal history of the area has been addressed separately.

Section 2.0 of the Heritage Design Report (see Appendix A) includes further historical analysis of specific station elements that are impacted by the proposed works to complement the historical context provided here.

## 3.1 Timeline

An overview of key dates and events relating to Medlow Bath Railway Station is outlined below in Table 3.1.

**Table 3.1: Key dates and events for Medlow Bath Railway Station**

| Date | Event |
|---|---|
| 1863 | Opening of the Main Western line to Penrith |
| 1868 | Opening of the railway line between Katoomba and Blackheath |
| 1881 | Halt stop 'Brown's Siding' established at Medlow Bath, including 30 metre long platform on down side of single line |
| 1883 | Halt stop renamed 'Medlow' |
| 1899 | Alterations made to station buildings |
| 1901 | Footbridge constructed |
| 1902 | Duplication of the Mail Western line<br>Replacement of original platform with present island platform and construction of new platform building |
| 1903 | Station renamed to 'Medlow Bath'<br>Post office opened in station building |
| 1904 | Hydro Majestic Hotel opened |
| 1905 | Development of former Post and Telegraph Store site opposite station on Railway Parade |
| 1909 | Open timber signal room added to platform |
| 1910 | Post office in station building closed |
| 1916 | Station Master's cottage 'Urunga' built opposite station on Railway Parade |
| 1922 | Timber signal room enclosed to form existing structure |
| 1926 | Additional siding added |
| 1942 | Platform extended at the Sydney end to 600 feet |
| 1952 | Tracks slewed |
| 1957 | Line electrified and signal room removed from service |
| 1980/81 | Tracks slewed |
| 1994 | Footbridge upgraded with new deck and handrails added |
| 2017 | Platform resurfaced, light pole footings upgraded, height of septic tanks lowered |
| 2019 | Platform cutbacks and build outs on Platform 1 and Platform 2, recessing of services on Platform 1 near station building |

## 3.2 1815: European crossing of the Blue Mountains

The Blue Mountains were seen as an impenetrable barrier to early European settlers in the Sydney region, halting the westward expansion of the colony. When Governor Macquarie took office in 1810, the colony was suffering drought, insect plagues and exhaustion of the soils around Sydney, making it imperative that new land be found (NMA 2020). Macquarie immediately embarked on an extensive program to raise the level of comfort and prosperity within the colony, with considerable emphasis on roadworks. He established a program of regular road construction to keep pace with exploration and settlement (Department of Main Roads NSW 1976: 10, 13).

By 1813 Gregory Blaxland realised that his sheep and cattle were expanding beyond the resources of his coastal land grant, and that Governor Macquarie would not grant extra lands to large land holders such as himself. In early 1813 Blaxland sought approval for an exploration expedition across the Blue Mountains. On 11 May 1813, Blaxland set out with William Lawson, a trained surveyor, and William Charles Wentworth. The party were assisted by local guide, James Burnes, who was familiar with the bush and Aboriginal pathways, and four convict servants (NMA 2020). The expedition party crossed the mountains in three weeks, utilising the method of traversing ridges instead of looking for a route through the valleys as impervious explorers had done (Plate 3.1). The men reported discovering 'enough grass to support the stock of the colony for thirty years' (Conway 1966).

Blaxland, Lawson and Wentworth were rewarded with land grants. Macquarie sent the surveyor William Evans to explore and report on the fertility of the land discovered. Evans completed his task, becoming the first European to cross the Great Dividing Range in the process. Evans reported back that "*twelve men might clear a good Road in three months*", which Macquarie increased to fifty in his proposal to London (Department of Main Roads NSW 1976: 15). Macquarie then had William Cox construct a road suitable for carriages and stock (Plate 3.2 and Plate 3.3). Cox assembled a team of men with various skills, including specially selected convicts who were offered emancipation on the completion of the road as their reward. This arrangement allowed Cox to complete the road in six months. Construction of the road commenced on 18 July 1814. Despite sickness, bad weather and a mountain winter, the road to Bathurst was completed on 14 January 1815. The road was little more than a bush track around 12 feet wide, however, it would become the basis for today's Great Western Highway (Department of Main Roads NSW 1976: 15; NMA 2020).

**Plate 3.1: Blaxland Crossing the Blue Mountains by F.A. Sleap and J. MacFarlane 1881 (Source: State Library of Victoria item 49349757)**

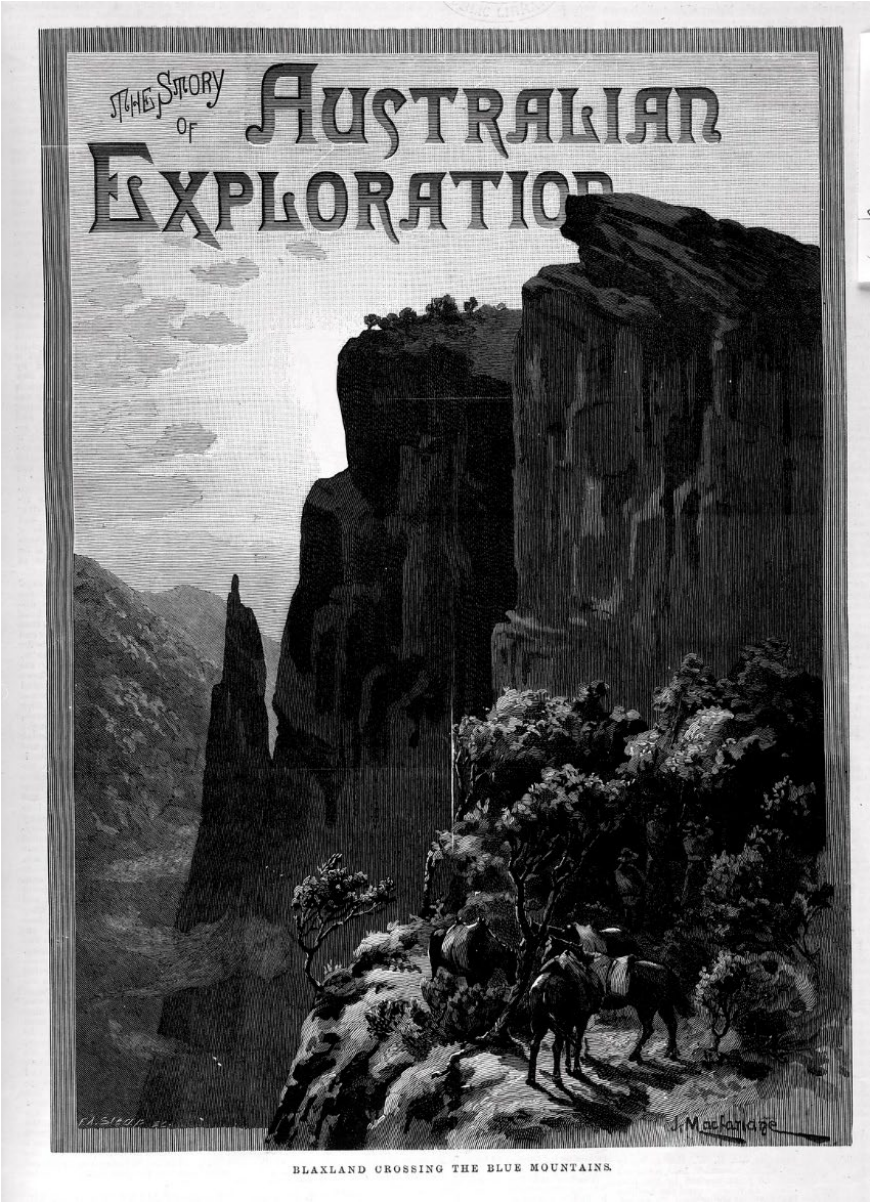

**Plate 3.2: Convicts building road over the Blue Mountains, New South Wales, 1883 (Source: National Library of Australia object 135505644)**



**Plate 3.3: William Cox's road over the Blue Mountains descending Mount York 1974 (Source: TfNSW RMS image HO27865)**



## 3.3 1850-1870: The Main Western Line

Following the opening of the railway from Sydney to Parramatta in 1850, plans were laid to cross the Blue Mountains and create rail access to the western plains. Extensive exploration revealed that no better route than that found by Blaxland, Lawson and Wentworth could be found through the Blue Mountains and therefore the railway line would largely follow that of the Great Western Road. The Main Western Line was constructed as several phases. The line to Penrith was completed in 1863 and remained the end of the line for a number of years. Penrith was the starting point for coaches over the Blue Mountains. Two Cobb and Co. coaches were available daily to Bathurst (Crowland 1954, 249).

The railway line from Katoomba to Blackheath, through Medlow Bath, opened in 1868. A halt stop was established at Medlow Bath in 1881. The halt was originally known as Brown's Siding because of Brown's sawmill close by in Railway Parade. The name was changed to Medlow in 1883 to avoid confusion with Brown's Siding in Lithgow. The name changed again in 1903 to Medlow Bath with the opening of Mark Foy's Hydro (Heritage NSW 2020a; Kaldy 1983, 7).

## 3.4 1881 onwards: Township of Medlow Bath

### 3.4.1 1890-1902: Land sales and subdivision

Little is documented about the early European use of Medlow Bath prior to the development of the railway. The Great Western Road and Railway line divided the township in two, with the eastern side of the railway falling in the Parish of Blackheath (Figure 3.1) and the western side of the railway falling into the Parish of Kanimbla (Figure 3.2). The township seems to have evolved slightly differently within each Parish.

The 1890 map of the Parish of Blackheath reveals that by 1890, Medlow, as it was known as this point in time, had been opened up for Crown land sales to the east of the railway in smaller single figure acreage allotments (Figure 3.1). In contrast, the 1890 Parish of Kanimbla reveals that the western side of the Great Western Road to have been granted through either promise or purchase in large acreages similar to early land grants across New South Wales (Figure 3.2). The Parish maps also indicated that land between the Great Western Road and the Great Western Railway from Emu Plains near Penrith to One Tree Hill at Mount Victoria was reserved in 1878 as Crown Land.

A land sales advert for Belgravia Estate (Figure 3.3) dated January 1890 shows that the grants issued to Thomas and McGregor, and William Relton west of the railway are now owned by T.S. Richardson, and that J.H. Neale's grant "Lauraville" is now the post office and orchard while the eastern side of the railway and road is marked as 'saw mills'. Kaldy (1983, 67) states that Brown's Saw Mills was located on the sites of the two railway cottages in Railway Parade, opposite the station. A Sawmill is further referenced on the 1890 Parish of Blackheath map, where it is noted that Portion 71 immediately adjacent to Medlow Station has special leases to Messrs Bennett and Smith for Sawmill from 1 January 188[0] to 31 December 1893 and seems to be exempt from the Crown land sales occurring at this time.

The land sales advert for Buckingham Park Estate (Figure 3.4) appears to date from the 1890s and again makes reference to the sawmill by the station as being Smith's Sawmill and shows Medlow Bath Park already reserved for public purpose to the south of the saw mills.

The sawmill is no longer referenced on an advert for crown land sales at Katoomba in February 1895 (Figure 3.5), which includes land along the outskirts of Medlow Bath. However, the former sawmill area is still marked as reserved as notified on 8 November 1880 and is surrounded by an area reserved for public purposes, which comprises the present Medlow Bath Park. This area became Crown Reserve 33660 and was dedicated as Medlow Park in 1902 (Blue Mountains City Council 2012: 13).

According to the Medlow Bath subdivision plans held at the State Library of New South Wales, the subdivision and sale of land continued in Medlow Bath through the early twentieth century, particularly with land to the east of the Railway Station in 1914 through to 1922.




**PARISH OF BLACKHEATH 1890 (SOURCE: HLRV)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 3.1
**VERSION:** C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 100 200 m

SCALE 1:8,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.1**

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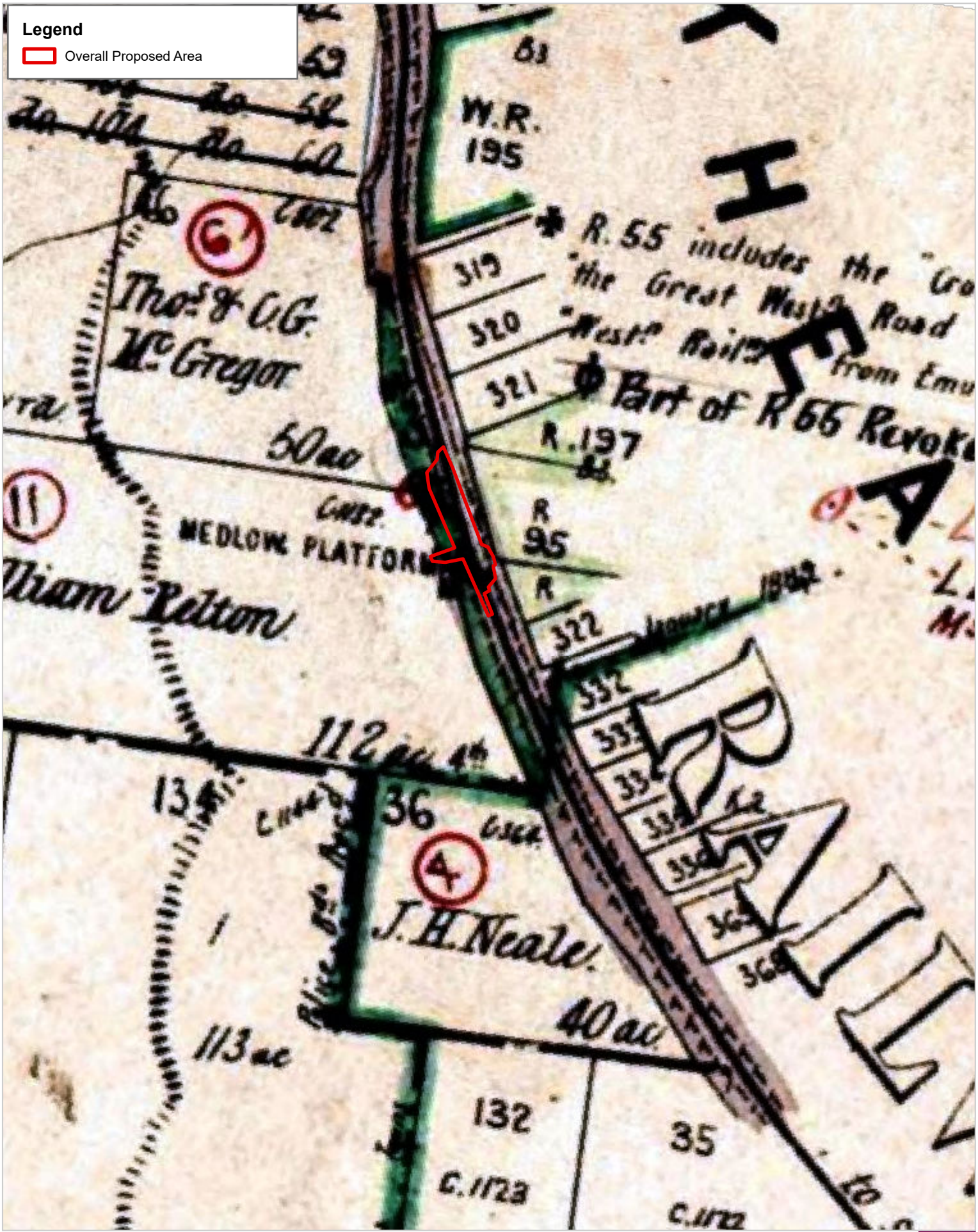


**PARISH OF KANIMBLA 1890 (SOURCE: HLRV)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 3.2
**VERSION:** C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 100 200 m

SCALE 1:8,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.2**

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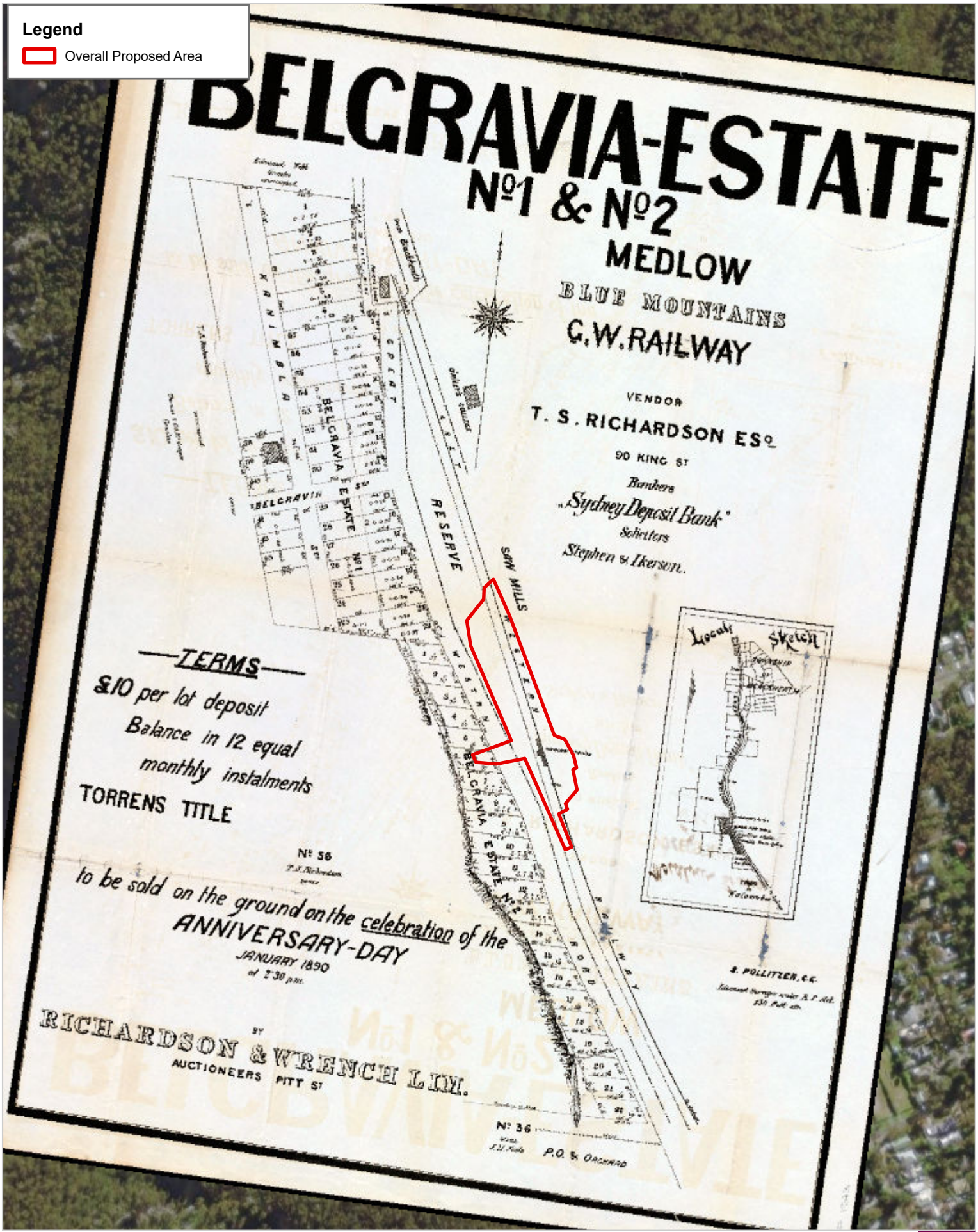


**BELGRAVIA ESTATE SALES ADVERT 1890 (SOURCE: NATIONAL LIBRARY OF AUSTRALIA OBJECT 230300144)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS, Maxar

**MAP:** Figure 3.3
**VERSION:** C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 50 100 150 m

SCALE 1:5,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.3**

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**BUCKINGHAM PARK ESTATE SALES ADVERT (SOURCE: NATIONAL LIBRARY OF AUSTRALIA OBJECT 230299961)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS, Maxar

**MAP:** Figure 3.4
**VERSION:** C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 100 200 m

SCALE 1:8,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.4**

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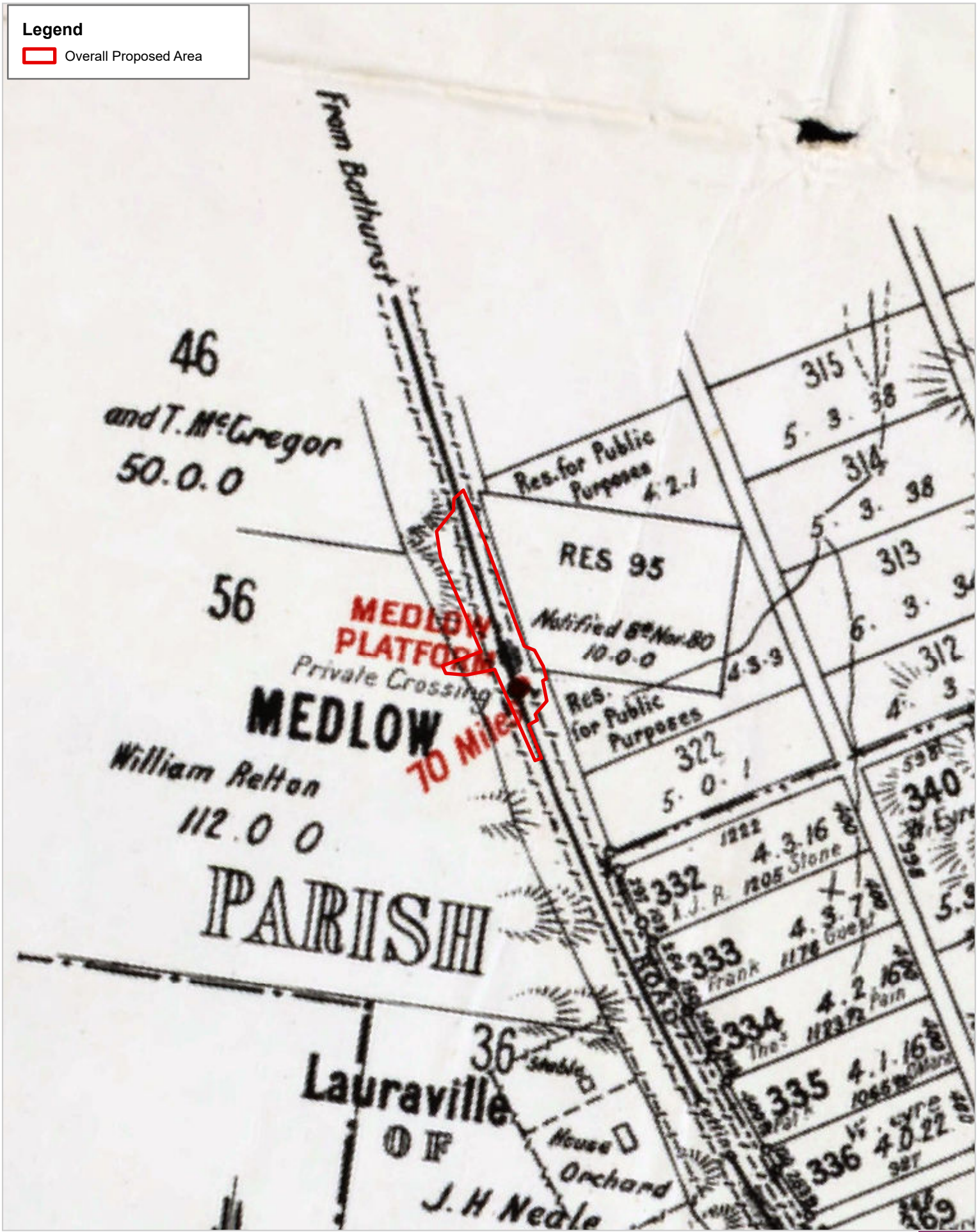


**KATOOMBA CROWN LAND SALES ADVERTISEMENT 1895 (SOURCE: NATIONAL LIBRARY OF AUSTRALIA OBJECT 230232863)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 3.5
**VERSION:** C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 20 40 60 80 100 120 140 160 180 m

SCALE 1:5,000
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.5**

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### 3.4.2 1900 onwards: Mark Foy and the Hydro Majestic Hotel

Mark Foy (1865-1950) was a businessman and sportsman. He was the third son of successful Melbourne draper, Mark Foy. In his youth he was a keen sportsman, having won medals for rifle-shooting, and later establishing the Sydney Flying Squadron to popularise sailing on Port Jackson. He was also interested in motor racing and boxing. After their father's death in 1884, Mark and his brother Francis moved to Sydney and set up a shop in Oxford Street under the style of Mark Foy senior, in memory of their father. The successful business enterprise permitted Mark to pursue his sporting interests and alternate business ventures, including opening a hydropathic resort, the Hydro Majestic Hotel at Medlow Bath (Walsh 1981).

The Hydro Majestic (Blue Mountains LEP Item No. MB002) on the western side of the Great Western Highway was developed by Mark Foy through bringing together three existing buildings into one complex.

On 4 July 1904 Mark Foy opened his hydropathic establishment. Foy employed Dr Georg Bauer of the *Shoeneck* health spa on Lake Lucerne in Switzerland to devise and supervise a program of diets and treatments. The Hydro, as it became known, advertised cures for nervous, alimentary, respiratory and circulatory ailments, but excluded sufferers from infectious diseases such as tuberculosis and those with mental illness (Heritage NSW 2020c; Hydro Majestic 2020). The Hydro soon advertised itself as the "premier tourist resort" (Plate 3.4).

Foy built a casino with a prefabricated domed ceiling imported from Chicago and hosted regular performances by international stars. A picture gallery several hundred feet long lined with an extensive art collection joined the buildings together, offering superb views over the Megalong Valley (Heritage NSW 2020c; Hydro Majestic 2020; Kaldy 1983, 36). The grounds boasted a croquet lawn, tennis courts, swimming pool and gardens with a series of pathways down the slope to Megalong. A stable of horses provided guests the chance to explore the Megalong (Plate 3.5), while Mark Foy's famous fleet of motorcars took visitors on more extended trips such as the Jenolan Caves (Plate 3.6). The kitchens were supplied by Foy's farm in the Megalong valley below, with produce brought up by flying-fox (Heritage NSW 2020c).

The Hydro's boundary with the Great Western Highway is marked by a fence of rockfaced sandstone piers with turned sandstone balusters and sandstone cappings and taller gateposts of matching design (Heritage NSW 2020c).

Foy's Hydro Majestic capitalised on the growing attraction of the Blue Mountains as a retreat for middle and upper middle classes to escape Sydney. The arrival of the railway in the late nineteenth century opened up the Blue Mountains to holiday makers, fuelling the opening of guest houses and luxury hotels like the Hydro Majestic. Medlow Bath offered visitors bushwalking, rock climbing, caving and views of the Megalong Valley. To emphasise the Hydro and provide a distinct point of reference for all travellers to the Hydro by both road and rail, Foy planted an avenue of pine trees (Avenue of Trees (formerly Avenue of Radiata Pines) (Blue Mountains LEP Item No. MB015)) around 1904. The single line of pines is adjacent to the proposal area and run between the Great Western Highway and the railway line from the eastern end of the Hydro Majestic estate to the railway bridge and then down Station Street as far as number 33, the former Gatekeeper's cottage (Plate 3.7). The extension of the avenue down Station Street highlighted that Sheleagh Cottage (Blue Mountains LEP Item No. MB019) at number 6 was also part of the Foy domain. After a storm in 2011 caused one of the historic trees to fall onto a passenger train, for safety reasons the historic trees forming Avenue of Radiata Pines were removed. The trees were replaced with the existing trees by the local Medlow Bath community and Council to retain the character of the township (ABC News 2011, Heritage NSW 2020i). The heritage item, Avenue of Radiata Pines was then renamed Avenue of trees in 2021.

In 1922 the Belgravia and picture gallery were severely damaged by fire. It took fourteen years to rebuild but the lost buildings were replaced, and the hotel recovered. During World War II, the Hydro was used as a convalescent hospital for American servicemen. In 1946, a new building was opened with bedrooms on the upper floors and a large lounge downstairs (Hyrdro Majestic 2020).

In 2008 the restoration of the Hydro Majestic commenced, and it reopened in 2014.

**Plate 3.4: Hydro-Majestic Hotel advertisement (Source: National Library of Australia object 136185419)**




**Plate 3.5: Medlow Bath stables early 1900s (Source: National Library of Australia object 146216810)**



**Plate 3.6: Mark Foy with his wife, son and guests outside the Belgravia end of the Hydro around 1906 (Source: Smith 2020, 55)**




**Plate 3.7: The Hydro Majestic from above 1938, showing Avenue of Trees running north between the Great Western Highway and the railway (Source: Blue Mountains City Library item 000095)**



### 3.4.3 1900 onwards: Residential development

Following the subdivision and sale of land for the township of Medlow in the early 1900s, construction of houses and holiday retreats commenced. Mark Foy had visions of the town as a 'Garden Suburb'. He began to create major land subdivisions in Medlow Bath that embodied these ideas, however onerous restrictions he placed on purchasers and land meant few sales. After decades spent trying to create his vision, Foy was forced to abandon his 'Garden Suburb' dream (Smith 2020, 43-44).

Aerial imagery from around 1930 shows the majority of the residential development in Medlow Bath occurred on the eastern side of the railway line (Plate 3.8 and Plate 3.10). However, on the opposite side of the Great Western Highway at the northern end of the station lie a group of four houses on Station Street, all of which were constructed during the early twentieth century growth of Medlow Bath. Together the houses are listed as heritage item Melbourne House, Cosy Cot, Sheleagh Cottage (Blue Mountains LEP Item No. MB019).

Sheleagh Cottage was the summer residence of Mark Foy and his family. Immediately after Foy purchased what would become the Hydro, he commissioned Sir Herbert Ross to design the summer residence for him. The single storey hipped roof house, Sheleagh Cottage (also referred to as Shelaugh Cottage and Shelia Cottage), was named after Foy's third daughter and constructed at 6 Station Street primarily from mahogany between 1901 and 1903 (Heritage NSW 2020i; Kaldy 1983, 37).

The Foy family sold the house to a stonemason named Bagley in around 1958. Bagley added the stone benches, walling and sundial which adorn the house today. In around 1978 the house was purchased by Wilmot-Farden, who sold it to the present owner Mrs Helen Craig in 1995. The outhouse known as 'The Loft' belongs to the Mark Foy period, however the shed constructed from sleepers and known as 'The Pub' is most likely a later addition (Heritage NSW 2020i).

To the south of Sheleagh Cottage is Cosy Cot at 4 Station Street. The single storey weatherboard cottage was constructed around 1900 to 1910, and was the mountain retreat of Henry Hartley who, with his mother and stepfather ran a famous chain of bakeries and refreshment rooms in New South Wales and Victoria known for their Sargent's pies. Hartley's health was reduced from his war time experiences and he spent most of his remaining years at Cosy Cot. He died there in 1924 after falling from the cliff edge immediately beyond his own grounds. The house has remained in the Sargent family (Heritage NSW 2020i).

To the south of Cosy Cot, lies Melbourne House at 2 Station Street. The single storey weatherboard house was built around 1908 by Mr Saunders, who appears to have remained at the property until around 1940. From 1940 onwards, Miss Rose Pritz resided at Melbourne House.

On the southern side of the block of vacant land next to Melbourne House, opposite the railway station, lies the fourth early twentieth century property at Lot 1 Great Western Highway. It comprises a brick single storey shop with attached single storey residence on the south side.

**Plate 3.8: Medlow Bath from above, around 1930, showing the Hydro Majestic overlooking the valley in the foreground and the limited development of Medlow Bath on the eastern side of the railway in the background (Source: National Library of Australia object 162354898)**

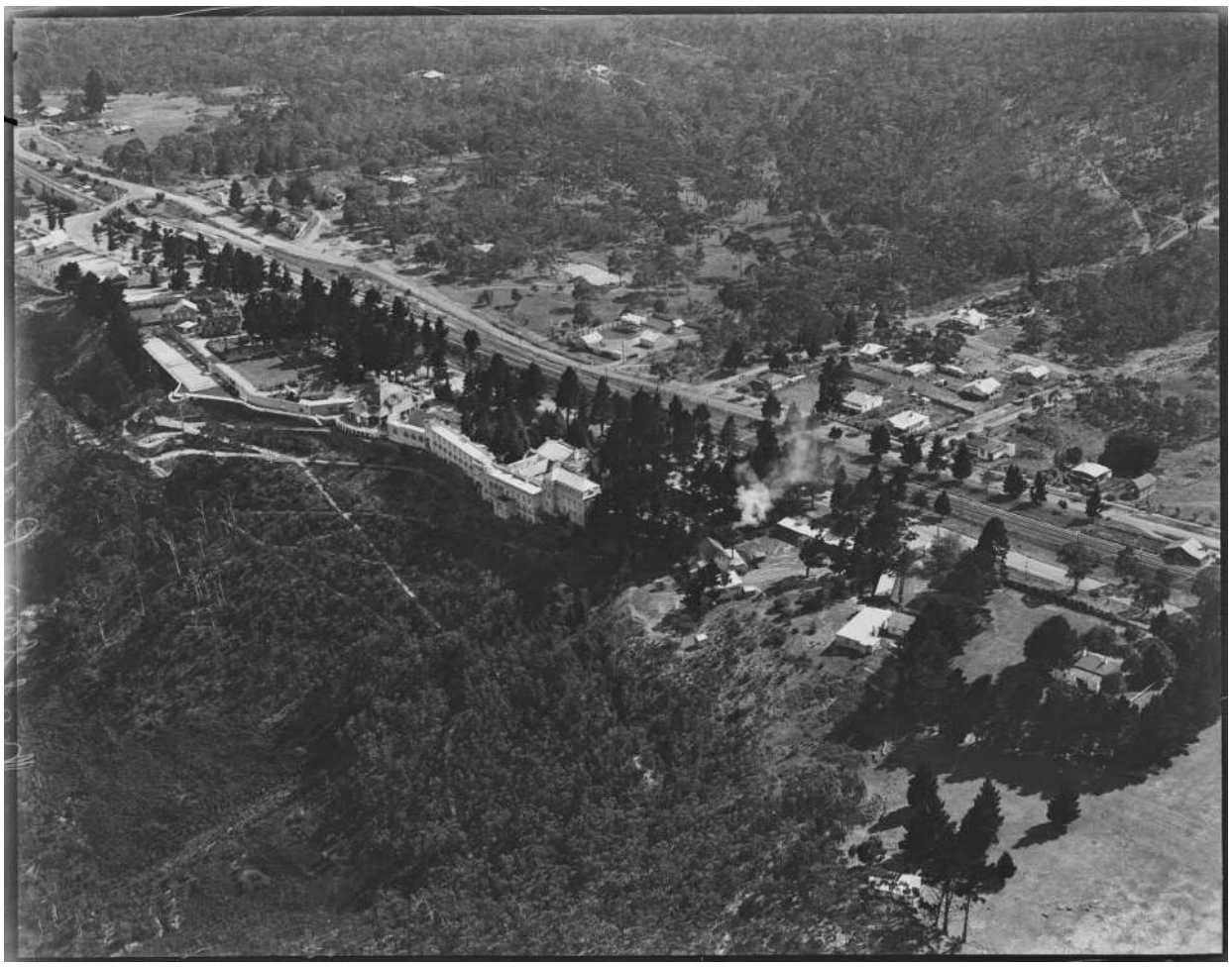


**Plate 3.9: Medlow Bath from above, around 1930, looking south along the Great Western Highway showing Avenue of Radiata pines and Medlow Bath Railway Station to lower left (Source: National Library of Australia object 162355018)**

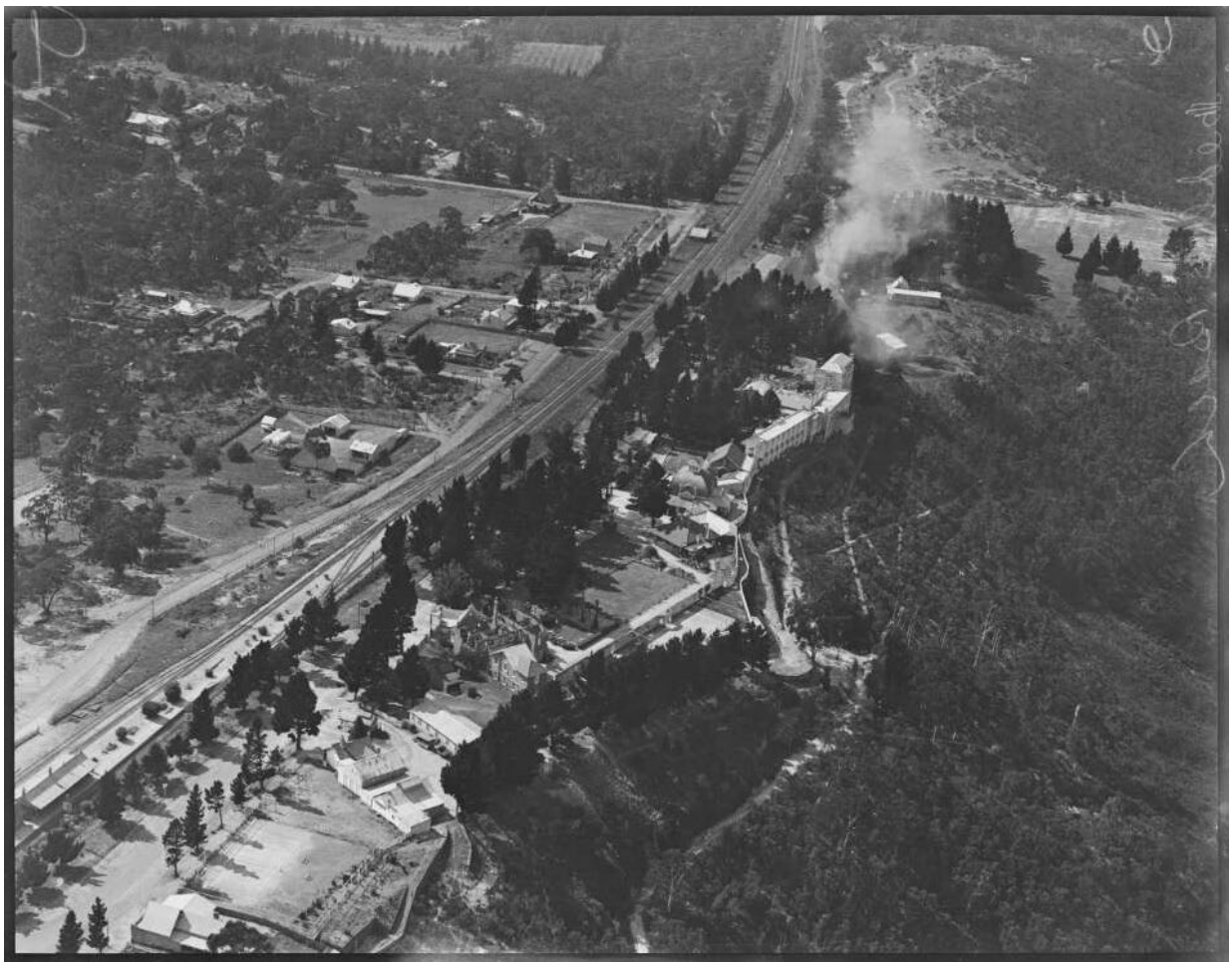


**Plate 3.10: Medlow Bath from above, around 1930, showing Hydro Majestic to foreground and Medlow Bath township to rear (Source: National Library of Australia object 162355132)**



### 3.4.4 1903 onwards: Medlow Post and Telegraph Store

Subdivision plans indicate that the original town post office was operated from J.H. Neale's "*Lauraville*" orchard. However, it seems the first official Medlow Bath post was operated out of the railway station by Anne Kirkland from 1903 to 1906 and H.E. Munro from 1906 to 1910 (Kaldy 1983, 65). After this period it moved across Railway Parade to the site of the Former Post and Telegraph Store (Blue Mountains LEP Item No. MB008).

Located to the north east of the proposal area, the Former Post and Telegraph Store was first purchased by Isabella Jane Smith in 1903. By 1905, Mark Foy had purchased the site from Smith and built a hall to be used for dances for Hydro guests. The hall was built from timber and corrugated iron recycled from the hall in the abandoned shale village of Nellies Glen. The hall was known as Flanigan's Hall because Mrs Flanagan ran a boarding house nearby on the corner of Atlingworth Parade and seems to have managed the hall (Heritage NSW 2020e).

In 1910, Foy had a store added to the front of the building, with premises for a post office attached to the northern side. The front extension was given a castellated front where the words "Post Store Telegraph" were written, with "Refreshment" on the right hand side of the building. From around 1910 to 1916 it was operated by Mr Flanagan as the Medlow Bath Post and Telegraph's Office, with one telephone and a small store and refreshment room. From 1916 Mr Tucker became the Post Master and operated the post office out of premises on the southern side of the highway (Kaldy 1983, 49, 65).

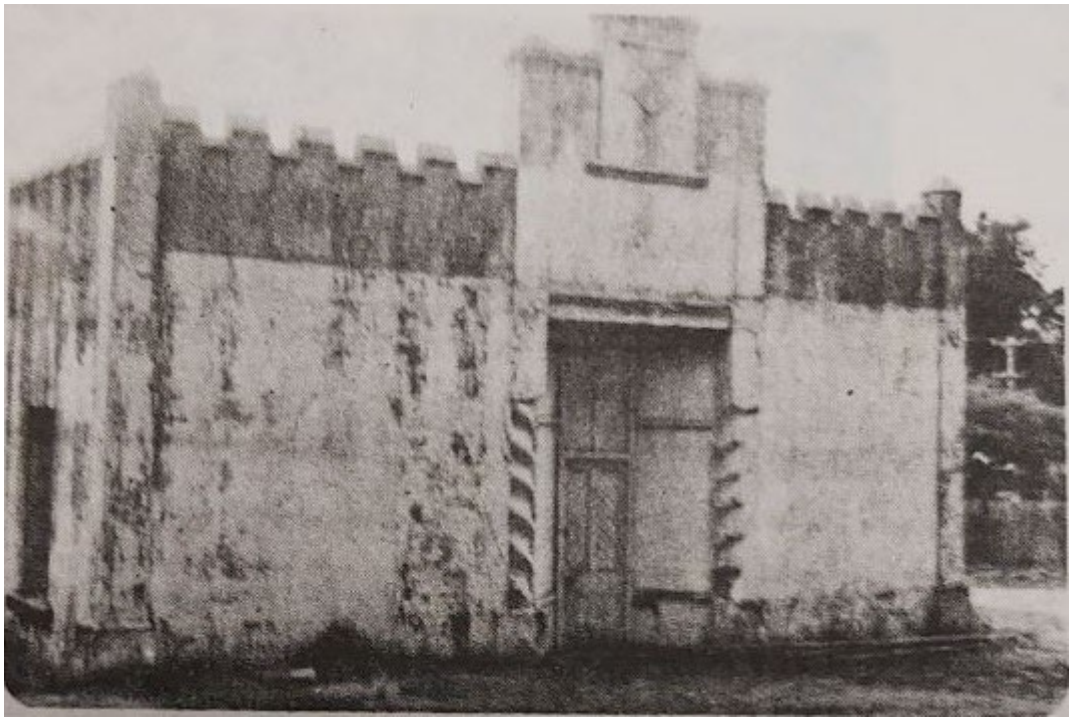
After 1918, the building took on a different role under Jack Rice, head chauffeur to Mark Foy. The tourist industry developed by Foy included a steam Serpollet charabanc, a De Dion Bouton and Packard cars to take visitors on day drips from the Hydro to the Jenolan Caves and other nearby sights (Plate 3.11).

Flanigan's Hall, now known as Rice's Hall, became the base of this operation between the wars. The onsite petrol browser made the perfect location to commence the vehicle trips with the hall serving refreshments to the patrons. During the inter-war years, the hall was used as a cinema annexe to the Hydro and during World War II it was used for recreation by American servicemen convalescing at the Hydro (Heritage NSW 2020d).

After World War II, both the hall and what had been Mrs Flanagan's guesthouse were in need of repair. They were sold off separately by the Hydro. The Roman Catholic church purchased the hall in 1952 and used it as a church and church-hall until 1967. Throughout this period, the hall was also used for a very wide variety of local social activities, including the Progress Association, the library, a polling booth, a Centre for Rural Youth and charity sales. The building deteriorated significantly throughout the following years until it was purchased by Mr W.Boldiston in 1980 who conserved the hall and stall. The post office annexe was demolished in 1986 (Heritage NSW 2020e).

Today, the building is now an antique shop, book-shop and tearoom, run by Peter Koehndorfer under the ownership of Garry Coxen. The highly significant early petrol pump was removed from the front for safety and is secure, with other motoring relics, in the adjacent shed, however the old wooden mile-marker which also stood outside has been stolen (Heritage NSW 2020e).

**Plate 3.11: Post and Telegraph Office, Former around 1983 (Source: Kaldy 1983, 65)**



## 3.5 Medlow Bath Railway Station

### 3.5.1 Early Development (1881- 1940s)

Medlow Bath Railway Station (SHR No.01190, Blue Mountains LEP Item No. MB003) originally comprised a 30 metre long wooden platform and associated structures built in 1881, situated on the country side of the single line. Additions to the station buildings were made in 1899. The existing footbridge was constructed in 1901, presumably as part of the line duplication works, which were completed in 1902. Duplication of the line resulted in the replacement of the original platform with the present platform and the construction of new a platform building (Heritage NSW 2000a). No plans of the original platform construction have been identified. Early images of the island platform indicate that it had a gravelled surface with concrete coping (Plate 3.13 and Plate 3.14). Similar to other platforms in the Blue Mountains, the platform face was constructed of unreinforced concrete cast in situ (AECOM 2017, 16).

A small timber signal room was also located on the platform. An open interlocking frame was erected on the platform in 1909, which appears to have been covered by the existing structure in around 1922. The signal room was taken out of service when the line was electrified in 1957and was then used as a store. It is a rare

example of a separate platform level signal room. An additional siding was built in 1926. Undated plans (Figure 3.6) of the station drawn after the additional siding was added in 1926 show that a waiting shed once stood at the Sydney end of the platform as well as a goods shed on the highway side of the station.

The platform was extended at the Sydney end in 1942 to bring the overall length of the platform to 600 feet. Plans from this extension (Figure 3.7) and aerial imagery from 1943 (Figure 3.8) indicate that the good shed on the highway side of the station was still present after the platform was extended but the former waiting shed had been demolished to accommodate the platform extension. The plans also indicate that the platform wall was raised and presumably included modifications to the coping (AECOM 2017, 16; Heritage NSW 2000a).

The initial construction of the railway network in NSW required a large number of staff to manage the stations, signalling and other aspects of the operation of the railway (Futurepast Heritage 2013: 4). Railway residences were constructed at nearly every station across NSW, and as many as 300 residences were built throughout the state by the Railways (Futurepast Heritage 2013,12). Purpose-built railway residences were primarily provided for the Station Master and his family, although a number of other types of temporary accommodation were also provided for railway staff. It was common practice at the time of construction for various public offices, including police and post offices, to provide similar accommodation for senior members of staff (Futurepast Heritage 2013, 7).

Urunga (Blue Mountains LEP Item No. MB017) is located immediately east of the proposal area. It was built around 1916 to accommodate the station master at Medlow Bath as the station had become busier with the success of Mark Foy's Hydro. The building is a symmetrical gabled cottage fronting Park Street, with a skillion verandah, double hung windows either side of a four panel door with toplight, corrugated steel roof and corbelled brick chimneys and rusticated weatherboard cladding. The gate in its Station Street fence leads directly to Medlow Bath Station. Urunga remained a railway house until 1998 when it became a private residence (Heritage NSW 2020b).

The successful rail crossing of the Blue Mountains saw a shift in focus from road travel to rail in the region. This had an extensive impact on the development of Medlow Bath and other towns in the region which were now on the direct train line from Sydney to Bathurst. Section 0 presents a series of aerial images showing the development of Medlow Bath between 1943 and 1994.

### 3.5.2 Post War (1945) - Present

The tracks were slewed in 1952 for the insertion of overhead wiring structures in preparation for electrification. The track associated with Platform 1 was slewed again in 1980/1981 and a section of the coping cut back (AEOCOM 2017, 16).

Today, Medlow Bath Railway Station (SHR No.01190, Blue Mountains LEP Item No. MB003) (Plate 3.15 and Plate 3.16) is an unattended station and comprises the 1902 Station Building, 1922 signal room, 1902 island platform and 1901 Footbridge.

The Station Building is constructed in the standard 'A8' Federation style. Built of face brick with corrugated metal gabled roof extending as an awning over both platforms. It has six bays with tuckpointed red brickwork and engaged piers between. Other features include rendered and moulded rows of string courses, moulded cornice, timber framed windows and doors with contrasting decorative trims and sills, standard iron brackets over decorative corbels supporting platform awnings, fretted timber work to both ends of awnings and gable ends, timber finials to gable apex, tall corbelled chimneys, timber framed double-hung windows with multi-paned and coloured upper sashes, and timber door openings with multi-paned fanlights with coloured glazing (Heritage NSW 2000a).

Internally, the Station Building comprises a booking office, waiting room, ladies waiting and toilets and male toilets accessed from the south end of the building. The interiors generally feature custom orb corrugated ceilings with ceiling roses, fireplaces with no grates, timber floor boards to main rooms and tiling to toilets, beaded dado line and timber bead style moulded cornices. Toilet fittings are modern (Heritage NSW 2020a).

The signal room is a small timber building at the booking office end of the station. Evidence suggests that the weatherboard structure covered an interlocking lever frame, which was originally erected as an open lever frame. After being taken out of service in 1957, it appears to have been used as a store room. It has a steep gabled corrugated metal roof, rusticated timber boarding with small four-paned windows on three elevations, and a four-panelled timber door with timber awning on the south elevation (Heritage NSW 2020a).

The 1902 island platform runs north-south, with the buildings centrally located. The platform is brick faced with a concrete coping and asphalt finish. On the platform itself there are two raised round shaped slabs located to the south of the station building probably for access to the services below the platform. Manicured garden beds along the platform enhance the setting of the station. Modern platform furniture including light fittings, signage, timber bench seating and aluminium palisade fencing at both ends of the platform have been added to the platform. In 2019 the platforms were modified to accommodate the new Intercity Fleet of trains through cutbacks and built outs and recessing of services (Heritage NSW 2020a).

The 1901 footbridge is a standard concrete slab structure supported on original brick abutments and two steel trestles with new stairs to the platform and bridge, with a new concrete deck over the tracks spanning between the Great Western Highway and Railway Parade. The footbridge marks the northern end of the station, while a concrete level crossing marks the southern end of the station. The level crossing was added to the Sydney end of the 1942 platform extension in the late twentieth century, and included the installation of repurposed heritage light poles. The footbridge was cleaned and repainted and upgraded with a new deck and the addition of metal balustrades in 1994 (Heritage NSW 2020a).

**Plate 3.12: Elizabeth Foy with Mark Foy Jr and unidentified friends on original wooden Medlow Bath station, outside waiting room, December 1901 (Source: Smith 2020, 25)**



**Plate 3.13: American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy around 1906 (Source: Blue Mountains City Library item 000837)**



**Plate 3.14: American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy around 1906 (Source: National Library of Australia object 146217717 and Smith 2020, 47)**



**Figure 3.6: Plan of Medlow Bath Railway Station, around 1930 (Source: TfNSW)**

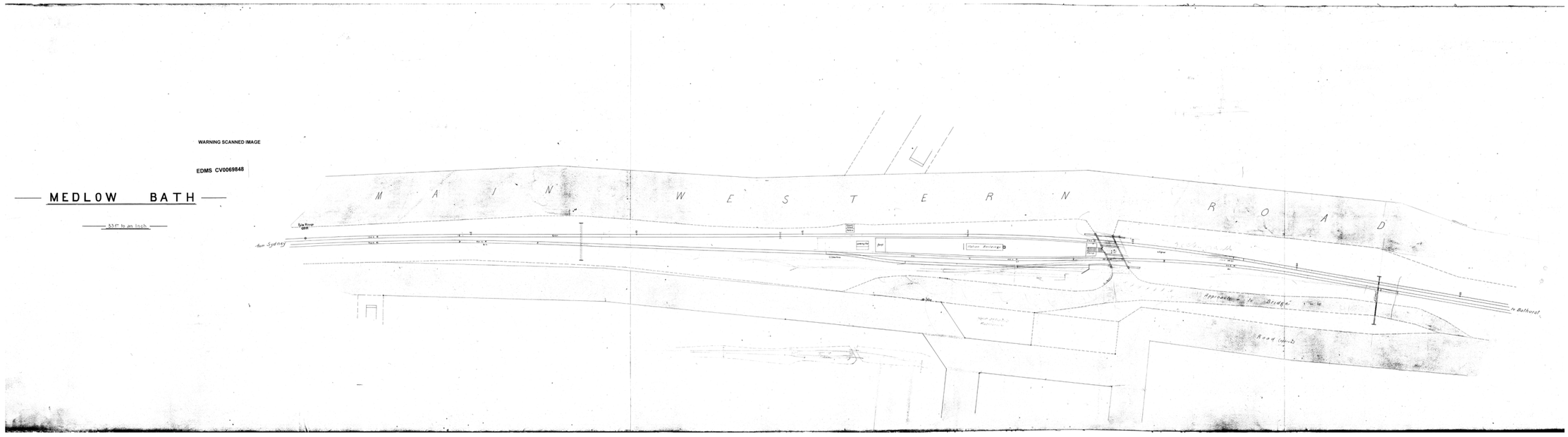


**Figure 3.7: Plan "Medlow Bath extension of platform to 600FT" 1943 (Source: TfNSW)**

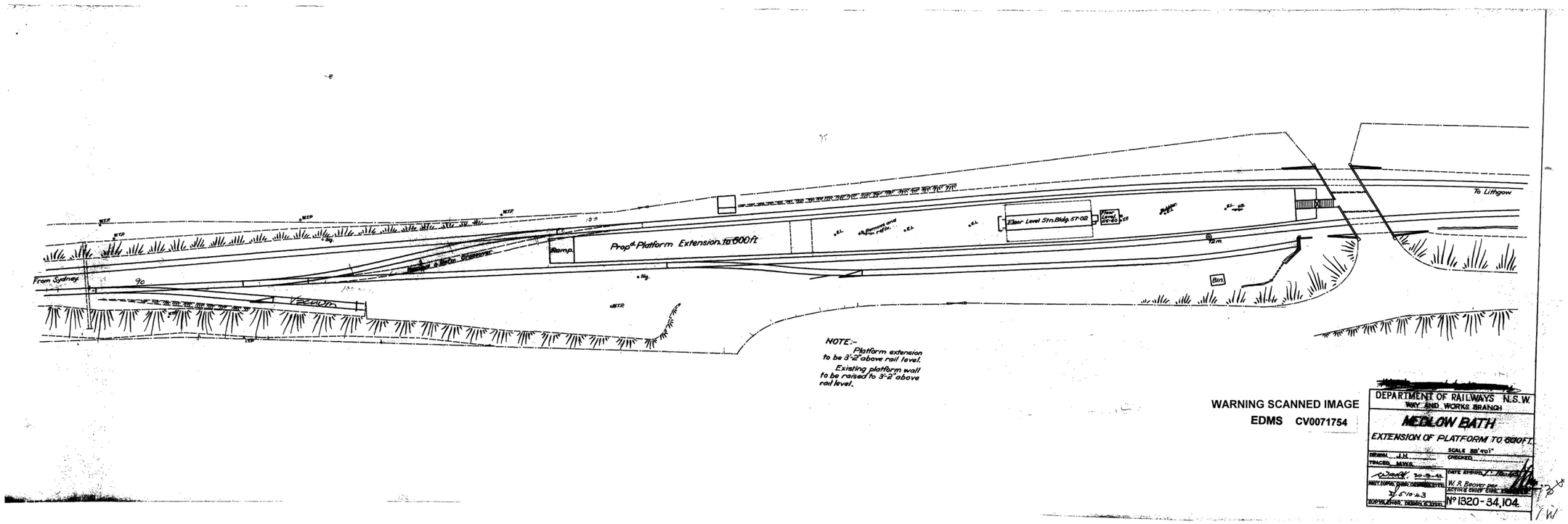
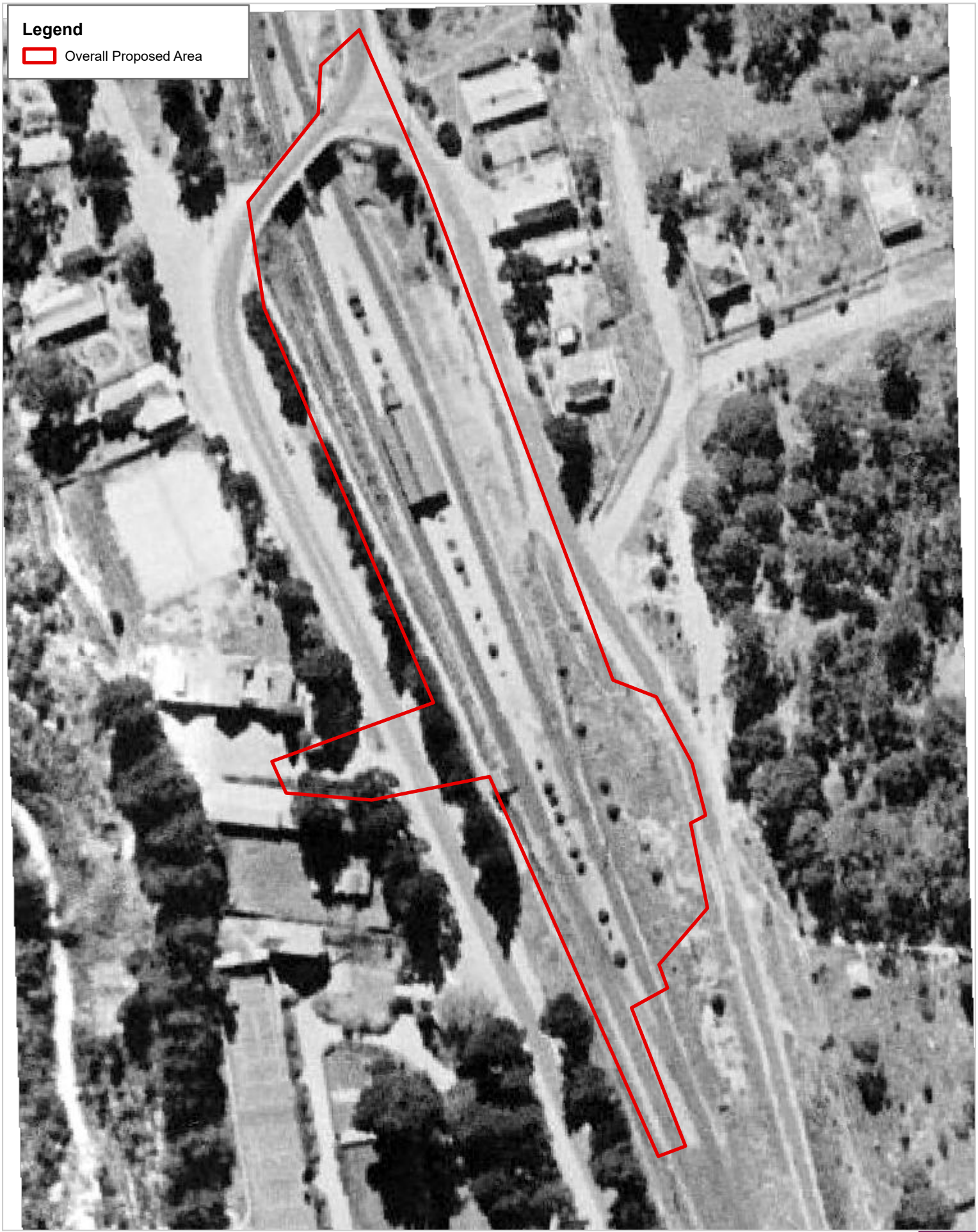


**Plate 3.15: Snow at Medlow Bath Station, Blue Mountains, New South Wales around 1935 (Source: National Library of Australia object 141914096)**




**Plate 3.16: Medlow Bath Railway Station around 1950, showing Station building, signal room and platform plantings (Source: Blue Mountains City Library item 000734)**






**1943 AERIAL IMAGE OF MEDLOW BATH RAILWAY STATION (SOURCE: SIX MAPS)**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213007221
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:**Figure 3.8
**VERSION:**C
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 20 40 m

SCALE 1:1,200
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 3.8**

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4. The aerial photography used in this plan has not been rectified. This image has been overlaid as a best fit on the boundaries shown and position is approximate only.

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# 4 DESCRIPTION AND PHYSICAL EVIDENCE

RPS Senior Heritage Consultant, Sarah van der Linde, inspected the proposal area on 23 December 2020 and the interior of the station buildings on 15 July 2021. Sarah undertook an additional inspection of the proposal area on 3 November 2022 to identify any changes, although none were noted.

This section is based on the inspection and analyses the landscape and setting, existing infrastructure within the proposal area and heritage items within, or immediately adjacent to, the proposal area.

## 4.1 Landscape setting and features

Set within the Blue Mountains, Medlow Bath is a relatively flat area of land bisected by the Great Western Highway and the Main Western Railway Line (Plate 4.1). The main township lies on the eastern side of the railway. The Hydro Majestic Hotel occupies most of the western side of the highway, with residential areas north and south. Medlow Bath Railway Station and associated rail overbridge lie to the north of the township (Plate 4.44 to Plate 4.2).

**Plate 4.1: View north showing Great Western Highway (centre), Main Western Line (right) and Hydro Majestic Hotel (left) (RPS 2020)**



**Plate 4.2: View south across the rail overbridge at the northern end of town, showing Railway Parade (left) and Great Western Highway (right) (RPS 2020)**




**Plate 4.3: View north along Railway Parade showing Medlow Bath Railway Station (left) and residential area (right) (RPS 2020)**



## 4.2 Proposal area

### 4.2.1 Medlow Bath Railway Station

Medlow Bath Railway Station (SHR No.01190, S170 Reference No. 4801011, Blue Mountains LEP Item MB003) can be accessed from both the north and south. The 1901 footbridge across the railway cutting at the northern end provides access via stairs to the single island platform. Access at the southern end of the station is via a ramp from a pedestrian level crossing linking the Great Western Highway to Railway Parade. The 1902 main six bay brick station building is situated toward the centre of the platform, with the small 1922 weatherboard signal room building immediately north. Garden beds with manicured plantings occur along the platform, however these have been heavily modified over the years and differ from the first garden beds established on the platform. The 1902 platform has been extended and resurfaced, with tactile indicators added along the platform edges. The footbridge stairs have been upgraded with new treads, anti-slip guards and hand rails (see Section 2.1.1 of the Heritage Design Report (Appendix A) for a fabric analysis of the existing pedestrian footbridge). Opal totems, user information panels, wayfinding signage, seating and additional lighting have also been installed across the station, with some historic light posts still present (Plate 4.4 to Plate 4.20).

**Plate 4.4: View south west of rail cutting at northern end of Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003), showing footbridge (RPS 2020)**



**Plate 4.5: View south across Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003) from pedestrian overbridge (RPS 2020)**




**Plate 4.6: View north of footbridge and brick faced rail tunnel from Platform 1 (RPS 2020)**



**Plate 4.7: View south east of Medlow Bath Railway Station (SHR No. 01190, S170 Ref No. 4801011, Blue Mountains LEP Item MB003) buildings from Great Western Highway (RPS 2020)**



**Plate 4.8: View south along Platform 1 showing platform buildings (RPS 2020)**



**Plate 4.9: View north east of weatherboard signal room from Platform 2 (RPS 2020)**



**Plate 4.10: South façade of station building from Platform 1 (RPS 2020)**



**Plate 4.11: View north east from Platform 1 showing Former Post and Telegraph Store (Blue Mountains LEP Item MB008) (left) and Urunga (Blue Mountains LEP Item MB017)(right) (RPS 2020)**




**Plate 4.12: View south east showing railway reserve between platform and Railway Parade (RPS 2020)**



**Plate 4.13: View south along Platform 1 (RPS 2020)**




**Plate 4.14: View of proposed pedestrian overbridge location, looking west from platform across Great Western Highway to vacant block of land (RPS 2020)**



**Plate 4.15: View north along platform where proposed pedestrian overpass would be installed (RPS 2020)**



**Plate 4.16: View north along platform showing modern user infrastructure (RPS 2020)**



**Plate 4.17: View south along platform toward southern station entrance, showing Hydro Majestic (Blue Mountains LEP Item MB002 ) (right) (RPS 2020)**



**Plate 4.18: View east across tracks from level crossing, showing water tank (RPS 2020)**



**Plate 4.19: Southern level crossing and station entrance from Great Western Highway showing repurposed heritage light poles (RPS 2020)**



**Plate 4.20: View north west across rail reserve of proposed pedestrian overpass location (RPS 2020)**




### 4.2.1.1 Station building

The following description of the station building is extracted from the SHR:

> *External: Constructed of face brick with corrugated metal gabled roof extending as an awning to both platforms, the Medlow Bath station building is an early phase island building in standard 'A8' Federation style design. It features 6 bays with linear arrangement along the platform with tuckpointed red brickwork with engaged piers between the bays. Other features include rendered and moulded two rows of string courses, moulded cornice, timber framed windows and doors with contrasting decorative trims and sills, standard iron brackets over decorative corbels supporting ample platform awnings, fretted timber work to both ends of awnings and gable ends, timber finials to gable apex, tall corbelled chimneys, timber framed double-hung windows with multi-paned and coloured upper sashes, and timber door openings with multi-paned fanlights with coloured glazing.*
>
> *Internal: Medlow Bath Station is an unattended station and its interiors are in an abandoned state. The floor layout of the building comprises a booking office, waiting room, ladies waiting and toilets and male toilets with access from the south end of the building. The interiors generally feature custom orb ceilings with ceiling roses, fireplaces with no grates, timber floor boards to main rooms and tiling to toilets, beaded dado line and timber bead style moulded cornices. Toilet fittings are modern.*

Physical inspection of the station building revealed that the exterior remains largely intact. Additions to the exterior include emergency help and information points, public telephone, drainage and electrical conduits. Former penetrations to the brickwork exterior are present across the building (Plate 4.21 to Plate 4.25). A concrete slab, most likely the base of the former luggage scale, is present on Platform 2 outside the door to the former Station Master's office (Plate 4.26).

Physical inspection of the station building interior revealed varying levels of modification. The former Station Master's office, located at the northern end of the building, is the only internal room to be impacted by the project (Plate 4.27 to Plate 4.31). This room has been repurposed and currently houses communication racks. New electrics and lighting have been added. Original fabric remaining comprises timber floor, desk, dado rail, orb corrugated ceiling and fireplace. The fireplace is missing its surround and mantle. Original stained-glass windows and doors are present throughout.

**Plate 4.21: Station building west façade showing existing lighting to awning (RPS 2021)**



**Plate 4.22: Station building, detail of existing drain around exterior base of building (RPS 2021)**



**Plate 4.23: Station building east façade showing help point and previous penetrations to brickwork around door to former waiting room (RPS 2021)**




**Plate 4.24: Station building west façade showing public telephone mounted to building (RPS 2021)**



**Plate 4.25: Existing conduits to exterior of station building (RPS 2021)**



**Plate 4.26: Concrete base of former luggage scales on Platform 2 outside Station Master's office (RPS 2021)**



**Plate 4.27: Station building Station Master's office east aspect showing significant fabric with electrical modifications (RPS 2021)**



**Plate 4.28: Station building Station Master's office north aspect showing significant fabric with electrical modifications (RPS 2021)**

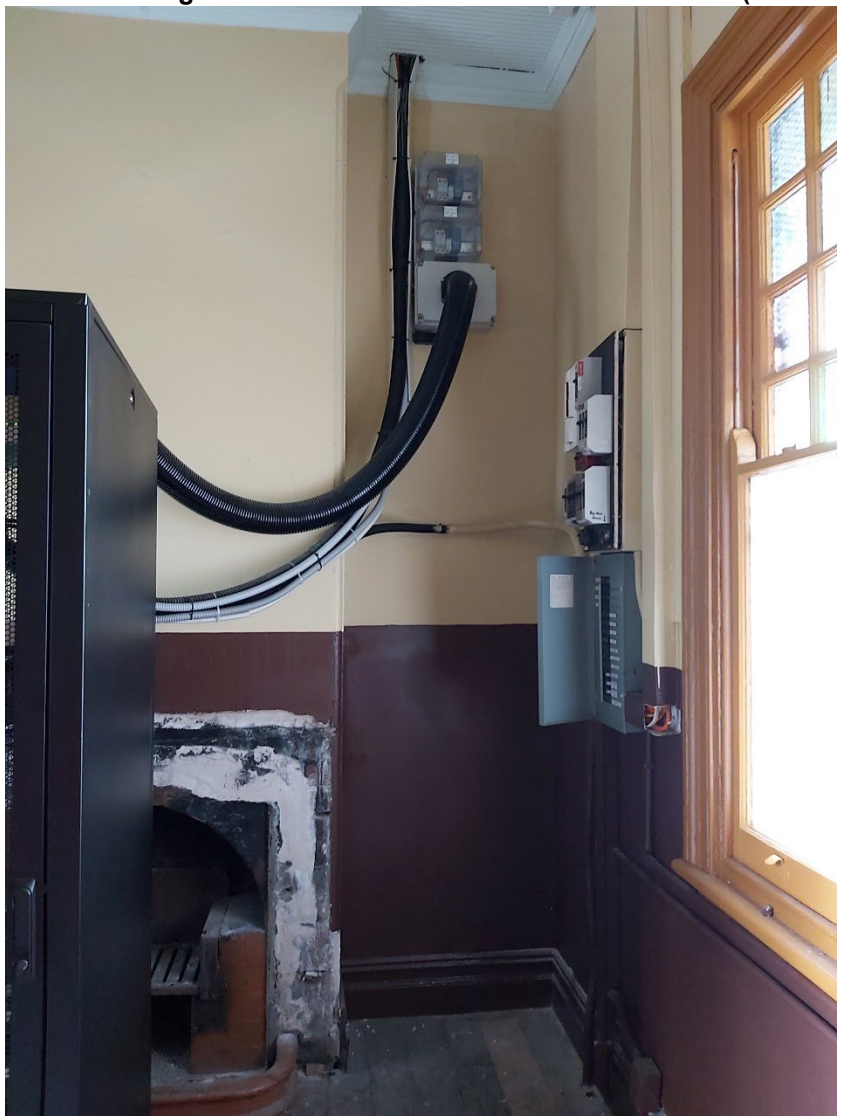


**Plate 4.29: Station building Station Master's office north aspect showing existing communications box (RPS 2021)**



**Plate 4.30: Station building Station Master's office floor detail showing previous modifications and current condition (RPS 2021)**



**Plate 4.31: Station building Station Master's office south aspect showing current condition (RPS 2021)**



### 4.2.1.2 Former signal room

The following description of the signal room is extracted from the SHR:

> *External: A small timber building at the booking office end of the station on axis with the platform. Historical evidence suggest that this weatherboard building covered an interlocking frame, which was originally erected as an open frame. It appears to be used as a store room after being taken out of service in 1957. It has a steep gabled corrugated metal roof, rusticated timber boarding with small four-paned windows on three elevations, and a four-panelled timber door with timber awning on the south elevation.*

Physical inspection of the former signal room revealed that both the interior and exterior walls remain largely intact (Plate 4.32 to Plate 4.35). Minor modifications to the exterior include the addition of wire grill over the west window. Accessibility ramps are stored in boxes attached to the east and west façades. The interior of the signal room comprises timber floor, walls and ceiling, with all signal equipment having been removed. Insulation to the walls and a flue in the ceiling of the north east corner indicate that the room may have once been fitted with a wood burning stove.

**Plate 4.32: Signal room west façade showing metal window grill and accessibility ramp (RPS 2021)**



**Plate 4.33: Signal room north façade showing accessibility ramp to east façade (left) and repairs to weatherboards (RPS 2021)**



**Plate 4.34: Signal room north aspect noting all signalling equipment has been removed and the current use is infrequent storage (RPS 2021)**



**Plate 4.35: Signal room south east aspect, showing inwards swinging door (right) and insulation and flue (left) (RPS 2021)**



### 4.2.2 Railway Parade

Medlow Bath Railway Station SHR curtilage is bounded by Railway Parade to the east. Adjacent to the SHR curtilage lie The Former Post and Telegraph Store (Blue Mountains LEP Item MB008) and the former Station Master's cottage Urunga (Blue Mountains LEP Item MB017). These are located immediately opposite the platform building on Railway Parade and are clearly visible from Platform 1. Urunga is now a private residence, and the Former Post and Telegraph Store a café. From Park Street, Railway Parade inclines northward toward the rail overbridge, which is marked by a cross intersection with the Great Western Highway and Station Street. A pedestrian pathway from Railway Parade leads to the 1901 footbridge and Medlow Bath Railway Station (Plate 4.36 to Plate 4.43).

**Plate 4.36: View toward Railway Parade from Platform 1 showing rail corridor, Former Post and Telegraph Store (left) and Urunga (right) (RPS 2021)**



**Plate 4.37: View north along Railway Parade from Park Street showing Medlow Bath Railway Station (left) and Urunga (right) (RPS 2020)**




**Plate 4.38: View west across Railway Parade and Medlow Bath Railway Station from Park Street (RPS 2020)**



**Plate 4.39: Front façade of Urunga (Blue Mountains LEP Item MB017) as seen from Park Street (RPS 2020)**




**Plate 4.40: Rear of Urunga (Blue Mountains LEP Item MB017) (RPS 2020)**



**Plate 4.41: Front façade of Former Post and Telegraph Store (Blue Mountains LEP Item MB008) as seen from Railway Parade (RPS 2020)**




**Plate 4.42: Rear of Former Post and Telegraph Store (Blue Mountains LEP Item MB008) (RPS 2020)**



**Plate 4.43: Northern end of Railway Parade showing station entrance (left) and rail overpass cross intersection (RPS 2020)**




### 4.2.3 Great Western Highway

The western side of Medlow Bath Railway Station SHR curtilage is bounded by the Great Western Highway (Plate 4.44 to Plate 4.47). A concrete footpath runs between the two station entrances beside the highway. Potential heritage item, Bus shelter, is located near the southern railway entrance on Great Western Highway. On the western side of Great Western Highway opposite the northern station entrance lies Melbourne House, Cosy cot, Sheleagh Cottage (Blue Mountains LEP Item MB019). In the rail reserve between the railway corridor and the highway lies Avenue of Trees (Blue Mountains LEP Item MB015). All the original pines here have been removed and replaced.

**Plate 4.44: View south showing Medlow Bath Railway Station (left) and Great Western Highway (right) (RPS 2020)**




**Plate 4.45: View north of Avenue of Trees (Blue Mountains LEP Item MB015) showing aged pine tree stumps (right) immediately adjacent to railway line (RPS 2020)**



**Plate 4.46: View east of Medlow Bath Railway Station from Great Western Highway, showing potential heritage item Bus shelter (RPS 2020)**



**Plate 4.47: View west of shop and residence at Lot 1 Great Western Highway, part of Melbourne House, Cosy Cot, Sheleagh Cottage (Blue Mountains LEP Item MB019) (RPS 2020)**



# 5 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

This section assesses the potential for historical archaeological resources associated with earlier phases of occupation, activity or development within the proposal area. It is based on an understanding of the history of Medlow Bath Railway Station and an analysis of documentary sources of the proposal area, including an analysis of the level of the ground disturbance and the associated impact on archaeological potential.

The assessment of archaeological potential is an assessment of the proposal area only. The archaeological potential of the proposal area is assessed and graded according to the definitions in Table 5.1.

**Table 5.1 Levels of archaeological potential**

| Level | Definition |
|---|---|
| High | The history indicates that archaeological resources are likely to be identified. Ground disturbance is limited, and archaeological resources are likely to be intact. |
| Moderate | The history or the level of ground disturbance indicates that archaeological resources may be identified. If identified, archaeological resources may be affected or truncated due to ground disturbance. |
| Low | The history or the level of ground disturbance indicates that it is unlikely that archaeological resources would be identified. If identified, any archaeological resources are unlikely to be intact. |

## 5.1 Analysis of documentary resources and the proposal area

Medlow Bath Railway Station (SHR No.01190, Blue Mountains LEP Item No. MB003) originally comprised a 30 metre long wooden platform and associated structures built in 1881, situated on the country side of the single line (Plate 3.12). Additions to the station buildings were made in 1899. A pedestrian footbridge at the northern end of the platform was added in 1901. Duplication of the line in 1902 resulted in the demolition and replacement of the original platform with the present platform and the construction of the existing station building on the platform (Heritage NSW 2000a). The subsurface interior of the platform likely comprises fill, potentially made up from demolition material from the former platform structure. No plans of the platform construction have been identified. Early images of the island platform indicate that it had a gravelled surface with concrete coping (Plate 3.13 and Plate 3.14).

North of the 1902 station building, is a small timber signal room. Originally an open interlocking frame erected in 1909, it was covered in to create the existing signal room in around 1922. An additional siding was built in 1926. Plans from around this time indicate a waiting shed once stood at the Sydney end of the platform as well as a goods shed and associated platform on the highway side of the station. The platform was extended at the Sydney end in 1942 to bring the overall length of the platform to 600 feet (182.88 metres). Plans from this extension (Figure 3.7) and aerial imagery from 1943 (Figure 3.8) indicate that the goods shed on the highway side of the station was still present after the platform was extended but the former waiting shed had been demolished to accommodate the platform extension. The plans also indicate that the platform wall was also raised and presumably included modifications to the coping (AECOM 2017, 16; Heritage NSW 2000a).

The 1902 island platform runs north-south, with the buildings located slightly to the north. The platform is brick faced with a concrete coping and asphalt finish. Two raised round shaped slabs are located to the south of the station building probably for access to the services below the platform (Heritage NSW 2020a). Garden beds along the platform have existed in some form since the construction of the existing station building (Plate 3.13 to Plate 3.16). No other structures appear to have existed on the platform. The level crossing at the southern end of the station was added after the platform was extended in 1942. It is unknown when the goods shed was demolished.

Overall, the station is largely intact.

## 5.2 Assessment of archaeological potential

The archaeological potential of the Medlow Bath Railway Station is assessed to be low to moderate. The archaeological potential of the proposal area is associated with the potential for the following archaeological resources:

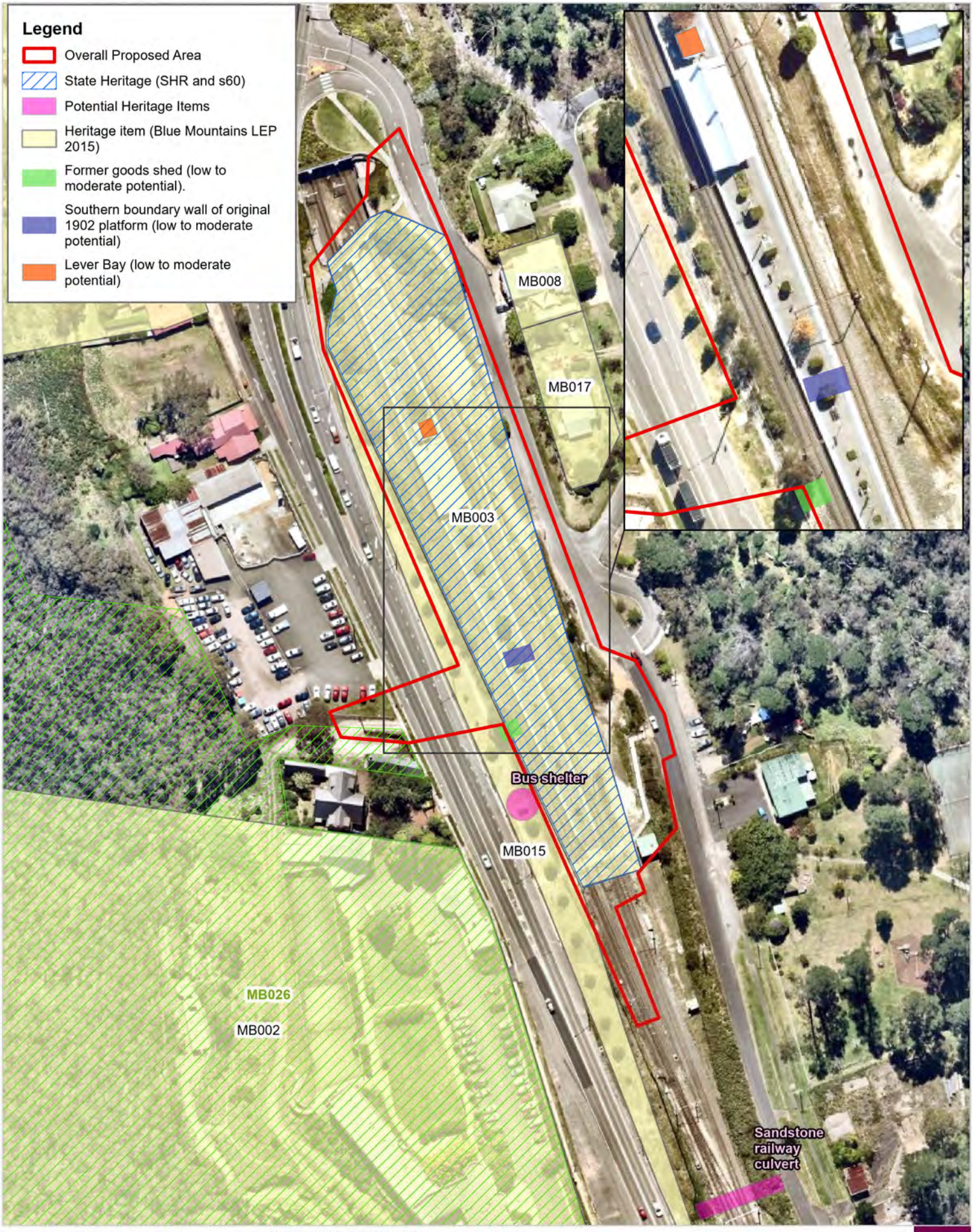
- Low potential evidence of former waiting shed beneath present platform surface
- Low potential evidence of the former signal interlocking structure beneath former signal room
- Low to moderate potential evidence of former platform lever bay beneath present platform surface under the former signal room
- Low to moderate potential evidence of southern boundary wall of original 1902 platform beneath present platform surface
- Low to moderate potential evidence of masonry tie structures for the platform beneath present platform surface
- Low to moderate potential evidence of former goods shed and platform to the west of Medlow Bath Railway Station along boundary with Great Western Highway.

It is likely all evidence of the initial 1881 platform and associated structures were destroyed when it was demolished and replaced with the existing platform. A waiting shed appears to have been demolished at the Sydney end of the original 1902 platform when it was extended in 1942. It is unlikely evidence of this shed survives beneath the platform as it was likely to have been completely removed prior to construction of the 1942 extension. However, if present, archaeological resources would likely be in the form of post holes or brick foundations dependant on the original structural material. Platform structures associated with the southern boundary wall of the original 1902 platform maybe be present, however, subsurface interior deposits of the platform likely comprise non-significant fill.

It is unclear if footings, etc. associated with the goods shed and its platform were removed when these structures were demolished. If evidence of these structures are present, archaeological resources would likely be in the form of brick foundations.

Overall, there is low to moderate potential for archaeological resources to be present within the proposal area. If identified, these resources would provide limited information and have little to no research potential.

The location of potential archaeological resources, where known, are shown in Figure 5.1.




**AREAS OF ARCHAEOLOGICAL POTENTIAL WITHIN THE SHR CURTILAGE**

**CLIENT:** RPS MANIDIS ROBERTS PTY LTD
**PROJ:** AU213001198.020
**LOCATION:** Medlow Bath

**DATA SOURCES**
RPS, NSWSS,

**MAP:** Figure 5.1
**VERSION:** B
**DATE EXPORTED:** 30/06/2023
**TECHNICIAN:** Natalie.Wood

0 10 20 30 40 50 m

SCALE 1:1,500
A4 SIZE / Projection: GDA2020 MGA Zone 56

N

**FIGURE 5.1**

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# 6 ASSESSMENT OF SIGNIFICANCE

This section provides an assessment of the significance of heritage items located in and around the proposal area in accordance with the *Heritage Act* (NSW) 1977 (the Act).

In NSW, significance is assessed against the NSW Heritage Council criteria for assessing cultural and/or natural significance:

- Criterion (a): An item is important in the course, or pattern, of NSW's cultural or natural history (of the cultural or natural history of the local area)
- Criterion (b): An item has strong or special association with the life or work of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)
- 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)
- Criterion (d): An item has strong or special association with a community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons
- 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)
- 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)
- Criterion (g): An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments (or a class of the local area's cultural or natural places or cultural or natural environments).

The Act also distinguishes between items of local and State significance:

- Items of local significance demonstrate historical, cultural, social, archaeological, architectural, natural or aesthetic value of significance to an area
- Items of State significance are of significance to the State in relation to the historical, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

## 6.1 Established assessment of heritage significance

This section summaries information presented on statutory heritage lists.

### 6.1.1 Medlow Bath Railway Station Group (SHR No.01190, TfNSW Section 170 SHI No. 4801011, Blue Mountains LEP 2015 Item No.MB003)

#### 6.1.1.1 NSW heritage significance assessment criteria

The heritage significance of Medlow Bath Railway Station Group is established on the SHR. The assessment of significance against the NSW criteria as presented on the SHR is reproduced below.

> **Criteria (a) Historical significance:** *Medlow Bath Station Group is of historical significance as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. It was built in anticipation of a boom period in the mountains, particularly in connection with large holiday resorts such as the nearby Hydro-Majestic Hotel.*
>
> **Criteria (c) Aesthetic significance:** *Medlow Bath station building is a good example of a standard design island platform building and demonstrates typical architectural elements of Federation period*

*standard buildings that were built between Penrith and Lithgow following the duplication of the railway line. It maintains its overall architectural quality and setting.*

**Criteria (d) Social significance:** *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 past.*

**Criteria (f) Rarity:** *The timber signal room is a rare example of a separate platform level signal box as the majority of the signal rooms along Blue Mountains Line are incorporated into the main station building.*

**Criteria (g) Representativeness**: *The station building is one of the early examples of a large number of standard railway designs that were commonly used in the 1910s-20s after a decade from the construction of Medlow Bath station building. The 1901 superstructure of the footbridge is a typical example of standard steel beam structure supported on trestles and brick abutments with later concrete deck and steps.*

**Integrity/Intactness:** *The station building has a high degree of integrity externally, however; the interiors have lost their intactness due to the poor condition. The timber signal room is intact. The footbridge is relatively intact as it retains its original steel superstructure.*

Elements of the station complex specifically listed on the SHR as comprising significant fabric include Station Building, Signal Room, Island Platform and Footbridge. Moveable heritage includes two timber bench style seats in the waiting room. Significance ratings for each element have not been provided on the SHR listing and therefore it is assumed that all remaining heritage fabric is of high significance.

There are no established significant views or vistas associated with this heritage item.

### 6.1.1.2 Established Statement of Significance

The statement of significance for the SHR item Medlow Bath Railway Station Group as presented on the SHR is:

*Medlow Bath Railway Station is significant as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. Constructed in anticipation of a boom period in the mountains particularly in connection with large holiday resorts such as the Hydro-Majestic Hotel, Medlow Bath station building is a good example of a Federation free classical railway station. The station building demonstrates typical architectural elements of the standard Federation style island platform buildings that were built between Penrith and Lithgow when the line was duplicated.*

The statement of significance for the Blue Mountains LEP 2015 item Medlow Bath Railway Station Group as presented on the SHI is:

*The Medlow Bath Railway Station is one of a group of stations which are associated with the construction and duplication of the railway line across the Blue Mountains.*

*The station is a representative example of a Federation free classical railway station.*

After a review of site conditions, the following is noted in reference to the heritage significance of this item.

**Garden beds**

According to the Office of Rail Heritage (2012) *Conservation Guide: Railway Gardens*, railway gardens were vernacular gardens created and maintained by local railway staff. Railway gardeners worked with the materials they had at hand, and used their own personal creativity to design and maintain railway gardens, resulting in a vast array of garden styles. Traditionally, railway gardens on platforms comprised intensively worked garden beds surround by hard edgings. They were laid out in geometric shapes and reflected strong patterning. Hedges were clipped into rigid geometric shapes and occasionally the art of topiary was practised.

The garden beds and associated plantings on the platform are not specifically mentioned in the established statement of significance for Medlow Bath Railway Station Group presented on the SHR. They are, however, mentioned as a landscape feature, specifically stating the existing plantings are not significant. While the existing plantings and garden beds are not original, historic images (Plate 3.13 to Plate 3.16) demonstrate that plantings on the platform at Medlow Bath Railway Station have been present since the early 1900s and

have remained a continuous feature. The plantings contribute to the character of the station and its overall aesthetic significance, and to present have continued to be maintained and cared for.

### 6.1.2 Hydro Majestic (Blue Mountains LEP 2015 Item No.MB002)

#### 6.1.2.1 NSW heritage significance assessment criteria

The heritage significance of Hydro Majestic is established on the SHI. The assessment of significance against the NSW criteria as presented on the SHI is below.

> **Criteria (a) Historical significance:** *The grandest of the grand hotels in the mountains, the Hydro has state significance as a pioneering spa resort with advanced facilities for the health and pleasure of guests. The century and more of use as a hotel, capitalising on one of the finest situations in the mountains, is also of state significance.*
>
> **Criteria (c) Aesthetic significance:** *The Hydro Majestic Hotel is a unique overlay of hotel building styles including the pre-fabricated Casino and Federation free-style Reception buildings and the art deco Hargravia, Belgravia and main wings and the federation free classical south wing. The hotel also includes a number of freestanding buildings with a unity of styling and detailing such as the north bunkhouse, toilet block and rear of the Road Bar.*
>
> *The arrangement of buildings along the ridge parallel to the Great Western Highway with the distinctive street fencing and row of mature radiata pinus trees quickly became, and remains, a significant landmark on the road through the Blue Mountains.*
>
> *Some individual elements including the Casino and Reception buildings are fine examples of Federation free style architecture.*
>
> *The tennis courts have a rare quality with their rustic stone walling and location on the edge of the ridge.*
>
> **Criteria (d) Social significance:** *The unusual feature of a prefabricated imported casino which became a showpiece for some of the greatest singers of the Edwardian period, the art collection and the cuisine further enhance the social significance of the Hydro.*
>
> **Criteria (e) Research potential:** *Technical interest attaches to the remains of the flying fox into the Megalong and the symbiosis between the hotel and valley below has remained a significant element in the Hydro's success.*

#### 6.1.2.2 Established statement of significance

The statement of significance for the Blue Mountains LEP 2015 item Hydro Majestic as presented on the SHI is:

> *The grandest of the grand hotels in the mountains, the Hydro has state significance as a pioneering spa resort with advanced facilities for the health and pleasure of guests. The century and more of use as a hotel, capitalising on one of the finest situations in the mountains, is also of state significance. The Hydro Majestic Hotel is a unique overlay of hotel building styles including the pre-fabricated Casino and Federation free-style Reception buildings and the art deco Hargravia, Belgravia and main wings and the federation free classical south wing. The hotel also includes a number of freestanding buildings with a unity of styling and detailing such as the north bunkhouse, toilet block and rear of the Road Bar.*
>
> *The arrangement of buildings along the ridge parallel to the Great Western Highway with the distinctive street fencing and row of mature radiata pinus trees quickly became, and remains, a significant landmark on the road through the Blue Mountains.*
>
> *Some individual elements including the Casino and Reception buildings are fine examples of Federation free style architecture.*
>
> *The tennis courts have a rare quality with their rustic stone walling and location on the edge of the ridge.*

*The unusual feature of a prefabricated imported casino which became a showpiece for some of the greatest singers of the Edwardian period, the art collection and the cuisine further enhance the social significance of the Hydro.*

*Technical interest attaches to the remains of the flying fox into the Megalong and the symbiosis between the hotel and valley below has remained a significant element in the Hydro's success.*

Historical research and review of site conditions confirms this is an accurate assessment of the heritage significance of this item.

### 6.1.3 Former Post and Telegraph Store (Blue Mountains LEP 2015 Item No.MB008)

#### 6.1.3.1 NSW heritage significance assessment criteria

The heritage significance of Former Post and Telegraph Store is established on the SHI. The assessment of significance against the NSW criteria as presented on the SHI is below.

**Criteria (a) Historical significance:** *The hall and store have high local significance because of their association with the Hydro Majestic and Mark Foy's touristic entreneurship, particularly in catering for the*

**Criteria (c) Aesthetic significance:** *The former Post and Telegraph Office and Store is an unusual example of a Federation gothic shopfront. An unusual form for a post office, the building features crenellated parapet, twisted columns and a decorative shield in the centre of the façade.*

**Criteria (d) Social significance:** *The hall had a high local profile as a centre for dances, films and, after World War II, a wide variety of Catholic and community functions, while the store and post-office played their usual key role for the residents and visitors alike.*

**Integrity/Intactness:** High

#### 6.1.3.2 Established statement of significance

The statement of significance for the Blue Mountains LEP 2015 item Former Post and Telegraph Store as presented on the SHI is:

*The hall and store have high local significance because of their association with the Hydro Majestic and Mark Foy's touristic entrepreneurship, particularly in catering for the interest in Jenolan Caves. The long-standing association with motor-cars is a particularly significant feature.*

*It is an unusual example of a Federation gothic shopfront. An unusual form for a post office, the building features crenellated parapet, twisted columns and a decorative shield in the centre of the façade.*

*The hall had a high local profile as a centre for dances, films and, after World War II, a wide variety of Catholic and community functions, while the store and post-office played their usual key role for the residents and visitors alike.*

Historical research and review of site conditions confirms this is an accurate assessment of the heritage significance of this item.

### 6.1.4 Avenue of Trees (Blue Mountains LEP 2015 Item No.MB015)

#### 6.1.4.1 NSW heritage significance assessment criteria

The heritage significance of Avenue of Trees is established on the SHI. The assessment of significance against the NSW criteria as presented on the SHI is below.

**Criteria (a) Historical significance:** *The avenue is an integral part of the significance of the Hydro Majestic, telling testimony to the public image of the resort projected by Mark Foy and continuing today. Viewed as part of the whole, aesthetically and historically, the avenue, like the hotel, has state significance.*

*However, since the 2000 assessment, many of the Radiata Pines were damaged during the wind storms of 2012, and were removed by the RMS for safety reasons. The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity.*

**Criteria (c) Aesthetic significance:** *The avenue is a highly significant aesthetic feature of Medlow Bath and the Hydro Majestic.*

*The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity.*

**Integrity/Intactness:** High

#### 6.1.4.2 Established statement of significance

The statement of significance for the Blue Mountains LEP 2015 item Avenue of Trees as presented on the SHI is:

*The avenue is an integral part of the significance of the Hydro Majestic, telling testimony to the public image of the resort projected by Mark Foy and continuing today. Viewed as part of the whole, aesthetically and historically, the avenue, like the hotel, has state significance.*

*Many of the Radiata Pines were damaged during the wind storms of 2012, and were removed by the RMS for safety reasons. The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity.*

After a review of site conditions, this is an accurate assessment of the heritage significance of this item.

### 6.1.5 Urunga (Blue Mountains LEP 2015 Item No.MB017)

#### 6.1.5.1 NSW heritage significance assessment criteria

The heritage significance of Urunga is established on the SHI. The assessment of significance against the NSW criteria as presented on the SHI is below.

**Criteria (a) Historical significance:** *The association of the house with the railway and the growth of rail traffic at Medlow Bath associated with the Hydro gives the cottage local historical significance.*

**Integrity/Intactness:** Medium

#### 6.1.5.2 Established statement of significance

The statement of significance for the Blue Mountains LEP 2015 item Urunga as presented on the SHI is:

*The association of the house with the railway and the growth of rail traffic at Medlow Bath associated with the Hydro gives the cottage local historical significance.*

Historical research and review of site conditions confirms this is an accurate assessment of the heritage significance of this item.

### 6.1.6 Melbourne House, Cosy Cot, Sheleagh Cottage (Blue Mountains LEP 2015 Item No.MB019)

#### 6.1.6.1 NSW heritage significance assessment criteria

The heritage significance of Melbourne House, Cosy Cot, Sheleagh Cottage has not been established on the SHI. An assessment of significance against the NSW criteria is presented below.

**Criteria (a) Historical significance:** The group of four houses were all constructed in the first decade of the twentieth century and demonstrate the growth of Medlow Bath at the time.

**Criteria (b) Association with significant person(s):** Cosy Cot (4 Station Street) was the mountain retreat of Henry Hartley, better known as Hartley Sargent (1878 - 1924), who, with his mother and step-father, ran a famous chain of bakeries and refreshment rooms in New South Wales and Victoria. Hartley's health was impaired by a period as prisoner-of-war after being injured in battle in 1917 and he spent most of his remaining years at Cosy Cot. He died there in 1924 after falling from the cliff edge immediately beyond his own grounds. The house has remained in the hands of the Sargent family.

Sheleagh Cottage (6 Station Street) Mark Foy, founder of the Hydro Majestic, commissioned Sir Herbert Ross to design a summer residence for himself and the house was erected between 1901 and 1903. It was named Shelaugh Cottage after Foy's third daughter.

**Criteria (c) Aesthetic significance:** The group are an eclectic mix of houses representing the architectural styles of the period. Noted aesthetic characteristics include Melbourne House being construction from iron and Sheleagh Cottage's extensive use of Mahogany and later stone adornments.

**Integrity/Intactness (as presented on the SHI):**

Lot 1 GWH: Reasonable

Victoria House (2 Station Street): High

Cosy Cot (4 Station Street): High

Sheleagh Cottage (6 Station Street): High

#### 6.1.6.2 Statement of significance

No statement of significance for the Blue Mountains LEP 2015 item Melbourne House, Cosy Cot, Sheleagh Cottage is presented on the SHI.

After historical research and review of site conditions, the following statement of significance is proposed:

> *The four houses, Lot 1Great Western Highway, Melbourne House, Cosy Cot and Sheleagh Cottage, are significant as they represent a unique group constructed independently of each other in the early boom years of Medlow Bath. Cosy Cot and Sheleagh Cottage are significant for their association with renowned historical figures. Melbourne House and Sheleagh Cottage are aesthetically significant for their use of particular materials.*

### 6.1.7 Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Blue Mountains LEP 2015 Item No.MB026)

#### 6.1.7.1 NSW heritage significance assessment criteria

The heritage significance of Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) is established on the SHI. The assessment of significance against the NSW criteria as presented on the SHI is below.

> *Note: This Statement of Significance applies to the whole of the former Hydro Majestic walking track system, not that portion remaining within the present hotel grounds.*
>
> **Criteria (a) Historical significance:** *The Hydro Majestic Hotel walking track complex has significance as the most extensive privately constructed walking track complex in Australia and for its association with Australia's only hydropathical resort developed on the European model.*
>
> **Criteria (b) Association with significant person(s):** *The Hydro Majestic walking track complex has significance for its association with entrepreneur Mark Foy junior who made a fortune in retailing and invested most of it in developing the Hydro Majestic hydropathic resort. The track complex has local significance for its association with William Hargraves, Chief Clerk in Equity of NSW and Blackheath pioneer.*
>
> **Criteria (c) Aesthetic significance:** *The Hydro Majestic walking track complex has aesthetic significance at the for the design values in its construction which demonstrate superb integration of natural and constructed features.*

**Criteria (e) Research potential:** *As nearly all of the track complex is intact, it offers an opportunity to research late 19th and early 20th century walking track design and construction techniques.*

**Criteria (f): Rarity:** *The Hydro Majestic walking track network is a rare example of a very extensive privately constructed walking track complex, mostly over 100 years old, which as survived virtually fully intact to the present time.*

#### 6.1.7.2 Established statement of significance

The statement of significance for the Blue Mountains LEP 2015 item Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) as presented on the SHI is:

*The Hydro Majestic Hotel walking track complex has State Significance as the most extensive privately constructed walking track complex in Australia and for its association with Australia's only hydropathical resort developed on the European model.*

*The Hydro Majestic walking track complex has State Significance for its association with entrepreneur Mark Foy junior who made a fortune in retailing and invested most of it in developing the Hydro Majestic hydropathic resort. The track complex has local significance for its association with William Hargraves, Chief Clerk in Equity of NSW and Blackheath pioneer.*

*The Hydro Majestic walking track complex has aesthetic significance at the State level for the design values in its construction which demonstrate superb integration of natural and constructed features.*

*As nearly all of the track complex is intact, it offers an opportunity to research late 19th and early 20th century walking track design and construction techniques, significant at the local level.*

*The Hydro Majestic walking track network is a rare example of a very extensive privately constructed walking track complex, mostly over 100 years old, which as survived virtually fully intact to the present time.*

*Note: This Statement of Significance applies to the whole of the former Hydro Majestic walking track system, not that portion remaining within the present hotel grounds.*

Historical research and review of site conditions confirms this is an accurate assessment of the heritage significance of this item.

## 6.2 Assessment of significance of potential heritage items

An assessment of significance for each of the potential heritage items identified during the REF was undertaken as part of the REF SOHI (RPS 2021).

### 6.2.1 Bus Shelter

The heritage significance of Bus Shelter was undertaken by RPS (2021). The assessment of significance against the NSW criteria as presented in the REF SOHI (RPS 2021) is below.

#### 6.2.1.1 NSW heritage significance assessment criteria

**Criteria (c) Aesthetic significance:** The bus shelter is of aesthetic significance for its individual art and its collective aesthetic as it forms part of an extended group of decorated bus shelters throughout the Blue Mountains.

**Criteria (d) Social significance:** The bus shelter is socially significant to the local community for its historic mural of Medlow Bath and in the wider community as part of a bus shelter mural campaign across the Blue Mountains.

#### 6.2.1.2 Statement of significance

The REF SOHI (RPS 2021) proposed the following statement of significance:

*The bus shelter is of aesthetic significance for its historic mural and of social significance as it forms part of an extended mural campaign throughout the Blue Mountains.*

### 6.2.2 Sandstone railway culvert

The heritage significance of Sandstone railway culvert was undertaken by RPS (2021). The assessment of significance against the NSW criteria as presented in the REF SOHI (RPS 2021) is below.

#### 6.2.2.1 NSW heritage significance assessment criteria

**Criteria (a) Historical significance:** The culvert is historically significant as it is associated with the construction of the railway through the Blue Mountains in the 1860s and its later duplication.

#### 6.2.2.2 Statement of significance

The REF SOHI (RPS 2021) proposed the following statement of significance:

> *The culvert is of local significance for its association with railway engineering through the Blue Mountains. The culvert provides physical evidence of the construction of the railway in the 1860s. It provides physical evidence of the original rail alignment and of the workmanship of the period. It is of historical and archaeological significance.*

# 7 THE PROPOSAL

## 7.1 Proposal background

The Proposal is part of the larger Great Western Highway Upgrade Program between Katoomba to Lithgow. The Medlow Bath section of the Great Western Highway is a primarily a north – south connection between Katoomba and Blackheath. The Great Western Highway provides one of two mountain crossings between Sydney and Lithgow. The overall Highway Upgrade project seeks to provide a safer and more efficient link between Central West NSW and the Sydney Motorway Network for freight, tourist and general traffic.

The Medlow Bath Station upgrade will improve the accessibility of the station and safe crossing of the highway for all sections of the community including people with a disability, carers with prams, older persons, children, commuters, and visitors to the Blue Mountains. Upgrading public transport precincts ensures integrated, inclusive access to public transport networks and providing opportunities for the economy, communities, and environment of NSW. The Proposal would also improve accessibility of the station in line with the requirements of the Commonwealth *Disability Discrimination Act 1992* (DDA) and the *Disability Standards for Accessible Public transport 2020* (DSAPT).

## 7.2 Description of proposal

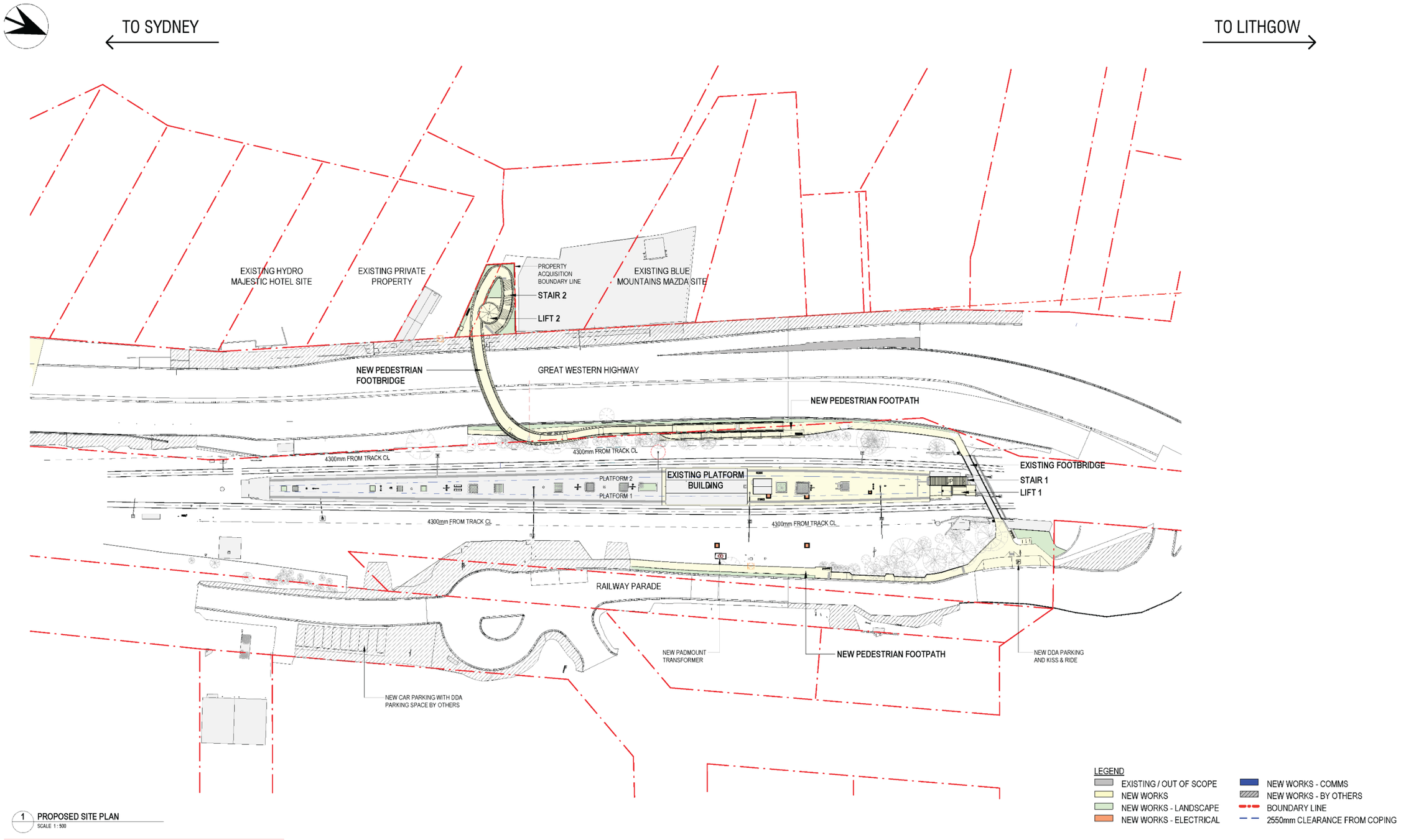
The Proposal is limited to works within, or immediately adjacent to, Medlow Bath Railway Station. Key features of the proposal include:

- Works within SHR curtilage of Medlow Bath Railway Station:
  - construction of a new pedestrian footbridge across the widened Great Western Highway to Medlow Bath station, specifically the cantilevered footpath extension over the western cutting at a high level on the western rail boundary
  - alterations to northern station entrance, including demolition and replacement of the existing stair and introduction of a lift and new stair including screens where required by Rail Standards and a platform extension for access to the new lift
  - upgrades to station platform, including resurfacing entire platform and regrading the accessible path along the platform
  - modification of platform planter beds including new plantings and replacing existing planter wall logs with brickwork
  - provision of an accessible path between the kiss and ride, accessible parking and station on Railway Parade
  - decommissioning and removal of the existing level crossing
  - electrical upgrade work, including provision of a new padmount transformer in the rail corridor
  - new services routes (Low Voltage (LV) and communications) along the entire station platform, and associated services pits
  - conversion of the former signal box and minor building modifications that may be required to accommodate new or upgraded electrical equipment including a main switchboard, new or upgraded station communications equipment and other station services
  - new stormwater drainage connections for the new footbridge, lifts and canopies to existing systems
  - upgrades to services, utilities and lighting, including new light poles on platforms to provide compliant lighting along platforms and new compliant strip drains around the platform building
  - improvement to station security and communication systems
  - relocation and/or modification of station furniture and fixtures for DSAPT compliance including lowering help points and removal of a payphone
  - provision of wayfinding signage and other station signage as required for the new work
  - remove / modify the existing fencing, and install new fencing

- tree and shrub trimming and removal.

- Works outside the SHR curtilage of Medlow Bath Railway Station:
  - construction of a new pedestrian footbridge across the widened Great Western Highway to Medlow Bath station, specifically the pedestrian bridge and associated landing on the western side of the Great Western Highway
  - construction of a retaining wall along the eastern side of the widened Great Western Highway behind the bus stop
  - provision of accessible paths between the bus stops on the eastern and western sides of the widened Great Western Highway and the new footbridge stair and lift entries
  - provide landscaping alongside the footpaths on GWH and Railway Parade
  - remove / modify the existing fencing, and install new fencing.

**Figure 7.1: Schematic of the Proposal (Source: DesignInc)**



## 7.3 Proposal design development

A full options analysis and the design development processes is outlined in Section 5.0 and 8.0 of the Heritage Design Report (see Appendix A). A summary of this report is presented below for context.

### 7.3.1 Previous options considered 2019-2021

Previously, a range of strategic design options were investigated for crossing the rail corridor and upgraded Great Western Highway at Medlow Bath. These options were summarised in the Medlow Bath Pedestrian Bridge Optioneering Report prepared by TfNSW in November 2021 and fell into four main categories:

- at grade pedestrian signals or diversion to the Station Street traffic signals
- retrofits to the northern pedestrian bridge with connecting elements via Station Street traffic signals
- new underpass pedestrian tunnel with connecting elements
- new pedestrian bridge with connecting elements.

Options that were not suited to the site constraints and could not meet the objectives and were not progressed to design.

The preferred option selected was the new pedestrian bridge due to its ability to best fit with desire lines in both the existing and future state of Medlow Bath Station. Other factors which influenced the selection and subsequent refinement of the preferred strategic option included:

- Optimising safety for all users including removal of the railway level crossing to improve pedestrian rail safety
- Maintaining the operation and functionality of the Great Western Highway
- Consideration of Great Western Highway regional context and the Urban Design Strategy applied between Emu Plains and Lithgow to date
- Opportunities for surrounding views afforded by a bridge (place making)
- Minimising impacts to Heritage based on both the Hydro Majestic (Locally Listed) and Medlow Bath Station (State Listed) through reducing structure form and footprint, considering circulation, physical heritage element impact and adjoining interfaces
- Security and safety - bridges are ‘open’ structures which allow users to see and be seen
- Making best opportunity of GWHUP to address DSAPT requirements as part of the Medlow Bath project through an integrated transport solution developed to limit the impact on community. One project delivery – rather than coming back for future TAP upgrades after the highway works are complete.
- Optimising accessibility in the future state for all users including those impaired by vision, hearing, mobility and other means as part of one project

The preferred concept design was presented to the TfNSW Design Review Panel (DRP) in June 2021. The DRP supported the concept design. The footbridge design was then discussed with Heritage NSW and referred to the Heritage Council of NSW Approvals Committee.

### 7.3.2 Heritage Council of NSW Approvals Committee Meeting 1 February 2022

The footbridge design was presented to the Heritage Council of NSW Approvals Committee on 1 February 2022. The following resolutions were issued following the meeting:

1. Notes the information in the report presented including its attachments.
2. Notes the Transport for NSW presentation.
3. Acknowledges that an appropriate solution needs to be developed to address the DDA requirements for equitable access to Medlow Bath Station.
4. Supports the integration of connecting with Country into the development of the design.

5. Encourages looking beyond archaeology to better incorporate both Aboriginal and non Aboriginal living cultural values of the place.
6. Recommends further development of an interpretation strategy that will inform the design, so that it responds to the character of the Place as a significant historic health and leisure destination.
7. Recommends that the Underpass option be further explored at the location of the bridge option, terminating with lifts and stairs in lieu of ramps.

An underpass was explored, however, safety was a major concern due to the length of the tunnel required to cross the highway and the lack of surveillance.

The design of the footbridge needs to connect to Country and fit into the historic context of Medlow Bath. There is an opportunity for the bridge form to interpret the significance of the site by referencing the Hydro Majestic, which has direct links to the development of the station and the town as a health and tourist destination.

### 7.3.3 TfNSW Underpass Viability Workshops May 2022

In response to the Heritage Council of NSW Approvals Committee concerns, TfNSW further investigated the tunnel option through a number of Underpass Viability Workshops. Three workshops were held by TfNSW throughout May 2022. The workshops determined that an underpass was not a viable option from a public security and customer safety and experience point of view. Further, the tunnel option was also costed by a quantity surveyor and it was determined that the tunnel would cost an additional $24.6M compared to the footbridge option and add 6 months to the construction program.

### 7.3.4 Heritage Council of NSW Approvals Committee Meeting 31 May 2022

The project was presented again to the Heritage Council of NSW Approvals Committee on 31 May 2022. The Committee discussed community feedback on the design proposal, various operational aspects of the underpass option, and outcomes of TfNSW's Underpass Viability Workshops, before focusing discussions on the bridge crossing as the proponent's preferred option. Key points raised included:

- The Committee questioned whether requirements across the station platforms and the road could be addressed separately to reduce the scale of the project
- Members agreed that large and modern statement bridges may work in some heritage settings, however, this proposal would significantly disrupt the authenticity of Medlow Bath as a 1920s leisure destination and people's attachment to the Place. The bridge should either complement the existing ensemble of buildings or be as recessive as possible. Any bridge design in this location must support the feeling of having an authentic historical experience and reflect the qualities of the site.
- Members raised the opportunity to incorporate a viewing platform to the Hydro Majestic side of the bridge so that it is not merely functional but improves user experience.
- Members also discussed the Station Street crossing as a legitimate option and the opportunity to acquire the adjacent Mazda property to support the most appropriate development for the long term.

The following key comments were issued following the meeting:

a. Notes the concerns of the local community and Blue Mountains City Council and encourages ongoing engagement with them and other key stakeholders to reach an acceptable solution.
b. Notes that the underpass option, which all parties agree has the least heritage impact, has been explored, including the constructability, public safety and maintenance issues, and that the bridge remains the proponent's preferred option.
c. The Approvals Committee discussed the Station Street crossing as an option.
d. The Approvals Committee remain concerned with the design of the bridge crossing, including bulk and materiality, and its heritage impacts on the World Heritage setting.
e. The pedestrian bridge option should be designed to better respond to the significant heritage values of the Blue Mountains setting and the local precinct including the Hydro Majestic Hotel. The pedestrian bridge should respond to the character of the Place as a significant historic health and leisure destination.

f. The Approvals Committee encourages TfNSW to continue to develop the interpretation strategy to inform the design, including connecting with Country.

g. Recommends a design competition or alternative process to find an appropriate solution. The Approvals Committee offers to comment on the design brief and recommends that a heritage architect is embedded in the project team.

h. The Approvals Committee welcomes ongoing discussion with TfNSW.

### 7.3.5 Other options considered

DesignInc were engaged by TfNSW to conduct a high level review of the design of the footbridge at Medlow Bath prepared by Weston Williamson + Partners and to explore alternative options which took into consideration the feedback received from Blue Mountains City Council (BMCC), Heritage NSW and the local community.

Eight options were initially considered, which was reduced to four after a series of workshops. These options are presented in Table 7.1, with the options remaining after the workshops highlighted grey.

**Table 7.1: Other options considered by DesignInc (four options remaining after workshops with TfNSW highlighted grey)**

| Option | Description | Discussion |
|---|---|---|
| 1 – Modification to Base Case | • Lighter colour, either off-white (painting) or silver grey (hot-dipped galvanising) responding to the exterior of the Hydro Majestic. | • Painting the bridge was not supported as this would trigger the requirement for greater clearance above the road to allow scaffolding under to permit maintenance to be carried out above live traffic. This would in turn increase the height of the lift shafts and the number of stairs required. Painting the bridge would effectively increase the height of all elements resulting in an adverse visual impact. This option was not pursued any further.<br>• Although heavily supported by the roads teams, with many galvanised finish bridge examples around the state, galvanised steel was also perceived as a lower quality finish compared to a painted finish and hence not pursued. |
| 2 – Modification to Base Case | • Lighter colour, either off-white (painting) or silver grey (hot-dipped galvanising) responding to the exterior of the Hydro Majestic.<br>• Interpretive safety screen mesh on the inside face for a more transparent appearance reducing visual impact and representative of the drapery at the Hydro Majestic (Mark Foy). | • Comments relating to Option 1 apply here too. Painting the steel would have resulted in an overall higher bridge. Galvanising the steel was perceived to be a lower quality finish.<br>• Although the 'curtain' safety screen was seen to potentially provide an effective visual outcome, particularly in combination with architectural feature uplighting, it did not change or ameliorate the bulk and scale of the Vierendeel truss bridge. |
| 3 – Modification to Base Case | • Comments relating to Option 1 apply here too. Painting the steel would have resulted in an overall higher bridge. Galvanising the steel was perceived to be a lower quality finish.<br>• Although the 'curtain' safety screen was seen to potentially provide an effective visual outcome, particularly in combination with architectural feature uplighting, it did not change or ameliorate the bulk and scale of the Vierendeel truss bridge. | • Minor member size and finish changes not likely to overturn initial negative reactions. |
| 4 – Modification to Base Case | • Lighter colour – either off-white (painting) or silver grey (hot-dipped galvanising) responding to the exterior of the Hydro Majestic<br>• Interpretive safety screen mesh for a more transparent appearance on the outside reducing visual impact and representative of the drapery at the Hydro Majestic (Mark Foy).<br>• Introduce sandstone cladding / colours to the lift base, reflective of the Megalong Valley escarpment. | • Minor member size and finish changes not likely to overturn initial negative reactions. |
| 5 – Sloped Bridge | • Slope bridge deck to reduce height at station end – top of lifts drop with it. This could apply to all bridge options to reduce visual impact of the development. | • Although responding directly to the clearance requirements, this option was felt to appear 'droopy' and if it remained a Vierendeel truss it would not fit with the naturally straight strong lines of the truss.<br>• Curving the overall form may have more potential with a different structural bridge typology. |

| Option | Description | Discussion |
|---|---|---|
| 6 – Hybrid Option at Existing Northern Bridge | • Underpass to be located at the northern end of the station with access from Station Street and existing footpath along GWH reducing visual impact.<br>• Existing bridge to be maintained with two additional lift shafts for accessibility services. | • Underpass to be reassessed.<br>• Heritage impact to significant early bridge to be assessed. |
| 7 - Underpass | • Underpass from east to west, mid way along the platform, at the southern end of the platform in the location of the bridge, equipped with four sandstone clad lifts at both existing footpaths along GWH, platform access, and Railway Parade, limiting visual impact. | • Underpass not seen to be safe due to overall length and lack of surveillance.<br>• Difficult to construct.<br>• Prohibitively expensive. |
| 8 – Dancing Truss | • Bespoke to the precinct, the intertwining, 'dancing truss', curvilinear plan reflects upon the playful, entertainment destination of the Hydro Majestic and also represents ridge lines of the Megalong Valley.<br>• The geometry of the bridge layout integrates the lift shafts reducing overall visual impact.<br>• Triangulation of truss system reflective of Aboriginal Cultural Heritage, the bridge represents a signpost between nations, Wiradjuri in the west and Gundungurra to the east (Emu footprint as arrows.) | • Overall approach - ie more sculptural 'gateway' could be pursued, however would rely on public support. |

### 7.3.6 Heritage Council of NSW Approvals Committee Meeting 5 July 2022

An alternative design process was discussed on 5 July 2022 with the NSW Approvals Committee. Discussion focused on how to inform the design brief to provide clear guidance on developing a contextually appropriate bridge that achieves the non-negotiable safety requirements. It was agreed that the brief should focus less on producing a visually recessive design, and more on responding to the Blue Mountains World Heritage values and the character of the precinct, including the Hydro Majestic Hotel, as a historic health and leisure destination.

The Heritage Council Approvals Committee supported TfNSW's proposed alternative process to develop an appropriate pedestrian bridge design and recommended continuing consultation with Heritage NSW during the design development stages along with ongoing engagement with Blue Mountains City Council.

The alternative design approach is documented through the Heritage Design Report (see Appendix A) and resulting application and is assessed in this SOHI.

### 7.3.7 Heritage design principles

An analysis of the site and its context, together with an understanding of the history of Medlow Bath and the significance of key elements, led to the following heritage design principles which apply to the proposed footbridge at Medlow Bath. The Heritage Design Principles were presented to representatives from the Medlow Bath Community, BMCC and to Heritage NSW in December 2022 and further refined based on their feedback. A full consultation summary is included at Appendix B.

- Character
  - Respond to context
  - Simple elegant design
  - Role as Gateway
  - Viewing point
- Scale
  - Reduce overall scale as much as possible
  - Minimise impacts on significant views
  - Detailed design to reduce scale
- Form
  - Uncluttered horizonal form
  - Soften engineering
  - Enhance user experience
- Siting
  - Connect to County
  - Minimise impacts to Heritage Fabric
  - Respect the neighbourhood
  - High quality urban design
- Materials and colour
  - Quality, durability and maintenance
  - Appropriate materials and structure
  - Relate materials and colours to context
- Detailing
  - Consistent detailing

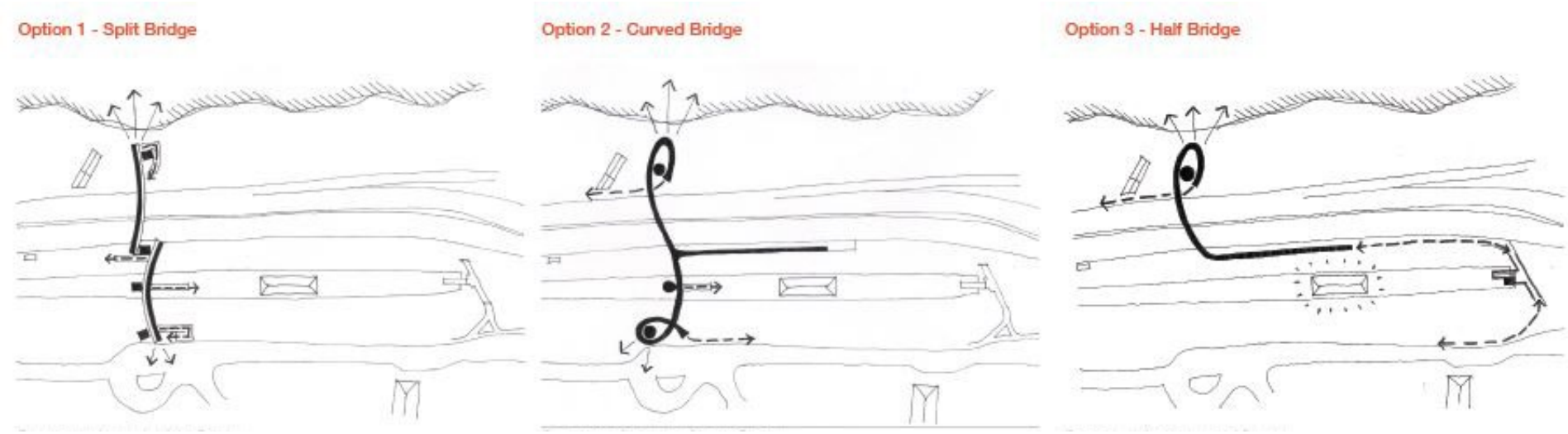
- Reflect character of Medlow Bath
- Incorporate interpretation.

### 7.3.8 New options considered

The Base Case presents as an engineering solution, with little connection to Country or place. Using the Heritage Design Principles as a guide, the project team developed three new options for the footbridge, which aimed to develop a contextually appropriate response and minimise impacts on this heritage listed context Figure 7.2). The three options were then tested against the Heritage Design Principles (Table 7.2).

Throughout the new options design development, consultation was held with key stakeholders, including TfNSW, Medlow Bath community and BMCC, local Aboriginal community and Heritage NSW to ensure the design responded to stakeholders needs and concerns.

**Figure 7.2: The three design options tested again the Heritage Design Principles (TZG 2023)**



## Table 7.2: Options comparison – Testing against Heritage Design Principles (TZG 2023)

8.2.5 Options Comparison - Testing against Heritage Design Principles

| SCORE | SCORING CRITERIA |
|---|---|
| 2 | Achieves aim strongly. |
| 1 | Achieves aim. |
| 0 | Does not achieve aim. |
| 1 | TBC - Not yet detailed. Minimum score of 1 must be achieved by the design. |

| HERITAGE DESIGN PRINCIPLE | BASE CASE DESIGN | SCORE | OPTION 1 SPLIT BRIDGE | SCORE | OPTION 2 CURVED BRIDGE | SCORE | OPTION 3 HALF BRIDGE | SCORE |
|---|---|---|---|---|---|---|---|---|
| CHARACTER | | | | | | | | |
| Respond to context<br>– Hydro Majestic as key reference point.<br>– Landscape design to respond to context. | Functional design with little reference to context. | 0 | Twin spans break down the scale of the bridge to better relate to Hydro and Station. Architectural solution. | 1 | Number of lift towers reduced and curved form relates to natural environment and softens impact. Hybrid solution. | 1 | Shorter span, curved form and least number of lifts minimises impact. Landscape solution. | 2 |
| Simple elegant design<br>– Contemporary character.<br>– Coordinated design of different elements. | Contemporary design with coordinated elements. | 1 | Overall split 'S' shaped bridge. Two opposing curved forms articulated with rectilinear lift shafts. Contemporary design with coordinated elements. | 1 | Elegant curvilinear 'S' shaped form incorporates all elements including lift shafts. Contemporary design with coordinated elements. | 1 | Reduced elegant curvilinear form over highway with existing footbridge at station incorporated into solution. Contemporary design with coordinated elements. | 2 |
| Role as gateway<br>– Appropriate, high quality design.<br>– Could form sculptural artefact in the landscape. | Bridge forms dominant gateway. | 1 | Separated bridges form highway and rail gateways. | 1 | Continuous bridge forms looping gateway over highway and rail. | 1 | New bridge forms gateway over highway only. Station served by upgraded existing footbrige. | 2 |
| Viewing point<br>– Inclusion of places for viewing to west and east. | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 |
| SCALE | | | | | | | | |
| Reduce overall scale as much as possible<br>– Minimise height.<br>– Slender elegant bridge spans.<br>– Maximise transparency of throwscreens. | Singular truss bridge with 4 lifts and 4 stairs reads as a dominant large scale functional form. | 0 | Reduction of perceived scale due to separation of bridge into 2 spans. 4 lifts and 4 stairs. | 1 | Reduction of perceived scale due to curvilinear form of single bridge. 3 lifts, 3 stairs and 1 ramp. | 1 | Smallest overall scale. Single curvilinear form over highway. 1 lift, 1 stair and 1 ramp. Upgraded existing station footbridge. 1 lift, 1 stair | 2 |
| Minimise impact on significant views<br>– Minimise footprint of lifts ramps + stairs.<br>– Proportions to respond to adjoining heritage buildings. | Dominant single span truss structure. | 0 | Split forms reduces overall impact on views. | 1 | Curvilinear form and reduced number of lifts and stairs reduces impact on views. | 1 | Smallest footprint and number of lifts and stairs minimises impact on views, particulary east of the highway. | 2 |
| Detailed design to reduce scale<br>– Explore slender solid lift towers with lighter bridge spans.<br>– Use of colour to reduce scale. | Inappropriate material and colour selections and dominant lift towers. | 0 | Depends on detailed design. Capable of good resolution. | 1 | Depends on detailed design. Capable of good resolution. | 1 | Depends on detailed design. Capable of good resolution. | 1 |
| FORM | | | | | | | | |
| Uncluttered horizontal form<br>– Uncluttered coordinated horizontal form.<br>– Lift towers subservient to bridge spans. | Lift towers dominate bridge form viewed from the south. | 1 | Split form more complex with multiple lift towers. | 1 | Simple elegant curved form less lift towers. | 1 | Smaller elegant curved form with least number of lift towers. | 2 |
| Soften engineering<br>– Curves to soften impact of overall form.<br>– Integrated primary and secondary elements. | Poorly resolved junctions between elements. Truss very dominant. | 0 | Depends on detailed engineering design. Capable of good resolution. | 1 | Depends on detailed engineering design. Capable of good resolution. | 1 | Depends on detailed engineering design. Capable of good resolution. | 1 |
| Enhance user experience<br>– Provide spaces to stop on bridge to rest. | Rest and viewing points available at either ends of bridge. | 1 | Multiple rest places and differing viewpoints offered by split form and curve. | 2 | Multiple rest places and differing viewpoints offered by curve. | 2 | Multiple rest places and differing viewpoints offered by curved bridge and refurbished station foot bridge. | 2 |

| SCORE | SCORING CRITERIA |
|---|---|
| 2 | Achieves aim strongly. |
| 1 | Achieves aim. |
| 0 | Does not achieve aim. |
| 1 | TBC - Not yet detailed. Minimum score of 1 must be achieved by the design. |

| HERITAGE DESIGN PRINCIPLE | BASE CASE DESIGN | SCORE | OPTION 1<br>SPLIT BRIDGE | SCORE | OPTION 2<br>CURVED BRIDGE | SCORE | OPTION 3<br>HALF BRIDGE | SCORE |
|---|---|---|---|---|---|---|---|---|
| SITING | | | | | | | | |
| Connect to Country<br>– Strong connection to Country aided by interpretation. | No connection to Country evident in the final design. | 0 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 |
| Minimise impacts to heritage fabric<br>– Minimise impacts to significant heritage fabric. | Acceptable impacts to station platform | 1 | Acceptable impacts to station platform. | 1 | Acceptable impacts to station platform. | 1 | Acceptable impacts to existing footbridge and station platform. | 1 |
| Respect the neighbourhood<br>– Careful design of spaces between old and new.<br>– Minimise footprints of built elements. | Multiple lifts and stairs take up public space. | 1 | Multiple lifts and stairs take up public space. | 1 | Reduced number of lifts and stairs, but long ramp. | 1 | Least number of lifts and stairs, but long ramp.<br>Smallest footprint overall. | 2 |
| High quality urban design<br>– Generous spaces at entry points.<br>– Well placed lift towers. | Functional placement and design of entry points. | 1 | Capable of good resolution. | 1 | Capable of good resolution. | 1 | Capable of good resolution. | 1 |
| MATERIALS AND COLOURS | | | | | | | | |
| Quality durability and maintenance<br>– High quality durable materials to retain design quality with minimal maintenance. | Use of durable materials. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 |
| Appropriate materials and structure<br>– Appropriate high quality materials that respect heritage values of the place. | Corten steel truss not considered appropriate to heritage context. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| Relate materials and colours to context<br>– Consider use of local materials such as stone, brick and rendered masonry. | Corten steel truss not considered appropriate to heritage context. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| DETAILING | | | | | | | | |
| Consistent detailing<br>– Simple consistent detailing with purposeful rythym to ensure coherent design. | Consistent detailing | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 |
| Reflect character of Medlow Bath<br>– Contemporary interpretation of key heritage details.<br>– Explore texture variation.<br>– High solid to void ratio in lift towers with vertical proportions. | Engineering solution with no obvious relationship to character of Medlow Bath. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| Incorporate interpretation<br>– Heritage interpretation related to Aboriginal cultural values and Medlow Bath as a health and leisure tourist destination. | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 |
| TOTAL UNWEIGHTED SCORE | | 12 | | 22 | | 22 | | 28 |

### 7.3.9 Preferred design option

Testing the three options against the Heritage Design Principles revealed Option 3, the Half Bridge, to be the preferred design option from a heritage perspective. This was confirmed as the preferred option based on the outcomes of the Multi Criteria Analysis Workshop and discussed with the local community.

Option 3 was then further developed by the project team in terms of materials, colours and detailing along with heritage interpretation to ensure that the proposal connected with the place.

Feedback from stakeholders including Aboriginal stakeholders, the local community, Blue Mountains City Council, the Subcommittee of the Heritage Approvals Committee of the Heritage Council of NSW and the TfNSW DRP were all taken into consideration during the design development phase. A consultation summary is presented in Appendix B.

#### 7.3.9.1 Community consultation

Community consultation revealed that Option 1 was the least preferred from a visual impact perspective. Option 2 was preferred in terms of walking distances, whilst it was acknowledged that Option 3 would have the least visual impact.

The Aboriginal stakeholders revealed that the Hydro Majestic walking trails have significance to members of the Aboriginal community, who have always been granted access to these paths to connect with their ancestors.

#### 7.3.9.2 Heritage Council of NSW

The options were presented to a subcommittee of the Heritage Approval Committee. The following feedback was used to guide the design process:

- Option 1 is the least preferred option. Options 2 and 3 present a positive movement towards the Committee's preference for a bespoke, context-responsive design with less heritage impact.
- Option 3 appears to present the least heritage impacts, due to the significant reduction in constructed elements and resulting reduction in impacts to the railway station curtilage, particularly in the vicinity of the station building. However, the resulting impacts on pedestrian movement patterns are noted as well as the local community's preference for Option 2.
- In relation to the reuse of the existing footbridge as required in Option 3, it is understood that while the bridge was constructed in 1901, little original fabric remains, with upgrades in the c1980s and c1990s replacing most bridge components.

#### 7.3.9.3 TfNSW Multi-criteria analysis

Each of the options were presented and discussed at length with reference to the following criteria:

- Customer Experience
- Consultation/Community
- Facility Operations and Maintenance
- Constructability
- Urban Design and Precinct Planning
- Heritage
- Environment and Sustainability.

The criteria were weighted prior to the meeting with Heritage having a 20 pe cent weighting, acknowledging the importance of the new bridge fitting into its historic context.

Option 3 was identified as the preferred option based on the outcomes of this workshop. Some shortcomings were identified for this option in terms of walking distances, so it is important that the proposed new

accessible path on the Railway Parade side of the station meets DDA standards and gives back to the community in terms of the presentation of the eastern side of the rail corridor.

### 7.3.10 The proposal – the Half Bridge (Option 3)

The Half Bridge option (option 3) maintains the operational usage of the station in its historical configuration with access via a new lift and reconfigured stair from the existing footbridge at the country end, respecting the heritage values of the place. This option seeks to reduce the scale of build elements even further by requiring only two lift shafts.

The result is a 'half' bridge that spans only the Great Western Highway and is separate from the rail infrastructure, resulting a much-reduced scale of built form. This significant reduction in visual impact needs to be balanced by changes to the established pedestrian desire lines with the closure of the level crossing and increase in the travel distance for some of the community and visitors.

The curve of the bridge is inspired by the meandering natural pathways through the mountains. This option brings an elegant approach to the built form by minimising hard-edged man-made forms and reflecting the softer curves of the Blue Mountains formations.

The fabricated steel bridge delivers a free-flowing form with a smooth continuous soffit. The singe bridge span is supported by walls cleverly integrated into the lift shaft form to remove the visual clutter of multiple support columns below the bridge. The transparent screens will not interrupt the lines of the bridge and are designed to allow views through and out.

The bridge colour of a neutral soft light grey responds directly to the Hydro Majestic and reduces the visibility of the bridge when set against the sky.

A ramp grades to ground to bring users to the existing station entry footbridge, utilising the natural slope of the ground to help limits its length. The ramp reduces the visual impact on the precinct by eliminating the need for a lift in this location.

Inspired by the colour of the surrounding geology and built brick buildings, particularly the station, the brick cladding to the lift shaft uses earthy colours to ground the lift shaft into the natural landscape. The lift cladding lightens into glazed white bricks, rising to reflect the sky.

Access to Medlow Bath Station is proposed via a reconfigured stair and lift which connect into the existing footbridge at the country end of the platform, reducing the overall scale and visual impact of this option. The lift shaft at the station would have a warm toned brick base to tie into the heritage station character and glazed elements in the upper section to increase the sense of transparency of the new structure and reflect the sky.

Visualisations of the proposed Half Bridge option are presented in Plate 7.1 to Plate 7.4.

**Plate 7.1: Visualisation looking north from Great Western Highway (DesignInc)**



**Plate 7.2: Visualisation looking south from Great Western Highway (DesignInc)**



**Plate 7.3: View of Lift 2 on the western side of Great Western Highway in the vicinity of the Hydro Majestic Hotel (DesignInc)**



**Plate 7.4: View north along platform with new lift and stairs to existing footbridge in distance (DesignInc)**



# 8 HERITAGE IMPACT ASSESSMENT

This section assesses the impact of the proposal on the significance of Medlow Bath Railway Station (SHR No. 01190) and surrounding listed and potential heritage items. The level of impact is assessed in accordance with the definitions in Table 8.1 as defined in the *Material Threshold Policy* (Heritage NSW, February 2020).

**Table 8.1: Defining levels of impact**

| Impact | Definition |
|---|---|
| Total loss of significance | Major adverse impacts to the extent where the place would no longer meet the criteria for listing on the SHR. |
| Adverse impact | Major (that is, more than minor or moderate) adverse impacts to State heritage significance.<br>Moderate adverse impacts to State heritage significance<br>Minor adverse impacts to State heritage significance |
| Little to no impact* | An alteration to State heritage significance that is so minor that it is considered negligible.<br>* Little to no impact (as opposed to no impact) acknowledges that any change will result in some level of impact/alteration to State heritage significance. |
| Positive impact | Alterations that enhance the ability to demonstrate the State heritage significance of an SHR listed place. |

## 8.1 Heritage impact discussion

### 8.1.1 Construction of a new pedestrian footbridge

A proposed new pedestrian footbridge across the widened Great Western Highway to Medlow Bath Station is required to provide safe crossing of the highway. The new pedestrian bridge would connect customers to Medlow Bath Station via a cantilevered footpath extension grading to ground bringing them to the existing northern station entrance. The existing pedestrian rail level crossing within the SHR curtilage at the southern end of the station platform would be removed.

Construction of the pedestrian footbridge would significantly improve connectivity of the area for customers and tourists. It would provide safe all ability access to the public transport services including the Medlow Bath Station and bus services on Great Western Highway and Railway Parade.

The proposed pedestrian footbridge would be a fabricated steel trough-shaped bridge coloured a neutral soft light grey, with solid parapet edges and mesh screens along its length to two metres above the ground, supported by walls integrated into the lift shaft form. The bridge would have circular lift shaft on the western side of the Great Western Highway, echoing the curved forms of the adjacent Hydro Majestic, and a cantilevered footpath extension curving over the western cutting at a high level on the western rail boundary of the SHR curtilage. Aside from the cantilevered footpath, the pedestrian footbridge lies outside of the SHR curtilage of Medlow Bath Railway Station.

The pedestrian footbridge design has been informed by and tested against Heritage Design Principles, as well as responses to consultation with BMCC and the local community. The bridge has been designed to be as least impacting while maintaining the operational usage of the station in its historical configuration.

#### 8.1.1.1 Physical impact assessment

The proposed pedestrian footbridge would have a **little to no physical impact** on Medlow Bath Railway Station (SHR No.01190, TfNSW Section 170 SHI No. 4801011, Blue Mountains LEP 2015 Item No.MB003). The physical footprint of the pedestrian footbridge lies outside of the SHR curtilage. A small section of cantilevered footpath extends over the western cutting at a high level on the western rail boundary of the SHR curtilage. As this ramp has been designed to be cantilevered, it physically extends into the SHR curtilage, but requires no physical impact. The western cutting has evolved over time as demonstrated in the changing alignment in documentary evidence. The cutting was formerly part of the landscape setting of the station, but more recently has been left for opportunistic tree and shrub growth with an informal character. An

Aboricultural Impact Assessment (Arbor Vision Consulting, May 2023) assessed the trees and shrubs along the cutting and proposed footpath alignment to be of medium significance, meaning their retention should remain a priority with removal considered only if adversely affecting the proposed works. The Proposal would require trimming of species along the cutting and the removal of two trees to facilitate construction of the footpath. This is consistent with the recommendations of the Aboricultural Impact Assessment and keeps impact to plantings to a minimum.

#### 8.1.1.2 Visual impact assessment

The proposed pedestrian bridge would have a **moderate adverse visual impact** on Medlow Bath Railway Station. While no significant views and vistas are associated with the heritage item, the introduction of a new built form of this scale immediately adjacent to the heritage item has a direct impact on the urban visual landscape in which the heritage item sits (see *Medlow Bath Station Upgrade Visual Impact Assessment* (DesignInc 31 May 2023 discussed in Section 8.3).

This visual impact has been mitigated to some degree through the bridge's design form and materials that respect the bridge's surroundings while clearly providing visual separation between old and new. The bridge only spans the Great Western Highway and is separate from the rail infrastructure and heritage station precinct so does not cut through or interrupt the heritage item. Its single span is supported by walls integrated into the lift shaft form and a single column between the station and the highway to avoid visual clutter from multiple support columns. The transparent mesh screens allow views through and out of the structure. The bridge colour was selected to reduce visibility of the bridge when set against the sky. The single lift shaft sits on the western side of the Great Western Highway at the bridge's furthest point from the heritage item. Access to and from the bridge on the rail side is gained through a cantilevered footpath that grades to the ground to bring users to the existing northern station entry, utilising the natural slope of the ground to limit its length. While the curve of the cantilevered footpath extends over the cutting of the western side of the rail cutting of the heritage item, it does not extend into the operational area of the station and would offer customers views of the heritage item through the mess screens. Glazed brick cladding to the lift shaft beside the Great Western Highway responds to the Hydro Majestic.

Despite the relative proximity of the Hydro Majestic and the Medlow Bath Railway Station they are rarely seen in the same view. One such view is from Railway Parade looking southwest across the station and highway. The proposed configuration of the pedestrian bridge allows that view and historical association between the sites to be maintained.

Photographic archival recording of Medlow Bath Railway Station has been recommended as an additional mitigation measure.

#### 8.1.1.3 Impact to archaeological potential

Construction of the new pedestrian footbridge would have **no impact** on potential archaeological resources associated with the heritage item as construction of the pedestrian footbridge would require no physical impact within the SHR curtilage.

It is noted, however, that the former goods shed is located in the SHR curtilage within the vicinity of the support column for the cantilevered pedestrian footpath. While there is low to moderate potential for evidence of the former goods shed and associated platform to remain, or extend beyond the SHR curtilage, recommendations have been made for the management of potential archaeological resources, should they be identified during works.

### 8.1.2 Alterations to northern station entrance

The existing entry from the north of the station is provided via stairs from the 1901 footbridge. The 1901 footbridge is supported by original brick abutments and steel trestles and has new concrete stairs to the platform and a new concrete deck. The stairs have been fitted with modern treads, anti-slip guards, hand rails and balustrades. Alterations to the northern station entrance would include closure of the western access to the footbridge and upgrading the existing stairs to DSPAT compliance.

Alterations to the northern station entrance are required to provide both stair and lift access to Medlow Bath Railway Station, improving accessibility of the station in line with the requirements of the Commonwealth *Disability Discrimination Act 1992* (DDA) and the *Disability Standards for Accessible Public transport 2020* (DSAPT). The existing stair would be demolished and replaced and a new 17 person vertical lift installed

with screens, where required by Rail Standards, and a platform extension from the footbridge to the lift for access to the new lift. The lift shaft at the station would have a warm toned brick base to the tie into the heritage character and glazed elements in the upper section to increase sense of transparency of the new structure and reflect the sky.

The existing pedestrian rail level crossing within the SHR curtilage at the southern end of the station platform would be removed. This crossing was constructed between 1989 and 1994 and is not a part of the original station configuration or plans. As a later addition to the station, it does not have any significance The reconfigured stair and lift at the northern station entrance would supply access to the new pedestrian footbridge via a pedestrian footpath along the western side of the station parallel to the Great Western Highway. Access to Railway Parade via the footbridge would be retained.

#### 8.1.2.1 Physical impact assessment

Alterations to the northern station entrance would have a **minor physical impact** on Medlow Bath Railway Station. Physical works would require limited intervention with significant heritage fabric. Replacing the existing non-significant stairs with new DSPAT compliant stairs would have little to no impact on significant fabric as it would only require the removal of non-significant fabric being, existing stairs, and a section of existing footbridge balustrade. The provision of a concrete lift platform to connect the lift to the footbridge would require minor impact to significant fabric as the lower original steel trestle would need to be removed. The original brick abutments and remaining steel trestles would not be impacted.

The previous replacement of stairs, deck and balustrade has already detracted from the integrity and significance of the footbridge. Removal and replacement of non-significant fabric would not further detract from the heritage significance of the footbridge. The proposed option prioritises ongoing use of the original station configuration reinforcing and continuing the historic arrangement of access via the northern station approach.

#### 8.1.2.2 Visual impact assessment

Alterations to the northern station entrance would have a **moderate adverse visual impact** through the introduction of a new built form. The base of the lift would be brick to the tie into the heritage character of the station and its main platform building. The use of new brick in this instance this does not clearly separate old from new however the use of brick is in keeping with the overall construction of the station and is in line with other TAP projects along the Blue Mountains line. The desire to demarcate old from new remains however and consideration should be given to a contemporary style detailing to create a clear distinction.

The lift shaft would be taller than the existing footbridge, however to limit the visual impact the upper section has been detailed as a lightweight steel framed glass enclosure in order to maximise transparency and reduce visual bulk.

Photographic archival recording of Medlow Bath Railway Station has been recommended as an additional mitigation measure.

#### 8.1.2.3 Impact to archaeological potential

Works to the northern station entrance would have **little to no impact** on the archaeological potential of Medlow Bath Railway Station. Lift construction would require lift pits to be excavated into the platform. Excavation would be within non-significant fill. No potential archaeological resources have been identified at the northern station entrance.

An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

### 8.1.3 Platform upgrades

Upgrades to the platform are required for DSAPT compliance. This would include regrading of the platform surface to provide accessible paths between station amenities, replacement of tactile ground surface indicators along all platform edges, repainting of the platform safety zone and the provision of boarding assistance zones (BAZ) on each platform near the existing platform building to provide covered waiting areas. Additional lighting would be provided along the platform to meet minimum required light levels and existing lighting under the station building canopy would be replaced with more efficient LEDs. New Opal card readers for the new lift and stairs on the platform would also be provided.

Regrading of the platform surface to achieve a compliant crossfall requires replacing the existing strip drains around the station buildings to be at grade with the new platform surface. Depending on the amount that the platform requires raising, this may result in one airbrick of the platform building to be partially blocked, reducing airflow and potentially causing water ingress. If required, this airbrick would be removed and raised one course of bricks. Regrading would also require the removal of the concrete pad from the former luggage scale. The existing damaged airbrick adjacent to the former luggage scale would be replaced with a similar heritage style airbrick to prevent rodents entering the platform building.

The proposed lighting scheme retains all existing 3.5 metre high heritage light poles. These would be supplemented with goose neck style light poles to match existing. Existing fluorescent lighting beneath the awning of the platform building would be replaced with LEDs. New lighting would be installed in new work areas only, including the stair and lift area at the northern station entrance.

Upgrades to the platform include modification of platform planter beds. The existing timber log platform planter beds would be replaced with brick planter beds of the same size to tie in visually with the new lift base. Plantings within the planter beds would be replaced as necessary. The proposed garden bed arrangements are the same as other State listed heritage stations on the Blue Mountains line for visual consistency.

#### 8.1.3.1 Physical impact assessment

Platform upgrades would have a **minor adverse physical impact** on Medlow Bath Railway Station through direct physical impact to significant fabric. Regrading of the platform would require localised removal of existing platform surface, including the concrete base to the former luggage scale. One airbrick may also be lifted one course of bricks, which would require the removal and reinstatement (or replacement when damaged) of a number of bricks on the lower portion of the eastern facade of the platform building. To mitigate this impact recommendations have been made for the brickwork to be carried out by an appropriately qualified tradesperson skilled in heritage building conservation.

Removal of the concrete pad from the former luggage scale is required in order to create the DSAPT compliant gradient across the platform and would impact significant fabric through the removal a heritage surface feature. Strategy 10 of the *Conservation Guide: Railway Station Platforms* (2013) states “Relocation or removal of heritage surface features should only be considered as a last resort, where there are no conceivable means of providing equitable access without incurring a major loss of heritage significance.” However, removal of the concrete pad would not result in a major loss of heritage significance to either the 1902 platform of the overall station complex. While the pad is an original remnant associated with the adjacent former Station Master’s office, removing the pad would not result in a major loss of heritage significance to the 1902 platform or the overall station complex.

Upgrades to existing exterior lighting and provision of additional lighting would require minor penetrations to significant fabric associated with the platform building as well as excavation within the 1902 platform. This impact would be mitigated by new electrical installations completed in accordance with the Sydney Trains (2017) *Heritage Technical Note – Installation of New Electrical and Data Services at Heritage Sites*.

Replacement of the planter beds with brick structures would not impact significant fabric. While it has been established that the planter beds are significant for their visual aesthetic and historical association with the platform arrangement, their physical fabric is not of heritage significance.

#### 8.1.3.2 Visual impact assessment

Platform upgrades would have **little to no visual impact** on Medlow Bath Railway Station as the upgrades would not alter the current setting or visual amenity of the platform. The platform has been regraded previously, and while the concrete pad from the former luggage scale would be lost, the platform surface would be reinstated to its current state. Upgrading the lighting beneath the platform canopy to LEDs is likely to be less visually intrusive than the existing fluorescent lighting. Supplementing lighting along the platform with matching goose neck light poles would retain the heritage aesthetic of the platform setting while complying with DSAPT requirements.

Alterations to the planters beds would retain the station’s visual aesthetic and historical platform arrangement. Brick planter peds have been chosen for durability and to reflect the brick station building and tie into the proposed new brick lift base. While a number of plants within the planter boxes would be replaced, trees of very high landscape significance, as determined by the Arboricultural Impact Assessment

(Arbor Vision Consulting, May 2023), would be retained which would maintain the established planting visual aesthetic of the platform.

#### 8.1.3.3 Impact to archaeological potential

Platform upgrades may have a **minor adverse impact** on archaeological potential through disturbance or destruction. Archaeological potential of the platform varies from low to moderate, with potential evidence of various phases of the platform and its former infrastructure to be present. Regrading of the platform surface may uncover archaeological resources associated with the former elements of the platform, including the southern platform wall. Recommendations for the management of archaeological potential have been included in this SOHI to minimise impact to potential archaeological resources.

### 8.1.4 Railway Parade

Proposed works on Railway Parade include:

- provision of an accessible path between the kiss and ride, accessible parking and station on Railway Parade
- provision of landscaping alongside footpath on Railway Parade
- tree and shrub trimming and removal
- remove / modify existing fencing and install new fencing.

These works would largely occur outside the SHR curtilage of Medlow Bath Railway Station. The existing arrangements on Railway Parade include asphalt road and bus stop. Works currently proceeding under the REF for the Great Western Highway Upgrade include formalisation of a carpark area with both kiss and ride and accessible parking as well as general road upgrades. Works under the current proposal would complement those occurring under the REF by providing customers with an accessible path to the station.

#### 8.1.4.1 Physical impact assessment

Proposed works on Railway Parade would have **little to no impact** on Medlow Bath Railway Station as works largely occur outside the SHR curtilage. Works within the SHR curtilage comprise the removal and replacement of non-significant fencing and the trimming or removal of non-significant trees and shrubs (see Aboricultural Impact Assessment (Arbor Vision Consulting, May 2023)).

#### 8.1.4.2 Visual impact assessment

Proposed works on Railway Parade would have **little to no impact** on Medlow Bath Railway Station. Railway Parade is currently an asphalt road with no pedestrian footpath and limited urban landscaping. Upgrades to the road and provision of an accessible path would be in keeping with the current setting of Railway Parade.

Proposed works also require tree and shrub trimming and removal along Railway Parade to facility the removal and replacement of fencing. An Aboricultural Impact Assessment (Arbor Vision Consulting, May 2023) concluded that 12 specimens would need to be removed for the proposal, which will be reflected in the Landscaping design. None of these trees are of heritage or arboricultural significance. Landscaping and urban design along Railway Parade would tie into that proposed in the REF for the Great Western Highway Upgrade for cohesion and visual aesthetics.

#### 8.1.4.3 Impact to archaeological potential

Works on Railway Parade would have **little to no impact** on the archaeological potential of Medlow Bath Railway Station. No potential archaeological resources have been identified in this area. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

### 8.1.5 Great Western Highway

The Great Western Highway duplication is being undertaken as a separate project and would occur outside of the SHR curtilage of Medlow Bath Railway Station. The provision of accessible paths and associated landscaping between the bus stops on the eastern and western sides of the widened Great Western Highway and the new pedestrian footbridge lift and stair entries would also occur outside the SHR curtilage. The new accessible paths would replace the existing footpath and would create a DSAPT compliant entrance at the northern end of the station.

Works within the SHR curtilage of Medlow Bath Railway Station comprise the erection of a retaining wall along the eastern side of the widened Great Western Highway behind the bus stop. The wall would be erected along the western rail cutting at the southern end of the platform.

#### 8.1.5.1 Physical impact assessment

Proposed works on Great Western Highway would have **little to no physical impact** on Medlow Bath Railway Station. Provision of accessible paths between the bus stops on the eastern and western sides of the widened Great Western Highway and the new pedestrian footbridge lift and stair entries would occur outside the SHR curtilage. Works within the SHR curtilage comprise the construction of the retaining wall. The wall would be along the inside of the rail cutting within SHR curtilage but would not impact significant fabric.

#### 8.1.5.2 Visual impact assessment

The proposed retaining wall would have a **minor adverse visual impact** on Medlow Bath Railway Station. Introduction of a retaining wall would add a new built form visible from the platform. To minimise visual impact the retaining wall would be backfilled to create a false embankment to obscure the wall from view as much as possible. This false embankment would be in keeping with the current setting of the station which is set in a cutting with a natural embankment along its western cutting.

Provision of accessible paths along the Great Western Highway side of the station would be in keeping with its current setting and would cause little to no visual impact. Landscaping and urban design along the Great Western Highway would tie into that proposed in the REF for the Great Western Highway Upgrade for cohesion and visual aesthetics.

#### 8.1.5.3 Impact to archaeological potential

The proposed retaining wall along the western side of the rail corridor may have a **minor adverse impact** on the archaeological potential of Medlow Bath Railway Station. While the former goods shed and platform appear to have been located further north of the retaining wall, the length of the former good platform is unknown. If archaeological resources associate with the former goods shed and its platform remain, construction of the retaining may disturb or destroy them. Recommendations for the management of archaeological potential have been included in this SOHI to minimise impact to potential archaeological resources.

### 8.1.6 Decommissioning and removal of existing pedestrian level crossing

The existing non DSAPT compliant pedestrian level crossing is located at the southern end of the station. It was installed at the Sydney end of the 1942 platform extension in the late twentieth century. The footpath is lit with heritage light poles that have likely been repurposed from elsewhere within the station precinct. Decommissioning the existing pedestrian level crossing would require the removal of existing footpath, gates, sign, signal and boom gate, as well as existing heritage light poles. TfNSW have elected to retain the heritage lightpoles and place them in storage for future use in maintenance, repair or replacement of heritage fabric across the rail network as appropriate.

The existing ramp at the southern end of the platform would be retained and a balustrade with a maintenance access gate installed across the platform at the top of the ramp to delineate the end of the platform.

#### 8.1.6.1 Physical impact assessment

Decommissioning of the existing pedestrian level crossing would have a **little to no adverse impact** on Medlow Bath Railway Station. The level crossing is not of heritage significance as it is a later addition to the station. Heritage fabric impacted by these works would be limited to the removal of repurposed heritage lights poles. This impact has been mitigated to some degree because the light poles would be retained and conserved for future use in maintenance, repair or replacement of heritage fabric.

#### 8.1.6.2 Visual impact assessment

Decommissioning and removal of the level crossing would have **little to no visual impact** on the Medlow Bath Railway Station. While the level crossing is one of the two existing access points to the station, it is not of heritage significance as it is a later addition to the station. Decommissioning and removal of the level crossing would not alter the heritage setting of the station or views and vistas to and from the station complex.

#### 8.1.6.3 Impact to archaeological potential

Decommissioning and removal of the level crossing would have **little to no impact** on the archaeological potential of Medlow Bath Railway Station. No potential archaeological resources have been identified at the southern station entrance. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

### 8.1.7 Electrical upgrade work (including padmount transformer)

Proposed electrical upgrade work is required to meet electrical requirements of the proposal and includes provision of a new padmount transformer on Railway Parade, new electrical pits and LV route from the transformer to the platform and new main switch board and new main switch board and station distribution boards located within the platform buildings.

The new padmount transformer is required to meet earthing and bonding requirements because connecting to the Sydney Trains HV network would not provide compliant earthing and bonding. The padmount transformer would be located within the rail corridor opposite the platform building beside Railway Parade.

New electrical pits would be required within the rail corridor and on the station platform. An underground LV line would run from the padmount transformer to the electrical pit on the station platform, which would connect to a new wall mounted lighting and power distribution board and IMSB in the signal room, and existing comms in the platform building. The underground LV would run beneath the platform wall without impact. Additional LV pits would be required along the length of the platform to service LV electrical upgrades across the station.

#### 8.1.7.1 Physical impact assessment

Electrical upgrades would have a **minor adverse impact** on Medlow Bath Railway Station. Electrical upgrade works would impact significant fabric associated with the signal room and the platform building. Installation of the electrical pit north of the signal room would require the removal of one garden bed and excavation within non-significant fill of the 1902 platform. Conversion of the signal room into an IMSB room would alter the current interior of the signal room. The signal room is currently used for storage and, while no signal levers remain, the floorboards and walls remain largely intact. LV connection to the IMSB would require a hole of around 250 x 500 millimetres in the floor of the signal room and penetrations to the wall for installation and connection of the wall mounted lighting and power distribution board. Impact to the signal room has been mitigated to some degree using a fire rated cupboard for the IMSB that fits through the existing door. This minimises penetrations to significant fabric and does not require alterations to the size of the door.

As Medlow Bath is an unmanned station, there is no potential for active customer use of the building. Therefore, adaptive reuse of the building to house the IMSB and DB is a desirable alternative use for the building. Its adaptive reuse in this manner also mitigates the physical harm to some degree through the following:

- reuse to house essential infrastructure will ensure ongoing maintenance of the building

- all existing openings to the building would be maintained
- fire rating and upgrade limited to IMSB and DB enclosure
- works are designed to be largely reversible.

Electrical upgrades to the existing comms room in the former station master's office of the platform building would include removal of redundant electrical cables and equipment and installation of new cables and power distribution board. Works would require minor penetrations to significant fabric of the platform building floor and walls. Impact to significant fabric would be mitigated to some degree by using existing penetrations, where possible, and making good surfaces at completion of works.

All electrical upgrade works would be undertaken in accordance with the Sydney Trains (2017) *Heritage Technical Note – Installation of New Electrical and Data Services at Heritage Sites*, which would further mitigate impact to significant fabric.

Archival recording of Medlow Bath Railway Station has been recommended as an additional mitigation measure.

#### 8.1.7.2 Visual impact assessment

Electrical upgrades would have a **little to no adverse visual impact** on Medlow Bath Railway Station. The addition of further station infrastructure within the rail corridor and platform buildings is in keeping with the ongoing use of the station. The fire rated cupboard within the signal room would be placed away from the window to avoid visibility from the platform.

#### 8.1.7.3 Impact to archaeological potential

Electrical upgrades may have **minor adverse impact** on the archaeological potential of Medlow Bath Railway Station. While the platform likely comprise fill, archaeological potential of the platform varies from low to moderate, with potential evidence of various phases of the platform and its former infrastructure to be present. Electrical upgrades within the platform may uncover archaeological resources associated with the former elements of the platform. Recommendations for the management of archaeological potential have been included in this SOHI to minimise impact to potential archaeological resources

No potential archaeological resources have been identified in the eastern portion of the rail corridor beside Railway Parade. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

### 8.1.8 Ancillary work

The proposal includes ancillary work designed to improve safety, accessibility and infrastructure across the station. These include:

- new stormwater drainage connections for the new footbridge, lifts and canopies to existing systems
- services and utilities protection, adjustments and/or relocations to accommodate the new work
- improvement to station security and communication systems, including modification to CCTV, public address system, hearing loops, and station passenger information systems
- relocation of station furniture
- provision of wayfinding signage and other station signage as required
- remove / modify existing fencing and install new fencing.

#### 8.1.8.1 Physical impact assessment

Ancillary work would have **little to no impact** on Medlow Bath Railway Station.

Ancillary work for stormwater drainage and service adjustments would require excavation into non-significant fill of the significant 1902 platform. These works would not impact the platform walls or copings.

Customer information, communications systems and safety improvements are consistent with the continued use of the station, and while minor impact to significant fabric would likely be required for cabling and fixings, works would not adversely impact the heritage significance of Medlow Bath Railway Station.

Ancillary work would be undertaken in accordance with the following Sydney Trains guidelines:

- *Conservation Guide: Railway Station Platform Furnishings* (2012)
- *Conservation Guide: Railway Station Platforms* (2013)
- *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites* (2017)
- *Station Components Guide* (2017).

#### 8.1.8.2 Visual impact assessment

Ancillary work would have **little to no visual impact** on Medlow Bath Railway Station as it would be undertaken in accordance with Sydney Trains guidelines.

Wayfinding signage would be in the standard wayfinding framing format for consistency across the station and TfNSW network.

Works requiring excavation of the platform surface would occur prior to the regrading of the platform surface, enabling the platform to be reinstated to its current state with little to no visual impact.

#### 8.1.8.3 Impact to archaeological potential

Ancillary work would have **little to no impact** on the archaeological potential of Medlow Bath Railway Station. The platform is of low archaeological sensitivity and excavation would be within non-significant fill. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

### 8.1.9 Ancillary facilities

The proposal includes ancillary areas to accommodate temporary site construction compounds. The construction compounds would accommodate a site office, amenities and a laydown and storage area for materials.

#### 8.1.9.1 Physical impact assessment

Ancillary facilities would have **little to no impact** on Medlow Bath Railway Station.

The ancillary facilitates are temporary, and while parts of the construction compounds are located within the SHR curtilage, no ground disturbing activities are proposed at the ancillary facilities and the proposed ancillary facilities would not impact significant fabric.

#### 8.1.9.2 Visual impact assessment

Ancillary facilities would have **little to no visual impact** on Medlow Bath Railway Station, as they are temporary and would be removed and reinstated to their current state on completion of works.

#### 8.1.9.3 Impact to archaeological potential

Ancillary facilities would have **little to no impact** on the archaeological potential of Medlow Bath Railway Station as no ground disturbing activities are proposed with the ancillary facilities. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

## 8.2 Impact to surrounding heritage items

Medlow Bath Railway Station is located in the vicinity of the following items identified on the Blue Mountains LEP 2015 as heritage items of local significance:

- Hydro Majestic (Item No. MB002)

- Medlow Bath Railway Station Group (Item No. MB003)
- Former Post and Telegraph Store (Item No. MB008)
- Avenue of Trees (Item No. MB015)
- Urunga (Item No. MB017)
- Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019)
- Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Conservation Area No. MB026)

#### 8.2.1.1 Physical impact assessment

In general, the Proposal would have **minor physical impact** on surrounding heritage items. Table 8-2 presents specific assessment of physical impact on all nearby heritage items. While temporary site compounds would be within the heritage curtilage of Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Conservation Area No. MB026) and Avenue of Trees (Item No. MB015), no ground disturbance would occur. To mitigate potential inadvertent impacts to significant fabric of surrounding heritage items, vibration monitoring has been recommended for built elements.

**Table 8-2 - Discussion of physical impacts of surrounding heritage items**

| Item | Physical Impact discussion |
|---|---|
| Medlow Bath Railway Station Group (Item No. MB003) | N/a – covers the same area as the SHR listed item. |
| Former Post and Telegraph Store (Item No. MB008) | No physical impact as located around 10 metres from overall proposal area and approximately 50 metres from main works area on opposite side of the railway station. |
| Avenue of Trees (Item No. MB015) | Possible minor/inadvertent impact due to proximity to ancillary compounds. |
| Urunga (Item No. MB017) | No physical impact as located around 10 metres from overall proposal area and approximately 50 metres from main works area on opposite side of the railway station. |
| Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019) | No physical impact as located around 30 metres from overall proposal area and approximately 120 metres from main works area. |
| Medlow Bath Hydro Majestic original walking track complex (Conservation Area No. MB026) | Possible minor impact due to proximity to ancillary compounds. Recommendation for vibration monitoring. |
| Medlow Bath Bus Shelter (potential heritage item) | N/a – item is being relocated. |
| Sandstone railway culvert (potential heritage item) | No physical impact as located around 50 metres from overall proposal area and approximately 160 metres from main works area. |

#### 8.2.1.2 Visual Impact assessment

The Proposal would have a **moderate visual impact** on surrounding heritage items. Table 8.3 discusses the specific impact on each heritage item. The introduction of a new built form of this scale and its proximity to existing infrastructure and heritage items has a direct impact on the urban visual landscape (see *Medlow Bath Station Upgrade Visual Impact Assessment* (DesignInc 31 May 2023 discussed in Section 8.3).

This visual impact has been mitigated to some degree through the bridge's design form and materials that respect the bridge's surroundings while clearly providing visual separation between old from new. The reduction in scale resulting from the developed options, results in the least possible built form. The bridge's single span is supported by walls integrated into the lift shaft form to avoid visual clutter from multiple support columns. The transparent mesh screens allow views through and out of the structure. The bridge colour responds to the Hydro Majestic and reduce visibility of the bridge when set against the sky. The single circular lift shaft on the western side of the Great Western Highway echoes the curved building forms of the adjacent Hydro Majestic.

**Table 8-3: Discussion of visual impacts of surrounding heritage items**

| Item | Visual Impact discussion |
|---|---|
| Medlow Bath Railway Station Group (Item No. MB003) | N/a – covers the same area as the SHR listed item |
| Former Post and Telegraph Store (Item No. MB008) | Moderate visual impact due to addition of new built form. |
| Avenue of Trees (Item No. MB015) | Moderate visual impact. The new footbridge will be clearly visible from this item and would block the view of the trees when heading southward along the Highway. The new footbridge would conversely create a favourable vantage from which to view the trees |
| Urunga (Item No. MB017) | Moderate visual impact dur to addition of new built form. |
| Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019) | Minor visual impact. The new footbridge is over 100 metres away and whilst visible, it would not impact any particularly noteworthy view. |
| Medlow Bath Hydro Majestic original walking track complex (Conservation Area No. MB026) | Moderate visual impact. The new footbridge would be clearly visible from some areas of the walking track. |
| Medlow Bath Bus Shelter (potential heritage item) | Moderate visual impact. The new footbridge would be clearly visible from the bus shelter as would the new pathway etc. |
| Sandstone railway culvert (potential heritage item) | Moderate visual impact due to addition of new built form. |

#### 8.2.1.3 Impact to archaeological potential

The proposal would have **little to no impact** on the archaeological potential of any off the surrounding heritage items as no ground disturbing activities are proposed with the heritage curtilage of any surround heritage items. An unexpected archaeological finds procedure has been recommended as an additional mitigation measure.

## 8.3 Visual impact assessment

Potential impacts of the proposal on landscape character and visual amenity have been assessed in the *Medlow Bath Station Upgrade Visual Impact Assessment* (DesignInc 31 May 2023). Five viewpoints were selected for analysis, capturing key heritage views within the township (Table 8.2). The report concluded that, taking into account the scale of the proposed architectural components and their proximity to existing infrastructure and heritage items, the visual impact on Medlow Bath Station and its surround area would be moderate.

**Table 8.4: Visual impact assessment (DesignInc 31 May 2023)**

| Location | Visual impact rating | Discussion |
|---|---|---|
| View from Station Street looking south toward the proposed bridge. | Moderate-low | The bridge would be located some distance from this vantage point, with a low magnitude of impact. |
| View along the existing footpath, adjacent to Blue Mountains Mazda, looking south towards the proposed bridge | Moderate | The new bridge will be a significant visual intervention, largely obstructing the view to the rail corridor to the east of the highway and cutting across the distant view.<br>Light colours, monolithic appearance and curved loop shape of the bridge blends in harmoniously with the surroundings. The bridge colour of a neutral soft light grey reduces the visibility of the bridge when set against the sky. The transparent mesh screens also reduces the visual bulk. |
| View from the station platform looking north towards the Great Western highway | Moderate-high | A significant portion of the current view composition is occupied by the existing rail and road infrastructure. While the introduction of the new pedestrian bridge would indeed affect this view, considering the presence of the existing infrastructure, the degree of sensitivity to change in this viewpoint would be considered moderate. |

| Location | Visual impact rating | Discussion |
|---|---|---|
| View from Railway Parade, adjacent to the cafe, looking south towards the station and proposed bridge | Moderate | This viewpoint is representative of a number of views from the residences and local businesses along Railway Parade.<br>Addition of new built elements would have an impact on the visual connection to the green backdrop, making the view more responsive to modifications.<br>The proposed design spans only the Great Western Highway and is separate from the rail infrastructure. The bridge will be positioned at a considerable distance from this viewpoint, with a low magnitude of impact. However the new footpath and railings, along with the removal existing vegetation will contribute to the magnitude of change. Therefore, the overall change within this view would be moderate. |
| View along the Great Western Highway adjacent to the Hydro Majestic, looking north towards the proposed bridge | Moderate | The bridge stands out as a prominent architectural feature due to its scale. The bridge colour of a neutral soft light grey responds directly to the Hydro Majestic and reduces the visibility of the bridge when set against the sky. The visual bulk is further reduced with the usage of transparent mesh. The proposed bridge structure will serve as a distinct landmark when traveling along the Great Western Highway, contributing to the character of the area. |

## 8.4 Overview of heritage impact

The following questions are required to be addressed in a SOHI, as established in the publication *Statements of Heritage Impact* (Heritage Office and Department of Urban Affairs & Planning 1996, revised 2002).

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

- The footbridge extent has been limited to only span the Great Western Highway and is separate from the rail infrastructure and heritage station precinct.
- Retaining significant components while upgrading the station to comply with safety and DSAPT requirements, enables the continued use of the station.
- Upgrading the existing northern station entrance with DDA compliant stair and lift retains the functionality of the 1902 footbridge and historic station approach.
- Retention and upgrading of garden planters along the platform retains the overall visual character of the station.
- Upgrades to the communications facilities in the former Station Master's Office of the platform building, which has previously been heavily modified, confines impact to previously impacted areas.
- Material palette and design taking cues from the surrounding context to ensure upgrades are as least visually intrusive as possible.
- Adaptive reuse of the former signal box ensures long term maintenance of an otherwise disused element of rail infrastructure.

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

- While no significant views and vistas are formally identified for the heritage item, the visual connection between the historic elements of the Medlow Bath precinct form an interrelated cultural landscape. The introduction of a new built form of this scale immediately adjacent to the heritage item has a direct impact on the urban visual landscape in which the heritage item sits. This visual impact has been mitigated to some degree through the bridge's design form and materials that respect the bridge's surroundings while clearly providing visual separation between old and new (see *Medlow Bath Station Upgrade Visual Impact Assessment* (DesignInc 31 May 2023)). The new footbridge also provides a vantage point from which to view some of the surrounding heritage items.

- Installation of Installation Main Switch Board (IMSB) within the signal room. The signal room is considered a rare intact example of a separate platform level signal box along Blue Mountains Line. Installation of an IMSB would alter the interior of the signal room, requiring penetrations to the floor and walls and alteration of the door swing. This impact has been mitigated through use of a fire rated cupboard which fits through the current signal room door, removing the need to alter the door size. The signal room has been flagged for adaptive reuse and the proposal is designed to be largely reversible. Further, the reuse of the building ensures that despite being an unmanned station, the building will be maintained.
- Excavation works within the platform for the upgrade of services may impact potential archaeological resources. Recommendations for the management of archaeological potential have been included in this SOHI to minimise impact to potential archaeological resources.

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

- Both a tunnel and pedestrian underpass have previously been explored as alternatives to the pedestrian footbridge. TfNSW workshops determined that an underpass was not a viable option from a public security and customer safety and experience point of view. Further, the tunnel option was also costed by a quantity surveyor and it was determined that the tunnel would cost an additional $24.6M compared to the footbridge option and add six months to the construction program.
- TfNSW also considered a do-nothing option. This option was discounted as a direct, safe access for pedestrians was required across the highway and rail corridors to replace the connection that is currently provided by the pedestrian refuge and level crossing.

## 8.5 Summary of changes in impact between the Great Western Highway REF and the proposal

Overall, impact to Medlow Bath Railway Station has been reduced since the REF was prepared. The proposal for this S60 application has significantly reduced the physical and visual impact to the heritage item. Table 8.3 below summaries these changes in impact between the REF design and amended design.

**Table 8.5: Summary of changes in impact between the Great Western Highway REP and the proposal**

| Proposal element | REF impact | Proposed impact | Discussion |
|---|---|---|---|
| Construction of new pedestrian footbridge. | • Minor adverse physical<br>• Major adverse visual<br>• Moderate to major adverse archaeological | • Little to no physical<br>• Moderate adverse visual<br>• no archaeological | Previously the pedestrian bridge was proposed to span across both the Great Western Highway and Medlow Bath Station requiring four sets of lifts and stairs. The proposed pedestrian footbridge now predominantly lies outside of the SHR curtilage and only spans the Great Western Highway and is separate from the rail infrastructure and heritage station. Additionally, the number of lifts has been reduced with the bridge now comprising a single lift on the western side of the Great Western Highway and a ramp on the eastern side of the highway beside the heritage station. The bridge's scale, form and materiality have changed to reduce visual impact further. |
| Alterations to northern station entrance | • Minor adverse physical<br>• Moderate adverse visual<br>• Little to no archaeological | • Minor physical<br>• Moderate adverse visual<br>• Little to no archaeological | The adaptive reuse of the1901 footbridge is preferential to the closure originally proposed as it keeps the integrity of place and ensures that ongoing maintenance of the structure would occur. Replacement of the non-significant stair and introduction of a lift would have little to no impact on significant fabric. The original brick abutments and main steel trestles would not be impacted. The secondary mid-landing trestle would be removed. |
| Platform upgrades | • Minor adverse physical<br>• Moderate adverse visual<br>• Minor archaeological | • Minor adverse physical<br>• Little to no visual<br>• Minor archaeological | As the pedestrian footbridge no longer spans the station, additional lighting along the platform is not required, significantly reducing visual clutter. |

| Proposal element | REF impact | Proposed impact | Discussion |
|---|---|---|---|
| Railway Parade works | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | Works in the current proposal along Railway Parade largely occur outside of the SHR curtilage and have been reduced as civil works within Railway Parade are largely being carried out under the determined REF. |
| Great Western Highway works | • Little to no physical<br>• Moderate adverse visual<br>• Moderate archaeological | • Little to no physical<br>• Minor adverse visual<br>• Minor archaeological | Works in the current proposal along the Great Western Highway largely occur outside of the SHR curtilage and have reduced in scope to that in the REF due to the reduced scope of the pedestrian footbridge. Size and location of the retaining wall has altered to reduce visual and archaeological impact. |
| Decommissioning and removal of existing level crossing | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to the decommissioning and removal of existing pedestrian level crossing. |
| Electrical upgrade work | • Moderate adverse physical<br>• Moderate adverse visual<br>• Little to no archaeological | • Minor adverse physical<br>• Little to no adverse visual<br>• Minor archaeological | The size and scale of the padmount transformer has been significantly reduced in the current proposal. |
| Relocation of overhead wiring structures (OHWS) | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | N/A | Removed from scope. |
| Underground 11kV aerial line | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | N/A | Removed from scope. |
| Ancillary work | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to ancillary work. |
| Ancillary facilities | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Little to no adverse visual<br>• Little to no archaeological | There have been no changes to the proposed works relating to ancillary facilities. |
| Bus Shelter (potential heritage item) | • Minor physical<br>• Moderate visual<br>• No archaeological | • Minor physical<br>• Moderate visual<br>• No archaeological | No change as the bus shelter will still require relocation. |

| Proposal element | REF impact | Proposed impact | Discussion |
|---|---|---|---|
| Impact to surrounding heritage items | • Little to no physical<br>• Moderate to major adverse visual<br>• Little to no archaeological | • Little to no physical<br>• Moderate adverse visual<br>• Little to no archaeological | The pedestrian footbridge's scale, form and materiality have changed to reduce visual impact to surrounding heritage items. In particular, the footbridge has been designed to respond to its heritage setting and proximity to the Hydro Majestic. It generally will have a smaller footprint and be less visual imposing, further reducing the impact on distant items such as the Former Post and Telegraph and the sandstone railway culvert. |

# 9 RECOMMENDATIONS

RPS has reviewed the heritage significance of the station, its history and relationship with the immediate surrounds and assessed the impact of the proposal. Overall, the proposal would have a **minor direct physical impact**, a **moderate adverse visual impact** and a **minor adverse archaeological impact** to Medlow Bath Railway Station.

Further the Proposal would have generally **little to no direct physical impact**, **moderate adverse visual impact** and **little to no adverse archaeological impact** to heritage listed items in the vicinity. Overall the current proposal has a reduced impact when compared to the original plans presented in the REF especially with regard to the construction of new pedestrian footbridge and alterations to the northern station entrance.

The following mitigation measures are recommended to ensure that the Proposal would not cause any further impact to heritage items than outlined in this report. Failure to implement these measures may result in additional or inadvertent impact to heritage.

### Recommendation 1: Detailed refinement

The detailed design of the Proposal should be overseen by the Heritage Architect and aim to refine and further minimse the impact of the project, with particular reference to:

a. high quality detailing and material selection consistent with the precinct and historic significance of Medlow Bath.

b. All new retaining walls and supporting structures to be integrated, unified in terms of materiality and finish and limit the perception of new work in the station environment. Landscaping should be retained and introduced to further reduce the impact of these elements.

Further additional specific measures are included in Section 9.3 and 9.4 of the Heritage Design Report (Appendix A).

### Recommendation 2: Photographic archival recording

Prior to construction, a photographic archival recording of Medlow Bath Railway Station is to be prepared in accordance with the NSW Heritage Division of the Department of Environment and Heritage guidelines titled "*Photographic Recording of Heritage Items using Film or Digital Capture*". The photographic should be prepared by a heritage consultant and must document significant heritage elements and items that will be impacted by the proposed works. The record should also document significant views and vistas as selected by the heritage consultant.

### Recommendation 3: Heritage Induction

a. Works within the proposal area are being undertaken in an area of heritage significance. Prior to works commencing, contractors shall be briefed as to the sensitive nature of the proposal area and informed of any recommended mitigation measures or controls required

b. Non-Aboriginal heritage awareness training must be provided for all contractors and personnel prior to commencement of works to outline the identification of potential heritage items and associated procedures to be implemented in the event of the discovery of non-Aboriginal heritage materials, features or deposits (that is, unexpected finds), or the discovery of human remains.

### Recommendation 4: Protection of significant fabric

Works should be undertaken with care. To avoid impact to significant fabric during the construction of the proposal, it is recommended:

a. measures, as determined in consultation with a suitably qualified conservation specialist, must be put in place to protect significant fabric during proposed works, especially during bridge construction, resurfacing of the platform, removal of OHWS and installation of electrical pits.

b. machinery should be placed with sufficient clearance to significant heritage structures to avoid any inadvertent harm to significant fabric or incidental damage from vibration. To ensure this, works should be undertaken as per the TfNSW recommended minimum working distances for vibration intensive plant

from sensitive receiver, or as outlined in any Noise and Vibration report undertaken for the proposal. If deemed appropriate, vibration monitoring of works in the vicinity of the Hydro Majestic, should be undertaken.

c. air brick raising and replacement on platform building is to be undertaken by an appropriately qualified bricklayer/builder with expertise in heritage buildings.

d. removal of heritage light poles

   i. heritage light poles temporarily removed from the platform during works should be stored safely and securely on site until reinstated on the platform.

   ii. heritage light poles removed from the decommissioned level crossing should be stored safely in a secure TfNSW facility for future use.

e. Detailed design of ancillary works and electrical and data services should be documented in an *Illustrated Services Plan* and approved by the Heritage Architect prior to the commencement of permanent services works.

   i. installation of electrical and data services is to be completed in accordance with Sydney Trains (2017) *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites*

   ii. Ancillary works should be undertaken in accordance with the following Sydney Trains guidelines:

   – *Conservation Guide: Railway Station Platform Furnishings* (2012)

   – *Conservation Guide: Railway Station Platforms* (2013)

   – *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites* (2017)

   – *Station Components Guide* (2017).

### Recommendation 5: Heritage interpretation

A heritage interpretation plan should be formulated and implemented in accordance with the Heritage NSW, *Interpreting Heritage Places and Items* (Heritage Office (former) 2005) based on the Heritage Interpretation Strategy (see Section 11.0 of the Heritage Design Report in Appendix A). This should be developed in accordance with the Great Western Highway Upgrade Heritage Interpretation Strategy.

Heritage interpretation should communicate the history of Medlow Bath Railway Station and surrounding area, with reference to its identified heritage items, and enable audiences to engage with the significance of the place and the wider context of Medlow Bath and Greater Blue Mountains area. It should be integrated into the broader cultural heritage design and heritage interpretation strategy for the overall Great Western Highway upgrade project.

### Recommendation 6: Management of archaeological potential

The potential for archaeological resources within the proposal area is low to moderate, and the archaeological resources are unlikely to hold research potential. If identified, it is recommended that any archaeological resources are recorded by a suitably qualified archaeologist in accordance with Heritage NSW standards including *How to Prepare Archival Records of Heritage Items* and *Photographic Recording of Heritage Items Using Film and Digital Capture;* however, no further archaeological management is required.

If archaeological resources not identified in the assessment of archaeological potential are identified, the TfNSW (2022) *Unexpected heritage items procedure* should be implemented.

### Recommendation 7: Further assessment required for any design modification

If the proposed works, or proposal area, are modified to those discussed in this report, additional heritage advice may be required to appropriately manage and mitigate any potential impacts caused by these changes.

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# Appendix A TZG Heritage Design Report

Great Western Highway Upgrade

# Medlow Bath Station Upgrade

## Heritage Design Report



NSW GOVERNMENT

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DesignInc

ARENCO

**Prepared by**
**Tonkin Zulaikha Greer Heritage**
**for Transport for NSW**
June 2023

Figure 1:  1930. Aerial view of Medlow Bath, New South Wales, ca. 1930, 1. Fairfax Corporation.

Source: National Library of Australia, https://nla.gov.au/nla.obj-162354898/view?searchTerm=Medlow+bath#search/Medlow%20bath

## ACKNOWLEDGEMENT OF COUNTRY

Transport for NSW and the project team acknowledge the traditional owners and custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today - from rail lines, to roads, to water crossings - follow the traditional Songlines, trade routes and ceremonial paths in Country that our nations's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.


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# Contents


1. Introduction 01

1.1 Project Overview 02
- 1.1.1 Background 02
- 1.1.2 Report Purpose 02
- 1.1.3 Key Stakeholders 03
- 1.1.4 Authorship 03

1.2 Methodology and Terminology 03

1.3 The Study Area 04

1.4 Existing Features 05

1.5 Issues with Existing Arrangement 05

1.6 Future Desire Lines 06

1.7 Design and Optioneering Time Line (to date)06

2. Historical Context 07

2.1 Historical Context 08
- 2.1.1 History of Changes to Existing Footbridge 20

2.2 Current Situation 22
- 2.2.1 Medlow Bath Railway Station 22
- 2.2.2 West of Great Western Highway 24
- 2.2.3 East of the Great Western Highway 28

3. Heritage Significance 29

3.1 Statutory Context 31
- 3.1.1 World Heritage Convention 31
- 3.1.2 Environment Protection and Biodiversity Conservation Act (Cth) 1999 31
- 3.1.3 Heritage Act (NSW) 1977 31
- 3.1.4 Environmental Planning and Assessment Act 1979 31

3.2 Heritage Listing Summary 32
- 3.2.1 Statutory Listings 32
- 3.2.2 Non Statutory Listings 32
- 3.2.3 Heritage Items in the Vicinity 32
- 3.2.4 Potential Heritage Items 32
- 3.2.5 Summary of Heritage Items 33

3.3 Heritage Listings 34
- 3.3.1 State Heritage Register Listing - Medlow Bath Railway Station - SHR # 0119034
- 3.3.2 TAHE S170 Listing - Medlow Bath Railway Station - Place ID 4801011 35
- 3.3.3 Blue Mountains LEP 2015, Schedule 5 Listing - Medlow Bath Railway Station - MB003 36

3.4 Heritage Listings for Heritage Items in the Vicinity of the site 37
- 3.4.1 Blue Mountains LEP 2015, Schedule 5 Listing - Hydro Majestic - MB002 37
- 3.4.2 Blue Mountains LEP 2015, Schedule 5 Listing - Former post and telegraph store and interiors - MB008 38
- 3.4.3 Blue Mountains LEP 2015, Schedule 5 Listing - Avenue of Radiata Pines - MB0015 39
- 3.4.4 Blue Mountains LEP 2015, Schedule 5 Listing - Urunga - MB0017 39
- 3.4.5 Blue Mountains LEP 2015, Schedule 5 Listing - Melbourne House, Cosy Cot, Sheleagh Cottage - MB0019 39
- 3.4.6 Blue Mountains LEP 2015, Schedule 5 Listing - Medlow Bath Hydro Majestic original walking track complex Conservation Area - MB0026 40
- 3.4.7 Potential Heritage Items 41

3.5 Intangible Heritage 42

4. Constraints and Opportunities 43

4.1 Overview 44

4.2 Heritage Significance 44
- 4.2.1 Conservation Principles 44
- 4.2.2 Integrity and Physical Condition 44
- 4.2.3 Opportunities arising from heritage significance 44

4.3 Key Heritage Considerations 45
- 4.3.1 The Greater Blue Mountains Area 45
- 4.3.2 Medlow Bath Railway Station 45
- 4.3.3 Hydro Majestic Hotel 45
- 4.3.4 Former Post and Telegraph Store 45
- 4.3.5 Avenue of Radiata Pines 45
- 4.3.6 Urunga 45
- 4.3.7 Melbourne House, Cosy Cot, Sheleagh Cottage 45
- 4.3.8 Medlow Bath Hydro Majestic original walking track complex. Conservation Area 45
- 4.3.9 Potential Heritage Items 45
- 4.3.10 Integrity and Physical Condition 46
- 4.3.11 Constraints Arising from Heritage Significance 46
- 4.3.12 Significant views 46
- 4.3.13 Opportunities Relating to Design 47

4.4 Site Analysis - Historic Context 48
- 4.4.1 Upper Blue Mountains 48
- 4.4.2 Medlow Bath 48
- 4.4.3 Design in Context 48

4.5 Heritage Interpretation 61
- 4.5.1 Historic Themes 61
- 4.5.2 Great Western Highway Upgrade Project Interpretive Framework 61
- 4.5.3 Historic Themes identified in Heritage Listings 61
- 4.5.4 GWHUP Aboriginal Cultural Design Principles 61
- 4.5.5 Interpretive Media Options 62

4.6 Great Western Highway Urban Design Framework 64
- 4.6.1 GWH Urban Design Vision 64
- 4.6.2 GWH Urban Design Objectives and Principles 64
- 4.6.3 Design of Key Project Elements 65

4.7 Medlow Bath Urban Design Framework 66
- 4.7.1 Project Specific Design Vision 66

4.8 Sustainable Design 66

4.9 Technical Constraints and Opportunities 67

5. Previous Options Considered 71

5.1 Background 72
- 5.1.1 At Grade Signalised Crossing 72
- 5.1.2 Diversion to Station Street 72
- 5.1.3 Northern Bridge Diversion 73
- 5.1.4 Pedestrian Underpass 73
- 5.1.5 Pedestrian Bridge 74
- 5.1.6 The Preferred Strategic Option 74

5.2 Concept Design Options 75
- 5.2.1 Design requirements 75
- 5.2.2 Location considerations 75
- 5.2.3 Choosing a bridge form 75
- 5.2.4 Preferred Concept Option 76

5.3 Development of Previous Preferred Concept Option 77
- 5.3.1 Design Development 77
- 5.3.2 Consultation 77

5.4 Other Options Considered 80

6. Heritage Design Principles 83

6.1 Heritage Design Principles 84
- 6.4.1 Character 84
- 6.4.2 Scale 84
- 6.4.3 Form 85
- 6.4.4 Siting 85
- 6.4.5 Materials and colour 85
- 6.4.6 Detailing 85

7. Precedents 87

7.1 Precedents 88
- 7.1.1 Historic Bridges 88
- 7.1.2 Contemporary Bridges 89
- 7.1.3 International Examples 91

8. New Options 93

8.1 Introduction 94

8.2 Options 95
- 8.2.1 Option 1 - Split Bridge 96
- 8.2.2 Option 2 - Curved Bridge 98
- 8.2.3 Option 3 - Half Bridge 100
- 8.2.4 Option 3B - Half Bridge - Weathering Steel 103
- 8.2.5 Options Comparison - Testing against Heritage Design Principles 104

8.3 Community Consultation 106

8.4 Heritage Council of NSW Subcommittee Feedback 106

8.5 MCA Criteria Analysis 107

8.6 Design Development 107

9. Preferred Option 109

9.1 Proposal Summary 110
- 9.1.1 Proposed Works 110
- 9.1.2 Architectural Design Description 111
- 9.1.3 Architectural Intent 111

9.2 Design in Context Response 114
- 9.2.1 Testing the Proposal against the Heritage Design Principles 114

9.3 Design Recommendations 116

9.4 Heritage Opportunity Works 116

9.5 Next Steps 116

10. Appendices 117

10.1 References 118

10.2 Project Timeline 119

10.3 Summary of Heritage Specialist Involvement 122

11. Interpretation Strategy 123

11.1 Introduction 124
- 11.1.1 Project Brief 124
- 11.1.2 Report Purpose 124
- 11.1.3 Stakeholder Consultation 124
- 11.1.4 Key References 124
- 11.1.5 Methodology and Terminology 124

11.2 Target Audience 125

11.3 Opportunities 125

11.4 Constraints 125

11.5 Historic Themes 126
- 11.5.1 Great Western Highway Upgrade Project Interpretive Framework 126
- 11.5.2 Historic Themes identified in Heritage Listings 126
- 11.5.3 GWHUP Aboriginal Cultural Design Principles 127

11.6 Interpretive Media Options 128
- 11.6.1 GWHUP Aboriginal Heritage Cultural Interpretation Plan 128
- 11.6.2 GWHUP Non Aboriginal Interpretive Framework 128
- 11.6.3 Interpretive Media Options 128

11.7 Interpretation Framework 130

11.8 Interpretation Strategy 138

11.9 Interpretation Summary 140

11.10 Implementation 144
- 11.10.1 Funding 144
- 11.10.2 Skills 144
- 11.10.3 Timeframe 144
- 11.10.4 Management 144

Figure 2: c1906. American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Railway Station by Mark Foy.

Source: Blue Mountains City Library, Item no. 000837, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012025/0.

# 1.0
# Introduction

# 1.1 Project Overview

## 1.1.1 Background

### Great Western Highway Upgrade

Transport for NSW (TfNSW) is proposing to upgrade a 1.2 kilometre section of the Great Western Highway at Medlow Bath, between Railway Parade and around 330 metres south of Bellevue Crescent (the proposal). The upgrade will provide a safer, more efficient link between Central West NSW and the Sydney Motorway network. Key features of the project include:

- upgrade of the existing highway to a four-lane divided carriageway allowing for two lanes of traffic in each direction, either side of a central median with planted trees
- upgrade of the Bellevue Crescent intersection with new turning lanes, U-turn bay and traffic signals
- a new right turn lane providing access to the Hydro Majestic Hotel
- improvements on Railway Parade to formalise parking provisions, U-turns and rail customer parking
- new indented bus bays on both sides of the highway close to Medlow Bath Railway Station
- construction of a new pedestrian bridge, stairs and lifts to provide an accessible path of travel between the bus bays, the Medlow Bath Railway Station platforms and Railway Parade
- new shared path for pedestrians and cyclists on the western side of the highway
- ancillary works such as the replacement of road surfaces, reconstruction works associated with local roads, driveways, footpaths, kerbs, gutters and retaining walls, drainage works and relocation of services.

Construction of the proposal is anticipated take around 20 months to complete, weather permitting.[1]

The proposal is located about 115 kilometres west of Central Station in the Blue Mountains local government area (LGA). The Great Western Highway at Medlow Bath follows a narrow and difficult alignment constrained by the Blue Mountains National Park, steep topography, a railway line and existing villages for which the

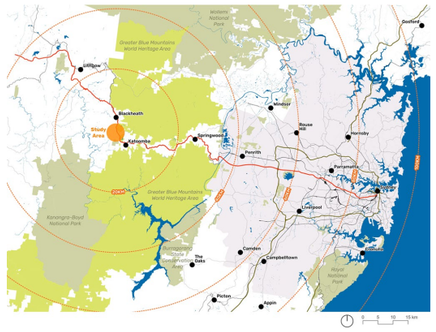



Figure 3: Location of the proposal.

Source: Great Western Highway Upgrade Medlow Bath Review of Environmental Factors, p.23.

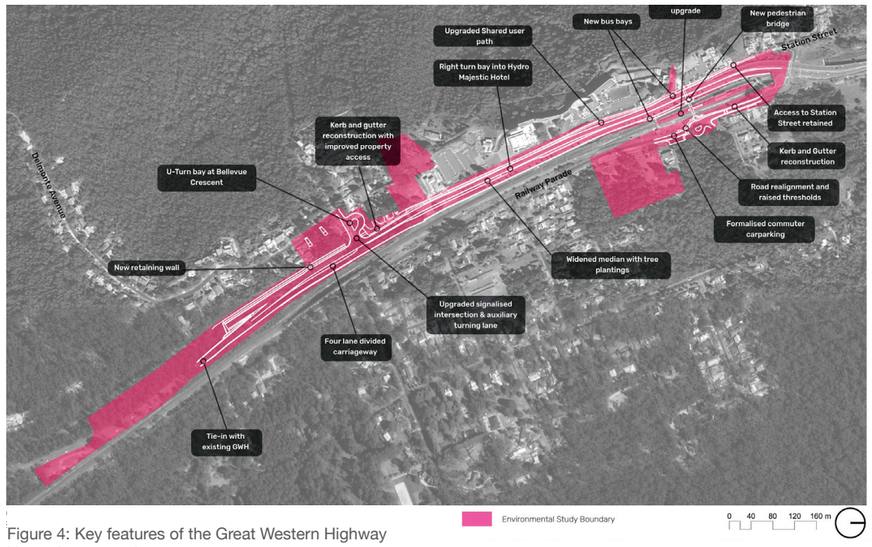



Figure 4: Key features of the Great Western Highway Upgrade proposal.

Source: Spackman Michaels Mossop 2021.

1: MRB Technical Services and Transport for NSW, Great Western Highway Upgrade - Medlow Bath Review of Environmental Factors (REF) July 2021.
2: Weston Williamson + Partners, Great Western Highway Upgrade Program - Medlow Bath Preferred Concept Design, Detailed Design and REF, September 2021.

### Accessibility Upgrade

Additionally, the opportunity has been recognised to deliver an accessibility upgrade to Medlow Bath Railway Station as part of TfNSWs commitment to delivering accessibility upgrades throughout the NSW rail network to ensure compliance with the Disability Standards for Accessible Public Transport 2002 (DSAPT) and the Disability Discrimination Act 1992 (DDA).

The station access component of the wider project is the focus of this Heritage Design Report. This scope includes the removal of the existing pedestrian level crossing south of the station platform and the construction of a new footbridge to provide DSAPT compliant access to the station from both the highway side and Railway Parade.

### Scope of Works

Key elements of the scope for the Medlow Bath station upgrade include:

- Pedestrian footbridge with lifts connecting Railway Parade, the station and the eastern part of Medlow Bath
- Decommission existing pedestrian level crossing in line with government policy to improve public safety
- Upgrade station electrical infrastructure
- Relocate four OHWS stanchions to facilitate the construction of new footbridge and lifts
- Underground 11kV aerial power lines to improve maintenance access and minimise visual impact
- Upgrade existing communications & security infrastructure of the station
- Regrade and resurface the platform to improve customer experience
- Upgrade wayfinding at the station to comply with station wayfinding guidelines.

### Heritage

Medlow Bath is rich in Aboriginal and non-Aboriginal heritage significance. The proposal should aim to protect, minimise impacts on, and promote, the heritage values of the place in addition to complying with all statutory requirements.

Heritage listed items in and around the site include items of World, National, State and local heritage significance which are listed on the following heritage registers:

- The UNESCO World Heritage List
- The NSW State Heritage Register
- State Agency s170 Heritage and Conservation Registers
- Blue Mountains Local Environmental Plan 2015
- The NSW Aboriginal Heritage Information Management System (AHIMS).

There is also potential for further items of archaeological heritage significance to be located sub-surface.

The project needs to consider the heritage conservation and archaeological management plans that apply to items within the immediate vicinity of the site.

## 1.1.2 Report Purpose

Heritage considerations should underpin the development of options for accessibility upgrades at Medlow Bath. This report aims to gather all relevant heritage information related to the site and to establish a heritage framework that will inform the design of the pedestrian link. It includes a review of the history and significance of the site, identifies heritage constraints and opportunities and provides guidelines for the design of new elements within this highly significant heritage context, with a focus on built heritage. The Heritage Design Principles aim to minimise impacts on significant fabric, setting and views.

### 1.1.3 Key Stakeholders

Consultation with key stakeholders has informed the preparation of this report including representatives from:

- Transport for NSW
- NSW Heritage Council Approvals Committee
- Blue Mountains City Council and
- The local community.

### 1.1.4 Authorship

This report builds on the extensive archive of reports and studies, prepared by others, related to Medlow Bath Railway Station and its surrounds, which are listed in the Reference section of this report.

Tonkin Zulaikha Greer Heritage have prepared this report, on behalf of Arenco, for Transport for NSW.

TZG wish to acknowledge inputs from the project team including:

- TfNSW
- Design Inc
- GHD
- Arenco.

## 1.2 Methodology and Terminology

### Methodology

This Heritage Design Report has been prepared in accordance with the following guidelines and requirements:

- *Environment Protection and Biodiversity Conservation Act*,1999 (*EPBC Act*)
- *NSW Heritage Act 1977*;
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013*, (The Burra Charter); and

Blue Mountains City Council LEP and DCP.

### Heritage Conservation

Heritage conservation is the process of looking after important places so that their heritage values can be passed on to future generations. The Burra Charter provides a set of principles that guides conservation work in Australia. It advocates a cautious approach to change - to do as much as necessary to care for a place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained. If changes are made to a place, they should ideally be reversible, as once original fabric is gone it is lost forever.

A key principle of heritage conservation is the importance of understanding the significance of a place before making any decisions about its future. This ensures that the assessment process is as objective as possible and is based only on the intrinsic qualities of the place itself. It also ensures that work on heritage items is designed to retain the significance of the place.

### Cultural significance

Cultural significance is defined by *The Burra Charter* as the aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.

The level of significance of a place and the type of impact proposed affects the statutory planning approval pathway of a project and the input required from a specialist heritage consultant. Heritage items can be of national, state or local significance.

### The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013

In order to achieve a consistency in approach and understanding of the meaning of conservation by all those involved, a standardised terminology for conservation processes and related actions has been adopted. The terminology in *The Burra Charter* is a suitable basis for this.

The following terms apply to the historic fabric of the site and are included here to assist in understanding of the intent of the conservation requirements in this section.

*Place* means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

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

*Fabric* means all the physical material of the place including components, fixtures, contents, and objects.

*Conservation* means all the processes of looking after a place so as to retain its cultural significance.

*Maintenance* means the continuous protective care of the fabric and setting of a place, and is to be distinguished from repair.

*Repair* involves restoration or reconstruction.

*Preservation* means maintaining the fabric of a place in its existing state and retarding deterioration.

*Restoration* means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

*Reconstruction* means returning the place to a known earlier state and is distinguished from restoration by the introduction of new material.

*Adaptation* means modifying a place to suit the existing use or a proposed use.

*Use* means the functions of a place, as well as the activities and practices that may occur at the place.

*Compatible use* means a use, which respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance.

*Setting* means the area around a place, which may include the visual catchment.

*Related place* means a place that contributes to the cultural significance of another place.

*Interpretation* means all the ways of presenting the cultural significance of a place.

### Limitations

Assessments of cultural significance made by others have been adopted for certain items in this report. In the opinion of the authors, the recommendations in this report would not be materially altered by any further primary research.

### Abbreviations

| | |
|---|---|
| AHIMS | Aboriginal Heritage Information Management System |
| ARHS | Australian Railway Historical Society (NSW) |
| BMCC | Blue Mountains City Council |
| CMP | Conservation Management Plan |
| GWH | Great Western Highway |
| GWHUP | Great Western Highway Upgrade Project |
| HIP | Heritage Interpretation Plan |
| REF | Review of Environmental Factors |
| S60 | Section 60 approval under the NSW Heritage Act 1977 |
| SHR | State Heritage Register |
| SOHI | Statement of Heritage Impact |
| TfNSW | Transport for NSW |
| TZG | Tonkin Zulaikha Greer Architects |

## 1.3 The Study Area

The study area comprises the entire curtilage of the State heritage listed Medlow Bath Railway Station and spans across the Great Western Highway to the west and to a site located to the north of the Hydro Majestic Hotel.




Figure 5: Medlow Bath Aerial Map.
Source: Nearmaps.



Figure 6: Study Area outlined in dashed orange.
Source: Nearmaps.

## 1.4 Existing Features

The existing access across the Great Western Highway and Western Railway Line occurs at several locations within the township of Medlow Bath. These existing facilities link transport elements such as bus stops and the Medlow Bath Railway Station with the adjoining local footpath network. These paths provide formal and informal connections to Medlow Bath Park, commercial operations such as the Hydro Majestic, Mazda dealership, United Service Station and a Tournament Café in Railway Parade.

The existing access comprises:

- A 1.2m wide footpath along the western side of the highway
- An existing at grade pedestrian crossing with small central refuge island on the highway
- Pedestrian level crossing at the southern end of the platform at Medlow Bath Railway Station which provides connection between the highway and Railway Parade and the station platform via a steep ramp
- Access to the northern end of the platform via a pedestrian bridge and stairs. The bridge also provides access between the eastbound side of the highway and Railway Parade
- Signalised pedestrian crossing at the intersection of the highway and Railway Parade/Station Street
- A westbound bus stop on the highway south of the Hydro Majestic Road bar
- An eastbound bus stop on the highway at the station
- A school bus stop on Railway Parade opposite the station.[3]

## 1.5 Issues with Existing Arrangement

The existing access arrangement has several deficiencies in the current two-lane configuration that could not support the planned four lane highway configuration to be delivered as part of the Great Western Highway Upgrade Program (GWHUP). The following deficiencies and issues are noted:

- The existing highway pedestrian refuge is substandard and has a crash history which includes crashes involving pedestrians. The refuge is the priority location used for pedestrian access across the highway in the community, so safety incidents involving traffic would continue to occur and likely increase in frequency over time as growth occurs.
- The existing at grade pedestrian refuge connects at a constrained section of the highway corridor between rail and the local heritage listed Hydro Majestic Road Bar. The provision of four lanes plus the refuge would require direct impact on the rail corridor or the Hydro Majestic Road Bar structure due to the limited corridor width at this location.
- The pedestrian level crossing across the railway tracks has a documented history of reported rail safety incidents involving pedestrians and trains. The removal of at grade level crossings is a priority initiative of Transport for NSW to improve railway safety.
- The gradient of the ramp that connects the rail level crossing and the platform does not meet current accessibility standards. The station is not currently accessible or compliant with Disability Standards for Accessible Public Transport (DSAPT) requirements.
- The bridge at the northern end of the platform does not meet current accessibility standards as it only provides stair access (no mobility provisions). The northern bridge is also located away from the desire line for most users, as such its use is limited to pedestrians accessing the Café, Station Street or Coachhouse Lane. There is no defined footpath on Railway Parade south of the existing footbridge, and uncontrolled parking occurs along this area. Formalised commuter parking is not provided at Medlow Bath Railway Station.
- The existing school bus stop was placed in Railway Parade in response to safety concerns with students accessing buses on the highway. This stop prevents students exchanging between buses from having to cross the highway.
- Existing bus stops are substandard facilities that are located on routes that have accessibility restrictions in all paths of travel to the Medlow Bath Railway Station.
- Via level crossing – varies between 140m and 200m to centre of platform.
- Via northern bridge – varies between 194m and 399m to centre of platform.
- Via Station Street TCS – up to 575m to centre of platform.
- Tourism and inter village active transport connections with the Great Blue Mountains Trail are limited, with few reasons or opportunities to cross to the eastern side of Medlow Bath. The railway line and the highway create elements that in lieu of improved connection creates a barrier that limits the urban amenity of eastern parts of Medlow Bath.[4]

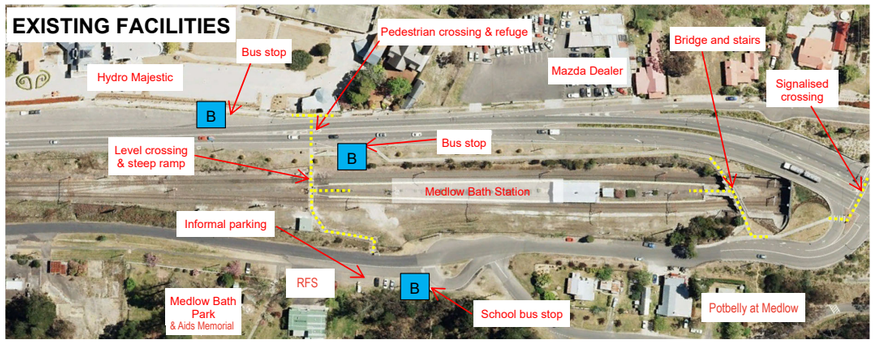



Figure 7: Existing transport facilities and features.
Source: TfNSW.

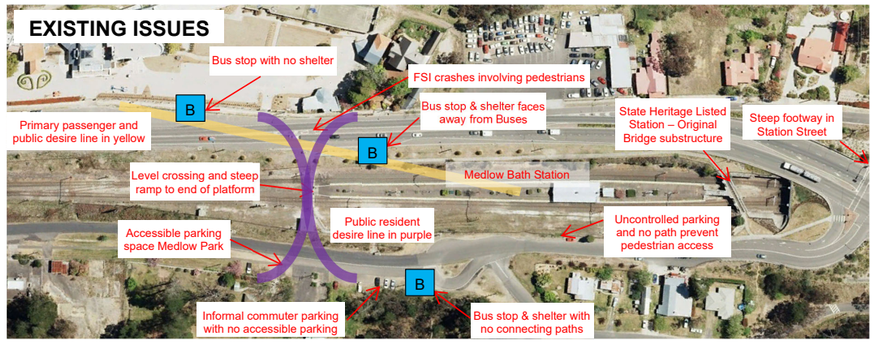



Figure 8: Existing transport related desire lines.
Source: TfNSW.

3: TfNSW, Medlow Bath Pedestrian Bridge, Optioneering report, November 2021 | Version: 3, p.6.

4: TfNSW, Medlow Bath Pedestrian Bridge, Optioneering report, November 2021 | Version: 3, pp.7-8.

## 1.6 Future Desire Lines

New crossings of both the highway and railway would be required to serve multiple desire lines in the future state. Upgrades would need to facilitate crossing of four lanes, improve pedestrian connectivity, improve urban amenity and improve transport access over both road and rail corridors for people of all abilities.

The southern end of the station platform is the area that remains common to most projected desire line paths in the future state. While the northern bridge and signals at Station Street may attract some pedestrians, the difficulties on this route would be much less desirable to users of all abilities. Regardless of engineering design options, the dominant public desire lines will remain towards the south end of the station.

The Great Western Highway Upgrade Program aims to upgrade the Great Blue Mountains Trail to a higher standard active transport link between Katoomba and Blackheath as part of implementing NSW Government and BMCC strategic plans. Specifically, Project 7 of the NSW Government Sydney's Western Green Grid Strategy aims to create a major east-west link between Penrith and Blackheath, while Action 2 and 6 of Councils Integrated Transport Strategic Plan both aim to separate users from traffic with dedicated facilities.

Future new pathway connections between Medlow Bath and Blackheath on the eastern side of the railway, would connect with Park Street feeding these active transport users through the Medlow Bath Railway Station precinct to reach the western side of the Great Western Highway.[5]

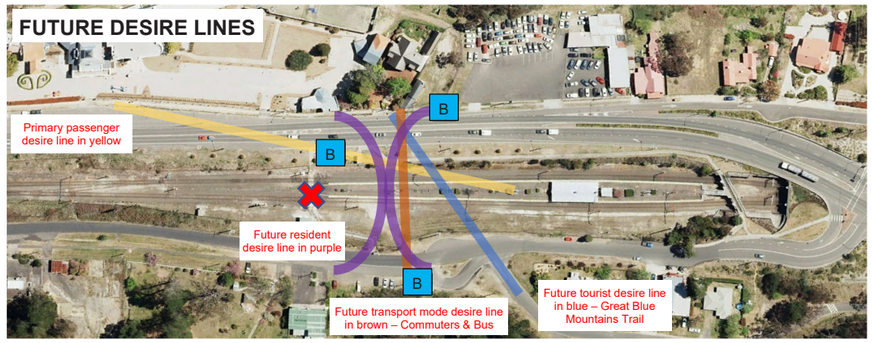



Figure 9: Future transport precinct desire lines.
Source: TfNSW.

5: TfNSW, Medlow Bath Pedestrian Bridge, Optioneering report, November 2021 | Version: 3, p.10.

## 1.7 Design and Optioneering Time Line (to date)

The flow chart below summarises the design and optioneering that has occurred prior to the preparation of this report. For a full history refer to the Optioneering Report prepared by TfNSW in November 2021 which is summarised in Section 5 of this report.

**Highway upgrade**

How do we improve pedestrian amenity and bring it up to today's standards?

↓

Analysis of GWHUP design requirements and future desire lines

↓

**Strategic Design Approach**

How do pedestrians interact with the highway and railway line?

| At-grade signalised crossing | Diversion to Station Street | Northern Bridge Diversion | Pedestrian Underpass | Pedestrian Bridge |
|---|---|---|---|---|

↓

**Preferred Strategic Option**

Pedestrian Bridge

↓

**Detailed design development of new pedestrian bridge**

Ongoing concern from stakeholders regarding design progress

↓

**HERITAGE DESIGN FOCUS**

| Develop a detailed understanding of place | Draft key heritage design principles | Develop a contextually appropriate response |
|---|---|---|

↓

**NEXT STEPS**

New designs developed

Figure 10: 1926. Detail of Parish Map.
Source: SIX Maps, available online.

# 2.0
# Historical Context

## 2.1 Historical Context

The following historical chronology is based on the history contained in the *Great Western Highway upgrade - Medlow Bath Railway Station (SHR 01190)* prepared by RPS Group in 2021, *Hydro Majestic Hotel Conservation Management Plan* prepared by Graham Brooks & Associates in 2010 along with additional research. Events directly related to Medlow Bath Railway Station are highlighted in orange.

| YEAR | EVENT |
|---|---|
| Pre 1788 | Home of many autonomous Aboriginal groups who lived and moved around the region including the Wiradjuri, Gundangarra and Dharug. |
| | **European Crossing of the Blue Mountains (1815 onwards)** |
| 1813 | Gregory Blaxland, William Lawson and William Charles Wentworth partly crossed the mountains, assisted by local guide James Burnes and four convict servants. |
| 1814 | William Evans, surveyor, first European to cross the Great Dividing Range. |
| 1814-1815 | William Cox led construction of a road across the mountains to Bathurst. Commenced 18 January 1814, completed 14 January 1815. |

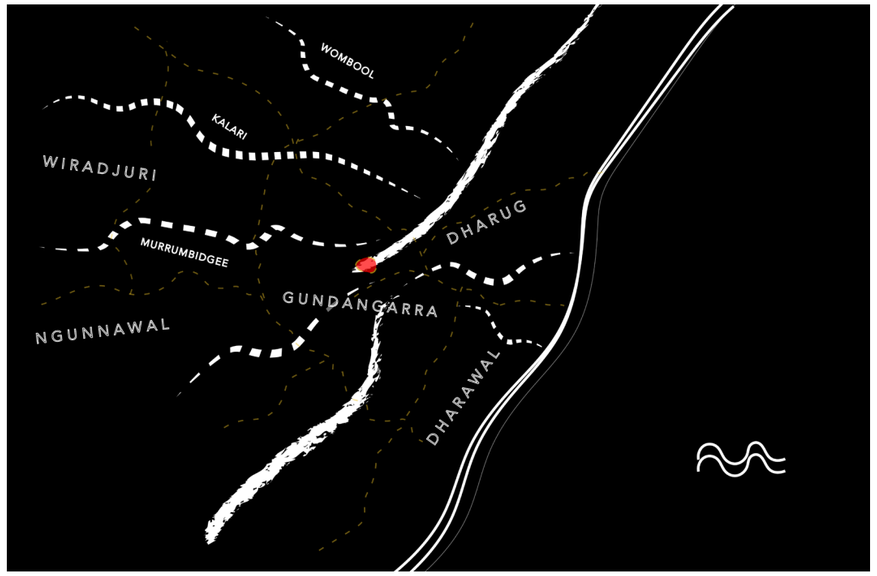



Figure 12: Aboriginal songlines. Sketch by Craig Kerslake.
Source: Nguluway DesignInc, 2022.




Figure 13: 1820. R. Havell & Son & Lewin, J. W & Oxley, John. A native chief of Baturst [i.e. Bathurst].
Source: NLA, https://nla.gov.au/nla.obj-135691441/view



Figure 11: Megalong Valley.
Source: https://bluemountains-australia.com/blue-mountains-destinations/megalong-valley/



Figure 14: 1811-1826. Suveyor's compass from the family of Gregory Blaxland, Joseph Smith, Maker.
Source: : SLNSW, https://collection.sl.nsw.gov.au/record/9qoQBk51/

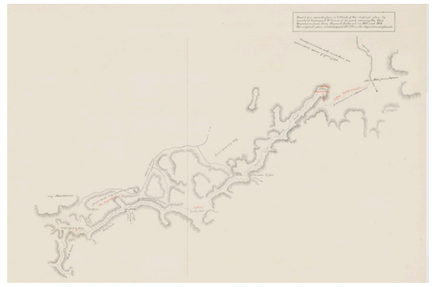


Figure 15: 1814. Survey by GW Evans showing the road over the Blue Mountains.
Source: SLNSW, https://collection.sl.nsw.gov.au/digital/EDMGeKw83bM4V



Figure 16: c.1815-1816. Cox's Pass with Expedition resting (PXE 888/7), in Blue Mountains, ca. 1815-1816] / watercolour drawings by John William Lewin.
Source: SLNSW, https://collection.sl.nsw.gov.au/digital/gxg7ajDPkEWrp



Figure 17: c1815. [Convicts building road over the Blue Mountains, New South Wales, 1833] [picture] / Chs. Rodius.
Source: NLA, PIC Drawer 3842 #T2083 NK9673, https://nla.gov.au/nla.obj-135505644/view



Figure 18: 1830. New line cleared of trees 31/7/1830, in Illustrations from Progress in Public Works & Roads in NSW, 1827-1855 / Sir Thomas Mitchell
Source: SLNSW, https://collection.sl.nsw.gov.au/digital/gwaygV0QZPaKp



Figure 19: c1831. Drawings of Sydney and New South Wales / Robert Marsh Westmacott
Source: SLNSW, https://collection.sl.nsw.gov.au/digital/Z8NQMlzz5wADJ

| YEAR | EVENT |
|---|---|
| | **The Main Western Line (1850-1870)** |
| 1863 | Opening of the Main Western line to Penrith. |
| 1868 | Opening of the railway line between Katoomba and Blackheath. |
| 1881 | Halt stop known as ‘Brown’s Siding’ (adjacent to Brown’s Sawmill Siding) was established at Medlow Bath, including 30 metre long timber platform on down side of single line. (SHR 01190. MB003) |




Figure 20: c1855-1925. The Explorers Tree, Katoomba, PART OF Broadhurst collection of postcards of New South Wales scenes.

Source: SLNSW, PXA 635/371-403, https://collection.sl.nsw.gov.au/digital/rbWKvjvPlBKr7



Figure 21: 1860. Our trip to the Blue Mountains, N.S.W. / by Mrs B. H. Martindale [Mary Elizabeth Martindale]

Source: SLNSW, https://collection.sl.nsw.gov.au/record/9Na6pVWY/EVwDzmM6LDogj



Figure 22: 1830-1855 [Sir Thomas Mitchell sketches and watercolours of New South Wales / drawn by Sir T. L. Mitchell]

Source: SLNSW, DL PXX 20, IE3250597.




Figure 23: 1863-67. Bolt from the first railway track across the Blue Mountains.

Source: MAAS, https://collection.maas.museum/object/354671#&gid=1&pid=1, short URL: https://ma.as/354671, Object No. 2005/248/1

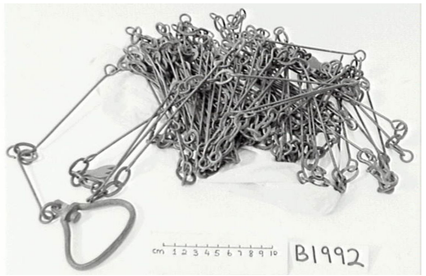



Figure 24: Surveyor’s or Gunter’s chain made by James Chesterman and Co.

Source: MAAS, https://collection.maas.museum/object/210358

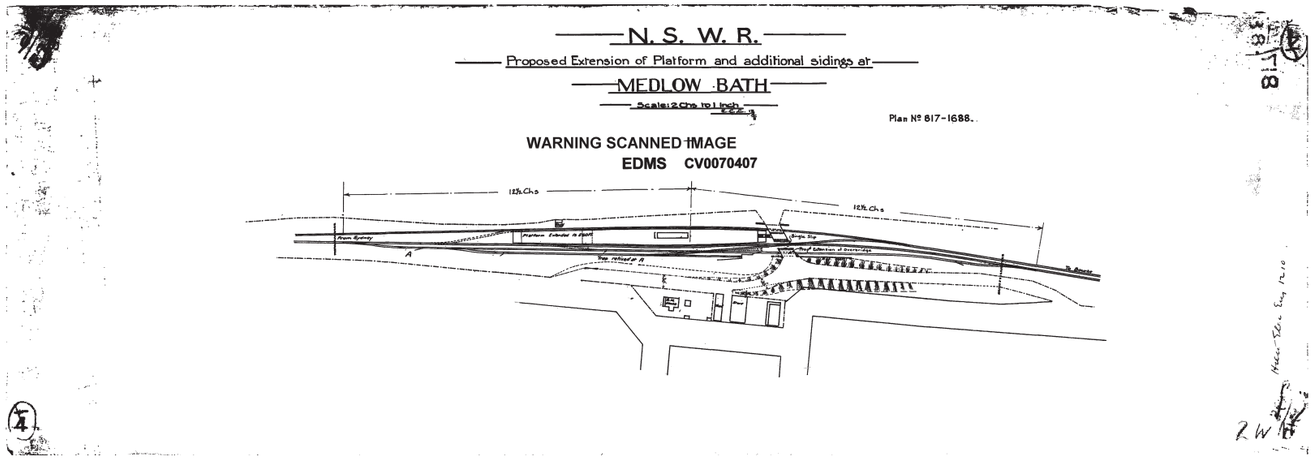



Figure 25: Post 1902. Proposed Extension of platform and additional sidings at Medlow Bath.

Source: Transport NSW

| YEAR | EVENT |
|---|---|
| | **Establishment of Township of Medlow Bath (From 1881)** |
| | Little known prior to development of Railway. Township divided in two by highway and railway line. Parish of Blackheath to east and Kanimbla to west. |
| 1883 | Halt stop renamed 'Medlow' to avoid confusion with Brown's Siding in Lithgow. |
| 1886 | Crown grant comprising Portion 56 in Parish of Kanimbla, made to William Renton. Purchased by Thomas Smith Richardson of Richardson and Wrench, estate agents shortly after. |
| | **Land Sales and Subdivision (1890-1922)** |
| 1890 | Crown land sales to east of railway small lots, with larger lots west of the railway. Medlow boasted a railway station, sawmill, Lauraville Orchard and a few residences at this time. |
| 1890s | Development of Medlow in the 1890s hinged on the subdivision of two estates. These were the Belgravia Estate owned by Thomas Smith Richardson and the Buckingham Park Estate owned by William Eyre. |
| 1891 | Belgravia Hotel opened on 9 May as a family hotel. Built by Henry James Weine and designed by Charles Slatyer. 1891 Belgravia Hotel purchased by Elizabeth Ellis. |
| 1892 | William Henry Hargraves, Chief Clerk in Lunacy (from 1879), Chief Clerk in Equity (from 1885) and Deputy Registrar of the Equity Court (from 1890), purchased a number of allotments in 1892 and 1894. |
| 1895 | Brown's sawmills no longer located adjacent to station. |
| 1893/4 | Construction of Hargraves' house. |
| 1898 | Construction of large scale western addition to Hargraves' house |
| 1899 | Alterations made to railway station buildings. |




Figure 26: 1890. Detail of Kanimbla Parish Map.
Source: NSW Land Registry, https://hlrv.nswlrs.com.au



Figure 27: c1880-1900. Scenery near Wentworth Falls, Henry King.
Source: Henry King Photographs from the Tyrrell Collection, MAAS Powerhouse Collection, https://collection.maas.museum/object/31073.



**Medlow.**

FROM OUR OWN CORRESPONDENT.

The new railway township, as it is called, is at last showing signs of activity. Mr. W. Eyre's estate, Buckingham Park, is a choice number of allotments for building and now that the streets are cleared will command a lot of attention from purchasers of mountain ground. The new hotel is fast going up on Mr. T. Richardson's, Belgravia Estate. It will be a splendid building and will be fitted up in the latest style, be lit by electric light, and have a good supply of pure spring water. Arrangements have been made by which those building here can obtain electric light and water from the hotel and it is thought this will induce people to build here, in preference to other mountain resorts.

Among the settlers here is Mr. C. Wade Brown, from Queensland. He is putting up a large house and intends to have a good try to cultivate the land.

Figure 28: 1890. Medlow
Source: National Library of Australia via Trove, Nepean Times, Saturday 8 November 1890, p.4.

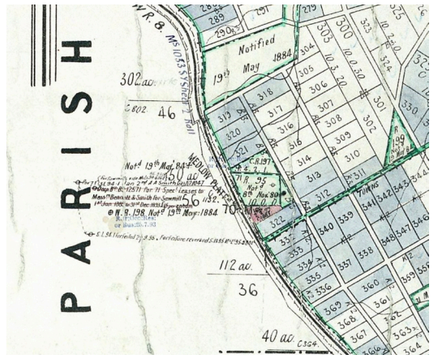



Figure 29: 1890. Detail of Blackheath Parish Map.
Source: NSW Land Registry, https://hlrv.nswlrs.com.au



Figure 30: Belgravia Hotel.
Source: www.megalong.com.au/Megalong History & Heritage/belgravia_hotel.htm

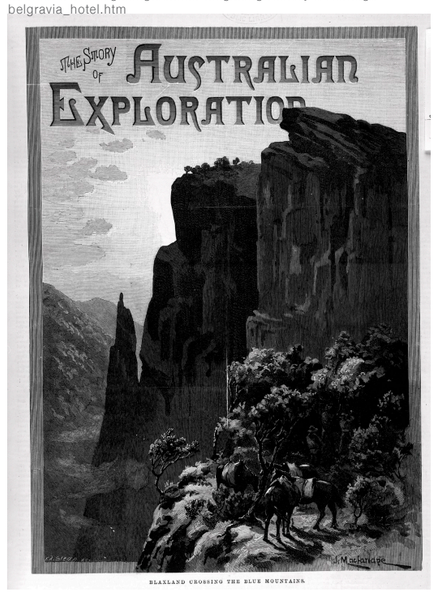



Figure 31: 1891. Blaxland crossing the Blue Mountains, by F.A. Sleap and J. MacFarlane.
Source: SLVIC, FL 16297384, http://handle.slv.vic.gov.au/10381/256615




Figure 32: 1890. Belgravia-Estate no. 1 & no. 2, Medlow, Blue Mountains, G.W. Railway [cartographic material] : to be sold on the round on the celebration of the annivesary-day, January1890 at 2.30 p.m. / by Richardson & Wrench, Auctioneers Pitt St.
Source: National Library of Australia, https://trove.nla.gov.au/work/33485596?keyword=Medlow%20bath&startPos=180




Figure 33: 1890-1899. Eyre, William & Harris, E. A (1890). Plan of Buckingham Park Estate, Medlow. s.n, Sydney.
Source: National Library of Australia, https://nla.gov.au/nla.obj-230299961/view?searchTerm=Medlow+bath#search/Medlow%20bath



Figure 34: 1901. Elizabeth Foy with Mark Foy Jr and unidentified friends on original wooden Medlow Bath Railway Station, outside waiting room, December 1901.
Source: Smith 2020, p25.

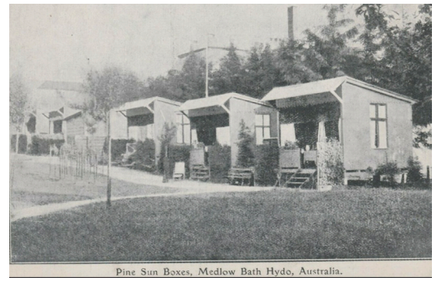



Figure 35: Pine Sun Boxes at Medlow Bath Hydro, N.S.W. - very early 1900s.
Source: Flickr, https://www.flickr.com/photos/70994841@N07/47547901921

| YEAR | EVENT |
|---|---|
| | **Establishment of the Hydro Majestic Hotel and Residential Development (1900 onwards)** |
| Early 1900s | Construction of houses and holiday retreats commenced including *Melbourne House, Cosy Cot and Sheleagh Cottage*. (MB019) |
| c.1900 | Tucker's Cottage constructed. |
| 1901 | Mark Foy leased Hargraves' house and grounds. |
| 1901 | Foy purchased Belgravia Hotel. |
| 1901 | Medlow Bath Railway Station Footbridge constructed. |
| | *Cosy Cot* constructed at 4 Station Street as the mountain retreat for Henry Hartley, who ran Sargent's pies. (MB019) |
| 1902 | Duplication of the Main Western line.<br>Replacement of original platform with present concrete island platform.<br>Construction of standard Type A8 platform building in the Federation style. |
| 1903 | Foy purchased lots 14-22 owned by Hargraves. |
| 1903 | Foy purchased Tucker's cottage (allotment 13 owned by James Edward Tucker) thereby consolidating his holdings. |
| 1903 | Medlow became Medlow Bath following petitioning by Mark Foy to NSW Railways. |
| 1903 | Railway station renamed to 'Medlow Bath'.<br>Post office operated out of the station building. |

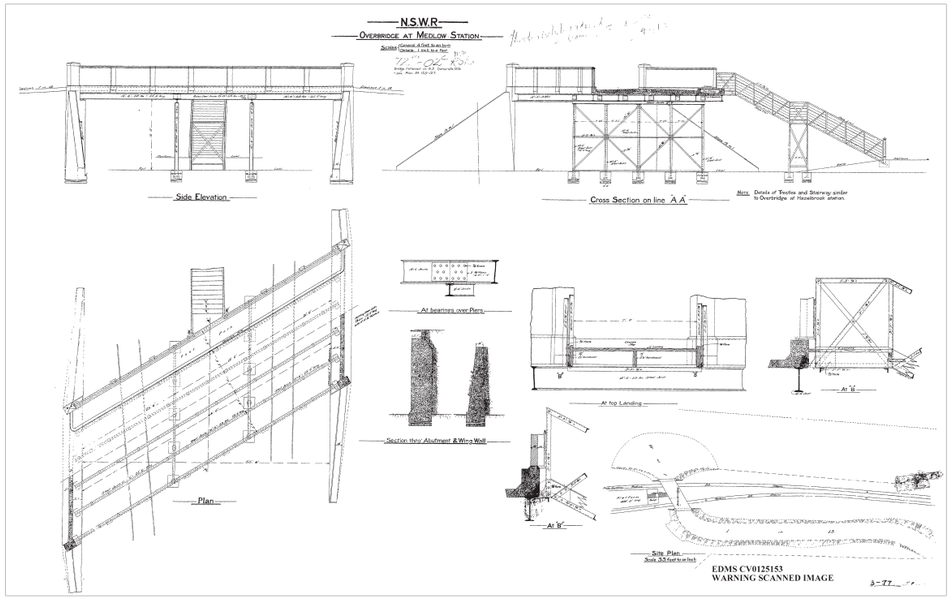
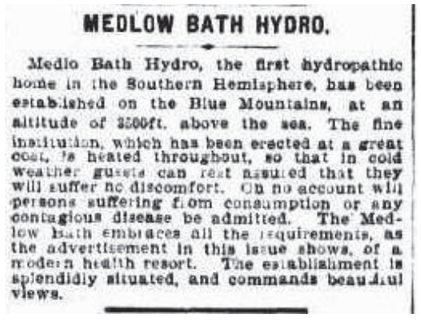



Figure 36: 1901. Overbridge at Medlow Bath Railway Station.
Source: Transport for NSW.

| YEAR | EVENT |
|---|---|
| | **Hydropathic Sanitorium (1903-1909)** |
| c.1903 | Construction of Casino, Hargravia, Billiard Room and Hallway, Delmonte Hallway, Laundry, Cellar, Boiler House, balustrades, stairs, masonry fences and gateposts. The new structures effectively linked the Belgravia Hotel, Tucker's Cottage and Hargraves' house. |
| 1904 | 4 July - Formal opening of Medlow Bath Hydropathic Establishment with 40 accommodation rooms. |
| 1905 | Mark Foy purchased site on north east of station, on Railway Parade, and erected a timber and corrugated iron clad hall, known as Flanagan's Hall, used for dances for Hydro guests. |
| 1904 | Medlow Bath Hydropathic Sanitorium (Hydro) opened. (MB002) |
| 1904 | Avenue of trees planted along the highway. (MB015) |
| | *Sheleagh Cottage* at 6 Station Street constructed for Mark Foy as a summer retreat. Designed by Sir Herbert Ross and named after Foy's third daughter. (MB019) |
| 1905 | Development of former Post and Telegraph Store site opposite station on Railway Parade. (MB008) |
| 1908 | *Melbourne House* constructed at 2 Station Street by Mr Saunders. (MB019) |
| 1904-1909 | Foy carries out various improvements including garden rooms, additions to the rear of the Belgravia Hotel, Delmonte, Dining Room and Kitchen. |



MEDLOW BATH HYDRO.

Medlo Bath Hydro, the first hydropathic home in the Southern Hemisphere, has been established on the Blue Mountains, at an altitude of 3500ft. above the sea. The fine institution, which has been erected at a great cost, is heated throughout, so that in cold weather guests can rest assured that they will suffer no discomfort. On no account will persons suffering from consumption or any contagious disease be admitted. The Medlow Bath embraces all the requirements, as the advertisement in this issue shows, of a modern health resort. The establishment is splendidly situated, and commands beautiful views.

Figure 37: 1904. Medlow Bath Hydro.

Source: National Library of Australia via Trove, Australian Star, Saturday 2 July 1904, p.2.



Portion of the Sanatorium.
FROM MEDLOW BATH RAILWAY STATION.

Figure 38: 1903. Portion of the Sanitorium.

Source: National Library of Australia via Trove, Evening News, Thursday 24 December 1903, p.3.



MEDLOW BATH

FOR AUCTION SALE.

NOR'HILL — VILLAGE and TOWNSHIP Allotments. — SATURDAY Next-1st APRIL 1905.
All near RAILWAY STATION and The HYDRO' — Grand Views — Perfect Climate.
Elevation nearly 3500 feet. AUCTION SALE on the 'Plaza' MEDLOW BATH

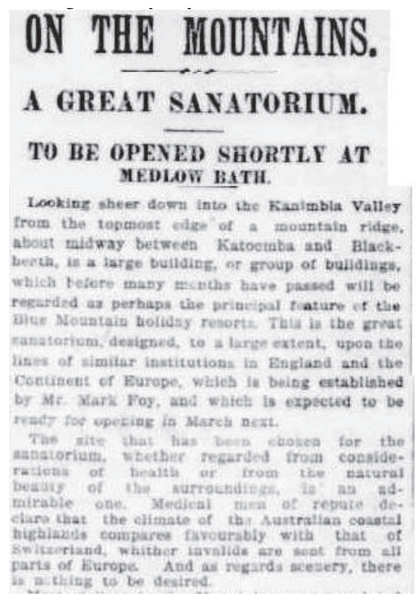
RAINE & HORNE.
— AUCTIONEERS —
PITT St SYDNEY

Solicitor to the Estate
C. S. Mackellar,
Bar Street,
SYDNEY

TORRENS TITLE
— TERMS —

Figure 39: 1905. Raine & Horne & William Brooks & Co (1905). Medlow Bath: for auction sale. William Brooks & Co Ltd. Lith, Sydney.

Source: National Library of Australia, https://nla.gov.au/nla.obj-230299854/view?searchTerm=Medlow+bath+railway+station#search/Medlow%20bath%20railway%20station



ON THE MOUNTAINS.

A GREAT SANATORIUM.

TO BE OPENED SHORTLY AT MEDLOW BATH.

Looking sheer down into the Kanimbla Valley from the topmost edge of a mountain ridge, about midway between Katoomba and Blackheath, is a large building, or group of buildings, which before many months have passed will be regarded as perhaps the principal feature of the Blue Mountain holiday resorts. This is the great sanatorium, designed, to a large extent, upon the lines of similar institutions in England and the Continent of Europe, which is being established by Mr. Mark Foy, and which is expected to be ready for opening in March next.

The site that has been chosen for the sanatorium, whether regarded from considerations of health or from the natural beauty of the surroundings, is an admirable one. Medical men of repute declare that the climate of the Australian coastal highlands compares favourably with that of Switzerland, whither invalids are sent from all parts of Europe. And as regards scenery, there is nothing to be desired.

Figure 40: 1903. On the Mountains, A great sanatorium to be opened shortly at Medlow Bath.

Source: National Library of Australia via Trove, Evening News, Thursday 24 December 1903, p.3.



Figure 41: 1905. Photos from her family album - Weine/McFedris.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1013575/0



TOURISTS SKETCH MAP
BLACKHEATH
AND
BLUE MOUNTAINS
NEW SOUTH WALES
AUSTRALIA

Figure 42: 1908. Tourist's sketch map of Blackheath and Medlow Bath Blue Mountains New South Wales Australia / I.L. Barrow ; issued by the New South Wales Government Tourist Bureau.

Source: National Library of Australia, https://trove.nla.gov.au/work/12989933?keyword=Medlow%20bath&startPos=60

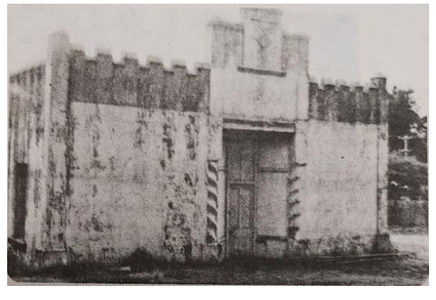


Figure 43: 1905. Former Post and Telegraphic Office.

Source: Kaldy 1983, p65.



Blackheath

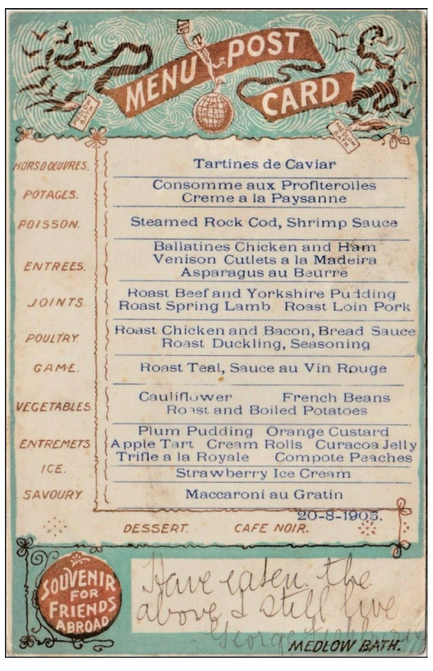
Blackheath and Medlow Bath

Medlow Bath

Blackheath
and
Medlow Bath
Blue Mountains
New South Wales

Figure 44: 1908. Tourist's sketch map of Blackheath and Medlow Bath Blue Mountains New South Wales Australia / I.L. Barrow ; issued by the New South Wales Government Tourist Bureau.

Source: National Library of Australia, https://trove.nla.gov.au/work/12989933?keyword=Medlow%20bath&startPos=60



MENU POST CARD

HORS D'OEUVRES. Tartines de Caviar
POTAGES. Consomme aux Profiteroiles, Creme a la Paysanne
POISSON. Steamed Rock Cod, Shrimp Sauce
ENTREES. Ballatines Chicken and Ham, Venison Cutlets a la Madeira, Asparagus au Beurre
JOINTS. Roast Beef and Yorkshire Pudding, Roast Spring Lamb, Roast Loin Pork
POULTRY. Roast Chicken and Bacon, Bread Sauce, Roast Duckling, Seasoning
GAME. Roast Teal, Sauce au Vin Rouge
VEGETABLES. Cauliflower, French Beans, Roast and Boiled Potatoes
ENTREMETS. Plum Pudding, Orange Custard, Apple Tart, Cream Rolls, Curacoa Jelly, Trifle a la Royale, Compote Peaches
ICE. Strawberry Ice Cream
SAVOURY. Maccaroni au Gratin
DESSERT. CAFE NOIR.
20-8-1905.

SOUVENIR FOR FRIENDS ABROAD

Have eaten the above & still live

MEDLOW BATH.

Figure 45: 1905. Hydro, Medlow Bath, Menu Post Card.

Source: National Library of Australia.

## Medlow Hydropathic Establishment

(See Illustrations, Pages 160-161.)

Illustrations which appear in this number give a fair idea of what is a completely novel development in this State.

Medlow Bath Hydropathic Establishment is the outcome of a patriotic desire on the part of a successful business man who has done well here to supply New South Wales with an institution equal to any of the famous hydropathic establishments of Europe. Baden Baden in Germany, Carlsbad in Austria, Shoeneck in Switzerland, Aix-le-Bain in France are well known to those Australians who read of more than the ordinary daily occurrences of their immediate surroundings. Hydropathy as a curative measure is well known in the old world. Australians have had to certain small degrees examples of its marvellous effects, but they have had but a faint conception of what it can accomplish when aided by mountain air and congenial surroundings. The tired, worn-out Australian who can afford the luxury of a voyage to America and Europe sometimes returns after a year's experience with immense measures of praise for the benefits derivable from brief stays in the health-homes of other lands. The chilling, bracing air of the Alps, the revels in the snow fields, the rounds of enjoyment obtainable in the fashionable sanatoriums, where every hour is enjoyable, when described bring to all hearers the longing to have some time in their lives the opportunity to indulge in such experiences. By the establishment of Medlow Bath Mr. Mark Foy has brought them within 70 miles of Sydney folk.

And what is life without health? Humans, although not afflicted with serious chronic diseases, are frequently run down just as their watches become when mainsprings are either weakened or completely unwound. It is at such times that the business man feels every day too long and life a bore.

It is said that Mr. Mark Foy had this kind of feeling, and that his expenditure of £65,000 on Medlow Health Home is the result—a happy idea, although an expensive one. Up 3500ft above sea level on the beautiful Blue Mountains he has acquired 1600 acres, on which he has placed palatial habitations, and placed in the charming valley of Kanimbla pathways along which health seekers may make progress towards complete convalescence.

Who is it that properly estimates the value of health? Pleasure and dyspepsia can never run satisfactorily in double harness. No bank balance can weigh down a disordered liver. The wealthy man motoring along the highway pauses to ask from a stone-breaker some directions about the puzzling roads of the neighbourhood. Information is freely given, and in return a cigar is proffered.

"How long have you lived here, my man?"

"Sixty-five years, sir."

"A healthy place I should say?"

"Yes, sir. I ain't 'ad a doctor or a dose of medicine this last 40 years, but it's main hard work and poor wages on this kind of job. A hard life, master."

"A hard life! Why, man, you are a millionaire. I would give all I possess for your constitution. Here's a £5 note on account."

Three years ago Medlow bore the dual names Hargravia and Belgravia. Mr Hargrave, a well-known mountain pioneer, made a home and built a beautiful commodious cottage on the verge of the Kanimbla Valley, which he set to work to explore. Aided by Mr. M'Clelland he bravely overcame many difficulties, such as the scaling of cliffs and the construction of tracks. Medlow gradually became, as were other parts of the Blue Mountain heights, popular with pleasure seekers. Cottages were erected and occupied, and in the ordinary course the valley became one of the chief showsights of New South Wales. At this stage Mr. Foy came along the route and saw certain possibilities. Fresh from European parts, he determined to do something with Medlow. He purchased Hargravia and Belgravia, and connected them by buildings a quarter mile in length in the way shown in the accompanying illustrations. The camera cannot lie. The Casino, shown in the centre of the panoramic picture, is a building of about 60 feet square, which forms a theatre as large as some of the best places used for public entertainment in Sydney. At the back of the long range of substantial buildings there are great, well-grassed plateaux, with balustrades on the extreme edge of the valley, from which a walk down to the bottom of the valley, where the home farm and shooting box are situated, will take about three-quarters of an hour. A return journey involves a couple of hours' work. All Medlow is planned with the one object—the promotion of exercise. Instead of a lofty building like a city hive for humans, with lifts and other modern incentives to ease, there are long passages from place to place, so that there may be the necessity of motion towards the earning of healthful rest o' nights.

In front of the buildings there are a bowling green, a croquet lawn, and tennis courts, also the explorers' famous tree, moved from the spot it formerly occupied to the Medlow grounds. Each visitor has to drive into this tree a brass-headed tack. Then right opposite the main entrance is the railway station, and over the way across the railway line the golf links, about a mile from the home. These were laid out by Mr. Carnegie Clark, and are said to be specially conducive to exercise and skill.

Medlow, although centrally placed, is out of the hurly burly of ordinary tourist invasion. When excursions are needed there are opportunities for trips in several directions. Of these, doubtless, the cave excursion by motor cars will be the most popular. Of ordinary vehicles there will be no lack, and the taste of equestrians can be fully met, for the automobile, powerful though it is, has not yet quite displaced the equine.

It is when chill winter comes with its frosts and snow that the influence of Medlow is likely to be most powerful. All old residents of the Blue Mountains aver that winter is their favourite season—bright sunny days, clear air, and frosty nights. Here comes in with great force the foresight of Mr. Foy in supplying all the comforts which elaborate furnishing and arrangements for artificial warmth can supply. For the purposes of lighting and heating there are in the engine-house a 70 h.p. Robey and a 100 h.p. Fowler, of the latest locomotive models. These lift water 400ft, supply 600 electric lights, each 16 candle power, and supply heat to all parts of the great establishment. There are 700ft of promenade cloisters, all liberally adorned with hundreds of choice works of art and well-carpeted and furnished. There are also a library, a drawing-room, and a large billiard-room, all fitted regardless of expense. Decidedly winter will be the time when these aids towards conviviality will be best appreciated, and to promote enjoyment a lady entertainer is one of the staff.

Figure 46: 1904. Medlow Hydropathic Establishment.

Source: National Library of Australia via Trove, Sydney Mail and New South Wales Advertiser, Wednesday 20 July 1904, p.159.

# HYDRO MAJESTIC
# MEDLOW BATH,
# BLUE MOUNTAINS.

VIBRATION MASSAGE, AIX DOUCHE, ELECTRIC BATHS, ELECTRIC LIGHT BATHS, MASSAGE, PACKS, SITZ-BATHS.

THE ONLY COMFORTABLE PLACE IN AUSTRALIA.

PURE AIR, GOOD FOOD, AND BRIGHT AMUSEMENTS

MAKE THE HYDRO A CREDIT TO THE COMMONWEALTH.

MOTORS TO THE CAVES DAILY.

EARP, Manager.

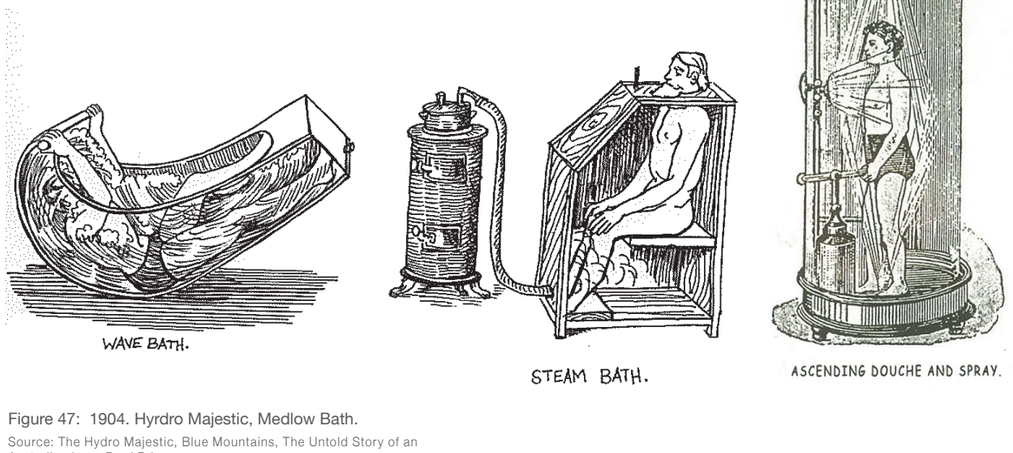



Figure 47: 1904. Hyrdro Majestic, Medlow Bath.

Source: The Hydro Majestic, Blue Mountains, The Untold Story of an Australian Icon, Perri Prince.



Figure 48: c1906. American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy.

Source: Blue Mountains City Library, Item no. 000837, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012025/0.




Figure 49: c1906. American actress May Yohé, former wife of Lord Francis Hope, is greeted on Medlow Bath Station by Mark Foy.

Source: NLA, PIC Box PIC/6015 #PIC/6015/34, https://nla.gov.au/nla.obj-146217717/view0.



Figure 50: c1906. Mark Foy with his wife, son and guests outside the Belgravia end of the Hydro.

Source: Smith 2020, p55.




Figure 51: c.1910. Medlow Bath Hydro, Blue Mountains, N.S.W. - early 1900s. Aussie~mobs

Source: Flickr, https://www.flickr.com/photos/70994841@N07/51389368863



Figure 52: nd. Elizabeth Foy (with whip) and James Lewis Duff's bullock team outside the Hydro, Medlow Bath. Photographer unknown.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012023/0




Figure 53: 1915. Detail of Kanimbla Parish Map.

Source: NSW Land Registry, https://hlrv.nswlrs.com.au

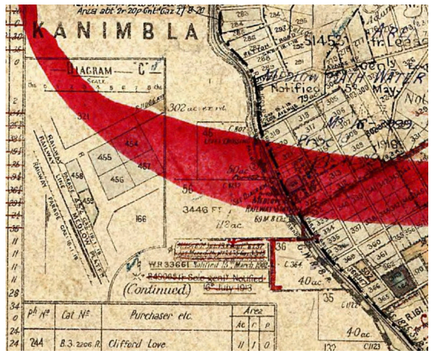



Figure 54: 1915. Detail of Blackheath Parish Map.

Source: NSW Land Registry, https://hlrv.nswlrs.com.au



Figure 55: nd. Guests at the Hydro Majestic, Medlow Bath. Unknown photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1013513/0

| YEAR | EVENT |
|---|---|
| | **Hydro Tourist Hotel (1909-1922)** |
| 1909 | Hydro Tourist Hotel structures painted white. |
| 1909 | Open timber signal room added to Medlow Bath Railway Station platform. |
| c1910 | Fourth heritage listed single storey shop with attached single storey residence constructed to the south of *Melbourne House*. (MB019) |
| 1910 | Post office in station building closed. |
| 1910-1916 | Alterations and additions to Flanagan's Hall created Medlow Bath's Post and Telegraph Store on Railway Parade. |
| 1913 | Hydropathic services no longer offered at Hydro. |
| 1913 | Construction of St Luke's Anglican Church. (Recently reconsecrated and converted to a one bedroom home.) (MB010) |
| 1914-1922 | Land sales continued particularly to the east of the station from 1914-1922. |
| 1916 | Station Master's cottage 'Urunga' built opposite station on Railway Parade. (MB017) |
| 1916 | Post office operated out of building on the southern side of the highway. |
| 1918 | Former Post and Telegraph Store known as Rice's Hall became the base for the Hydro's chauffer driven day trips between the wars. |
| 1922 | 18 August. Major bushfire at the Hydro severely damaged the Belgravia Hotel and both levels of the majority of the Belgravia Wing including accommodation and art Gallery. |




Figure 56: c1920. Hydro-Majestic Hotel, Medlow Bath [picture] / C.H. Hunt

Source: NLA, PIC Poster Drawer 199, https://nla.gov.au/nla.obj-136185419/view



Figure 57: nd. The steps to the Tunnel, Medlow Bath. Unknown photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012021/0



Figure 58: c.1910. View from the railway bridge towards the Hydro Majestic Hotel at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146214315/view?searchTerm=Medlow+bath#search/Medlow%20bath



Figure 59: 1910. Men standing on top of a cliff next to the flying fox at Medlow Bath in the Blue Mountains, New South Wales, 1. Photographer unknown.

Source: National Library of Australia,https://nla.gov.au/nla.obj-146218013/view?searchTerm=Medlow+bath#search/Medlow%20bath



Figure 60: c.1900-1927. [Concert hall and picture gallery, Hydro Majestic Hotel, Medlow Bath]. Broadhurst collection of postcards of New South Wales scenes

Source: SLNSW, https://collection.sl.nsw.gov.au/record/YRlDk03n/jPrJQK5bbXk6a



Figure 61: c.1900-1927. [Concert hall and picture gallery, Hydro Majestic Hotel, Medlow Bath]. Broadhurst collection of postcards of New South Wales scenes

Source: SLNSW, https://collection.sl.nsw.gov.au/record/YRlDk03n/47DRqNjm6yRXl#viewer



Figure 62: nd. Maxines Bower, Medlow Bath Hydro. Unknown photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012003/0



Figure 63: 1910. Group of visitors, Medlow Bath Hydro [picture], Kerry & Co photographer.

Source: National Library of Australia, https://nla.gov.au:443/tarkine/nla.obj-146216417

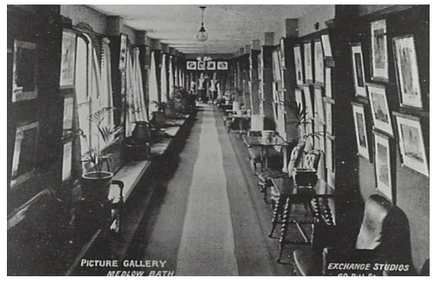



Figure 66: c1910. Picture Gallery, Hydro Majestic, Postcard, Medlow Bath. Exchange Studios, 49 Pitt Street photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011635/0



Figure 69: c1910. Outside of Casino, Hydro Majestic Hotel, Postcard. Photographer Exchange Studios, 49 Pitt Street.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011636/0



Figure 72: c.1910. Exterior of the Hydro Majestic Hotel at Medlow Bath, New South Wales, 1.

Source: National Library of Australia, https://trove.nla.gov.au/work/34281003?keyword=Medlow%20bath&startPos=60

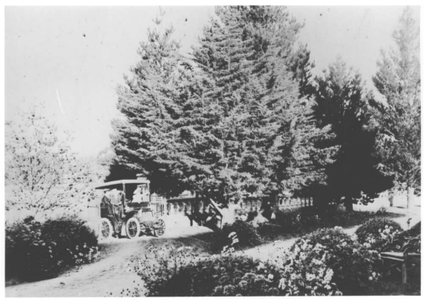


Figure 75: c.1910. Vehicle driving through the gates at the Hydro Majestic Hotel, at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146217816/view?searchTerm=Medlow+bath#search/Medlow%20bath




Figure 64: c.1910. Woman and car at the main entrance to the Hydro Majestic Hotel, at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146217360/view?searchTerm=Medlow+bath#search/Medlow%20bath



Figure 67: c1910. Casino, Hydro Majestic, Medlow Bath. Unknown photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011640/0




Figure 70: c1910. Smoking Lounge, Hydro Majestic Hotel, Postcard. Photographer Exchange Studios, 49 Pitt Street.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011634/0

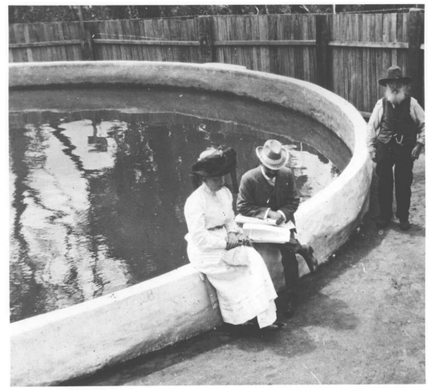


Figure 73: c.1910. People at the spa bath at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au:443/tarkine/nla.obj-146216919



Figure 76: c.1910. Guests playing croquet on the lawn outside the Hydro Majestic Hotel at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146214512/view?searchTerm=Medlow+bath#search/Medlow%20bath

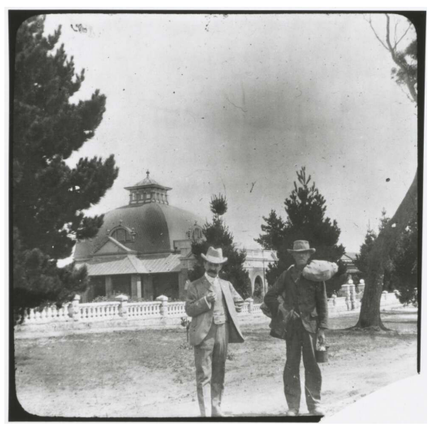


Figure 65: 1910. Man in a suit and a swagman outside the Hydro Majestic Hotel at Medlow Bath, New South Wales. Photographer unknown.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146217011/view?searchTerm=Medlow+bath#search/Medlow%20bath

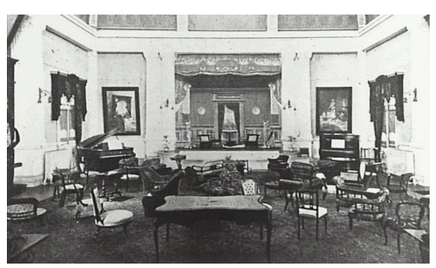


Figure 68: c1910. Casino, Hydro Majestic, Medlow Bath. Medlow Bath. Exchange Studios, 49 Pitt Street photographer.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011639/0



Figure 71: 1910. Cloister, Medlow Bath Hydro [picture].

Source: National Library of Australia, https://nla.gov.au:443/tarkine/nla.obj-146216014



Figure 74: c.1910. Library and writing room at the Hydro Majestic Hotel, Medlow Bath, New South Wales.

Source: National Library of Australia, https://trove.nla.gov.au/work/34281355?keyword=Medlow%20bath&startPos=60



Figure 77: 1917. Glass plate negative, full plate, 'In the Garden', Kerry and Co, Sydney, Australia, c. 1884-1917.

Source: Powerhouse Museum, https://collection.maas.museum/object/29969




Figure 78: 1917. Path to the Glen, Hydro Majestic, Medlow' by Kerry and Co from the Tyrrell Collection.

Source: Powerhouse Museum, https://collection.maas.museum/object/29969




Figure 79: 1917. Kerry and Co & Kerry, Charles H (1917). 'Cliff Walls, Hydro Majestic, Medlow Baths' by Kerry and Co.

Source: Powerhouse Museum, https://collection.maas.museum/object/29378



Figure 80: 1910. Hargreave's Old Cottage, Medlow Bath. Photographer unknown.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011660/0



Figure 81: 1910. Belgravia Hotel which was part of the Hydro Majestic Hotel complex, at Medlow Bath, New South Wales.

Source: National Library of Australia, https://nla.gov.au/nla.obj-146217915/view?searchTerm=Medlow+bath#search/Medlow%20bath




Figure 82: c1910. Medlow Bath stables, New South Wales

Source: NLA, PIC Box PIC/6015 #PIC/6015/28, https://nla.gov.au/nla.obj-146216810/view




Figure 83: 1912. Medlow Bath Post Office. Photographer unknown.

Source: National Archives Australia, https://recordsearch.naa.gov.au/SearchNRetrieve/Interface/DetailsReports/PhotoDetail.aspx?Barcode=3026403

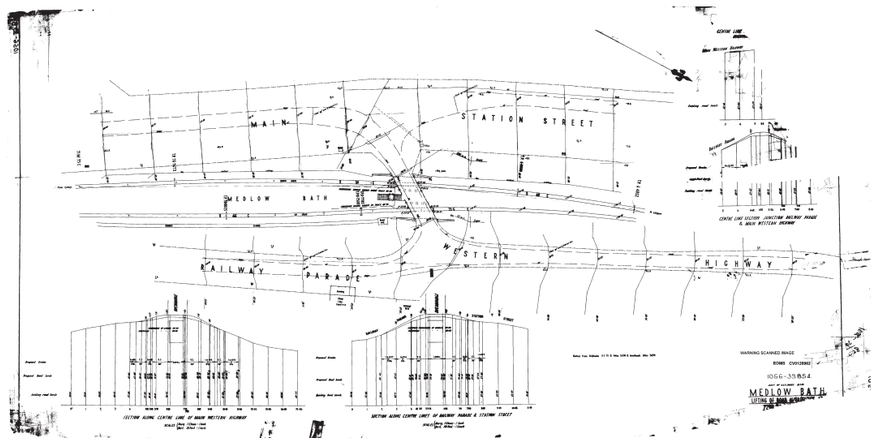



Figure 84: 1912. Medlow Bath Lifting of Great Western Highway.

Source: Transport NSW

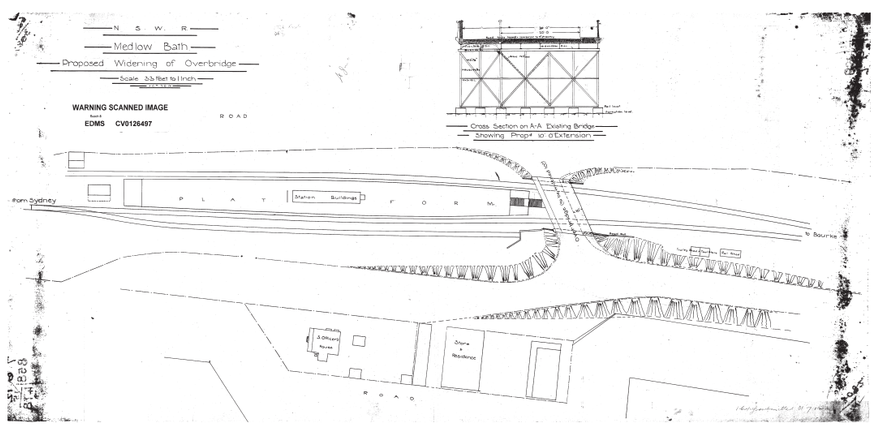



Figure 85: 1912. Medlow Bath Proposed Widening of Overbridge

Source: Transport NSW

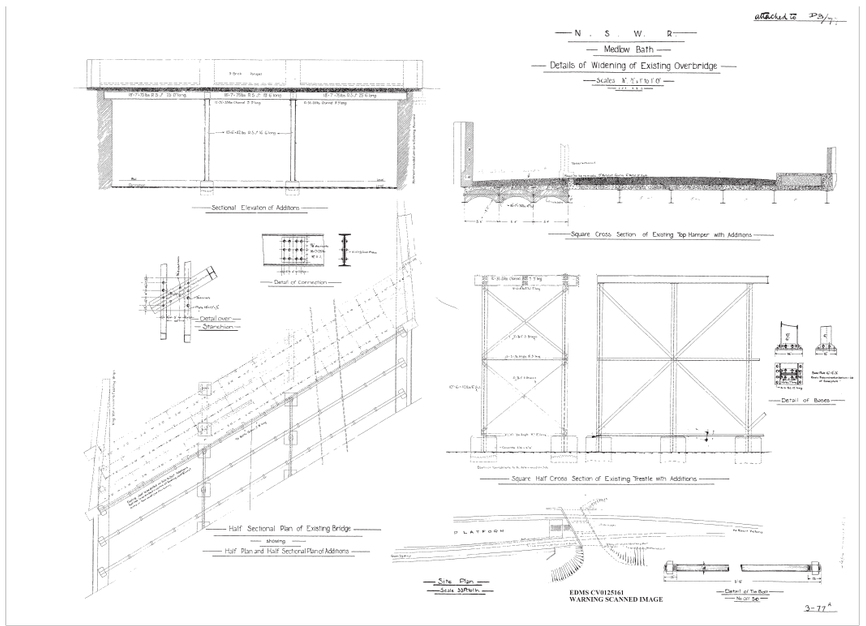



Figure 86: 1913. Details of Widening of Existing Overbridge

Source: Transport NSW



Figure 87: 1931. Hydro Majestic, Medlow Bath. Souvenir postcard of Easter 1931, April 5th, 1931.

Source: Blue Mountains Council, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011630/0



Figure 88: 1938. Hydro Majestic, Medlow Bath, side view. Photographer Wallace H Green.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012166/0

| YEAR | EVENT |
|---|---|
| | **Family Hotel (1922-1942)** |
| 1922 | Timber signal room at Station enclosed to form structure which remains today. |
| 1923 | Refurbished Hydro reopened. Shift in marketing to a “handsome hostelry with good plain and plenty eats open for just ordinary folk”. |
| 1926 | Additional railway siding added. |
| 1920s-1930s | Various alterations and additions including construction of the North End Building and extensive redecoration of the hotel. |
| 1930-1940 | Horse trough erected on corner Somerset Street and Railway Parade, Medlow Bath. (MB0013) |
| 1935 | Hydro Casino redecorated by Zimmerman. Construction of upper storey of Delmonte Hallway (also known as the Cloisters) to designs by Ross and Rowe. |
| 1936 | Hydro repainted new colour scheme. Hotel listed as a public company, with Foy chairman of the board. |
| 1938 | New Belgravia Wing completed at Hydro Majestic to designs of Dudley Ward. |
| 1939 | Porte cochere and driveway designed by Dudley Ward added to Billiard Room at the Hydro. |
| 1942 | Platform extended at the Sydney end to 600 feet. |
| 1940s | Extension to rear of North End Building at the Hydro. |
| 1942 | Hydro Majestic requisitioned by the US Army as a rest and recreation convalescent hospital for American servicemen. |
| | **Post World War II - Present** |
| 1943 | Hydro returned to civilian use. Melbourne Ward opened a museum in the former Recreation Room known as the Gallery of Natural History and Native Art. |
| 1946 | New building opened at the Hydro with bedrooms on the upper floors and a large lounge downstairs. |
| 1947 | Former Tucker’s cottage removed from Hydro. Belgravia Entry building constructed. |
| 1950 | Mark Foy, Chairman of the publicly listed company, died in Sydney. |
| 1952 | Tracks slewed for the insertion of overhead wiring structures in preparation for electrification. |
| 1957 | Line electrified and signal room removed from service. |
| 1950s-1960s | Various alterations and additions to the Hydro including construction of a pool, refurbishment of the Casino, Lounge and alterations to the Belgravia Wing designed by Kann Finch Associates. |




Figure 89: c1935. Snow at Medlow Bath Railway Station, Blue Mountains, New South Wales, ca. 1935 [picture] / E.W. Searle.

Source: NLA, PIC P838/792a LOC Nitrate store PIC Box 24, https://nla.gov.au/nla.obj-141914096/view



Figure 92: c1950. Medlow Bath Railway Station.

Source: NLA, PIC P838/792a LOC Nitrate store PIC Box 24, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1011911/0

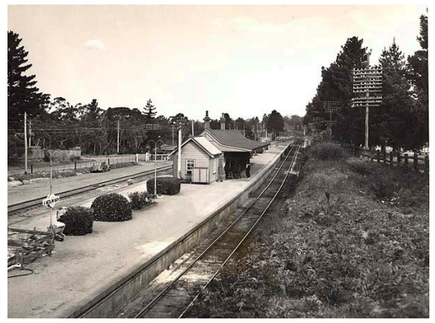


Figure 95: 1954. Medlow Bath Railway Station.

Source: NSW State Archives, Image Number oai: records.nsw.gov.au:17420_a014_a014000748.jpg, 17420_a014_a014000748




Figure 98: 1930-1986. Railway ticket New South Wales Government Printer, New South Wales, Australia.

Source: Museum of Applied Arts and Sciences, https://collection.maas.museum/object/577113



Figure 90: 1938. The Hydro Majestic from above, showing Avenue of Trees running north between the Great Western Highway and the railway

Source: Blue Mountains City Library item no. 000095.

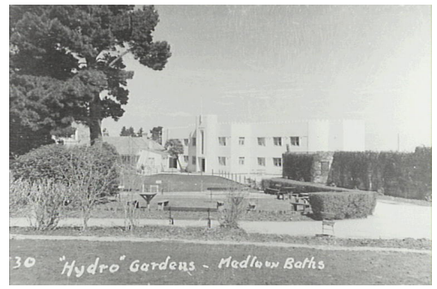



Figure 93: 1940. Hydro Majestic Hotel. Photographer Wallace H Green.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012113/0



Figure 96: 1948. Courtyard, Hydro Majestic Hotel. Photographer Wallace H Green.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012084/0



Figure 99: 1948. Hydro Majestic Hotel. Photographer Wallace H Green.

Source: Blue Mountains Library, https://library.bmcc.nsw.gov.au/client/en_AU/search/asset/1012108/0



Figure 91: 1953. The Hydro Majestic Hotel- Medlow Bath.

Source: National Archives of Australia, https://recordsearch.naa.gov.au/SearchNRetrieve/Interface/DetailsReports/PhotoDetail.aspx?Barcode=7462308




Figure 94: 1950. Medlow Bath Post Office, 35mm b&w photographic negative.

Source: National Archives Australia, https://recordsearch.naa.gov.au/SearchNRetrieve/Interface/DetailsReports/PhotoDetail.aspx?Barcode=3021667

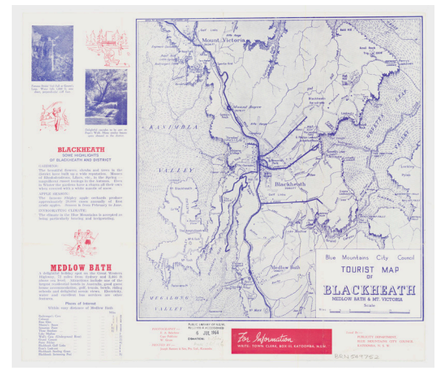



Figure 97: 1964. Tourist map of Blackheath, Medlow Bath & Mt. Victoria [cartographic material] / Blue Mountains City Council.

Source: SLNSW, https://collection.sl.nsw.gov.au/record/74VKZpv32r0X/KKybBwZAgV2ZM

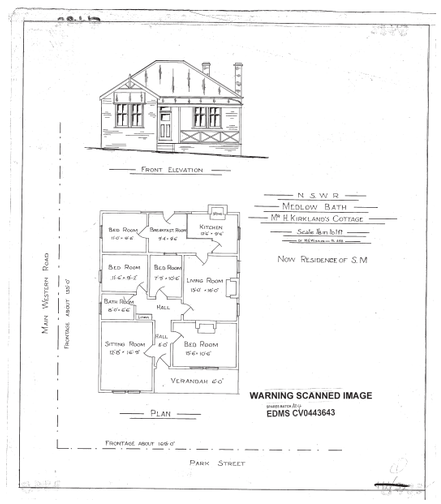



Figure 100: 1924. Medlow Bath Mr H. Kirkland's Cottage

Source: TfNSW.

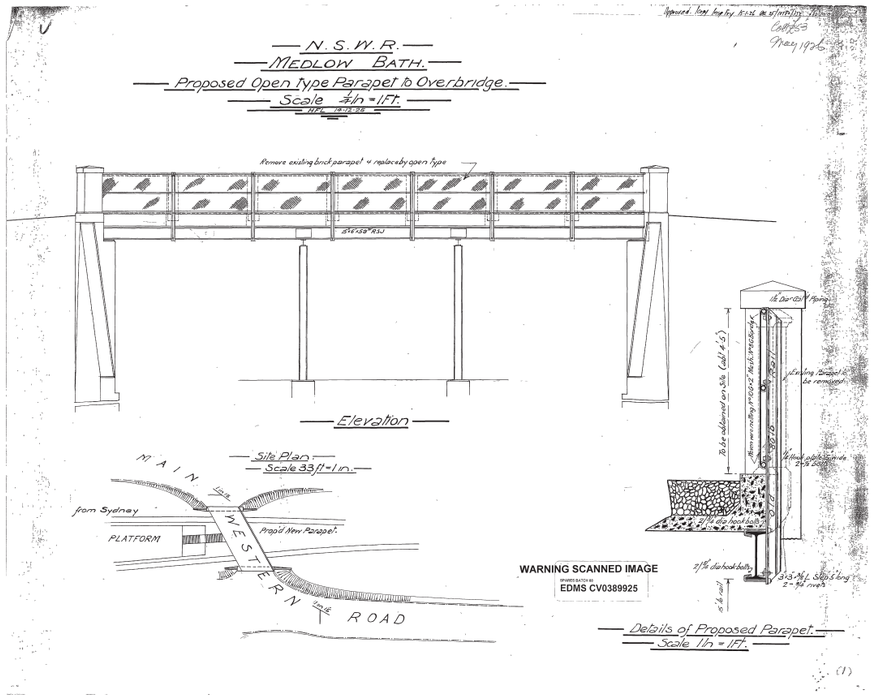



Figure 101: 1925. Details of Proposed Parapet.

Source: TfNSW.

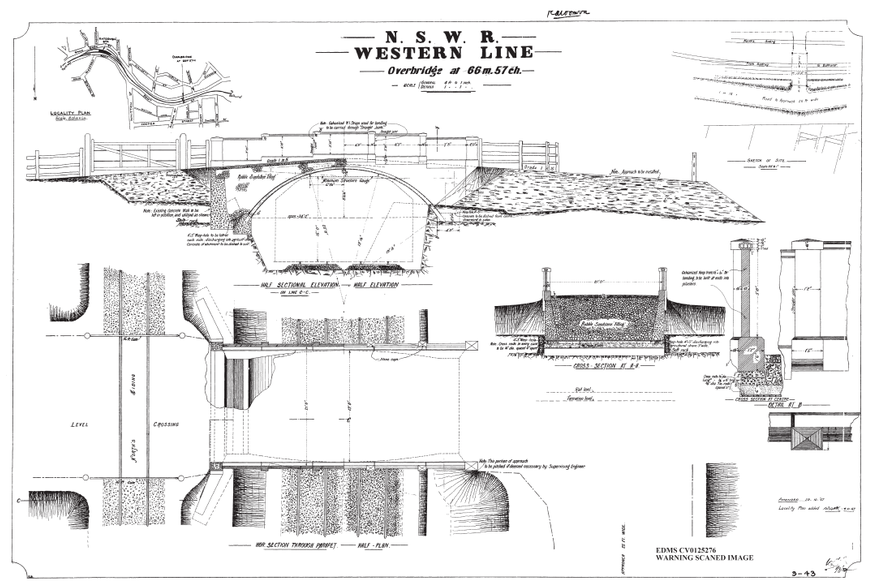



Figure 102: 1947. Western line Overbridge

Source:

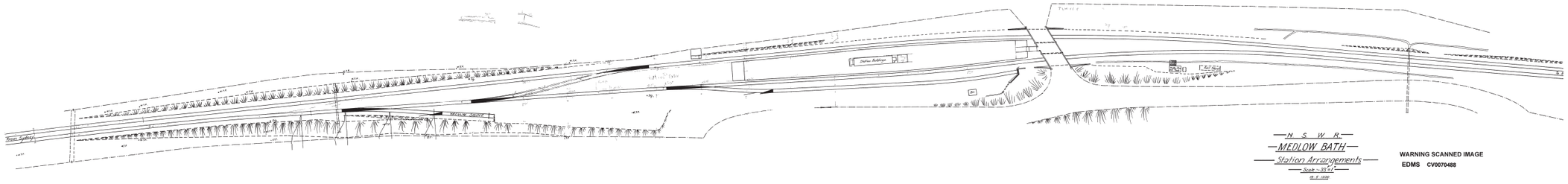
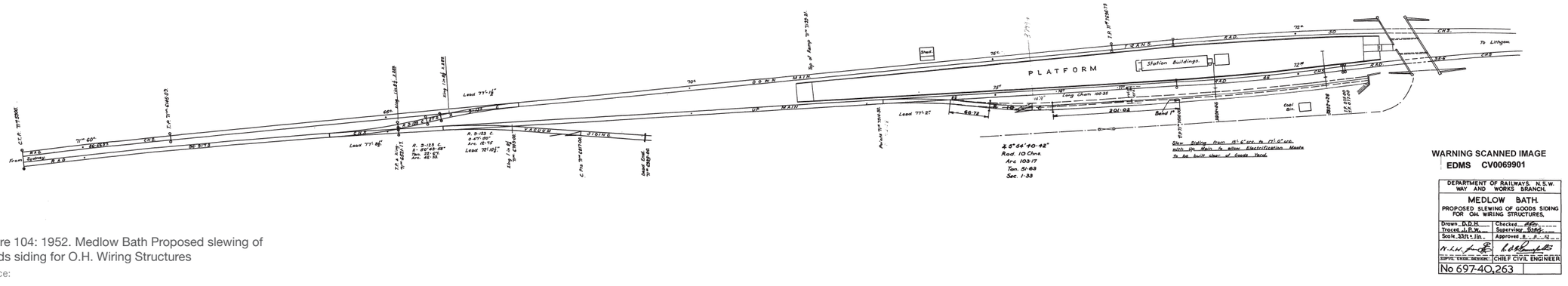



Figure 103: 1930. Medlow Bath Railway Station Arrangements.

Source:


PLATFORM
Station Buildings.
DOWN MAIN
UP MAIN
SIDING
Loop
Shed
Coal Bin
Water Crane
To Lithgow
Up Starter
Down Starter
Up Home
Down Home
Up Distant
Down Distant
Up Advanced Starter
Down Advanced Starter
Up Outer Home
Down Outer Home
Up Intermediate
Down Intermediate
Up Advanced Starter
Down Advanced Starter
Up Outer Home
Down Outer Home
Up Intermediate
Down Intermediate
Up Distant
Down Distant
Up Starter
Down Starter
Up Home
Down Home

| YEAR | EVENT |
|---|---|
| 1965 | Melbourne Ward's Gallery of Natural History and Native Art housed in a corrugated fibro shed to the south of the Hydro closed. |
| 1972-4 | Alterations and redecoration of the interiors of Hydro including addition of bathrooms. |
| 1980/81 | Tracks slewed and a section of coping cut back.<br>Overbridge widened and separate footbridge constructed. |
| 1984 | Wisteria Holdings purchased the Hydro. Range of alterations and additions. Building painted orange. |
| 1986 | Mock Tudor fitout of the Hydro Tavern. |
| 1987 | Public Bar at Hydro demolished and Casino Lounge rebuilt. Other alterations included construction of fire stairs to the Belgravia Wing. |
| 1988 | Construction of Services Area at the Hydro. |
| 1994 | Footbridge upgraded with new deck and handrails added. |
| 1996 | Majestic Hydro Hotel Pty Ltd purchases hotel (The Mah family). |
| 1998 | *Urunga* became a private residence. |
| 1998-9 | Major refurbishment of Hotel approved by Blue Mountains City Council including reduction of guest rooms from 143 to 89 rooms and refurbishment and redecoration of Hydro Tavern, Belgravia Wing, Belgravia Entry, Casino Lounge, Delmonte Hallway, Delmonte with additional 18 ensuite accommodation. Building housing museum demolished. Work overseen by Peppers. |
| 1999 | Hydro name changed to Hydro Majestic Hotel. |
| 1999 | Buildings at the Hydro Majestic painted disparate colour schemes relating to different eras of construction. |
| 2000 | Greater Blue Mountains Area inscribed on the World Heritage List. |
| 2002-2007 | General refurbishment of Hydro Majestic Hotel. |
| 2003-2006 | Great Western Highway realigned. |
| 2011 | Avenue of trees replaced by the local Medlow Bath community and Council to retain the character of the township following an historic tree falling onto a passenger train. |
| 2017 | Platform resurfaced, light pole footings upgraded, height of septic tanks lowered. |
| 2019 | Platform cutbacks and build outs on Platform 1 and Platform 2, recessing of services on Platform 1 near station building. |

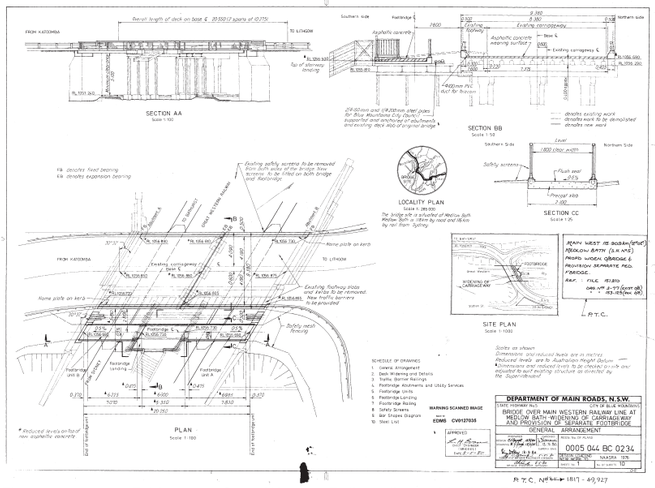



Figure 105: 1980. Bridge over Great Western Railway line at Medlow Bath. Widening of carriageway and provision of separate footbridge.

Source: Sydney Trains.

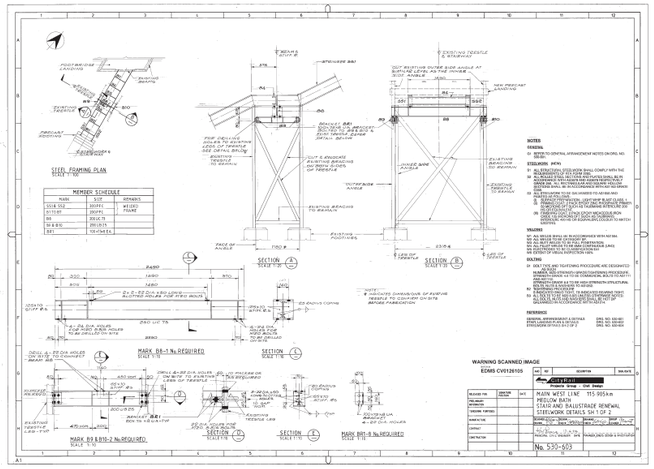



Figure 106: 1994. Medlow Bath Stair and Balustrade Renewal Steelwork Details Sh1 of 2

Source: Sydney Trains.

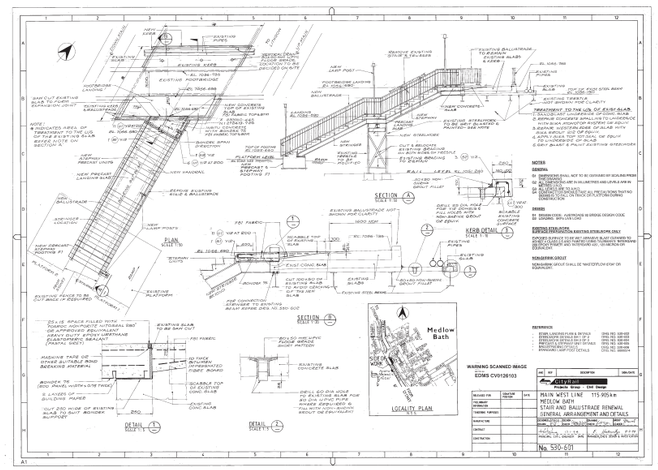



Figure 107: 1994. Medlow Bath Stair and Balustrade renewal general arrangement and details.

Source: TfNSW.

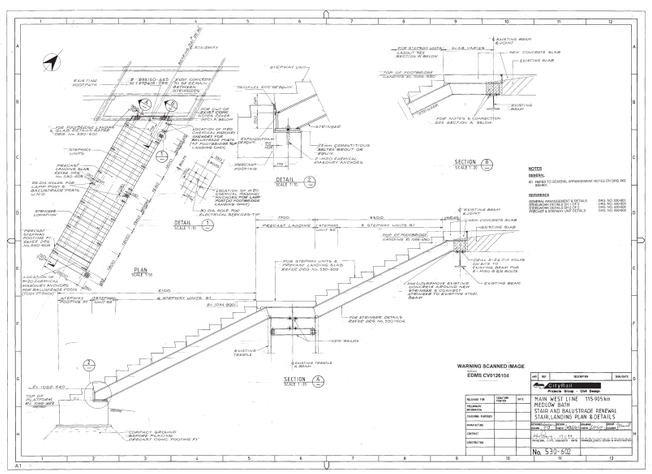



Figure 108: 1994. Medlow Bath Stair and Balustrade Renewal, Stair, Landing Plan & Details

Source:

### 2.1.1 History of Changes to Existing Footbridge

A footbridge has existed at the northern end of the platform at Medlow Bath since 1901.

A review of historic drawings coupled with site inspections reveals the extent of changes that have been made during the intervening years.

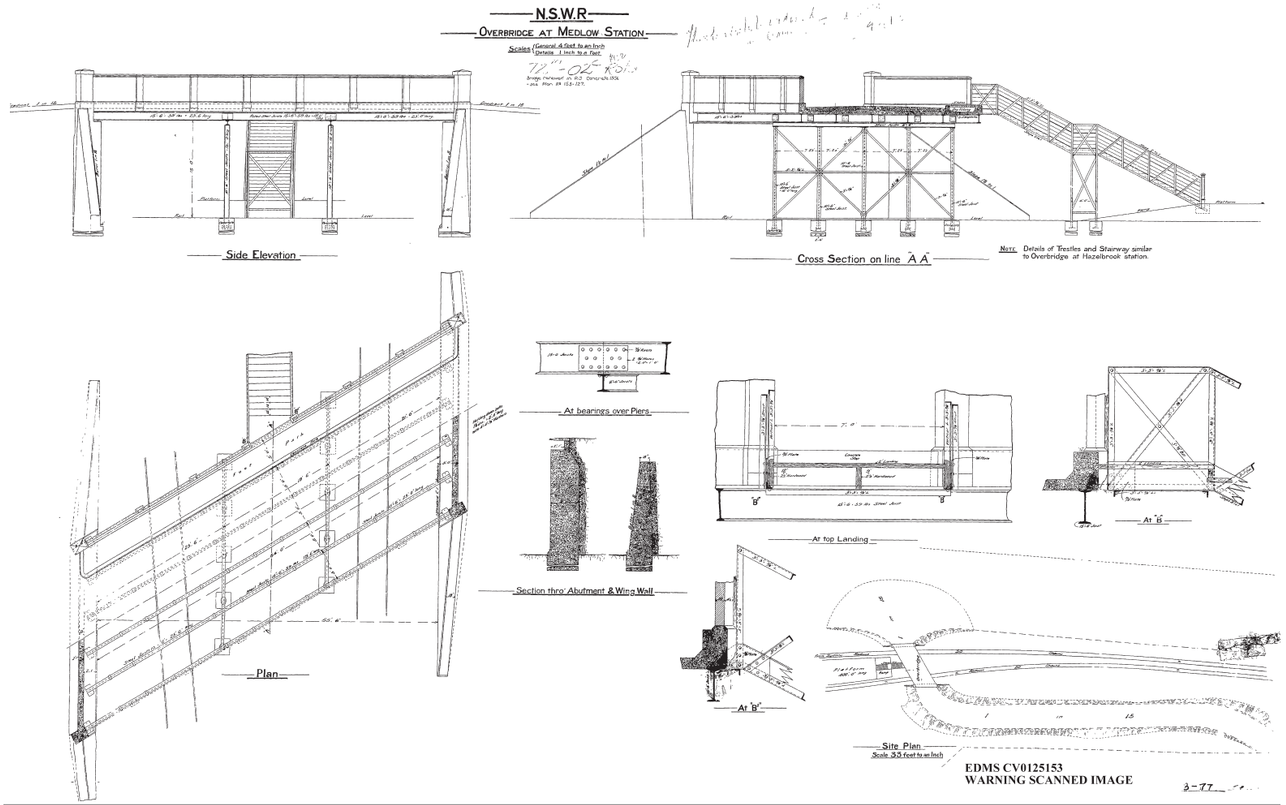
The footbridge was completely rebuilt in 1980, to allow for widening of the road overbridge, and the stair treads, landings and balustrades were replaced in 1994.

The only original fabric which remains appears to be the steel trestles, which were also altered 1994 to accommodate the new stairs.

These changes are outlined in the table below and illustrated via extracts from the original drawings on the following page.

| YEAR | EVENT |
|---|---|
| 1901 | Medlow Bath Railway Station Footbridge constructed. Timber stair treads and landings. Note no widening of landing at top of stair.<br>Drawing notes: Details of trestle and stairway similar to Hazelbrook. |
| 1913 | Road overbridge widened by 10 feet to the north. Brick parapet wall to north. Original trestles modified to accommodate extension. |
| 1925 | Further changes to the road overbridge adjacent to the footbridge. Brick parapet replaced with steel framed mesh balustrade on northern side. |
| 1980 | Widening of carriageway of overbridge and provision of separate footway. New footbridge with widened landing and new steel framed balustrades separated from carriageway. |
| 1994 | Major renewal of footbridge top landing and stair including new steel stringers beams and balustrades and precast concrete stairs and landings. Modifications to existing steel trestle under mid landing. |
| 2003 | Access prevention screens added to northern side of footbridge.<br>Great Western Highway realigned - away from existing footbridge. |

Table 1: History of modifications to the footbridge at Medlow Bath Railway Station.




**1901**

Figure 109: Original footbridge at Medlow Station.
Source: TfNSW.



**1943**

Figure 110: Aerial Medlow Bath.
Source: SIXMAPS.



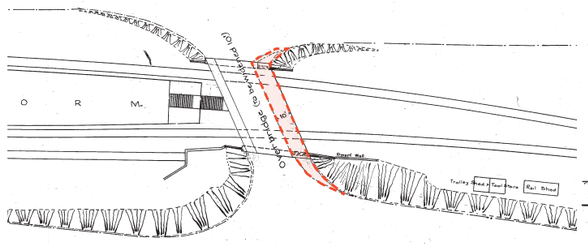
**2023**

Figure 111: Aerial Medlow Bath. Note the realignment of the highway in relation to the station access.
Source: SIXMAPS.



**1943/2023 Overlay**

Figure 112: Aerial overlays.
Source: SIXMAPS.




**1912**

Figure 113: Widening of overbridge to north.
Source: TfNSW.

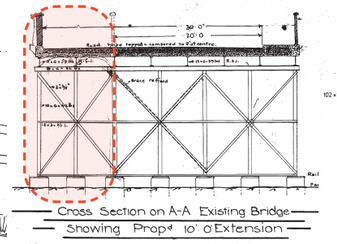
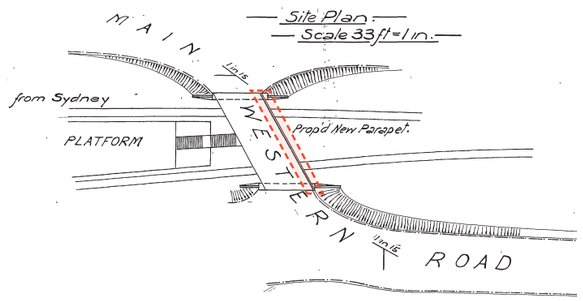



Figure 114: Detail of overbridge widening showing new structure, brick parapet and adjustments to existing steel trestles.




**1925**

Figure 115: Replacement of brick parapet to northern side of overbridge with steel framed mesh balustrade.
Source: TfNSW.

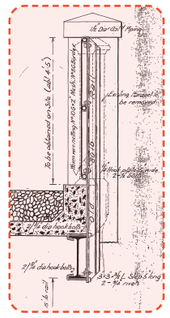


Figure 116: Detail of new steel framed mesh 'parapet' to northern side of overbridge.
Source: TfNSW.

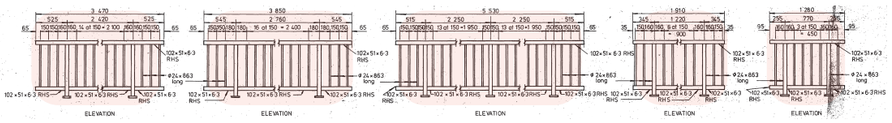
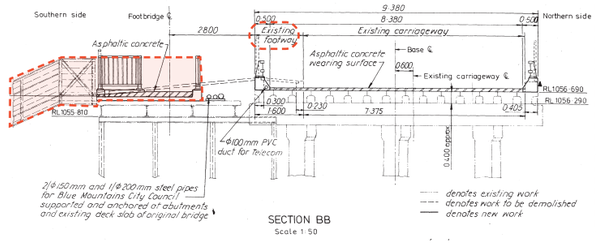



Figure 118: Proposed new balustrades.
Source: TfNSW.




**1980**

Figure 119: Widening of overbridge to include former footway. Construction of new separate footbridge to the south of road bridge.
Source: TfNSW.

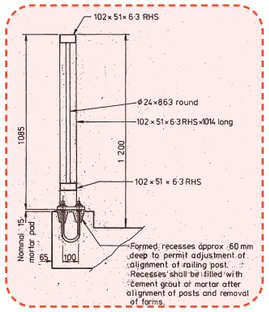
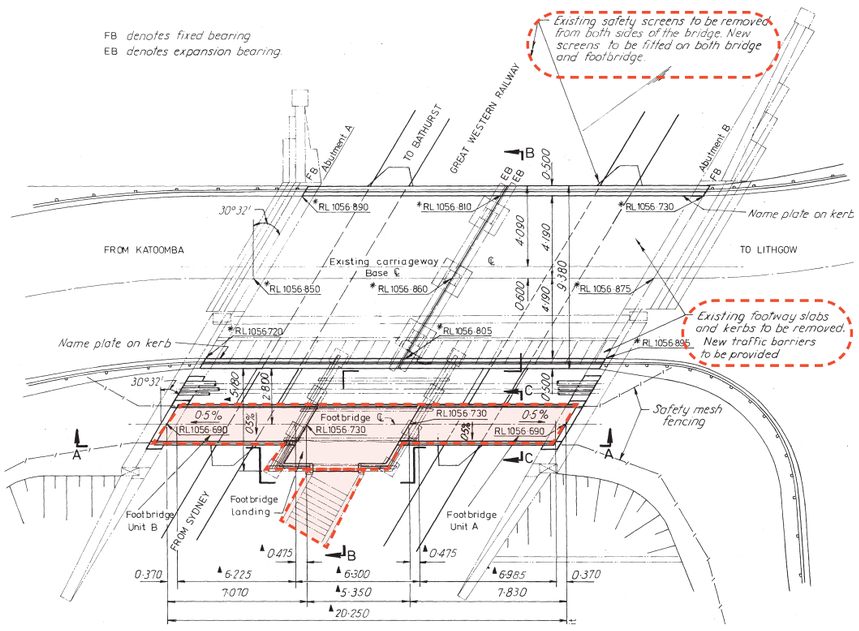


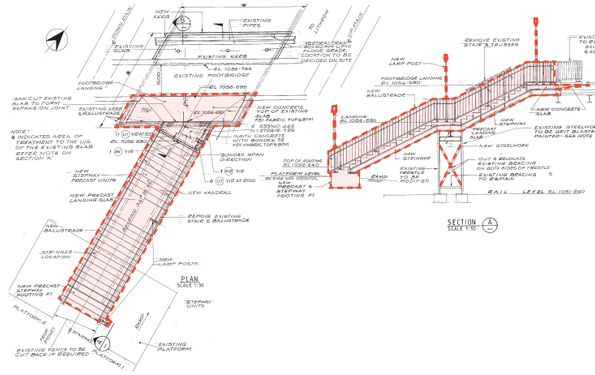

Figure 120: Detail of steel framed balustrades to all sides of new footbridge.
Source: TfNSW.

FB denotes fixed bearing
EB denotes expansion bearing



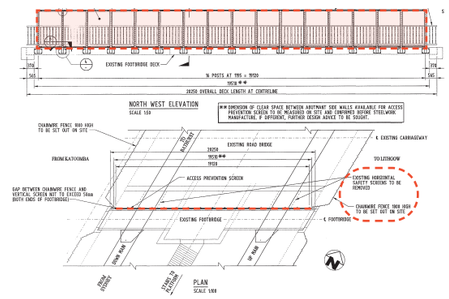

**1980**

Figure 117: Widening of overbridge to include former footway. Construction of new safety screens and separate footbridge to the south of road bridge.
Source: TfNSW.




**1994**

Figure 121: New stair and landing.
Source: TfNSW.




**2003**

Figure 122: New access prevention screens to northern side of footbridge.
Source: TfNSW.

## Railway Footbridges Heritage Conservation Strategy

The Railway Footbridges Heritage Conservation Strategy prepared by GAO Heritage Group in 2016 grades the Medlow Bath Footbridge as one of 31 footbridges being of Moderate significance, which although modified, contribute to a railway heritage precinct. The study describes the significance of the footbridge at Medlow Bath as follows:

Medlow Bath - 1901

> The Medlow Bath station footbridge is a typical example of standard early 1900s steel beam structure supported on trestles and brick abutments with later concrete deck and steps.
>
> The Precinct is SHR, s170 & LEP listed.

The study acknowledges the 1994 alterations, however, omits to mention the works carried out in 2003. It states:

> 1994 - Footbridge upgraded with new deck, stepway, and the superstructure cleaned and repainted.

The following strategy applies to footbridges of Moderate significance:

> STRATEGY 9.
>
> Retain footbridges of Moderate significance as a first preference.
>
> - Railway station footbridges of Moderate heritage significance which also contribute to heritage railway precincts should be prioritised for conservation.
>
> - A range of good examples of railway station footbridges of Moderate heritage significance should be earmarked for careful conservation. They should be chosen because of their ability to represent different periods and constructions techniques.

# 2.2 Current Situation

## 2.2.1 Medlow Bath Railway Station



Figure 123: View from top of pedestrian bridge looking south towards the island station platform.
Source: TZG Architects, 2022.



Figure 132: View from top of pedestrian bridge looking south along rail line to Sydney Central Station.
Source: TZG Architects, 2022.



Figure 133: View from top of pedestrian bridge looking south along rail line to Lithgow Station.
Source: TZG Architects, 2022.



Figure 134: View from platform looking north to pedestrian bridge over the rail corridor.
Source: TZG Architects, 2022.




Figure 124: View looking south along platform towards Signal Room and Station building.
Source: TZG Architects, 2022.




Figure 125: View looking south along platform towards Signal Room and Station building.
Source: TZG Architects, 2022.



Figure 126: View of Signal Room looking north.
Source: TZG Architects, 2022.



Figure 127: View of Signal Room and Station Building, looking south along Sydney line.
Source: TZG Architects, 2022.



Figure 128: View of west facade and awning of Station Building, looking north along Lithgow line with pedestrian bridge beyond.
Source: TZG Architects, 2022.



Figure 129: View looking north of the south end facade of the Station Building, located centrally on the island platform.
Source: TZG Architects, 2022.



Figure 130: View looking north along the island platform with the Station Building beyond.
Source: TZG Architects, 2022.



Figure 131: View looking south along the island platform. Line for trains travelling north to Lithgow Station visible on the right.
Source: TZG Architects, 2022.




Figure 135: View looking south along the island platform with the Great Western Highway and heritage listed Hydro Majestic Hotel visible on the right.
Source: Design Inc, 2022.



Figure 136: View looking north-west with the heritage listed 'Urunga' former Station Master's residence visible on the right.
Source: TZG Architects, 2022.



Figure 145: View looking west from the platform with the heritage listed former Post and Telegraph Store visible through the trees.
Source: TZG Architects, 2022.



Figure 137: View looking south-west from the platform with the heritage listed 'Urunga' former Station Master's residence visible in the distance.
Source: TZG Architects, 2022.



Figure 138: View from the Great Western Highway of the Signal Room and Station Building.
Source: TZG Architects, 2022.



Figure 140: View from the Great Western Highway of the Station's island platform and steps leading to the pedestrian bridge on the left.
Source: TZG Architects, 2022.



Figure 139: View from the Great Western Highway of the Signal Room and Station Building.
Source: TZG Architects, 2022.



Figure 141: View from the Great Western Highway of the steps leading to the pedestrian bridge at the northern end of the platform.
Source: TZG Architects, 2022.



Figure 142: View from the Great Western Highway of the pathway connection to the pedestrian bridge at the northern end of the platform.
Source: TZG Architects, 2022.



Figure 143: View looking south along the Great Western Highway from the entrance to the pathway connection to the pedestrian bridge.
Source: TZG Architects, 2022.



Figure 144: View from the pedestrian bridge looking south over the Station platform.
Source: TZG Architects, 2022.



Figure 146: View from the pedestrian bridge looking south over the Station platform in the snow.
Source: TZG Architects, 2022.



Figure 147: View from the pedestrian bridge looking south over the Station platform in the snow.
Source: TZG Architects, 2022.

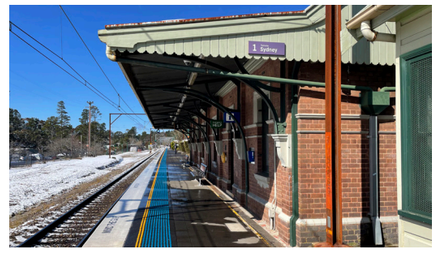


Figure 148: Platform in the snow.
Source: TZG Architects, 2022.




Figure 149: Platform in the snow looking south.
Source: TZG Architects, 2022.

## 2.2.2 West of Great Western Highway



Figure 150: View looking south along the Great Western Highway.
Source: TZG Architects, 2022.



Figure 152: View looking west down Station Street, location of heritage listed residential homes
Source: TZG Architects, 2022.



Figure 154: View of heritage item ‘Sheleagh Cottage’ on Station Street.
Source: TZG Architects, 2022.



Figure 156: View of heritage item ‘Cosy Cot’ on Station Street.
Source: TZG Architects, 2022.




Figure 151: View of entrance gate with of heritage item ‘Cosy Cot’.
Source: TZG Architects, 2022.

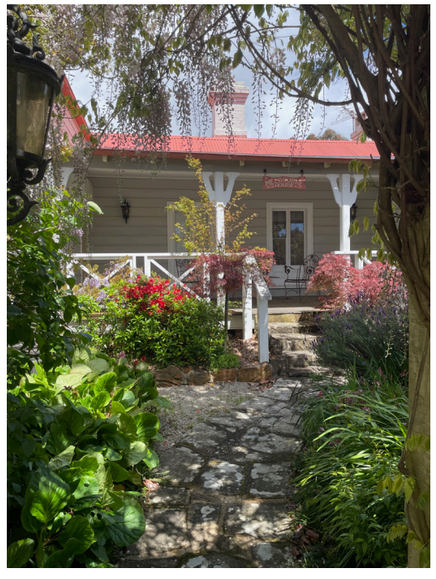


Figure 153: View of verandah and signage for heritage item ‘Melbourne House’, 2 Station Street.
Source: TZG Architects, 2022.

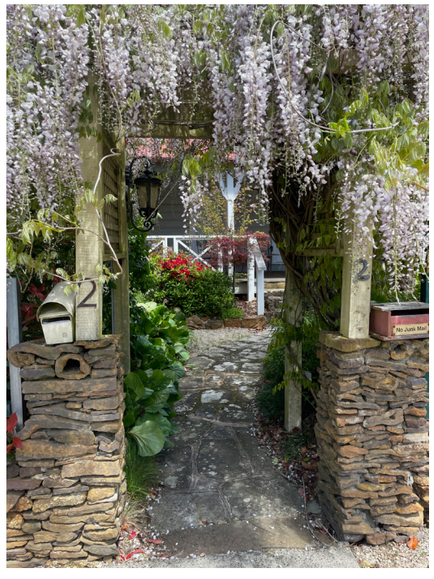



Figure 155: View of front verandah of heritage item ‘Melbourne House’, 2 Station Street.
Source: TZG Architects, 2022.




Figure 157: View of Ellington Manor on Great Western Highway (not a heritage item).
Source: TZG Architects, 2022.



Figure 158: View looking north along Station Street. The Great Western Highway runs over the sandstone retaining wall on the right.
Source: TZG Architects, 2022.



Figure 159: View through vacant lot between properties on Station Street looking over Megalong Valley.
Source: TZG Architects, 2022.



Figure 160: Looking north along the highway showing the entrance to Mazda car dealership on the left and Medlow Bath Railway Station on the right.
Source: TZG Architects, 2022.



Figure 161: View looking south along the highway with Mazda car dealership on the right and heritage listed ‘Avenue of Trees’ on the left.
Source: TZG Architects, 2022.




Figure 162: View of the narrow gravel driveway to the south of Mazda dealership which forms part of the proposal site area.
Source: TZG Architects, 2022.



Figure 163: View across the highway looking towards Medlow Bath Railway Station.
Source: TZG Architects, 2022.



Figure 164: View looking across the highway at the level crossing to Medlow Bath Railway Station and pedestrian crossing island in the centre of the road.
Source: TZG Architects, 2022.



Figure 165: View looking south along the highway with Hydro Majestic boundary wall and low hedges on the right.
Source: TZG Architects, 2022.



Figure 166: View of decorative low stone wall defining boundary of Hydro Majestic along the highway. Vehicle entrance into the hotel property is visible.
Source: TZG Architects, 2022.



Figure 167: View of decorative wall of stone balusters, capping, plinth and columns defining the boundary of the Hydro Majestic Hotel.
Source: Design Inc, 2022.



Figure 168: View of locally listed heritage item ‘Hydro Majestic Hotel’.
Source: TZG Architects, 2022.



Figure 169: View of tennis court and view of Megalong Valley inside the site of the  Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 170: View of locally listed heritage item ‘Hydro Majestic Hotel’ in the snow.
Source: TZG Architects, 2022.



Figure 171: View of locally listed heritage item ‘Hydro Majestic Hotel’ with casino domed roof visible.
Source: TZG Architects, 2022.



Figure 172: View of Hargravia (1903) glazed wintergarden within the site of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 173: View of tennis court and view of Megalong Valley inside the site of the  Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 174: View of Belgravia that forms part of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 175: Hydro Majestic Hotel.
Source:  TZG Architects, 2022.



Figure 176: View of the main building of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 177: View of the main entrance and forecourt of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 178: View of one of the entrances of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.




Figure 179: View of one of the entrances of the Belgravis wing of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 180: View of one of the entrances of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 181: View of one of the entrances to the Hydro Majestic Hotel property along the Great Western Highway.
Source: TZG Architects, 2022.




Figure 182: View of bus stop adjacent the Medlow Bath Railway Station (potential future heritage item).
Source: TZG Architects, 2022.



Figure 183: View of the Boiler Room restaurant at the Hydro Majestic Hotel.
Source: TZG Architects, 2022.




Figure 184: Entry 1 at the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 185: Expansive view over Megalong Valley from inside the Hydro Majestic Hotel property.
Source: TZG Architects, 2022.



Figure 186: Expensive view over Megalong Valley from the Hydro Majestic Hotel in the snow.
Source: TZG Architects, 2022.



Figure 187: Expansive view over Megalong Valley from inside the Hydro Majestic Hotel property.
Source: TZG Architects, 2022.



Figure 188: View of residential properties in low-density, tree lined streets situated to the south of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 189: View of letterbox on Bellevue Crescent situated to the south of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 190: View of typical residential property in low density, tree lined streets to the south of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 191: View of the heritage item ‘Avenue of Trees’ along the Great Western Highway.
Source: TZG Architects, 2022.



Figure 192: View looking north along the Great Western Highway with the Hydro Majestic Highway on the left.
Source: TZG Architects, 2022.



Figure 193: View of decorative wall of stone balusters, capping, plinth and columns defining the boundary of the Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 194: View of decorative stone balusters, capping and plinth.
Source: TZG Architects, 2022.



Figure 195: View of the northern buildings defining the boundary of the Hyrdo Majestic Hotel along the Great Western Highway.
Source: TZG Architects, 2022.




Figure 196: View of the level crossing to Medlow Bath Railway Station from the Great Western Highway.
Source: TZG Architects, 2022.



Figure 197: View of bus stop adjacent the Medlow Bath Railway Station (potential future heritage item).
Source: TZG Architects, 2022.

## 2.2.3 East of the Great Western Highway



Figure 198: Views of the Hydro Majestic dominate views west from Railway Parade.
Source: TZG Architects, 2022.



Figure 199: View looking south along Railway Parade with the heritage listed former Post and Telegraph Store visible.
Source: TZG Architects, 2022.



Figure 200: View looking south along Railway Parade with mostly single storey residential houses.
Source: TZG Architects, 2022.




Figure 201: View of 1 Park Street.
Source: TZG Architects, 2022.




Figure 202: Medlow Bath Park.
Source: TZG Architects, 2022.



Figure 203: Medlow Bath Park.
Source: TZG Architects, 2022.



Figure 204: Decorative bus stop.
Source: TZG Architects, 2022.



Figure 205: View along Railway Parade lined with mature trees, setbacks and low fences.
Source: TZG Architects, 2022.



Figure 206: View of single storey residential house on Railway Parade.
Source: TZG Architects, 2022.




Figure 207: Medlow Bath Community Notice Board.
Source: TZG Architects, 2022.



Figure 208: Railway Parade falls to the north.
Source: Design Inc, 2022.



Figure 209: Tree lined streets fall away from Railway Parade towards the Greater Blue Mountains Area.
Source: Design Inc, 2022.




Figure 210: View of two storey residential house and entry driveway on Railway Parade.
Source: TZG Architects, 2022.



Figure 211: View of low fences and on-grade pathway adjacent Railway Parade.
Source: TZG Architects, 2022.

Figure 212:  1954. Medlow Bath Railway Station.

Source: NSW State Archives, Image Number oai: records.nsw.gov.au:17420_a014_a014000748.jpg, 17420_a014_a014000748

# 3.0

# Heritage Significance

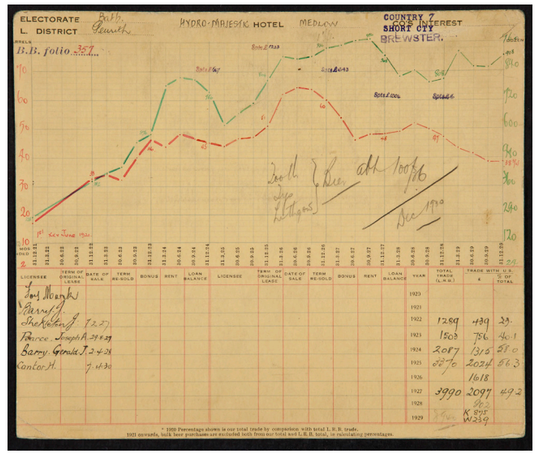



Figure 213: 1920s. Hydro Majestic Hotel, Card 1, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125223



Figure 214: 1920s. Hydro Majestic Hotel, Card 1, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125222

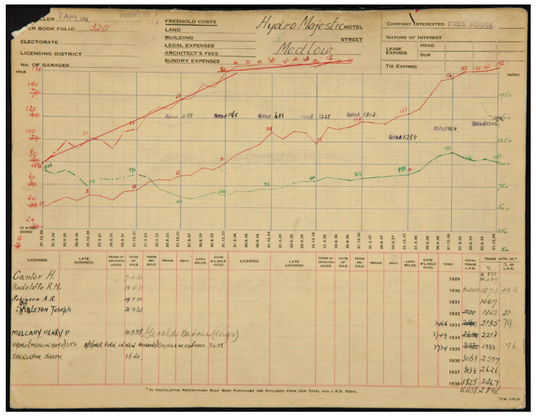



Figure 215: 1930s. Hydro Majestic Hotel, Card 3, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125220

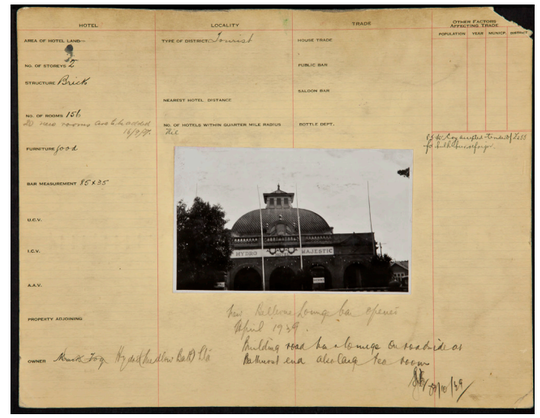


Figure 216: 1930s. Hydro Majestic Hotel, Card 3, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co,http://hdl.handle.net/1885/125219

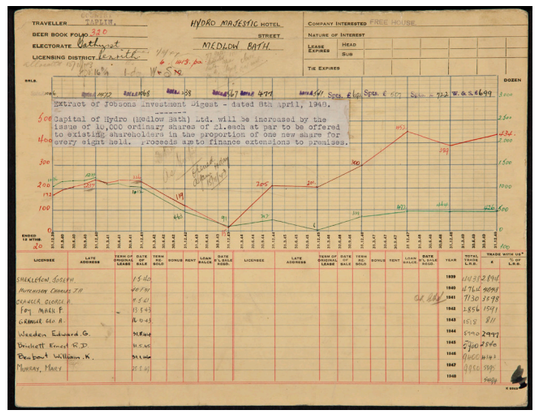



Figure 217: 1940s. Hydro Majestic Hotel, Card 4, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co,http://hdl.handle.net/1885/125218

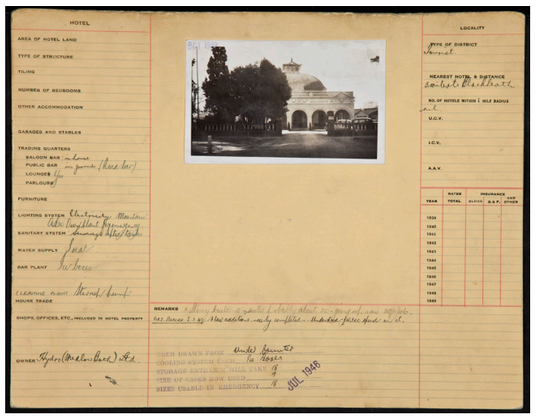



Figure 218: 1940s. Hydro Majestic Hotel, Card 4, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125217

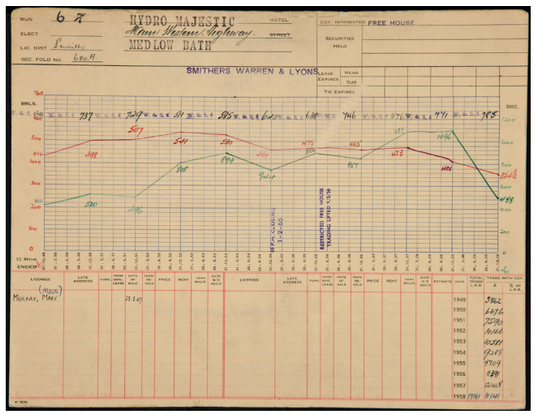



Figure 219: 1950s. Hydro Majestic Hotel, Card 5, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125216

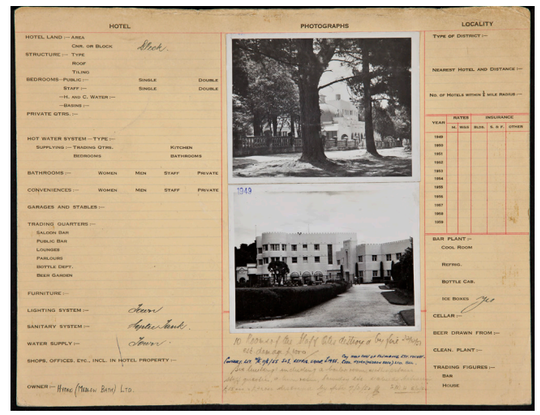



Figure 220: 1950s. Hydro Majestic Hotel, Card 5, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125215




Figure 221: 1950s. Hydro Majestic Hotel, Card 6, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125214

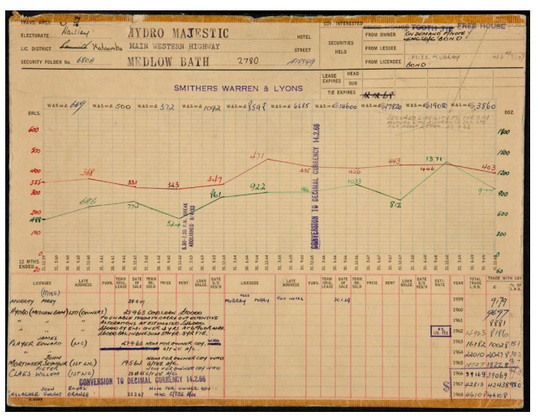



Figure 222: 1960s. Hydro Majestic Hotel, Card 7, Side 1.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125213

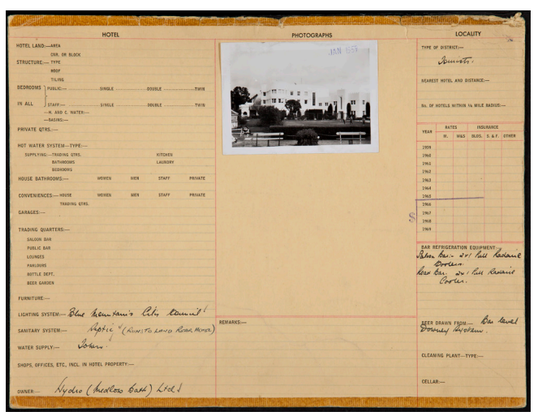



Figure 223: 1960s. Hydro Majestic Hotel, Card 7, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125212

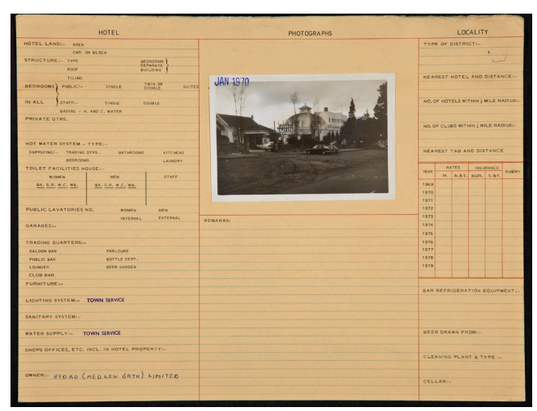



Figure 224: 1970s. Hydro Majestic Hotel, Card 8, Side 2.

Source: Australian National University, Noel Butlin Archives, Tooth & Co, http://hdl.handle.net/1885/125210

# 3.1 Statutory Context

Environmental heritage in NSW is protected and managed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, the *NSW Heritage Act 1977* and the *NSW Environmental Planning and Assessment Act 1979 (EP&A Act)*.

### 3.1.1 World Heritage Convention

The General Conference of UNESCO adopted the Convention Concerning the Protection of World Cultural and National Heritage (World Heritage Convention) on 16 November 1972, and it came into force on 17 December 1975. The World Heritage Convention aims to promote international cooperation to protect places of outstanding cultural significance.

#### World Heritage List

The Greater Blue Mountains Area is listed on the World Heritage List (WHL) (Reference No. 917) and is located within the vicinity of the proposal area.

### 3.1.2 Environment Protection and Biodiversity Conservation Act (Cth) 1999

The *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* is the principal environmental Act at a Commonwealth level. It provides for the protection and management of nine matters of national environmental significance as defined in the Act. Matters of national environmental significance include but are not limited to flora, fauna, ecological communities and heritage places of national and international importance.

In addition, the *EPBC Act* applies to actions with a significant impact on the environment where the actions affect, or are taken on, Commonwealth land, or are carried out by a Commonwealth agency (even if that significant impact is not on one of the nine matters of 'national environmental significance').

The *EPBC Act* requires approval from the Minister for actions with a significant impact on places included on the National Heritage List or Commonwealth Heritage List.

#### National Heritage List

The National Heritage List was established under the EPBC Act to protect places of outstanding significance to Australia.

The Greater Blue Mountains Area is listed the National Heritage List (Place No.105999) and is located within the vicinity of the proposal area.

#### Commonwealth Heritage List

The Commonwealth Heritage List was established under the *EPBC Act* to protect places owned and managed by Commonwealth agencies.

There are no places on the Commonwealth Heritage List within or near the proposal area.

### 3.1.3 Heritage Act (NSW) 1977

The *NSW Heritage Act 1977* (Heritage Act) is the principal Act for the management of the environmental heritage of NSW. It establishes the State Heritage Register (SHR) and includes provisions for Interim Heritage Orders, Orders to Stop Work and the management of archaeological relics. It also requires government agencies such as Transport for NSW to maintain a Heritage and Conservation Register.

To assist management of NSW's environmental heritage, the Act distinguishes between assets of state and local significance.

#### State Heritage Register

The State Heritage Register (SHR) identifies places and objects of importance to the whole of NSW.

Medlow Bath Railway Station Group is listed on the State Heritage Register (SHR No.01190).

#### Section 170 Heritage and Conservation Register

Section 170 of the Act requires government agencies to establish a Heritage and Conservation Register that identifies all assets of environmental heritage that it owns or occupies. Government agencies are required to provide the NSW Heritage Council notice of any intention to remove an asset from a Section 170 Heritage and Conservation Register, transfer ownership of an asset included on a Section 170 Heritage and Conservation Register, cease to occupy an asset on a Section 170 Heritage and Conservation Register or demolish an item included on a Section 170 Heritage and Conservation Register and assets must be maintained with due diligence in accordance with the State Agency Heritage Guide (NSW Heritage Office 2005). Proposals to alter or demolish assets of State significance must be referred to the NSW Heritage Council.

Medlow Bath Railway Station Group is listed on the TfNSW RailCorp Section 170 Heritage and Conservation Register (SHI No.4801011).

#### Relics Provisions

Historical archaeological resources or 'relics' are defined by the *NSW Heritage Act*. Section 139 protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. It applies to all land in New South Wales that is not included on the SHR. A relic is an archaeological deposit, resource or feature that has heritage significance at a local or State level. The definition is no longer based on age. A 'relic' is defined by the *Heritage Act* as:

> Any deposit, object or material evidence:(a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) which is of State or Local significance.

### 3.1.4 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) regulates land-use planning and assessment for NSW. The project was assessed through a Review of Environmental Factors (REF) under Division 5.1 of the EP&A Act, specifically a development without consent to be determined by TfNSW.

#### Blue Mountains Local Environmental Plan 2015

The Blue Mountains Local Environmental Plan (LEP) 2015 sets out a range of planning, development and environmental controls for the Blue Mountains City Council Local Government Area (LGA). Schedule 5 of the LEP identifies heritage items within the LGA.

The following heritage items listed on the Blue Mountains LEP 2015 are located in the immediate vicinity of the proposal area.

- Hydro Majestic (Item No. MB002)
- Medlow Bath Railway Station Group (Item No. MB003)
- Former Post and Telegraph Store (Item No. MB008)
- Avenue of Radiata Pines (Item No. MB015)
- Urunga (Item No. MB017)
- Melbourne House, Cosy Cot, Sheleagh Cottage (Item No. MB019)
- Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic) (Conservation Area No. MB026)

#### Potential heritage items

The SOHI prepared by RPS (July 2021) to support the REF for the Great Western Highway upgrade, Medlow Bath, identified Medlow Bath Bus Shelter and Sandstone Railway culvert as potential heritage items. The bus shelter is located within the road reserve beside the railway within the proposal area, while the sandstone railway culvert is located around 100 metres south of the SHR curtilage for Medlow Bath Railway Station.

#### Blue Mountains Development Control Plan 2015

The Blue Mountains Development Control Plan (DCP) 2015 outlines the planning, design and environmental objectives and controls against which Blue Mountains City Council assesses Development Applications (DAs).

Blue Mountains DCP 2015 requires a Heritage Impact Statement to be submitted with any proposal which involves development in the vicinity of a heritage item, heritage conservation area, archaeological site or Aboriginal site that addresses any potential impacts and outlines mitigation measures.

# 3.2 Heritage Listing Summary

Medlow Bath Railway Station is listed on the State Heritage Register (SHR) (No. 01190), the TAHE S170 Heritage and Conservation Register (SHI No. 4801011). It is also identified as an item of State significance on the Blue Mountains Local Environmental Plan (LEP) 2015 (Item MB003).

The site is located within a significant cultural landscape as evidenced by the heritage listings of many places in the vicinity of the station. These range from the World Heritage listed Greater Blue Mountains Area to locally listed heritage items including the Hydro Majestic Hotel and Former Post and Telegraph Store.

## 3.2.1 Statutory Listings

### State Heritage Register

| NAME OF ITEM | SHR#. |
|---|---|
| Medlow Bath Railway Station | 01190 |

### TAHE S170 Heritage and Conservation Register

| NAME OF ITEM | PLACE ID |
|---|---|
| Medlow Bath Railway Station | 4801011 |

### Schedule 5 Blue Mountains LEP 2015

| NAME OF ITEM | ID NO. |
|---|---|
| Medlow Bath Railway Station | MB003 |

## 3.2.2 Non Statutory Listings

A listing on non-statutory registers does not provide any legal protection to heritage items or sites, but does demonstrate the recognised heritage value. Non-statutory heritage registers include the *Register of the National Estate* and those maintained by the Australian Institute of Architects, Engineers Australia and other organisations with an interest in heritage.

### Register of the National Estate

The *Register of the National Estate* is a list of some 13,000 places of natural, Indigenous and historic significance throughout Australia that was originally established under the Australian Heritage Commission Act 1975. *The Register of the National Estate* ceased to be a statutory register in 2012 and is now maintained on a non-statutory basis as a publicly available archive and educational resource.

There are no sites listed on the Register located in Medlow Bath.

### Register of the National Trust of Australia (NSW)

The National Trust of Australia (NSW) maintains a Register of Significant Heritage Places. National Trust listing is not a statutory listing and has no legal effect, but is a good indication of community concern for a place or item.

| NAME OF ITEM | |
|---|---|
| Hydro Majestic Hotel | R3522 |
| Medlow Bath Railway Group | R3517 |
| Former Railway Gatehouse No.11 | R3517 |
| St Lukes Community Church | R6259 |

## 3.2.3 Heritage Items in the Vicinity

There are heritage items of International, National, State and Local significance in the vicinity of the Medlow Bath Railway Station. These items are mapped on the following pages.

### World Heritage List

| NAME OF ITEM | # |
|---|---|
| The Greater Blue Mountains Area | 917 |

### National Heritage List

| NAME OF ITEM | PLACE NO |
|---|---|
| The Greater Blue Mountains Area | 105999 |

### Schedule 5 Blue Mountains LEP 2015

The following heritage items are listed on the LEP to be of Local hertiage significance:

| NAME OF ITEM | ITEM NO |
|---|---|
| Hydro Majestic | MB002 |
| Former Post and Telegraph Store | MB008 |
| Avenue of Radiata Pines | MB015 |
| Urunga | MB017 |
| Melbourne House, Cosy Cot, Sheleagh Cottage | MB019 |
| Medlow Bath Hydro Majestic original walking track complex (only the parts within the grounds of the Hydro Majestic). Conservation Area | MB026 |

## 3.2.4 Potential Heritage Items

The 2021 Statement of Heritage Impact prepared by RPS identified the following potential heritage items.

### Potential Heritage Items

| NAME OF ITEM | |
|---|---|
| Medlow Bath Bus Shelter (within road reserve beside railway within proposal area) | |
| Sandstone Culvert (100m south of SHR curtilage for station) | |

### 3.2.5 Summary of Heritage Items

The diagram to the right summarises heritage items, of varying levels of significance, in the vicinity of Medlow Bath Railway Station.

| | NAME OF ITEM | # | SIGNIFICANCE |
|---|---|---|---|
| 1 | The Greater Blue Mountains Area | 917<br>105999 | World<br>National |
| 2 | Medlow Bath Railway Station | 01190<br>4801011<br>MB03 | State |
| 3 | Hydro Majestic | MB002 | Local |
| 4 | Former Post and Telegraph Store | MB008 | Local |
| 5 | Avenue of Radiata Pines | MB015 | Local |
| 6 | Urunga | MB017 | Local |
| 7 | Melbourne House, Cosy Cot, Sheleagh Cottage | MB019 | Local |
| 8 | Medlow Bath Hydro Majestic original walking track complex. Conservation Area. | MB026 | Local |
| 9 | Medlow Bath Bus Shelter | | Potential Local |
| 10 | Sandstone Culvert | | Potential Local |




Figure 225: Heritage Listing summary diagram.
Source: TZG Architects, 2022.

# 3.3 Heritage Listings

### 3.3.1 State Heritage Register Listing - Medlow Bath Railway Station - SHR # 01190

The SHR listing for Medlow Bath Railway Station contains the following assessment of significance.

#### Statement of Significance

Medlow Bath Railway Station is significant as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. Constructed in anticipation of a boom period in the mountains particularly in connection with large holiday resorts such as the Hydro-Majestic Hotel, Medlow Bath station building is a good example of a Federation free classical railway station. The station building demonstrates typical architectural elements of the standard Federation style island platform buildings that were built between Penrith and Lithgow when the line was duplicated.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | Medlow Bath Station Group is of historical significance as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. It was built in anticipation of a boom period in the mountains, particularly in connection with large holiday resorts such as the nearby Hydro-Majestic Hotel. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | Medlow Bath station building is a good example of a standard design island platform building and demonstrates typical architectural elements of Federation period standard buildings that were built between Penrith and Lithgow following the duplication of the railway line. It maintains its overall architectural quality and setting. |
| Criteria d) Social/Cultural Significance | 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 past. |
| Criteria e) | - |
| Criteria f) Rarity | The timber signal room is a rare example of a separate platform level signal box as the majority of the signal rooms along Blue Mountains Line are incorporated into the main station building. |
| Criteria g) Representative | The station building is one of the early examples of a large number of standard railway designs that were commonly used in the 1910s-20s after a decade from the construction of Medlow Bath station building. The 1901 superstructure of the footbridge is a typical example of standard steel beam structure supported on trestles and brick abutments with later concrete deck and steps. |
| Integrity/ Intactness | The station building has a high degree of integrity externally, however; the interiors have lost their intactness due to the poor condition. The timber signal room is intact. The footbridge is relatively intact as it retains its original steel superstructure. |




Figure 226: Medlow Bath Railway Station SHR Curtilage.
Source: Heritage NSW, 2022.

### 3.3.2 TAHE S170 Listing - Medlow Bath Railway Station - Place ID 4801011

The S170 listing for Medlow Bath Railway Station contains the following assessment of significance and recommended management.

#### Statement of Significance

Medlow Bath Railway Station is significant as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. Constructed in anticipation of a boom period in the mountains particularly in connection with large holiday resorts such as the Hydro-Majestic Hotel, Medlow Bath station building is a good example of a Federation free classical railway station. The station building demonstrates typical architectural elements of the standard Federation style island platform buildings that were built between Penrith and Lithgow when the line was duplicated.



Figure 227: Medlow Bath Railway Station.
Source: Heritage NSW, 2022.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | Medlow Bath Station Group is of historical significance as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. It was built in anticipation of a boom period in the mountains, particularly in connection with large holiday resorts such as the nearby Hydro-Majestic Hotel. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | Medlow Bath station building is a good example of a standard design island platform building and demonstrates typical architectural elements of Federation period standard buildings that were built between Penrith and Lithgow following the duplication of the railway line. It maintains its overall architectural quality and setting and some rare interior fixtures and fittings, including fireplaces, internal ticket window frame, and fitted timber seating in the waiting room. Platform gardens and early electric light poles contribute to the heritage character and setting. |
| Criteria d) Social/Cultural Significance | 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 past. |
| Criteria e) | - |
| Criteria f) Rarity | The timber signal room is a rare example of a separate platform level signal box as the majority of the signal rooms along Blue Mountains Line are incorporated into the main station building Interior fixtures and fittings in the platform building are now rare, including fireplaces, internal ticket window, and fitted timber seating in the waiting room. |
| Criteria g) Representative | The station building is one of the early examples of a large number of standard railway designs that were commonly used in the 1910s-20s after a decade from the construction of Medlow Bath station building.<br><br>The 1901 superstructure of the footbridge is a typical example of standard steel beam structure supported on trestles and brick abutments with later concrete deck and steps. The footbridge was identified as an item of moderate heritage significance in the comparative analysis from the 2016 'Railway Footbridges Heritage Conservation Strategy'. |
| Integrity/ Intactness | The station building has a high degree of integrity externally and internally, however; the interiors are deteriorating due to lack of use. The timber signal room is intact. The footbridge is relatively intact as it retains its original steel superstructure. Platform gardens and early electric lighting are traditional elements that contribute to overall integrity, although treated pine log borders to garden beds and modern flood lights detract from heritage character. |

#### Description

##### Buildings

Station Building - type 11, island station building 'A8' design, brick (1902) Signal Room - gabled roof, timber (c1922)

##### Structures

Island Platform - brick faced (1902) Footbridge (1901, 1994)

##### Station Building (1902)

External: Constructed of face brick with corrugated metal gabled roof extending as an awning to both platforms, the Medlow Bath station building is an early phase island building in standard 'A8' Federation style design. It features 6 bays with linear arrangement along the platform with tuckpointed red brickwork with engaged piers between the bays. Other features include rendered and moulded two rows of string courses, moulded cornice, timber framed windows and doors with contrasting decorative trims and sills, standard iron brackets over decorative corbels supporting ample platform awnings, fretted timber work to both ends of awnings and gable ends, timber finials to gable apex, tall corbelled chimneys, timber framed double-hung windows with multi-paned and coloured upper sashes, and timber door openings with multi-paned fanlights with coloured glazing.

Internal: Medlow Bath Station is an unattended station and its interiors are in an abandoned state. The floor layout of the building comprises a booking office, waiting room, ladies waiting and toilets and male toilets with access from the south end of the building. The interiors generally feature custom orb ceilings with ceiling roses, fireplaces with no grates, timber floor boards to main rooms and tiling to toilets, beaded dado line and timber bead style moulded cornices. Toilet fittings are modern.

##### Signal Room (c1922)

External: A small timber building at the booking office end of the station on axis with the platform. Historical evidence suggest that this weatherboard building covered an interlocking frame, which was originally erected as an open frame. It appears to be used as a store room after being taken out of service in 1957. It has a steep gabled corrugated metal roof, rusticated timber boarding with small four-paned windows on three elevations, and a four-panelled timber door with timber awning on the south elevation.

Internal: Access to the interior of the signal room was not available (2009).

##### Island Platform (1902)

A typical island platform running north-south, with the buildings located approximately at the centre. The platform is brick faced with a concrete deck and asphalt finish. Two raised round shaped slabs are located to the south of the station building probably for access to the services below the platform. A number of garden beds along the axis of the platform enhance the setting of the station. Modern platform furniture including light fittings, signage, timber bench seating and aluminium palisade fencing at both ends of the platform are other features along the platform.

##### Footbridge (1901,1994)

A standard concrete slab structure supported on original brick abutments and two steel trestles with new stairs to the platform and bridge with new concrete deck over the tracks spanning between the Great Western Highway and Railway Parade. The footbridge marks the northern end of the station. A concrete level crossing with relatively new fabric is also located on the southern end of the station. 1994 metal balustrades provides safety along the edges of the stairs and the bridge.

##### Movable Items

Two timber bench style seats in the waiting room.

##### Landscape Features

Other than small plantings along the platform no notable landscape features have been identified. The existing plantings are not considered significant.

### 3.3.3 Blue Mountains LEP 2015, Schedule 5 Listing - Medlow Bath Railway Station - MB003

The LEP listing for Medlow Bath Railway Station contains the following assessment of significance.

#### Statement of Significance

Medlow Bath Railway Station is significant as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. Constructed in anticipation of a boom period in the mountains particularly in connection with large holiday resorts such as the Hydro-Majestic Hotel, Medlow Bath station building is a good example of a Federation free classical railway station. The station building demonstrates typical architectural elements of the standard Federation style island platform buildings that were built between Penrith and Lithgow when the line was duplicated.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | Medlow Bath Station Group is of historical significance as part of the early construction phase of railway line duplication on the upper Blue Mountains demonstrating the technological and engineering achievements in railway construction at the beginning of the 1900s. It was built in anticipation of a boom period in the mountains, particularly in connection with large holiday resorts such as the nearby Hydro-Majestic Hotel. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | The station is a representative example of a Federation free classical railway station built to a standard pattern used for the majority of stations on the Blue Mountains railway following the duplication of the railway line. |
| Criteria d) Social/Cultural Significance | 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 past. |
| Criteria e) | - |
| Criteria f) Rarity | The timber signal room is a rare example of a separate platform level signal box as the majority of the signal rooms along Blue Mountains Line are incorporated into the main station building. |
| Criteria g) Representative | The station building is one of the early examples of a large number of standard railway designs that were commonly used in the 1910s-20s after a decade from the construction of Medlow Bath station building. The 1901 superstructure of the footbridge is a typical example of standard steel beam structure supported on trestles and brick abutments with later concrete deck and steps. |
| Integrity/ Intactness | Main Building: High |



Figure 228: Medlow Bath Railway Station.
Source: Heritage NSW, 2022.

#### Medlow Bath Footbridge

The Railway Footbridges Heritage Conservation Strategy prepared by GAO Heritage Group in 2016 grades the Medlow Bath Footbridge as one of 31 footbridges being of Moderate significance, which although modified, contribute to a railway heritage precinct. The study describes the significance of the footbridge at Medlow Bath as follows:

> Medlow Bath (1901).
> The Medlow Bath station footbridge is a typical example of standard steel beam structure supported on trestles and brick abutments with later concrete deck and steps. Precinct is SHR, s170 & LEP listed.

The following strategy applies to footbridges of Moderate significance:

> STRATEGY 9.
>
> Retain footbridges of Moderate significance as a first preference.
>
> - Railway station footbridges of Moderate heritage significance which also contribute to heritage railway precincts should be prioritised for conservation.
> - A range of good examples of railway station footbridges of Moderate heritage significance should be earmarked for careful conservation. They should be chosen to because of their ability to represent different periods and constructions techniques.

# 3.4 Heritage Listings for Heritage Items in the Vicinity of the site

### 3.4.1 Blue Mountains LEP 2015, Schedule 5 Listing - Hydro Majestic - MB002

The LEP listing for the Hydro Majestic, located adjacent to the subject site at 52-88 Great Western Highway Medlow Bath, contains the following assessment of significance.

#### Statement of Significance

The grandest of the grand hotels in the mountains, the Hydro has state significance as a pioneering spa resort with advanced facilities for the health and pleasure of guests. The century and more of use as a hotel, capitalising on one of the finest situations in the mountains, is also of state significance. The Hydro Majestic Hotel is a unique overlay of hotel building styles including the pre-fabricated Casino and Federation free-style Reception buildings and the art deco Hargravia, Belgravia and main wings and the federation free classical south wing. The hotel also includes a number of free standing buildings with a unity of styling and detailing such as the north bunkhouse, toilet block and rear of the Road Bar.

The arrangement of buildings along the ridge parallel to the Great Western Highway with the distinctive street fencing and row of mature radiata pinus trees quickly became, and remains, a significant landmark on the road through the Blue Mountains.

Some individual elements including the Casino and Reception buildings are fine examples of Federation free style architecture.

The tennis courts have a rare quality with their rustic stone walling and location on the edge of the ridge.

The unusual feature of a prefabricated imported casino which became a showpiece for some of the greatest singers of the Edwardian period, the art collection and the cuisine further enhance the social significance of the Hydro.

Technical interest attaches to the remains of the flying fox into the Megalong and the symbiosis between the hotel and valley below has remained a significant element in the Hydro's success.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | The grandest of the grand hotels in the mountains, the Hydro has state significance as a pioneering spa resort with advanced facilities for the health and pleasure of guests. The century and more of use as a hotel, capitalising on one of the finest situations in the mountains, is also of state significance. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | The Hydro Majestic Hotel is a unique overlay of hotel building styles including the pre-fabricated Casino and Federation free-style Reception buildings and the art deco Hargravia, Belgravia and main wings and the federation free classical south wing. The hotel also includes a number of freestanding buildings with a unity of styling and detailing such as the north bunkhouse, toilet block and rear of the Road Bar.<br><br>The arrangement of buildings along the ridge parallel to the Great Western Highway with the distinctive street fencing and row of mature radiata pinus trees quickly became, and remains, a significant landmark on the road through the Blue Mountains.<br><br>Some individual elements including the Casino and Reception buildings are fine examples of Federation free style architecture.<br><br>The tennis courts have a rare quality with their rustic stone walling and location on the edge of the ridge |
| Criteria d) Social/Cultural Significance | The unusual feature of a prefabricated imported casino which became a showpiece for some of the greatest singers of the Edwardian period, the art collection and the cuisine further enhance the social significance of the Hydro. |
| Criteria e) Research Potential | Technical interest attaches to the remains of the flying fox into the Megalong and the symbiosis between the hotel and valley below has remained a significant element in the Hydro's success. |
| Criteria f) Rarity | - |
| Criteria g) Representative | - |
| Integrity/ Intactness | - |



Figure 229: View towards Hydro looking south along GWH. Source: TZG Architects, 2022.



Figure 230: View towards Hydro looking south along GWH. Source: TZG Architects, 2022.



Figure 231: View towards Hydro Casino building.
Source: TZG Architects, 2022.



Figure 232: View towards Hydro Casino building.
Source: TZG Architects, 2022.



Figure 233: Hydro Majestic Hotel.
Source: TZG Architects, 2022.



Figure 234: View of the Megalong Valley from the tennis court.
Source: TZG Architects, 2022.

### 3.4.2 Blue Mountains LEP 2015, Schedule 5 Listing - Former post and telegraph store and interiors - MB008

The LEP listing for the former post and telegraph store and interiors, located at 1 Railway Parade on the eastern side of the station, contains the following assessment of significance.

#### Statement of Significance

The hall and store have high local significance because of their association with the Hydro Majestic and Mark Foy's touristic entrepreneurship, particularly in catering for the interest in Jenolan Caves. The long-standing association with motor-cars is a particularly significant feature.

It is an unusual example of a Federation Gothic shopfront. An unusual form for a post office, the building features a crenellated parapet, twisted columns and a decorative shield in the centre of the façade.

The hall had a high local profile as a centre for dances, films and, after World War II, a wide variety of Catholic and community functions, while the store and post-office played their usual key role for the residents and visitors alike.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | The hall and store have high local significance because of their association with the Hydro Majestic and Mark Foy's touristic entrepreneurship, particularly in catering for the interest in Jenolan Caves. The long-standing association with motor-cars is a particularly significant feature. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | The former Post and Telegraph Office and Store is an unusual example of a Federation Gothic shopfront. An unusual form for a post office, the building features crenellated parapet, twisted columns and a decorative shield in the centre of the façade. |
| Criteria d) Social/Cultural Significance | The hall had a high local profile as a centre for dances, films and, after World War II, a wide variety of Catholic and community functions, while the store and post-office played their usual key role for the residents and visitors alike. |
| Criteria e) | - |
| Criteria f) Rarity | - |
| Criteria g) Representative | - |
| Integrity/ Intactness | High |




Figure 235: Former post and telegraph store.
TZG Architects, 2022.



Figure 236: Former post and telegraph store in the snow.
TZG Architects, 2022.



Figure 237: Former post and telegraph store.
TZG Architects, 2022.

### 3.4.3 Blue Mountains LEP 2015, Schedule 5 Listing - Avenue of Radiata Pines - MB0015

The LEP listing for the Avenue of Radiata Pines, located from 52 Great Western Highway to 33 Station Street on the western side of the station in the vicinity of the Hydro Majestic Hotel, contains the following assessment of significance.

#### Statement of Significance

The avenue is an integral part of the significance of the Hydro Majestic, and a telling testimony to the public image of the resort projected by Mark Foy and continuing today. Viewed as part of the whole, aesthetically and historically, the avenue, like the hotel, has state significance.

Many of the Radiata Pines were damaged during the wind storms of 2012, and were removed by the RMS for safety reasons. The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | The avenue is an integral part of the significance of the Hydro Majestic, telling testimony to the public image of the resort projected by Mark Foy and continuing today. Viewed as part of the whole, aesthetically and historically, the avenue, like the hotel, in 2000 was considered to be of state significance.<br><br>However, since the 2000 assessment, many of the Radiata Pines were damaged during the wind storms of 2012, and were removed by the RMS for safety reasons. The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity. |
| Criteria b) | - |
| Criteria c) Aesthetic/ Technical Significance | The avenue is a highly significant aesthetic feature of Medlow Bath and the Hydro Majestic.<br><br>The entire avenue has been replaced with a new species of line plantings - Western Red Cedar (thuja plicata). The item retains some significance which is expected to be restored as the new plantings reach maturity. |
| Criteria d) Social/Cultural Significance | - |
| Criteria e) | - |
| Criteria f) Rarity | - |
| Criteria g) Representative | - |
| Integrity/ Intactness | High |



Figure 238: Avenue of trees on Great Western Highway.
TZG Architects, 2022.

### 3.4.4 Blue Mountains LEP 2015, Schedule 5 Listing - Urunga - MB0017

The LEP listing for Urunga, located at 1 Park Street on the eastern side of the station, contains the following assessment of significance.

#### Statement of Significance

The association of the house with the railway and the growth of rail traffic at Medlow Bath associated with the Hydro gives the cottage local historical significance.




Figure 239: Urunga.
TZG Architects, 2022.



Figure 240: Urunga.
TZG Architects, 2022.

### 3.4.5 Blue Mountains LEP 2015, Schedule 5 Listing - Melbourne House, Cosy Cot, Sheleagh Cottage - MB0019

The LEP listing for Melbourne House, Cosy Cot, Sheleagh Cottage, located from 2, 4, 6 and 10 Great Western Highway, does not contain a statement of significance.



Figure 241: Cosy Cot.
TZG Architects, 2022.



Figure 242: Melbourne House.
TZG Architects, 2022.



Figure 243: Sheleagh Cottage.
TZG Architects, 2022.

### 3.4.6 Blue Mountains LEP 2015, Schedule 5 Listing - Medlow Bath Hydro Majestic original walking track complex Conservation Area - MB0026

The LEP listing for the Medlow Bath Hydro Majestic original walking track complex Conservation Area, contains the following assessment of significance which applies to the whole of the former Hydro Majestic walking track system, not only that portion remaining within the present Hotel grounds. However, lots on lands adjacent to the Hotel grounds have been excluded from the listing boundary at this stage.

#### Statement of Significance

The Hydro Majestic Hotel walking track complex has been assessed as being potentially of state significance as the most extensive privately constructed walking track complex in Australia and for its association with Australia's only hydropathical resort developed on the European model.

The Hydro Majestic walking track complex has potential state significance for its association with entrepreneur Mark Foy junior who made a fortune in retailing and invested most of it in developing the Hydro Majestic hydropathic resort. The track complex has local significance for its association with William Hargraves, Chief Clerk in Equity of NSW and Blackheath pioneer.

The Hydro Majestic walking track complex has aesthetic significance potentially at the state level for the design values in its construction which demonstrate superb integration of natural and constructed features.

As nearly all of the track complex is intact, it offers an opportunity to research late 19th and early 20th century walking track design and construction techniques, significant at the local level.

The Hydro Majestic walking track network is a rare example of a very extensive privately constructed walking track complex, mostly over 100 years old, which as survived virtually fully intact to the present time.

| CRITERION | ASSESSMENT OF SIGNIFICANCE |
|---|---|
| Criteria a) Historical Significance | The Hydro Majestic Hotel walking track complex has been assessed as potentially of state significance as the most extensive privately constructed walking track complex in Australia and for its association with Australia's only hydropathical resort developed on the European model. |
| Criteria b) Historical Association Significance | The Hydro Majestic walking track complex has been assessed as potentially of state significance for its association with entrepreneur Mark Foy junior who made a fortune in retailing and invested most of it in developing the Hydro Majestic hydropathic resort. The track complex has local significance for its association with William Hargraves, Chief Clerk in Equity of NSW and Blackheath pioneer. |
| Criteria c) Aesthetic/ Technical Significance | The Hydro Majestic walking track complex has aesthetic significance potentially at the state level for the design values in its construction which demonstrate superb integration of natural and constructed features. |
| Criteria d) Social/Cultural Significance | - |
| Criteria e) Research Potential | As nearly all of the track complex is intact, it offers an opportunity to research late 19th and early 20th century walking track design and construction techniques, significant at the local level. |
| Criteria f) Rarity | The Hydro Majestic walking track network is a rare example of a very extensive privately constructed walking track complex, mostly over 100 years old, which as survived virtually fully intact to the present time. |
| Criteria g) Representative | - |
| Integrity/ Intactness | Nearly all of the track fabric is intact. |

#### Physical Description

The central core of Hydro Majestic tracks on Portion 56 includes:

1. Hotel to "Sunbath" track
2. Cliff top track between Sunbath area and Hotel via (later) septic tanks
3. Connections between 1 & 2 including Glen Rosa
4. Megalong Valley Tracks - including Colosseum & connection to Megalong Valley Road
5. Garden and short walk terraces to west and south west of hotel

Additions by Mark Foy

1. Wonderland/Marks Tomb Tracks
2. Hotel to Swimming Pool Track
3. Three Brothers track
4. Lovers Track
5. Flying Fox Track and Access Road
6. Belgravia Street Connections
7. Sunbath Road
8. Murphys Track
9. McLennans Track
10. Maxine Bower Track
11. Prisoners Glen Track
12. Numerous connection tracks

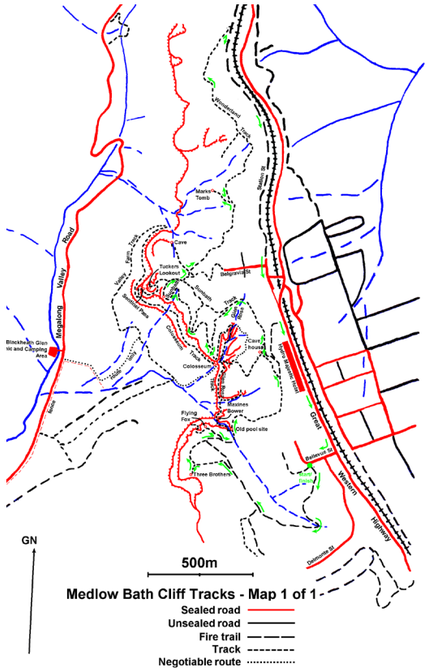



Figure 244: Medlow Bath Cliff Tracks Map.
Source: https://bushwalkingnsw.com/walk.php?nid=737



Figure 245: Medlow Bath Cliff Track.
Source: Design Inc, 2022.

### 3.4.7 Potential Heritage Items

Three potential heritage items have been identified in the area of Medlow Bath within the site boundary of the GWH upgrade. These include an advertising sign for the Hydro Majestic, a sandstone railway culvert and bus shelter.

The *2021 Review of Environmental Factors*[6] contains the following statements of significance for the bus shelter and sandstone railway culvert, which are located in the vicinity of the proposed footbridge.

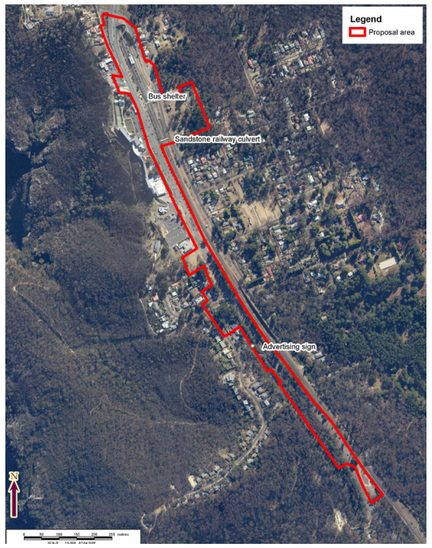



Figure 246: Location of potential heritage items.
Source: REF, 2021, p.157.

#### Medlow Bath Bus Shelter

The Medlow Bath Bus shelter has been identified in many previous studies of Medlow Bath as a potential heritage item. The bus shelter is located near the southern entrance to the Railway Station via the level crossing and subsequently may need to be relocated as part of the project.

#### Statement of Significance

> The bus shelter is considered to be of aesthetic significance for its historic mural and of social significance as it forms part of an extended mural campaign throughout the Blue Mountains. Medlow Bath Bus Shelter



Figure 247: Bus shelter looking north, showing interior mural.
Source: TZG Architects, 2022

#### Sandstone Railway Culvert

The sandstone culvert runs beneath the railway embankment south of Medlow Bath Railway Station. Visible on both sides of the embankment, the culvert has been recently modified through the addition of a plastic pipe.

#### Statement of Significance

> The culvert is considered to be of local significance for its association with railway engineering through the Blue Mountains. The culvert provides physical evidence of the construction of the railway in the 1860s. It provides physical evidence of the original rail alignment and of the workmanship of the period. It is of historical and archaeological significance.



Figure 248: Sandstone culvert on western side of railway embankment looking east.
Source: REF, 2021, p.159.

#### Hyrdo Majestic Sign

The timber sign advertising the 'Majestic Lounge and Public Bar' is located south of the site on the western side of the GWH. Overgrown with roadside vegetation, the sign is in a dilapidated condition.

#### Statement of Significance

> The advertising sign is considered to be significant for its association with the Hydro Majestic.



Figure 249: Rear of advertising sign.
Source: REF, 2021, p.160.




Figure 250: Hydro Majestic advertising sign.
Source: REF, 2021, p.160.

6: Great Western Highway Upgrade, Medlow Bath, Review of Environmental Factors, 2021, pp.157-160.

## 3.5 Intangible Heritage

Intangible heritage refers to the ‘invisible’ elements of culture that imprint on the identity of groups but cannot be perceived by touch, and is experienced through customs, history and values. Medlow Bath, as a place, holds many intrinsic and intangible heritage values that should be respected and celebrated, including historic associations, stories, memories and meanings.

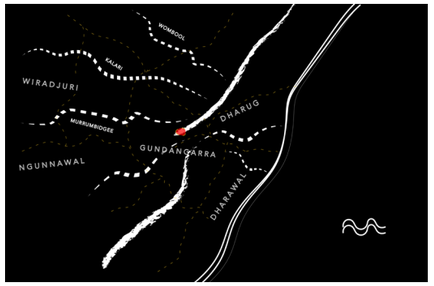



Figure 251: Aboriginal songlines. Sketch by Craig Kerslake.

Source: Nguluway DesignInc, 2022.

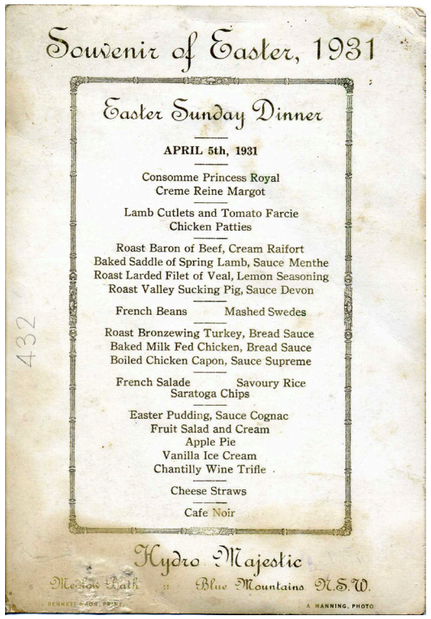



Figure 252: 1931 Easter Menu souvenir.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath




Figure 253: Receipt from the Hydro Majestic Hotel.

Source: Powerhouse Museum, https://collection.maas.museum/object/378508



Figure 254: ‘Evening Rails’, Medlow Bath footbridge, Rhys Pope photography.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath




Figure 255: Hydro Majestic postcard.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath




Figure 256: Hydro Majestic postcard.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath

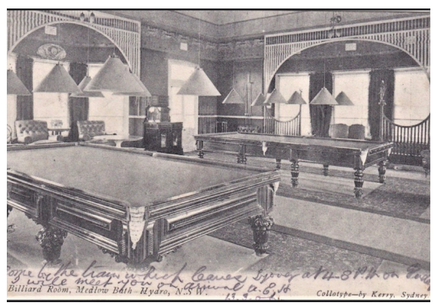



Figure 257: Hydro Majestic postcard, Billiard Room.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath



Figure 258: The Hydro Majestic, watercolour, by km0737.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath



Figure 259: 1986. Facade of the Hydro Majestic Hotel at Medlow Bath. Photographer: Peter Moxham.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath




Figure 260: 1986. Exterior of the Hydro Majestic Hotel at Medlow Bath. Photographer: Peter Moxham.

Source: Sydney Morning Herald, A history of the Hydro Majestic Hotel, June 14 2013, https://static.ffx.io/images/$width_1668/t_resize_width/q_62%2Cf_auto/a6202ac9941b74ac7b331162167bd9043df940b4




Figure 261: 2012. The Hydro Majestic Hotel in the Blue Mountains. Photographer: Janie Barrett.

Source: Sydney Morning Herald, A history of the Hydro Majestic Hotel, June 14 2013,https://static.ffx.io/images/$width_1668/t_resize_width/q_62%2Cf_auto/4070c353366251071282d8090096894d44ae433b



Figure 262: View from the Hydro Majestic, watercolour, by km0737.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath



Figure 263: 2012. Original steam chamber and sculpture from around 1904 at the Hydro Majestic Hotel in the Blue Mountains. Photographer: Janie Barrett.

Source: Sydney Morning Herald, A history of the Hydro Majestic Hotel, June 14 2013, https://static.ffx.io/images/$width_1668/t_resize_width/q_62%2Cf_auto/ade6cc06b126137d519b2c3eab2f2adf4b26bdf5



Figure 264: 1900s. Staff ball in 1900s at Hydro Majestic hotel at Medlow Bath in Blue Mountains, NSW.

Source: The Hydro Majestic Hotel, the place where Sir Edmund Barton died, reopens its doors after months of restoration work, 31 October 2014, https://content.api.news/v3/images/bin/4388a10f3fe0e5929c00d08e6a6d0cc3



Figure 265: Charleston for Charity at the Hydro Majestic, Trish Davies photographer.

Source: Flickr, https://www.flickr.com/search/?text=medlow%20bath https://www.flickr.com/search/?text=medlow%20bath

Figure 266: 1930. Aerial view of Medlow Bath, New South Wales, ca. 1930, 2. Fairfax Corporation.

Source: National Library of Australia, https://nla.gov.au/nla.obj-162355018?searchTerm=Medlow%20bath

# 4.0

# Constraints and Opportunities

# 4.1 Overview

The interconnected heritage values of items within, and adjacent to, Medlow Bath Railway Station result in a number of constraints and opportunities which should be taken into account in the design of any pedestrian link.

Potential constraints and opportunities arise from the following:

- Heritage significance
- Integrity and physical condition
- Significant views
- Heritage Interpretation
- Design

# 4.2 Heritage Significance

*The Australia ICOMOS Burra Charter for Places of Cultural Significance, 2013,* known as the Burra Charter, is widely accepted in Australia as the underlying methodology by which all works to heritage places are undertaken.

Items within, or adjacent to, the study area are identified to be of National, State and local heritage significance and any station upgrade should take a significance-based approach. The heritage significance of the items within, and in close proximity to, Medlow Bath Railway Station should be respected and retained. This requirement is based on those aspects of the items that contribute to their overall significance, as outlined in the Assessment of Significance and Statement of Significance for each heritage item.

Heritage significance should not be seen as an imposition, rather an opportunity to provide meaningful, holistic placemaking, historical connections and sustainable outcomes. Items of heritage significance, and their corresponding curtilage, however, impose physical constraints on new development within the site. This applies to both elements within the site and to heritage listed items located adjacent to the site. Future development within the site should take these constraints into consideration, and explore opportunities as identified in the discussion that follows.

## 4.2.1 Conservation Principles

The Burra Charter provides specific guidelines and principles for actions that should occur in relation to significant places and structures. Measures that are particularly relevant to the Medlow Bath Project include the following:

### Article 2: Conservation and management

- *Places of cultural significance should be conserved. (Article 2.1)*

### Article 3: Cautious approach

- *Conservation is based on a respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible. (Article 3.1)*

### Article 5: Values

- *Conservation of a place should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others. (Article 5.1)*

### Article 7: Use

- *Where the use of a place is of cultural significance it should be retained. (Article 7.1)*
- *A place should have a compatible use. (Article 7.2)*

### Article 8: Setting

- *Conservation requires the retention of an appropriate setting. This includes retention of the visual and sensory setting, as well as the retention of spiritual and other cultural relationships that contribute to the cultural significance of the place. New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate. (Article 8)*

### Article 15: Change

- *Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation. (Article 15.1)*
- *Changes which reduce cultural significance should be reversible, and be reversed when circumstances permit. (Article 15.2)*
- *Demolition of significant fabric of a place is generally not acceptable. However, in some cases minor demolition may be appropriate as part of conservation. Removed significant fabric should be reinstated when circumstances permit. (Article 15.3)*
- *The contributions of all aspects of cultural significance of a place should be respected. If a place includes fabric, uses, associations or meanings of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance. (Article 15.4)*

### Article 21: Adaptation

- *Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place. (Article 21.1)*
- *Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives. (Article 21.2)*

### Article 22: New work

- *New work such as additions or other changes to the place may be acceptable where it respects and does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation. (Article 22.1)*
- *New work should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place. (Article 22.2)*

### Article 25: Interpretation

- *The cultural significance of many places is not readily apparent, and should be explained by interpretation. Interpretation should enhance understanding and engagement, and be culturally appropriate. (Article 25)*

### Article 33: Removed fabric

- *Significant fabric which has been removed from a place including contents, fixtures and objects, should be catalogued, and protected in accordance with its cultural significance.*
- *Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place. (Article 33)*

## 4.2.2 Integrity and Physical Condition

The ongoing use of Medlow Bath Railway Station is dependent on the maintenance of its building fabric. The platform building and signal room are generally in good condition. The existing footbridge and level crossing are fairly rudimentary.

The integrity of the elements within the station is relatively high. Later modifications, associated with the footbridge and fencing have a greater tolerance for change than the original components.

## 4.2.3 Opportunities arising from heritage significance

The following opportunities relating to heritage significance should be taken into consideration:

- The opportunity to repair and conserve existing significant fabric and remove intrusive elements should be taken.
- Adaptive reuse of significant elements could be undertaken in accordance with the principles of the Burra Charter.
- Opportunities for interpretation should be explored to enhance public appreciation and understanding of the heritage significance of the place.
- The opportunity to recognise the interconnected heritage values of the Medlow Bath precinct, focusing on elements around the pedestrian link.

# 4.3 Key Heritage Considerations

### 4.3.1 The Greater Blue Mountains Area

Medlow Bath is surrounded by the Blue Mountains National Park with the Megalong Valley located to the west and the Greater Blue Mountains World Heritage area to the east. The Hydro Majestic Hotel forms a wall of buildings oriented towards the view to the west.

Key Considerations

- Minimise environmental impacts during construction.
- Include information about the Blue Mountains in interpretation.
- Include directions to popular bushwalks and bike trails in wayfinding signage.

### 4.3.2 Medlow Bath Railway Station

The station comprises a standard Federation platform building and a rare timber signal room. The platform is accessed via an early footbridge at the northern end and a level crossing at the south. Platform gardens and early electric light poles contribute to the heritage character and setting. The SHR listing contains the following generic recommendations regarding management of Medlow Bath Railway Station.

Key Considerations:

1. Conservation principles: Conserve cultural heritage significance and minimise impacts on heritage values and fabric in accordance with the 'Australia ICOMOS Charter for Places of Cultural Significance'.

2. Specialist advice: Seek advice from a qualified heritage specialist during all phases of a proposed project from feasibility, concept and option planning stage; detailed design; heritage approval and assessment; through to construction and finalisation.

3. Documentation: Prepare a Statement of Heritage Impact (SOHI) to assess, minimise and prevent heritage impacts as part of the assessment and approval phase of a project. Prepare a Conservation Management Plan (CMP) prior to proposing major works (such as new additions, change of use or proposed demolition) at all places of State significance and all complex sites of Local significance.

4. Maintenance and repair: Undertake annual inspections and proactive routine maintenance works to conserve heritage fabric in accordance with the 'Minimum Standards of Maintenance & Repair'.

5. Movable heritage: Retain in situ and care for historic contents, fixtures, fittings, equipment and objects which contribute to cultural heritage significance. Return or reinstate missing features or relocated items where opportunities arise.

6. Aboriginal, archaeology and natural heritage: Consider all aspects of potential heritage significance as part of assessing and minimising potential impacts, including Aboriginal, archaeology and natural heritage.

7. Unidentified heritage items: Heritage inventory sheets do not describe or capture all contributory heritage items within an identified curtilage (such as minor buildings, structures, archaeology, landscape elements, movable heritage and significant interiors and finishes). Ensure heritage advice is sought on all proposed changes within a curtilage to conserve heritage significance.

8. Recording and register update: Record changes at heritage places through adequate project records and archival photography. Notify all changes to the Section 170 Heritage & Conservation Register administrator upon project completion.

### 4.3.3 Hydro Majestic Hotel

Whilst the Hydro Majestic Hotel is not currently listed on the State Heritage Register, it forms a landmark in Medlow Bath and has been a major health and leisure tourist destination since 1904. Mark Foy's Hotel is also associated with the construction of the railway station.

Key Considerations:

- Minimise impacts on views to and from the Hydro Majestic Hotel.
- Include aspects of the history and significance of the Hydro Majestic as a major tourist destination in interpretation.
- The architecture of the hotel (1904-1940s) may provide a point of reference for the design of the pedestrian link. Consider interpreting distinctive details from the Hydro Majestic Hotel such as the castellated parapets, curved corners, glazing and patterned detailing at entrances in a contemporary manner.

### 4.3.4 Former Post and Telegraph Store

The Former Post and Telegraph Store is located outside the project boundary on the eastern side of the rail corridor near the old footbridge at the northern end of the station. It is currently used as a cafe and shop. The distinctive castellated parapet of the street facade links the building visually to the Hydro Majestic Hotel, which it once served, housing Mark Foy's chauffer service.

Key Considerations:

- Consider including the history of the building in interpretation.

### 4.3.5 Avenue of Radiata Pines

The avenue of Radiata Pines are located outside of the project boundary. It is understood that works associated with the road widening will affect these trees.

Key Considerations:

- Landscaping of the public domain should respect the cultural landscape of Medlow Bath.

### 4.3.6 Urunga

Urunga, located at 1 Park Street, to the east of the rail corridor, once served as the Station Master's Residence. It is now in private ownership and is located outside the project boundary.

Key Considerations:

- Retain views between the station and 'Urunga'.
- Consider including references to 'Urunga' in Station interpretation.

### 4.3.7 Melbourne House, Cosy Cot, Sheleagh Cottage

The Federation houses located from 2, 4, 6 and 10 Great Western Highway are located to the north of the Mazda dealership adjacent to the project area.

Key Considerations:

- Maintain privacy of the houses.
- Minimise light spill to surrounding residential properties.

Key Considerations:

- Relocate bus shelter and conserve.

### 4.3.8 Medlow Bath Hydro Majestic original walking track complex. Conservation Area

This Conservation Area is located immediately to the west of the project area.

Key Considerations:

- Ensure the no environmental damage throughout construction.
- Include directions to the Hydro Majestic original walking track complex in wayfinding signage.

### 4.3.9 Potential Heritage Items

Whilst not listed, it is important to consider the following potential heritage items which have been identified in past studies of Medlow Bath.

#### Medlow Bath Bus Shelter

The existing bus shelter which features a painted mural will need to be relocated as part of the road widening works.

Key Considerations:

- Relocate bus shelter and conserve.

#### Sandstone Culvert

The sandstone culvert is located to the south of the project area. It runs beneath the railway embankment south of Medlow Bath Railway Station.

Key Considerations:

- Retain and conserve if possible.

### 4.3.10 Integrity and Physical Condition

#### Medlow Bath Railway Station

The platform building, signal room and platform are generally in good condition. The footbridge has recently been upgraded. The level crossing poses a danger to public safety.

#### Hydro Majestic Hotel and Walking Trails

The Hydro Majestic Hotel has been recently upgraded and is in generally good condition. The walking tracks are maintained and servicable.

#### Former Post and Telegraph Store

The former Post and Telegraph Store has been adapted for use as a cafe and general store and is in good condition.

#### Avenue of Radiata Pines

The avenue of Radiata Pines were replanted in 2012 and are juvenile.

#### Urunga

Urunga is now used as a private residence and appears to be in good condition.

#### Melbourne House, Cosy Cot, Sheleagh Cottage

These four heritage listed houses are well maintained and appear to be in good condition.

#### Medlow Bath Bus Shelter

The bus shelter is in reasonable condition however needs maintenance.

#### Sandstone Railway Culvert

The culvert appears to be in reasonable condition.

### 4.3.11 Constraints Arising from Heritage Significance

The following constraints relating to heritage significance should be taken into consideration:

#### Aboriginal Cultural Heritage

Whilst there are no known Aboriginal sites located within the study area, based on the *Aboriginal Archaeological Survey Report (PACHCI Stage 2*) prepared by Artefact in October 2015, the following constraints could arise if Aboriginal archaeology were found during construction:

- If archaeologically or culturally significant Aboriginal sites are located, conservation should be considered. Any impacts should be undertaken in consultation with the Aboriginal stakeholders.
- If Aboriginal skeletal material is located, conservation in situ may be required as a reflection of its significance to Aboriginal people.
- Aboriginal cultural themes should be a central part of any heritage interpretation approach.

#### Non-Aboriginal Archaeology

There is no known archaeology within the study area, which has been disturbed in the past through construction of the Great Western Highway and railway. The following constraints would arise if Non-Aboriginal archaeological items were found within the site during construction:

- An archaeological assessment would be required prior to impacts to provide a detailed appraisal of archaeological potential and significance within the site.
- Impacts to significant archaeology should be avoided where possible. Intact State significant archaeology should be conserved in situ where ever possible.

#### Built Heritage and Setting

The cultural significance of heritage items located within, and in the vicinity of, the site should be respected. The following constraints relating to heritage significance should be taken into consideration:

- The design should aim to minimise impacts on significant fabric.
- The design should aim to minimise impacts on significant views and vistas associated with heritage items within and adjacent to the site, particularly to and from the Medlow Bath Railway Station and the Hydro Majestic Hotel.
- Advice from a qualified heritage specialist should be sought during all phases of the project.
- The proposal should be accompanied by a Heritage Impact Statement as part of the assessment and approval phase of the project.

### 4.3.12 Significant views

The Hydro Majestic Hotel forms a landmark within Medlow Bath and defines the town to many visitors. The built form of the hotel hugs the escarpment and forms a wall along the Great Western Highway. Distant views of the Megalong Valley are afforded either side of the built form. The rail corridor is set down below the road limiting views to the railway station. Views toward the former Post and Telegraph Store are offered from the highway as it crosses the rail corridor. Views to the east are limited by dense vegetation.

The proposed pedestrian link will be a substantial new element within the setting of Medlow Bath, visible on approach from the highway and the rail corridor from both directions. An understanding of the character of the ‘place’ including the scale, form, siting, materials, colour and detailing of significant built elements in the vicinity of the site will help inform an appropriate design response within this historic setting which aims to minimise visual impacts on existing views.

#### Constraints Relating to Significant Views

The following constraints relating to significant views should be taken into consideration:

- The design of the pedestrian link should aim to minimise impacts on existing views. This could be achieved through a ‘place’ specific response which includes a careful consideration of siting, form, materials, colours and detailing.
- The Hydro Majestic Hotel should remain the dominant element within views of Medlow Bath, with the Megalong Valley as a backdrop.

#### Opportunities Relating to Significant Views

The following opportunities relating to significant views should be taken into consideration:

- There is an opportunity to provide viewing platforms from the pedestrian link which offer views towards the Megalong Valley to the west.

Significant Views

1. Public views available to the Megalong Valley
2. Views of the Hydro Majestic Hotel
3. Views of Medlow Bath Railway Station and former Post and Telegraph Store

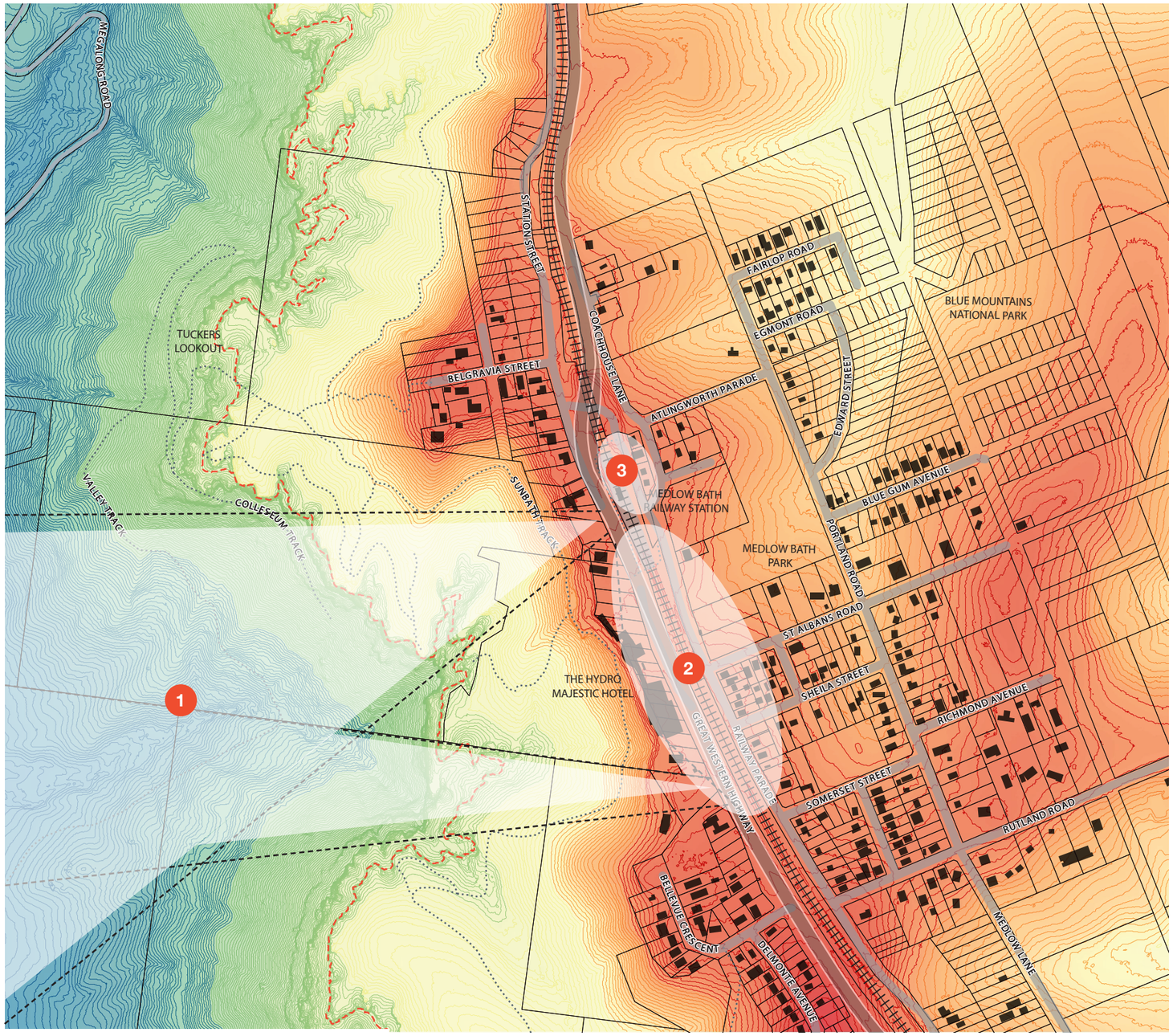



Figure 267: Significant views mapped over topographic map.
Source: REF, 2021, p.157.

## 4.3.13 Opportunities Relating to Design

The design of the proposed pedestrian link at Medlow Bath should aim to minimise heritage impacts on the original fabric of the station, but also on the setting of Medlow Bath and significant views. The following design opportunities arise in relation to the project from the protection of the significant heritage values of the site:

- Potential to enhance interpretation of the history and significance of the site, including Aboriginal cultural significance.
- Potential for Aboriginal design principles to help inform works within the landscaped areas of the site. Also refer to the *Designing with Country* Guidelines prepared by the NSW Government Architects Office.
- Potential to design a 'place' specific pedestrian link which responds to the history and significance of Medlow Bath as a major health and tourist destination associated with the Hydro Majestic Hotel.

# 4.4 Site Analysis - Historic Context

## 4.4.1 Upper Blue Mountains

Medlow Bath is located in the Upper Blue Mountains. The *Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework* describes this part of the mountains as follows:

> Between Katoomba and Mount Victoria the Upper Blue Mountains constitute a unique cultural landscape comprised of a string of towns and villages. The settlements are set within the Blue Mountains World Heritage Area with its unique natural landforms and dense bushland cover.
>
> The history of settlement is closely linked with the development of the GWH and the railway. Their alignments intertwine following the route of ancient Aboriginal tracks leading across the Blue Mountains.
>
> Towns in the Upper Blue Mountains have retained their historic character with a large proportion of heritage buildings and other non-Aboriginal heritage items.
>
> The spatial character of the Upper Blue Mountains is predominantly enclosed due to the combination of built form and dense bushland cover. As a result, views are generally limited, with notable exceptions provided at Medlow Bath and Victoria Pass.

Figure 268: Spackman Mossop Michaels, in association with Balarinji and GML Heritage, Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework, Preliminary Draft, August 2022, p.19.

## 4.4.2 Medlow Bath

The *Blue Mountains Heritage Study* outlines the setting, form, layout, buildings and heritage significance of Medlow Bath as follows:

### Setting

> Beyond Katoomba the plateau narrows and bushland surrounds the transport corridor in the form of the Lake Medlow catchment to the north and the upper reaches of the Megalong Valley to the south. Medlow Bath is located to the north west of this bushland on a narrow section of the plateau above the cliffs forming the northern end of Megalong Valley.

### Form, Layout and Buildings

> The town is dissected by the transport corridor. The southern section is mainly a commercial area dominated by the Hydro Majestic Hotel. North of the railway is a small residential area which ends abruptly in a bushland water catchment area.
>
> Most houses are constructed of weatherboard or fibro with corrugated iron roofs and are generally of pre-World War II age. The town is distinctive in that the dominant street and garden vegetation is Ratiata Pine which provide a montaine atmosphere. There are many fine gardens in Medlow Bath, with 'Ahbunwe' in Portland Road being representative.

### Heritage Significance

> Medlow Bath's strongest association is with the theme of recreation and tourism. The best evidence of this is the Hydro-Majestic Hotel.

Little has changed since 1983 when the Heritage Study was prepared.

## 4.4.3 Design in Context

The Medlow Bath pedestrian link offers an opportunity to improve amenity for cyclists and pedestrians whilst also upgrading the associated public domain at either end.

A detailed analysis of both the site and its context should underpin any new work. This analysis should also take into account an understanding of the heritage significance of the place and the relative significance of the components of built fabric and their tolerance for change.

New development in this highly significant context should aim to preserve the special qualities that contribute to the 'sense of place' in a way that respects the old while embracing the new, setting up a lively dialogue between the two. Well-designed, the pedestrian link will achieve contemporary standards and improve pedestrians' and cyclists' experience, whilst also enhancing the heritage setting and the social value of the place.

### Design in context

*Design in Context* (2005), prepared by the NSW Heritage Office and the Australian Institute of Architects NSW Chapter is an excellent general guide for new infill developments in heritage environments. It provides a methodology for analysis of the context and the relationship between old and new elements in terms of character, scale, form, siting, materials, colour and detailing, and aims for design excellence.

In summary, the following principles apply:

### Character

The character of a place is shaped by many contributing factors including topography, distinctive landscape qualities, street and subdivision patterns, density, site coverage, views, vistas, skylines and land uses.

Built elements also shape the character of a place through their heights, position, date and style, materials and details, proportions of openings, craftsmanship, and solid to void ratios, as do local cultural traditions and the uses of a place.

### Scale

The relationship between new elements and their context should be considered in terms of the scale of surrounding built elements – their wall heights, modulation and façade rhythms, massing, density, proportions and relationship to the ground and street plane.

Recognising the predominant scale of the context and responding appropriately can help reduce the visual impact of new structures in an historic environment.

### Form

The relationship of form between new structures and existing built elements should be carefully considered in the design process. Whether a likeness or distinction is sought between the old and the new, the new forms should relate to the heritage elements in a positive way.

### Siting

New elements in a historic context should be complementary to the streetscape and the urban grain of the area, responding to the patterns and scale of other built forms to ensure the proposal results in the creation of quality urban spaces between the old and the new. The siting of new elements should retain key views, natural features of significance such as trees and landscaped elements and archaeological remains.

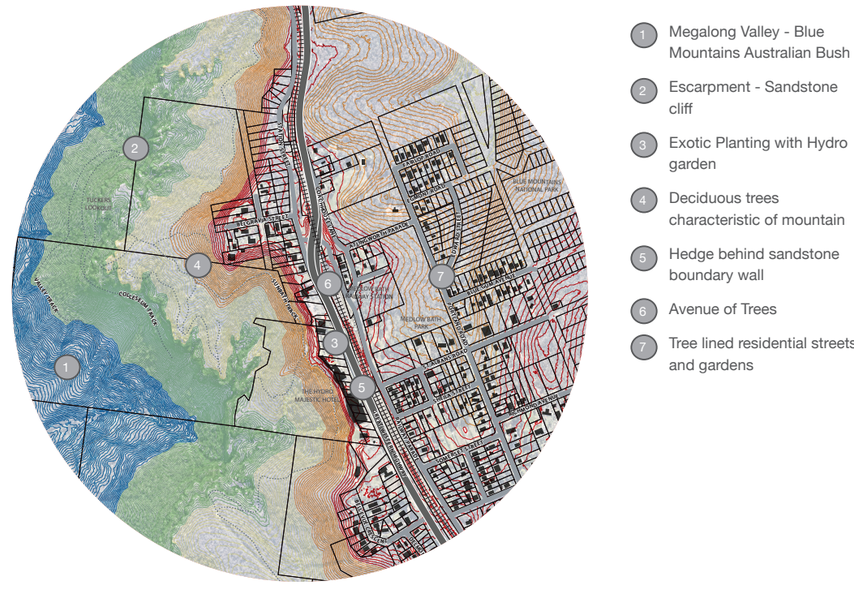
### Materials and colour

New infill elements should recognise the characteristic materials, textures and colours of the surrounding area and respond to them. They need not be copied but rather used as a point of reference and reinterpreted in either a considered harmonious, complementary or contrasting way. Light and shadow affect how materials and colours are perceived and this should be considered in the design process.

The quality of the new materials should be commensurate with those of existing built elements in the surrounding area – as good or better - and the design should aim to set a benchmark.

### Detailing

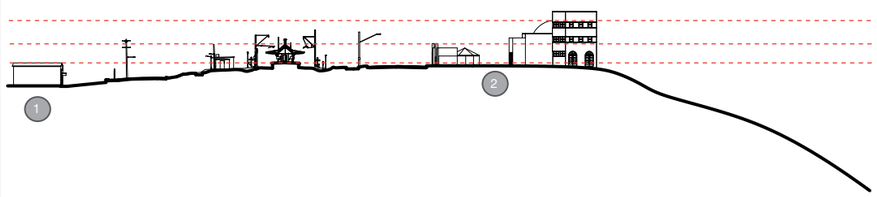
Contemporary details can reinterpret the traditional details that contribute to the heritage character of a place, to create complementary relationships between new and old elements and provide a level of visual interest. This principle can be used for both built elements and landscape elements. Analysis of existing details can help inform the language of compatible new elements, without imitation. Similarly the overall texture of the building – the amount of modulation or detail can be an important factor in ensuring a positive relationship with an adjoining heritage building.

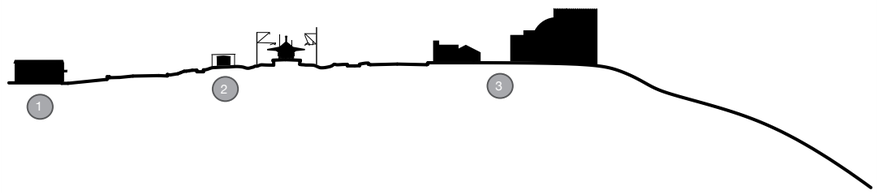
| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 01. CHARACTER | | | | |
| – topography of site and its surroundings; | Megalong Valley - Blue Mountains National Park<br>Bush<br>Escarpment<br>Plateau – Hydro Majestic,<br>Great Western Highway (GWH) rises gradually to the north | Railway cutting deeper to north – levels out to south | Railway street falls to the south<br>Land slopes east more gradually towards the bush<br>Greater Blue Mountains Area (world heritage) | The pedestrian link spans a site which slopes down from the west (Great Western Highway) towards the east (Railway Parade) and up from the south to the north.<br>Visual impact of lifts affected by rise of highway towards the north.<br>  |
| – distinctive landscape elements and quality; | Megalong Valley – Blue Mountains National Park<br>Australian bush<br>Escarpment<br>Exotic plantings within Hydro gardens<br>Cultural landscape<br>Hedge behind sandstone boundary wall<br>Deciduous trees characteristic of the mountains<br>Avenue of trees | Railway cutting<br>Hedged bushes on platform | Medlow Bath Park<br>Aids Memorial<br>Tree lined residential streets<br>Radiata pines<br>European plantings within gardens<br>Cultural landscape<br>Australian bush<br>Greater Blue Mountains Area (world heritage) | Landscape design to respond to the character of the surrounding cultural landscape.<br>  |

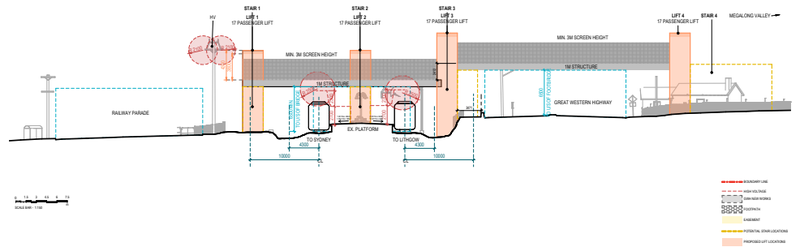
| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 01. CHARACTER (continued) | | | | |
| – street and subdivision patterns; | Hydro Majestic hugs narrow ridge line at the edge of the escarpment<br>– Set back from GWH behind garden setting, road, garden hedge and stone wall<br>– Parking from GWH<br>Low density residential expands west either side<br>Great Western Highway bends at rail crossing<br>Side streets perpendicular | Railway cutting<br>Hedged bushes on platform | Railway cutting defines alignment of Railway Street<br>Perpendicular streets, no footpaths, grass verge<br>Large residential allotments with generous gardens<br>Low height fences with houses set back from street | Respect setbacks of neighbouring development.<br>  <br><br>1 Hydro Majestic hugs narrow ridge line at the edge of the escarpment<br>2 Set back from Great Western Highway behind garden setting, road, hedge and stone wall<br>3 Parking from Great Western Highway<br>4 Low density residential<br>5 Great Western Highway bends at rail crossing<br>6 Side streets perpendicular to railway<br>7 Railway cutting defines Railway Parade<br>8 Perpendicular streets, no footpaths, grass verge<br>9 Large residential allotments with generous gardens<br>10 Low height fences with houses set back from street |
| – date and style of built form; | Houses to north early 1900s<br>Federation to recent<br>Hydro Majestic<br>– 1904 Federation<br>– 1938 Art Deco/Ocean Liner reconstruction post 1922 fire + various more recent additions<br>Petrol Station modern<br>Houses to south recent | Platform Building<br>1902 Federation<br>1922 Signal building<br>Steel overhead gantry structures | 1901 former Post Office<br>1916 former Station Master's Residence<br>Residential early 1900s Federation to more recent<br>Predominantly pre WWII | The pedestrian link will be a new element in a historic context.<br>The Hydro Majestic has the most memorable built form associated with Medlow Bath. Architecture of the hotel 1904-1940s may provide a point of reference or interpretation for the design.<br>  <br><br>1 Houses to north early1900s Federation to recent<br>2 Hydro Majestic 1904 Federation, fire 1922, 1938 reconstruction + various additions<br>3 Petrol Station Modern<br>4 Houses to south recent<br>5 Railway Station 1902<br>6 Former Post Office 1901<br>7 Former Station Master's Residence 1916 |

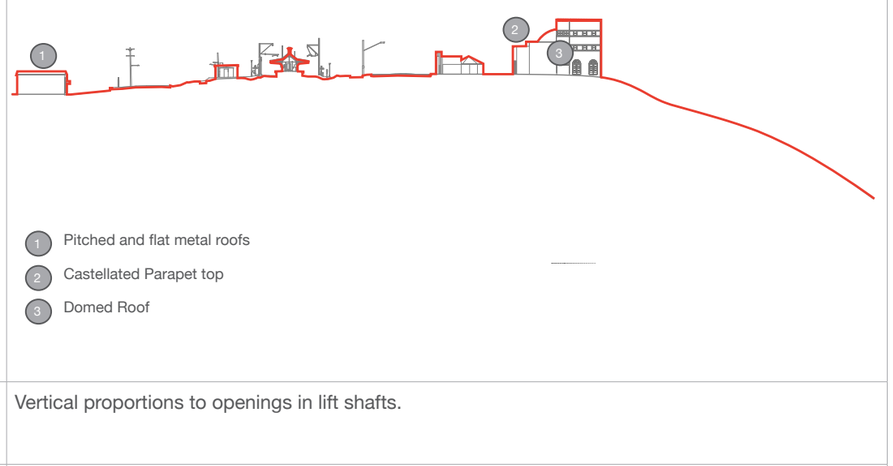
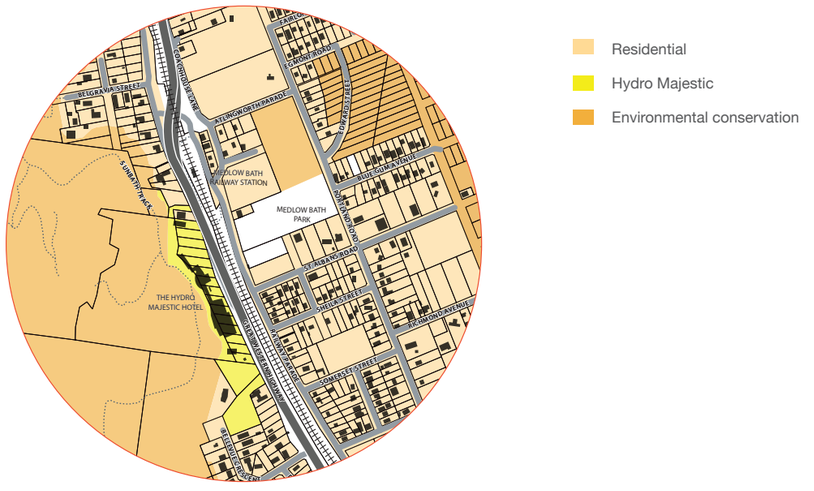
| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 01. CHARACTER (continued) | | | | |
| – figure/ground and figure/landscape qualities; | Hydro Majestic – wall of irregular buildings perched on the escarpment<br>Exotic landscape setting<br>Road, hedge, fence, parking<br>Great Western Highway | Railway cutting<br>Overbridge<br>Individual buildings on a platform. | Low scale residential<br>Large garden blocks<br>Houses setback from street behind low scale front fences | Relationship of lifts and stairs to surrounding landscape and built form to be carefully considered.<br>  <br><br>1 Hydro Majestic<br>• Wall of irregular buildings perched on the escarpment<br>• Exotic landscape setting<br>• Road, hedge, fence, parking<br>2 Great Western Highway<br>3 Railway cutting<br>4 Low scale residentia<br>Houses setback from street, low scale front fences, large garden block |
| – views, vistas and skylines; | Service Station sign intrusive<br>Formal planting - sense of arrival<br>Hydro Majestic – forms a landmark which is dominant in views, even from east of rail corridor<br>Glimpses of the Megalong Valley either side of Hydro<br>Blue Mountains National Park - Australian bush<br>Mazda car yard - open yet intrusive in views | Railway cutting<br>Station precinct | Views from Railway Parade west are dominated by the railway cutting and the Hydro Majestic Hotel<br>Streets fall away from rail cutting towards bush<br>Open views not offered | Opportunity for viewing platforms.<br>Views to Megalong Valley, Hydro Majestic, Railway Station, Post and Telegraph Office, Blue Mountains National Park.<br>  <br><br>1 Megalong Valley - Blue Mountains<br>2 Hydro Majestic - dominant views from east of rail corridor<br>3 Bush Land<br>4 Former Post Office<br>5 Mazda car yard<br>6 Avenue of trees |

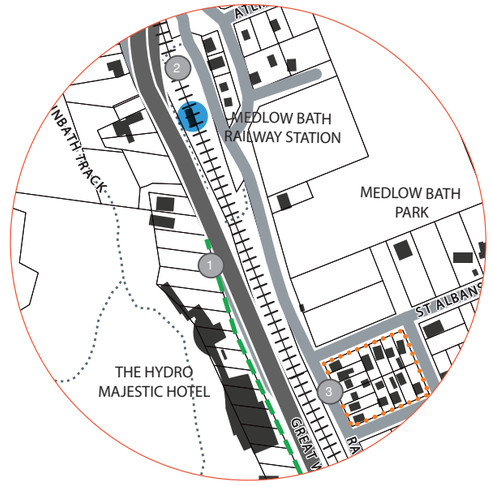
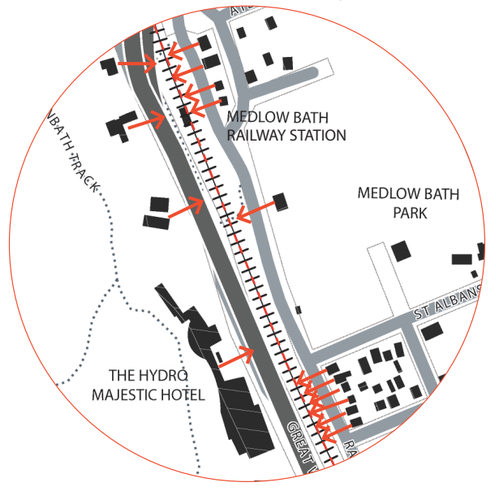
| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 01. CHARACTER (continued) | | | | |
| – local culture and traditions; | Residential on fringes of commercial area<br>Petrol station<br>Hydro Majestic – Tourism, history, tradition<br>– Resort - health, sanitorium, alternative medicine, relaxation, beauty<br>– Bushwalking, pure air<br>– Tennis<br>– Drama, theatre, art<br>– Casino<br>– Food, fine dining, high tea<br>– Wealth, privilege, elegance – Cat's Alley<br>Mazda car dealership | Railway station - train travel | Former Post Office/Hall – café<br>Former Station Master's Residence<br>Rural Fire Service<br>Playground<br>Low scale residential | Interpretation opportunities associated with history of Medlow Bath as a major tourist destination.<br>  |
| – uses; | Residential on fringes of commercial area<br>Petrol station<br>Hydro Majestic hotel complex dominant<br>Commercial car dealership | Train travel, commuting | Cafe/shop<br>Residential<br>Community facilities<br>Medlow Bath Park<br>Aids Memorial<br>Residential | Provide safe access for pedestrians and cyclists over the rail corridor and highway for locals and tourists that is DDA compliant.<br>  |
| – consistency or repetition of above factors. | Hydro Majestic – retreat, stage set bygone era, opulence, eclectic, eccentric<br>Highway – constant flow of traffic, noisy | Rail corridor – irregular trains<br>Divides Medlow Bath into two distinct parts | Less dense, more rural<br>Quieter residential character | Pedestrian link connects three places of differing character. |

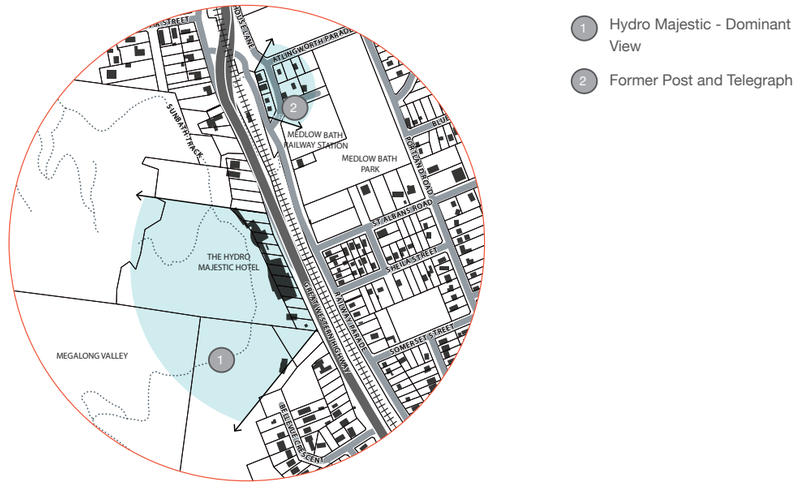
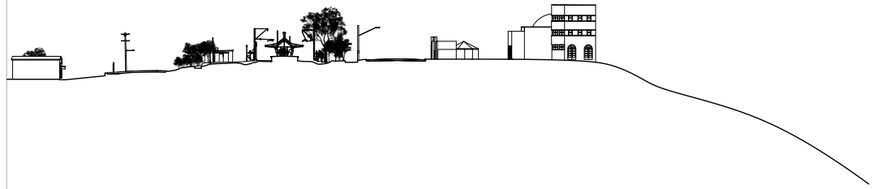
| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 02. SCALE | | | | |
| – scale of buildings; | Hydro Majestic dominant element - highest scale<br>1-3 storeys<br>Domed roof of Casino striking element<br>Low density residential domestic scale<br>1-2 storeys | Station buildings single storey | Former Post Office single storey with parapet<br>Low density residential domestic scale<br>1 - 2 storeys | The pedestrian link has the potential to be a substantial element in the precinct.<br>Take steps to reduce impact on the scale of the surrounding buildings. |
| – building and wall heights; | 3-12m | 3m | 3-6m | Minimise height through material choice where possible.<br>  <br>1 Low density residential - domestic scale<br>2 Hydro Majestic dominant element - highest scale |
| – massing; | Simple residential forms in garden setting<br>Hydro - solid massing with castellated tops, articulated in plan<br>Largely flat roofs other than domed Casino<br>  <br>Hydro majestic | Station buildings<br>Simple rectilinear form, Type 8 brick platform building, pitched roof with awnings<br>Weatherboard signals building, simple form, pitched roof<br>  <br>Station buildings | Former Post Office<br>Simple residential forms in garden setting<br>Residential vernacular housing forms, weatherboard, brick, painted stone<br>Verandahs<br>Pitched metal roofs, chimneys<br>  <br>Former Post office | The Hydro Majestic forms a landmark within Medlow Bath which may provide a point of reference or interpretation for the design of the new pedestrian link.<br>  |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| **02. SCALE** | | | | |
| – density - pattern of arrangement of buildings and size of buildings; | Domestic scale buildings on large lots<br>Hydo - buildings joined to form a staggered wall of development, set back from the GWH, in a garden setting | Individual buildings x 2 on a railway platform | Domestic scale buildings on large lots | Minimise footprint of lifts and stairs to ensure that they are presented in a landscape setting.<br>  <br>1 Domestic scale<br>2 Individual buildings<br>3 Hydro Majestic - staggered wall development |
| – proportions; | Hydro - horizontal bands with vertically proportioned windows | Vertically proportioned openings. | Vertically proportioned openings. | Vertical proportions to glazing and screens.<br>The Hydro Majestic may provide inspiration. |
| – rhythm of buildings and landscape; | GWH - string of pearls concept<br>Bush<br>Service station<br>Hydro Majestic and houses set back behind hedges and gardens<br>Open at car dealership site<br>  <br>Hydro majestic | Buildings centred on railway platform<br>  <br>Station buildings | Fairly regular block sizes and house placement.<br>  <br>Single storey residential house | Respond to rhythm of built elements within the landscape at stair and lift locations.<br>  <br>Hydro majestic |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| **02. SCALE** | | | | |
| – floor-to-floor heights and relationship to ground or street plane; | | | | Minimum heights of some built elements determined by Code.<br>  |
| – modulation of walls, openings and roof planes in response to the scale of neighbouring buildings; | Hydro - regular rhythm of windows in masonry walls.<br>– Curved corners. | | | Regular rhythm of elements.<br>Streetscape analysis to inform design. |
| – transition between different heights (for example, through the use of setbacks). | | | | Relationship between vertical and horizontal elements should consider height transitions in context.<br>  <br>  <br>  |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 03. FORM | | | | |
| – predominant form of neighbours; | 1-3 storeys<br>Hydro Majestic - block forms with curved corners and details<br>Hydro Majestic forms a landmark - dominant building form within Medlow Bath | 1 storey, pitched roof, set down in rail cutting | 1 storey vernacular forms | The use of curves could be explored to soften the impact of the overall form of new elements. |
| – roof form and skyline — ridge and parapet lines, roof slopes, punctuation by party walls, chimneys and lanterns or skylights; | Pitched and flat metal roofs - residential<br>Hydro Majestic - rendered painted masonry with castellated parapet tops, curved corners and flat roofs<br>Domed Casino rises up | Station buildings<br>Simple rectilinear form, type 11, island station building 'A8' design, brick platform building, pitched roof<br>Weatherboard signals building, simple form, pitched roof | Residential vernacular housing forms, weatherboard, fibro, brick, painted stone<br>Verandahs<br>Pitched and flat metal roofs, chimneys |  |
| – proportion and number of openings; | Hydro openings punched into rendered and painted masony walls except glazed wintergarten | Vertical proportioned windows | Vertical proportioned windows | Vertical proportions to openings in lift shafts. |
| – solid to void ratios; | Hydro - high solid to void ratio to street, more open to west - views to Megalong Valley<br>– Most dominant building form GWH in Medlow Bath | High solid to void ratio | High solid to void ratios | High solid to void ratio could be explored for lift shafts. |
| – relationship between internal and external spaces. | Residential development set back from street in large garden settings. Front and back yards.<br>Hydro Majestic- set back from GWH behind hedge and garden.<br>Views to rear towards Megalong Valley | Platform buildings currently unattended.<br>No public access. | Residential development set back from street in large garden settings. Front and back yards. | -  |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 04. SITING | | | | |
| – predominant setbacks — front, side and rear;<br>– location and dimensions of driveways and garages and design strategies to reduce their visual and physical impact on the streetscape; | Hydro Majestic setback from GWH behind stone fence with balusters and hedge<br>– Highway widening will affect perceived relationship as currently parking<br>– Internal road and garden setting<br>Residential fronting GWH set behind fences and tall trees. | Buildings centred on platform | Residential east side setback behind low height fences and front gardens.<br>Generous side and rear setbacks.<br>Driveways, garages | Minimise footprint of built elements.<br>Respect neighbouring setbacks.<br>  <br>Hydro Majestic west side setback - behind stone fence<br>Station Building - centered on platform<br>Residential east side setback - generous side and rear set backs |
| – boundary walls and fences; | Low height stone, timber, and masonry fences often with tall hedges to GWH<br>Higher timber paling fences to side boundaries | White painted hooped steel | Low height picket/masonry fences to street. Higher timber paling fences to side boundaries |  <br>Hydro Majestic<br>Low height stone fences<br>Station Precinct<br>White Painted hooped steel<br>Residential<br>Low Height picket fences |
| – orientation and address of buildings; | Oriented towards the street | Aligned with the railway platform | Oriented towards the street | Stairs, lifts and associated entrances to provide direct access from footpaths.<br>  |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| **04. SITING** | | | | |
| – retention of views and vistas to and from the new development, across townscape or landscape; | Built form west of the rail corridor focuses on views towards Megalong Valley.<br>Hydro Majestic – built form forms a wall towards the escarpment.<br>Built form focused towards views of Megalong Valley.<br>Obscures views of the Blue Mountains from the highway.<br>Car dealership intrusive. | Views from station towards east - former Post and Telegraph, low scale residential, bushland rural setting<br>Hydro Majestic dominant in views west from station<br>  | Hydro Majestic dominant in views from east to west across rail corridor from Railway Parade.<br>Views east softened by surrounding vegetation | Minimise impacts on existing views.<br>Take advantage of views offered across the Megalong Valley, to the Hydro Majestic Hotel, the Railway Station, former Post and Telegraph Office, Urunga and to the Blue Mountains National Park.<br>Opportunity to connect to Country aided by interpretation.<br>  |
| – retention of natural features of significance; | Avenue of trees GWH to be relocated<br>Hedge behind stone wall in front of Hydro<br>Blue Mountains National Park<br>Views over Megalong Valley below | | Street trees<br>Blue Mountains World Heritage Area beyond | The subject site has no natural features of significance.<br>  |
| – retention of significant archaeological remains; | None known. | None known. | None known. | A Watching Brief for an archaeologist is recommended. |
| – quality of spaces created between existing and new. | Not applicable. | Not applicable. | Not applicable. | Careful design of spaces between old and new elements needed. |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 05. MATERIALS AND COLOUR | | | | |
| – response to predominant materials, textures and colour palette — harmonious, complementary, contrasting; | Hydro Majestic<br>– Roughfaced sandstone wall with turned balusters<br>– Smooth rendered masonry walls with castellated tops and curved corners currently painted white<br>– Textured decoration at key entrances<br>– Timber window frames, painted<br>– Dome – slate roof | Platform Building - Face brick, rendered surrounds to timber framed windows<br>Signal Room - Weatherboard, paint finish<br>Corrugated metal roofs | Older residential building stock - weatherboards, fibro, brickwork and stone, mostly painted<br>Low scale timber picket fences<br>Traditional timber framed windows and verandahs<br>Corrugated metal roofs<br>Newer building stock – face brick, weatherboards<br>Corrugated metal roofs | Consider use of local materials.<br>Sympathetic colour palette.<br>Combination of smooth surfaces and textured patterns at the Hydro could be explored.<br>Hydro Majestic: Roughfaced sandstone; White Render; Textured decoration; Slate Roof Casino<br>Station Buildings: Face brick; White Render; Weatherboard; Corrugated metal<br>Residential buildings: Weatherboard; Fibro; Brickwork; Stone<br>Timber Picket Fence; Timber framed windows; Timber framed verandah; Corrugated Metal Roof |
| – commensurate quality of new materials; | Hydro - reminiscent of former grandeur<br>Varied quality of materials in existing residential building stock | Station well constructed and maintained | Varied quality of materials in existing residential building stock | High quality materials should be used. |
| – qualities of light and shadow; | Hydro - curves soften the shadows<br>Many houses have verandahs | Platform exposed.<br>Awnings to platform building provide shade. | Tree canopy produces dappled light.<br>Many houses have verandahs | Explore use of curves and modelling. |
| – hierarchy of material use (for example, solid masonry base and lightweight upper levels); | Hydro - masonry base and walls<br>Residential - mixed construction some all solid, some with solid base and lightweight upper levels | Platform building - masonry base and walls<br>Signal Room - weatherboard cladding | Residential - mixed construction some all solid, some with solid base and lightweight upper levels | Solid base to lifts at a minimum.<br>Explore solid lift shafts on three sides. |
| – relationship between skeleton or structure and skin. | Hydro - generally concealed structure other than the wintergarden glazed elements | Platform building - load bearing masonry with exposed awning brackets and roof structure.<br>Signal Room weatherboard cladding to concealed structure | Generally concealed structure other than exposed rafter ends | Combination of solid lift vertical elements and lighter horizontal elements could be explored. |

| DESIGN CRITERIA | MEDLOW BATH WEST | STATION PRECINCT | MEDLOW BATH EAST | RELEVANCE TO DESIGN OF PEDESTRIAN LINK |
|---|---|---|---|---|
| 06. DETAILING | | | | |
| – response to distinctive details of neighbouring existing buildings — reinterpretation in contemporary materials, contrast; | Hydro Majestic<br>– Solid walls – high solid to void ratio towards GWH – more windows to view<br>– Belgravia wintergarden – timber framed glazing<br>– 1904 Federation, 1930s, 1940s and more recent<br>– Castellated parapet<br>– Curved corners<br>– Patterned detailing at entrances<br>– Exotic gardens set against bush backdrop | Platform building – pattern book, type 11, island station building 'A8' design, brick, Federation brick with rendered details<br>Metal roof with bracketed awnings<br>Signal Room – simple weatherboards with pitched roof | Residential – ranges from Federation to contemporary<br>Grander residences north of Hydro Majestic on western side<br>Former Station Master's residence simple weatherboard detailing<br>Timber framed verandah with traditional detailing<br>Timber framed windows.<br>East timber picket fences, older building stock<br>West higher fences to GWH<br>Newer building stock south of Hydro | Consider interpreting distinctive details from the Hydro Majestic Hotel such as the castellated parapets, curved corners, patterned detailing at entrances, exotic garden plantings and the wintergarden in a contemporary manner.<br>Hydro Majestic<br>  <br>Station Buildings<br>  <br>East SIde<br>  |
| – relationship of new fences, garden walls, planting and landscape elements to important existing details; | | | | Careful design of landscape required. |
| – unobtrusive design of new service elements, such as solar panels and water tanks. | | | | Services to be carefully co-ordinated to minimise impacts on views. |

# 4.5 Heritage Interpretation

Heritage interpretation is a means of sharing and exploring cultures and histories within communities, and is an integral part of the experience of significant heritage places. Through the use of a range of media and techniques, accessible to target audience groups, heritage interpretation can:

- Reveal meanings and significance
- Provide information to enhance understanding
- Make explicit a sense of place
- Explore relationships and histories that connect people and place
- Act as a catalyst for community curiosity and engagement.

Interpretation can highlight both the tangible and the intangible. Heritage interpretation should encompass both Aboriginal and non-Aboriginal heritage, values and histories of the site, be tailored to the target audience and located where it is accessible but unobtrusive.

## 4.5.1 Historic Themes

Historic themes are used in interpretation as a tool to organise information and to determine the core messages and stories to be communicated.

In order to place the history and significance of a place within the broader Australian context, it is important to be able to use an established and widely-recognised framework of historic themes to group key historical activities or events to better contextualise their role in the cultural development of Australia.

The Australian Heritage Commission published a national framework of historic themes in 2001 and the NSW Heritage Council developed a series of linked State-specific themes. These, in turn, provide the over-arching framework for a sub-set of local themes, which generally relate to Local Government Area boundaries, and site specific local sub-themes.

Refer to Section 11 in the Appendix for a more detailed Heritage Intepretation Framework for the project.

## 4.5.2 Great Western Highway Upgrade Project Interpretive Framework

In April 2022, GML Heritage prepared the Great Western Highway Upgrade, Katoomba to Lithgow Non Aboriginal Heritage Thematic Study. This study identifies key themes to be explored along the Great Western Highway upgrade which were developed to form an Interpretive Framework.

- Eternal Horizon
- In search of a Good Road
- Beyond the Mountains
- Highway to High Street
- The Leisure Highway.

The Local theme 'In search of a Good Road' has been identified as appropriate to interpret in Medlow Bath.

Upon review, the themes 'Eternal Horizon', 'Highway to High Street' and 'The Leisure Highway' also seem relevant given the views afforded to Megalong Valley and the World Heritage listed Greater Blue Mountains Area from the site and the prominence of the Hydro Majestic Hotel as a health and leisure tourist destination throughout history.

## 4.5.3 Historic Themes identified in Heritage Listings

In addition to the themes identified in the GWHUP Interpretive Framework, historic themes are identified in the heritage listings for Medlow Bath Railway Station and for Heritage Items and Heritage Conservation Areas in the vicinity of the site, including the Hydro Majestic Hotel, which should be taken into consideration when arriving at a place specific interpretation strategy. These are shown in the table of historic themes included in the Interpretation Framework included in the Appendix.

## 4.5.4 GWHUP Aboriginal Cultural Design Principles

In 2022, Balarinji prepared an Aboriginal Narrative Report and an Aboriginal Heritage Cultural Interpretation Plan and Art Strategy for the Great Western Highway Upgrade which was based on extensive consultation with Aboriginal stakeholders. Balarinji's approach is

> 'to co-design with local Aboriginal Custodians and their endorsed creative practitioners to interpret the project location's Aboriginal culture and heritage story. Implementation of this will deepen the project's sense of place and the understanding of the Aboriginal cultural, physical and spiritual context.'

Balarinji did not identify any specific stories related to Medlow Bath, however, they identified cultural design principles which could be used to inform interpretation, provided it was undertaken in consultation with the local Aboriginal community.

### 4.5.5 Interpretive Media Options

Heritage interpretation communicates ideas, information and knowledge about natural or historic places in a way which helps visitors to make sense of their environment. Successful interpretation will create engaging, unique and meaningful experiences for visitors.

The identified interpretative messages will need to be communicated to the target audience using interpretative media. Interpretation takes many forms including integrated design, artworks, the naming of places, guided tours, brochures, digital technologies (including web based triggers in the landscape), site programming, artefact displays and graphic panels with text and images as well as any other way in which ideas can be communicated.

There is a range of potential interpretative media options that could be used at the Medlow Bath site.

#### GWHUP Aboriginal Heritage Cultural Interpretation Plan

The Balarinji report includes a range of cultural design principles which aim to connect to Country and celebrate Aboriginal culture. Aboriginal interpretation should be undertaken in consultation with the local Aboriginal community.

Interpretive media options identified include:

- Integrated design
  - Native planting
  - Use of animal totems
  - Use of local materials
  - Water sensitive design
- Interpretive signage
  - Use of Aboriginal language
- Digital interpretation
- Public art
- Education programmes
- Ongoing Partnerships and Community Engagement with the Aboriginal community.[9]

#### GWHUP Non Aboriginal Interpretive Framework

The GML Interpretive Framework identifies two types of interpretive devices which could be appropriate to use at Medlow Bath:

##### D1: Interpretive Installations

- Integrated design - including furniture in the public domain
- Public art
- Sensory devices

The recreational trails provide opportunity for recreational users such as cyclists and hikers to move through the historic landscapes as well as those traveling public/road users, for example those stopping locally in the towns in both directions. The landscape could feature themed installations such as public art, furniture or sensory interpretive devices...

##### D2: Tunnel Installations

Not applicable.

##### D3: Digital

- Mobile phone application
- Website - database and publications

This initiative is already supported by a network of local government partners including Blue Mountains City Council. As a digital platform it can be augmented with additional content with the approval of the managing committee. The opportunity to link European heritage sites with relevant colonial history such as the Hartley Vale Cemetery would help highlight the importance of these places to visitors and potentially support their ongoing conservation.

In consultation with local studies and key heritage organisations there is the potential to plan for an online platform that links collections across local government areas, allowing both researchers, visitors and heritage enthusiasts to share content. It also provides an opportunity to digitise a wealth of resources held in private or small collections.[11]

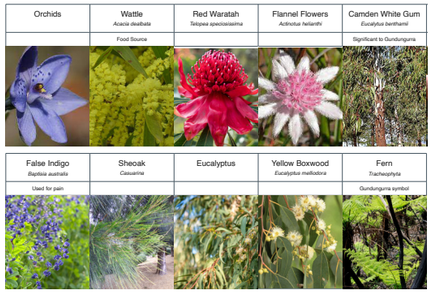
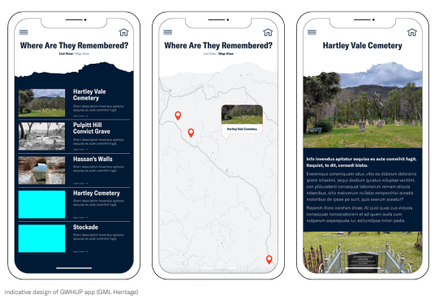



Figure 269: Native plants that could be used in the landscape design.
Source: Balarinji, GWHUP, Body of Story Report, 2022, p.16.



Figure 270: Integrated interpretation Oatley Station footbridge.
Source: http://www.tzg.com.au/project/oatley-railway-station-upgrade/




Indicative design of GWHUP app (GML Heritage)

Figure 271: Phone App.
Source: GML, GWHUP, Interpretive Framework, 2022, p.62.

7: Balarinji,*Great Western Highway Upgrade Program, Aboriginal Heritage Cultural Interpretation Plan and Art Strategy, Body of Story Report*, September 2022.

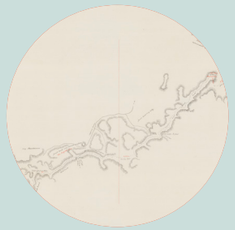
8: GML Heritage, *Great Western Highway Upgrade Project | Interpretive Framework*, October 2022, p.62.



NATURAL ENVIRONMENT
Eternal Horizon
Megalong Valley




ABORIGINAL CULTURE
Eternal Horizon
Wiradjuri



TRANSPORT
In Search of a Good Road
Great Western Highway



TOURISM
The Leisure Highway
Health and Leisure
Hydro Majestic Hotel

MEDLOW BATH
Highway to High Street

L I N K

MEDLOW BATH
Highway to High Street
Post and Telegraph Store




TRANSPORT
Rail



NATURAL ENVIRONMENT
Eternal Horizon
Greater Blue Mountains Area
World Heritage



ABORIGINAL CULTURE
Eternal Horizon
Gundungurra




# Interpretation Framework

# 4.6 Great Western Highway Urban Design Framework

The *Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework* includes an Urban Design Vision and Urban Design Objectives and Principles as shown in the table to the right. Principles identified by the previous design team which relate to the design of the footbridge at Medlow Bath are highlighted blue. Items shown teal could also be considered.

### 4.6.1 GWH Urban Design Vision

The following statement constitutes the urban design vision for the GWHUP and is intended to inform all future decision making within the program, including the design at Medlow Bath Railway Station.

The Great Western Highway will continue to function as the major east-west link from Sydney to the Central West, but will reinforce the Aboriginal origins of the route over the Blue Mountains.

The highway will sensitively integrate with and reinforce the unique natural and cultural landscapes and communities of the Blue Mountains, the Hartley Valley and Lithgow.

The corridor will provide for a rich journey as well as improved connectivity and permeability for vehicles, cyclists and pedestrians.[9]

### 4.6.2 GWH Urban Design Objectives and Principles

| OBJECTIVE | PRINCIPLES |
|---|---|
| **Objective 1:** Develop an integrated design that responds to the high scenic and ecological values of the area. | 1. Protect the integrity and scenic values of natural, rural and bushland areas |
| | 2. Maintain and enhance scenic landscape views and vistas |
| | 3. Avoid fragmentation or disturbance of high quality bushland |
| | 4. Maximise the retention and reinstatement of mature trees, bushland and endemic vegetation |
| | 5. Provide for the safe movement of fauna across the corridor where appropriate |
| | 6. Protect and enhance hydrological systems |
| | 7. Maximise the provision of green infrastructure that is in keeping with the Blue Mountains and Hartley Valley landscape |
| | 8. Minimise lighting intrusion in bushland and rural areas, through careful design. |
| **Objective 2:** Respect and celebrate heritage and cultural values, items, areas/ precincts and sites in consultation with the community and stakeholders. | 1.Protect Aboriginal and non-Aboriginal heritage, historic and culturally important sites, settings, items and artefacts (whether listed or not) including the history and heritage of the GWH itself |
| | 2. In collaboration with the Aboriginal community, design the highway to foster a connection to Country and living culture |
| | 3. Design the highway and its elements to strengthen heritage and cultural values |
| | 4. Retain and reinforce views towards cultural and historic elements and landscapes to strengthen the sense of place |
| | 5. Ensure that arrival sequences into settlements reflect the cultural and historic identity of places |
| | 6. Use culturally appropriate species in settings such as approaches to towns, settlements and historic places. |
| **Objective 3:** Design the project to sensitively integrate with, interpret and express the landscape and settlement patterns that it traverses. | 1. Maintain and enhance the contrast between settlements and intervening bushland and pastoral areas, retaining and enhancing the existing spatial qualities |
| | 2. Sensitively integrate earthworks batters/ cuttings to fit with the area's unique landform |
| | 3. Ensure the project is consistent in scale and character to the existing built fabric and character |
| | 4. Help foster a clear sense of arrival for towns, settlements and places of interest along the route |
| | 5. Integrate with existing patterns including street layouts, the highway and rail alignment and land use interfaces |
| | 6. Provide visual separation between the highway and adjoining sensitive uses |
| | 7. Connect to the landscape setting by expressing the underlying geology |
| | 8. Use finishes that respond to the colours, textures and patterns of the natural landscape and built elements |
| | 9. Ensure treatments for residual lands are compatible with the character and use of adjoining land parcels |
| | 10.Maximise shared infrastructure (including shared utility corridors) in order to minimise the corridor footprint and hard surfaces while maximising opportunities for vegetation. |
| **Objective 4:** Contribute to the functioning of communities and enhance local and regional connectivity. | 1. Design the corridor to clearly distinguish between primary movement sections and settlements with community function |
| | 2. Ensure the route facilitates ease of interaction with, and access to, towns, settlements and places of interest |
| | 3. Sensitively integrate the upgrade with the public domain of towns, settlements and places of interest and enhance their respective safety and amenity |
| | 4. Enhance connectivity along and across the corridor for all modes and integrate with other movement and green grid systems, particularly in settlements and at places of interest |
| | 5. Investigate the potential for redundant road sections to facilitate the development of community places or attractions. |
| **Objective 5:** Provide a memorable journey that positively contributes to the identity of the area. | 1. Acknowledge the origin of the route as traditional Aboriginal pathways |
| | 2. Design for intuitive way-finding and a clear sense of orientation |
| | 3. Maintain and enhance the unique qualities and lifestyle of communities and destinations along the route |
| | 4. Design infrastructure elements to make a positive contribution within the local context |
| | 5. Maximise visual connections to surrounding areas and landmarks |
| | 6. Provide interest and variety along the route including within tunnel sections. |

9: Spackman Mossop Michaels, in association with Balarinji and GML Heritage, Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework, Preliminary Draft, August 2022, pp.29-30.

### 4.6.3 Design of Key Project Elements

The *Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework* prepared in August 2022 includes design guidance for a range of key project elements including bridges.

The key design principles for project elements throughout the GWHUP are as follows:

- Design all project elements and their arrangement in an integrated composition that considers their relationship to each other as well as the natural, built and community context, including the road network and hierarchy
- Consistent with Beyond the Pavement, this will provide both consistency and variety to deliver a memorable, safe and enjoyable experience
- Aim for simplicity and refinement in the design, form, materials and arrangement of all elements.

Section 5.1 of the Urban Design Framework includes Urban Design concepts and recommendations for the corridor in its entirety, including design guidance for a range of distinct settings and typical situations, as well as specific requirements for a number of key sites and specific project components. It states:

> Specific Urban Design intervention can contribute to the successful achievement of the overall Proposal objectives and principles. The design guidance allows for the refinement and development of project components to better fit sensitively in the setting, in order to celebrate heritage and cultural values and connection to Country.[11]

#### Design of Bridges

Section 5.4 of the GWH Urban Design Framework focuses on the design of Bridges. It states:

> Bridges are highly visible and enduring structures in the landscape that constitute key visual markers for travellers along the GWH corridor as well as for people viewing the corridor from adjoining areas.
>
> In response, the design of bridges warrants careful consideration and attention to detail to ensure integration with the natural and cultural landscape setting as well as a cohesive outcome that integrates with the other project elements to provide a considered and unified whole.
>
> Building on the GWHUP urban design principles and the guidance outlines in Bridge Aesthetics, a number of specific bridge urban design principles will apply:

- Bridges will demonstrate a high standard of architectural and structural design and detailing
- The various bridge elements including spans, bridge deck profile, piers, abutments, parapets and barriers will be coordinated to produce a well considered composition
- The design of bridges is reflective of their location and function including the level of visibility and likely view angles. Bridges in prominent locations will be designed as landmark structures that enhance the sense of place
- Bridges will be simple with refined clean lines designed to reduce visual bulk and clutter, in order to maintain and reinforce the landscape and vistas as the predominant visual items when travelling along the corridor
- The design of bridge components such as parapets and barriers will be consistent for each type of bridge along the GWHUP as well as maximise consistency with bridges of the same type along other sections of the GWH
- All bridges will display consistency of detailing in all their components and finishes to ensure they appear as a unified suite of elements while allowing variations to suit the particular context of each bridge
- The design of bridges will facilitate and enhance active transport connectivity across the corridor
- Bridges will integrate opportunities for art or interpretive elements (also refer to Section 5.10)
- Bridges will be robust, durable and easily maintained.

It is also important to determine the most appropriate design resolution for bridge approaches.

#### Medlow Bath Bridge

The proposed pedestrian/cycle bridge at Medlow Bath is identified as a Type B Pedestrian/cycle bridge and is the only one of this type between Katoomba and Lithgow. The Urban Design Framework states:

> This bridge has high visibility over the Great Western Highway and western railway line at Medlow Bath.
>
> Key design considerations for the pedestrian bridge are:

- Design of the bridge should consider the prominent position it will occupy and its potential landmark qualities in the setting
- The bridge should be expressed as an uncluttered horizontal form
- All materials should be selected for their robustness and durability, to respect the areas heritage values and to minimise the bulkiness of the structure
- Design bridge piers so that the proportion of their vertical height to width should be controlled such that the piers appear tall and fine, rather than squat and bulky
- Design peripheral bridge elements including stair alignment and lift structures to integrate with adjoining pedestrian undercroft and create functional and safe civic spaces.

10: Spackman Mossop Michaels, *Great Western Highway: Medlow Bath Urban Design, Landscape Character and Visual Impact Assessment Report*, October 2021, p.

## 4.7 Medlow Bath Urban Design Framework

### 4.7.1 Project Specific Design Vision

A Project Specific Urban Design Vision was developed as part of the previous design work which amended the standard vision for a number of reasons as follows:

- The study area's character and setting as a key point in the journey's transition along Great Western Highway from bushland to village.
- The significant history and heritage values in close proximity to the Proposal.
- The Proposal will facilitate the implementation of safer pedestrian connections across the Great Western Highway and Medlow Bath Train Station.
- The Proposal will formalise and enhance adjacent space to upgrade and consolidate public amenity and connections.

The urban design vision adopted for the previous Proposal was articulated in the *Great Western Highway: Medlow Bath Urban Design, Landscape Character and Visual Impact Assessment Report* prepared by Spackman Mossops Michaels in October 2021:

> Within the context of the rugged terrain and bushland setting of the Blue Mountains and the unique natural and cultural landscapes and precincts through which it passes, the Great Western Highway should:
>
> - Reinforce the journey sequence of bushland and village;
> - Evoke a sense of its history and heritage; Provide connectivity and permeability for pedestrians;
> - Provide views and a clear sense of orientation for users;
> - Maximise the amenity of the public domain; Create a road design that integrates urban design and engineering.[10]

The report identifies the following points in relation to heritage:

- The Proposal needs to consider physical and visual impacts on heritage items within or in close proximity to Proposal area, including changes to views to and from heritage items
- There is an opportunity for the Proposal to draw on the history and heritage of the area in the development of design treatments for Proposal elements.

11: Spackman Mossop Michaels, in association with Balarinji and GML Heritage, Great Western Highway Katoomba to Lithgow, Strategic Urban Design Framework, Preliminary Draft, August 2022, p.69, p.75.

## 4.8 Sustainable Design

The design of the proposed footbridge at Medlow Bath should aim to minimise heritage impacts on the original fabric of the station, but also on the setting and views. The following design opportunities arise in relation to the renewal project from the protection of the significant heritage values of the site:

- Potential to enhance interpretation of the history and significance of the site, including Aboriginal cultural significance.
- Potential for Aboriginal design principles to help inform future works within the landscaped areas at either end of the bridge. Also refer to the *Designing with Country* Guidelines prepared by the NSW Government Architects Office.

TfNSW aims to incorporate sustainability into their project design and decision making. A number of sustainability principles have been developed for the project, one of which is cultural heritage. This principle promotes the protection and celebration of the heritage significance, including Aboriginal cultural values.

A desired outcome is for the project to deliver a place which includes positive and ongoing indigenous engagement whilst promoting, enhancing and minimising impacts to the physical and intrinsic heritage values of the place.

# 4.9 Technical Constraints and Opportunities

There are many technical constraints associated with the project. These are illustrated in the diagrams on the following pages.

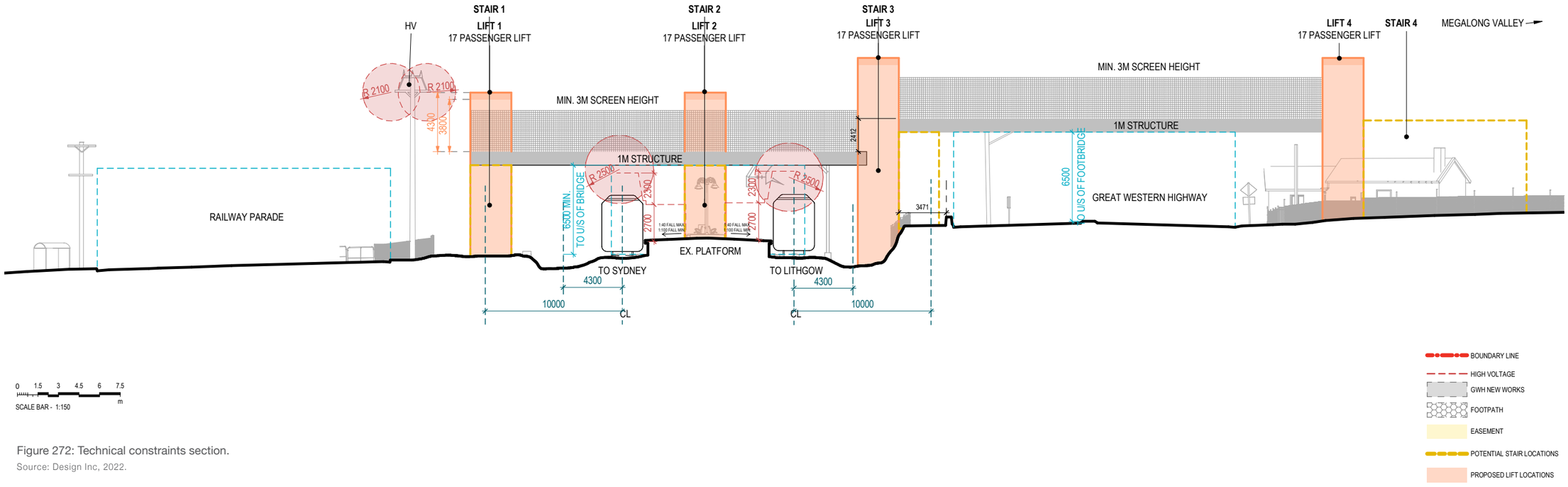



Figure 272: Technical constraints section.
Source: Design Inc, 2022.

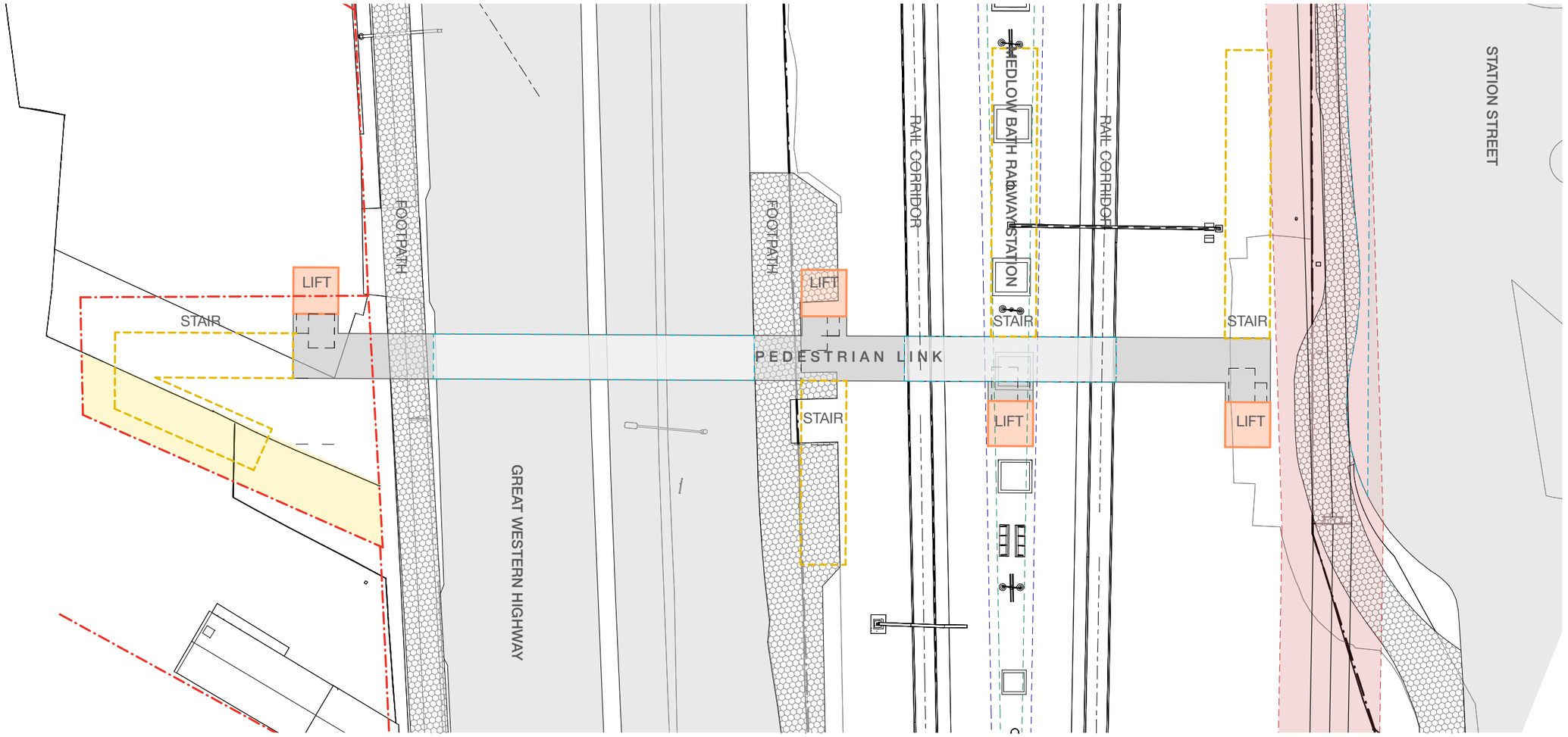



Figure 273: Technical constraints plan.
Source: Design Inc, 2022.

The following constraints and opportunities were discussed in a workshop held with TfNSW and the project team on 17 November 2022, however additional constraints and opportunities are also included in various reports supplied by TfNSW as part of the head contract documents. Those previously investigated items should be read in conjunction with the table below.

| ITEM # | DESCRIPTION | CONSTRAINT | OPPORTUNITY |
|---|---|---|---|
| 1.0 | STRUCTURAL | | |
| 1.1 | **Fire Rating Requirements** | | |
| | Over Rail | AMB standard requires 1hr fire rating. | If classed as Type 9B possible to proceed under BCA requirement – 30mins for floor with ancillary usage beneath.<br>Performance solution to be investigated to fire engineer the rating out. |
| | | New Functional Spaces standard to be reviewed – contains fire & life safety requirements that may impact. | |
| | | | Fire Study by TfNSW can be provided for input + Potential for AMB Concession if required. |
| | Over Road | | AS5100 requires to be in accordance with asset owner however TfNSW/RMS don't seem to have any fir rating requirement. |
| 1.2 | **Collision Impact Loading Requirements** | Collision loading may dictate structural requirements more than the fire rating requirements. 0-10m clearance from track has a 500kN impact load consideration in the standards. | 10-15m reduces this to 0kN. |
| | Lift 1 (Railway Pde) | | Currently outside 10m, no collision impact applicable. |
| | Lift 2 (Island Platform) | 200kN @ 2m above rail / 100kN @ 3m above rail. | |
| | Lift 3 (between rail and GWH) | Currently within 10m and may require 500kN – Deflection Wall required. | Potential to swap lift and stair (pending spatial constraints). |
| | | | Slim style lift could be reviewed. |
| | | If deflection wall is combined with retaining wall, may have adverse impacts structurally. | Deflection wall could be combined with retaining wall. |
| | Lift 4 (GWH / Mazda Dealership) | | No impact rating applicable from rail – however further review for traffic impact. |
| 1.3 | **Durability Requirements** | Contract documents identifies Design Life and warranty requirements which will impact design outcomes. | |
| 1.4 | **Bolted Connections** | Inspection to bolts required annually and need to be made accessible. | Potential for bolted connections to be located to provide access access for maintenance whilst concealed from external views. |
| 1.5 | **Loading Impacts** | Snow loading required as Medlow Bath is in Alpine region.<br>Structural loading may not be an issue but snow impacts need to be considered (refer "Place" section). | Wind loading not expected to be drastically impacted. |

| ITEM # | DESCRIPTION | CONSTRAINT | OPPORTUNITY |
|---|---|---|---|
| 2.0 | SPATIAL | | |
| 2.1 | **Height requirements** | Height requirement over Rail to be as per AMB / Rails Standards. | Opportunity to have differing levels for spans over road vs rail. |
| 2.2 | **Screen Height Requirements** | | |
| | Over rail | 3m height required per AMB standards. | May be opportunity to risk assess heights – check AMB standards. |
| | Over road | Screen slopes may be required, however may not be needed depending on interpretation– to be reviewed further. | Height to be reviewed further. |
| 2.3 | **Boundary and easement** | Negotiations still in progress – currently can't build on easement adjacent Mazda dealership. | Easement may be used to provide paving or similar – just no structures until negotiations with TfNSW are completed. |
| 2.4 | **Lift position** | | Lifts could be staggered, some north of the bridge and some south of the bridge. |
| 2.5 | **Bus stop locations** | Driven by Roads design which is at 100% - unlikely that relocation of bus stops can occur. | |
| 2.6 | **Road levels** | Driven by Roads design which is at 100% - unlikely that can be changed. | |
| 3.0 | SERVICES | | |
| 3.1 | **Service Runs** | | |
| | Services including CCTV, power, comms to lift etc | | Potential for concealment can be explored. |
| | Up lift shafts | Risers required in lift shafts – may increase shaft size requirements. | Concealment inside lifts allow visual benefit. |
| | Platform and station buildings | Access into buildings need to be underground, but may be limited due to footing structure – wall access potential. | Underground routes likely for most services. |
| 3.2 | **Lighting** | Visible light poles across the bridge AMB standards lighting requirements including access restrictions (need to be higher than 2.4m). | Low height lighting can be reviewed – dependence on AMB standards requirements. |
| | | CCTV requires specific lighting levels for some cameras. | |

| ITEM # | DESCRIPTION | CONSTRAINT | OPPORTUNITY |
|---|---|---|---|
| 3.0 | SERVICES (continued) | | |
| 3.3 | **Lux levels** | 150 lux to covered areas (lift lobbys), inside station building comms room. | 42 lux to all open pedestrian areas. |
| | | | Possibility to review further in road areas to reduce below 42 lux. |
| | | | DSAPT lighting requirements may not need to be met on section of the pedestrian link over the Great Western Highway. Standard applies only to the egress path. |
| 3.4 | **Motion Sensors proposed as part of scope** | Issues with acceptance from Sydney Trains maintenance. | |
| | | Can they be triggered by birds/bats etc<br>May have adverse impacts on light spill (flickering lighting), also deterioration of life span. | May help to improve light spill especially if commuter/pedestrian usage is low. |
| 3.5 | **Stormwater / Downpipe Connections** | No stormwater on platform – lift canopies may need to drain to track – AMB concession required. | |
| | | Downpipes from lift roof areas likely to be visible. | Concealment within lift riser possible – but may increase lift structure. |
| 4.0 | MATERIALS SELECTION | | |
| 4.1 | **Locally Sourced materials** | Issues with current market in obtaining products manufactured overseas. | Locally sourced products preferred and provides a benefit to sustainability. |
| 4.2 | **Vandalism** | Certain materials may be more susceptible to vandalism. | |
| 4.3 | **Screen Materials** | Max 25mm perforations in screens over rail.<br>Max 50mm perforations in screens over road.<br>Solid screens required around catenary wires. | Material types could be flexible. |
| 5.0 | PLACE | | |
| 5.1 | **Linking with Hydro Majestic** | New pedestrian link could have adverse impacts on views. | Possibility to enhance the existing views. |
| 5.2 | **Privacy and Security** | Surveillance issues at certain pinch points<br>Privacy could be impacted both with views from the bridge, and views up towards the bridge from below. | Station is security classification E (lowest security classification). |
| 5.3 | **Pedestrian Flow** | | Opportunity to improve flow of pedestrians and commuters in and around the station area. |
| 5.4 | **Low patronage station** | | Opportunity to be more innovative in the design outcomes of the pedestrian link. |
| 5.5 | **Aboriginal Interpretation** | | Engagement with Aboriginal Community may provide further understanding of interpretation options. |
| 5.6 | **GWH Roads Design Interface** | Limited to current AFC design where interfacing with the GWH entries including landscaping and plant selections, material selection etc. | |
| 5.7 | **Community Groups** | Some pushback from community regarding having a bridge. | Varying community groups, which have different usage for the pedestrian link, provides opportunity for innovative design i.e. split bridge.<br>– Walking trails and footpath / journeying / leisure destination<br>– Access to Hydro Majestic<br>– Local commuters |
| 5.8 | **Ownership of Assets** | Delineation of standards applicable to different parts of the bridge i.e. road vs rail. | |
| 5.9 | **Disability requirements of works** | Requirements generally have some limitations in which design can be flexible. | Opportunity to explore where some disability features are not required. Innovations may be possible such as touchless lift sensors for 2 stop lifts (some details below). |
| 5.10 | **Snow impacts on open footbridge** | Maintenance considerations for snow falling on accessible pathways. | |
| 6.0 | CONSTRUCTABILITY | | |
| 6.1 | **Dependence on Rail Weekend Shutdown Possessions** | Only a select number of possessions available for installation. | |
| | | Installation requires large modular sections for efficiency. | |
| 6.2 | **Dependence on Road Shutdown** | Very limited time for highwat to be closed. | |
| 6.3 | **Access for Cranes** | Good access for large cranes to be used within reason. | |
| 6.4 | **Modular Construction** | Provides flexibility with Cranes required. | |

Table 2: Technical constraints and opportunities.
Source: Arenco, November 2022.

Figure 274: 1926. Detail of Parish Map.
Source: SIX Maps, available online.

# 5.0

## Previous Options Considered

# 5.1 Background

From 2019-2022, prior to the current design team being engaged, a range of strategic options were investigated for crossing the rail corridor and upgraded Great Western Highway at Medlow Bath. The options fell into four main categories:

- At grade pedestrian signals or diversion to the Station Street traffic signals
- Retrofits to the northern pedestrian bridge with connecting elements via Station Street traffic signals
- New underpass pedestrian tunnel with connecting elements
- New pedestrian bridge with connecting elements.

Options that were not suited to the site constraints and could not meet the objectives were not progressed to design.

These options are summarised in the *Medlow Bath Pedestrian Bridge Optioneering Report* prepared by TfNSW in November 2021, extracts of which follow.

### 5.1.1 At Grade Signalised Crossing

The existing road crossing facilities are unsuitable in an upgraded highway design as design standards do not permit such a narrow treatment on a four lane divided highway. A compliant pedestrian refuge could not be provided at the desired location without risking impact to heritage buildings due to the constrained roadway width between the Hydro Majestic and the station.

While the existing refuge and level crossing is close to the desire line for the users in the future state, an uncontrolled pedestrian crossing facility would not be consistent with other treatments in other lower Blue Mountains townships where treatments assure pedestrians can safely cross the Great Western Highway.

A narrow unprotected and uncontrolled pedestrian refuge does not meet current road design standards and would not prevent future crashes involving pedestrians with highway traffic. To meet design standards, a fully signalised pedestrian crossing would be needed with sufficient crossing time for all users to cross the highway without stopping.

The desired location, at less than 300m from the Station Street / Railway Parade TCS intersection, could create signal timing issues due to the operational nature of both sites. This could generate uncontrolled delay conditions during peak periods which then generates knock on increase in noise and emissions due to increased need for vehicles stopping and starting.

The impact that this type of at grade signalised crossing would have on highway traffic flow would directly contradict GWHUP objectives and benefit realisation.

From a rail safety perspective, the at grade level crossing would also need accessibility improvement to meet current standards if the existing refuge location were to be maintained as the design crossing location.

#### Decision Statement

Based on safety concerns (road and rail), heritage constraints (Hydro Majestic) and poor traffic performance outcomes, an at grade pedestrian crossing was not progressed through strategic design.

### 5.1.2 Diversion to Station Street

Closing the pedestrian refuge on the highway and redirecting users to the Station Street signals was also considered. This would take users well away from desire lines on a much longer detour.

The trip distance between key points could reach 600m which offers no improvement to the existing site deficiencies. Hydro Majestic visitors travelling by train would be the worst affected.

This would likely lead to ongoing user compliance issues with uncontrolled crossing of the highway near the rail level crossing. Pedestrian fencing or lengthy physical barriers would be needed to redirect pedestrians toward Station Street.

Increasing pedestrian demand at the Station Street traffic signals would only further reduce the efficiency of this intersection, while steep grades in Station Street would also require accessibility improvements. With limited space to accommodate changes switch back ramps to address grade issues would only further increase distance for users.

Other transport infrastructure such as commuter parking, bus stops and kiss & ride spaces could not be provided at the constrained Station Street intersection.

By directing users away from the desire line pedestrian accessibility objectives are not met. As a result, this type of at grade redirected approach was considered a poor outcome for highway traffic, local traffic, pedestrians and transport users across the board.

#### Decision Statement

Due it's poor location relative to transport elements such as bus stops and desire lines, redirecting pedestrians to cross at the existing Station Street traffic signals was not progressed through strategic design.

### 5.1.3 Northern Bridge Diversion

The potential to install a lift at the northern pedestrian bridge was considered in early strategic optioneering. Users would be directed via the Medlow Bath Railway Station northern pedestrian bridge (which would need to be upgraded, replaced and/or supplemented with lifts to provide equitable access with users then crossing the highway at Station Street.

As is the case with the Station Street at grade diversion scenario, other transport infrastructure such as commuter parking, bus stops and kiss & ride spaces could not be provided at the constrained Station Street intersection.

In the future state via the northern pedestrian bridge, users would experience a 150m increase in journey length to reach the Railway Parade transport infrastructure and at least a 220m increase in journey length to highway bus facilities (measured from the existing centre of platform). Hydro Majestic visitors travelling by train would be the worst affected.

By directing users away from the desire line pedestrian accessibility objectives are not met.

Lift access from the existing footbridge location would facilitate access to the platform only. This would not account for access to the wider station precinct including bus stops and any future accessible parking or kiss and ride facilities, as there is not enough space to co-locate these with the footbridge.

Engineering constraints were also confirmed during the concept phase due to limited width between the railway tracks at this location and the close proximity of the rail underpass below Station Street. Installation of a lift would require track relocation, platform extension and the modification of the road over rail bridge structure including its retaining walls. These impacts are all well beyond the scope of the highway upgrade project. These constraints meant a lift was not feasible at this location.

#### Concourse sub-option

To meet the engineering constraint, a substantial new concourse structure could be extended toward the existing station building over the northern end of the platform to provide a lift down to the platform.

Any extension of this structure over the platform would detrimentally impact on the heritage elements of the state heritage listed station due to the substantial width required to maintain circulation. An extended concourse structure over top of the station platform would permanently change the physicality of the Station as a whole.

In either scenario substantial modification of the existing northern pedestrian bridge would be required.

Heritage concerns weighed heavily on this as a strategic option, as the existing pedestrian bridge is still supported by the original substructure of the early 1900 era pedestrian bridge and the station buildings are located closer to the northern stairs. Any options that place the state heritage listing at risk were not progressed.

The principal of avoiding impact on the northern pedestrian bridge structure was later seen as desirable through preliminary discussions with Heritage NSW, due to the extensive impacts this kind of approach would generate.

#### Decision Statement

Based on poor accessibility outcomes, heritage constraints (Medlow Bath Railway Station), rail track constraints, and limitations at the Station Street traffic signals, extending or modifying the northern bridge to incorporate a lift and concourse was not progressed through strategic design.

### 5.1.4 Pedestrian Underpass

During the strategic phase, the potential to install an underpass was considered. This was also raised by the community during the July 2020 public display of the strategic design. While this treatment would generally be inconsistent with other pedestrian grade separations of the existing highway between Emu Plains and Katoomba, the scenario was considered.

In the future state, users of the southern underpass would experience a minimum 100 metre increase in journey length to all transport facilities (measured from the existing centre of platform). This option could generally follow the primary passenger to Hydro Majestic desire line as shown in Figure 5.

The Railway Parade side could exit at road level, however this is a low volume pedestrian movement offering little net benefit. Positioning the underpass away from residential properties would also limit passive surveillance increasing CPTED issues (Crime Prevention Through Environmental Design).

While the underpass option is better suited to desire lines than the northern bridge and Station Street diversion options, by directing users away from other transport element desire lines, accessibility objectives are not met.

Long gently graded ramps, lifts or escalators for users to return to the surface level on both sides of the highway would also need to be considered, including the physical impacts on utilities, drainage and private property impact that these would generate.

Heritage concerns subsequently weighed on this option, as any tunnel ramp, lift or escalators would need to surface on the western side of the highway in front of the Hydro Majestic Hotel and/or at the Hydro Majestic Road Bar while also impacting on the original sandstone wall. This would likely have a detrimental impact on the locally heritage listed tourist destination.

Engineering constraints also arose due to the strict rail safety requirements for constructing pedestrian tunnels under active railway tracks. The high complexity of construction staging, limitations of rail standards and poor outcomes for user security limited the effectiveness of an underpass at this location.

#### Decision Statement

Based on poor accessibility outcomes, security concerns for users, heritage constraints (Hydro Majestic Hotel, Stone wall and Road Bar), and highly complex rail constructability requirements, an underpass option was not progressed through strategic design.

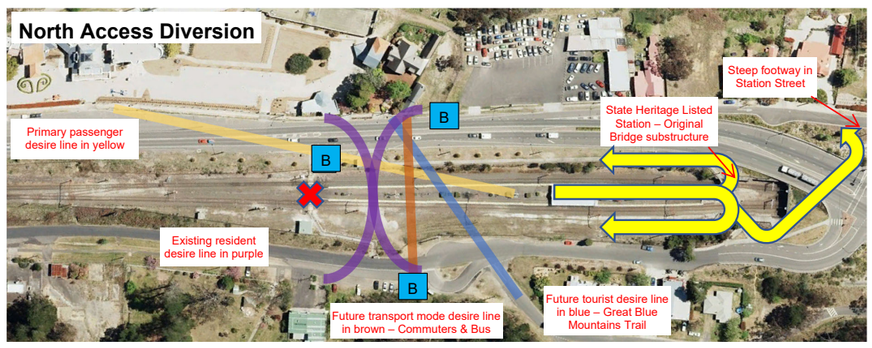



Figure 275: Northern access pathways and desire lines.
Source: TfNSW, 2021.

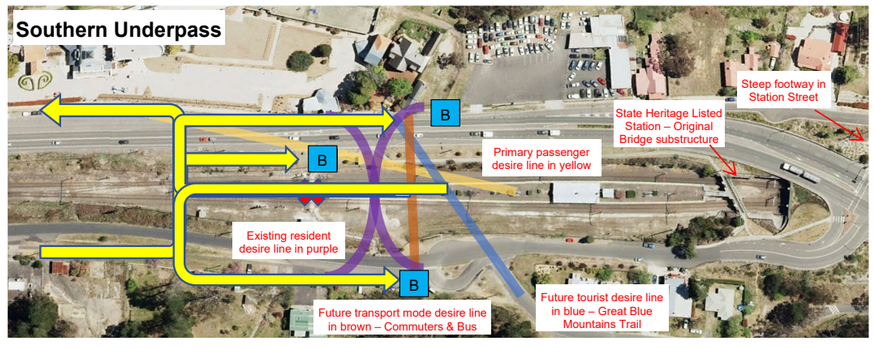



Figure 276: Underpass access pathways and desire lines.
Source: TfNSW, 2021.

### 5.1.5 Pedestrian Bridge

A pedestrian bridge scenario could meet the objectives of accessibility and safety, while best fitting with desire lines, subsequently improving access across the precinct. This was due a bridges ability to connect with all adjoining transport elements and desire lines in the shortest possible distance.

The northern bridge and Station Street connection could remain in this scenario as a supplementary access point, while primary access would be directed via the pedestrian bridge to access all transport elements via lifts at each location.

A pedestrian bridge could offer the most flexibility to achieve the GWHUP accessibility objectives by providing opportunities for improved urban amenity, placemaking, improved surveillance and accessibility across the precinct for all users.

Heritage impact on both Medlow Bath Railway Station and the Hydro Majestic remained a substantial factor in considering the feasibility and structural elements of this scenario. By limiting the bridge to lift and stair arrangements, the accessibility aspects could be optimised, while also limiting the physical footprint and visual impact on these heritage sites.

Direct impact could be completely avoided on the Hydro Majestic curtilage, while station impacts would be concentrated on the southern end of the station away from the main station buildings and northern footbridge.

This option would generally be consistent with other treatments on the Great Western Highway, however the structure type and engagement with the community would play a key role in public acceptance of the outcome as some bridges have generated higher visual impacts than others.

If progressed, the type of structure would need careful consideration in design due to the visual impact a pedestrian bridge would generate at Medlow Bath. The greater visual impact of a bridge option within a heritage area and the indirect impacts it could generate would need further attention as part of design development and the environmental assessment.

#### Decision Statement

Based on optimal accessibility outcomes, least impact potential on heritage sites and consistency with other locations in the Blue Mountains a pedestrian bridge option was progressed through

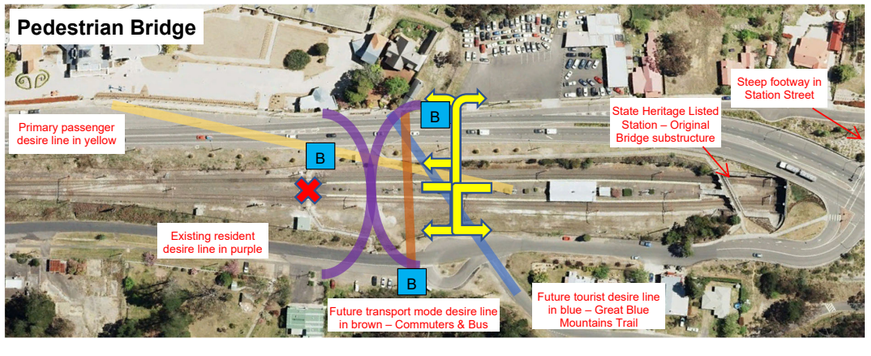



Figure 277: Existing transport facilities and desire lines.
Source: TfNSW, 2021.

### 5.1.6 The Preferred Strategic Option

The primary benefit which led to selection of a pedestrian bridge as the preferred strategic option, was the ability to best fit with desire lines in both the existing and future state.

Other factors which influenced the selection and subsequent refinement of the preferred strategic option included:

- Optimising safety for all users including removal of the railway level crossing to improve pedestrian rail safety
- Maintaining the operation and functionality of the Great Western Highway
- Consideration of Great Western Highway regional context and the Urban Design Strategy applied between Emu Plains and Lithgow to date
- Opportunities for surrounding views afforded by a bridge (place making)
- Minimising impacts to Heritage based on both the Hydro Majestic (Locally Listed) and Medlow Bath Station (State Listed) through reducing structure form and footprint, considering circulation, physical heritage element impact and adjoining interfaces
- Security and safety - bridges are 'open' structures which allow users to see and be seen
- Making best opportunity of GWHUP to address DSAPT requirements as part of the Medlow Bath project through an integrated transport solution developed to limit the impact on community. One project delivery – rather than coming back for future TAP upgrades after the highway works are complete.
- Optimising accessibility in the future state for all users including those impaired by vision, hearing, mobility and other means as part of one project.[12]

*12: TfNSW, Medlow Bath Pedestrian Bridge Optioneering Report*, November 2021, pp.6-16.

# 5.2 Concept Design Options

The *Medlow Bath Pedestrian Bridge Optioneering Report* prepared by TfNSW in November 2021, discusses how the concept design for the footbridge was developed. Extracts from this report follow.

> Development of the concept design for the pedestrian bridge then focussed on how to minimise the visual impact and select a structure type best suited to the urban amenity of Medlow Bath.
>
> Structural options excluded during initial discussions due to excessive or poor visual impact outcomes at Medlow Bath were:
>
> - Standard TfNSW / RMS Tied arch bridge and steel arch designs
> - Super T structure with deep supporting girders supporting thin deck with balustrades
> - Suspension bridges and complex variants of this design
>
> Ramps were also ruled out due the physical, visual and property impact these would generate. A lift and stair arrangement could provide the least visual and footprint impact while meeting all accessibility needs.

## 5.2.1 Design requirements

Any bridge option, while meeting transport standards in terms of anti-throw screens, lighting, CCTV and maintenance access would need to span the full width of the highway and each rail span with slender deck lines which would minimise visual impact.

Strict rail safety standards limit the use of paint over live tracks due to maintenance restrictions and fire safety ratings. Structural load supporting elements would need to be either weathered steel or concrete which must also be capable of withstanding derailment impact loads, substantial fire condition and meet full electrical earthing / bonding requirements.




Figure 278: Enhanced access links provided by proposed bridge.
Source: TfNSW, 2021.

## 5.2.2 Location considerations

The selection of a suitable location for the bridge was chosen after considering; space on the platform for stairs and lifts, proximity to Railway Parade bus stop and car parking and possible kiss and ride set-down and pick-up location; available land on the western side of Great Western Highway for lift and stairs and proximity to the proposed bus stops on the highway.

The height over the highway and rail both played a major factor in determining the final location of the bridge as any design needed to assure that BCA requirements for stairs balanced carefully with height requirements to clear highway traffic as the highway rises towards Station Street.

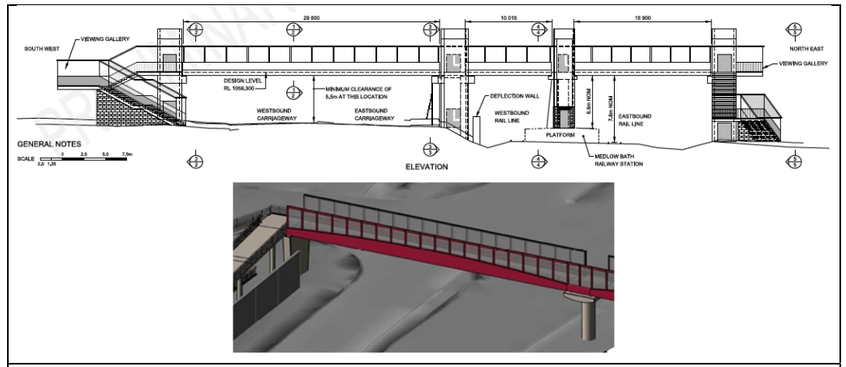
## 5.2.3 Choosing a bridge form

From the beginning of bridge optioneering, structural form and deck thickness had a big influence over the options presented. The location of the bridge and its surrounding environment required the bridge to be as slender as possible, maximising see through visibility while also considering other elements required such as hand rails, lighting, anti-throw screens and drainage.

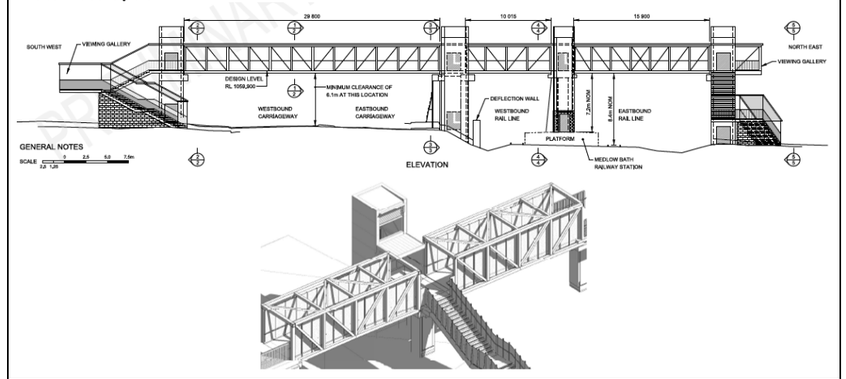
Three structure types were considered during concept bridge design assessment:

- A. Concrete Through Girder a slim deck with solid concrete walls and attached anti throw screens and potentially a roof
- B. Pratt Truss – A steel truss design with vertical, horizontal and angle elements tied together to sustain the loads (similar to Hazelbrook)
- C. Vierendeel Truss – A steel truss without the angular members of the Pratt design. Thicker steel elements carry the load.

The bridge options were developed for formal structural assessment. The assessment matrix and findings of this investigation are presented in the table overleaf.




**Pratt Truss Option**




**Vierendeel Truss Option**

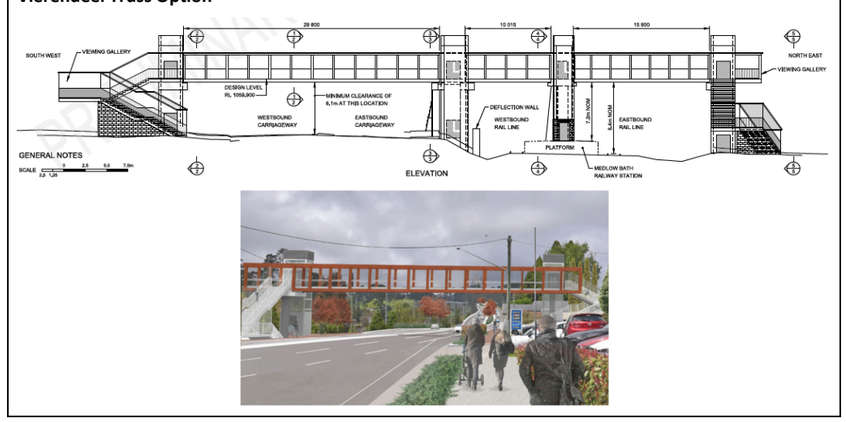



Figure 279: Bridge forms considered.
Source: TfNSW, 2021.

| BRIDGE FORMS CONSIDERED | | | |
|---|---|---|---|
| CRITERIA | OPTION 1 - VIERENDEEL TRUSS | OPTION 2 - PRATT TRUSS | OPTION 3 - CONCRETE THROUGH GIRDER |
| Spatial arrangement and cross section | Rigid connections provide a more robust truss structure vs Option 2.<br>Uniform steel member size based on the critical span (Span 1) can provide fire design capacity for the other spans.<br>Heavier steel sections required compared with Pratt Truss (350SHS vs 200SHS).<br>The full truss depth lies within the safety screens.<br>Higher vertical clearance required above GWH compared with concrete option.<br>Most flexibility in spacing of vertical members to provide even spacing. | Lighter weight truss structure compared to Option 1.<br>Uniform steel member size based on the critical span (Span 1) can provide fire design capacity for the other spans.<br>The full truss depth lies within the safety screens.<br>Higher vertical clearance required above GWH compared with Concrete option.<br>More restrictions in spacing of verticals due to consideration of diagonal members. | More robust and less sensitive to wind effects compared to Options 1 and 2.<br>Fire rating can be easily achieved by increasing the cover.<br>Lower vertical clearance required compared to Options 1 and 2.<br>Inefficient span-to-depth ratios for the shorter spans.<br>Safety screen will sit outside main superstructure members. |
| Durability | Low corrosivity category environment for steel (C2). | Low corrosivity category environment for steel (C2). | Exposure classification A. |
| Construction Issues | Superstructure will be lighter than Option 3, but heavier than Option 2. | Lightest superstructure, therefore smallest mobile crane required to lift spans into place. | Heaviest superstructure; large mobile crane required to lift superstructure into place. |
| Maintenance | Painting of superstructure will be required several times during the design life, necessitating encapsulation and temporary scaffolding.<br>Other maintenance will include replacement of bearings. | Painting of superstructure will be required several times during the design life, necessitating encapsulation and temporary scaffolding.<br>Other maintenance will include replacement of bearings. | 100 year design life can be achieved with minimal maintenance of concrete.<br>Bearings will require replacement over the design life of the structure. Jacking loads will be larger than for steel options. |
| Utilities and drainage | May be possible to provide small diameter conduits within concrete deck. | May be possible to provide small diameter conduits within concrete deck. | More scope to accommodate conduits within superstructure.<br>More scope to accommodate drainage within superstructure. |
| Work Health and Safety | Similar hazards during construction and maintenance. | Similar hazards during construction and maintenance. | Similar hazards during construction and maintenance. |
| Departures from standard | BCA Performance Solution Report required due to more than 36 stairs required on straight alignment. | BCA Performance Solution Report required due to more than 36 stairs required on straight alignment. | Fewer stairs required due to lower headroom, but departure from BCA requirements still required. |
| Urban Design | Simplest and most elegant appearance.<br>Open bay configuration (ie no diagonals) provides visual continuity across the piers, where users need to walk 'through' the truss. | Less elegant appearance; diagonals produce an asymmetric appearance in spans which have an uneven number of bays.<br>Interruption of diagonals at the piers is visually discontinuous.<br>Arrangement of diagonals for Pratt Truss non-symmetrical. | More robust structure detracts from surroundings. |
| Capital and whole of life costing | Higher capital cost than Pratt Truss option. Periodic painting less awkward than Pratt Truss Option due to flatter, larger surfaces. | Least amount of materials. More ongoing maintenance cost due to requirement for periodic painting. | Lowest capital cost, lowest ongoing maintenance cost. |

Table 3: Bridge forms considered.
Source: TfNSW Optioneering Report, 2021, p.20.

### 5.2.4 Preferred Concept Option

The preferred option selected was a 3 span Vierendeel truss bridge with spans of 28m, 11m and 15m respectively. Each span simply supported on reinforced concrete piers.

The preference for a Vierendeel truss was primarily based on its visual advantages. The square truss bays are simple and the overall steel structure will be visually elegant and sympathetic to the surrounding urban environment and landscape. The open bay configuration allows users to walk 'through' the truss when accessing it at the piers, providing additional opportunities to provide access to stairs and lifts away from supports.

The Pratt truss option would have diagonal members in elevation, which would be more visually intrusive than the Vierendeel option. The arrangement of diagonals on a Pratt Truss is irregular due to the requirement for all diagonals to be in tension. Accordingly, the closest diagonal to the support is orientated in the opposite direction to the adjacent diagonals. Where there are an odd number of bays, a double arrangement of diagonals is required at the centre bay. A number of dummy members would be required at the supports to ensure the structure remains statically determinate and all diagonals remain in tension under all load cases.

The concrete through girder option offered a lower headroom than the steel options due to less onerous requirements for maintenance during the service life of the structure. However, due to the large span across the main carriageway, construction would be significantly more challenging, as individual element weights would be significantly larger. The through girder option would not adhere to the urban design principles stated in the Urban Design Strategic Report, by providing a 'hard', visually intrusive superstructure.

The key differentiators were:

- A concrete through girder option would not adhere to the urban design principles stated in the Urban Design Strategic Report, since it provided a 'hard', visually intrusive superstructure. This structure would also lead to heavier elements making construction much more challenging. While the main supporting structure could be a relatively simple form, the addition of anti-throw screens, and lighting would quickly lead to a very bulky physical form overall.
- A Pratt truss option would have had diagonal members in elevation including dummy members and supporting members leading to busier structural form. From an Urban Design perspective, despite a Pratt Truss having lighter structural members, the structure would appear more cluttered than a Vierendeel Truss Option leading to greater visual impact. Learnings from the Hazelbrook Pedestrian Bridge were also considered in the assessment of this option.
- The Vierendeel Option was found to be most feasible whilst providing the optimal urban design outcomes as it required the least structural elements, giving it a greater permeability and as such less visual impact. The simpler construction methodology compared to the through girder offered reduced impact on the road and rail operations.

The Vierendeel Truss option was progressed as the preferred structure type based on the assessment conclusions within the Concept Structures Report.[13]

*13: TfNSW, Medlow Bath Pedestrian Bridge Optioneering Report*, November 2021, pp.17-20.

# 5.3 Development of Previous Preferred Concept Option

## 5.3.1 Design Development

As design development progressed to the public display of the Review of Environmental Factors the project team engaged in a series of architectural challenge workshops. Specialists involved in this process included:

- Urban Designers
- Heritage Specialists
- Architectural Specialists
- Transport Access Program Engineers
- Civil & Structural Design Engineers
- The Project Manager

The workshops challenged a range of key issues in the design to assure the design was optimised before being presented to the community. The architectural challenge workshops examined a number of key refinement areas.

### Materials

Weathering steel was chosen for the superstructure material. The provision of weathering steel simplifies the maintenance requirements, compared to ordinary structural steel. Weathering steel also reduces the need for periodic maintenance of the superstructure compared to painted steelwork.

The stable oxide 'patina' that forms on weathering steel obviates the need to paint the steelwork. The selection of a material with a red patina took inspiration from 'Red Hands Cave' near Glenbrook which fits naturally into the surrounding World Heritage Listed national park.

Further consideration and engagement would be applied through detailed heritage interpretation processes as design progresses.

The use of weathered steel was ultimately seen as an opportunity to best meet structural fire rating and maintenance requirements, while being visually appealing and sympathising with the surrounding village and heritage environment.

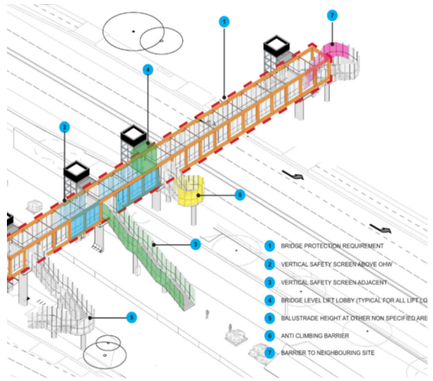



Figure 280: Features of the footbridge.
Source: TfNSW, 2021.

The use of weathered steel also allowed the level of the bridge to be lowered through the thinner deck and supporting structure it requires. This lowering of the soffit generated a number of other benefits, including minimising the visual impact of the bridge from its overall height, and deck thickness, while also reducing the number of stairs required to ground level.

### Stair Layout

Extensive consideration was given to the layout of the stairs, lift wells and forecourt areas to assure circulating areas were clear, walking pathways most direct and the number of steps reduced. Consideration of maximising accessibility was consistently applied during all design iterations and workshops held.

A number of changes were made to the bridge, lifts and stair arrangement. These include:

- Moving the bridge 4 metres to the north, where the station platform had greater width to accommodate the stairs
- The stairs on the western side of the bridge were reversed to create a common entry space for the stairs and lift
- Lift shafts were repositioned to make them more visible at ground level
- Changing the lower section of the stairs to a built-in arrangement to eliminate the hard to maintain area under the treads.[14]

*14: TfNSW, Medlow Bath Pedestrian Bridge Optioneering Report*, November 2021, pp.17-21.

## 5.3.2 Consultation

The previous project team engaged in a wide range of consultation during design development. In addition to community consultation, the table on the right outlines engagement with key stakeholders to date.

### Blue Mountains City Council

The Weston Williamson + Partners design for the footbridge was presented to Blue Mountains City Council on several occasions during design development.

| ENGAGEMENT TO JULY 2022 | | |
|---|---|---|
| **TIMING** | **STAKEHOLDER** | **ACTIVITY** |
| Ongoing from June 2021 | BMCC Heritage Team | Ongoing 3 weekly heritage meetings |
| 3 June 2021 | Heritage NSW | Briefing #1 - GWHUP & Medlow Bath project |
| 25 June 2021 | TfNSW Design Review Panel | Presentation to DRP and feedback taken |
| 14 July 2021 | BMCC | Station precinct detailed site walk |
| 27 July - 5 September 2021 | All stakeholders | Public display of Medlow Bath including broad SOHI |
| 12 August 2021 | BMCC Heritage Advisory Committee | Presentation & engagement |
| 5 November 2021 | Heritage NSW | Formal REF response |
| November 2021 | Heritage NSW | Detailed Station Works SOHI & Options Development Paper submitted to Heritage NSW |
| 23 November 2021 | Heritage NSW | Briefing #2 - Options Development |
| 1 December 2021 | Heritage Council | Project referred to Heritage Council Approvals Committee February Meeting |
| 1 February 2022 | Heritage Council Approvals Committee | Presentation to Committee |
| 27 April 2022 | BMCC | Meeting / presentation to BMCC regarding bridge option in which a decision statement was provided regarding the underpass option:<br>"Based on poor accessibility outcomes, security concerns for users, heritage constraints (Hydro Majestic Hotel, Stone wall and Road Bar), and highly complex rail constructability requirements, an underpass option was not progressed through strategic design." |
| May 2022 | Various meetings held with Sydney Trains, GWHUP and other stakeholders. | Presentation to gain consensus on constructability, security, WOL cost impacts of the underpass option |
| 31 May 2022 | Heritage NSW | Presentation to Heritage Approvals Committee regarding underpass option. |
| 5 July 2022 | Heritage Council Approvals Committee | Alternative process to develop an appropriate pedestrian bridge design discussed. |

### Transport for NSW Design Review Panel June 2021

The design of the footbridge was presented to the TfNSW Design Review Panel (DRP) in June 2021. The DRP acknowledged the constraints imposed on the project.

> The footbridge location has been dictated by two constraints: land acquisition at the southern corner of the car dealership and circulation space around the lift on the tapering island platform.
>
> A new stair and through-lift connects to the new footbridge on the western side of the highway. The lift and stair have been oriented to prioritise customer access to the Hydro Majestic, however the stair is visible and easily accessible from either the north or the south. The lift and stair have been set away from the footpath to accommodate the new shared cycle path and clearance to the vehicle crossing of the car dealership.
>
> A new stair and through-lift connects to the new footbridge on the eastern side of the highway, adjacent to the western rail boundary. The lift and stair have been oriented to face the relocated bus stop. This blocks access to the footpath to the north, which will be planted with significant trees as part of the vegetation offset strategy.
>
> A new stair and standard lift connects the new footbridge to the island platform. Use of the stair has been prioritised by facing the stair towards the station building. The standard lift also directs customers towards the station building, which is the location of the covered boarding assistance zone.
>
> A new stair and standard lift connects to the new footbridge on the western side of Railway Parade, adjacent to the eastern rail boundary. The lift and stair have been oriented to create a new entry forecourt, with DDA parking and a kiss-and-ride space. An upgraded footpath leads south-east to the Commuter Car Park.
>
> Medlow Bath Railway Station currently has no staff in attendance. The station building is currently always locked so no upgrade is proposed to any of the interior rooms or toilets.

The panel provided the following advice and recommendations:

#### General

The Panel commended the presentation team for their robust urban analysis and clear presentation. The Panel supports the strong concept and rational layout.

#### The proposal

The Panel supports:

- The use of glass and dark steel structure for the upper section of the lift shafts.
- The use of concrete for the lower section of the lift shafts, stairs and supporting structure.
- The adjustable light levels of the footbridge.

The Panel recommends:

- Further investigation of the material selection for the footbridge structure. The relevance of the proposed weathering steel to the Art Deco character of Medlow Bath and the adjacent landscape was not apparent.
- Further investigation of concrete colour and texture to ensure consistency across lift bases, stairs and columns.
- Design development of the footbridge structural steel and truss type to improve connection details and reduce member sizes.
- Design development of the truss concept to better integrate with the descending stair at the western end.
- Generosity of Station entry points.
- Rationalisation of column clusters that support stair landings and footbridges to minimise visual impact and provide clear lines of sight.
- Improving access to the western stair, especially when approached from the south. The approach is partially obstructed by the lift, and the path of travel appears to conflict with the lift waiting area.
- The use of through-lifts on the platform and Railway Parade, consistent with AS1428.2, rather than prioritising direction of travel towards the centre of the platform.
- The footbridge be fully lit when a train approaches the Station.
- The adjustable lighting strategy (noted above) to work for general public cross-corridor access as well as for rail customers.

#### Landscape and public domain

The Panel supports:

- Planting significant offset trees within and around the precinct. The Panel recommends:
- Clearly identifying existing and proposed planting on the same drawings. Clearly identifying RMS scope and TfNSW scope on the same drawings
- New landscaping and planting making a significant contribution to place-making.[15]

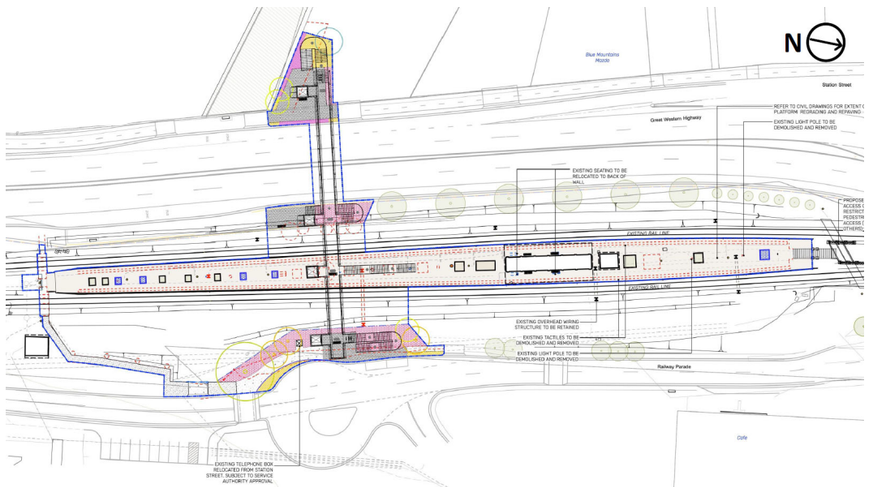



Figure 281: Plan of proposed footbridge at Medlow Bath.
Source: Weston & Williamson, June 2021.

*15: TfNSW Design Review Panel, Medlow Bath TAP – Design Development FINAL Advice sheet #156 25/06/21*, pp.1-3.

### Heritage Council of NSW

The footbridge design was discussed with Heritage NSW on several occasions and presented to the Heritage Council of NSW on the 1 December 2022. The project was then referred to the Heritage Council of NSW Approvals Committee meeting.

### Heritage Council of NSW Approvals Committee 01 February 2022

The footbridge design was presented to the Heritage Council of NSW Approvals Committee on 1 February 2022. The following resolutions were issued following the meeting:

1. **Notes** the information in the report presented including its attachments.
2. **Notes** the Transport for NSW presentation.
3. **Acknowledges** that an appropriate solution needs to be developed to address the DDA requirements for equitable access to Medlow Bath Station.
4. **Supports** the integration of connecting with Country into the development of the design.
5. **Encourages** looking beyond archaeology to better incorporate both Aboriginal and non Aboriginal living cultural values of the place.
6. **Recommends** further development of an interpretation strategy that will inform the design, so that it responds to the character of the Place as a significant historic health and leisure destination.
7. **Recommends** that the Underpass option be further explored at the location of the bridge option, terminating with lifts and stairs in lieu of ramps.

An underpass was explored, however, safety was a major concern due to the length of the tunnel required to cross the highway and the lack of surveillance.

The design of the footbridge needs to connect to Country and fit into the historic context of Medlow Bath. There is an opportunity for the bridge form to interpret the significance of the site by referencing the Hydro Majestic, which has direct links to the development of the station and the town as a health and tourist destination.



Figure 282: View of tunnel Option.
Source: TfNSW 2022.

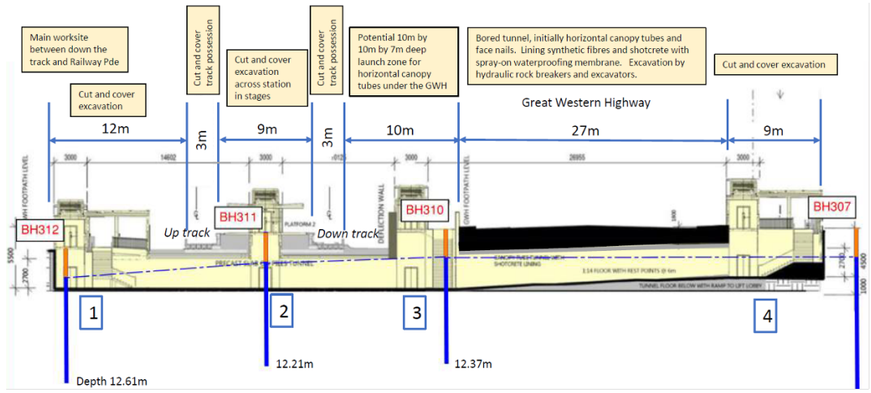



Figure 283: Details of tunnel Option discussed at workshops held in May 2022.
Source: TfNSW 2022.

## Heritage Council of NSW Approvals Committee 31 May 2022

The project was presented to the Heritage Council of NSW Approvals Committee on 31 May 2022. The Committee discussed community feedback on the design proposal, various operational aspects of the underpass option, and outcomes of TfNSW's Underpass Viability Workshops, before focusing discussions on the bridge crossing as the proponent's preferred option. Key points raised included:

- The Committee questioned whether requirements across the station platforms and the road could be addressed separately to reduce the scale of the project
- Members agreed that large and modern statement bridges may work in some heritage settings, however, this proposal would significantly disrupt the authenticity of Medlow Bath as a 1920s leisure destination and people's attachment to the Place. The bridge should either complement the existing ensemble of buildings or be as recessive as possible. Any bridge design in this location must support the feeling of having an authentic historical experience and reflect the qualities of the site.
- Members raised the opportunity to incorporate a viewing platform to the Hydro Majestic side of the bridge so that it is not merely functional but improves user experience.
- Members also discussed the Station Street crossing as a legitimate option and the opportunity to acquire the adjacent Mazda property to support the most appropriate development for the long term.

The following key comments were issued following the meeting:

a. Notes the concerns of the local community and Blue Mountains City Council and encourages ongoing engagement with them and other key stakeholders to reach an acceptable solution.

b. Notes that the underpass option, which all parties agree has the least heritage impact, has been explored, including the constructability, public safety and maintenance issues, and that the bridge remains the proponent's preferred option.

c. The Approvals Committee discussed the Station Street crossing as an option.

d. The Approvals Committee remain concerned with the design of the bridge crossing, including bulk and materiality, and its heritage impacts on the World Heritage setting.

e. The pedestrian bridge option should be designed to better respond to the significant heritage values of the Blue Mountains setting and the local precinct including the Hydro Majestic Hotel. The pedestrian bridge should respond to the character of the Place as a significant historic health and leisure destination.

f. The Approvals Committee encourages TfNSW to continue to develop the interpretation strategy to inform the design, including connecting with Country.

g. Recommends a design competition or alternative process to find an appropriate solution. The Approvals Committee offers to comment on the design brief and recommends that a heritage architect is embedded in the project team.

h. The Approvals Committee welcomes ongoing discussion with TfNSW.

## Tunnel Option Assessment 31 May 2022

In response to the request from the Heritage Council of NSW Approvals Committee, Transport for NSW further investigated the Tunnel Option and presented their findings to key stakeholders including BMCC and the NSW Heritage Council Approval Committee following three internal workshops on 31 May 2022. An underpass is not considered to be a viable option from a public security or a customer safety and experience point of view. Further, the tunnel option was also costed by a quantity surveyor and it was determined that the tunnel would cost an additional $24.6M compared to the footbridge option and add 6 months to the construction program.

### TfNSW Workshop 1
### 4 May 2022 - Maintenance & Safety

#### Positive Findings

- Generally a tunnel would be simpler to maintain (no road closures, no possessions)

#### Negative Findings

- Significant concerns about security of the asset as the station is not manned
- Significant concern about safety of customers. There are thousands of cameras on the network and any incidents are unlikely to be picked up on CCTV in time
- Nearest police are at Katoomba or Blackheath so any attempt at assistance would be late.
- Security representative would not support an underpass.

#### Final Position

- Security is opposed to an Underpass
- Maintenance does not have a preference

Concern was raised after the meeting regarding issues regarding general cleanliness, maintenance and amenity of underpass options vs at-ground and overpass options.

### TfNSW Workshop 2
### 12 May 2022 - Constructablility

#### Positive Findings

- The site is tight but there is sufficient width for a tunnel launch zone
- Tunnel under road & rail can be built

#### Negative Findings

- Removal of excavated material would generate significant amount of construction traffic in the area
- A wider tunnel would be necessary to mitigate fear of confined spaces (70 meters long tunnel), increasing the quantity of excavated material and impacting costs and schedule
- Underpass would increase the overall construction duration due to tunnelling activity and limited opportunities for concurrent works
- Underpass would increase project design and construction costs

#### Final Position

Underpass can be constructed

### TfNSW Workshop 3
### 25 May 2022 - Customer Safety & Experience

#### Positive Findings

- An underpass would provide cover in inclement weather
- A footbridge would create new opportunities to appreciate the heritage precinct from a height, including photo opportunities for steam trains etc.

#### Negative Findings

- Underpass has zero passive surveillance
- Underpass would be 70 metres long and 4 metres below ground at both ends,
- Fully below ground underpass confines customers and creates risk for entrapment and assault
- CCTV cameras are useful, but do not deter vandalism/anti-social behaviour
- Tunnels are not perceived as being safe by the public, unless there is a lot of pedestrian traffic
- Station does not provide amenities and, based on experience in other tunnels, the underpass will be used as a toilet making it unattractive to use
- Wayfinding a Footbridge crossing is easier as it is intuitive
- Lift shafts are not easily read as crossing points and will result in uncontrolled pedestrian crossings across 4 lanes of traffic
- This is a sub-alpine area with intermittent reduction in visibility through winter from rain snow and fog, increasing risks to life and/or injury if customers attempt to cross the four lanes of traffic
- Street lighting at Medlow Bath is low due to resident pressure, adding to poor visibility at night and increasing risks of injury

#### Final Position

- Attendees unanimously opposed an underpass solution

## Heritage Council of NSW Approvals Committee 5 July 2022

An alternative design process was discussed on 5 July with the NSW Approvals Committee. Discussion focused on how to inform the design brief to provide clear guidance on developing a contextually appropriate bridge that achieves the non-negotiable safety requirements. It was agreed that the brief should focus less on producing a visually recessive design, and more on responding to the Blue Mountains World Heritage values and the character of the precinct, including the Hydro Majestic Hotel, as a historic health and leisure destination.

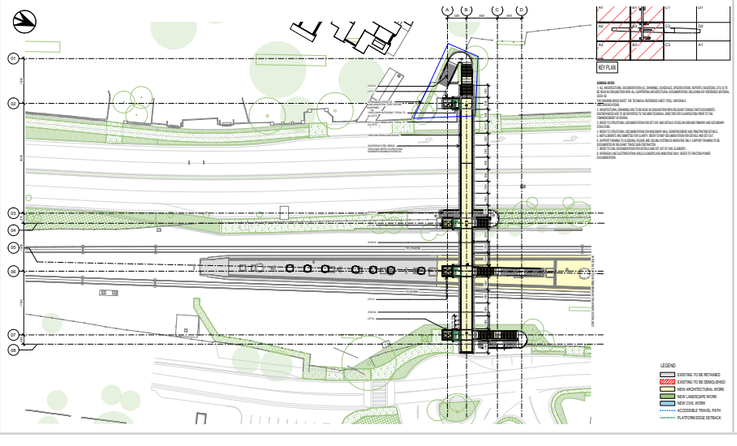
The Heritage Council Approvals Committee supported TfNSW's proposed alternative process to develop an appropriate pedestrian bridge design and recommended continuing consultation with Heritage NSW during the design development stages along with ongoing engagement with Blue Mountains City Council.

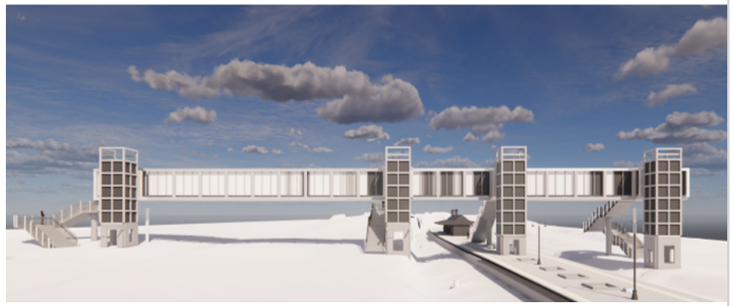
## 5.4 Other Options Considered

### DesignInc Options March - April 2022

DesignInc were engaged by TfNSW in March 2022 to conduct a high level review of the design of the footbridge at Medlow Bath prepared by Weston Williamson + Partners and to explore alternative options which took into consideration the feedback received from BMCC, Heritage NSW and the local community. These options were discussed at three workshops with TfNSW carried out between 8 March and 28 April 2022. Eight options were initially explored. This was reduced to four options by the third workshop.

OPTIONS COMPARISON

| OPTION | DESCRIPTION | VISUALISATION | LESSONS LEARNT |
|---|---|---|---|
| **80% Design**<br>August 2021<br>Weston Williamson + Partners | **Base Case**<br>– Location of bridge aligns with community desire lines, providing access across the Great Western Highway, Medlow Bath Railway Station and the local road, Station Street. This ultimately encourages transport use, safe access for commuters, and connection to township.<br>– 80% design uses a Vierendeel truss with simple but heavy/ oversized steel members finished in weathering steel.<br>This design formed the Base Case for the initial review by DesignInc. Given the extent to which the bridge had been developed and program timing, the initial brief was to review the Base Case and to identify simple cost effective options to meet the Heritage Approvals Committee feedback. |  <br>  | – The Base Case option resulted in a visual impact that was unacceptable to the Heritage NSW and the local community.<br>– Colour of weathering steel dominant in views.<br>– Public perception weathering steel is a low quality material.<br>– Integration of connecting with Country into the development of the design and incorporation of both Aboriginal and non Aboriginal living cultural values of the place recommended.<br>– Development of an interpretation strategy could inform the design so that is responds to the character of the Place as a significant historic health and leisure destination<br>– Further exploration of the Underpass option at the location of the bridge terminating with lifts and stairs in lieu of ramps required to test viability. |

| DESIGN INC OPTIONS COMPARISON | | | | | | |
|---|---|---|---|---|---|---|
| W1 | W2 | W3 | DESCRIPTION | INITIAL VISUALISATION | REASON NOT PURSUED/DEVELOPED VISUALISATION | LESSONS LEARNT |
| 1 | | | **OPTION 1 - Modification to Base Case**<br>– Lighter colour – either off-white (painting) or silver grey (hot-dipped galvanising) responding to the exterior of the Hydro Majestic. |  | – Painting the bridge was not supported as this would trigger the requirement for greater clearance above the road to allow scaffolding under to permit maintenance to be carried out above live traffic. This would in turn increase the height of the lift shafts and the number of stairs required. Painting the bridge would effectively increase the height of all elements resulting in an adverse visual impact. This option was not pursued any further.<br>– Although heavily supported by the roads teams, with many galvanised finish bridge examples around the state, galvanised steel was also perceived as a lower quality finish compared to a painted finish and hence not pursued. | – Minor colour and finish changes not likely to overturn initial negative reactions. |
| 1 | | | **OPTION 2 - Modification to Base Case**<br>– Lighter colour – either off-white (painting) or silver grey (hot-dipped galvanising), responding to the exterior of the Hydro Majestic.<br>– Interpretive safety screen mesh on the inside face for a more transparent appearance reducing visual impact and representative of the drapery at the Hydro Majestic (Mark Foy). |  | – Comments relating to Option 1 apply here too. Painting the steel would have resulted in an overall higher bridge. Galvanising the steel was perceived to be a lower quality finish.<br>– Although the 'curtain' safety screen was seen to potentially provide an effective visual outcome, particularly in combination with architectural feature uplighting, it did not change or ameliorate the bulk and scale of the Vierendeel truss bridge. | – Minor colour and finish changes not likely to overturn initial negative reactions. |
| 1 | 2 | 3 | **OPTION 3 - Modification to Base Case**<br>– Lighter colour – either off-white (painting) or silver grey (hot-dipped galvanising).<br>– Interpretive safety screen facade.<br>– Triangulation of truss systems reducing steel member sizes. In response to Aboriginal Cultural Heritage, the bridge represents a signpost between nations, Wiradjuri in the west and Gundungurra to the east (Emu footprint as arrows.) |  |  | – Minor member size and finish changes not likely to overturn initial negative reactions. |
| 1 | 2 | 3 | **OPTION 4 - Modification to Base Case**<br>– Lighter colour – either off-white (painting) or silver grey (hot-dipped galvanising) responding to the exterior of the Hydro Majestic<br>– Interpretive safety screen mesh for a more transparent appearance on the outside reducing visual impact and representative of the drapery at the Hydro Majestic (Mark Foy).<br>– Introduce sandstone cladding / colours to the lift base, reflective of the Megalong Valley escarpment. |  |  | – Minor colour and finish changes not likely to overturn initial negative reactions. |

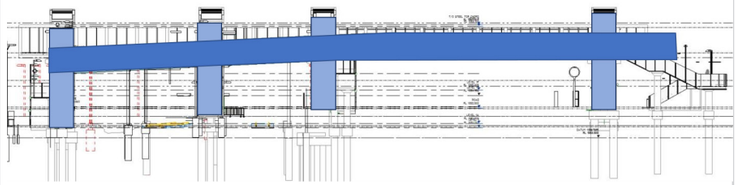
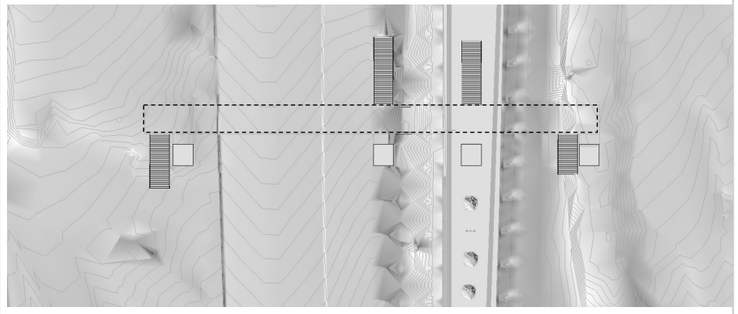
| DESIGN INC OPTIONS COMPARISON | | | | | | |
|---|---|---|---|---|---|---|
| W1 | W2 | W3 | DESCRIPTION | INITIAL VISUALISATION | REASON NOT PURSUED/DEVELOPED VISUALISATION | LESSONS LEARNT |
| 1 | | | **OPTION 5 - Sloped Bridge**<br>– Slope bridge deck to reduce height at station end – top of lifts drop with it. This could apply to all bridge options to reduce visual impact of the development. |  | – Although responding directly to the clearance requirements, this option was felt to appear 'droopy' and if it remained a Vierendeel truss it would not fit with the naturally straight strong lines of the truss.<br>– Curving the overall form may have more potential with a different structural bridge typology. | – If this produced an overall curved/arched form the result could be good. |
| 1 | | | **OPTION 6 - Hybrid Option at Existing Northern Bridge**<br>– Underpass to be located at the northern end of the station with access from Station Street and existing footpath along GWH reducing visual impact.<br>– Existing bridge to be maintained with two additional lift shafts for accessibility services. |  | – v | – Underpass to be reassessed.<br>– Heritage impact to significant early bridge to be assessed. |
| 1 | 2 | 3 | **OPTION 7 - Underpass**<br>– Underpass from east to west, mid way along the platform, at the southern end of the platform in the location of the bridge, equipped with four sandstone clad lifts at both existing footpaths along GWH, platform access, and Railway Parade, limiting visual impact. |  |  | – Underpass not seen to be safe due to overall length and lack of surveillance.<br>– Difficult to construct.<br>– Prohibitively expensive. |
| 1 | 2 | 3 | **OPTION 8 - Dancing Truss**<br>– Bespoke to the precinct, the intertwining, 'dancing truss', curvilinear plan reflects upon the playful, entertainment destination of the Hydro Majestic and also represents ridge lines of the Megalong Valley.<br>– The geometry of the bridge layout integrates the lift shafts reducing overall visual impact.<br>– Triangulation of truss system reflective of Aboriginal Cultural Heritage, the bridge represents a signpost between nations, Wiradjuri in the west and Gundungurra to the east (Emu footprint as arrows.) |  |  | – Overall approach - ie more sculptural 'gateway' could be pursued, however would rely on public support. |



Figure 284: 1917. Kerry and Co & Kerry, Charles H (1917) [illegible], H[illegible] Majestic, Medlow Baths' by Kerry and Co.
Source: Powerhouse Museum, https://collection.maas.museum/obj[illegible]

# 6.0

# Heritage Design Principles

# 6.1 Heritage Design Principles

An analysis of the site and its context, together with an understanding of the history of Medlow Bath and the significance of key elements, leads to the following heritage design principles which apply to the proposed footbridge at Medlow Bath.

The bridge spans a site which slopes down from the west (GWH) towards the east (Railway Parade) and from the north to the south. The topography affects the visual impact of the bridge, especially when viewed from the south from the Great Western Highway, approaching the Hydro Majestic Hotel, and along Railway Parade on the quieter eastern side of the rail corridor.

### Consultation

The Draft Heritage Design Principles were presented to representatives from the Medlow Bath community and to Heritage NSW in December 2022 and further refined based on their feedback.

## 6.4.1 Character

The character of Medlow Bath is defined by the natural landscape and key buildings. The existing built forms are integrated into the landscape through a combination of natural bushland and planned landscape features. The Hydro Majestic presents an urban scale with a streamlined Art Deco character which transitions to the finer grain Federation detailing of the railway station and residential housing beyond. The formal subdivision and set out of the railway are juxtaposed by the rambling composition of the Hydro Majestic and walking trails that surround Medlow Bath.

The pedestrian bridge should be designed to respect and respond to the existing varied natural and historic character of the place. Considering the prominent position it will occupy, and its potential landmark qualities in the setting, the footbridge should strive to be a simple elegant intervention.

### Respond to Context

- Undertake detailed design to ensure that design is contextually appropriate and that the differing character of the built form east and west of the rail corridor is acknowledged. The Hydro Majestic, the most memorable built form associated with Medlow Bath, could be used as a point of reference.
- New landscape elements should respond to the character of the surrounding cultural landscape.

### Simple Elegant Design

- The bridge should be contemporary in character. Its design should be simple with refined clean lines to reduce visual bulk and clutter and to reinforce the landscape setting and vistas as the predominant visual items when travelling along the corridor.
- The various bridge elements including spans, bridge deck profile, piers, abutments, parapets and barriers should be coordinated to produce a well-considered composition.

### Role as Gateway

- Ensure that the landmark role of the bridge as a gateway along the highway, that also provides a sense of arrival by train, is reflected in appropriate, high quality design. The bridge could potentially be designed as a sculptural artefact in the landscape.

### Viewing Point

- Consider the viewing opportunities offered by the bridge to the west towards the Megalong Valley and to the east towards the Greater Blue Mountains in the design.

## 6.4.2 Scale

As you approach Medlow Bath, which is located on the Ridgeline, views to the sky open up and the sense of enclosure of the landscape reduces. The scale of the built form is relatively low. The Hydro Majestic is the tallest reference point at 2-3 storeys and the scale grades down to predominantly single storey for the railway station and surrounding residential dwellings.

The pedestrian bridge by necessity will be a sizeable element within the historic context of Medlow Bath owing to the functional need and technical requirements associated with rail and road safety, DDA access and maintenance. Given the low height of the natural and built form, the perceived scale of the pedestrian bridge should be minimised through careful design to avoid overwhelming the place.

### Reduce Overall Scale as Much as Possible

- Minimise height through material choice. Explore possible height transitions for bridge span to break up the overall length.
- Make the horizontal span of the bridge as slender and elegant as possible.
- Maximise the transparency of the balustrades and throw-screens to reduce the perceived overall height of the bridge.

### Minimise Impacts on Significant Views

- Minimise the footprint of lifts and stairs to ensure that they are presented in a landscape setting.
- Proportion individual elements to respond to the articulation of the heritage buildings in the vicinity of the site.

### Detailed Design to Reduce Scale

- A combination of solid lift towers and a lighter bridge span could be explored.
- Design bridge piers and lift towers so that the proportion of their vertical height to width is controlled such that the piers appear tall and fine, rather than squat and bulky.
- Consider how the colour of bridge elements, read in context, can work as a whole to reduce the scale of the overall composition.

### 6.4.3 Form

The sweeping alignment of the roadway following the ridgeline and the walking tracks in and around Medlow Bath highlight the natural form of the place. The Hydro Majestic is the dominant building form in the precinct, however the use of curved forms in the massing and detailing softens the presence of the building ensemble in the landscape. Although the railway station and residential housing present more traditional forms, they share some similarities with the Hydro Majestic, including a high solid to void ratio and vertical proportions to glazed openings.

The form of the pedestrian bridge is constrained by functional needs and technical requirements. Nonetheless, the pedestrian bridge should be designed to acknowledge and respond to the subtle underlying natural forms as well as the dominant built forms to ensure it is appropriately grounded in its significant setting within Medlow Bath.

#### Uncluttered Horizontal Form

- The bridge should be expressed as an uncluttered and well co-ordinated horizontal form.
- Consider how the vertical lift towers can be designed to read as subservient forms to the bridge spans.

#### Soften Engineering

- The use of curves could be explored to soften the impact of the overall form of the footbridge.
- Integrate primary and secondary structure to create a more visually seamless form.

#### Enhance User Experience

- Provide adequate space on the footbridge for people to stop and enjoy the views offered by the elevated position across the Megalong Valley, to the Hydro Majestic Hotel, the Railway Station, former Post and Telegraph Office, Urunga and to the Blue Mountains National Park.

### 6.4.4 Siting

The siting of existing built form in Medlow Bath generally addresses the road or rail, which both cut through the landscape and effectively divide the town in half. Although constrained somewhat by the position on the narrow ridge, built forms are generally set well back from the roadway and rail cutting providing a more gradual transition. As a series of interconnected precinct elements, maintaining the visual relationship between the key historic features of Medlow Bath is important.

The siting of the pedestrian bridge is constrained by access and land ownership. Stairs, lifts and associated entrances need to be located to provide direct access from connecting footpaths. The built form should respond to the established setbacks where possible and provide a generous approach reflecting the high-quality recreation and leisure history of Medlow Bath. Significant views should be maintained, and opportunities for new views explored. The immediate site of the footbridge has no natural features of significance.

#### Connect to Country

- Include a strong connection to Country aided by interpretation, appropriate material and colour choices and response to the broader landscape setting.

#### Minimise impacts to Heritage Fabric

- Minimise impacts to significant heritage fabric.

#### Respect the Neighbourhood

- Design the spaces between old and new elements carefully.
- Minimise the footprint of built elements at each landing point to reduce impacts on the adjoining townscape and heritage values.

#### High Quality Urban Design

- Provide generous and high-quality spaces at each entry point for orientation and wayfinding.
- Consider the locations of lift towers and how their placement impacts the balance of the overall composition of the bridge.

### 6.4.5 Materials and colour

The materials of the existing built form are rich and varied, ranging from sandstone to brickwork and rendered masonry. The use of earthy materials ground the existing buildings in the landscape context of Medlow Bath.

Materials and colours will play an important role in the overall design success of the pedestrian footbridge, and need to be selected for their quality, durability and maintainability.

#### Quality, Durability and Maintenance

- All materials should be selected for their high quality and durability to ensure the bridge retains its design quality over time with minimal maintenance.

#### Appropriate Materials and Structure

- High quality materials should be used for the footbridge that respect the area's heritage values and minimise the apparent bulkiness of the structure.

#### Relate Materials and Colours to Context

Consider the use of characteristic local materials such as sandstone, brickwork and rendered masonry as a point of reference that could be reinterpreted in the design.

### 6.4.6 Detailing

The existing built form at Medlow Bath presents distinctive detailing reflective of different architectural styles and building uses. The common theme across the precinct is generally high-quality detailing and integration with the landscape setting.

The bridge serves a civic purpose and should demonstrate a high standard of architectural and structural design with carefully considered detailing that responds to the quality of the existing environment.

#### Consistent Detailing

- Simple consistent detailing that considers all of the bridge elements to ensure a coherent design. Use a purposeful rhythm of elements across the bridge to frame balustrades and throw screens.

#### Reflect Character of Medlow Bath

- Consider interpreting distinctive details from the Hydro Majestic Hotel such as the castellated parapets, curved corners and patterned detailing at entrances in a contemporary manner.
- A variation between smooth surfaces and textured patterns, similar to the Hydro Majestic, could be explored.
- A high solid to void ratio with vertical proportions to openings could be explored for the lift shafts to respond to the heritage architecture adjoining the site.

#### Incorporate Interpretation

- Integrate heritage interpretation associated with Medlow Bath as a health and leisure tourist destination.
- Interpretation should also strengthen connecting with Country.





Figure 285: 1930. Aerial view of Medlow Bath, New South Wales, ca. 1930, 3. Fairfax Corporation.
Source: National Library of Australia, https://nla.gov.au/nla.obj-162355132/view?searchTerm=Medlow+bath#search/Medlow%20bath

# 7.0

# Precedents

# 7.1 Precedents

### 7.1.1 Historic Bridges

The architecture of historic bridges constructed in the 1930s and 1940s reflect the time in which they were built. Solid masonry abutments with patterned bridge spans were common. These historic bridge forms are typically solid in appearance and large in scale, relying on decorative detail for effect.

The design of the new footbridge at Medlow Bath, however, should be unique to the site and an innovative response to the significance of the place, without replicating historic design.[16]

Northbridge, 1892



Figure 286: 1892, Northbridge, Sydney.

Source: https://sydney-city.blogspot.com/2009/12/northbridge-long-gully-bridge.html

Art Deco Bridges, Queensland



Figure 291: Hornibrook Highway Bridge, Qld.

Source: https://queenslanddecoproject.com/2015/10/04/hornibrook-highway/



Figure 292: Walter Taylor Bridge, commonly known as the Indooroopilly Bridge. queenslanddecoproject.

Source: https://roseobrienwriter.files.wordpress.com/2021/05/bridges-walter-taylor-bridge-2007.jpg

Merrit Parkway Bridges, CT, USA



Figure 287: 1930s. The North Avenue Bridge spans the Merritt Parkway in Wesport, CT. It's an Art Deco bridge featuring ferns, flowers, and a snail depicted in sgraffito panels at the top of the low protective wall.

Source: https://www.knowol.com/information/connecticut/merritt-parkway-bridges-pictures-history/



Figure 288: 1930s. Merritt Parkway, New York to Connecticut, 1941. Courtesy of the Library of Congress, Prints and Photographs Division.

Source: https://www.antiquetrader.com/features/merritt-parkway-bridges-dazzle-travelers



Figure 290: 1930s. Merrit Parkway, New York to Connecticut. Photo: Connecticut Highway Department.

https://portal.ct.gov/lib/dot/merritt_bridge1.jpg



Figure 289: 1930s. Merritt Parkway, New York to Connecticut, 1941. Courtesy of the Library of Congress, Prints and Photographs Division.

Source: https://www.antiquetrader.com/features/merritt-parkway-bridges-dazzle-travelers

16: Heritage NSW comment December 2022.

### 7.1.2 Contemporary Bridges

Contemporary bridges that cross both rail and road on confined sites are uncommon, however, the following precedents were reviewed during the preparation of new options for Medlow Bath. Larger spans and more organic forms are now possible using lighter materials through advancements in engineering and developments in materials technology. Characteristic lightness and the potential for elegant curvilinear forms have the potential to be more successful in the Medlow Bath environment.

Albert Tibby Cotter Bridge, Sydney



Figure 296: Albert Tibby Cotter Bridge, Anzac Parade, Kensington, Sydney.

https://www.tensile.com.au/wp-content/uploads/2015/11/SWP_TENSILE-ATC-BRIDGE_IMG_0517-1000x667.jpg

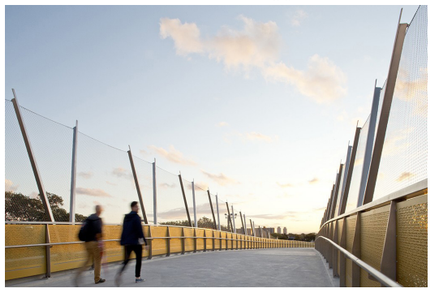


Figure 297: Albert Tibby Cotter Bridge, Anzac Parade, Kensington, Sydney.

https://www.tensile.com.au/wp-content/uploads/2015/11/SWP_TENSILE-ATC-BRIDGE_IMG_0445-1000x667.jpg

Warringah Road Pedestrian Bridge, Sydney



Figure 293: Warringah Road Pedestrian Bridge.

Source: https://da28rauy2a860.cloudfront.net/outdoordesign.com.au/contents/7347/20190916131806_356.jpg



Figure 294: Warringah Road Pedestrian Bridge.

Source: https://da28rauy2a860.cloudfront.net/outdoordesign.com.au/contents/7347/20190916131806_875.jpg



Figure 295: Warringah Road Pedestrian Bridge.

Source: https://da28rauy2a860.cloudfront.net/outdoordesign.com.au/contents/7347/20190916131806_601.png

Barra Bridge Centennial Park, Sydney



Figure 298: Barra Bridge, Centennial Parklands.

Source: https://samcrawfordarchitects.com.au/architect/wp-content/uploads/2022/02/SamCrawford_KensingtonPonds_006906.jpg



Figure 299: Barra Bridge, Centennial Parklands.

Source: https://samcrawfordarchitects.com.au/architect/wp-content/uploads/2022/02/SamCrawford_KensingtonPonds_000022.jpg

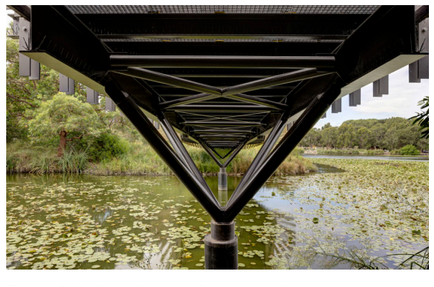


Figure 300: Barra Bridge, Centennial Parklands.

Source: https://samcrawfordarchitects.com.au/project/bara-bridge-centennial-park/

Hobart Bridge of Remembrance

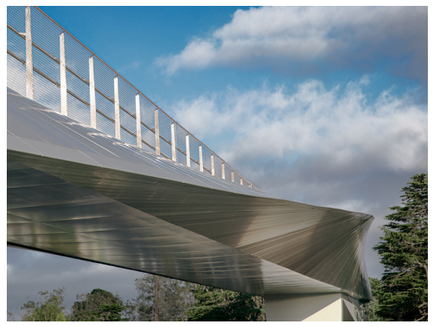


Figure 301: Hobart Bridge of Remembrance.

Source: https://www.tensile.com.au/project/bridge-of-remembrance/

Victoria Street Station, East Maitland



Figure 302: Victoria Street Station.

Source: https://www.designinc.com.au/project/victoria-street-station

## Oatley Station



Figure 304: Oatley Station footbridge.

Source: http://www.tzg.com.au/project/oatley-railway-station-upgrade/



Figure 305: Oatley Station footbridge.

Source: http://www.tzg.com.au/project/oatley-railway-station-upgrade/



Figure 306: Oatley Station footbridge.

Source: http://www.tzg.com.au/project/oatley-railway-station-upgrade/

## Adelaide Riverbank



Figure 307: Adelaide Riverbank pedestrian bridge.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/



Figure 308: Adelaide Riverbank pedestrian bridge.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/



Figure 309: Adelaide Riverbank pedestrian bridge.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/

## Craigiburn Bypass, Victoria



Figure 310: Craigiburn Bypass, Peter Hyatt photographer.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/



Figure 311: Craigiburn Bypass, John Gollings photographer.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/



Figure 312: Craigiburn Bypass, John Gollings photographer.

Source: http://www.tzg.com.au/project/adelaide-riverbank-pedestrian-bridge/

## Lachlan Line Footbridge, Ryde



Figure 303: Lachlan Line Footbridge, Ryde, Sydney.

Source: https://www.tensile.com.au/wp-content/uploads/2020/12/gwp-mavic-0021-Edit.jpg

## CBD & South East Light Rail Bridge, Sydney



Figure 313: CBD & South East Light Rail Bridge, Sydney.

Source: https://www.tensile.com.au/wp-content/uploads/2020/12/gwp-7380-Edit.jpg

## 7.1.3 International Examples



Figure 314: MAAT Footbridge | Amanda Levete, Pedestrian bridge at the Museum of Art, Architecture and Technology, Lisbon / Portugal / 2018.

Source: https://cdn.archilovers.com/projects/c_383_aabef0b8-789f-4eba-bb4c-3ce9f325098b.jpg



Figure 315: Footbridge at the Museum of Art, Architecture and Technology, Lisbon / Portugal / 2018.

Source: https://cdn.archilovers.com/projects/c_383_f5878e99-d056-4fed-ad03-34cf9a217b43.jpg



Figure 316: MAAT Footbridge | Amanda Levete, Pedestrian bridge at the Museum of Art, Architecture and Technology, Lisbon / Portugal / 2018.

Source: https://www.archilovers.com/projects/237588/maat-footbridge-gallery?2253210



Figure 317: The Technion's Entrance Gate, Shwartz Besnosoff Architects.

Source: https://www.archdaily.com/952689/the-technions-entrance-gate-schwartz-besnosoff-architects



Figure 318: Fußgängerbrücke Töss, Winterthur, Zurich, Switzerland, 1933.

https://structurae.net/en/structures/toss-footbridge



Figure 319: Ney & Partners, William Matthews Associate, Tintagel Castle Footbridge. Photographs Jim Holden, Hufton + Crow.

https://divisare.com/projects/449301-ney-partners-william-matthews-associates-jim-holden-hufton-crow-tintagel-castle-footbridge



Figure 320: Ney & Partners, William Matthews Associate, Tintagel Castle Footbridge. Photographs Jim Holden, Hufton + Crow.

https://divisare.com/projects/449301-ney-partners-william-matthews-associates-jim-holden-hufton-crow-tintagel-castle-footbridge



Figure 322:  Jarrod Bridge, Norwich, UK.

Source: https://www.shstructures.com/projects/jarrold-bridge-norwich/



Figure 323:  Jarrod Bridge spanning River Wensum, Norwich, UK.

Source: https://www.shstructures.com/projects/jarrold-bridge-norwich/



Figure 324:  Jarrod Bridge, Norwich, UK.

Source: https://www.shstructures.com/projects/jarrold-bridge-norwich/



Figure 325:  Three footbridges over Hringbraut & Njardagata, Studio Granda. Photographer SIGURGEIR SIGURJÓNSSON.

Source: https://divisare.com/projects/270664-studio-granda-sigurgeir-sigurjonsson-three-footbridges-over-hringbraut-njardagata



Figure 326:  Shaped underside of bridge over Hringbraut & Njardagata, Studio Granda. Photographer SIGURGEIR SIGURJÓNSSON.

Source: https://divisare.com/projects/270664-studio-granda-sigurgeir-sigurjonsson-three-footbridges-over-hringbraut-njardagata



Figure 321: DVVD, Pedestrian bridge in France - Saint-Omer, 2017.

https://divisare.com/projects/397412-dvvd-a-line-in-the-landscape

Figure 327: Phantom Falls in the Blue Mountains, Ben Pearse Photography 2013.
Source: https://benpearsephotography.files.wordpress.com/2013/07/phantom-falls-in-the-blue-mountains-july-2013-low-res.jpg

# 8.0

# New Options

# 8.1 Introduction

The Base Case presents as an engineering solution, with little connection to Country or place. Using the Heritage Design Principles as a guide, the project team developed three new options for the footbridge, which aim to develop a contextually appropriate response and minimise impacts on this heritage listed context.

The design team drew inspiration from both the natural setting and the built environment of Medlow Bath. The first option is more architectonic, whilst the third option is more of a landscape solution; the second is somewhere in between. All options provide the opportunity to connect to Country.

Materials, colours and detailing will be further developed in the next phase of the project, along with heritage interpretation and connecting to Country to further embed the new bridge into the existing character of Medlow Bath, while reflecting the wider natural environment and history of the place.

### Consultation

Consultation has been held with the following key stakeholders and feedback incorporated into the concept options which follow:

– TfNSW DRP

The new options were presented in draft form to the TfNSW Design Review Panel on 3 February 2023 and again on 28 April 2023.

– Community Consultation

The options were presented to representatives from the Medlow Bath local community on 22 February 2023.

– Aboriginal Engagement

A meeting was held with key stakeholders from the Aboriginal community on 22 February 2023.

– Heritage NSW

A further workshop was held with the Heritage Council Approvals Committee on 28 February 2023.

HERITAGE SIGNIFICANCE



Medlow Bath Railway Station



Blue Mountains National Park



Hydro Majestic Hotel

COUNTRY AND PLACE DEFINING THE BRIDGE



Natural Environment

Health and Leisure



Built Environment

## 8.2 Options

The following three options are described in terms of their proposed structural form, precinct movements and materials and then tested against the Heritage Design Principles in this section of the report.

### Option 1 - Split Bridge

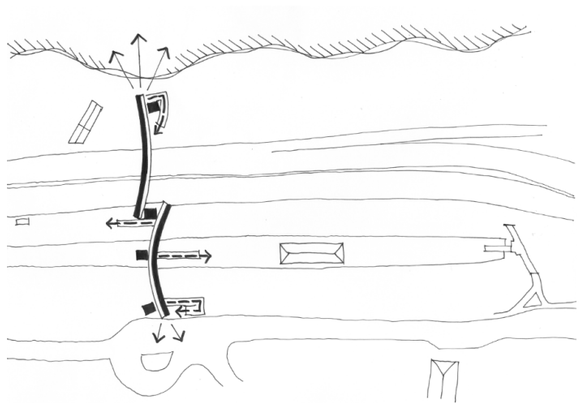


Figure 328: Option 1 - Split Bridge.
Source: DesignInc February 2023.

### Option 2 - Curved Bridge

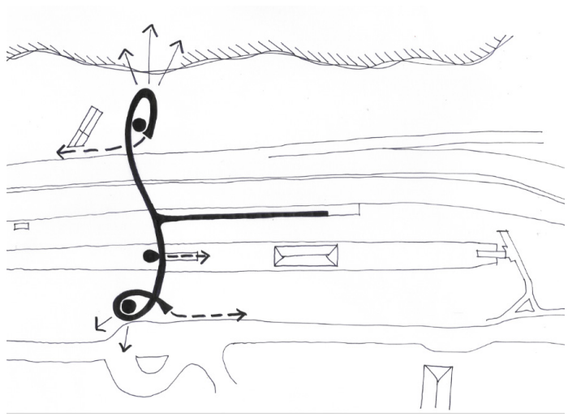


Figure 329: Option 2 - Curved Bridge.
Source: DesignInc February 2023.

### Option 3 - Half Bridge

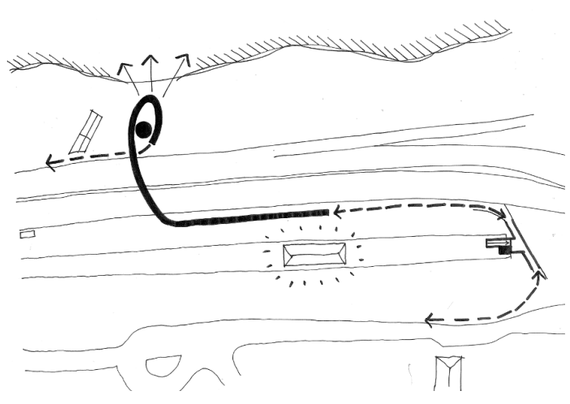
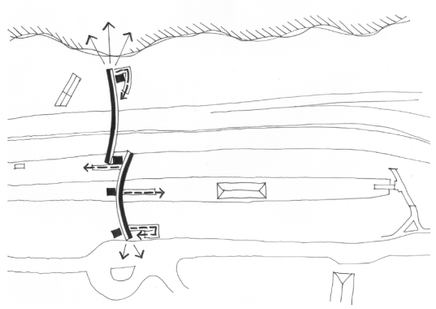


Figure 330: Option 3 - Half Bridge.
Source: DesignInc February 2023.



### 8.2.1 Option 1 - Split Bridge

The Split Bridge is located in the same location as the REF design and maintains the movement desire lines for residents with a new lift and stair entry point on Railway Parade from the interchange area.

The design aims to more sensitively manage scale and visual impacts by splitting the bridge into two separate gentle curves. It is a response to the two distinct characters in Medlow Bath – the grand scale of the Great Western Highway, Hydro Majestic and escarpment, and the lower scale of the station, Railway Parade cafe and surrounding residential areas.

The split bridge brings a more delicate approach to resolving the built form and minimising visual impacts by reducing the apparent size of the bridge and breaking it down into smaller elements. The fabricated steel bridge has a one-sided section to reduce the depth of the leading edge from one side and provide visual variety to the bridge expression, and a smooth soffit. This dynamic bridge shape allows the screens on one side to extend to the floor, increasing the transparency of the experience and the passive surveillance. The transparent mesh screens will not interrupt the lines of the bridge and are designed to appear ephemeral just like clouds, allowing views through and out. Those with concerns for heights or the strong sensory experience of passing over live traffic, can choose to walk on the side of the bridge with the higher, protective balustrade.

The bridge spans are supported on blade walls, set discretely next to the lifts shafts to limit the visual clutter of multiple support columns below the bridge. The neutral soft light grey bridge colour responds directly to the Hydro Majestic and reduces the visibility of the bridge when set against the sky.

Four rectangular lift shafts, each with a stair, provide the connections to ground or station platform. Inspired by the colour and solidity of the surrounding geology and built brick buildings, particularly the station platform buildings, the brick cladding to the lift shafts uses earthy colours to ground the lift shafts into the natural landscape. The lift colour lightens into glazed white bricks, rising towards the sky where glazed window inserts increase the sense of transparency and reflect the sky. The four lift shafts create a natural wayfinding tool for the community and commuters, as well as current and future visitors to the area.

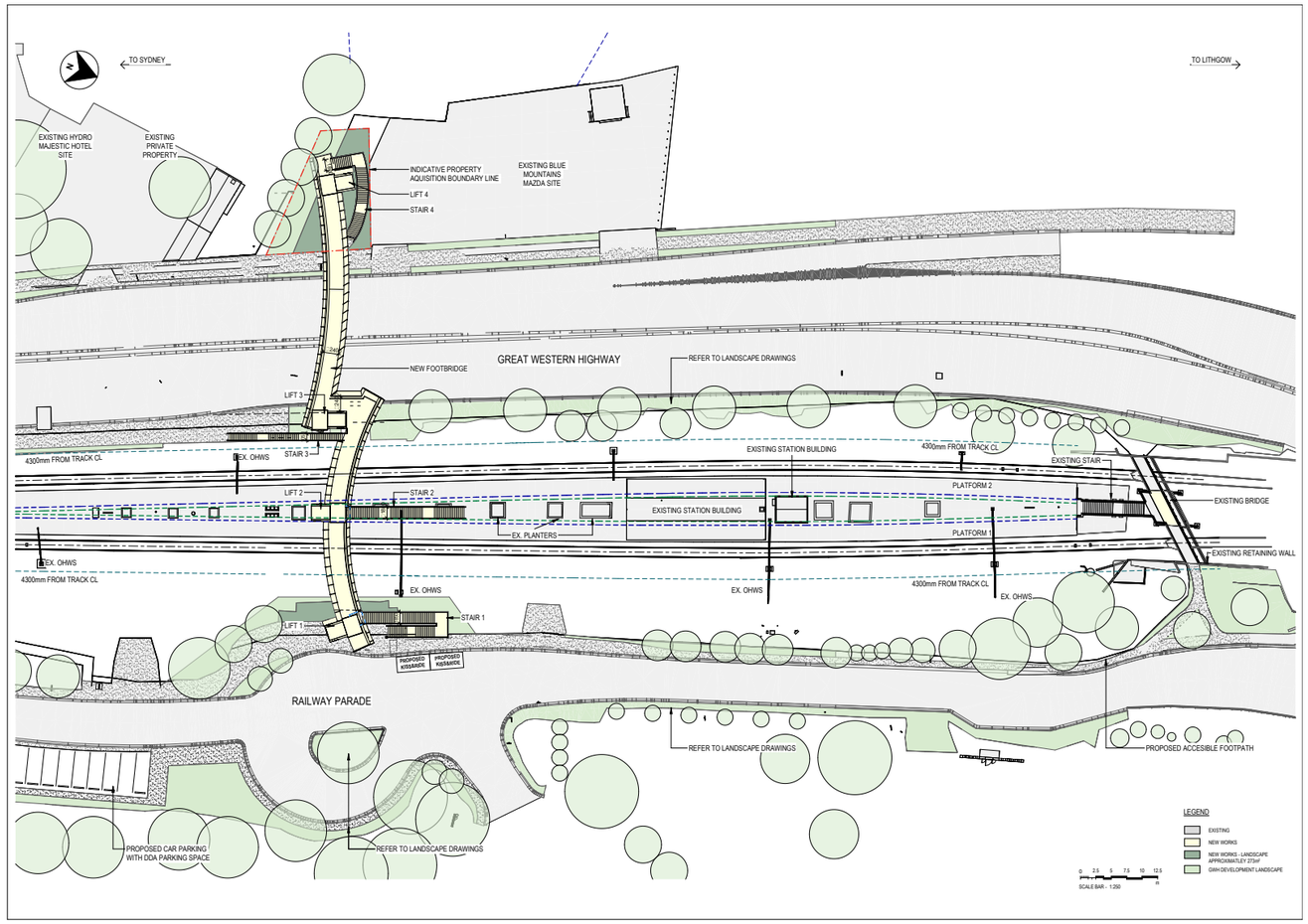



Figure 331: Option 1 - Split Bridge Plan.
Source: DesignInc February 2023.



Figure 332: Option 1 - View of Split Bridge looking north along Great Western Highway.
Source: DesignInc February 2023.



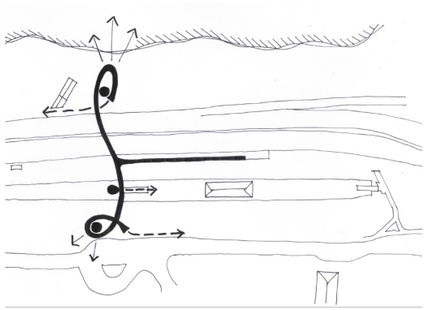
Figure 333: Option 1 - View of Split Bridge looking north towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 334: Option 1 - View of Split Bridge looking south towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 335: Option 1 - View of Split Bridge looking south along Great Western Highway.
Source: DesignInc February 2023.



### 8.2.2 Option 2 - Curved Bridge

The Curved Bridge is in the same location as the REF design and maintains the movement desire lines, improving travel distances for residents with a new lift and stair entry point on Railway Parade.

This option takes a fresh look at the movement patterns through the precinct and seeks to develop a compromise between the need for efficient movement and scale of built elements by having only three lift shafts. The reduction in visual impact is achieved at the expense of slightly increasing travel distance via a ramp to the eastbound bus stop on the Great Western Highway, which removes one lift tower from the composition.

Using a graceful curved language, inspired by the meandering natural pathways through and over the mountains, the bridge design aims to be more sensitive to the need to balance scale, visual impact and architectural style. This option brings an elegant approach to resolving the built form and softening the visual impact by removing the hard-edged man-made forms and reflecting the softer curves of the Blue Mountains formations.

The fabricated steel bridge delivers a free-flowing form with a smooth continuous soffit. The bridge spans are supported by walls integrated into the lift shaft forms to remove the visual clutter of multiple support columns below the bridge. The trough-shaped bridge section with solid parapet edges enfolds the user, giving protection from the strong sensory experience of passing over live traffic at a height. The transparent mesh screens will not interrupt the lines of the bridge and are designed to appear ephemeral just like clouds, allowing views through and out.  The bridge colour of a neutral soft light grey responds directly to the Hydro Majestic and reduces the visibility of the bridge when set against the sky.

Circular lift shafts introduce a strong but soft language, echoing the curved building forms of the Hydro Majestic, and allowing the outer two access stairs to gently encircle the lift towers. The resulting landings create a dynamic viewing experience looking west across the escarpment and the Megalong Valley, or to the east across the local bushland blocks.

Inspired by the colour and solidity of the surrounding geology and built brick buildings, particularly the station platform buildings, the brick cladding to the lift shafts uses earthy colours to ground the lift shafts into the natural landscape. The lift colour lightens into glazed white bricks, rising to reflect the sky. The three remaining lift shafts create a natural wayfinding tool for the community and commuters, as well as current and future visitors to the area.

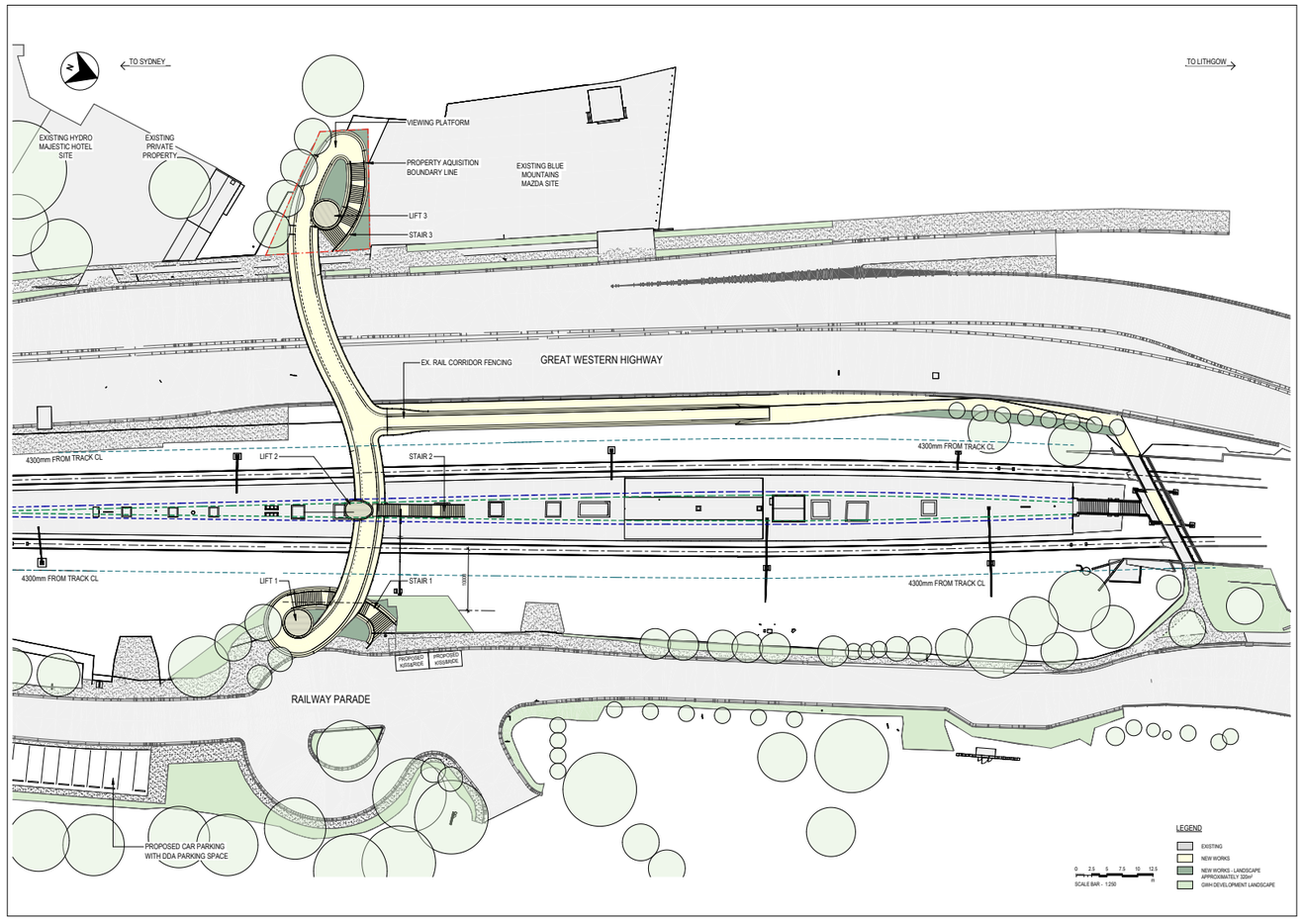



Figure 336: Option 2 - Curved Bridge Plan.
Source: DesignInc February 2023.



Figure 337: Option 2 - View of Curved Bridge looking north along Great Western Highway.
Source: DesignInc February 2023.



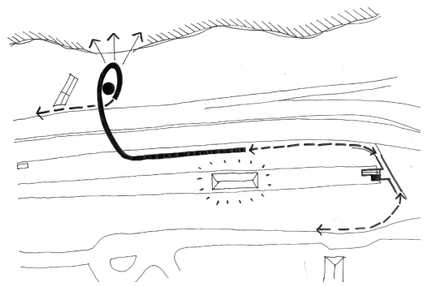
Figure 339: Option 2 - View of Curved Bridge looking north towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 340: Option 2 - View of Curved Bridge looking south towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 338: Option 2 - View of Curved Bridge looking south along Great Western Highway.
Source: DesignInc February 2023.



### 8.2.3 Option 3 - Half Bridge

The Half Bridge option maintains the operational usage of the station in its historical configuration with access via a new lift and reconfigured stair from the existing footbridge at the country end, respecting the heritage values of the place. This option takes a fresh look at the essential movement patterns through the precinct and seeks to reduce the scale of built elements even further by requiring only two lift shafts.

The result is a 'half' bridge that spans only the Great Western Highway and is separate from the rail infrastructure, resulting in a much-reduced scale of built form. This significant reduction in visual impact needs to be balanced by changes to the established pedestrian desire lines with the closure of the level crossing and increase in the travel distances for some of the community and visitors.

The graceful, curved language of Option 2 is repeated here with the single span bridge again inspired by the meandering natural pathways through the mountains. This option brings an elegant approach to the built form by minimising hard-edged man-made forms and reflecting the softer curves of the Blue Mountains formations.

The fabricated steel bridge delivers a free-flowing form with a smooth continuous soffit. The single bridge span is supported by walls cleverly integrated into the lift shaft form to remove the visual clutter of multiple support columns below the bridge. The trough-shaped bridge section with solid parapet edges enfolds the user, giving protection from the strong sensory experience of passing over live traffic at a height. The transparent mesh screens will not interrupt the lines of the bridge and are designed to appear ephemeral just like clouds, allowing views through and out.

The bridge colour of a neutral soft light grey responds directly to the Hydro Majestic and reduces the visibility of the bridge when set against the sky.

A single circular lift shaft introduces a strong anchor point for the sinuous curve of the bridge, echoing the curved building forms of the Hydro Majestic, and allowing the access stair to gently encircle the lift tower.

The resulting landings create a dynamic viewing experience looking west across the escarpment and the Megalong Valley. Similar to Option 2, a ramp grades to ground to bring users to the existing station entry footbridge, utilising the natural slope of the ground to help limit its length. The ramp reduces the visual impact on the precinct by eliminating the need for a lift in this location.

Inspired by the colour and solidity of the surrounding geology and built brick buildings, particularly the station, the brick cladding to the lift shaft uses earthy colours to ground the lift shaft into the natural landscape. The lift cladding lightens into glazed white bricks, rising to reflect the sky.

Access to the State heritage listed station is proposed via a reconfigured stair and lift which connect into the existing footbridge at the country end of the platform, reducing the overall scale and visual impact of this option. The lift shaft at the station would have a warm toned brick base to tie into the heritage station character and glazed elements in the upper section to increase the sense of transparency of the new structure and reflect the sky.

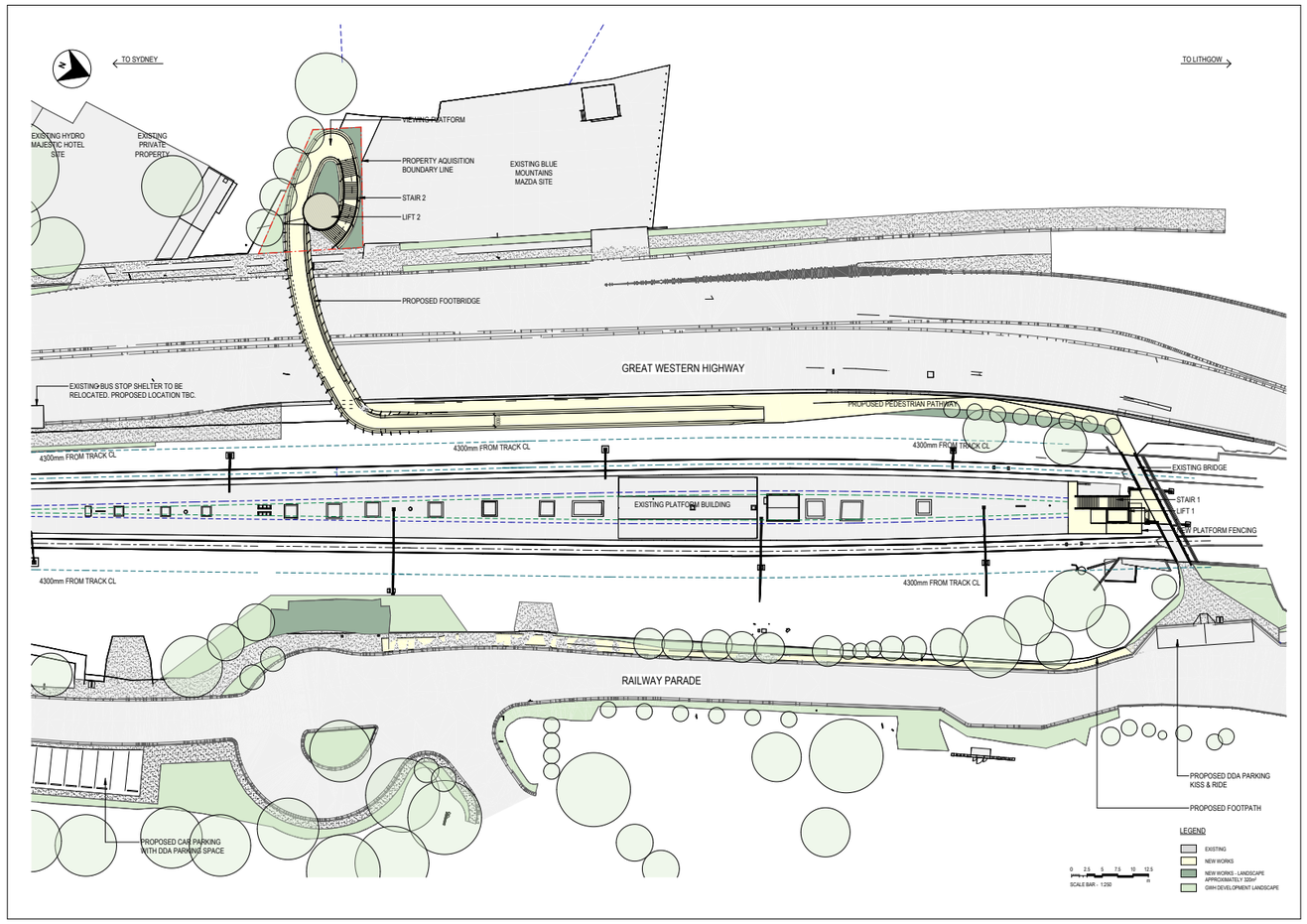



Figure 341: Option 3 - Half Bridge Plan.
Source: DesignInc February 2023.



Figure 342: Option 3 - View of Half Bridge looking north along Great Western Highway.
Source: DesignInc February 2023.

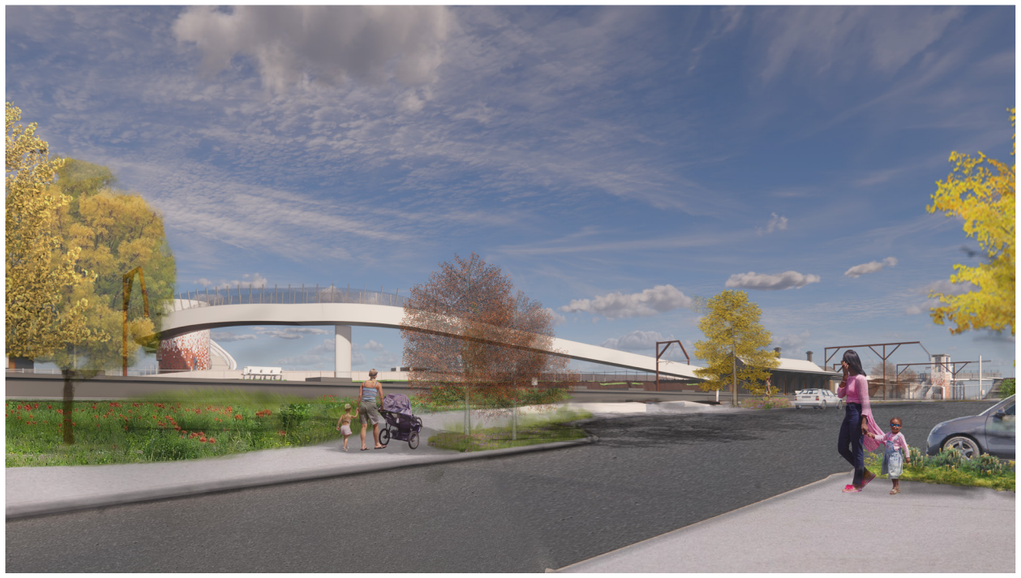


Figure 344: Option 3 - View of Half Bridge looking north towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 345: Option 3 - View of Half Bridge looking south towards station from Railway Parade.
Source: DesignInc February 2023.



Figure 343: Option 3 - View of Half Bridge looking south along Great Western Highway.
Source: DesignInc February 2023.

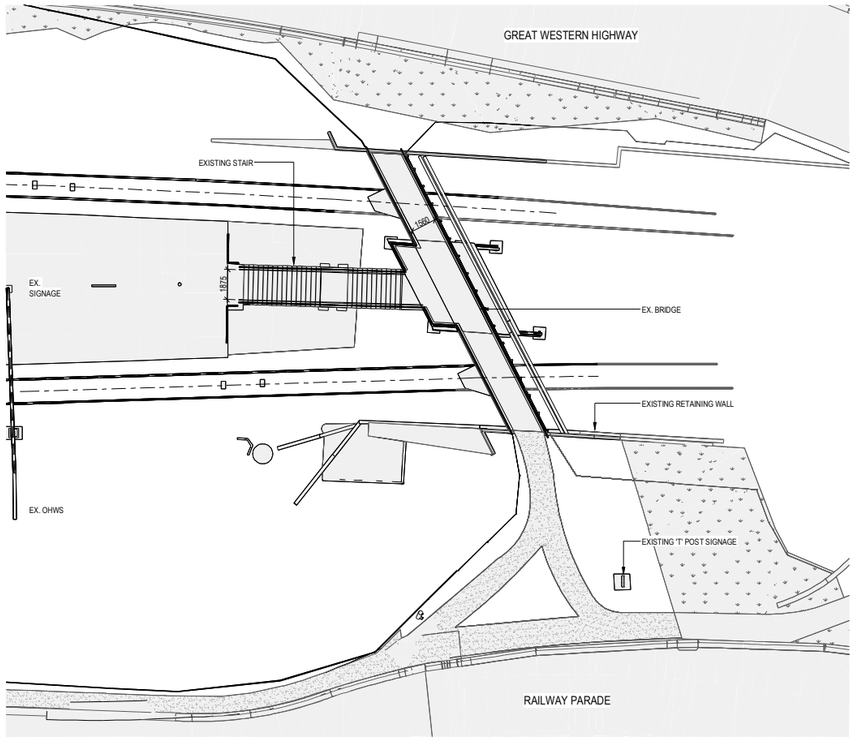



Figure 346: Existing footbridge plan.
Source: DesignInc February 2023.

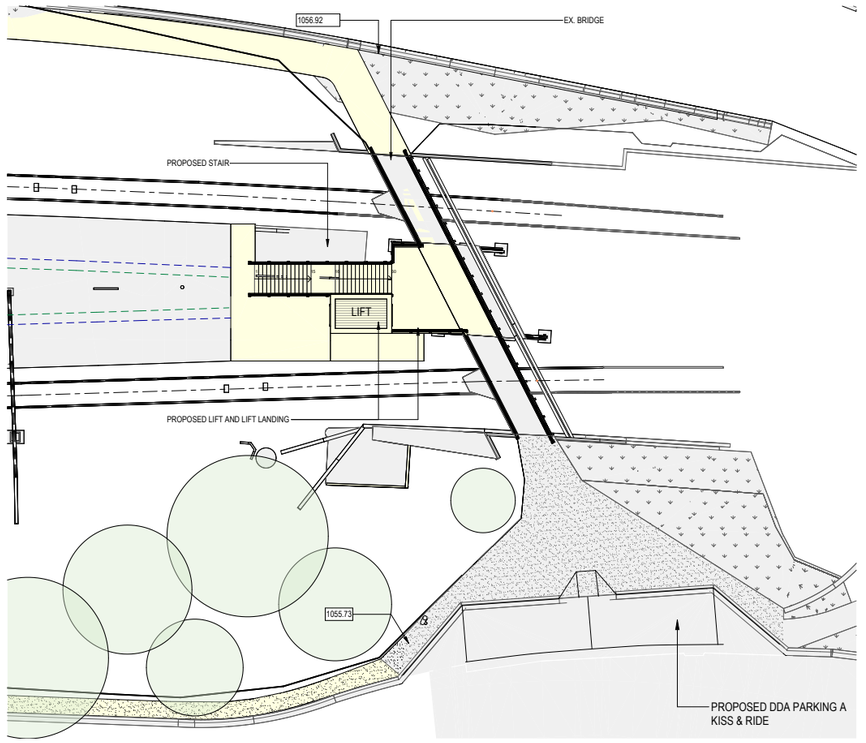



Figure 347: Option 3 - Proposed modifications to existing footbridge - upper level plan.
Source: DesignInc February 2023.



Figure 348: Option 3 - Proposed modifications to existing footbridge, showing relocated stair and new lift.
Source: DesignInc February 2023.

### 8.2.4 Option 3B - Half Bridge - Weathering Steel

A range of materials have been considered for the proposed footbridge which will be further explored in the next phase of the project.

The overall bulk and scale of Option 3 could be further reduced if weathering steel was used for the bridge span. This sub option would lower the bridge by 500mm and reduce the ramp length by 9m. The images below illustrate this difference.



Figure 349: Option 3 - View of Half Bridge looking south along Great Western Highway.
Source: DesignInc February 2023.



Figure 350: Option 3B - View of Half Bridge - weathering steel - looking south along Great Western Highway.
Source: DesignInc February 2023.

## 8.2.5 Options Comparison - Testing against Heritage Design Principles

| SCORE | SCORING CRITERIA |
|---|---|
| 2 | Achieves aim strongly. |
| 1 | Achieves aim. |
| 0 | Does not achieve aim. |
| 1 | TBC - Not yet detailed. Minimum score of 1 must be achieved by the design. |

| HERITAGE DESIGN PRINCIPLE | BASE CASE DESIGN | SCORE | OPTION 1<br>SPLIT BRIDGE | SCORE | OPTION 2<br>CURVED BRIDGE | SCORE | OPTION 3<br>HALF BRIDGE | SCORE |
|---|---|---|---|---|---|---|---|---|
| CHARACTER | | | | | | | | |
| **Respond to context**<br>– Hydro Majestic as key reference point.<br>– Landscape design to respond to context. | Functional design with little reference to context. | 0 | Twin spans break down the scale of the bridge to better relate to Hydro and Station. Architectural solution. | 1 | Number of lift towers reduced and curved form relates to natural environment and softens impact. Hybrid solution. | 1 | Shorter span, curved form and least number of lifts minimises impact. Landscape solution. | 2 |
| **Simple elegant design**<br>– Contemporary character.<br>– Coordinated design of different elements. | Contemporary design with coordinated elements. | 1 | Overall split 'S' shaped bridge. Two opposing curved forms articulated with rectilinear lift shafts. Contemporary design with coordinated elements. | 1 | Elegant curvilinear 'S' shaped form incorporates all elements including lift shafts. Contemporary design with coordinated elements. | 1 | Reduced elegant curvilinear form over highway with existing footbridge at station incorporated into solution. Contemporary design with coordinated elements. | 2 |
| **Role as gateway**<br>– Appropriate, high quality design.<br>– Could form sculptural artefact in the landscape. | Bridge forms dominant gateway. | 1 | Separated bridges form highway and rail gateways. | 1 | Continuous bridge forms looping gateway over highway and rail. | 1 | New bridge forms gateway over highway only. Station served by upgraded existing footbridge. | 2 |
| **Viewing point**<br>– Inclusion of places for viewing to west and east. | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 | Good viewpoints west and east. | 2 |
| SCALE | | | | | | | | |
| **Reduce overall scale as much as possible**<br>– Minimise height.<br>– Slender elegant bridge spans.<br>– Maximise transparency of throwscreens. | Singular truss bridge with 4 lifts and 4 stairs reads as a dominant large scale functional form. | 0 | Reduction of perceived scale due to separation of bridge into 2 spans. 4 lifts and 4 stairs. | 1 | Reduction of perceived scale due to curvilinear form of single bridge. 3 lifts, 3 stairs and 1 ramp. | 1 | Smallest overall scale. Single curvilinear form over highway. 1 lift, 1 stair and 1 ramp. Upgraded existing station footbridge. 1 lift, 1 stair | 2 |
| **Minimise impact on significant views**<br>– Minimise footprint of lifts ramps + stairs.<br>– Proportions to respond to adjoining heritage buildings. | Dominant single span truss structure. | 0 | Split forms reduces overall impact on views. | 1 | Curvilinear form and reduced number of lifts and stairs reduces impact on views. | 1 | Smallest footprint and number of lifts and stairs minimises impact on views, particularly east of the highway. | 2 |
| **Detailed design to reduce scale**<br>– Explore slender solid lift towers with lighter bridge spans.<br>– Use of colour to reduce scale. | Inappropriate material and colour selections and dominant lift towers. | 0 | Depends on detailed design. Capable of good resolution. | 1 | Depends on detailed design. Capable of good resolution. | 1 | Depends on detailed design. Capable of good resolution. | 1 |
| FORM | | | | | | | | |
| **Uncluttered horizontal form**<br>– Uncluttered coordinated horizontal form.<br>– Lift towers subservient to bridge spans. | Lift towers dominate bridge form viewed from the south. | 1 | Split form more complex with multiple lift towers. | 1 | Simple elegant curved form less lift towers. | 1 | Smaller elegant curved form with least number of lift towers. | 2 |
| **Soften engineering**<br>– Curves to soften impact of overall form.<br>– Integrated primary and secondary elements. | Poorly resolved junctions between elements. Truss very dominant. | 0 | Depends on detailed engineering design. Capable of good resolution. | 1 | Depends on detailed engineering design. Capable of good resolution. | 1 | Depends on detailed engineering design. Capable of good resolution. | 1 |
| **Enhance user experience**<br>– Provide spaces to stop on bridge to rest. | Rest and viewing points available at either ends of bridge. | 1 | Multiple rest places and differing viewpoints offered by split form and curve. | 2 | Multiple rest places and differing viewpoints offered by curve. | 2 | Multiple rest places and differing viewpoints offered by curved bridge and refurbished station foot bridge. | 2 |

| SCORE | SCORING CRITERIA |
|---|---|
| 2 | Achieves aim strongly. |
| 1 | Achieves aim. |
| 0 | Does not achieve aim. |
| 1 | TBC - Not yet detailed. Minimum score of 1 must be achieved by the design. |

| HERITAGE DESIGN PRINCIPLE | BASE CASE DESIGN | SCORE | OPTION 1<br>SPLIT BRIDGE | SCORE | OPTION 2<br>CURVED BRIDGE | SCORE | OPTION 3<br>HALF BRIDGE | SCORE |
|---|---|---|---|---|---|---|---|---|
| SITING | | | | | | | | |
| **Connect to Country**<br>– Strong connection to Country aided by interpretation. | No connection to Country evident in the final design. | 0 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 | Depends on consultation outcomes.<br>Capable of good resolution. | 1 |
| **Minimise impacts to heritage fabric**<br>– Minimise impacts to significant heritage fabric. | Acceptable impacts to station platform | 1 | Acceptable impacts to station platform. | 1 | Acceptable impacts to station platform. | 1 | Acceptable impacts to existing footbridge and station platform. | 1 |
| **Respect the neighbourhood**<br>– Careful design of spaces between old and new.<br>– Minimise footprints of built elements. | Multiple lifts and stairs take up public space. | 1 | Multiple lifts and stairs take up public space. | 1 | Reduced number of lifts and stairs, but long ramp. | 1 | Least number of lifts and stairs, but long ramp.<br>Smallest footprint overall. | 2 |
| **High quality urban design**<br>– Generous spaces at entry points.<br>– Well placed lift towers. | Functional placement and design of entry points. | 1 | Capable of good resolution. | 1 | Capable of good resolution. | 1 | Capable of good resolution. | 1 |
| MATERIALS AND COLOURS | | | | | | | | |
| **Quality durability and maintenance**<br>– High quality durable materials to retain design quality with minimal maintenance. | Use of durable materials. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 |
| **Appropriate materials and structure**<br>– Appropriate high quality materials that respect heritage values of the place. | Corten steel truss not considered appropriate to heritage context. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| **Relate materials and colours to context**<br>– Consider use of local materials such as stone, brick and rendered masonry. | Corten steel truss not considered appropriate to heritage context. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| DETAILING | | | | | | | | |
| **Consistent detailing**<br>– Simple consistent detailing with purposeful rythym to ensure coherent design. | Consistent detailing | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 | Depends on detailed design.<br>Capable of good resolution. | 1 |
| **Reflect character of Medlow Bath**<br>– Contemporary interpretation of key heritage details.<br>– Explore texture variation.<br>– High solid to void ratio in lift towers with vertical proportions. | Engineering solution with no obvious relationship to character of Medlow Bath. | 0 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 | Capable of good outcomes. | 1 |
| **Incorporate interpretation**<br>– Heritage interpretation related to Aboriginal cultural values and Medlow Bath as a health and leisure tourist destination. | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 | Depends on consultation outcomes. | 1 |
| TOTAL UNWEIGHTED SCORE | | 12 | | 22 | | 22 | | 28 |

## 8.3 Community Consultation

The three options were presented to the community on 22 February 2023 at a series of meetings held at the Hydro Majestic Hotel. Consultation was held with the Medlow Bath Community Liaison Group and Aboriginal stakeholders on 22 February 2023.

Option 1 was the least preferred from a visual impact perspective. Option 2 was preferred in terms of walking distances, whilst it was acknowledged that Option 3 would have the least visual impact.

The Aboriginal stakeholders revealed that the Hydro Majestic walking trails have significance to members of the Aboriginal community, who have always been granted access to these paths to connect with their ancestors.

## 8.4 Heritage Council of NSW Subcommittee Feedback

The options were presented to a Subcommittee of the Heritage Approvals Committee of the Heritage Council of NSW on 28 February 2023. The following feedback was provided:

- In general, the process of the preparation of the Heritage Design Report and Heritage Design Principles to inform design development is supported. The detailed contextual assessment that has been undertaken has enriched the design outcomes and provides a foundation on which to build a context-specific response. The Committee is encouraged that Transport for NSW is in taking on a different way of thinking and investing in new approaches to design at heritage-sensitive sites.
- All options presented are considered to represent a positive shift in the design development process. The Committee agrees that Option 1 is the least preferred option and that Options 2 and 3 present a positive movement towards the Committee's preference for a bespoke, context-responsive design with less heritage impact.
- Option 3 appears to present the least heritage impacts, due to the significant reduction in constructed elements and resulting reduction in impacts to the railway station curtilage, particularly in the vicinity of the station building. However, the resulting impacts on pedestrian movement patterns are noted as well as the local community's preference for Option 2.
- In relation to the reuse of the existing footbridge as required in Option 3, it is understood that while the bridge was constructed in 1901, little original fabric remains, with upgrades in the c1980s and c1990s replacing most bridge components. Given the apparent low level of intactness of the bridge, the construction requirements discussed - including the extension of the platform and the demolition and relocation of the existing stair to accommodate the installation of a lift tower - do not appear to be prohibitive in terms of impacts, particularly in consideration of the overall reduced impacts in comparison to the other options.
- The Railway Heritage Footbridge Strategy document is noted as a reference document for further understanding the existing footbridge structure in comparison to other bridges.
- The further refinement of Option 2 would be required to minimise the structure's appearance through detailing, to reduce its mass and solid appearance, particularly in the vicinity of the railway station platform building. There is potential for the scale of the structure to dominate the platform building without careful consideration of the relationship between the new structure and the platform building.
- The design elements presented across all three options to the reduce the visual dominance of the structure are encouraged. It is noted that construction is proposed using fabricated steel, to enable a lightweight presentation, thinner structure, smooth underside and reduce bulk. The absence of visually intrusive canopies and use of transparent anti-throw screens is supported.
- Using light colours was presented as an option that may be seen as appropriate having regard to the context of the Hydro Majestic. A painted finish was considered. The Committee notes the susceptibility of this finish to developing marking from exhaust fumes.
- While maintaining a general consistency, the option of split lift characters for the two separate lifts, to relate to the differences in each lift's location, is suggested for consideration in Option 3.
- It is noted that the bridge arrangement and form is the focus of this design phase, with further detailing, including design refinement, articulation, colours and materials, to follow. The next stage is considered essential in further reducing the visual prominence of the bridge, responding to its historic context, and integrating interpretation within the new structure.
- The integration of the site's interpretation with the wider GWH Interpretation Plan is noted. The importance of the interpretation element of the project is Plan is noted. The importance of the interpretation element of the project is emphasised. Consideration should be given to interpretation located within the balustrade or inside face of the parapets for the user experience. Reference is made to the ANZAC Walk, Newcastle, as an example of successful bridge interpretation.

# 8.5 MCA Criteria Analysis

A Multi-Criteria Analysis (Qualitative) Workshop was held on 15 March 2023 at TfNSW Offices at Macquarie Park. Each of the options were presented and discussed at length with reference to the following criteria:

- Customer Experience
- Consultation/Community
- Facility Operations and Maintenance
- Constructability
- Urban Design and Precinct Planning
- Heritage
- Environment and Sustainability.

The criteria were weighted prior to the meeting with Heritage having a 20% weighting, acknowledging the importance of the new bridge fitting into its historic context.

Option 3 was identified as the preferred option based on the outcomes of this workshop. Some shortcomings were identified for this option in terms of walking distances, so it is important that the proposed new accessible path on the Railway Parade side of the station meets DDA standards and gives back to the community in terms of the presentation of the eastern side of the rail corridor.

**Qualitative Assessment**

**Project**

| | |
|---|---|
| Network | Western Line |
| Site | Medlow Bath |

**Multi Criteria Assessment**

| Criteria | Weighting | Option 1: Four lifts (two at Great Western Highway, one on platform and one on Railway Parade) | | Option 2: Three lifts (one at Great Western Highway, one on platform and one on Railway Parade) and one ramp at Great Western Highway | | Option 3: Two lifts (one at Great Western Highway and one on platform at existing foortbridge) and one ramp at Great Western Highway | |
|---|---|---|---|---|---|---|---|
| | Percentage | Unweighted (raw) score | Weighted score | Unweighted (raw) score | Weighted score | Unweighted (raw) score | Weighted score |
| **Customer Experience** | 10.0% | 5 - Ess + desirable req. met | 0.50 | 4 - Ess req. + some deirable | 0.40 | 2 - Some shortcomings | 0.20 |
| **Consultation/Community** | 20.0% | 2 - Some shortcomings | 0.40 | 4 - Ess req. + some deirable | 0.80 | 2 - Some shortcomings | 0.40 |
| **Facility Operations and Maintenance** | 15.0% | 3 - Essential req. met | 0.45 | 3 - Essential req. met | 0.45 | 4 - Ess req. + some deirable | 0.60 |
| **Constructability** | 10.0% | 3 - Essential req. met | 0.30 | 3 - Essential req. met | 0.30 | 5 - Ess + desirable req. met | 0.50 |
| **Urban Design and Precinct Planning** | 15.0% | 2 - Some shortcomings | 0.30 | 3 - Essential req. met | 0.45 | 4 - Ess req. + some deirable | 0.60 |
| **Heritage** | 20.0% | 3 - Essential req. met | 0.60 | 4 - Ess req. + some deirable | 0.80 | 5 - Ess + desirable req. met | 1.00 |
| **Environment and Sustainability** | 10.0% | 2 - Some shortcomings | 0.20 | 2 - Some shortcomings | 0.20 | 4 - Ess req. + some deirable | 0.40 |
| **Qualitative Score (out of 5)** | | | 2.8 | | 3.4 | | 3.7 |
| **Qualitative Rank** | | | 3 | | 2 | | 1 |

# 8.6 Design Development

Testing the options against the Heritage Design Principles revealed that Option 3 was the preferred option from a heritage perspective. This was confirmed as the preferred option based on the outcomes of the Multi Criteria Analysis Workshop and discussed with the local community.

Option 3 was then further developed by the project team in terms of materials, colours and detailing along with heritage interpretation to ensure that the proposal connected with the place. DesignInc and Tonkin Zulaikha Greer had weekly design workshops with Arenco and TfNSW during this phase of the project which aimed for design excellence and minimisation of heritage impacts.

Feedback from stakeholders including Aboriginal stakeholders, the local community, Blue Mountains City Council, the Subcommittee of the Heritage Approvals Committee of the Heritage Council of NSW and the TfNSW DRP were all taken into consideration during the design development phase.

# Simpler style for Medlow

A NEW, simpler design for a pedestrian bridge at Medlow Bath has been welcomed by the community.

The Medlow Residents Association said locals had been closely involved in the design process and final selection of the bridge over the highway and railway and welcomed the safety that it will provide.

"It is reassuring that Transport for NSW listened to the community's negative reactions after the release of the original, overly intrusive design," said president Deb Brown.

"The new design provides for only two lifts instead of the original planned four lifts, making it less visually intrusive on the village and heritage listed railway station."

TfNSW said the final design was selected from three options following close consultation not only with local residents but also with Heritage NSW, Blue Mountains City Council and Aboriginal representatives.

The design was checked against several criteria to assess the relative impact of the options with respect to heritage, customer experience, maintainability, sustainability, the environment and constructability.

Transport for NSW Director West Alistair Lunn said all views were considered during the design selection and the preferred option most successfully addressed the needs of all stakeholders.

"The new Medlow Bath pedestrian bridge design has been selected to add to, rather than detract from, the wonderful heritage feel of Medlow Bath and the Blue Mountains," Mr Lunn said.

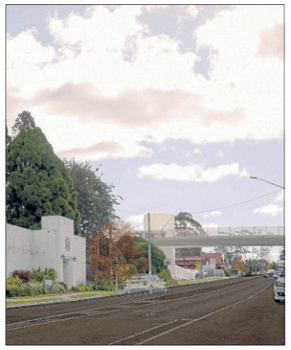
"The selected design offers a low-impact solution that creates a complementary visual and practical link between the heritage-listed railway station on one side of the highway and the iconic Hydro Majestic hotel on the other."

"A new lift will be installed on the existing footbridge at the station making it easier to access the platform, and a new kiss and ride bay will be built next to the footbridge to reduce the distance some people will have to walk," Mr Lunn said.

Ms Brown said Medlow Bathers still had "grave concerns" about the major impacts of the duplication of the highway.

"The Medlow Bath 1.2km works are now merely preparatory works for a tunnel which is now in doubt and will create a 1.2km, four-lane stretch in which vehicles will merge either end from two lanes, creating an overtaking speedway.

"We are calling on the new Labor Government to pause the Medlow Bath works and redeploy the funds into more urgently needed upgrades. Time out is needed to enable review of any works being done at Medlow Bath in order to preserve the visual amenity and tourism viability of our unique village and to ensure the road design will also provide the best and safest option."



The new design for the pedestrian bridge at Medlow Bath. Pictures Transport for NSW



View heading towards Katoomba with a ramp rather than another lift.



The original design with three lifts and prominent orange colouring.

Figure 351: Simpler style for Medlow. Newspaper article

Source: Newspaper Gazette, 3 May 2023, p.6.

Figure 352: View looking south.
Source: DesignInc, May 2023.



# 9.0
# Preferred Option

# 9.1 Proposal Summary

### 9.1.1 Proposed Works

The proposed works include the following elements:

- New entry plaza, lift and stair on western side of the highway.
- New footbridge spanning the highway.
- Ramp leading to original station footbridge.
- Alterations to existing footbridge including new stair and lift.
- Platform levelling.
- Adaptive reuse of free-standing former Signal Hut for electrical purposes.
- Alterations to existing Communications Room within existing platform building.
- New brick edging and planting to existing planter boxes.
- New entry plaza on eastern side of the station with kiss and ride facilities.
- New landscaped pathway running along western side of Railway Parade.
- New fencing to define the rail corridor.
- New Wayfinding signage.

The design has been developed by DesignInc in tandem with Tonkin Zulaikha Greer to ensure that heritage has been considered throughout the design process. The heritage design principles established for the project underpin the design, with the aim of minimising heritage impacts on this significant heritage precinct.

The SDR proposal offers a well considered solution to a complex brief in a sensitive heritage context.

The Architectural and Landscape Scope is described by DesignInc as follows:

#### Architectural Scope

The objective of this project is to design an AS1428.1 accessibility upgrade with BCA and DDA, Fire Engineering advice and to upgrade Wayfinding to improve the customer experience. The upgrade to the interchange facilities aims to integrate the public and private transport modes for commuters while respecting the heritage condition and values of the station precinct.

The scope of works for Medlow Bath Station generally comprises design, procurement, supply, construction, testing, commissioning, integration, operational readiness and handover of the following elements:

#### Station Entry - Great Western Highway

- New AS1428.1 compliant station entry with lift and stair access to new footbridge over GWH including weather protection and coverage at the street level and footbridge level lift landing.
- Compliant stairs equipped with stair nosing, tactiles and handrails.
- Vertical transport using one 17-person lift with through doors, appropriate lift lobbies, weather protection coverage
- New landscaping and use of use of native planting within the land boundary of the lift landing area.

#### Railway Parade Entry

- Provide one accessible Kiss & Ride space, one one DDA space.
- Provide three three new bike hoops
- AS1428.1 compliant footpath and ramp along Railway Parade.

#### Footbridge and Ramp

- Great Western Highway – Provide new tactile ground surface indicators (TGSI), stair nosing and handrails to the existing footbridge and stairs
- Screens and 1200mm solid balustrade across length of bridge above GWH.
- Seating on the footbridge.
- AS1428.1 compliant ramp and footpath parallel to GWH.

#### Existing Footbridge

– Modify the existing footbridge to accommodate entries to the new lift lobbies.

#### Station Building and Platforms

- Decommission and remove the existing Medlow Bath Station pedestrian level crossing and associated infrastructure.
- Vertical transport using one 17-person lift, appropriate lift lobbies, canopies, concourse, protection/ safety screens to access the existing footbridge.
- Provide stairs and lift to access existing platform.
- Provide boarding assistance zones (BAZ) and markings on each platform.
- Resurface platform to provide DSAPT compliant grades providing access to station entrance.
- Provide allocated waiting spaces near the BAZ on both platforms.
- Existing help points, information points, and pay phones at the station to be made accessible.
- Regrade the accessible path of travel and resurface the entire platform to achieve level access along the platform connecting the new lift, boarding assistance zones (BAZ), and help point.
- Provide new Tactile Ground Surface Indicators (TGSI), line marking and stenciling for the full island platform.
- Provide Directional Tactile Ground Surface Indicators (TGSIs) from stairs through to island platform warning TGSI.
- New wayfinding signage.
- Conservation to existing Signal hut to accommodate new IMSB.

#### Landscaping

- Extent of landscaping is to tie into the GWHUP landscape works.
- Landscaping is proposed to Lift 2 landing area on the GWH.
- Modify platform planter beds.
- Provide landscaping alongside the footpaths on GWH and Railway Parade
- Upgrade planting at the station entry on Railway Parade.
- Remove / modify the existing fencing, and install new fencing.
- Improve the existing environment of the precinct with use of native flora, where possible.

The scope of works is an opportunity to enhance the station presence and strengthen its function as a transport mode within the existing context and the proposed development of the Great Western Highway. The architectural, urban and landscape design for Medlow Bath Station responds to the built character of the station and its precinct. The design has been informed by thorough site and contextual analysis that identifies key features and opportunities, in collaboration with TZG, community stakeholders, and Aboriginal Community discussions. Refer to the separate Heritage Reports, prepared by Tonkin Zulaikha Greer Heritage (TZG) and Urban Design & Public Domain Plan prepared by DesignInc, Document no: 150496-MED-AR-RPT30002 for further details.[17]

17: DesignInc, Medlow Bath Station Upgrade, Architectural Design Report, 150496-MED-AR-RPT-30001, 31 May 2023, pp.15-16

## 9.1.3 Architectural Intent

DesignInc describe the architectural intent of the proposal as follows:

The design development into SDR of the preferred option has further explored considerations of detailing, materials and colour to further embed the new bridge into the existing character of Medlow Bath, while reflecting the wider natural environment and history of the place.

The intent of the selected architectural design is to provide an accessibility upgrade that respects the heritage condition of the precinct using as inspiration the local characteristics, natural environment, and history of Medlow Bath. The design has been developed through the testing of elements and their connections to the station fabric that is place specific. The upgrade takes a minimalist approach for the new works with the goal of inserting as little new built fabric as possible, while still meeting the project accessibility scope. The overall design is to be complementary while it is also protecting the heritage fabric and values of the station.

As a result of the contextual analysis process, the new elements were minimized and, more significantly, became divided into two parts to reflect the two distinct characters of the village:

1. The smaller scale residential area to the east of the station. Here the lift to access the station is inserted at the end of the platform connecting to the existing footbridge. This retains the historical configuration of the station.

2. The larger scale area to the west of the station consists of the GWH, the Hydro Majestic and the Megalong Valley. The new footbridge crossing the highway responds to this character and scale.

18: DesignInc, Medlow Bath Station Upgrade, Architectural Design Report, 150496-MED-AR-RPT-30001, 31 May 2023, p.20.

## 9.1.2 Architectural Design Description

DesignInc describe the proposal as follows:

### The Bridge

The new bridge spans the Great Western Highway, and not the railway line, and is separate from the rail infrastructure, resulting in a much-reduced scale of built form from the original concept. This significant reduction in visual impact is balanced by changes to the established pedestrian desire lines with the closure of the level crossing and increase in the travel distances for some of the community.

On the western side of the GWH, the single circular lift shaft, identified as Lift 1, introduces a strong anchor point for the curve of the bridge, echoing the curved building forms of the Hydro Majestic, and allowing the access stair to gently encircle the lift tower. The resulting landing area creates a dynamic viewing experience looking west across the escarpment and the Megalong Valley.

The fabricated steel bridge delivers a sinuous, free-flowing form with a smooth continuous soffit. It is supported by walls cleverly integrated into the circular lift tower to remove the visual clutter of multiple support columns below the bridge. The trough-shaped bridge section with solid parapet edges enfolds the user, giving protection from the strong sensory experience of passing over live traffic at a height. The transparent tensile mesh screens do not interrupt the lines of the bridge and are designed to allow views through and out.

Between the GWH and the rail corridor, the bridge comes to ground via a ramp, leading users along a new footpath to the existing station entry footbridge. The ramp utilises the natural slope of the ground to help limit its length. The ramp reduces the visual impact on the precinct by eliminating the need for another lift in this location.

### The Station Entry Lift

The insertion of a new lift, identified as Lift 2, and reconfigured stair from the existing footbridge at the country end of the station platform maintains the operational usage of the station in its historical configuration, respecting the heritage values of the place. The predominantly steel lift shaft at the station has a warm toned brick base to tie into the heritage station character and glazed elements in the upper section to increase the sense of transparency of the new structure and reflect the sky.

The final overall design incorporates these two additions to the station precinct that are respectful of the heritage values and existing character and at the same time create a positive impact linking some of the most recognisable characteristics of Medlow Bath. The design concept echoes the surrounding context of place through elegant built form, the landscape, and the outstanding natural context.

### Material & Finishes Palette

The material palette has been selected to respond to the heritage principles and the character of the station and its surrounding context. The material choices and colours aim to affirm the principle of clean lines and simplicity. The materials and finishes will be durable, robust, sustainable, maintainable, safe, and cost effective.

#### The Bridge

The steel bridge will be painted a neutral soft light grey colour, responding directly to the Hydro Majestic and reducing the visibility of the bridge when set against the sky. Stainless steel screen posts and mesh will be minimally visible. The lift tower is clad in white glazed bricks in a vertical orientation to better facilitate the laying of brick around the radius of the curve. The lift lobby areas are lined with high gloss green tiles to echo the luxurious fabrics used at the Hydro Majestic.

#### The Station Entry Lift

Responding directly to the existing station building, the new flat-roofed lift shaft uses brick cladding to ground itself into the earth platform while a steel upper portion with fixed glazing connects into the existing footbridge. All steel work on the lift shaft will be charcoal grey in colour to appear as a subtle addition to the heritage station. The selection injects a neutral, yet sophisticated, tone to the new works and provides a counterbalance to the existing heritage buildings on the station.

19: DesignInc, Medlow Bath Station Upgrade, Architectural Design Report, 150496-MED-AR-RPT-30001, 31 May 2023, pp.21-22

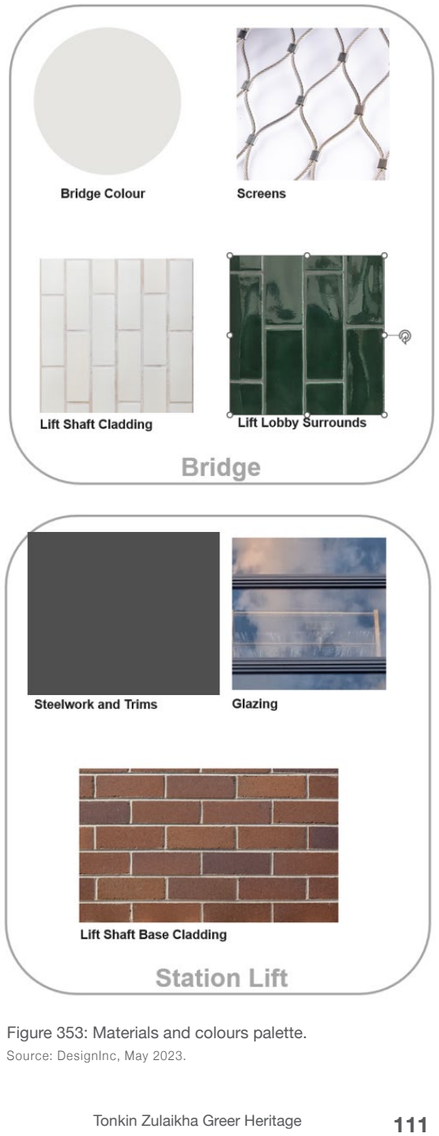



Figure 353: Materials and colours palette.
Source: DesignInc, May 2023.

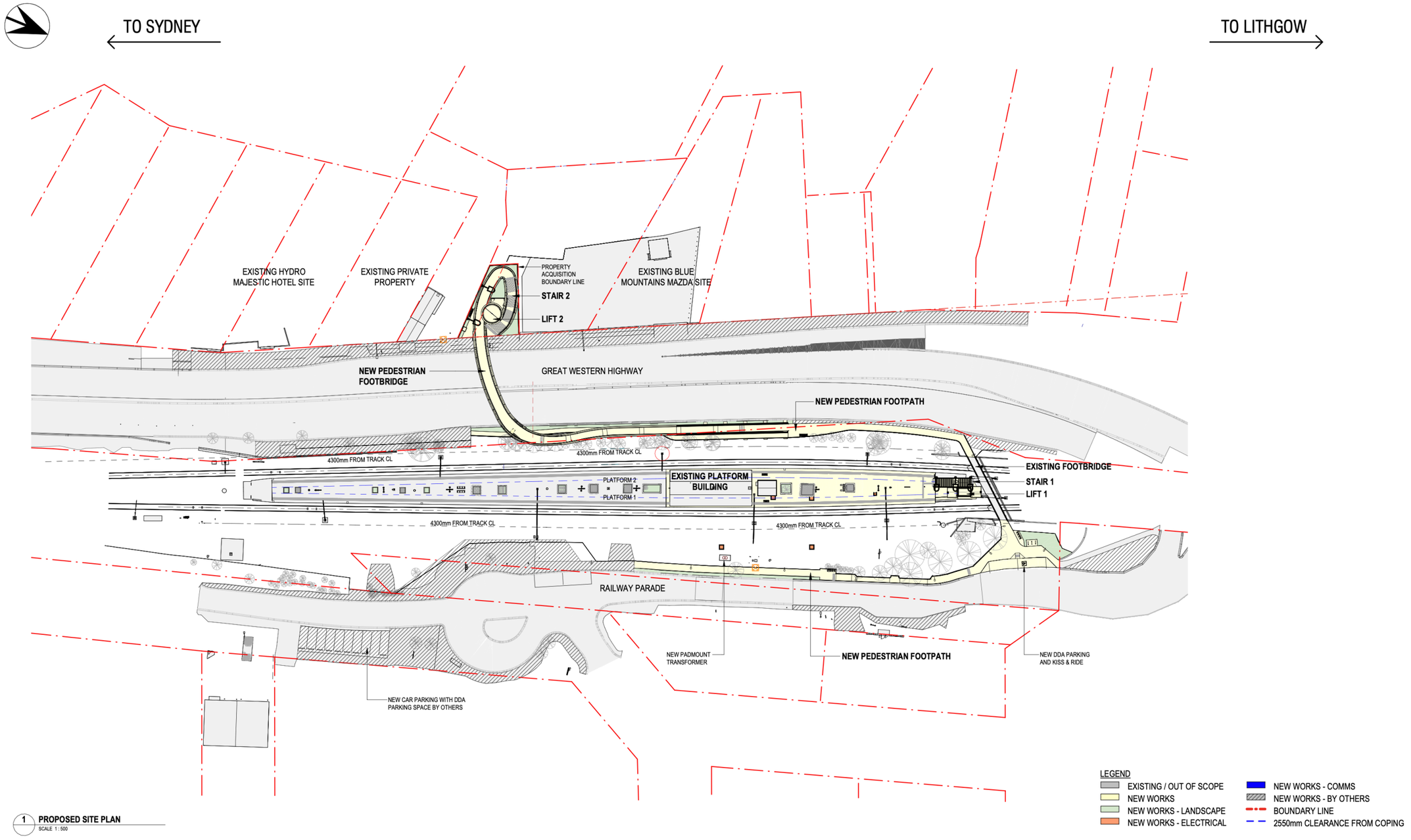



Figure 354: Site plan.
Source: DesignInc, May 2023.



Figure 355: View of footbridge looking south along the Great Western Highway.
Source: DesignInc, May 2023.



Figure 356: View of footbridge looking north along the Great Western Highway.
Source: DesignInc, May 2023.



Figure 357: View of Lift 2 on the western side of the Great Western Highway in the vicinity of the Hydro Majestic Hotel.
Source: DesignInc, May 2023.



Figure 358: View north along platform with Signal Hut on left and new lift and stairs to existing footbridge in distance.
Source: DesignInc, May 2023.

# 9.2 Design in Context Response

The development of the design for the Medlow Bath Station Upgrade has been underpinned by a series of Heritage Design Principles which aimed to ensure that the proposed upgrades would respond in a positive way to the historic environment of Medlow Bath.

The following table demonstrates how the developed design meets these heritage principles in terms of character, scale, form, siting, materials and colours and detailing:

### 9.2.1 Testing the Proposal against the Heritage Design Principles

| SCORE | SCORING CRITERIA |
|---|---|
| 2 | Achieves aim strongly. |
| 1 | Achieves aim. |
| 0 | Does not achieve aim. |
| 1 | TBC - Not yet detailed. Minimum score of 1 must be achieved by the design. |

| HERITAGE DESIGN PRINCIPLE | PROPOSAL | SCORE |
|---|---|---|
| **CHARACTER** | | |
| **Respond to context**<br>– Hydro Majestic as key reference point.<br>– Landscape design to respond to context. | – The design takes inspiration from the Hydro Majestic. This is apparent in the colour of the footbridge, Lift 2 tower form and tiled reveals.<br>– The landscape design responds to both the cultural landscape of the station platform and the Hydro Majestic and the natural landscape of the surrounding bushland through careful plant selection. | 2 |
| **Simple elegant design**<br>– Contemporary character.<br>– Coordinated design of different elements. | – The clean lines and curvilinear form of the bridge and ramp on the western side of the GWH are contemporary in character. The lift to the station has been designed as a simple contemporary addition to the original footbridge.<br>– All elements, including the lift, stairs, balustrades and services, are well co-ordinated. | 2 |
| **Role as gateway**<br>– Appropriate, high quality design.<br>– Could form sculptural artefact in the landscape. | – The curvilinear bridge forms a gateway over the highway with the sinuous ramp connecting to the existing footbridge.<br>– The bridge forms a sculptural artefact within the landscape. | 2 |
| **Viewing point**<br>– Inclusion of places for viewing to west and east. | – The bridge provides good viewpoints west and east. | 2 |
| **SCALE** | | |
| **Reduce overall scale as much as possible**<br>– Minimise height.<br>– Slender elegant bridge spans.<br>– Maximise transparency of throwscreens. | – The height of the bridge has been minimised.<br>– The bridge spans are simple, slender and elegant.<br>– The mesh throw screens are as transparent as possible. | 2 |
| **Minimise impact on significant views**<br>– Minimise footprint of lifts, ramps + stairs.<br>– Proportions to respond to adjoining heritage buildings. | – The footprint of the lifts, ramp and stairs have been minimised to achieve an integrated design.<br>– The proportions of each element has been carefully considered in context. | 2 |
| **Detailed design to reduce scale**<br>– Explore slender solid lift towers with lighter bridge spans.<br>– Use of colour to reduce scale. | – The lift tower is slender yet solid, whilst the bridge span is lighter with transparent throw screens. During the next phase options should be explored to further lighten the detailing of the bridge spans and supports.<br>– A light colour palette has been chosen for the bridge to reduce its apparent scale, whilst the colour palette for the lift to the platform relates to those of the heritage listed station which are in the darker range. | 1 |

| HERITAGE DESIGN PRINCIPLE | PROPOSAL | SCORE |
|---|---|---|
| **FORM** | | |
| **Uncluttered horizontal form**<br>– Uncluttered coordinated horizontal form.<br>– Lift towers subservient to bridge spans. | – The bridge presents as an uncluttered horizontal form.<br>– The lift tower is subservient to the bridge span. | 2 |
| **Soften engineering**<br>– Curves to soften impact of overall form.<br>– Integrated primary and secondary elements. | – The curved form has softened the engineering. This should be further smoothed out in the next phase of the project if possible.<br>– Primary and secondary elements are integrated into the co-ordinated design. | 1 |
| **Enhance user experience**<br>– Provide spaces to stop on bridge to rest. | – Multiple rest places and differing viewpoints are offered to users along the length of the curved bridge and ramp and refurbished station footbridge. | 2 |
| **SITING** | | |
| **Connect to Country**<br>– Strong connection to Country aided by interpretation. | – The curved form of the bridge relates to the landscape.<br>– The landscaping includes a selection of local indigenous plants.<br>– Aboriginal themes are included in the Interpretation Strategy. Further consultation will be required with Aboriginal Elders prior to finalisation of interpretive elements. | 1 |
| **Minimise impacts to heritage fabric**<br>– Minimise impacts to significant heritage fabric. | – Impacts to significant heritage fabric have been minimised to the existing footbridge, station platform, associated landscaping, Signal Hut and Platform Building through careful design. | 2 |
| **Respect the neighbourhood**<br>– Careful design of spaces between old and new.<br>– Minimise footprints of built elements. | – The interface between old and new has been carefully designed to respect the neighbourhood. Landscaped areas and new pathways will enhance the presentation of the area around the station and make it safer for locals.<br>– The footprints of built elements has been minimised. | 2 |
| **High quality urban design**<br>– Generous spaces at entry points.<br>– Well placed lift towers. | – Generous spaces have been provided at the station entry points, however, further work is needed to enhance the user experience.<br>– The lift towers have been well placed. | 1 |

| HERITAGE DESIGN PRINCIPLE | PROPOSAL | SCORE |
|---|---|---|
| **MATERIALS AND COLOURS** | | |
| **Quality, durability and maintenance**<br>– High quality, durable materials to retain design quality with minimal maintenance. | – High quality durable materials have been chosen which will retain their design quality with minimal maintenance. | 2 |
| **Appropriate materials and structure**<br>– Appropriate high quality materials that respect heritage values of the place. | – The chosen materials and structure are considered appropriate and respect the heritage values of the place. | 2 |
| **Relate materials and colours to context**<br>– Consider use of local materials such as stone, brick and rendered masonry. | – The materials and colours of each element within the overall composition have been chosen to relate to the site specific context. Bricks are proposed for the base of the platform lift to relate to the station context, whilst tiles have been chosen for the GWH lift, which relate to the Hydro Majestic. | 2 |
| **DETAILING** | | |
| **Consistent detailing**<br>– Simple consistent detailing with purposeful rhythm to ensure coherent design. | – Simple consistent detailing is proposed with a purposeful rhythm to ensure a coherent design. This needs to be pursued in detail during the next phase. | 1 |
| **Reflect character of Medlow Bath**<br>– Contemporary interpretation of key heritage details.<br>– Explore texture variation.<br>– High solid to void ratio in lift towers with vertical proportions. | – Key heritage details are interpreted in a contemporary manner.<br>– A variation in texture is included in the design.<br>– The lift tower to the GWH has a high solid to void ratio with vertical proportions. Glass is proposed above the level of the existing footbridge balustrade for the platform lift to minimise visual impacts. | 2 |
| **Incorporate interpretation**<br>– Heritage interpretation related to Aboriginal cultural values and Medlow Bath as a health and leisure tourist destination. | – The proposal is accompanied by an Interpretation Strategy which will be further developed into an Interpretation Plan in the next phase of the project. | 2 |
| **TOTAL UNWEIGHTED SCORE** | | 35/40 |

## 9.3 Design Recommendations

The following design recommendations should be investigated in the next stages of detailed design to help to avoid, minimise or mitigate impacts on the identified cultural heritage values of Medlow Bath.

The heritage design recommendations to guide development of the Medlow Bath Station Upgrade are as follows:

- Work to smooth out the curves of the footbridge and ramp so that they appear as a seamless, curved horizontal element within the landscape.
- Carefully detail the relationship between the proposed footpath along the GWH and the rail corridor to minimise visual impacts.
- Detail the relationship between the platform lift canopy and wind screens and the existing footbridge balustrade carefully.
- Carefully detail all aspects of the public domain including paths, seating, wayfinding signage and landscaping.
- Pursue and integrate inputs from local Aboriginal Elders.

## 9.4 Heritage Opportunity Works

The following works should be investigated in the next phase of the project to realise improved heritage outcomes:

- Conservation works associated with the Signal Hut, which is proposed to be adapted to house electrical cabinets.
- Conservation works associated with the Communications Room within the Platform Building.
- Detailing of the brick edge treatment to the planter  boxes on the railway station platform. This should be similar to those recently installed at Lawson Station.
- Consider replacing protections screens on the northern side of the existing footbridge.
- Explore possible connection of public domain to walking track below the Hydro Majestic.
- Development of the Interpretation Strategy into a detailed Interpretation Plan. Integration of interpretation into the design.

## 9.5 Next Steps

The preferred design will continue to be developed in the next phase of the project to ensure design excellence.

Ongoing consultation with key stakeholders including the local community, Aboriginal stakeholders, Heritage NSW, Blue Mountains Council and the TfNSW DRP is required for a successful outcome at Medlow Bath. Meetings will be scheduled to maintain communication between all parties during the development of the design in the next phase of the project.

# 10.0
# Appendices

# 10.1 References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#### State Heritage Register

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## 10.2 Project Timeline

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| Strategic Design progresses for the GWH Medlow Bath Upgrade. | 2019 - 2020 | |
| **Strategic Concept Options Report**<br>Pedestrian Bridge over Highway No 5 Great Western Highway and Western Railway Line at Medlow Bath Railway Station 115 km West of the Sydney<br>The TfNSW project team of the Medlow Bath upgrade engaged New Design group of TfNSW Bridge & Structure Engineering in consultation with TfNSW Urban Designers to provide strategic concept design options for the proposed new pedestrian bridge. This report describes the development of these design options, and provides further recommendations and suggestions of additional investigations to facilitate design development to concept design level after selection of the preferred option. | November 2020 | Prepared by New Design Unit, Bridge and Structural Engineering, Infrastructure & Place, TfNSW, dated November 2020 |
| **Registration of Interest (ROI)**<br>ROI for the Technical Services Panel to develop the design and input to the Review of Environment Factors goes out to Industry. | May 2020 | |
| **Request for Tender (RFT)**<br>RFT for Professional Services Contract for Preferred Concept Design, Detail Design and Environmental Assessment Scope and Requirements goes out to shortlisted tenderers. | July 2020 | |
| **MRB Technical Services Engaged**<br>MRB commences Professional Services Contract with a goal to complete a preferred Concept Design by January 2021.<br>Team: MRB Technical Services with Weston Williamson + Partners, Spackman Mossop Michaels, Balarinji, etc. | October 2020 | |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| **Review of Environmental Factors (REF)**<br>A review of environmental factors (REF) was prepared by Transport to assess the potential environmental impacts of the Proposal in July 2021.<br>This REF was initially placed on public display from Tuesday 27 July 2021 to Tuesday 24 August 2021.<br>To ensure that community members had more of an opportunity to provide feedback (due to COVID-19 stay at home orders), this was extended to Sunday 5 September 2021. The total consultation was for a period of 41 days.<br>The main methods used to provide information and notifications for the REF display, included:<br>– Website and interactive portal which provided background information, maps, Proposal updates and<br>– announcements, and information on how to provide feedback.<br>– Community Updates – printed and distributed<br>– Poster<br>– Online consultation sessions<br>– Stakeholder group meetings<br>– Business meetings<br>– Media, social media and advertising<br>– Direct contact | July – September 2021 | Chapter 6.7 Aboriginal cultural heritage impacts research and findings sourced from the:<br>Great Western Highway Duplication – Katoomba to Lithgow Archaeological Survey Report (Jacobs, 2020).<br>Appendix J of the REF: Statement of Heritage Impact prepared by RPS, dated 7 July 2021.<br>Appendix K of the REF: Urban Design Concept, Landscape Character and Visual Impact Assessment Report, by Spackman Mossop Michaels, dated 12 July 2021. |
| Medlow Bath Pedestrian Bridge separated from Great Western Highway main works contract. | | |
| **Tender Request 1**<br>Arenco asked to submit Tender for D&C to take 80% design, finish the detailing and construction.<br>Team: Arenco, GHD & DesignInc | October 2021 | Request for Quotation<br>No. IPD-19-7937H<br>Date Issued: 16 November 2021 |

20: Great Western Highway Upgrade – Katoomba to Lithgow, https://roads-waterways.transport.nsw.gov.au/projects/great-western-highway/katoomba-to-lithgow/index.html
21: Great Western Highway Upgrade Medlow Bath Review of Environmental Factors, https://caportal.com.au/rms/medlow-bath/download-ref

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| **Additional environmental assessments**<br>Additional environmental assessments completed after the REF was finalised for display (July 2021), to assist with the design of the duplication project. These assessments are:<br>– Arborist assessment.<br>– Updated Visual Impact Assessment.<br>– Preferred Design Report - Bellevue Crescent Intersection Options.<br>– Pedestrian Bridge Option Report<br>– Detailed SoHI for Medlow Bath Railway Station and Bridge.<br>– Updated Water Quality Assessment | October – Nov 2021 | Appendix 4: Urban Design Concept, Landscape Character and Visual Impact Assessment Report, by Spackman Mossop Michaels, dated 8 October 2021.<br>Appendix 5 - Pedestrian Bridge Option Report by TfNSW, dated November 2021 (refer to outline below) |
| **Medlow Bath Submissions Report Appendix 5 - Pedestrian Bridge Option Report**<br>This report documents the strategic development and optioneering process applied to reach the preferred design of the pedestrian bridge displayed as part of the Review of Environmental Factors of the Medlow Bath Upgrade.<br>Options:<br>1. Concrete Through Girder<br>2. Pratt Truss<br>3. Vierendeel Truss<br>The Vierendeel Truss option was progressed as the preferred structure type based on the assessment conclusions within this report. | November 2021 | Medlow Bath Pedestrian Bridge<br>Optioneering Report, by MRB Technical Services, dated November 2021 |
| **Heritage Council Approvals Committee**<br>Presentation made to Heritage Council Approvals Committee.<br>Further email notes from Hendry Wan (Heritage Council) to Grace Cann (TfNSW Project Manager) express a desire to further explore a pedestrian underpass, and/or for the bridge form to be more firmly rooted in heritage interpretation. | 1 February 2022<br>9 February 2022 | Heritage Council of NSW<br>Resolutions Only – Approvals Committee Meeting Minutes (Online) held 1 February 2022 |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| DesignInc is engaged by TfNSW for Concept Architectural Design Services to explore:<br>1. Potential modifications to the 80% footbridge design<br>2. Alternative new bridge concepts to find a more place specific design that is 'bespoke to the precinct' as per the Heritage Council recommendation.<br>3. An underpass concept. | March - April 2022 | Options Matrix Summary provided by DesignInc |
| TfNSW further explore underpass option – constructability, cost, security…what happened here? | May 2022 | TfNSW input required here. |
| **Review of Environmental Factors (REF) GWH Upgrade Medlow Bath Submission Report**<br>Extract from Executive Summary, Page iv.<br>Summary of issues raised and TfNSW responses: | Released in June 2022 | Review of Environmental Factors (REF) GWH Upgrade Medlow Bath Submission Report, TfNSW, dated June 2022 |
| Design<br>• Consideration of design alternatives, particularly focusing on lane width, safety, landscaping, Bellevue<br>Crescent intersection, proposed pedestrian bridge, tunnel, bus shelter, lighting and parking. | | |
| Pedestrian bridge<br>Further information has been provided expanding on the options considered to improve pedestrian access across the Highway and connecting to the Medlow Bath Railway Station. This includes further details on the factors that influenced the option selection, development and architectural refinement of the pedestrian bridge design. | | |
| Following our ongoing engagement with Heritage NSW and Blue Mountains City Council, the bridge design and station precinct is continuing to progress through a series of design challenge workshops to improve its fit with the surrounding heritage context. | | |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| Heritage and architectural specialists will be working with key stakeholders to develop the heritage experience between Medlow Bath Railway Station and the Hydro Majestic in a manner that draws in local context and character. This will be required as part of the Works Application under Section 60 of the Heritage Act 1977.<br><br>Further community information sessions will be held as the design matures, to engage the community on progress made. | | |
| **Extract from Executive Summary, Page vi.**<br>**Heritage - Non-Aboriginal**<br>– The bus shelter is an important tourist and community feature in the village. It must be preserved and replicated with a different mural when moved to the other side of the road.<br>– The extent and severity of impact to key heritage items (Majestic Hotel, Medlow Bath Railway Station and Avenue of Trees) is sufficient to warrant comprehensive assessment under an EIS. This should assess the cultural, aesthetic and historical values of the village of Medlow Bath as identified in the 2015 LEP. | | |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| Response:<br><br>The REF included the Statement of Heritage Impact (SoHI) which was prepared in accordance with the relevant heritage guidelines, and the level of impact assessed is in accordance with the Material Threshold<br><br>Policy (Heritage NSW, 2020). This SoHI followed industry best practice in terms of detailed assessment and provided a definition of potential impact of the Proposal on the item's significance.<br><br>Impacts to heritage items identified by the SoHI were mainly associated with the installation of the new pedestrian bridge. RPS provided heritage design advice during the detailed design of the pedestrian bridge and station through specialised workshops described by the bridge options report (appendix 5). | | |
| The design of the highway avoids work within the heritage curtilage of the Hydro Majestic. The SoHI identified that the proposal may have a minor to moderate physical impact and a moderate to major visual impact on the Hydro Majestic. The SoHI recommended measures to mitigate these impacts which include: | | |
| Heritage awareness training for all contractors and project personnel so they become aware of the sensitive nature of the heritage items and have an understanding of unexpected finds procedures<br><br>– Protection of significant heritage fabric (including Hydro Majestic and its stone fence) which will include minimum operating distances of machinery, installation of protective barriers and vibration monitoring.<br>– Archival photographic recording of the heritage items within Medlow Bath<br>– Heritage interpretation plan covering not just Medlow Bath but the whole Great Western Highway upgrade. | | |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| These have been included within the Construction Environmental Management Plan.<br><br>In regard to the locally listed Avenue of Trees, many of the original Radiata Pines are no longer along the corridor. An independent arborist assessment has also identified that a majority of the replacement<br><br>Western Red Cedars were also found to be suffering a degenerative disease. The Medlow Bath Upgrade landscape design aims to generate a new median tree feature that will respond to the intent of the original Avenue of Trees. This presents a long-term outcome that reinterprets the Avenue of Trees. | | |
| **Extract from Executive Summary, Page vii**<br>**Heritage – Aboriginal**<br>There has not been an extensive investigation of potential Aboriginal artefacts on either side of the Great Western Highway. The REF has been completely inadequate in identifying the potential wealth of Aboriginal heritage likely to be demolished between Mount Victoria and Hartley without an EIS. | | |

| PROJECT ACTIVITY / EVENT | DATE | REFERENCE |
|---|---|---|
| **Response:**<br>Transport has comprehensively investigated the corridor for items of Aboriginal cultural heritage or significance, and as documented in the REF, there are no known Aboriginal sites identified within the proposal area.<br><br>The Mount Victoria to Hartley Valley section of the highway upgrade is outside the scope of the Medlow Bath Upgrade and will be considered through an environmental assessment of that section of the proposed highway upgrade.<br><br>The proposal area at Medlow Bath has undergone extensive landscape modification and high level of disturbance from previous transport and other development. This has been documented as part of previous Aboriginal heritage investigations (Jacobs, 2020).<br><br>In the event of Aboriginal artefacts being uncovered during construction, the Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime Services, 2015) would be followed. | | |
| **Tender Request 2**<br>Arenco asked to Arenco to submit Tender pricing for re-design of the concept, design development and construction.<br><br>Team: Arenco, GHD, DesignInc & TZG | August 2022 | Request for Quotation<br><br>No: IPD-19-7937K<br><br>Dated: August 2022 |
| **Contract Awarded to Arenco**<br>TZG & DesignInc begin to prepare the Heritage Summary Report to determine the Heritage Values, ready for consultation with Stakeholders. | October 2022 | |

## 10.3 Summary of Heritage Specialist Involvement

Tonkin Zulaikha Greer were engaged in September 2022 to prepare Heritage Design Principles to guide the design, provide iterative heritage advice to the design team and to peer review the design. Since that time, TZG have attended weekly design meetings along with meetings with key stakeholders including Aboriginal stakeholders, the local community, Heritage NSW, Blue Mountains City Council and the TfNSW Design Review Panel.



Figure 359: 1930. Aerial view of Medlow Bath, New South Wales, ca. 1930, 2. Fairfax Corporation.
Source: National Library of Australia, https://nla.gov.au/nla.obj-162355018?searchTerm=Medlow%20bath

# 11.0
# Interpretation Strategy

# 11.1 Introduction

This Interpretation Strategy has been prepared by Tonkin Zulaikha Greer Heritage for Transport for New South Wales (TfNSW) to accompany the proposal to upgrade access to Medlow Bath Railway Station by providing a pedestrian footbridge which spans the rail corridor and the Great Western Highway. This Strategy forms an Appendix to the Heritage Design Report prepared for the site which outlines the history and significance of the place and describes the site in more detail.

Medlow Bath Railway Station is listed on the State Heritage Register (SHR No.01190), the TAHE S170 Register (SHI No.4801011 ) and Schedule 5 of Blue Mountains LEP 2015 (MB003). There are many other locally listed heritage items in the vicinity of the site including the Hydro Majestic Hotel (MB002) and the former Post and Telegraph Store (MB008).

### Heritage Interpretation

Heritage interpretation can be defined as a form of communication that consciously involves the participation of the audience. It is directed at specific target audiences and uses a range of techniques to reveal meanings and relationships rather than to simply relate factual information. An aim of heritage interpretation is to promote understanding and learning, and it can also encourage interaction between an object and the target audience. Heritage interpretation is intended to:

- Provoke curiosity and interest
- Relate to the target audience
- Reveal a message
- Address the whole story within unifying themes and
- Increase the public's knowledge and understanding of the history and significance of the place.

## 11.1.1 Project Brief

The Project Brief included the requirement to prepare a Heritage Interpretation Strategy for the project. It states:

- Identify themes for station heritage interpretation including previous principles/ advice from the Heritage Council including:
- "The pedestrian bridge option should be designed to better respond to the significant heritage values of the Blue Mountains setting and the local precinct including the Hydro Majestic Hotel. The pedestrian bridge should respond to the character of the Place as a significant historic health and leisure destination."
- "continue to develop the interpretation strategy to inform the design, including connecting with Country."
- Identify opportunities for integrated heritage interpretation, relating to both the Aboriginal and non Aboriginal significance of the site within Medlow Bath.
- These opportunities could be on the platform, in the public domain and/or incorporated into the new infrastructure
- These opportunities could be informative (eg a sculpture or a poster), integrated (eg in the lift finish or screen), or expressive (eg restoration works or a framed viewing point)
- These opportunities should not override the essential requirement for the footbridge to be 'visually recessive'[20]

22: TfNSW, Exhibit B, Works Brief – Medlow Bath Station Upgrade Great Western Highway Upgrade Program, IPD-19-7937K Medlow Bath Station, pp.25-26.

## 11.1.2 Report Purpose

This Heritage Interpretation Strategy has been prepared to identify interpretation opportunities for the Medlow Bath upgrade project that reveal the history and heritage values of the site through a range of interpretative devices tailored to suit the target audiences.

The heritage interpretation that accompanies the Medlow Bath project should:

- provide an interpretive experience that is captivating, relevant, and that influences or broadens the thoughts and behaviours of target audiences
- reveal the important stories and historical associations of the site so that they are legible to target audiences
- respect and engage with those with strong personal connections to the site
- contribute to the richness and distinctive identity of Medlow Bath and
- deliver best practice interpretation.

The interpretation will also demonstrate alignment with the TfNSW Aboriginal Culture and Heritage Framework.

## 11.1.3 Stakeholder Consultation

Consultation with key stakeholders including the local community, Blue Mountains City Council and Heritage NSW is recognised as being key to achieving a successful outcome for the project.

### Aboriginal and Torres Strait Islander communities and stakeholder ongoing consultation

Ongoing engagement with local Aboriginal and Torres Strait Islander communities is planned throughout the life of the Project, with the aim of ensuring community needs and concerns are addressed, and to identify opportunities to celebrate the Aboriginal culture of Medlow Bath. Aboriginal heritage and culture has, and will continue to be considered and incorporated into the detailed design of the Project.

## 11.1.4 Key References

The following key documents have formed the basis for this Interpretation Strategy, supplemented by additional research.

### Unpublished Reports

- Balarinji, *Great Western Highway Upgrade Program, Preliminary Aboriginal Narrative Report,* March 2022.
- Balarinji, *Great Western Highway Upgrade Program, Aboriginal Heritage Cultural Interpretation Plan and Art Strategy, Body of Story Report*, September 2022.
- GML Heritage, *Great Western Highway Upgrade, Katoomba to Lithgow, Non Aboriginal Heritage Thematic Study,* April 2022;
- GML Heritage, *Great Western Highway Upgrade Project Interpretive Framework*, October 2022.
- Graham Brooks & Associates, *Hydro Majestic Hotel Conservation Management Plan,* 2010.

### Other Publications

Australian Heritage Commission, 2001, Australian Historic Themes Framework.

Australia/ICOMOS & International Council on Monuments and Sites 2000, The Burra Charter: the Australia ICOMOS charter for places of cultural significance with associated guidelines and code on the ethics of co-existence, Australia ICOMOS, Burwood, Vic.

Heritage Council of NSW, 2006, New South Wales Historical Themes.

### Heritage Listings

### State Heritage Inventory

https://www.environment.nsw.gov.au/topics/heritage/search-heritage-databases/state-heritage-inventory

A full list of references is included in this report.

## 11.1.5 Methodology and Terminology

### Australia ICOMOS Charter for Places of Cultural Significance, 2013 (The Burra Charter)

The *Australia ICOMOS Charter for the Conservation of Places of Cultural Significance*, (known as The Burra Charter), is widely accepted in Australia as the underlying methodology by which all works to any sites/ buildings, which have been identified as having national, state, regional or local significance are undertaken.

In order to achieve consistency in approach and understanding of the meaning of conservation by all those involved, a standardised terminology for conservation processes and related actions has been adopted. The definitions as provided by the Burra Charter have been adopted by this strategy.

The Burra Charter defines Interpretation as follows:

*Interpretation* means all the ways of presenting the cultural significance of a place.

### Interpreting Heritage Places and Heritage Interpretation Policy (2005)

The NSW Heritage Council's publication *Interpreting Heritage Places and Heritage Interpretation Policy* (2005) has guided the preparation of this Heritage Interpretation Strategy. It takes into consideration the contextual history and development of the overall site and the cultural significance of the station building and the identified historical themes. Relevant historic themes are identified in order to establish a framework for interpreting the history and significance of the site and to aid in integrating interpretation within the overall design.

This Heritage Interpretation Strategy will be further developed into a Heritage Interpretation Plan in the next phase of the project.

## 11.2 Target Audience

The proposed footbridge will provide pedestrian and cyclist access to Medlow Bath Railway Station across the rail corridor and the Great Western Highway. The footbridge provides connections between Medlow Bath west, which includes the Hydro Majestic Hotel and surrounding residential area, and Medlow Bath east, which comprises the former Post and Telegraph Store and residential area.

The target audience comprises locals, commuters and tourists visiting Medlow Bath to stay at the Hydro Majestic Hotel and surrounding Blue Mountains.

### Locals

The proposed footbridge will provide locals with a safe method of crossing both the rail corridor and the highway. The integration of interpretation into the design of the footbridge provides an opportunity to connect to Country and reveal stories related to the history and significance of the place.

### Commuters

Medlow Bath is serviced by both trains and buses. Commuters including workers at local businesses such as the Hydro Majestic Hotel and locals commuting for work will access the train station and bus stop via the footbridge. This target audience may be in a hurry and are less likely to stop and engage with interpretation.

### Tourists

The introduction of the railway opened up the Blue Mountains to tourists. Whilst this mode of travel is less popular today, the Hydro Majestic Hotel at Medlow Bath remains a popular tourist destination. Tourists also visit Medlow Bath to go bushwalking in the Blue Mountains. This target audience typically has more time and may be interested in gaining information about the history and significance of the local area.

## 11.3 Opportunities

The project provides many interpretation opportunities including:

- The opportunity to reveal Aboriginal stories and associations with the place.
- The opportunity to connect to Country.
- The opportunity to reveal information about the Megalong Valley and Greater Blue Mountains Area.
- The opportunity to reintroduce native flora and fauna.
- The opportunity to reveal stories related to the construction of the road linking Sydney to the land beyond the Great Dividing Range.
- The opportunity to reveal the relationship between the construction of the railway station and Mark Foys Hydropathic Sanitorium and the subdivision and development of Medlow Bath as a town.
- The opportunity to reveal stories about Medlow Bath as a tourist destination focused around the Hydro Majestic Hotel, for both health and leisure.
- The opportunity to integrate interpretation into the design of the footbridge and public domain which links to the history and significance of Medlow Bath as a place.

## 11.4 Constraints

Constraints for interpretation include:

- Interpretation must be constructed of robust materials which are suitable for exterior use and UV resistant.
- The site may be prone to graffiti and other anti social behavior.
- Any new signage needs to be co-ordinated with the TfNSW established suite of signage.
- Use of artefacts within the public domain would be subject to risk assessments for safety and climability.

# 11.5 Historic Themes

Historic themes are used in interpretation as a tool to organise information and to determine the core messages and stories to be communicated.

In order to place the history and significance of a place within the broader Australian context, it is important to be able to use an established and widely-recognised framework of historic themes to group key historical activities or events to better contextualise their role in the cultural development of Australia.

The Australian Heritage Commission published a national framework of historic themes in 2001 and the NSW Heritage Council developed a series of linked State-specific themes. These, in turn, provide the over-arching framework for a sub-set of local themes, which generally relate to Local Government Area boundaries, and site specific local sub-themes.

## 11.5.1 Great Western Highway Upgrade Project Interpretive Framework

In April 2022, GML Heritage prepared the Great Western Highway Upgrade, Katoomba to Lithgow Non Aboriginal Heritage Thematic Study. This study identifies key themes to be explored along the Great Western Highway upgrade which were developed to form an Interpretive Framework.

- Eternal Horizon
- In search of a good road
- Beyond the Mountains
- Highway to High Street
- The Leisure Highway.

These themes are expanded in the table to the right.

| GWHUP INTERPRETIVE FRAMEWORK THEME | STORY | KEY LOCATIONS |
|---|---|---|
| **Theme 1: Eternal horizon**<br>Home to the First Australians since the last ice age, the omnipotent Blue Mountains determined what was possible and impossible for those trying to traverse and occupy it. | – What can you see from the road? (views and vistas) | – Mt York Rd<br>– Victoria Pass<br>– Hassans Walls |
| **Theme 2: In search of a good road**<br>The highway was borne out of the 1813 expedition of the 'dauntless three': Blaxland, Lawson and Wentworth. It was built in iterative phases with convict labour. The road's subsequent evolution into a stock route and gateway into the Central West had far-reaching consequences that still reverberate in Aboriginal communities today. | – What was it like to build the road?<br>– What encounters happened on the route, road, journey? (encounters with Dharug, Gungungurra and Wiradjuri)<br>– Life and death on the road | Pulpitt Hill<br>Victoria Pass |
| **Theme 3: Beyond the Mountains**<br>This theme explores the western expansion to Bathurst and the development of the pastoral economy far from the seat of power in Sydney. The road became a major artery for trade from the Mountains to the sea and back, laying the foundation for twentieth-century transport of people and goods and the settlement of the Central and Far West. | – Why were people travelling the road? (i.e. curiosity, greener pastures, in search of gold)<br>– What was it like to travel the road? (staying at the early inns)<br>– Life and death on the road | – Little Hartley<br>– Hartley Historic Village<br>– South Bowenfells |
| **Theme 4: Highway to High Street**<br>The significance of the highway has waxed and waned alongside changes in modes of transport, and the purpose and fortunes of each town on the route. The heritage items and vernacular style of these places help us trace the course and pattern of history in the project corridor. | – Where did the builders, travellers, colonists live? (i.e. villages, convict stockades)<br>– Where are they remembered? | – Blackheath<br>– Hassans Walls<br>– Pulpitt Hill |

Table 4: Great Western Highway Upgrade Heritage Study Themes.

Source: GML Heritage, Great Western Highway Upgrade Project | Interpretive Framework, October 2022, p.57.

GML identify the theme 'In search of a good road' for Medlow Bath, with stories still to be confirmed. The following considerations are included in the Interpretive Framework for the Medlow Bath pedestrian bridge:

- Aboriginal content may be incorporated into Bridge design
- Heritage approvals may include a condition to provide heritage interpretation at Medlow Bath Railway Station.

In terms of next steps, the GML report contains the following recommendations:

1. Confirm thematic approach to site including concurrent work being developed by Balarinji.

2. Confirm requirements for future heritage interpretation works.




Figure 360: Preliminary Theme Locations - Medlow Bath circled.

Source: GML Heritage, Great Western Highway Upgrade, Interpretive Framework, October 2022.

## 11.5.2 Historic Themes identified in Heritage Listings

In addition to the themes identified in the GWHUP Interpretive Framework, historic themes are identified in the heritage listings for Medlow Bath Railway Station group and for Heritage Items and Heritage Conservation Areas in the vicinity of the site, including the Hydro Majestic Hotel, which should be taken into consideration when arriving at a place specific interpretation strategy. These are shown in the table of historic themes included in the Interpretation Framework.

### 11.5.3 GWHUP Aboriginal Cultural Design Principles

In 2022, Balarinji prepared an Aboriginal Narrative Report and an Aboriginal Heritage Cultural Interpretation Plan and Art Strategy for the Great Western Highway Upgrade which was based on extensive consultation with Aboriginal stakeholders. Balarinji's approach is *'to co-design with local Aboriginal Custodians and their endorsed creative practitioners to interpret the project location's Aboriginal culture and heritage story. Implementation of this will deepen the project's sense of place and the understanding of the Aboriginal cultural, physical and spiritual context.'*

Key messages from the Body of Story report are as follows:

The Great Western Highway Upgrade Program (GWHUP) Design Team has a duty to acknowledge Aboriginal people as Traditional Owners, and a responsibility to Country. Through meaningful engagement with Aboriginal people and the placement of Aboriginal design within the GWHUP, the project provides a great opportunity to tell the story of Aboriginal people. As this will be a location with a high volume of local and regional visitors, there is an opportunity for the sharing of culture and stories.

A successful outcome for the Aboriginal communities would be to create a highway where people can reflect and connect with Country, acknowledge Dharug, Gundungurra and Wiradjuri people and celebrate the oldest continuous living culture in the world.

Aboriginal histories and stories are an intrinsic part of the GWHUP and should be celebrated through its people and culture. The locally connected Aboriginal communities believe it is important to respect the Country that the GWHUP is on; people belong to Country, rather than Country belonging to people. Sustainable management and respect will keep Country and people healthy and strong for future generations. They also believe that acknowledging Aboriginal people and integrating Aboriginal sensibility of place will contribute to wellbeing and connectedness to Country and Aboriginal culture.

Aboriginal spirituality and connection with Country can be explored through design and spatial thinking, language and art integration. Installations allow a sense of Aboriginal culture to be in the GWHUP while providing opportunities to give back to the local community. The prospect of creating a space to reconnect to the waterways, to Country and to traditional and contemporary culture excites the Aboriginal communities.

Balarinji is committed to continuing the work of codesign to achieve design outcomes that are deeply connected to place. The next stage in this process is to engage artists that the locally connected Aboriginal communities endorse to be part of this project. These artists will be invited to a co-design workshop where they will work to respond to a brief formulated by Balarinji based on the key themes and cultural design principles from this report.

#### Cultural Design Principles

The following Cultural Design Principles provide a high-level translation of the collated narrative and Aboriginal aspirations, both specific to the project and more broadly reflective of universal Aboriginal experience and thinking. They are intended to guide the design team's thinking about interpreting and embedding Aboriginal sensibility in the project. They seek to encourage questions and curiosity in project designers to consider Aboriginal integration in a new way. Importantly, the consultative process has established channels of communication and goodwill where those questions can continue to be raised with appropriate Aboriginal stakeholders in a collaborative and productive manner, to best serve the Aboriginal communities and the project.

##### Connection to Country

Country is everything. From the sky and stars to the land and the people within it. Technology, cosmology, biology, ecology, philosophy and society are all determined by Country. Country is ever-changing and ephemeral.

Knowledge about Country is passed through oral tradition from generation to generation, from experience and location-activated storytelling. Country has multiple purposes and functionalities however it always lends its name to the people who are connected to it, and have responsibilities for it – those who call that Country home. Connecting to Country through reintroducing native planting, native materials and respecting Mother Earth is significant for the community and will reconnect the site with thriving culture.

##### Aboriginal Culture is a Living Culture

The Great Western Highway Upgrade is on Country where there are many Songlines and stories. Despite hardship, Dharug, Gundungurra and Wiradjuri cultures have all thrived in many ways in the region, giving way to strong and healthy local cultural groups and communities. The old and the new are deeply intertwined, with Aboriginal history and culture informing culture today and in future, developing resilient and thriving communities. The Aboriginal community is clear that its culture is very much alive and wishes its stories, and connection to Country, to be evident in the design of the Upgrade.

##### The Importance of Language

All workshop attendees acknowledged the importance of language integration across the Upgrade. The use of language is a clear celebration of people and culture. It depicts a resilient and vibrant community, promotes understanding, supports the cultural learning and cultural pride of young Dharug, Gundungurra and Wiradjuri people and infuses culture back into Country.

##### Water Country

Water Country is the giver of life. It has figured in the Dreaming, the Songlines and the stories of Aboriginal people since time immemorial. It connects Aboriginal people with each other, supporting major gatherings, trade, ceremony and knowledge transfer. It is a habitat for marine life, and showers the land with rain from the sky to form the rivers, the lakes and the mangroves that weave throughout Australia. Its tide and currents connect to Sky Country, ensuring an everlasting flow of water to sustain, manage and cleanse all living things.

##### Interconnectedness

The Songline of the Great Western Highway stretches from Sydney Harbour and continues through various Countries along a network of ancient walking tracks around the Blue Mountains area. The Songline is a source of connection for the Dharug, Wiradjuri and Gundungurra but also for numerous cultural groups who travelled to or through these Countries for trade, marriage and ceremony. It is a vehicle through which stories, knowledge and resources are shared. The interconnectedness of the cultural groups is one of mutual dependence in caring for Country, of sharing sacred sites and of resistance and resilience.

The Songline intertwines a cultural landscape of sites and stories supporting the ongoing connection of custodians to Country. Stakeholders would like to see the interconnectedness represented in the Upgrade and allow non-Aboriginal people to connect to Country and respect Country in their travels.

##### Healing Country

Country is in a state which needs to be healed and rehabilitated in site-specific ways. The effects of colonisation, industrial development and population growth around the area means Country needs to be healed using traditional Aboriginal practices and philosophies. Ancient Aboriginal land management and bush regeneration practices, sustainability protocols and cultural lore are all underpinned by caring for Country principles that are key to resolving environmental issues prevalent today.

Country is connected by a continuous, ever-changing web of ecosystems that all give life to one another. All people that live on Country have a responsibility to care for Country and heal Country. Healing Country must be a holistic approach, and inclusive of all Country and all people who are connected to the area.

Those connected to the area must have access to Country to practice culture in order to further promote healing.

##### Truth-telling

All attendees spoke of the importance of truth-telling. Truth-telling is a process of looking back and looking forward. Truth-telling is showcasing the richness of Country when it is managed and cared for. It is acknowledging the trauma of dispossession and the strength and resilience of Dharug, Gundungurra and Wiradjuri people in withstanding efforts to disconnect them from their Country and each other. Looking forward is about pride for young people, changing attitudes to move forward in reconciliation and celebrating that this will always be Dharug, Gundungurra and Wiradjuri Countries.[23]

Balarinji did not identify any specific stories related to Medlow Bath.

23: Balarinji,Great Western Highway Upgrade Program, Aboriginal Heritage Cultural Interpretation Plan and Art Strategy, Body of Story Report, September 2022, pp.5-66,pp.33-34.

# 11.6 Interpretive Media Options

The identified interpretative messages will need to be communicated to the target audience using interpretative media. Interpretation takes many forms including integrated design, artworks, the naming of places, guided tours, brochures, digital technologies (including web based triggers in the landscape), site programming, artefact displays and graphic panels with text and images as well as any other way in which ideas can be communicated.

There is a range of potential interpretative media options that could be used at the Medlow Bath site.

## 11.6.1 GWHUP Aboriginal Heritage Cultural Interpretation Plan

The Balarinji report includes a range of cultural design principles which aim to connect to Country and celebrate Aboriginal culture. Aboriginal interpretation should be undertaken in consultation with the local Aboriginal community.

Interpretive media options identified include:

- Integrated design
  - Native planting
  - Use of animal totems
  - Use of local materials
  - Water sensitive design
- Interpretive signage
  - Use of Aboriginal language
- Digital interpretation
- Public art
- Education programmes
- Ongoing Partnerships and Community Engagement with the Aboriginal community.[24]

## 11.6.2 GWHUP Non Aboriginal Interpretive Framework

The GML Interpretive Framework identifies two types of interpretive devices which could be appropriate to use at Medlow Bath:

### D1: Interpretive Installations

- Integrated design - including furniture in the public domain
- Public art
- Sensory devices

The recreational trails provide opportunity for recreational users such as cyclists and hikers to move through the historic landscapes as well as those traveling public/road users, for example those stopping locally in the towns in both directions. The landscape could feature themed installations such as public art, furniture or sensory interpretive devices.

### D2: Tunnel Installations

Not applicable.

### D3: Digital

- Mobile phone application
- Website - database and publications

This initiative is already supported by a network of local government partners including Blue Mountains City Council. As a digital platform it can be augmented with additional content with the approval of the managing committee. The opportunity to link European heritage sites with relevant colonial history such as the Hartley Vale Cemetery would help highlight the importance of these places to visitors and potentially support their ongoing conservation.

In consultation with local studies and key heritage organisations there is the potential to plan for an online platform that links collections across local government areas, allowing both researchers, visitors and heritage enthusiasts to share content. It also provides an opportunity to digitise a wealth of resources held in private or small collections.[25]

## 11.6.3 Interpretive Media Options

The table on the following page outlines interpretive media options, with opportunities and constraints associated with each media type identified.

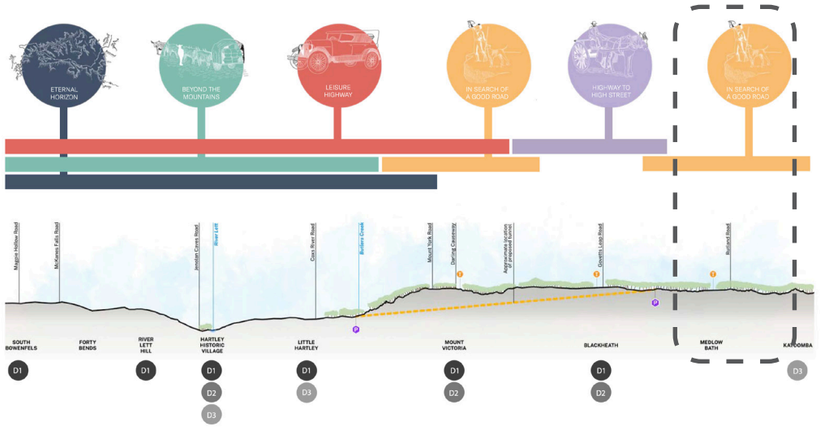



Figure 361: Preliminary Device Locations - Medlow Bath circled.

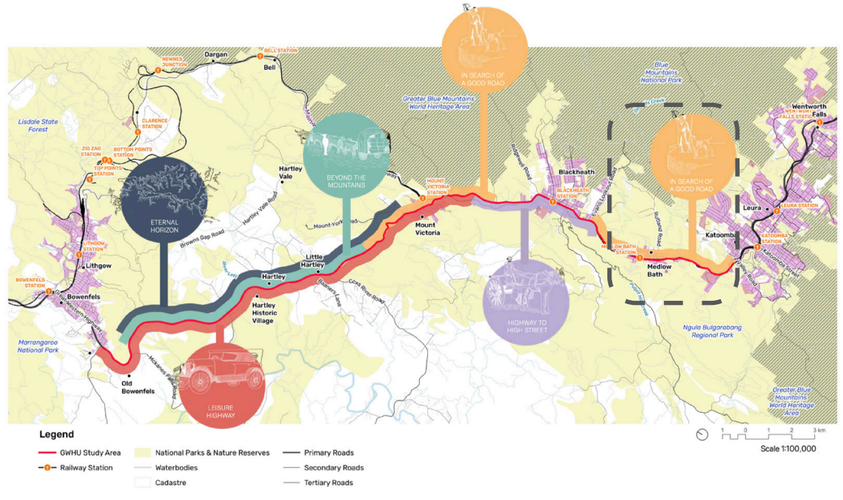



Figure 362: Preliminary Device Locations - Medlow Bath circled.

Source: GWHUP Interpretive Framework GML, p.63.

24: Balarinji,*Great Western Highway Upgrade Program, Aboriginal Heritage Cultural Interpretation Plan and Art Strategy, Body of Story Report*, September 2022.

25: GML Heritage, *Great Western Highway Upgrade Project | Interpretive Framework*, October 2022, p.62.

| INTERPRETATIVE MEDIA OPTIONS | OPPORTUNITIES | CONSTRAINTS |
|---|---|---|
| Integrated design | The design of the public domain could integrate interpretation of the site's history and significance - both Aboriginal and non Aboriginal.<br>Native species could be incorporated into the landscape design.<br>Conservation works could enhance the significance of Medlow Bath Railway Station.<br>Local materials could be used.<br>The design of the footbridge could reference the architecture of the Hydro Majestic Hotel and the railway station.<br>Interpretation could be integrated into furniture within the public domain.<br>The bridge could incorporate viewing platforms. | Needs to be considered early in the design process in order to achieve successful integration. |
| Artworks | Public artworks could incorporate interpretation, both Aboriginal and non Aboriginal. These could be in the form of landscape elements or sensory interpretive devices. | Time and cost of artist engagement. |
| Naming Places | Aboriginal language could be used in signage for dual naming and a Welcome to Country. | Wayfinding needs to be clear and simple. |
| Tours | The footbridge could be part of a guided or unguided tour of Medlow Bath. These could be provided by Blue Mountains City Council, the local Historical Society or in partnership with the Hydro Majestic Hotel. | Guided tours require paid guides or trained volunteers. This requires an ongoing commitment to the education of guides.<br>Brochures would need to be made available for unpaid tours. This could be online. |
| Digital Technologies | The development of digital technologies continues to create new opportunities for interpretation. Digital products have the potential to relate all themes of the site and contain a wide range of images and text that could explore the layers of the site's history. Triggers could be installed within the footbridge and the landscape that link to a mobile application that reveals a web based site history.<br>The use of digital products including QR codes and smartphone apps can be a more discreet way to provide layers of interpretation at a site. An interpretation sign or a heritage item display, when combined with such elements, could have minimal text but still engage the public and provide relevant and robust historic information. | Digital products are expensive to set up.<br>Requires careful co-ordination and extensive technical input.<br>Necessitates frequent maintenance/continuous highly trained IT management.<br>Technology can date quickly. |
| Site Programming | Not appropriate. | Spatial constraints either side of the rail corridor and a major highway.<br>Requires ongoing commitment to staffing and programming of activities. |
| Artefact/ Movable Heritage Items Display | Aboriginal or Non Aboriginal artefacts discovered during any archaeological excavations could be displayed with associated interpretative material. | Security of artefacts. Vandalism including graffiti.<br>Cost of display including lighting.<br>Conservation requirements related to environmental conditions. |
| Graphic panels with text and images | Graphic signage panels with text and images have the potential to interpret all themes with supporting historic images at a relatively low cost and could be in the form of a timeline.<br>High visual presence can aid orientation. Needs minimal supervision.<br>Historic images provide an effective 'link' to the past.<br>Easy for the audience to use, particularly those not tech savvy. | Prone to vandalism. Need to be appropriately located and well lit.<br>Can be counter-productive if over utilised and result in visual clutter.<br>Content must be by an interpretation designer with knowledge of target audiences.<br>Signage for interpretation should be compatible with any wayfinding signage. |

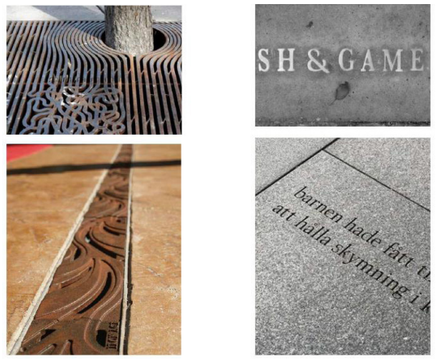



Figure 363: Precedent examples of paving inlays.
Source: Trigger 2018.



Figure 364: Precedent examples of digital products comparing historic images to current.
Source: Curio Projects 2018.




Figure 365: Examples of signage and wayfinding signage.
Source: Balarinji 2018.

Table 5: Interpretive Media Options.
Source: TZG Architects 2022.

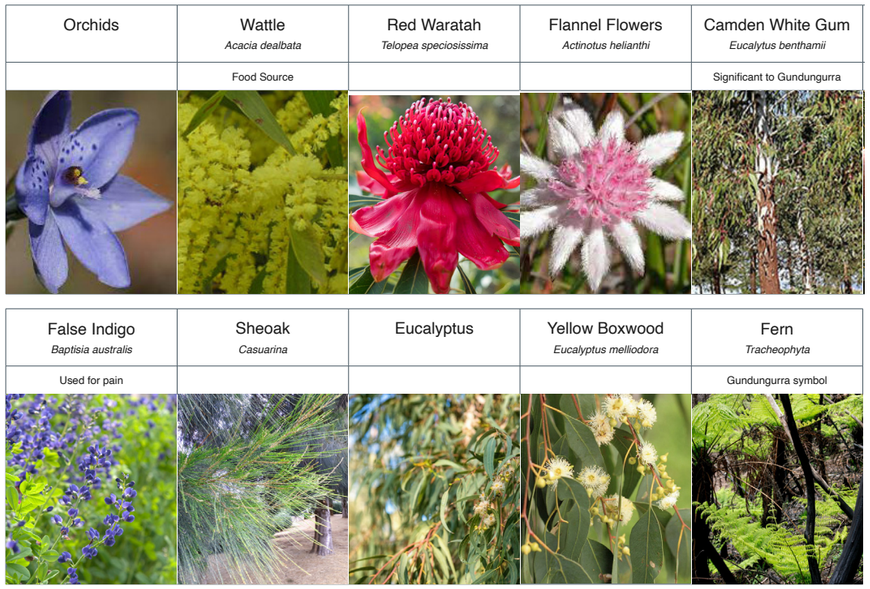



Figure 366: Native plants that could be used in the landscape design.
Source: Balarinji, GWHUP, Body of Story Report, 2022, p.16.




Figure 367: Interpretive signage at Marrickville Railway Station.
Source: Photograph TZG.




Figure 369: Database and publications.
Source: GML, GWHUP, Interpretive Framework, 2022, p.63.



Figure 368: Integrated interpretation Oatley Station footbridge.
Source: http://www.tzg.com.au/project/oatley-railway-station-upgrade/

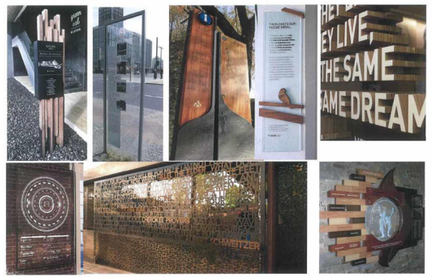


Figure 372: Precedent examples of external recognition plaques/signage.
Source: Balarinji 2018.

## 11.7 Interpretation Framework

The project offers the opportunity to incorporate interpretation into the design of the footbridge and the public domain. This could be supemented by interpretative media of different forms including static interpretation panels and extend to digital media.

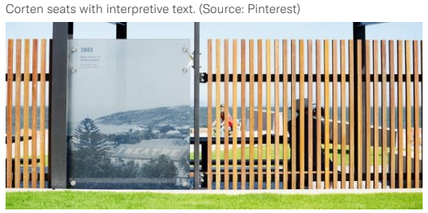
The interpretation framework on the following pages connects the Australian, State and Local Themes with place specific stories related to the site and includes options for interpreting them.




Interpretive text inlaid into furniture elements at Pirrama Park, Pyrmont. (Source: Deuce Design)




Corten seats with interpretive text. (Source: Pinterest)




Esperance Waterfront (Source: Creative Spaces)

Figure 373: Interpretive furniture and public art.
Source: GML, GWHUP, Interpretive Framework, 2022, p.65.

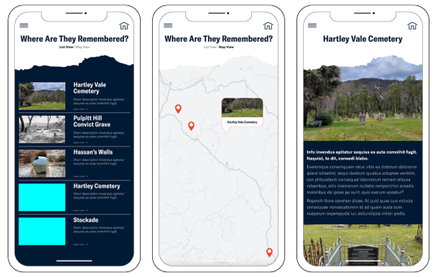


Figure 370: Integrated interpretation Rooty Hill Station and Commuter Carpark.
Source: https://www.designinc.com.au/project/rooty-hill-station-and-commuter-carpark




Memory Wall (Source: Landezine)

Figure 374: Sculpture and public art.
Source: GML, GWHUP, Interpretive Framework, 2022, p.65.




Indicative design of GWHUP app (GML Heritage)

Figure 371: Phone App.
Source: GML, GWHUP, Interpretive Framework, 2022, p.62.



Figure 375: Sensory devices.
Source: GML, GWHUP, Interpretive Framework, 2022, p.62.



Figure 376: Integrated timeline interpretation panel, Paddington Reservoir Gardens.
Source: TZG Architects, tzg.com.au



Figure 377: Integrated interpretation in the landscape. The Goodsline, Sydney
Source: ASPECT Studios

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 1. Environment- Tracing the evolution of a continent's special environments | Environment - naturally evolved | Eternal Horizon | | | Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Natural Environment | Blue Mountains National Park | Viewing platform.<br>Interpretive signage.<br>Digital media. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Connection to Country<br>Restoring Country<br>Land management<br>Native planting | Aboriginal pre contact<br>Railway Station<br>Building the rail network<br>Building and maintaining the public railway system<br>Administering the public railway system | Urunga (MB017) | Aboriginal Culture | Incorporating native plants is a key opportunity to connect people with Country and to regenerate Country.<br>Native plants also present an educational opportunity to integrate language, teach about the uses of plants, their role as seasonal indicators, as well as to highlight the precolonial landscape and associated Aboriginal cultural practices. | To be determined in consultation with the Aboriginal community. Could include:<br>Native planting within the public domain.<br>Interpretive signage.<br>Digital media. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Native Fauna | | | Aboriginal Culture | Native planting also has the potential to increase the number of animals in the area and with them the sounds of Country. Animal totems or animal tracks could be used in the design to assist in recognising culturally significant animals and those that are endangered. | To be determined in consultation with the Aboriginal community.<br>Use of animal totems or animal tracks in the design of elements.<br>Interpretive signage.<br>Digital media. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Cultural Protocols | | | Aboriginal Culture | 'Keeping Country on Country' is in line with cultural protocols. In accordance with the principle of sustainability that is central to an Aboriginal worldview of Country, excavated materials and felled trees should be used where possible in construction and potentially in design.<br>The principle of sustainability should be respected by travellers using the highway with Dharug Knowledge ...people should 'take nothing but photographs and leave nothing but footprints.' | Use of Local Materials in the design. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Water Country | | | Aboriginal Culture | The waterways of the area are a life source. They are indicators of seasonal change and routes for transportation, as well as places of healing, birth and ceremony. | Water Sensitive Design |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Sky Country | | | Aboriginal Culture | Sky Country and Aboriginal astronomy could be explored in the design. Wiradjuri stakeholders discussed the importance of astronomy and how the constellations of the sky linked to the land, indicating seasonal changes.<br>Looking to the sky is a universal thing - Sky Country presents an opportunity to celebrate Aboriginal astronomy in a way that connects people. | To be determined in consultation with the Aboriginal community.<br>Interpretive signage.<br>Digital media.<br>Artwork.<br>Viewing platforms.<br>Bridge iconography. |

Table 6: Interpretive Framework Options.
Source: TZG Architects 2022.

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon<br>In Search of a Good Road | Songlines<br>Interconnectedness<br><br>A Travelling and Meeting Place | | | Aboriginal Culture | The Great Western Highway was both a travelling place and a meeting place for Aboriginal people. It traverses Dharug, Gundungurra and Wiradjuri Countries and there are many sites where these cultural groups would meet, establish connections and trade.<br><br>The Blue Mountains are rich in Songlines and trading paths that would have been used regularly by local Aboriginal people prior to colonisation. The Great Western Highway is commonly considered to follow a prominent Songline that existed for thousands of years which followed the ridgeline all the way to Sydney Harbour before the construction of the first European roads.<br><br>Ridge and escarpment represented as songlines.<br><br>Pathway between nations of Wiradjuri in the west and Gundungurra to the east. | To be determined in consultation with the Aboriginal community.<br><br>Interpretive signage.<br><br>Digital media.<br><br>Artwork. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Aboriginal culture is a living culture | | | Aboriginal Culture | The recognition of Aboriginal people both past and present is vitally important to the community's views on the success of design integration. | To be determined in consultation with the Aboriginal community.<br><br>Interpretive signage.<br><br>Digital media. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Connection and Belonging | | | Aboriginal Culture | 'Place is fundamental to our being and without it, we are lost.'<br><br>Acknowledge the connection of Aboriginal people to Medlow Bath and encourage travellers to see this connection and form connections themselves that will increase their respect for Country. | To be determined in consultation with the Aboriginal community.<br><br>To be determined through continued consultation with the Aboriginal community. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Aboriginal language | | | Aboriginal Culture | Language tells you of Country and as you learn language, and place names that come from language, it provides more narrative, knowledge and connection. | To be determined in consultation with the Aboriginal community.<br><br>Naming places - Use of Aboriginal language in dual naming.<br><br>Welcome to Country. |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Technology and Artefacts | | | Aboriginal Culture | Density of artefacts in this region is a reflection of the highway as a major trade route that connected meeting places.<br><br>Technology and artefacts should be explored through design interventions to provide an educational opportunity and link designs more closely to place. | To be determined in consultation with the Aboriginal community.<br><br>Artefact display.<br><br>Interpretive signage.<br><br>Digital media. |

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Truth telling | | | Aboriginal Culture | Acknowledge Aboriginal people and their history of dispossession. There is a wide knowledge of colonial sites and stories celebrated in the region but Aboriginal history is not widely known. Balancing both the Aboriginal history and colonial history is necessary to combat the colonial bias currently present in the narratives that are showcased in the Blue Mountains area. Truth-telling is about both acknowledging the trauma of dispossession and exploring the proud history of resistance and resilience of local cultural groups. | To be determined in consultation with the Aboriginal community.<br>Interpretive signage.<br>Digital media. |
| 2 Peopling Australia | Convict | In Search of a Good Road<br>Beyond the Mountains | | | Former post and telegraph store (MB008)<br>Melbourne House, Cosy Cot, Sheleagh Cottage (MB019) | Establishment of Medlow Bath | Construction of the Great Western Highway | Interpretive signage.<br>Digital media. |
| 2 Peopling Australia | Ethnic Influences | Beyond the Mountains<br>Highway to High Street | | Working on public infrastructure projects<br>Working in the public service<br>Railway work culture | | Transport - rail | Construction of the railway<br>Working on the railways | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Agriculture | In Search of a Good Road<br>Beyond the Mountains | | Building settlements, towns and cities<br>A Picturesque Residential Suburb | Former post and telegraph store (MB008) | Establishment of Medlow Bath | | |
| 3. Economy Developing local, regional and national economies | Commerce | In Search of a Good Road<br>Beyond the Mountains<br>Highway to High Street | | | Former post and telegraph store (MB008)<br>Melbourne House, Cosy Cot, Sheleagh Cottage (MB019) | Establishment of Medlow Bath<br>Tourism | Medlow Bath Post and telegraph store<br>Hydro Majestic Hotel - Health and leisure destination | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Communication | In Search of a Good Road<br>Beyond the Mountains | | | Former post and telegraph store (MB008) | Establishment of Medlow Bath | Former Post and Telegraph Store | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Environment - cultural landscape | Beyond the Mountains<br>The Leisure Highway | | | Avenue of trees (MB015)<br>Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Tourism | Planting of the avenue of Radiata Pines<br>Creation of the Hydro Majestic Gardens and walking tracks<br>Medlow Bath Railway gardens | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Events | Beyond the Mountains<br>The Leisure Highway | | Landscapes of institutions - productive and ornamental<br>Developing local, regional and national economies | Avenue of trees (MB015)<br>Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Tourism | Planting of the avenue of trees<br>Events and performances at the Hydro Majestic Hotel | Interpretive signage.<br>Digital media. |

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 3. Economy Developing local, regional and national economies | Exploration | In Search of a Good Road<br>Beyond the Mountains<br>The Leisure Highway | | Other open space<br>Modification of terrain<br>Changing the environment | Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Tourism | Construction of the Great Western Highway<br>Bushwalking in the Blue Mountains | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Forestry | Highway to High Street | | | | Establishment of Medlow Bath | Brown's Sawmill Siding | Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Health | Beyond the Mountains<br>The Leisure Highway<br>Highway to High Street | | | Hydro Majestic (MB002) | Tourism | Hydropathic Sanitorium, Medlow Bath as a health destination | Integrated design.<br>Interpretive signage.<br>Digital media. |
| 3. Economy Developing local, regional and national economies | Mining | Highway to High Street | | Changing land uses - from rural to suburban<br>Townships<br>Suburban Centres<br>Resuming private lands for public purposes<br>Granting Crown lands for private farming<br>Changing land uses - from rural to tourist<br>Administering and alienating Crown lands<br>1820s-1850s land grants | Former post and telegraph store (MB008)<br>Urunga (MB017)<br>Melbourne House, Cosy Cot, Sheleagh Cottage (MB019) | Establishment of Medlow Bath | | Interpretive signage.<br>Digital media. |

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 3. Economy Developing local, regional and national economies | Pastoralism | In Search of a Good Road<br><br>Beyond the Mountains | | Going drinking in bars or clubs<br><br>Visiting lookouts and places of natural beauty<br><br>Tourism<br><br>Outdoor relief<br><br>Going to a restaurant<br><br>Going dancing<br><br>Going bushwalking<br><br>Gathering at landmark places to socialise<br><br>Enjoying public parks and gardens<br><br>Climbing mountains and peaks<br><br>Activities associated with relaxation and recreation | Hydro Majestic (MB002)<br><br>Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Establishment of Medlow Bath<br><br>Tourism | Medlow Bath as a destination for locals and tourists | Interpretive signage.<br><br>Digital media. |
| 3. Economy Developing local, regional and national economies | Transport | In Search of a Good Road<br><br>Beyond the Mountains | | | Urunga (MB017)<br><br>Horse Trough (MB013) | Transport - road and rail | Medlow Bath Railway Station and Urunga - Station Masters cottage | Interpretive signage.<br><br>Digital media. |
| 4. Settlement Building settlements, towns and cities | Towns, suburbs and villages | Beyond the Mountains<br><br>Highway to High Street<br><br>The Leisure Highway | | Railways connecting industry and ports<br><br>Suburban Consolidation<br><br>Roadways to Inland Settlements<br><br>Public Transport - suburban railway lines | | Establishment of Medlow Bath<br><br>Transport - road and rail | Establishment of Medlow Bath as a town<br><br>Medlow Bath Railway Station | Interpretive signage.<br><br>Digital media. |

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 4. Settlement Building settlements, towns and cities | Land tenure | Highway to High Street | | Developing roles for government - providing public transport<br>Developing roles for government - conserving cultural and natural heritage<br>Developing roles for government - building and operating public infrastructure<br>Developing roles for government - building and administering rail networks<br>Developing roles for government - administration of land | Former post and telegraph store (MB008)<br>Urunga (MB017)<br>Melbourne House, Cosy Cot, Sheleagh Cottage (MB019) | Establishment of Medlow Bath<br>Transport - road and rail | Establishment of Medlow Bath as a town<br>Medlow Bath Railway Station | Interpretive signage.<br>Digital media. |
| 4. Settlement Building settlements, towns and cities | Utilities | Highway to High Street | | Railways to inland settlements | Horse Trough (MB013) | Transport - road | | Interpretive signage.<br>Digital media. |
| 4. Settlement Building settlements, towns and cities | Accommodation | Beyond the Mountains<br>Highway to High Street<br>The Leisure Highway | | | Former post and telegraph store (MB008) | Establishment of Medlow Bath<br>Tourism | Hydro Majestic Hotel<br>Residential Accommodation | Interpretive signage.<br>Digital media. |
| 5. Working-Working | Labour | In search of a Good Road | | Working in the public service<br>(See also Migration) | | Transport - road and rail | Railway workers | Interpretive signage.<br>Digital media. |
| 7. Governing | Defence | Highway to High Street<br>The leisure highway | | | Former post and telegraph store (MB008) | Establishment of Medlow Bath | American soldiers in Hydro during WWII | Interpretive signage.<br>Digital media. |
| 7. Governing | Government and Administration | In search of a Good Road<br>Beyond the Mountains<br>Highway to High Street | | State government | Former post and telegraph store (MB008) | Transport - road and rail<br>Establishment of Medlow Bath | Medlow Bath Railway Station<br>Former post and telegraph store | Interpretive signage.<br>Digital media. |
| 7. Governing | Law and order | In Search of a Good Road<br>Beyond the Mountains<br>Highway to High Street | | | Hydro Majestic (MB002) | Tourism | Hydro Majestic Hotel | Interpretive signage.<br>Digital media. |
| 7. Governing | Welfare | Highway to High Street<br>The Leisure Highway | | 20th century Suburban Developments<br>19th Century infrastructure<br>20th Century infrastructure | Horse Trough (MB013) | Transport - road and rail | Provision of public transport | Interpretive signage.<br>Digital media. |

| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | MEDLOW BATH RAILWAY STATION SHR LISTING | OTHER LEP LISTINGS | PROJECT SITE THEMES | POSSIBLE STORIES TO BE INTERPRETED | INTERPRETIVE MEDIA OPTIONS |
|---|---|---|---|---|---|---|---|---|
| 8. Culture- Developing cultural institutions and ways of life | Domestic Life | Beyond the Mountains<br>Highway to High Street<br>The Leisure Highway | | | | Tourism | Hydro Majestic Hotel staff | |
| 8. Culture- Developing cultural institutions and ways of life | Creative endeavour | Highway to high street<br>The Leisure Highway | | | Former post and telegraph store (MB008) | Establishment of Medlow Bath<br>Tourism | Hydro Majestic Hotel buildings<br>Former post and telegraph store | Integrated design. |
| 8. Culture- Developing cultural institutions and ways of life | Leisure | Beyond the Mountains<br>Highway to High Street<br>The Leisure Highway | | | Hydro Majestic (MB002)<br>Avenue of trees (MB015)<br>Hydro Majestic - original walking track complex (part within Hydro grounds) (MB026) | Tourism | Hydro Majestic Hotel, Medlow Bath as a health and leisure destination | Interpretive signage.<br>Digital media. |
| 8. Culture- Developing cultural institutions and ways of life | Religion | Beyond the Mountains<br>Highway to High Street<br>The Leisure Highway | | | Former post and telegraph store (MB008) | Establishment of Medlow Bath | | |
| 8. Culture- Developing cultural institutions and ways of life | Social Institutions | Highway to High Street<br>The Leisure Highway | | | Hydro Majestic (MB002)<br>Former post and telegraph store (MB008)<br>Avenue of trees (MB015) | Tourism | Hydro Majestic Hotel<br>Flannagans Dance Hall<br>Planting of Avenue of trees | Interpretive signage.<br>Digital media. |
| 8. Culture- Developing cultural institutions and ways of life | Sport | Highway to high street<br>The Leisure Highway | | | Former post and telegraph store (MB008) | Tourism | Hydro Majestic Hotel<br>Bushwalking | Interpretive signage.<br>Digital media. |
| 9. Marking the phases of life | Persons | In Search of a Good Road<br>Beyond the Mountains<br>Highway to High Street<br>The Leisure Highway | | | Hydro Majestic (MB002)<br>Former post and telegraph store (MB008)<br>Avenue of trees (MB015) | Establishment of Medlow Bath<br>Tourism | Hydro Majestic Hotel<br>Mark Foy<br>Dr Baur<br>Dr Cale<br>Sir Joynton Smith | Interpretive signage.<br>Digital media. |

## 11.8 Interpretation Strategy

The following table, and diagram on the following page, identify key historic themes to be explored within the Medlow Bath project during the next phases of development.

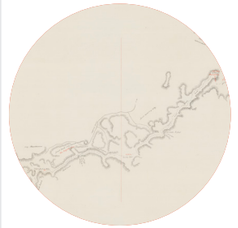
| AUSTRALIAN THEME | NEW SOUTH WALES THEME | LOCAL THEMES GWHUP (GML) | ABORIGINAL THEMES (BALARINJI) | PROJECT SITE THEMES | |
|---|---|---|---|---|---|
| 1. Environment | Environment - naturally evolved | Eternal Horizon | | Natural Environment |  |
| 2 Peopling Australia | Aboriginal cultures and interactions with other cultures | Eternal Horizon | Multiple themes | Aboriginal Culture<br>– Wiradjuri<br>– Gundungurra |  |
| 3. Economy | Transport | In Search of a Good Road | | Transport<br>– Great Western Highway |  |
| | | | | Transport<br>– Railway |  |
| 4. Settlement | Towns, suburbs and villages | Highway to High Street<br>The Leisure Highway | | Medlow Bath |  |
| 8. Culture | Leisure | Highway to High Street<br>The Leisure Highway | | Tourism<br>– Health<br>– Leisure |  |

Table 7: Key historic themes for interpretation.

# Key Historic Themes

NATURAL ENVIRONMENT
Eternal Horizon
Megalong Valley

ABORIGINAL CULTURE
Eternal Horizon
Wiradjuri

TRANSPORT
In Search of a Good Road
Great Western Highway

TOURISM
The Leisure Highway
Health and Leisure
Hydro Majestic Hotel

MEDLOW BATH
Highway to High Street

MEDLOW BATH
Highway to High Street
Post and Telegraph Store

TRANSPORT
Rail

NATURAL ENVIRONMENT
Eternal Horizon
Greater Blue Mountains Area
World Heritage

ABORIGINAL CULTURE
Eternal Horizon
Gundungurra

B R I D G E

## 11.9 Interpretation Summary

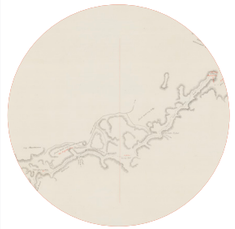
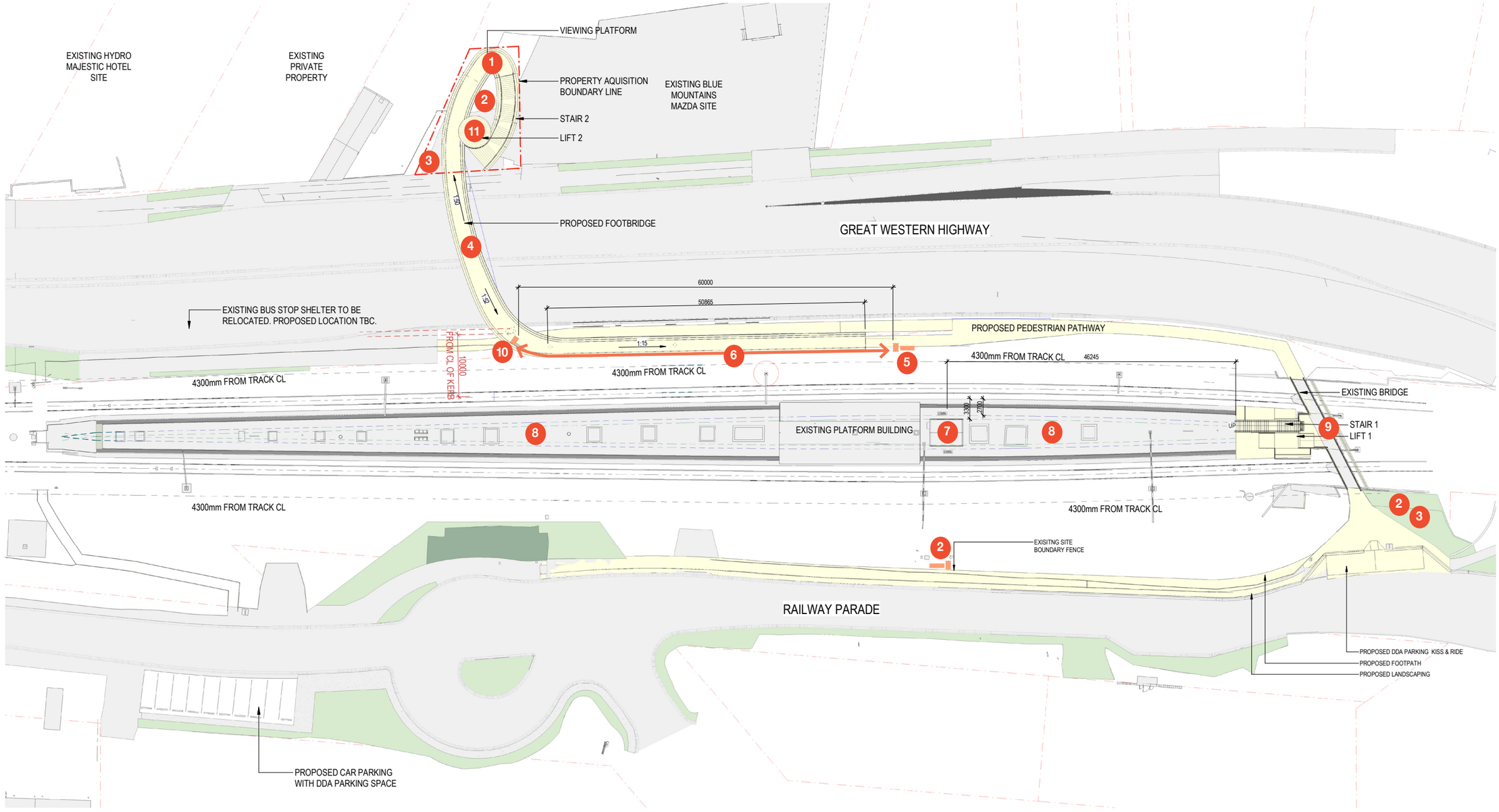
| LEVEL | INTERPRETIVE THEMES | PROJECT SPECIFIC THEMES | | STORIES | INTERPRETATION OPPORTUNITY | LOCATION | # |
|---|---|---|---|---|---|---|---|
| National | Environment | Natural Environment |  | Megalong Valley, the Blue Mountains National Park and Greater Blue Mountains World Heritage Area.<br>Native and endangered flora and fauna. | Lookout incorporated into the bridge with views towards the Megalong Valley and walking trails.<br>Integrated design/Interpretive signage with text and graphics. QR code could link to further digital content. | Bridge lookout - western side of highway. | 1 |
| State | Environment - naturally evolved | | | | Native planting in the public domain including rare and endangered species.<br>Use of local materials and water sensitive design | Public domain - landscaped areas. | 2 |
| Local | Eternal Horizon | | | | | | |
| National | Peopling Australia | Aboriginal Culture<br>– Wiradjuri<br>– Gundungurra |  | To be guided by an Aboriginal Elder.<br>Relationship between Wiradjuri and Gundungurra people.<br>Significance of walking trails below the Hydro Majestic to the local Aboriginal community.<br>Aboriginal stories related to the Megalong Valley, the Blue Mountains National Park and World Heritage Area. | To be guided by an Aboriginal Elder.<br>Integrated design/Interpretive signage with text and graphics including a Welcome to Country and the use of Aboriginal language. | Public domain | 3 |
| State | Aboriginal cultures and interactions with other cultures | | | | Integrated design - bridge as a pathway between two nations with ridge and escarpment as songlines. | Bridge | 4 |
| Local | Eternal Horizon | | | | Native planting, use of local materials and water sensitive design. | Public domain - landscaped areas. Refer 2. | |
| National | Economy | Transport<br>– Great Western Highway |  | Construction of Great Western Highway. | Integrated design/Interpretive signage with text and graphics. Could be integrated into design of rest spot.<br>QR code could link to further digital content.<br>Integrated design - patterened concrete balustrade along railway corridor side of ramp. | Rest spot before ramp.<br>Between rest spots. | 5<br>6 |
| State | Transport | | | | | | |
| Local | In Search of a Good Road | | | | | | |
| National | Economy | Transport<br>– Railway |  | Construction of the railway.<br>Browns's Sawmill siding.<br>Working on the railways.<br>Urunga, Station Master's Cottage. | Conservation works to Signal Hut.<br>Integrated design/Interpretive signage with text and graphics.<br>QR code could link to further digital content.<br>Cultural plantings in planters on platform. | Railway Station | 7<br>8 |
| State | Transport | | | | | | |
| Local | In Search of a Good Road | | | | | | |
| National | Settlement | Medlow Bath |  | Establishment of Medlow Bath as a town.<br>Medlow Bath Post and Telegraph Store.<br>Horse Trough.<br>Avenue of trees. | Wayfinding signage to include map with identification of key heritage items within Medlow Bath.<br>QR code could link to further digital content. | Station Footbridge wayfinding signage. | 9 |
| State | Towns, suburbs and villages | | | | | | |
| Local | Highway to High Street<br>The Leisure Highway | | | | | | |
| National | Culture<br>Persons | Tourism<br>– Health<br>– Leisure |  | Hydropathic Sanitorium.<br>Medlow Bath as a health and leisure destination.<br>Events and performances at the hotel.<br>Bushwalking in the Blue Mountains - Hydro Majestic walking track complex.<br>Persons - Mark Foy, Dr Baur, Dr Cale, Sir Joynton Smith | Integrated design/Interpretive signage with text and graphics. Could be integrated into design of rest spot.<br>QR code could link to further digital content. | Rest spot at top of ramp looking towards Hydro complex. | 10 |
| State | Leisure | | | | Integrated design - choice of cladding materials for lift reveals. | Lift west side | 11 |
| Local | Highway to High Street<br>The Leisure Highway | | | | | | |

Table 8: Interpretation Summary.
Source: TZG Heritage.


EXISTING HYDRO MAJESTIC HOTEL SITE
EXISTING PRIVATE PROPERTY
VIEWING PLATFORM
PROPERTY AQUISITION BOUNDARY LINE
EXISTING BLUE MOUNTAINS MAZDA SITE
STAIR 2
LIFT 2
PROPOSED FOOTBRIDGE
GREAT WESTERN HIGHWAY
EXISTING BUS STOP SHELTER TO BE RELOCATED. PROPOSED LOCATION TBC.
60000
50865
1:15
1:30
PROPOSED PEDESTRIAN PATHWAY
4300mm FROM TRACK CL
FROM CL OF KERB
10000
4300mm FROM TRACK CL
4300mm FROM TRACK CL
46245
EXISTING BRIDGE
EXISTING PLATFORM BUILDING
3300
2700
STAIR 1
LIFT 1
UP
4300mm FROM TRACK CL
4300mm FROM TRACK CL
EXISITNG SITE BOUNDARY FENCE
RAILWAY PARADE
PROPOSED DDA PARKING KISS & RIDE
PROPOSED FOOTPATH
PROPOSED LANDSCAPING
PROPOSED CAR PARKING WITH DDA PARKING SPACE

# Relevant Precedents

1

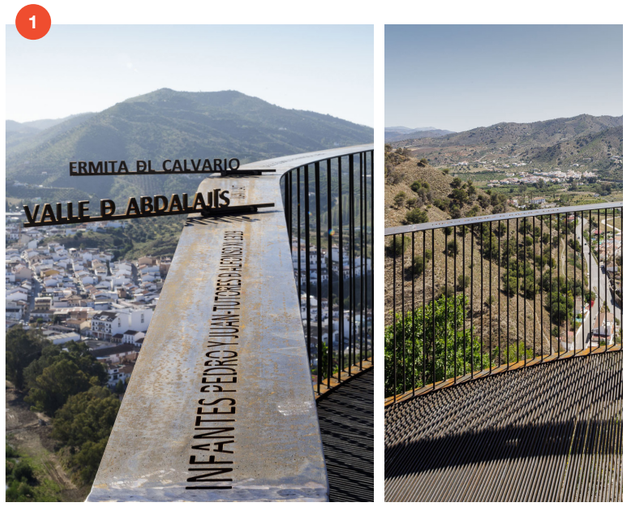


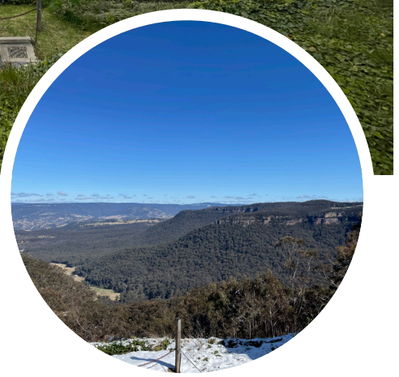

Figure 378: Example of interpretive signage at the lookout point on Calle Cerro in Malaga, Spain.

Source: Archdaily, https://www.archdaily.com/918219/360-degrees-viewpoint-waterscales-arquitectos.



Figure 384: View from lookout point.

Source: TZG Architects, 2022.



2



Figure 379: Example of native plants that could be used in the landscape design.

Source: Balarinji, GWHUP, Body of Story Report, 2022, p.16.

Orchids; Acacia dealbata; Telopea speciosissima; Actinotus helianthi; Eucalytus benthamii; Xylomelum pyriforme; Baptisia australis; Casuarina; Eucalyptus; Eucalyptus melliodora; Tracheophyta

3




Figure 381: Cast bronze plaques installed on the summit of Mt Talowla in Toorale National Park.

Source: Trigger, https://www.triggerdesign.com.au/toorale-national-park-interpretive-experience/

Horizontal format

3



Figure 380: Collection of 24 dendroglyphs by Aboriginal artist Warwick Keen at the Mosman Art Gallery.

Source: ABC News, https://www.abc.net.au/news/2016-02-19/warwick-keen-bringing-back-lost-aboriginal-art-of-carved-trees/7185890.

Vertical format

4

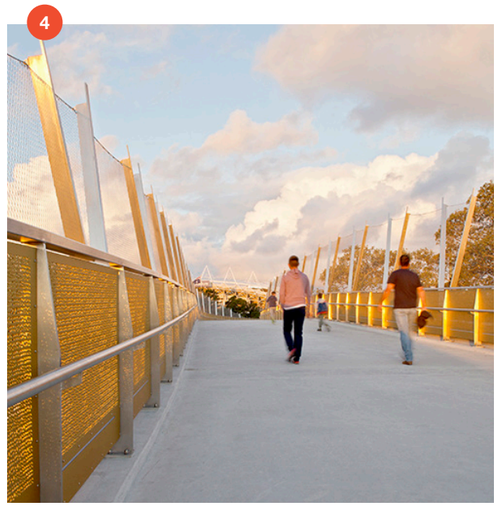


Figure 382: Albert Tibby Cotter Bridge, Anzac Parade, Kensington, Sydney.

Source: https://www.tensile.com.au/project/albert-tibby-cotter-pedestrian-bridge/

5 10




Figure 383: Example of seating with interpretive text at Parramatta Square.

Source: https://www.triggerdesign.com.au/parramatta-square-interpretation

7





Figure 386: Signal Room.
Source: TZG Architects, 2022.

8






Figure 387: Photo of the platform gardens taken in c1935 (top) and 1954 (above).
Source: NLA, PIC P838/792a LOC Nitrate store PIC Box 24, https://nla.gov.au/nla.obj-141914096/view
NSW State Archives, Image Number oai: records.nsw.gov.au:17420_a014_a014000748.jpg, 17420_a014_a014000748



**1890s** Ferns; agave; aloe; cannas; climbing fig; geraniums; ivy-leaved geraniums; honeysuckle; ivy; Kennedya; native gigantic lily; cabbage tree palm; date palm; pig-face; cypress pine; native trailing plants

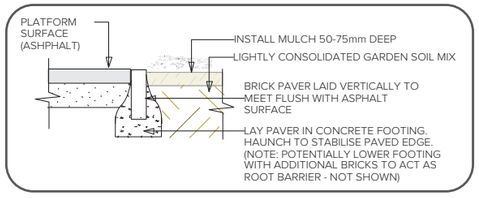
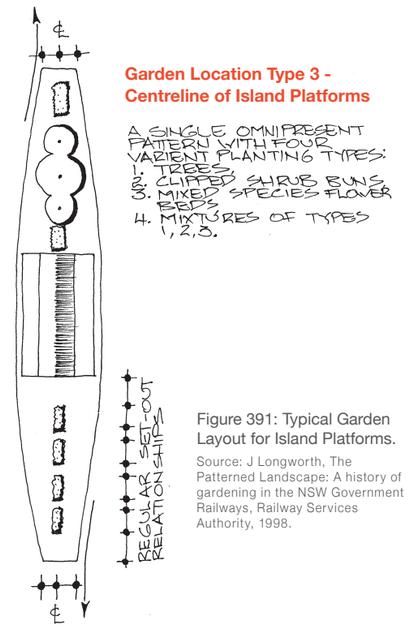



Figure 390: Example of brick edge detail for the garden beds at Lawson Station.
Source: Woodside Plants & Design, 2018.



**1900s** Ferns; palms; salt bush; amaranthus; Ampelopsis aaderaces; snapdragon; asters; balsams; begonias; bougainvillea; box; brugmansia; Calliopsis; candytuft; carnations; catalpa; cinerarias; Clematis jacmanni; cockscomb; cosmos; daffodil; dahlias; delphiniums; dianthus; digitalis; birds--nest ferns; tree ferns; Ficus stipulate; fuchsia; gaillardia; gloxinias; heliotrope; hollyhocks; elk-horns; stag--horns; hyacinths; larkspur; liliums; blue lobelia; Magnolia anonaefolia; marigolds; mignonette; pansies; sweet pea; pelargoniums; penstemons; pepper trees; petunia; Phlox drummondi; perennial phlox; Phaseolus caracalla; pittosporum; myrabolam plum; poppies; primulas; evergreen prunus; climbing roses; roses; scabiosa; Brompton stocks; sunflowers; tasconia; tecoma; tulips; verbenas; lilac; wisteria; zinnias; anemones; boronia; bougainvilla; buffalo grass; dolichos; eriostemon; geraniums; ixia; palms; Acacia baileyana; cannas; chrysanthemum; cornflowers; Escallonia macranthe; escholtzia; freesias; fuchsias; gazanias; ligustrum; pig's face; narcissus snowflakes; sweet peas; climbing pelargonium; spiraea



**Garden Location Type 3 - Centreline of Island Platforms**

A SINGLE OMNIPRESENT PATTERN WITH FOUR VARIENT PLANTING TYPES:
1. TREES
2. CLIPPED SHRUB RUNS
3. MIXED SPECIES FLOWER BEDS
4. MIXTURES OF TYPES 1, 2, 3.

REGULAR SET-OUT RELATIONSHIPS

Figure 391: Typical Garden Layout for Island Platforms.
Source: J Longworth, The Patterned Landscape: A history of gardening in the NSW Government Railways, Railway Services Authority, 1998.

9




Figure 385: Example of local destination signage on footbridge to match TfNSW standard.
Source: TZG Architects, 2022.

11

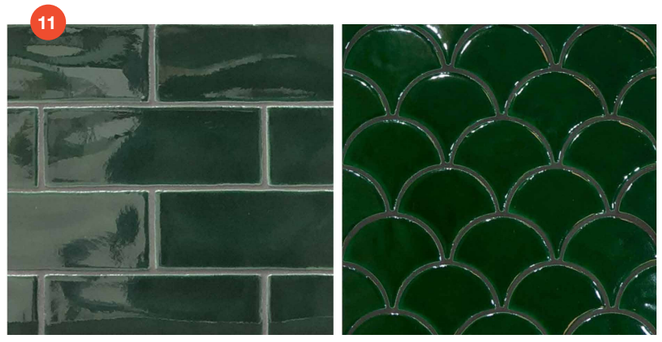


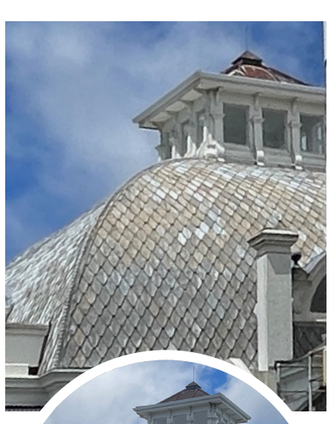


Figure 388: Example of feature tiles that could be used in the lift reveal.
Source: DesignInc, 2022.

6 11









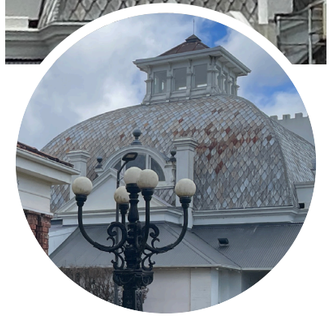



Figure 389: Examples of patterns from the surrounding buildings that could be interpreted.
Source: TZG Architects, 2022.

# 11.10 Implementation

### 11.10.1 Funding

As most of the interpretation proposed is integral to the design it has been included in the overall budget for the Medlow Bath footbridge.

### 11.10.2 Skills

The skills of experienced tradespeople will be required to ensure the works proposed at Medlow Bath Railway Station are achieved with minimal heritage impact. This work will need to be carefully documented in the drawings and specification for the project.

The production of the interpretative media including signage and digital material will require specialist skills to write the text, secure copyright clearances for content, design artwork and design web based content and to arrange for manufacture.

### 11.10.3 Timeframe

Material and technology choices for interpretive media need to be based on a clear understanding of their expected lifespan, upgrading requirements and audience use, particularly for elements located within the public domain which are subjected to the elements and heavy public use.

On-going maintenance of the interpretive media such as regular cleaning and periodic remedial work to remove graffiti will be required.

### 11.10.4 Management

Role of Owners

The installation of the interpretative media will require management supervision. The site will be used by a variety of users. It is best practice if the management of the interpretative media is undertaken by the owners of the site (Transport for NSW). Clear lines of responsibility will need to be drawn prior to handover of the various parts of the site.

Transport for NSW should ensure:

- The users of Medlow Bath Railway Station are aware of the heritage values of the site.
- Furniture, plantings, signs, etc do not obscure interpretative media.
- The interpretative media is not damaged.
- The interpretative media is covered by the insurance policy for the place.

Transport for NSW is responsible for the endorsement of this Interpretation Strategy.

The proposed interpretative media should be open to review by the Transport for NSW in the future.

If ownership of the site is transferred the responsibility for the management of the interpretation should also be transferred.

# Appendix B TfNSW consultation summary

# Consultation Summary Report

## Medlow Bath Station Access Upgrade

### Transport Access Project (TAP)/Great Western Highway Upgrade Program (GWHUP)



**July** 2023 | Version: 1

# Contents


1 Executive Summary ..... 3
Purpose of this Report ..... 4

2 Consultation ..... 5
Values ..... 5
Consultation approach ..... 5
How Consultation Took Place: ..... 6

3 Consultation Summary ..... 7
Overview ..... 7
Issues and outcomes raised during consultation ..... 8
Ongoing consultation ..... 14

4 Outcomes ..... 15

5 Appendices ..... 16


| | |
|---|---|
| **Author:** | Medlow Bath Station Access Upgrade Consultation Summary Report |
| **Date:** | July 2023 |
| **Version:** | 1 |
| **Reference:** | |
| **Division:** | Infrastructure & Place |
| **Review date:** | July 2023 |

# 1 Executive Summary

Transport for NSW (Transport) has developed a new design for the Medlow Bath Station Upgrade and Pedestrian Bridge in response to submissions received during the display of the Review of Environmental Factors (REF) when the original design of a pedestrian footbridge over the highway and railway was presented to the community.

In response to comments from the community, Heritage Council of NSW (HNSW) and Blue Mountains City Council (BMCC) and to make sure the pedestrian bridge reflected Medlow Bath's heritage character, specialist architects identified heritage principles characterising the precinct to guide the development of three revised design proposals reflecting the appropriate character, place, form and materiality.

Transport formed a community reference group to discuss with and identify key heritage principles and this group provided feedback on development of the three options.

Consultation was sought through the community-based reference group which was assembled through an application and interview process to reflect and seek out feedback from a broad range of residents and business owners of Medlow Bath.

Transport also engaged directly with the owners and operators of the Hydro Majestic, the Medlow Bath Blue Mountains Mazda and the Pot Belly Café, as well Registered Aboriginal Parties advising the project team and Bicycle NSW's Blue Mountains branch, 'Ride Blue Mountains'.

Once the group had agreed on the heritage principles important in Medlow Bath, the contracted architects used those principles to develop three accessible bridge designs.

The community reference group, along with Blue Mountains City Council, including the BMCC heritage advisory group, active transport and disability advocates, and local Aboriginal representatives, considered the designs carefully in relation to heritage and visual impacts, connectivity, and accessibility.

All three options underwent a multi-criteria analysis led by Transport which considered community feedback, accessibility, HNSW feedback, urban design, constructability, maintenance and sustainability.

As a result of the feedback and analysis, Transport is now proceeding with the preferred option bridge design (pictured below) which traverses the highway and links to the existing station footbridge with a new lift and stair to the station. This option presents the least disruptive impact to the heritage precinct of the three options developed.

The bridge contains a lift and staircase on the western side of the of the highway, a footbridge and a ramp on the eastern side of the highway. It also includes a new lift from the existing footbridge over the northern end of the rail corridor to access the station platform. Kiss and ride bays and accessible parking spaces will be built at the northern end of Railway Parade, opposite the café and close to the pedestrian bridge, and near the Railway Parade turning circle near the southern end of the platform. All parts of this upgrade will be accessible and Disability Discrimination Act (DDA) compliant.

***"It is very important to both myself and my husband to have good access to the station as we age."***

*Local Medlow Bath resident*



*Image: Artist impression, preferred bridge design, view looking west from the Great Western Highway*

## Purpose of this Report

This Community Consultation Summary Report (the Report) captures the process and outcomes from the recent consultation about the pedestrian bridge design in Medlow Bath.

Between 9 December 2023 and 21 July 2023, Transport carried out public consultation and invited feedback from the community and stakeholders on the revised bridge designs as part of the Medlow Bath Upgrade on the Great Western Highway.

The insights and feedback gathered from the bridge reference group and other key stakeholders was considered in the selection of the preferred option and development of the preferred bridge design. Transport used the knowledge gained to develop and refine the design to minimise visual and heritage impacts to the township of Medlow Bath while also delivering an accessible crossing of the highway for all users.

# 2 Consultation

## Values

Transport for New South Wales values underpin our decisions and behaviours when working with customers, colleagues, stakeholders and partners. They include:

- Customer focus - We place the customer at the centre of everything we do
- Collaboration - We value each other and create better outcomes by working together
- Solutions - We deliver sustainable and innovative solutions to NSW's transport needs
- Integrity - We take responsibility and communicate openly
- Safety - We prioritise safety for our people and our customers.

## Consultation approach

Following extensive public consultation on the original pedestrian bridge design presented in the original REF, Transport took a more tailored approach regarding consultation with the community on the redesign of the bridge.

Working with a smaller group of community members, representative of different segments of the wider Medlow Bath community, allowed Transport to include the group in more detailed project briefings. The community representatives had the opportunity to interrogate the process and the design, share what they were learning with their contacts in the community, and provide valuable feedback representative of the wider community.

In September 2022, Transport advertised in the local newspaper, The Blue Mountains Gazette and issued an e-newsletter and media release calling for community members to apply to become part of a bridge design reference group.

Transport sought representatives who were residents of Medlow Bath, had an interest in the upgrade, were connected to their local community, and were committed to understanding accessibility principles and collaborating on an improved outcome for Medlow Bath.

Transport received eleven applications, who were interviewed about their connection to Medlow Bath and their interest and motivation in becoming part of the reference group.

Five community representatives were selected to take a role in the bridge design reference group, ensuring residents had a voice in the process. They were joined throughout the process by representatives from Blue Mountains City Council's (BMCC) Strategic Planning group and Heritage and Disability Access Advisory Committees.

The community representatives selected were:

- Nick Stolk, a Medlow Bath resident and father who moved to the area to be closer to family and is involved with Bushcare and the Medlow Bath Resident Association.
- Shane Porteous, a resident who has been involved with the Medlow Bath Highway Action Group, Rural Fire Service and local theatre groups and the Medlow Bath Resident Association.
- Narelle Morrissey, a resident with a love of the environment and connections to local aged care and disability communities.
- Martin Howell, a long-time Blue Mountains resident involved with the Medlow Bath Residents Association.
- George Saad, manager and owner of the Hydro Majestic since 2008 who has strong links to local business, residents and tourism groups.

George Saad later withdrew his position on the design group citing time constraints. Mr Saad was briefed separately as a key stakeholder in his role as owner and operator of the Hydro Majestic.

## How Consultation Took Place

Transport's project team met with the community reference group and BMCC four times as noted in the table below. They were encouraged to share details and information presented at each meeting with the wider community, particularly when the three bridge designs were presented.

**Table 2-1: Consultation tools and activities**

| Tool/Activity | Description |
|---|---|
| **Communications material** | |
| **Bridge banner - Appendix A** | Banners (1.5m x 1m) displayed at Medlow Bath Railway Station entrances advertising the December pop-up stalls. |
| **Bridge design catalogue - Appendix B** | Catalogue containing images of the three bridge design options |
| **Consultation sessions and briefings** | |
| **Reference group briefing sessions** | Meetings with the community reference group:<br>• 9 December 2022: Medlow Bath Heritage values<br>• 22 February 2023: Bridge design options<br>• 28 April 2023: Preferred design option presented<br>• 21 July 2023: Materiality and design finishes |
| **Community pop-up stands** | Pop-up stands open to the Medlow Bath Community to discuss the bridge:<br>• 14 December 2022 - Medlow Bath Railway Station<br>• 17 December 2022 - Pot Belly at Medlow Café<br>• 2 June 2023 – Community BBQ at Medlow Park |
| **Aboriginal stakeholder meetings** | Meetings with our appointed Aboriginal stakeholders:<br>• 22 February 2023 - Medlow Bath Heritage values and design options<br>• 24 May 2023 - Preferred design option presentation |
| **Business meetings** | Meetings with the following businesses:<br>• 24 May 2023 - The Hydro Majestic Hotel<br>• 26 May 2023 - Mazda Medlow Bath<br>• 5 June 2023 - Pot Belly at Medlow Cafe |
| **Blue Mountains Council meetings** | In addition to the design reference group and monthly project meetings, Transport met with other Council representatives:<br>• 23 November 2022 – Pedestrian bridge briefing to Council<br>• 31 May 2023 – Pedestrian bridge briefing to Council<br>• 16 June 2023 – BMCC TAP Design presentation |

| | |
|---|---|
| | • 23 June 2023 – BMCC Access committee site walk and bridge discussion |
| **Ride Blue Mountains** | Meeting with Ride Blue Mountains, the Blue Mountains chapter of Bicycle NSW ti discuss the preferred design outcome:<br>• 8 March 2023 |
| **Media and advertising** | |
| **Advertisement - Appendix C** | 7 September 2022 - Newspaper ad seeking applications for Medlow Bath community members to join the community-based pedestrian bridge reference group appeared in the Blue Mountains Gazette. |
| **Media release - Appendix D** | Two media releases were distributed via the project website and through engagement with local media:<br>• 24 August 2022 - Community invited to have its say on Medlow Bath pedestrian bridge design<br>• 1 May 2023 - Design of the times: Medlow Bath pedestrian bridge plans unveiled |
| **Digital Tools and social media** | |
| **Facebook ad - Appendix E** | Facebook advertisement on Transport for NSW Facebook page Dec 10 – Dec 17 2022 advertising the pop-up stalls |
| **E-newsletters - Appendix F** | Emails issued to people registered for updates that live in Medlow Bath:<br>• 24 August 2022 – Reference group nominations<br>• 9 December 2022 – Advertising pop-up stands<br>• 7 March 2023 – Seeking input on three bridge designs |
| **Direct contact channels** | |
| **Email** | The Program's email, gwh@transport.nsw.gov.au was publicised for the community to contact the project team directly with queries, concerns and to provide feedback on the design options. |
| **Phone** | The project hotline was also advertised for the community to contact the project team directly with queries, concerns, and feedback. The hotline number is 1800 953 777. |

# 3 Consultation Summary

## Overview

The three bridge designs were presented to the community reference group on 22 February 2023 and shared with the wider Medlow Bath community on 7 March 2023 via an email containing images of the three bridge options (see appendix B, image catalogue).

The reference group together with our Aboriginal stakeholders favoured option 2 as it was seen to provide a better outcome in terms of connectivity and accessibility and more closely followed existing pedestrian paths across the railway and highway. However, there were still concerns about the scale and size of option 2 and therefore its impact on the heritage

components of the station and the precinct. There was also consensus from the group that seeking external feedback from the wider community was important and that feedback should be factored into the final decision about the bridge design that would progress to detailed design.

Community members were encouraged to email through their preferred design before 13 March 2023. There were 47 community members that submitted a bridge design preference with 64 per cent of those preferring ‘Option 3’ as it was perceived as having the least visual and heritage impacts.

Additionally, feedback was also sought from key stakeholder groups, Blue Mountains City Council and local businesses, on the bridge design options. A summary of comments and responses appears in table 3.1.



*Image: Option 2 which was ruled out during the consultation process due to scale and visual impacts*

***“Option 2 is way too mid-century and space-age and doesn't fit in at all.”***

*Local Medlow Bath resident*

## Issues and outcomes raised during consultation

Issues raised during consultation with the community and key stakeholders are outlined below.

**Table 3-1: Summary of issues raised during consultation**

| Group | Issue raised | Response |
|---|---|---|
| **Community** | | |
| Reference group | • Visual impact of design<br>• Accessibility to station, bus stop and footpaths<br>• Grade of pedestrian paths<br>• Safety of the design in relation to drop offs and the potential for illegal U-turns at the northern end of Railway Parade<br>• Location of the highway bus stops, particularly for school children<br>• Increased walking distances/times | • Detailed design underway and further consultation to be undertaken with Community, BMCC and Heritage NSW in relation to visual impact, safety and accessibility.<br>• Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements.<br>• A safety audit will also carried out to check the design and reflect on the probability of illegal u-turns at this location.<br>• TfNSW is consultation with local bus operators and is considering permanent relocation of all school bus services in Medlow Bath to pick and drop passengers off at Railway Pde<br>• Walking distances will increase for commuters approaching from the eastern side of the highway, however, they will reduce for commuters approaching from the western side. The inclusion of a kiss and ride opposite the café will assist in shortening walking distances for those getting dropped off from the eastern side.<br>• Fewer lifts to wait for in option 3 compared to option 2 means that waiting times between the lift design are similar. |

| | | |
|---|---|---|
| Residents | • Visual impact of design<br><br>• Accessibility to station, bus stop and footpaths<br>• Grade of pedestrian paths<br>• Safety of the design in relation to drop offs and the potential for illegal U-turns at the northern end of Railway Parade<br>• Increased walking distances/times<br><br>• Landscaping opportunities | • Detailed design underway and further consultation to be undertaken with Community, BMCC and Heritage NSW in relation to visual impact, safety and accessibility.<br>• Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements.<br>• A safety audit will also be carried out to check the design and reflect on the probability of illegal u-turns at this location.<br>• Walking distances will increase for commuters approaching from the eastern side of the highway, however, they will reduce for commuters approaching from the western side. The inclusion of a kiss and ride opposite the café will assist in shortening walking distances for those getting dropped off from the eastern side.<br>• Fewer lifts to wait for in option 3 compared to option 2 means that waiting times between the lift design are similar.<br>• Transport will continue to work with the local community regarding landscaping plans and species selection |
| **Local Government** | | |

| | | |
|---|---|---|
| • Blue Mountains City Council (BMCC) | • Overall need for the pedestrian foot bridge and new ramps structures. | • Medlow Bath Station was identified for an accessibility upgrade as it does not currently meet the key requirements for the Disability Standards for Accessible Public Transport (DSAPT) or the Commonwealth Disability Discrimination Act 1992 (DDA). The existing railway level crossing needs to be removed and pedestrian refuge on the highway will be removed as part of the highway upgrade. The pedestrian bridge with a lift, ramp and stairs will improve safety by reducing pedestrians' interactions with vehicles and trains, and provide for accessible public transport. |
| | • Impacts of the design on the heritage items surrounding the area. | • Detailed design development will address the specific concerns related to impacts on heritage items. Specific materials and design details will be reviewed by a heritage architect and specialist consultants during development. |
| | • Accessibility concerns with preferred design in relation to the location of the bus stops on the highway and access for children using school buses. | • TfNSW is consultation with local bus operators and is considering permanent relocation of all school bus services in Medlow Bath to pick and drop passengers off at Railway Pde. |
| | • Accessibility with increased walking distances for people coming from the southern end of Railway Parade. | • Walking distances will increase for commuters approaching from the eastern side of the highway, however, they will reduce for commuters approaching from the western side. The inclusion of a kiss and ride opposite the café will assist in shortening walking distances for those getting dropped off from the eastern side. |
| | • Ongoing landscaping and maintenance issues. | • Fewer lifts to wait for in option 3 compared to option 2 means that waiting times between the lift design are similar.<br>• Proposed onsite meeting to examine maintenance areas and access, species selection in relation to the long-term maintenance of the surrounding areas |
| **Stakeholder groups** | | |

| | | |
|---|---|---|
| Medlow Bath Aboriginal Represent-atives | • Accessibility concerns | Detailed design underway and further consultation to be undertaken with Community, BMCC and Heritage NSW.<br>Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements |
| | • Options for community involvement in artworks | Detailed design underway and further consultation to be undertaken with Community related to artwork |
| | • Lighting impacts | Lighting will be designed in accordance with relevant Australian Standards. |
| | • Landscaping opportunities | • Transport will continue to liaise closely with our Aboriginal representatives regarding landscaping plans and species selection |
| Ride Blue Mountains | • Advocacy for ramps on either side of the bridge as cyclists will not want to use a lift. | • Space constraints do not allow a ramp on the western side of the highway, as it would create significant property impacts to Hydro Majestic and Blue Mountains Mazda land. |
| **Local Businesses** | | |

| | | |
|---|---|---|
| Pot Belly at Medlow Café | • Visual impact of design<br><br>• Concerns about commuters parking at the northern end of the station and taking up car spaces intended for the café<br><br>• Accessibility to station, bus stop and footpaths<br>• Grade of pedestrian path<br>• Concerns raised regarding the safety of proposed Kiss & Ride on approach to intersection<br>• Increased walking distances/times | • Detailed design development will address the specific concerns related to impacts on heritage items. Specific materials and design details will be reviewed by a heritage architect and specialist consultants during development.<br>• Additional eight car spaces added to design closer to the café.<br>• Request to install 2H timed parking signs has been raised with BMCC to deter commuters from parking there all day.<br><br>• Accessibility, gradient of paths and walking distances to be addressed through detailed design development in accordance with DDA requirements<br>• Road Safety Audit undertaken by the Contractor to confirm that the risk is low and mitigating design in form of kerb extension/island to better delineate motorists.<br><br>• Walking distances will increase for commuters approaching from the eastern side of the highway, however, they will reduce for commuters approaching from the western side. The inclusion of a kiss and ride opposite the café will assist in shortening walking distances for those getting dropped off from the eastern side.<br>Fewer lifts to wait for in option 3 compared to option 2 means that waiting times between the lift design are similar. |

| | | |
|---|---|---|
| Hydro Majestic | • Weather exposure due to increased walked distance from station to Hydro for elderly guests<br>• Visual impact of design<br>• Accessibility to station, bus stop and footpaths | • Detailed design development will address the specific concerns related to impacts on heritage items. Specific materials and design details will be reviewed by a heritage architect and specialist consultants during development. |
| | • Increased walking distances/times | • Walking distances will increase for commuters approaching from the eastern side of the highway, however, they will reduce for commuters approaching from the western side. The inclusion of a kiss and ride opposite the café will assist in shortening walking distances for those getting dropped off from the eastern side.<br>Fewer lifts to wait for in option 3 compared to option 2 means that waiting times between the lift design are similar. |
| | • A preference against the use of 'corten' weathered steel was expressed.<br>• Keenness for the colour of the bridge to match the white colour of the Hydro Majestic | • The corten design option has been ruled out.<br>• The bridge will be light in colour, similar to the current colour of the Hydro Majestic. |
| Mazda | • Operation during construction | Issues around construction and access to the business will be considered and planned for during the development of the construction management plans. |

## Ongoing consultation

The construction contractor and Transport for NSW will continue to engage with the local community, property owners, road users, commuters, and Council to keep them informed of project progress. Consultation activities will include:

- Project information provided through the project website at nswroads.work/gwhmedlow.
- Publication of the finalised bridge design in the June 2023 Community Update.
- Ongoing consultation with Blue Mountains City Council, TfNSW's Traffic Management Centre, local bus companies and local businesses in relation to staging plans, traffic management, temporary road closures and possible permanent bus stop relocations.
- Ongoing consultation with identified property owners regarding works affecting access, amenity or adjustments to their properties
- Notifications regarding upcoming works distributed via letterbox drops, Email and publication on the Project Page, particularly those involving out of hours work or changes to road use

- Ongoing meetings with the community reference group.

# 4 Outcomes

Community consultation and heritage values were a key factor in the selection of the preferred bridge option.

Both HNSW and community feedback criteria received equal, predominant weighting during the multi-criteria assessment process, together consisting of 40 percent of the total evaluation.

'Option 3' was confirmed as the preferred design and progressed through to detailed design.

Major construction on the pedestrian bridge is anticipated to begin in September 2023.

Transport for NSW will work closely with the contractor to refine the final design of the bridge in response to stakeholder and community feedback on materiality, landscaping and finishes.



*Image: Artist impression of the 'Option 3' bridge design – view from the Great Western Highway looking east.*

***"There may be some commuters who may criticise the extra distance and slopes that they will have to transit. Such travellers will be few and presumably mobile enough to utilise the existing trains and bus services. Option 3 provides a greatly improved reduction in the unwanted overwhelming impact on Medlow Bath."***

*Local Medlow Bath resident*

# 5 Appendices

## Appendix A –

**Bridge banner installed at entrances to the railway station**






# Appendix B –

## Bridge design catalogue

Medlow Bath Upgrade

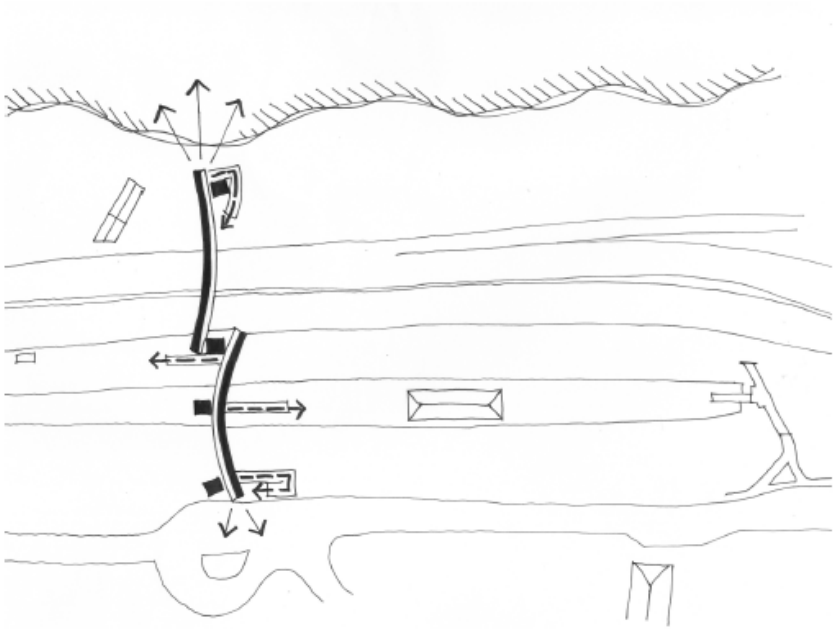
# Pedestrian bridge

transport.nsw.gov.au

March 2023

## Pedestrian footbridge design options

**Option 1:** aerial conceptual sketch *(Artist interpretation – indicative only, design subject to change)*



NSW GOVERNMENT

gwh@transport.nsw.gov.au
transport.nsw.gov.au

1



**Option 1** – view from Great Western Highway looking west *(Artist interpretation – indicative only, design subject to change)*



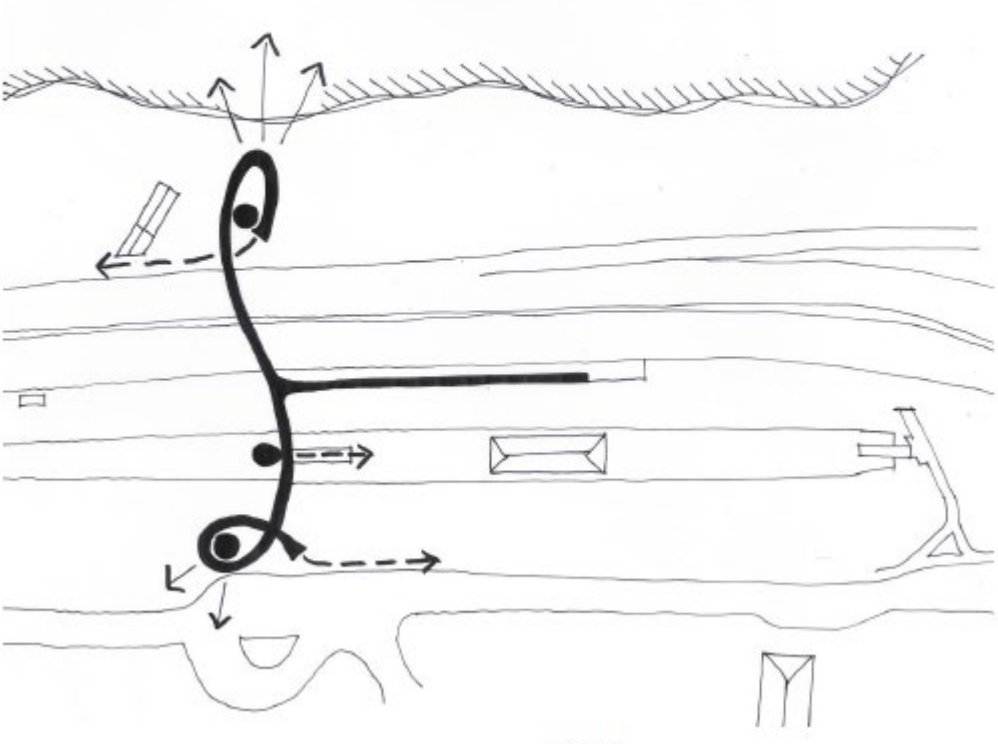
**Option 1** - view from Railway Parade looking east *(Artist interpretation – indicative only, design subject to change)*



**Option 1** - view from Railway Parade looking west *(Artist interpretation – indicative only, design subject to change)*

## Pedestrian footbridge design options

**Option 2:** aerial conceptual sketch *(Artist interpretation – indicative only, design subject to change)*





**Option 2** – view from Great Western Highway looking west *(Artist interpretation – indicative only, design subject to change*



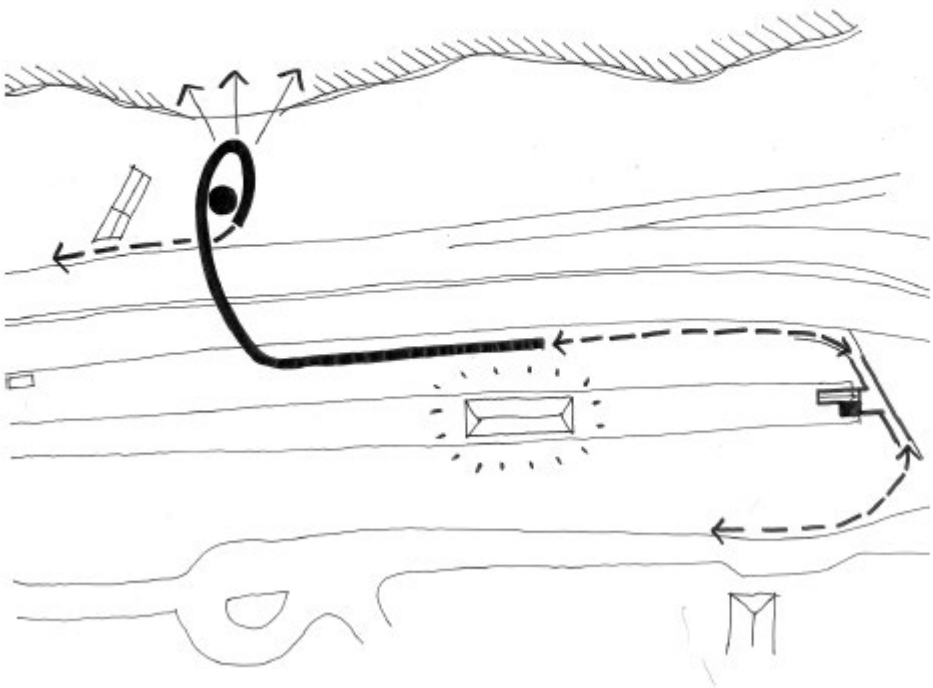
**Option 2** - view from Railway Parade looking east *(Artist interpretation – indicative only, design subject to change)*



**Option 2** - view from Railway Parade looking west *(Artist interpretation – indicative only, design subject to change)*

## Pedestrian footbridge design options

**Option 3:** aerial conceptual sketch





**Option 3** – view from Great Western Highway looking west *(Artist interpretation – indicative only, design subject to change)*



**Option 3** - view from Railway Parade looking east *(Artist interpretation – indicative only, design subject to change)*



**Option 3** - view from Railway Parade looking west *(Artist interpretation – indicative only, design subject to change)*



**Option 3 – corten variation.** As Corten requires less maintenance, it can be built to a smaller scale *(Artist interpretation – indicative only, design subject to change)*

# Appendix C –

**Newspaper advertisement Blue Mountains Gazette 7 Sept 2022**



NSW

## Get Involved Medlow Bath Pedestrian Bridge Briefings

**Community representative nominations now open**

**Want to contribute to your community?**

Transport for NSW (Transport) is doing a heritage analysis of the Medlow Bath precinct to inform the development of an accessible pedestrian bridge at the State Heritage listed Medlow Bath Railway Station.

This process will help make sure that Heritage and accessibility requirements are properly addressed. Transport will work with community and other stakeholders to identify heritage values within the precinct and will then develop a design reflecting these values.

Transport is seeking local representatives to provide a community perspective and ensure community concerns are considered on the development of the bridge design.

Representatives will join the briefing sessions and help us focus on local values and the concept design before they are presented to the wider community.

We will hold up to two public meetings: to present the heritage values; and then to present a concept design.

**Selection criteria:**
Representatives must:

- be a current resident or landowner in Medlow Bath;
- have knowledge and awareness of the Great Western Highway Upgrade Program, particularly in Medlow Bath, and local community concerns;
- be committed to understanding accessibility principles and requirements that apply to public transport
- not be an elected representative in any level of government; and
- be willing to adhere to the code of conduct and declare any pecuniary interests.

Transport for NSW will appoint three community representatives to participate in these briefings.

You will be expected to contribute constructively and attend up to four meetings.

The role is not renumerated.

If you would like to apply, download a copy of the relevant nomination form and terms of reference at nswroads.work/gwhmedlow

Applications must be lodged by Sunday 11 September and sent to gwhd@transport.nsw.gov.au or Great Western Highway Upgrade Program, PO Box 334, Parkes, NSW, 2870.

**For more information please visit** nswroads.work/gwhmedlow
email gwhd@transport.nsw.gov.au or call the project team on 1800 953 777.

BLZ_RDO 24



OFFICIAL

# Appendix D - Media Releases

## #1: 24 August 2022




Wednesday, 24 August 2022

### COMMUNITY INVITED TO HAVE ITS SAY ON MEDLOW BATH PEDESTRIAN BRIDGE DESIGN

Community members who want to have their say on the design of the Medlow Bath pedestrian bridge are being asked to put their hand up for a consultation group as part of the $4.5 billion Great Western Highway upgrade from Katoomba to Lithgow.

Minister for Regional Transport and Roads Sam Farraway said the inclusion of locals would ensure the community's voice helped shape the final bridge design.

"We all want the bridge to complement the heritage-listed train station and one of Australia's most iconic heritage hotels – the Hydro Majestic," Mr Farraway said.

"Consultation group members will have the opportunity to look more closely at how the design of the bridge has been developed and comment on what they like or don't like about the design options being considered.

"The Great Western Highway upgrade will secure a brighter future for NSW families by making the commute to and from school or work quicker and safer, meaning they will spend less time in traffic and more time with loved ones."

Three representatives will be selected to work with Transport for NSW and will take part in briefing sessions to focus on local heritage values and the concept design before it is presented to the wider community.

Representatives selected to work with Transport for NSW should:

- Be a current resident or landowner in Medlow Bath;
- Have knowledge and awareness of the Great Western Highway Upgrade Program, particularly in Medlow Bath, and local community concerns;
- Be committed to understanding accessibility principles and requirements that apply to public transport
- Not be an elected representative in any level of government; and
- Be willing to adhere to the code of conduct and declare any pecuniary interests.

This section of the upgrade includes widening the highway through Medlow Bath to provide two lanes of traffic in both directions, new lights at Bellevue Crescent, a shared pathway and a pedestrian bridge to provide safer access across the highway to Medlow Bath train station.

Transport for NSW will continue to work closely with Heritage NSW and Blue Mountains City Council on the bridge design.

Applications for community representatives are open until Sunday, 4 September 2022.

For more information or to enquire about how to get involved, phone 1800 953 777 or visit nswroads.work/gwhd.

**MEDIA: Larissa Mallinson | Minister Farraway | 0422 044 061**

**#2: 1 May 2023**

# Design of the times: Medlow Bath pedestrian bridge plans unveiled

A new pedestrian bridge to be built over the Great Western Highway at Medlow Bath will be a simple design that limits the visual impact on the village's unique style.

The final design has been selected from three options following close consultation between Transport for NSW, Heritage NSW, Blue Mountains City Council, as well as selected community and Aboriginal representatives to ensure residents had a say in the process.

The design was analysed against several criteria following these consultations, to assess the relative impact of the options with respect to heritage, customer experience, maintainability, sustainability, the environment and constructability.

Transport for NSW Director West Alistair Lunn said all views were considered during the design selection and the preferred option most successfully addressed the needs of all stakeholders.

It was the least visually intrusive option of the three designs put forward, with reduced vertical elements rising from the ground and two lifts with a mix of stairs and ramps to ground level.

"The new Medlow Bath pedestrian bridge design has been selected to add to, rather than detract from, the wonderful heritage feel of Medlow Bath and the Blue Mountains," Mr Lunn said.

"The selected design offers a low-impact solution that creates a complementary visual and practical link between the heritage-listed railway station on one side of the highway, and the iconic Hydro Majestic hotel on the other."

The new pedestrian bridge will feature a lift and stairs on the western (Hydro Majestic) side of the highway and a ramp that meets the eastern side of the highway.

"A new lift will be installed on the existing footbridge at the station making it easier to access the platform, and a new kiss and ride bay will be built next to the footbridge to reduce the distance some people will have to walk," Mr Lunn said.

"The new bridge will mean people on foot, in wheelchairs, pushing prams and carrying luggage will no longer have to negotiate their way across a busy four-lane highway, making travelling through the precinct safer for all.

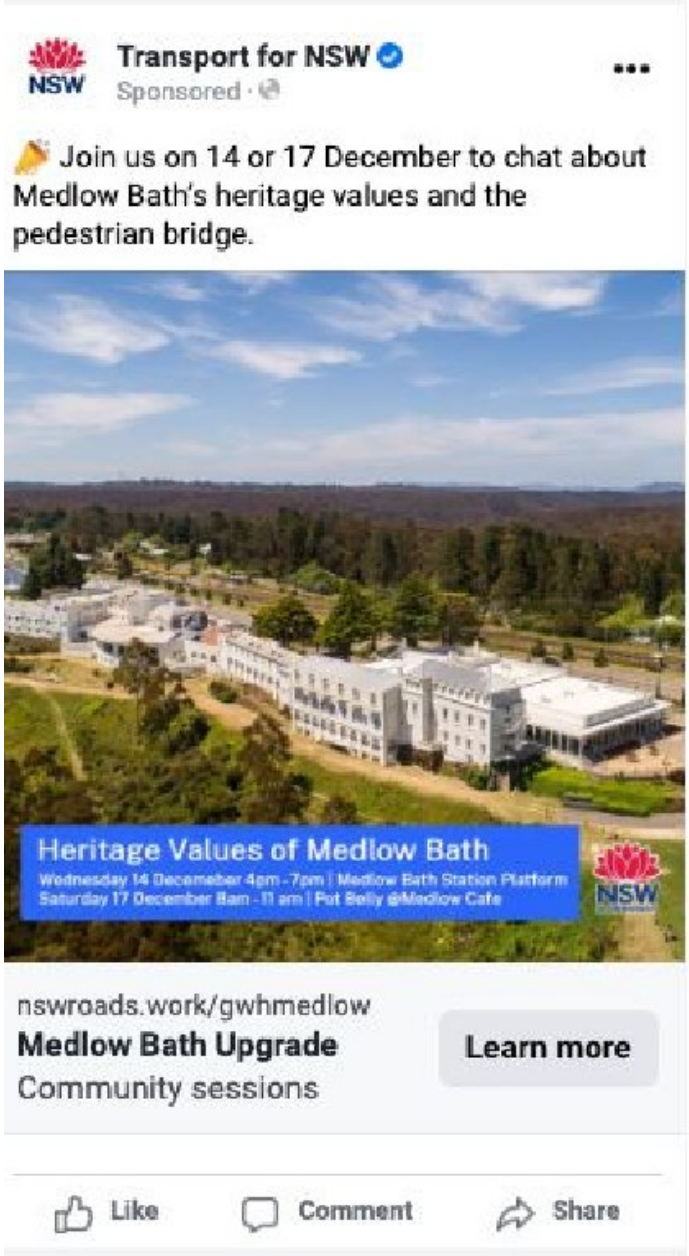
"We appreciate the input from all stakeholders into the pedestrian bridge design and look forward to major construction starting in September 2023."

The new pedestrian bridge is being built as part of an upgrade of the Great Western Highway near Medlow Bath railway station, with the highway upgrade to provide two lanes of traffic in both directions, new lights at Bellevue Crescent and a shared pathway.

More information on the Great Western Highway upgrade from Katoomba to Lithgow can be found here.

# Appendix E - Social Media post

## December 2022 – Facebook post promoting the pop-up stalls



# Appendix F – E-newsletters

## #1 24 August 2022




### Medlow Bath Pedestrian Bridge Briefings

### Community representative nominations now open

Transport for NSW is seeking local representatives to provide a community perspective and ensure community concerns are considered on the development of the bridge design. Representatives will join the briefing sessions and help us focus on local values and the concept design before they are presented to the wider community.

If you would like to apply, download a copy of the application form and terms of reference at **nswroads.work/gwhmedlow**

**Selection criteria:**

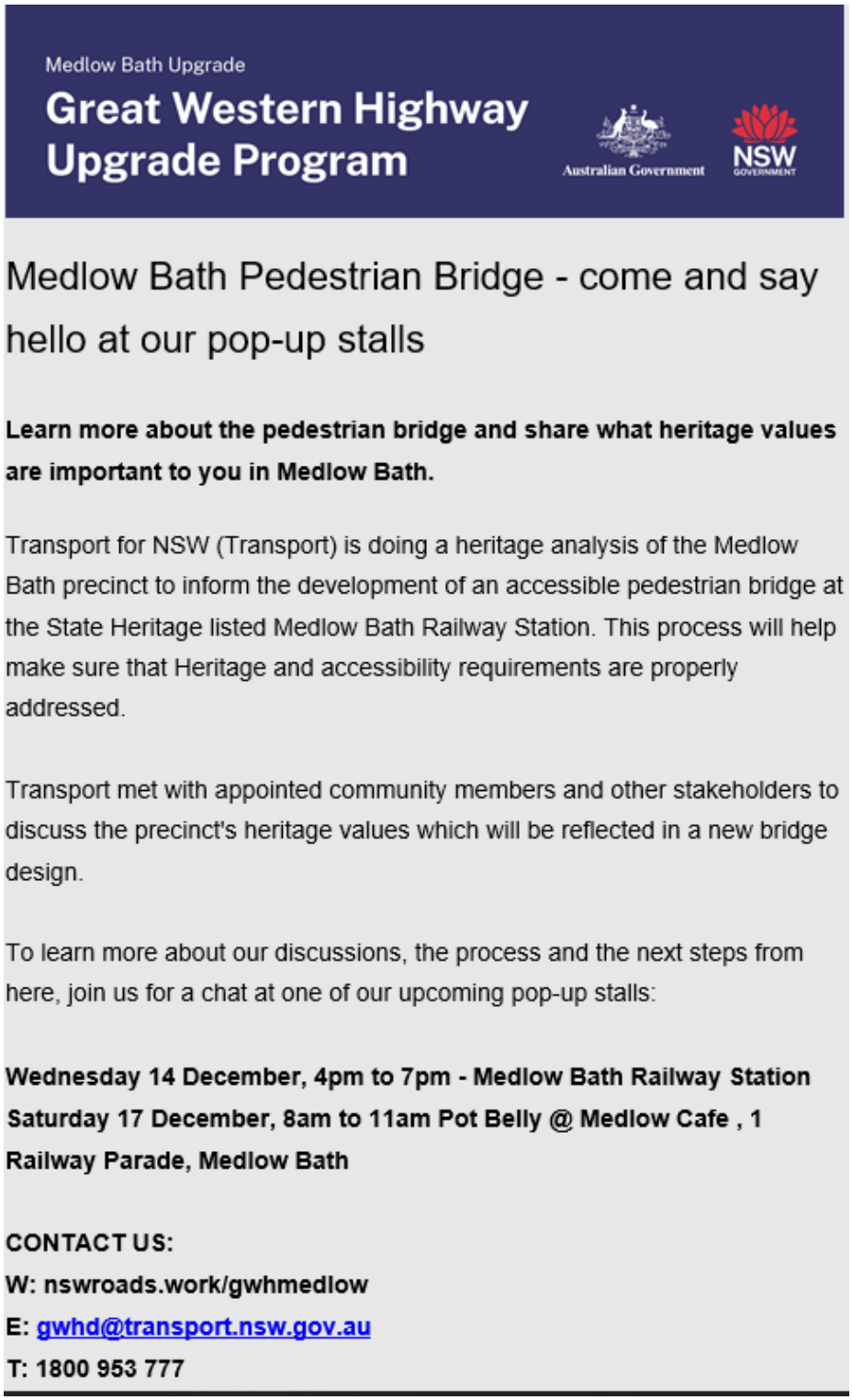
Representatives must:

- be a current resident or landowner in Medlow Bath;
- have knowledge and awareness of the Great Western Highway Upgrade Program, particularly in Medlow Bath, and local community concerns;
- be committed to understanding accessibility principles and requirements that apply to public transport
- not be an elected representative in any level of government; and
- be willing to adhere to the code of conduct and declare any pecuniary interests.

Transport for NSW will appoint three community representatives to participate in these briefings who will be expected to contribute constructively and attend up to four meetings. The role is not remunerated.

**Applications must be submitted by Sunday 11 September and can be emailed to gwhd@transport.nsw.gov.au or posted to Great Western Highway Upgrade Program, PO Box 334, Parkes, NSW, 2870**

**#2 - 9 December 2022**



Medlow Bath Upgrade

Great Western Highway Upgrade Program

Australian Government

NSW GOVERNMENT

## Medlow Bath Pedestrian Bridge - come and say hello at our pop-up stalls

**Learn more about the pedestrian bridge and share what heritage values are important to you in Medlow Bath.**

Transport for NSW (Transport) is doing a heritage analysis of the Medlow Bath precinct to inform the development of an accessible pedestrian bridge at the State Heritage listed Medlow Bath Railway Station. This process will help make sure that Heritage and accessibility requirements are properly addressed.

Transport met with appointed community members and other stakeholders to discuss the precinct's heritage values which will be reflected in a new bridge design.

To learn more about our discussions, the process and the next steps from here, join us for a chat at one of our upcoming pop-up stalls:

**Wednesday 14 December, 4pm to 7pm - Medlow Bath Railway Station**
**Saturday 17 December, 8am to 11am Pot Belly @ Medlow Cafe , 1 Railway Parade, Medlow Bath**

**CONTACT US:**
**W: nswroads.work/gwhmedlow**
**E: gwhd@transport.nsw.gov.au**
**T: 1800 953 777**

## #3 - 7 March 2023




**Medlow Bath pedestrian bridge design options:**

The pedestrian bridge design options are progressing and have been shared with our Medlow Bath community representatives to discuss with the broader Medlow Bath community.

To see the designs, please open the attached PDF.

If you have any feedback for us, please let know by March 13 by replying to this email, or by contacting your Medlow Bath community representative.

Regards

Great Western Highway Upgrade Program | Transport for NSW
**T:** 1800 953 777
**E:** gwhd@transport.nsw.gov.au
**W:** nswroads.work/gwhd

NSW GOVERNMENT | Transport for NSW

We acknowledge the Traditional Custodians of the land on which we work and live, pay our respects to Elders past and present and recognise continued connection to country.

# Appendix F

## Arboricultural Impact Assessment

Arbor Vision
CONSULTING

# Arboricultural Impact Assessment

MEDLOW BATH STATION

Ref: AIA0061.4

**Prepared For**
Arenco (NSW) Pty Ltd

**Prepared By**
Mike Daws
[ Dip Arboriculture AQF5 ]

**Inspection Dates**
8, 27 May 2023
11 August 2023

Arbor Dog Pty Ltd T/a Arbor Vision Consulting
18 St Albans Road, Medlow Bath NSW 2780
0404 260 489 | mike@arborvision.consulting | bluemountainstrees.com.au
ABN: 12 608 082 604

## Document Details

| | |
|---|---|
| Reference: | AIA0061.3 |
| Client: | Arenco (NSW) Pty Ltd |
| Contact: | Aaron Ridley |
| Site: | Medlow Bath Station |
| Prepared by: | Mike Daws<br>Dip. Arb. – AQF Level 5<br>QTRA Qualified<br>Arboriculture Australia member |
| Date: | 15 August 2023 |
| Version: | 4 |

## Document Status

| Document Version: | Date | Revision Description |
|---|---|---|
| 1 | 9/5/23 | Initial issue |
| 2 | 30/5/23 | Additional trees inventoried, Include labelled images of trees, minor updates |
| 3 | 5/6/23 | Updated with new plan set |
| 4 | 15/8/23 | Updates to vegetation impact on eastern embankment |

**Limitations**

This report was generated based on the condition of the trees and site on the date of the assessment. Trees are living organisms. Tree physiology can change in response to altered environmental conditions. The conclusions and recommendations provided in this report are valid for one year from the date of the assessment. However, major changes to the site, such as excavation or building works, major weather events, etc. may invalidate this report.

## Executive Summary

This arboricultural impact has been composed to assess tree impact in relation to proposed developments at the site of Medlow Bath Station. Impact arising from the construction of a pedestrian overpass, elevators and associated path and fencing realignments was assessed against proximal trees.

33 trees, 2 stands of shrubs and 15 garden beds were inventoried.

The assessment has not found any site trees to be of high significance in the landscape. 16 trees of low to medium significance will be removed to facilitate these works. The majority of the shrubs growing on the western embankment will be brushcut and are unlikely to re-establish. Details are provided within the report.

If you require any further information in relation to this report, please contact Mike Daws via email, or on 0404 260 489.

Kind Regards,



**Mike Daws**
Arbor Dog Pty Ltd trading as Arbor Vision Consulting
Director/Senior Consulting Arborist
Diploma Arboriculture (AQF Level 5)
Certificate III Arboriculture (AQF Level 3)
Arboriculture Australia member #11460

# Table of Contents

**EXECUTIVE SUMMARY** ..... **2**

**INTRODUCTION** ..... **4**

**METHODS** ..... **4**

**OBSERVATIONS AND RESULTS** ..... **5**

**DISCUSSION** ..... **7**

**REFERENCES** ..... **9**

APPENDIX 1 – TREE SCHEDULES ..... 10

*Schedule 1: Tree schedule and retention assessments* ..... *10*

*Schedule 2: Plantings considered as a group* ..... *11*

*Schedule 3: Platform garden assessments* ..... *12*

APPENDIX 2 – DOCUMENTS AND PLANS ..... 13

*Schedule 4: Supplied document list* ..... *13*

*Site overhead views* ..... *14*

APPENDIX 3 – TREE IMAGES ..... 19

APPENDIX 3 - ARBORICULTURAL METHODOLOGIES AND DEFINITIONS ..... 23

## Introduction

This Arboricultural Impact Assessment was commissioned by Aaron Ridley, Environmental Engineer at Arenco Pty Ltd, in relation to proposed upgrades at the site of Medlow Bath Station. The developments relate primarily to the construction of a pedestrian overpass linking the station with the western side of Great Western Highway, and associated path and fencing etc. upgrades.

The site is listed on the state heritage register as Heritage Item ID: 4801011. Landscape elements are considered part of the curtilage, and consideration is to be made with respect to conserving heritage significance of the site.

The report considers trees growing within and adjacent to the site. The report provides:

- Inventory of assessed trees: tree health, vigour, condition, SULE, and retention value
- Assessment of impact of proposed developments on site trees
- Recommendations for tree retention and protection measures

## Methods

Site inspections were conducted by AQF Level 5 consulting arborist Mike Daws on 8th and 27th May and 11th August 2023. Thirty-three individual subject trees, two groupings of shrubs and fifteen platform gardens were inventoried.

Each tree assessment was conducted as a ground-based Visual Tree Assessment (Mattheck & Breloer, 1994). This was an examination of the external features of the tree, assessing apparent vitality, presence of deadwood, dieback, physical defects, and decay. Internal or below-ground examinations were not performed. Trunk measurements of large diameter trees were obtained with a diameter tape measure. Diameter measurements were rounded up to the nearest 5cm. Tree height was generally estimated, although where line of sight permitted heights were measured with a laser inclinometer.

Landscape significance, based on the tree's contribution to the amenity of the area, with consideration of any ecological value, was also assessed.

The collected data enabled an assessment of the health and structural condition of the tree. This, together with its significance in the landscape, was used to determine a Retention Value. These methodologies are outlined in full in Appendix 3.

The documents listed in Appendix 2, Schedule 4 were supplied and used to assist with creating this report.

## Observations and Results

Table 1 on the next page presents an overview of known and potential impacts on subject trees.

Subject tree data are presented in Appendix 1, Schedules 1, 2 & 3.

Refer to Appendix 2 for overhead views of site showing indicative location of subject trees. A formal survey detailing tree positions was constructed in June 2023.

Medlow Station is partially bordered with minor vegetation inside the corridor. A cluster of small trees grows on the north-eastern embankment. A line of endemic shrubs and the occasional small tree grow along the western embankment. Some self-seeded *Prunus* grow along the south-eastern corridor fence line. A line of conifer plantings was established between the corridor and highway on the road reserve. These were removed recently as part of the highway upgrade program that is being undertaken concurrently with this project.

The station itself houses 15 low garden beds bordered with treated pine, containing small hedges, small trees, grasses or a mixture thereof.

It is notable that the Description entry in the Heritage Register states, with respect to Landscape Features:

> "Other than small plantings along the platform no notable landscape features have been identified. The existing plantings are not considered significant."

This arboricultural assessment is in agreement and has determined low to medium retention values for all subject trees.

| | | | |
|---|---|---|---|
| **Western embankment** | | | |
| **25, 26, 27** | *Hakea, Leptospermum* | Elevated walkway. | Brushcutting of embankment shrubs from southern end of station to northern end of platform. Plants unlikely to re-establish beneath walkway. |
| **23, 24** | *Eucalyptus oreades* | New path alignment. | Removal of T23, T24.<br>Trees have short SULE irrespective of this project. |
| **South-eastern corridor** | | | |
| **1** | *Prunus sp.* | Elimination of level crossing. | Impact possible.<br>Low value specimen. |
| **2-8** | *Prunus sp.* | Relocation of corridor fence. | Removal of specimens.<br>Low value specimens. |
| **Footbridge concourse area** | | | |
| **21, 22** | *Allocasuarina torulosa* | New path alignment. | Removal of specimens. |
| **North-eastern embankment** | | | |
| **13, 15, 16, 18** | *Cupressus macrocarpa, Eucalyptus sieberi* | Relocation of corridor fence. | Removal of specimens.<br>Trunks are currently in contact with fence. |
| **10** | *Cupressus sp.* | Relocation of corridor fence. | Removal of specimen. |
| **11, 12, 14, 17, 30** | *Cupressus sp.* | Relocation of corridor fence. | Retain specimens.<br>Minor clearance pruning may be required. |
| **19** | *Pinus radiata* | Relocation of corridor fence. | Remove specimen.<br>Exempt weed species whilst <10m in height. |
| **20** | *Cupressus macrocarpa* | Relocation of corridor fence.<br>Crane operations during works. | Retain specimen.<br>Lower large woody limbs can be pruned if required.<br>Upper crown can be pruned by up to 10% to facilitate crane operations if required. |
| **28, 29, 31, 32, 33, 34** | *Cupressus spp., Allocasuaruba sp.* | Relocation of corridor fence. | Retain specimens, offset is sufficient. |
| **Platform** | | | |
| **Garden bed 12** | *Grasses* | Excavation for septic access. | Minor disruption: loss of grass plantings. |
| **Garden bed 14** | *Viburnum tinus* | Removal of garden bed. | Loss of hedge. Hedge is in severe decline with short SULE. |

## Discussion

### Impacts, western corridor boundary

**Shrubs**: An elevated walkway is to be constructed within the corridor adjacent to the western embankment to facilitate construction of the infrastructure upgrades. It will be supported on large piers embedded in the embankment. The embankment is vegetated with small endemic *Hakea* and *Leptospermum* specimens, not large enough to be defined as trees. In addition to the shrubs are approximately 15 *Hakea* of 5-6m in height (**Trees 25, 26, Stand 2**), treated as “trees” in this assessment.

The plants along the embankment, from approximately in line with the southern end of the station building to the northern end of the platform, will need to be brushcut to allow the scaffolding to be erected.

These plants are likely to withstand the proposed brushcutting, being tolerant and robust. However, they are unlikely to remain viable into the future, as conditions beneath the walkway will not be supportive. The rootballs are to remain in-situ as they will continue to function and contribute to bank stabilisation during construction.

**Trees:** 2 semi-mature endemic *Eucalyptus oreades* (**T23, T24**) have established themselves on the embankment. At present size the trees are considered to be within risk thresholds but will outgrow their position. The trees are assessed as having a short useful life expectancy (SULE) due to the limited soil volume, size at maturity and severe consequence of failure.

Construction works are anticipated to impact **T24** and possibly **T23**, necessitating their removal. Removal of these trees is ultimately inevitable irrespective of this development.

### Impacts, eastern corridor boundary

Planned path realignment will result in the loss of **T21**. Planned bike hoops will result in the loss of **T22**. Suspended slabs or an increased offset (minimum 1.3m from trunk) would allow for the retention of these specimens.

The eastern corridor fence is to be replaced. A number of trees will be impacted.

- **T13, 15, 16, 18** have crowns or trunks currently in contact with the fence, and will be removed.
- **T1-T8** and **T10** are incompatible with the new fence alignment and will be removed.
- Other subject trees (**T11, 12, 14, 17, 20, 28, 29, 30, 31, 32, 33, 34**) are sufficiently offset from the fence. They may require and will tolerate mild canopy pruning to facilitate works. Pruning depth not to exceed extent of green foliage.
- **T19** should be removed, being a weed species with growth potential inappropriate for location.

## Impacts, platform vegetation

The platform planters have been enumerated in Appendix 1: Schedule 2, together with their relative (to each other) significance in the landscape. It is noted that the number of planters may be reduced as a part of this project to conform with heritage outcomes.

Two of the platform planters may be impacted by proposed works.

> Planter 12 is above a septic tank. Excavation may be required in a small area of the northern end of the planter to access the tank. This portion of the planter contains small grasses and impact to vegetation is thus minimal.
>
> Planter 14 may need to be removed to facilitate site upgrades. This planter contains a large hedge. The hedge is noted to be in exceptionally poor condition with widespread foliage dieback. The plant appears to be in severe decline and looks unlikely to recover.




*Images of declining planting in Platform Garden 14*

## Impacts, level crossing removal

The existing level crossing is to be removed as part of this project. Adjacent shrubs are outside of the area of impact. T1 is proximal to the junction of the level crossing path and the boundary fence. This is a low value, self-seeded *Prunus* specimen 2m in height and of no ecological, heritage or landscape significance.

## Impacts from other works

As part of the Great Western Highway Upgrade program, the line of *Thuja plicata* planted between the corridor and the highway have been removed. Additionally, **T9** will be removed as part of the Station St. upgrade works. Thus, these specimens can be ignored when considering impact from this project.

## References

Mattheck, C & Breloer, H 1994, *The body language of trees,* The Stationary Office, London

NSW Department of Planning and Environment, *State Heritage Inventory,* retrieved May 9 2023, https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4801011

## Appendix 1 – Tree Schedules

### Schedule 1: Tree schedule and retention assessments

Refer to Appendix 3 for definitions of terms used within this schedule.

| Id. | Botanical name | Height (metres) | Spread (metres diameter) | Health | Structure | Age class | Tree significance | Useful life expectancy | Priority for retention | DBH (millimetres diameter, rounded up to nearest 50mm) | Other notes | TPZ (m radial) | SRZ (m radial) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | *Prunus sp.* | 2 | 2 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **2** | *Prunus sp.* | 4 | 4 | Good | Fair | Semi-mature | Low | Medium | Low | 150 | | 2 | 1.8 |
| **3** | *Prunus sp.* | 4 | 3 | Good | Fair | Semi-mature | Low | Medium | Low | 150 | | 2 | 1.8 |
| **4** | *Prunus sp.* | 4 | 2 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **5** | *Prunus sp.* | 2 | 2 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **6** | *Prunus sp.* | 3 | 2 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **7** | *Prunus sp.* | 3 | 3 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **8** | *Prunus sp.* | 4 | 2 | Good | Fair | Semi-mature | Low | Medium | Low | 100 | | 2 | 1.5 |
| **9** | *Cupressus macrocarpa* | 7 | 6 | Good | Good | Mature | Medium | Medium | Medium | 350 | Topped for line clearance. Expected to be removed as part of road upgrade in separate project. | 4.2 | 2.3 |
| **10** | *Cupressus sp.* | 4 | 2 | Good | Good | Semi-mature | Low | Medium | Medium | 100 | Growing under lines. Can tolerate 300mm branch reduction. | 2 | 1.5 |
| **11** | *Cupressus sp.* | 6 | 4 | Good | Good | Semi-mature | Medium | Medium | Medium | 200 | Growing under lines. Can tolerate 200mm branch reduction. | 2.4 | 1.8 |
| **12** | *Cupressus macrocarpa* | 10 | 6 | Good | Good | Mature | Medium | Medium | Medium | 250 | Trunk 300mm from fence. | 3 | 2 |
| **13** | *Eucalyptus sieberi* | 9 | 6 | Good | Good | Mature | Medium | Medium | Medium | 300 | Trunk impacting current fence position. | 3.6 | 2.1 |
| **14** | *Cupressus sp.* | 12 | 10 | Good | Fair | Mature | Medium | Medium | Medium | 600 | Trunk 300mm from fence. | 7.2 | 2.8 |
| **15** | *Cupressus x leylandii* | 4 | 2 | Good | Good | Juvenile | Low | Medium | Low | 100 | Trunk in contact with fence. | 2 | 1.5 |
| **16** | *Cupressus x leylandii* | 3 | 2 | Good | Good | Juvenile | Low | Medium | Low | 100 | Trunk in contact with fence. | 2 | 1.5 |
| **17** | *Cupressus sp.* | 6 | 5 | Good | Good | Mature | Medium | Medium | Medium | 200 | Can tolerate 500mm branch reduction. | 2.4 | 1.8 |
| **18** | *Hakea sp.* | 5 | 2 | Good | Good | Semi-mature | Medium | Medium | Medium | 100 | In contact with fence. | 2 | 1.5 |
| **19** | *Pinus sp.* | 4 | 3 | Good | Good | Semi-mature | Low | Medium | Low | 100 | Weed species. | 2 | 1.5 |
| **20** | *Cupressus macrocarpa* | 10 | 9 | Good | Good | Mature | Medium | Medium | Medium | 600 | Lower branches can be lifted to facilitate infrastructure upgrade. | 7.2 | 2.8 |
| **21** | *Allocasuarina torulosa* | 7 | 5 | Good | Good | Mature | Medium | Medium | Medium | 150 | Within footprint. | 2 | 1.7 |
| **22** | *Allocasuarina torulosa* | 7 | 5 | Good | Good | Mature | Medium | Medium | Medium | 150 | | 2 | 1.7 |
| **23** | *Eucalyptus oreades* | 9 | 9 | Good | Good | Mature | Medium | Medium | Medium | 250 | Short useful life expectancy: growing on embankment above line. | 3 | 2 |
| **24** | *Eucalyptus oreades* | 10 | 9 | Good | Good | Mature | Medium | Medium | Medium | 300 | Short useful life expectancy: growing on embankment above line. | 3.6 | 2.1 |
| **25** | *Hakea sp.* | 5 | 5 | Good | Good | Mature | Medium | Medium | Medium | 200 | | 2.4 | 1.8 |
| **26** | *Hakea sp.* | 6 | 5 | Fair | Fair | Over-mature | Medium | Short | Low | 200 | Canopy dieback. | 2.4 | 1.8 |
| **27** | *Hakea sp.* | 5 | 2 | Fair | Fair | Semi-mature | Medium | Medium | Medium | 100 | **Stand of approx. 10 trees with these characteristics. See SCHEDULE 2, STAND 2** | 2 | 1.5 |
| **28** | *Cupressus sp.* | 6 | 7 | Good | Good | Mature | Medium | Medium | Medium | 250 | Approx. 1m. offset from fence, behind T12 | 3 | 2 |

| Id. | Botanical name | Height (metres) | Spread (metres diameter) | Health | Structure | Age class | Tree significance | Useful life expectancy | Priority for retention | DBH (millimetres diameter, rounded up to nearest 50mm) | Other notes | TPZ (m radial) | SRZ (m radial) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **29** | *Cupressus sp.* | 6 | 5 | Good | Good | Mature | Medium | Medium | Medium | 150 | Approx. 900mm. offset from fence. | 2 | 1.7 |
| **30** | *Cupressus x leylandii* | 3 | 2 | Good | Good | Juvenile | Low | Medium | Low | 100 | 300mm from fence. | 2 | 1.5 |
| **31** | *Allocasuarina torulosa* | 3 | 2 | Good | Fair | Juvenile | Low | Medium | Low | 100 | Approx. 800mm offset from fence. | 2 | 1.5 |
| **32** | *Cupressus x leylandii* | 4 | 2 | Good | Good | Juvenile | Low | Medium | Low | 100 | Approx. 700mm offset from fence. | 2 | 1.5 |
| **33** | *Allocasuarina torulosa* | 8 | 3 | Good | Good | Mature | Medium | Medium | Medium | 100 | Approx. 1m offset from fence. | 2 | 1.5 |
| **34** | *Allocasuarina torulosa* | 10 | 4 | Good | Good | Mature | Medium | Medium | Medium | 250 | Approx. 1.5m offset from fence. | 3 | 2 |

Schedule 2: Plantings considered as a group

| Stand ID | Species | Characteristics | Significance |
|---|---|---|---|
| **1** | *Hakea sp. Leptospermum sp.* | Shrubs.<br>Dimensions to approx. 2m x 2m.<br>Good health. | Low |
| **2**<br>(plotted as T27) | *Hakea sp.* | Stand of small trees in close proximity.<br>Dimensions to approx. 5m x 2m, DBH <100mm.<br>Fair to Good health. | Low |

Schedule 3: Platform garden assessments

| Garden ID | Planting | Relative Significance * |
|---|---|---|
| **1** | Grasses | Low |
| **2** | Hedge *(Callistemon sp.)* | High |
| **3** | Grasses | Low |
| **4** | Hedge *(Callistemon sp.)* | High |
| **5** | Grasses | Low |
| **6** | Hedge, large *(Euonymus japonicus)* | Very High |
| **7** | Hedge *(Ligustrum japonicum)* | High |
| **8** | Tree *(Lagerstroemia indica)* | Very High |
| **9** | Hedge *(Callistemon sp.)* | High |
| **10** | Hedge *(Callistemon sp.)* | High |
| **11** | Hedge *(Callistemon sp.)* | High |
| **12** | Grasses, small hedge (Rhododendron sp.) | Medium |
| **13** | Tree *(Prunus sp.)* | Very High |
| **14** | Hedge, in decline *(Viburnum tinus)* | Medium |
| **15** | Hedge *(Viburnum tinus)* | High |

** Relative significance in the landscape, with respect to each other*

## Appendix 2 – Documents and Plans

The following documents were relied upon in the creation of this report.

### Schedule 4: Supplied document list

| Document Label | Author | Document Identification | Document Date |
|---|---|---|---|
| Medlow Bath Transport Access Program 3<br>Architectural Site Plan | Undisclosed | Draft Set “Test” | 28/4/23 |
| Main West Line – 115.803 km<br>Medlow Bath Station Access Upgrade<br>Landscape | DesignInc | DRG No.<br>150496-MED-LA-DRG-30[100-103] | 17/8/23 |
| Main West Line – 115.803 km<br>Medlow Bath Station Access Upgrade<br>Structural | Arenco GHD | DRG No.<br>150496-MED-ST-DRG-31014 | 31/5/23 |




*Figure 1: Site schematic with labelled trees in approximate position.*

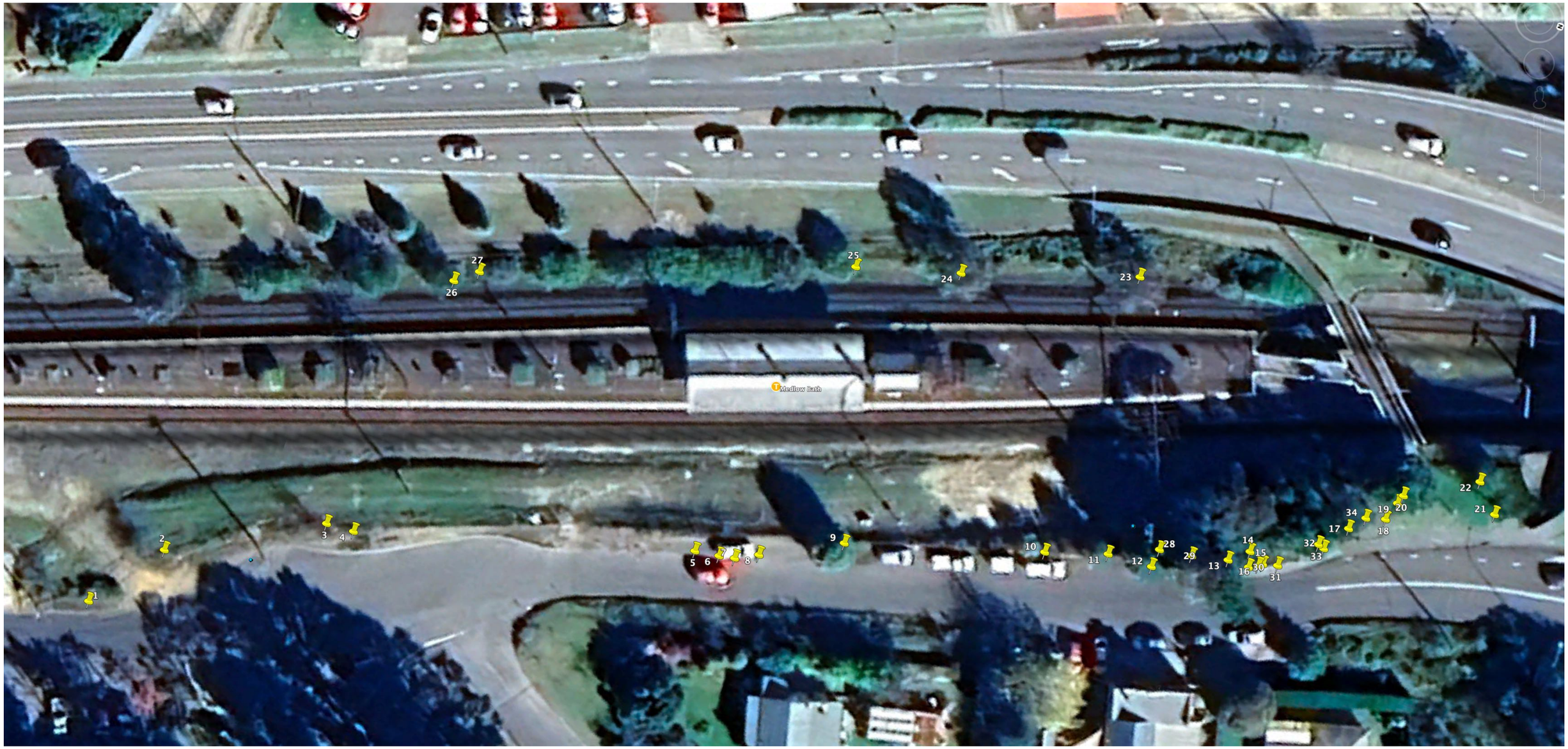



*Figure 2: Overhead site imagery with pins dropped on subject trees..*

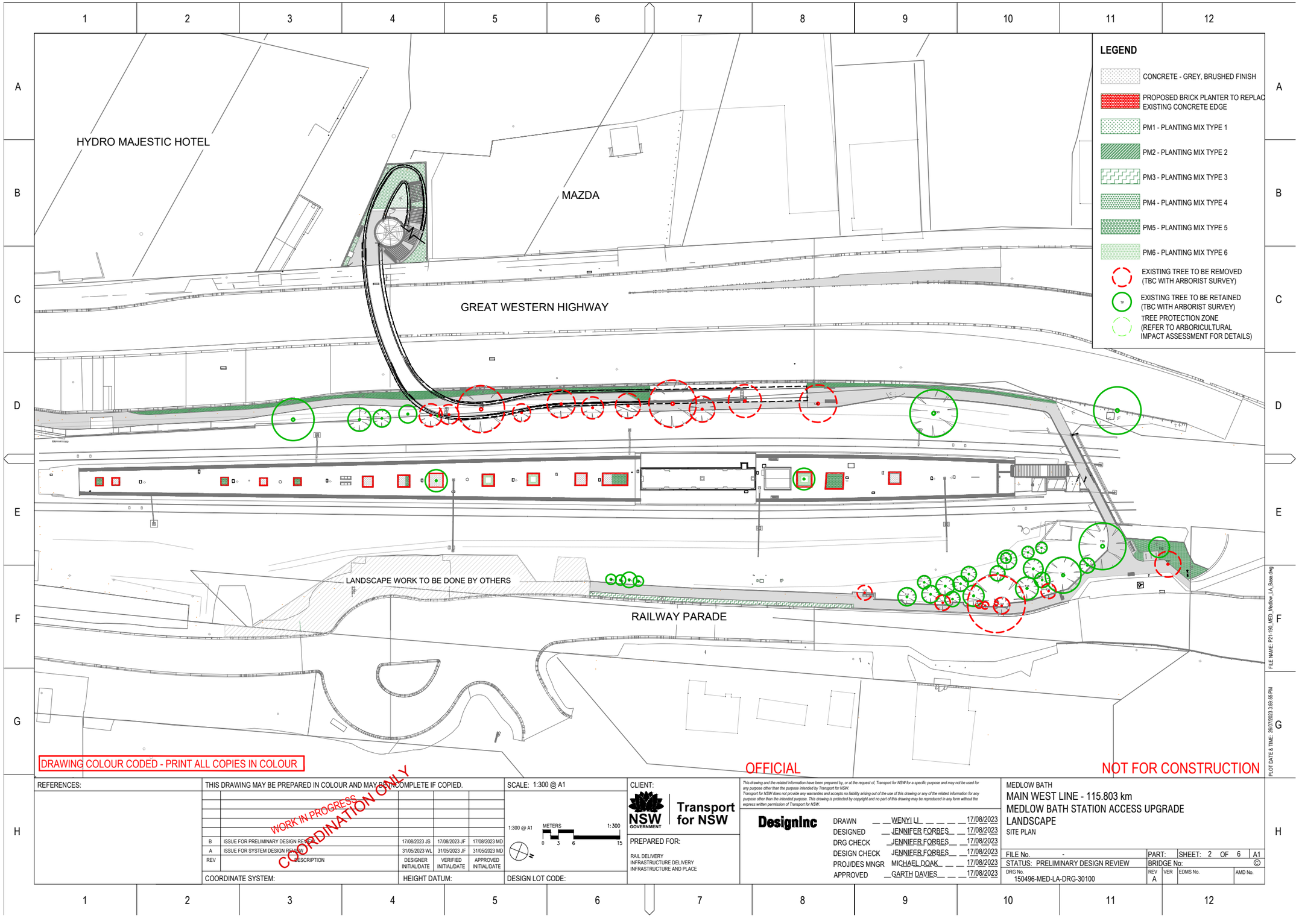



*Figure 3: Eastern embankment*

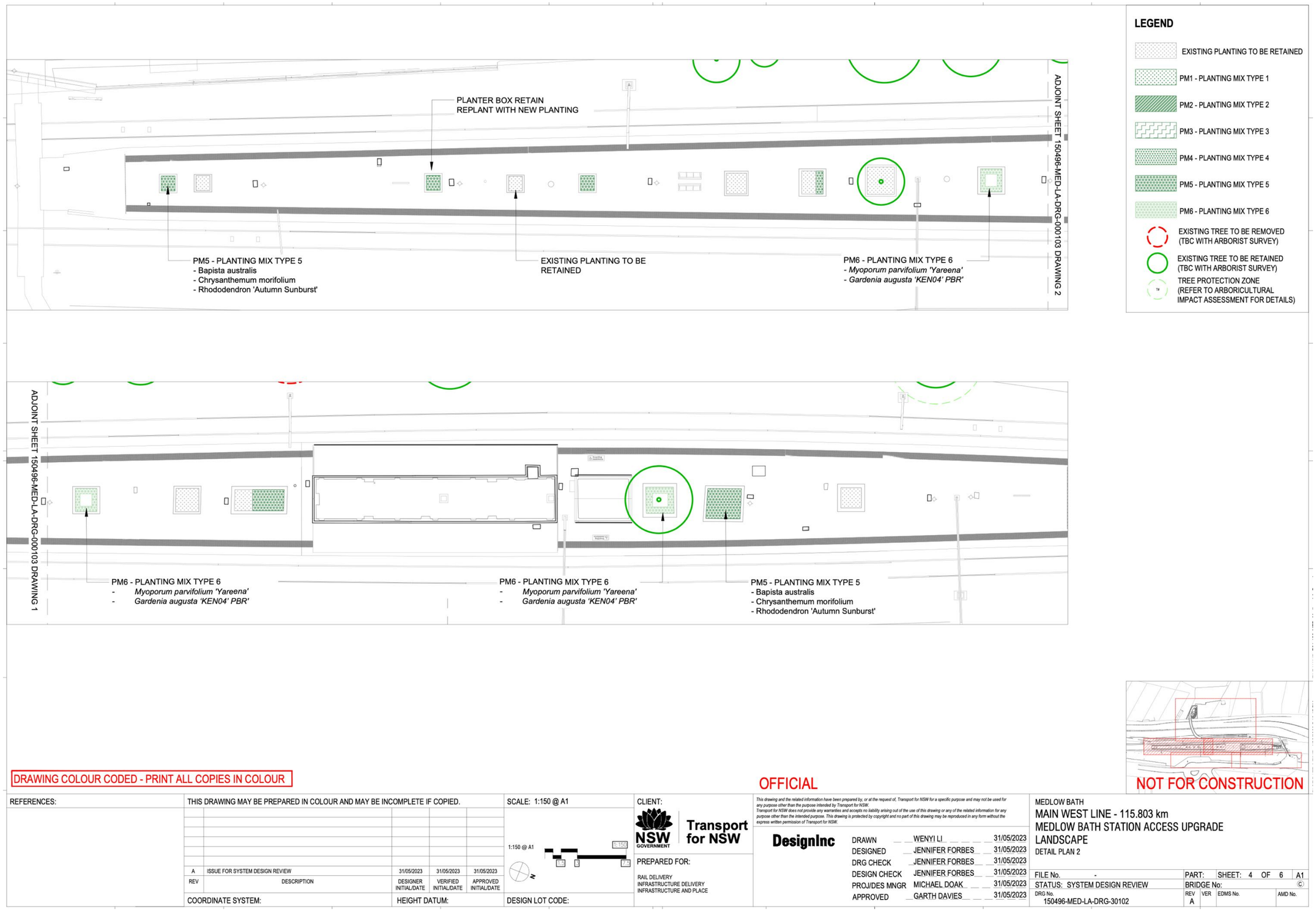



*Figure 4: Platform garden beds*

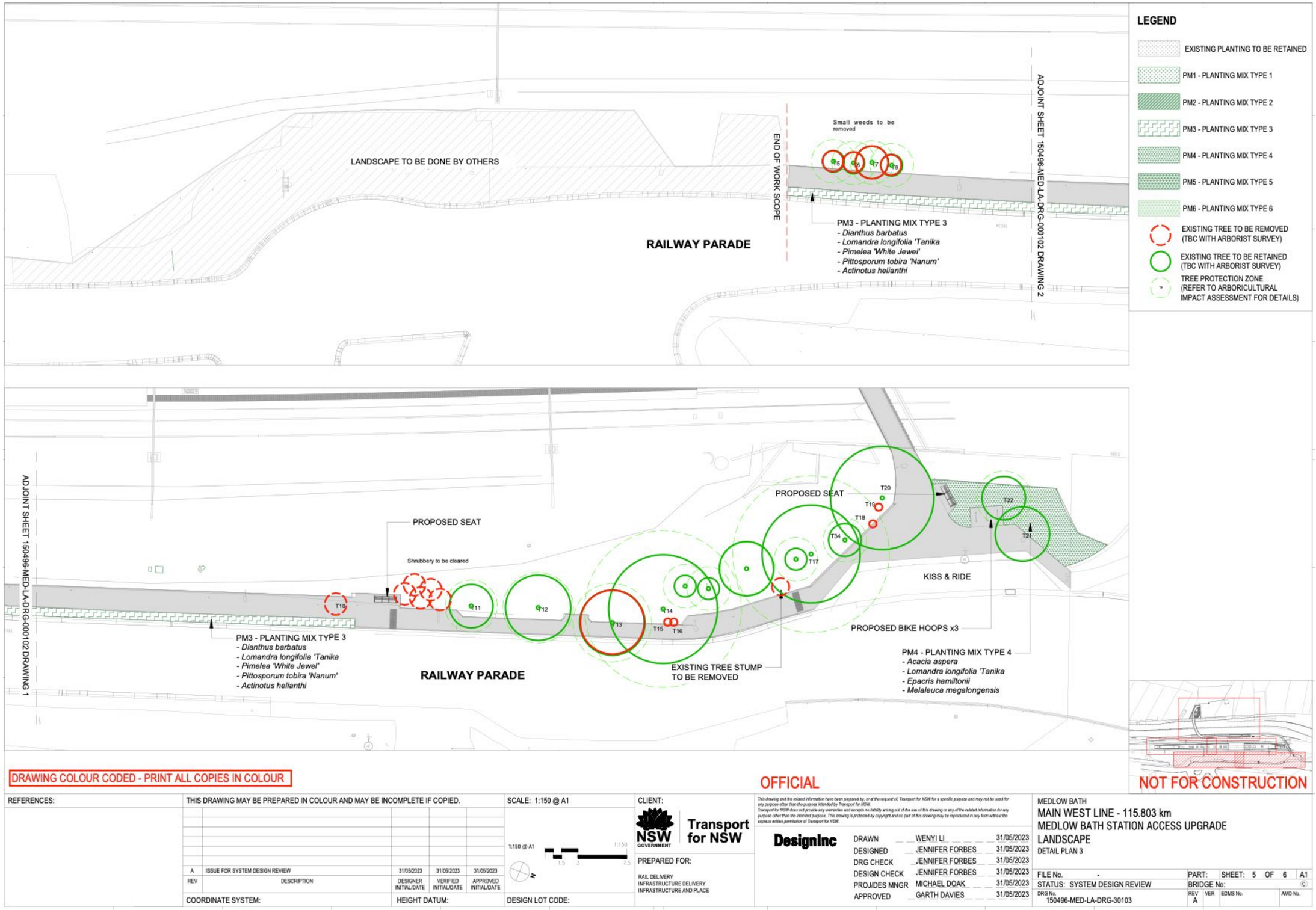



*Figure 5: Western embankment – TREE LOCATIONS APPROXIMATE*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2


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Google


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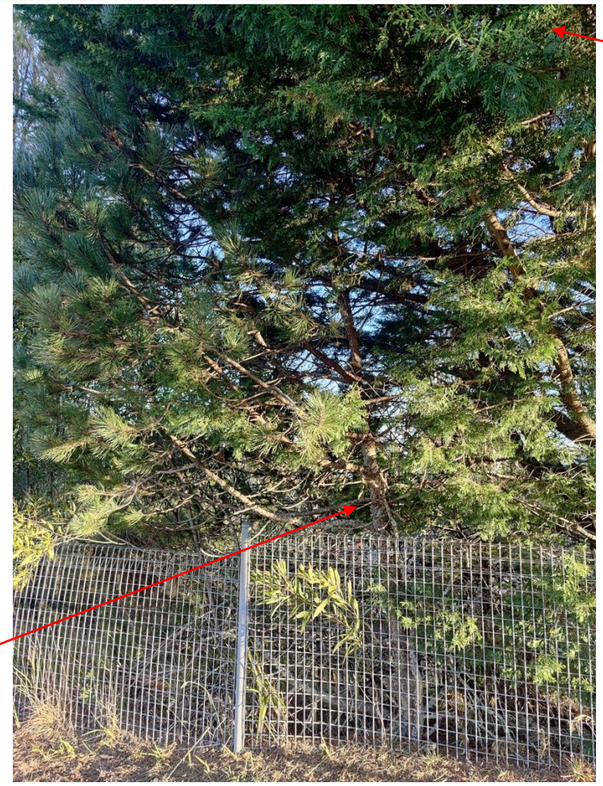
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23
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Google


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26


26


27 (Stand 2 ~10 shrubs)

# GLOSSARY
## Definitions for terminology of SRIV©
## Sustainable Retention Index Value©

From
Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

### *Vigour*

**Vigour** Ability of a tree to sustain its life processes. This is independent of the *condition* of a tree but may impact upon it. Vigour can appear to alter rapidly with change of seasons (seasonality) e.g. *dormant*, deciduous or semi-deciduous trees. Vigour can be categorized as *Good Vigour, High Vigour*, *Low Vigour* and *Dormant Tree Vigour*.

**Good Vigour** Ability of a tree to maintain and sustain its life processes. This may be evident by the *typical* growth of leaves, *crown cover* and *crown density*, branches, roots and trunk and *resistance* to *predation*. This is independent of the *condition* of a tree but may impact upon it, and especially the ability of a tree to sustain itself against predation.

**High Vigour** *Accelerated growth* of a tree due to incidental or deliberate artificial changes to its growing *environment* that are seemingly beneficial, but may result in *premature aging* or failure if the favourable conditions cease, or promote *prolonged senescence* if the favourable conditions remain, e.g. water from a leaking pipe; water and nutrients from a leaking or disrupted sewer pipe; nutrients from animal waste, a tree growing next to a chicken coop, or a stock feed lot, or a regularly used stockyard; a tree subject to a stringent watering and fertilising program; or some trees may achieve an extended lifespan from continuous *pollarding* practices over the life of the tree.

**Low Vigour** Reduced ability of a tree to sustain its life processes. This may be evident by the *atypical* growth of leaves, reduced *crown cover* and reduced *crown density*, branches, roots and trunk, and a deterioration of their functions with reduced *resistance* to *predation*. This is independent of the *condition* of a tree but may impact upon it, and especially the ability of a tree to sustain itself against predation.

**Dormant Tree Vigour** Determined by existing turgidity in lowest order branches in the outer extremity of the crown, with good bud set and formation, and where the last *extension growth* is distinct from those most recently preceding it, evident by bud scale scars. Good vigour during dormancy is achieved when such growth is evident on a majority of branches throughout the crown.

### *Age*

**Age** Most trees have a stable biomass for the major proportion of their life. The estimation of the age of a tree is based on the knowledge of the expected lifespan of the taxa in situ divided into three distinct stages of measurable biomass, when the exact age of the tree from its date of cultivation or planting is unknown and can be categorized as *Young*, *Mature* and *Over-mature*.

**Young** Tree aged less than <20% of life expectancy, *in situ*.

**Mature** Tree aged 20-80% of life expectancy, *in situ*.

**Over-mature** Tree aged greater than >80% of life expectancy, *in situ,* or *senescent* with or without reduced *vigour*, and declining gradually or rapidly but irreversibly to death.

### *Periods of Time*

**Periods of Time** The life span of a tree in the urban environment may often be reduced by the influences of encroachment and the dynamics of the environment and can be categorized as *Immediate*, *Short Term*, *Medium Term* and *Long Term*.

**Short Term** A period of time less than <1 – 15 years.

**Medium Term** A period of time 15 – 40 years.

**Long Term** A period of time greater than >40 years.

## IACA Significance of a Tree, Assessment Rating System (STARS) (IACA 2010) ©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.

### Tree Significance - Assessment Criteria

### 1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered Ecological Community or listed on Councils Significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa *in situ* - tree is appropriate to the site conditions.

### 2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa *in situ*.

### 3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa *in situ* - tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

**Environmental Pest / Noxious Weed Species**

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.

**Hazardous/Irreversible Decline**

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

**The tree is to have a minimum of three (3) criteria in a category to be classified in that group.**

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

## ***Condition***

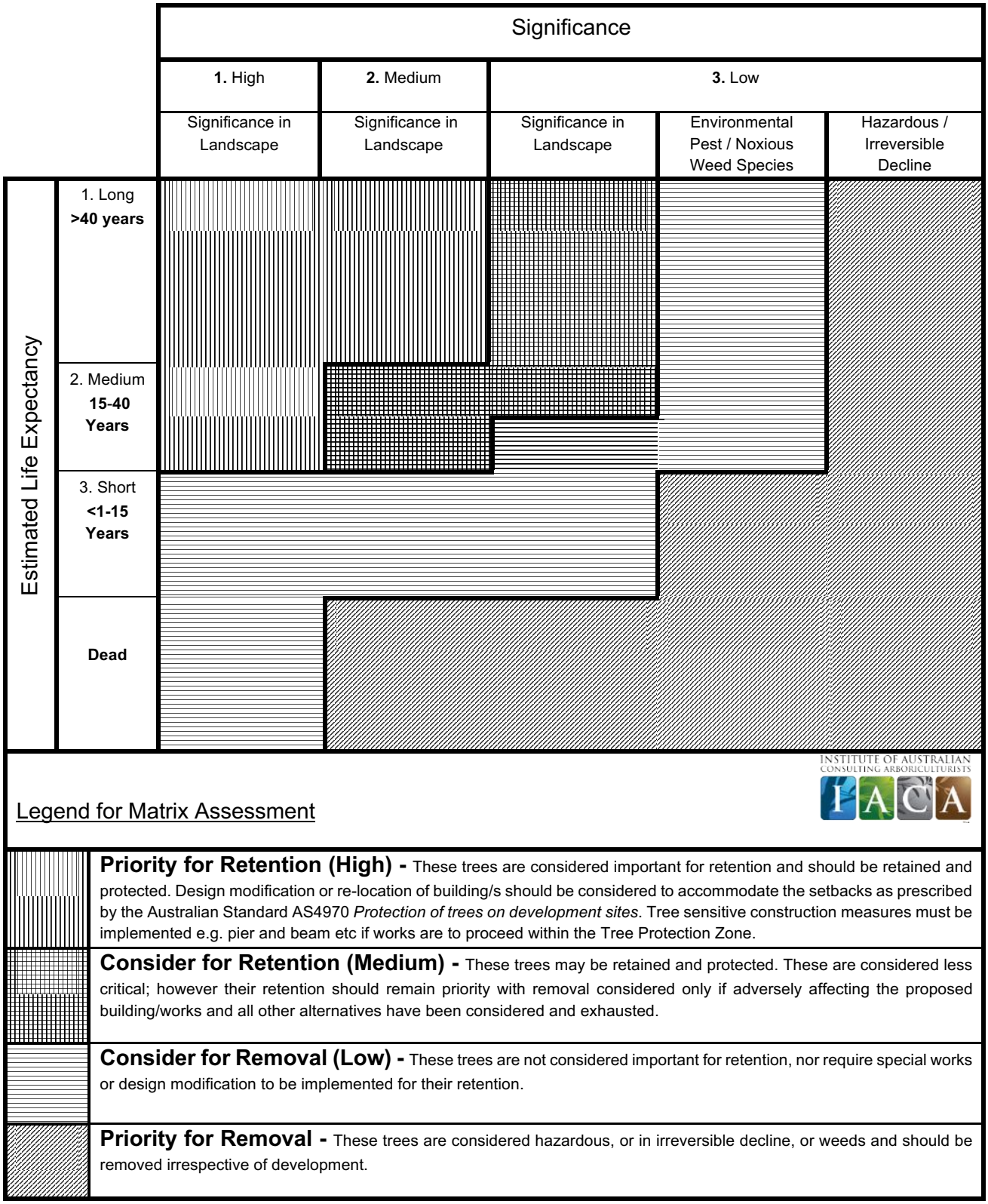
**Condition** A tree's *crown form* and growth habit, as modified by its *environment* (aspect, suppression by other trees, soils), the *stability* and *viability* of the *root plate*, trunk and structural branches (first (1st) and possibly second (2nd) order branches), including structural defects such as wounds, cavities or hollows, *crooked* trunk or weak trunk/branch junctions and the effects of predation by pests and diseases. These may not be directly connected with *vigour* and it is possible for a tree to be of *good vigour* but in *poor condition*. Condition can be categorized as *Good Condition*, *Fair Condition*, *Poor Condition* and *Dead*.

**Good Condition** Tree is of good habit, with *crown form* not severely restricted for space and light, physically free from the adverse effects of *predation* by pests and diseases, obvious instability or structural weaknesses, fungal, bacterial or insect infestation and is expected to continue to live in much the same condition as at the time of inspection provided conditions around it for its basic survival do not alter greatly. This may be independent from, or contributed to by vigour.

**Fair Condition** Tree is of good habit or *misshapen*, a form not severely restricted for space and light, has some physical indication of *decline* due to the early effects of *predation* by pests and diseases, fungal, bacterial, or insect infestation, or has suffered physical injury to itself that may be contributing to instability or structural weaknesses, or is faltering due to the modification of the *environment* essential for its basic survival. Such a tree may recover with remedial works where appropriate, or without intervention may stabilise or improve over time, or in response to the implementation of beneficial changes to its local environment. This may be independent from, or contributed to by vigour.

**Poor Condition** Tree is of good habit or *misshapen*, a form that may be severely restricted for space and light, exhibits symptoms of advanced and *irreversible decline* such as fungal, or bacterial infestation, major die-back in the branch and *foliage crown*, *structural deterioration* from insect damage e.g. termite infestation, or storm damage or lightning strike, ring barking from borer activity in the trunk, root damage or instability of the tree, or damage from physical wounding impacts or abrasion, or from altered local environmental conditions and has been unable to adapt to such changes and may decline further to death regardless of remedial works or other modifications to the local *environment* that would normally be sufficient to provide for its basic survival if in *good* to *fair* condition. Deterioration physically, often characterised by a gradual and continuous reduction in vigour but may be independent of a change in vigour, but characterised by a proportionate increase in susceptibility to, and *predation* by pests and diseases against which the tree cannot be sustained. Such conditions may also be evident in trees of advanced senescence due to normal phenological processes, without modifications to the growing environment or physical damage having been inflicted upon the tree. This may be independent from, or contributed to by vigour..

**Dead** Tree is no longer capable of performing any of the following processes or is exhibiting any of the following symptoms;
*Processes*
Photosynthesis via its foliage crown (as indicated by the presence of moist, green or other coloured leaves);
Osmosis (the ability of the root system to take up water);
Turgidity (the ability of the plant to sustain moisture pressure in its cells);
Epicormic shoots or *epicormic strands* in Eucalypts (the production of new shoots as a response to stress, generated from latent or adventitious buds or from a *lignotuber*);
*Symptoms*
Permanent leaf loss;
Permanent wilting (the loss of turgidity which is marked by desiccation of stems leaves and roots);
Abscission of the *epidermis* (bark desiccates and peels off to the beginning of the sapwood).

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Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia

Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

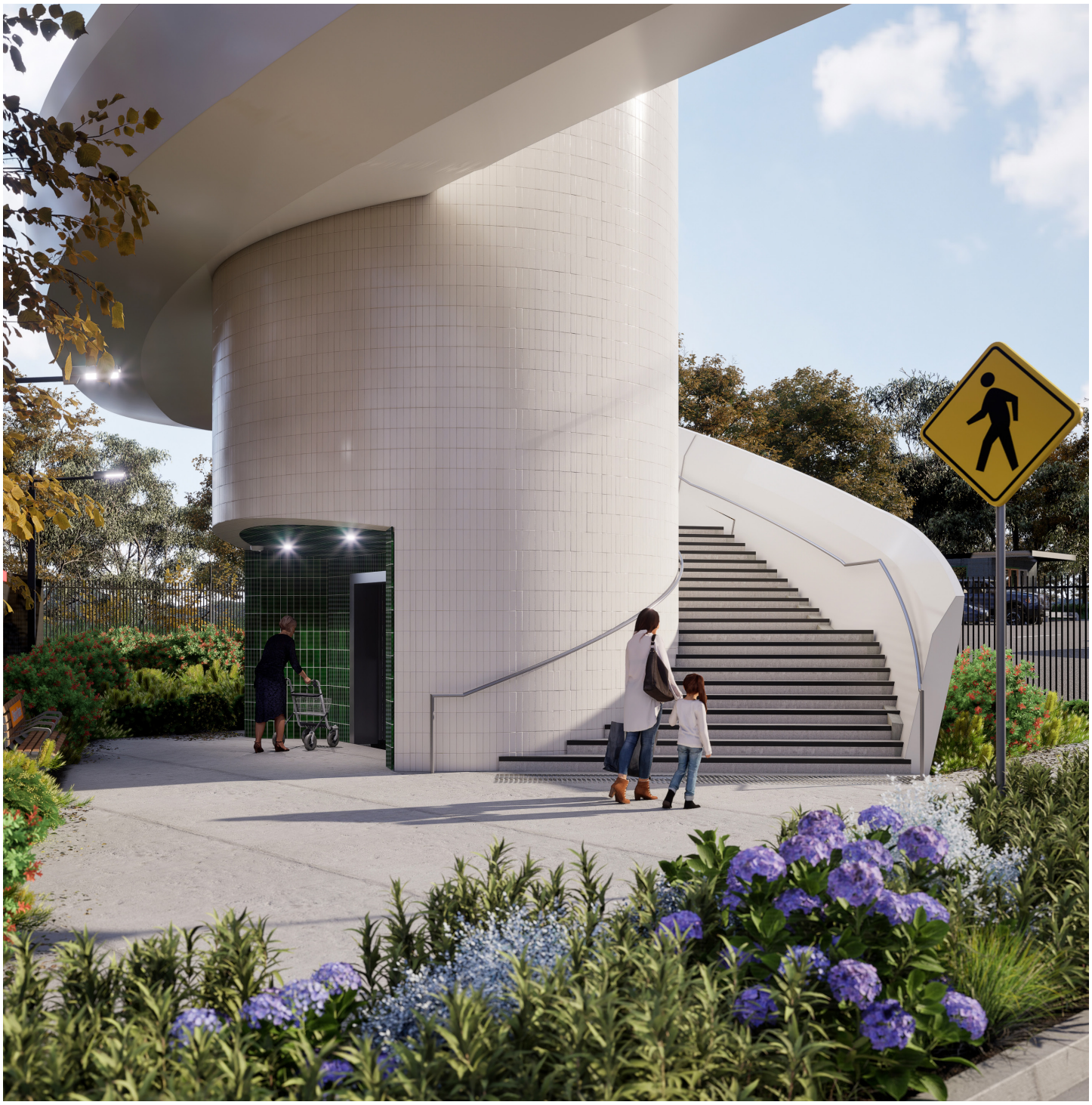
Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, www.footprintgreen.com.au

# Appendix G

## Visual Impact Assessment

DesignInc

Architecture
Urban Design
Landscape
Interiors
designinc.com.au



# Medlow Bath Station Upgrade
# Addendum Visual Impact Assessment

**150496-MED-AR-RPT-30003**

P21-190
04.08.2023

# Contents


| | |
|---|---|
| **1.0 Introduction & Background** | **4** |
| 1.1 Project purpose and scope | 4 |
| **2.0 The Context** | **6** |
| 2.1 Project location | 6 |
| 2.2 Existing Landscape Context and Character | 6 |
| 2.3 Heritage and Cultural Considerations | 6 |
| 2.4 Existing Site Conditions | 9 |
| **3.0 Approved REF Design** | **11** |
| **4.0 Project Design** | **13** |
| 4.1 Preliminary Concept Design | 13 |
| 4.2 Design Intent | 14 |
| 4.3 Design Inspiration | 14 |
| 4.4 Architectural Design Description | 14 |
| 4.5 Landscape Design | 18 |
| **5.0 Visual Impact Assessment** | **19** |
| 5.1 Methodology | 19 |
| 5.2 Visual Absorption Capacity and Viewing Catchment | 19 |
| 5.3 Visual Impact Analysis – Impact of proposed works from key view locations | 21 |
| **6.0 Conclusion** | **32** |



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# Document Control

| Issue | By | Review/verifier | Date | Comments |
|---|---|---|---|---|
| A | A.Sabu | M.Kahn | 07.07.2023 | S60 |
| B | A.Sabu | M.Kahn | 04.08.2023 | Revised for S60 Application |
| | | | | |
| | | | | |

# 1.0 Introduction & Background

## 1.1 Project purpose and scope

The design objective is to provide accessibility in accordance with the Disability Standards for Accessible Public Transport (DSAPT), the Building Code of Australia (BCA), and the Disability Discrimination Act (DDA). Together with fire engineering advice, the accessibility upgrade is to improve wayfinding and access to the station to enhance the customer experience. The upgrade to the interchange facilities aims to integrate public and private transport modes for commuters.

This Project scope forms part of works originally approved REF under a separate project: the Great Western Highway Upgrade Program - Medlow Bath. Based on community feedback on the REF, a revised design for the pedestrian bridge has been developed within the remit of this Project. The redesign aligns with heritage principles that reflect the town's character, sense of place, form, and materiality. This report focuses on assessing the visual impacts of the Project design in comparison to the REF design.

The scope of works for Medlow Bath Station upgrade generally comprises, design, procurement, supply, construction, testing, commissioning, integration, operational readiness, and handover of the following elements:

**Station Entry - Great Western Highway**

- New compliant station entry with lift and stair access to new footbridge over the Great Western Highway (GWH), including weather protection and coverage at the street level and footbridge level lift landing
- Compliant stairs equipped with stair nosing, tactiles and handrails
- Vertical transport using one 17-person lift with through doors, appropriate lift lobbies and weather protection coverage
- New landscaping and use of use of native planting within the land boundary of the lift landing area.

**Railway Parade Entry**

- Provide (1) accessible Kiss & Ride space, one (1) DDA space
- Provide (3) three new bike hoops
- A compliant footpath and ramp along Railway Parade.

**Footbridge**

- Provide new tactile ground surface indicators (TGSI), stair nosing and handrails to the existing footbridge and stairs
- Screens and 1200mm solid balustrade across the length of the bridge above GWH
- Seating on the footbridge
- A compliant ramp parallel to Great Western Highway with compliant falls and landings.

**Existing Footbridge**

- Modify the existing footbridge to accommodate entries to the new lift lobbies.

**Station Building and Platforms**

- Decommission and remove the existing Medlow Bath Station pedestrian level crossing and associated infrastructure
- Vertical transport using one 17-person lift in- and out, appropriate lift lobbies, canopies, concourse, protection/ safety screens to access the existing footbridge
- Provide stairs and lift to access existing platform
- Resurface platform to provide DSAPT compliant grades providing access to station entrance
- Provide allocated waiting spaces near the BAZ on both platforms
- Existing help points, information points, and pay phones at the station shall be made Accessible
- Regrade the accessible path of travel and resurface the entire platform to achieve level access along the platform connecting the new lift, boarding assistance zones (BAZ), and help point
- Provide new Tactile Ground Surface Indicators (TGSI), line marking and stenciling for the full island platform
- Provide Directional Tactile Ground Surface Indicators (TGSIs) from stairs through to island platform warning TGSI
- New wayfinding signage
- Conservation to existing Signal hut to accommodate new IMSB.

**Landscaping**

- Extents of landscaping to tie into the GWHUP landscape works
- Landscaping is proposed to Lift 2 landing area on the GWH
- Remove, replace, reinstate, or modify platform planter beds
- Provide landscaping alongside the footpaths on GWH and Railway Parade
- Upgrade planting at the station entry on Railway Parade
- Remove / modify the existing fencing, and install new fencing
- Improve the existing environment of the precinct with use of native flora, where possible.

The major changes in scope from the approved REF design include the reduction in length of pedestrian bridge, number of lifts and stairs, and elimination of the forecourt on Railway Parade

# 2.0 The Context

## 2.1 Project location

Medlow Bath is a small upper-Blue Mountains village located between the larger centres of Katoomba and Blackheath. It is about 115 kilometres west-north-west of the Sydney central business district and 5 kilometres north-west of Katoomba. At an altitude about 1,050m, Medlow Bath is located near the highest point of the Blue Mountains as shown in Figure 1. Situated along a ridge top, the village is bisected by the Great Western Highway (GWH) and the Main Western Railway corridor, which run parallel in a generally north-to-south direction.

Medlow Bath is a popular tourist location famous for its association with The Hydro Majestic Hotel. The other attractions around Medlow Bath include a network of bush walking tracks, Tuckers Lookout, and Point Pilcher. Katoomba Airfield is also located a few kilometres east of Medlow Bath (available to emergency services only).

## 2.2 Existing Landscape Context and Character

Medlow Bath lies along the high ridge between the Megalong Valley and the Grose Gorge, which gives the village an elongated character, typical of the Blue Mountains settlements along the GWH as illustrated in Figure 2. Due to its undulating topography and cleared open-forest areas along the ridge line, there are spectacular views towards Megalong Valley near the station for motorists, while the eastern side is mostly enclosed by bushland. Medlow Bath is mostly undeveloped natural land (zoned as environmental conservation, environmental management, environmental living, and national parks) with the Hydro Majestic Hotel zoned as tourist infrastructure. The main part of the village lies on the eastern side of the railway line. The Hydro Majestic Hotel occupies most of the western side of the highway, with some residences located towards the north and south of the hotel. The housing stock is typically older single-storey detached residences, interspersed with guest-houses and retreats. Apart from the hotel and walking tracks, there are no key destinations to draw visitors. Commercial activities are limited to a Mazda dealership, a United Petrol Station, a small café on Railway Street, and a homeware store on Station Street which opens three days a week.

Medlow Bath Park, located close to the station, is the only public open space in the precinct. It features dense trees, a playground, sheltered seatings, and landscaped gardens. There are also several items of heritage significance in the vicinity including Hydro Majestic Hotel, an original walking track complex behind the hotel, the Former Post and Telegraph Store on Railway Parade (currently functioning as a café), and stone walling adjacent to the Hydro Majestic Hotel.

The Great Western Highway and Railway Parade run parallel on either side of the rail corridor, making the station highly visible from both east and west. There is little buffer around the station, making it vulnerable to high noise levels along the Highway. The west side of the rail corridor is visually dominated by the Hydro Majestic Hotel and a car dealership. The elevated views from the Highway towards the west overlooking the Megalong Valley are of high scenic value. Dense vegetation between Railway Parade and Portland Road separates the railway station and the residences towards the east.

Medlow Bath Railway Station group is a state heritage listed item including the station building, signal room, brick faced island platforms, and the concrete footbridge. The station building is an early federation style brick building with a gabled roof extending as an awning to the platform. Garden beds with manicured plantings are located along the platform.

The station has a single island platform, accessed via a non-accessibly compliant level crossing at the southern end of the station and an existing pedestrian bridge at the northern end of the platform. The accessible pedestrian bridge route is less utilised than the level access due to its location away from the desire line between the station and adjacent uses.

## 2.3 Heritage and Cultural Considerations

The Blue Mountains have been the home of many Aboriginal groups who have lived and moved around the region prior to European settlement. Six distinct tribal groups hold the traditional rights and custodial responsibilities for the region. They are: the Darug, the Gandangurra, the Wanaruah, the Wiradjuri, the Darkinjung, and the Tharawal.

Medlow Bath also has a rich colonial history. It was a popular retreat for wealthy residents of Sydney in the late 19th and early 20th centuries, seeking respite in the cool and picturesque Blue Mountains. The historical development of Medlow Bath, including the establishment of guesthouses and retreats, showcases the region's historical significance as a leisure destination.

The Hydro Majestic Hotel, located in Medlow Bath, is an iconic heritage building that dates back to the early 20th century. It has played a pivotal role in the history of the region, attracting tourists and visitors with its grandeur and scenic location. The hotel is renowned for its Art Deco architecture and has hosted notable guests throughout its history.

Medlow Bath Railway Station group is a listed item under State Heritage Register (SHR) as listing 01190. It is significant as part of the early construction phase of railway line duplication in the upper Blue Mountains, demonstrating the technological and engineering achievements in railway construction at the beginning of the 20th century. The objective of the proposed design is to minimise any potential impacts on the SHR curtilage.

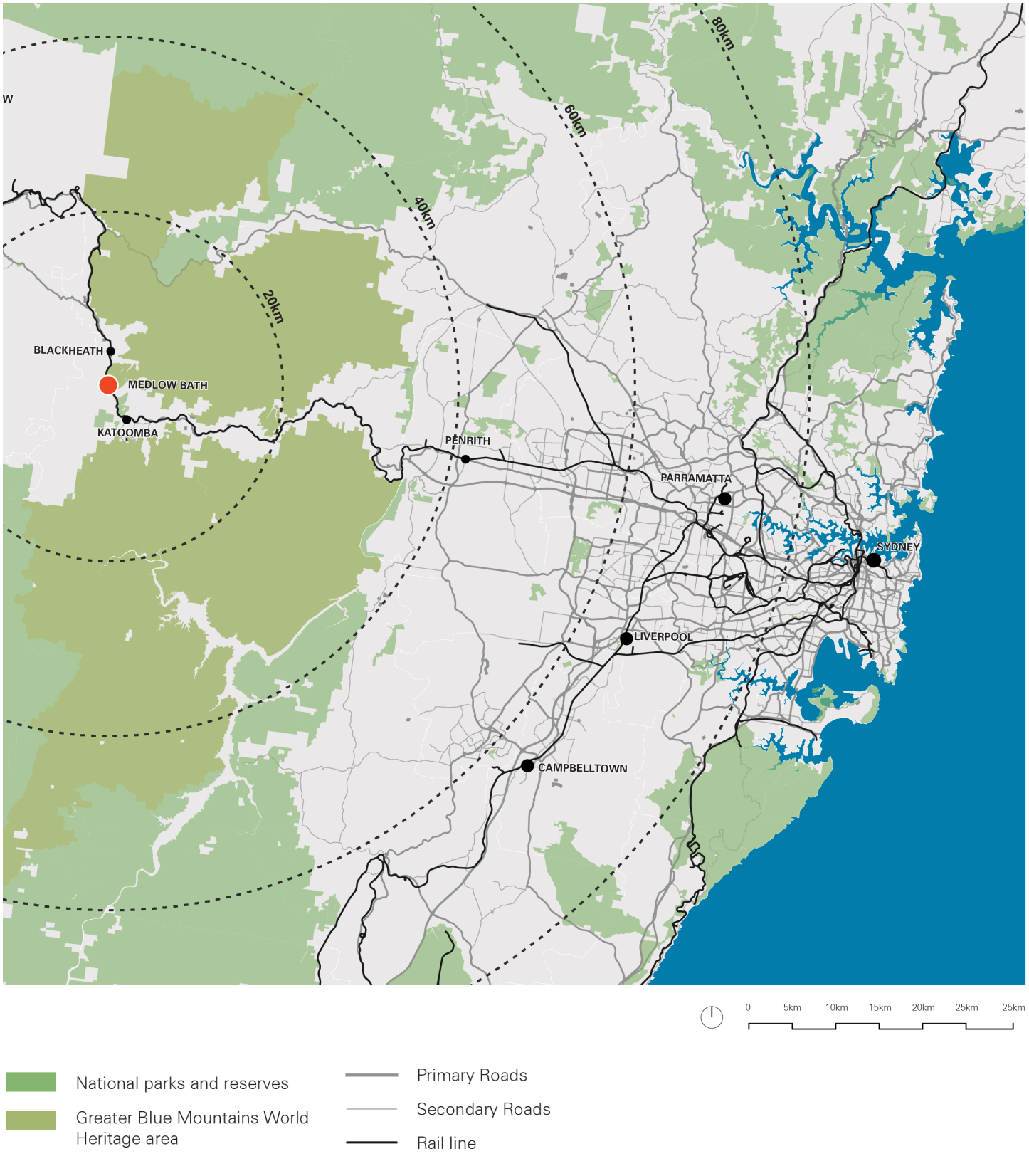



Figure 1: Project location

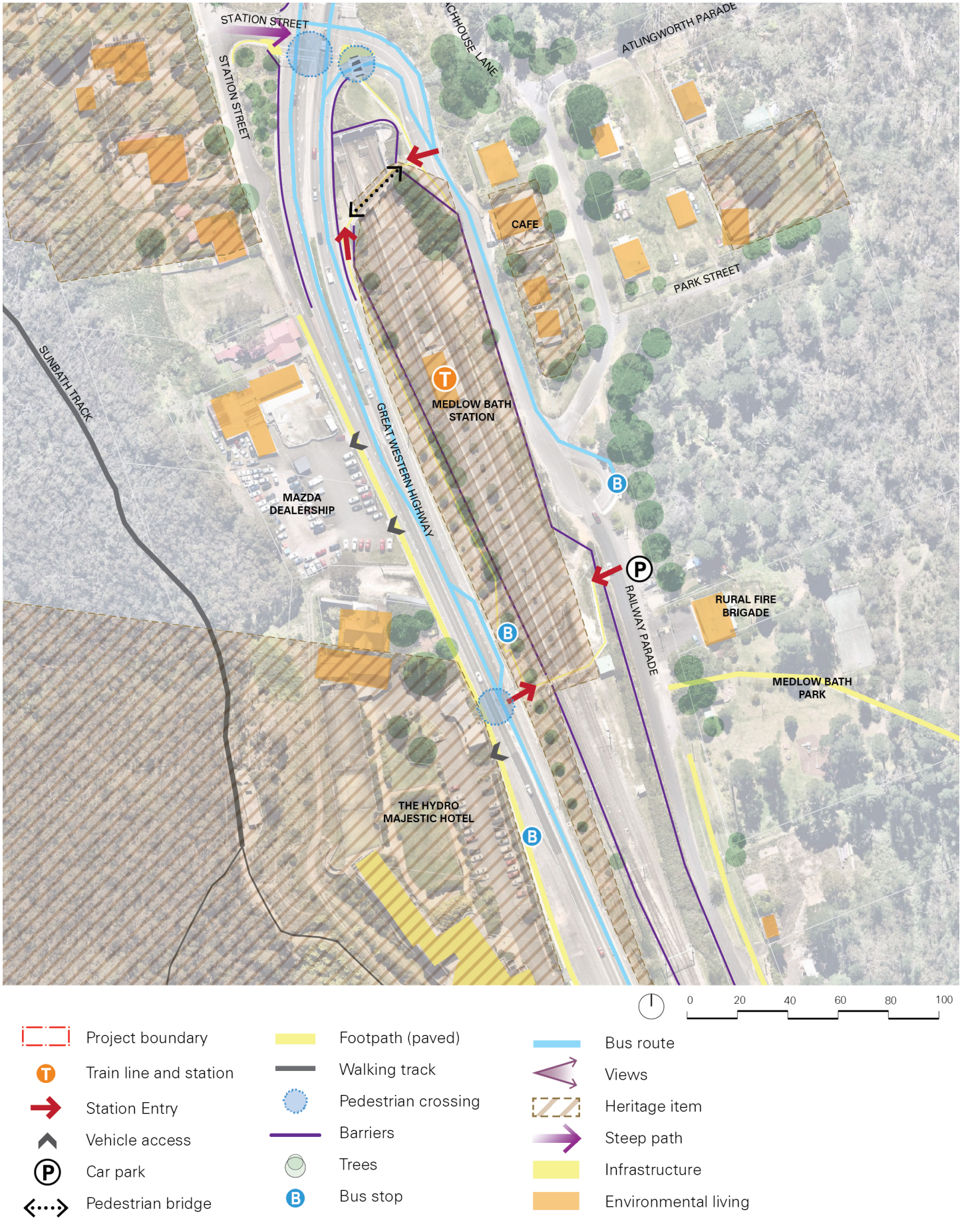



Figure 2: Character Analysis map

## 2.4 Existing Site Conditions



Image 1: Aerial view showing the station precinct



Image 2: Existing view of the Hydro Majestic Hotel and the Great Western Highway from the station Platform



Image 3: View towards Megalong Valley



Image 4: View from The Great Western Highway towards the existing station building



Image 5: Eastern side of the railway corridor enclosed by dense bushland




Image 6: Western side of the railway corridor with wide views



Image 7: Existing level crossing at the southern end of station platform with a connection to the Hydro Majestic



Image 8: Busy traffic along Great Western Highway



Image 9: Existing pedestrian footbridge at the northern entry of station




Image 10: Blue Mountains Mazda car dealership opposite the station

# 3.0 Approved REF Design

The Medlow Bath Station Upgrade presented in the REF, included as Figures 3-6, comprised:

- A weathered steel pedestrian bridge spanning the railway corridor and the Great Western Highway (GWH) with four lifts and stair towers to the ground
- Direct pathway connections to the rail station connecting Railway Parade, Station Street and Bellevue Crescent
- DDA improvements to car parking, kiss and ride and access to the station along Railway Parade
- Improvements along Railway Parade to provide a link to local businesses and a more effective method of connectivity to residents
- Safer pedestrian access between car parking, kiss and ride and local businesses along Railway Parade, including a safer realignment to the roadway and tree plantings to enhance as traffic calming
- New integrated civic spaces at the entries of the pedestrian bridge/ rail station that provide new seating, bus links within 60 metres, wayfinding signage and bicycle parking
- Improved landscaping and architecture that highlights and integrates well within its locale, including colour, tree species and architectural elements of the bridge including lighting and safety screens
- A balance of seasonal and evergreen tree plantings to assist with placemaking and to provide winter sun and summer shade for network users accessing the station and bus shelters
- Addition of mature trees at station entry points to enhance wayfinding and placemaking.[1]

1 Medlow Bath urban design, landscape character and visual impact assessment report

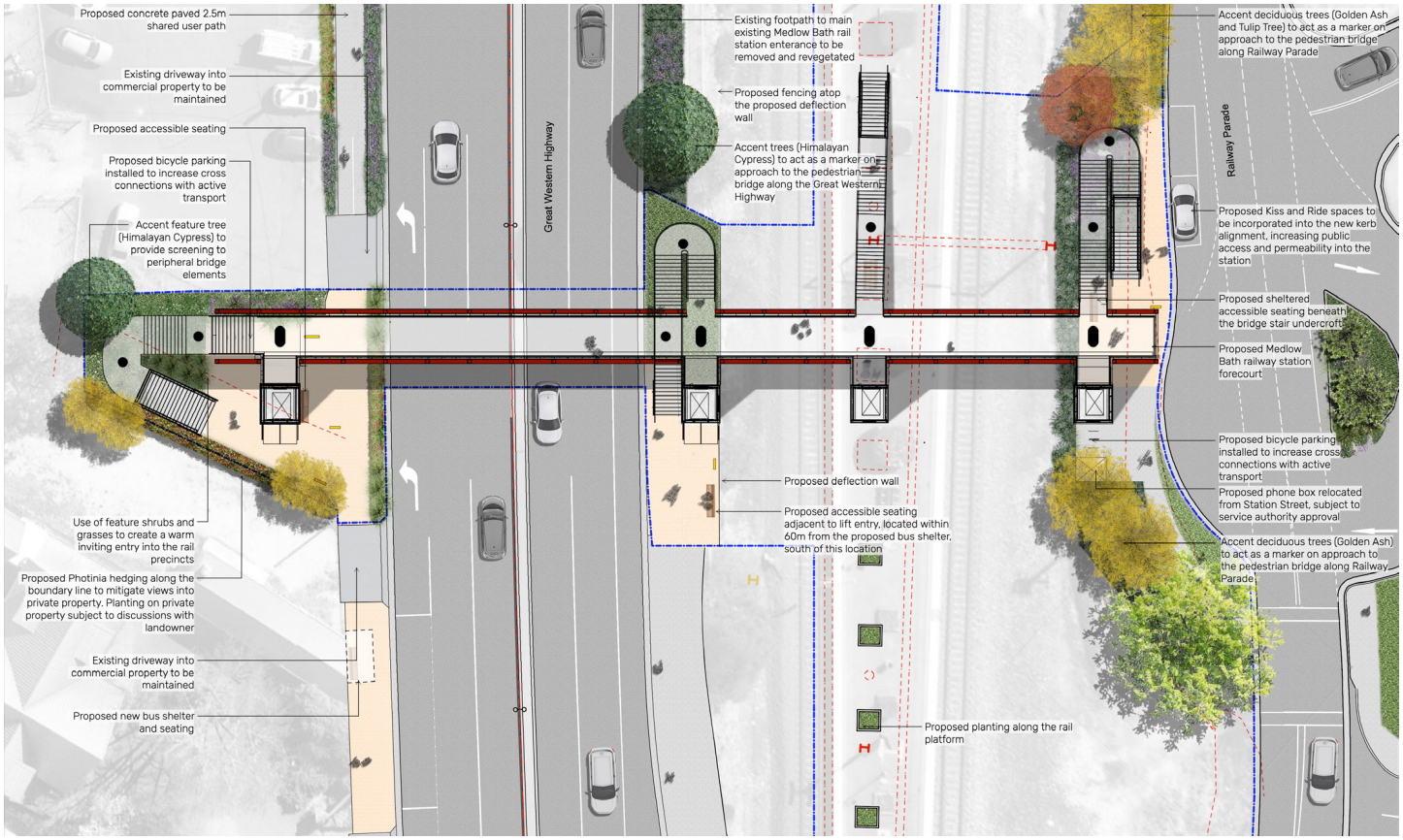



Figure 3: Detailed plan of REF bridge design, source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

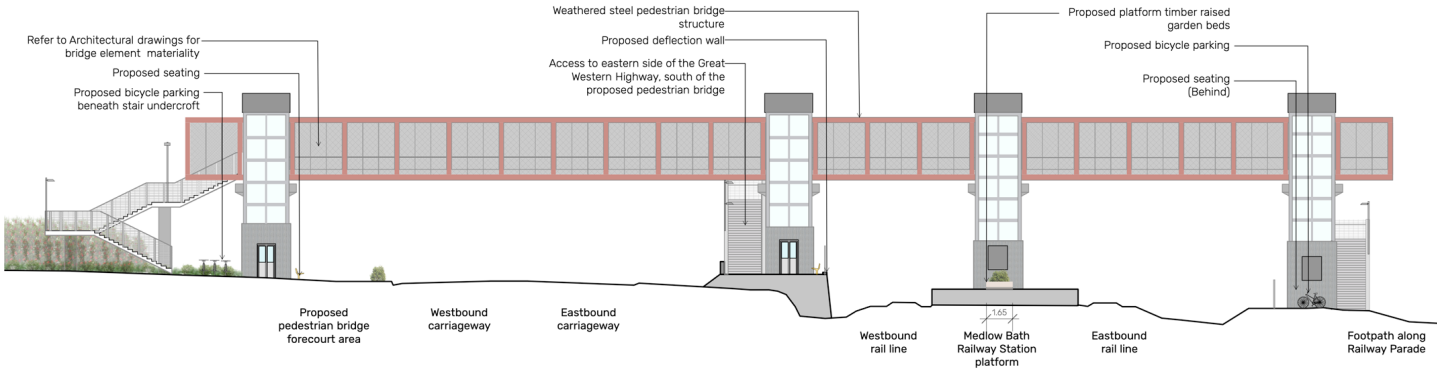



Figure 4: Elevation of approved REF pedestrian bridge - looking West, source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

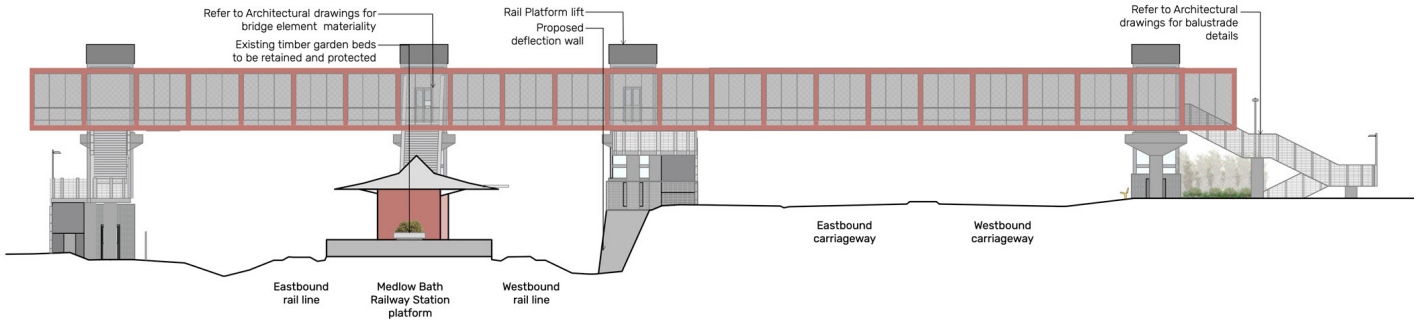



Figure 5: Elevation of approved REF pedestrian bridge - looking east, source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

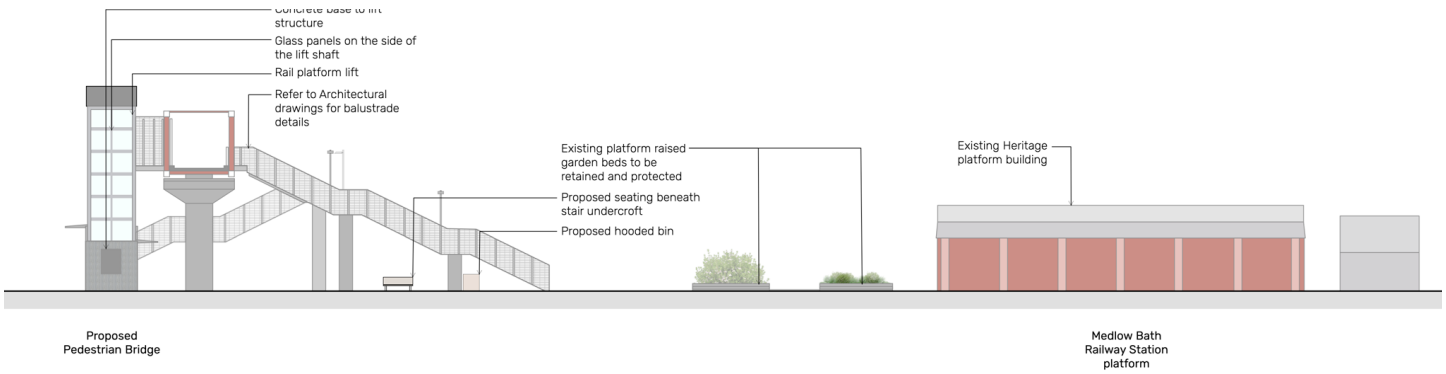



Figure 6: Elevation of approved REF pedestrian bridge - looking east, source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

# 4.0 Project Design

## 4.1 Preliminary Concept Design

Following community feedback, a new design has been developed for the Medlow Bath Pedestrian Bridge. These options are based on three design options were developed at the Concept Design Stage in 2022 to explore varying configurations of structural form, precinct movements, and materials. Refer to table 1 for a features of each preliminary design option:

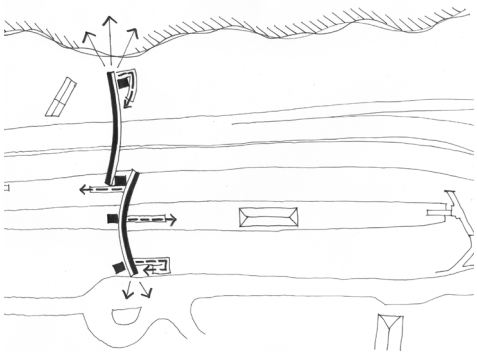
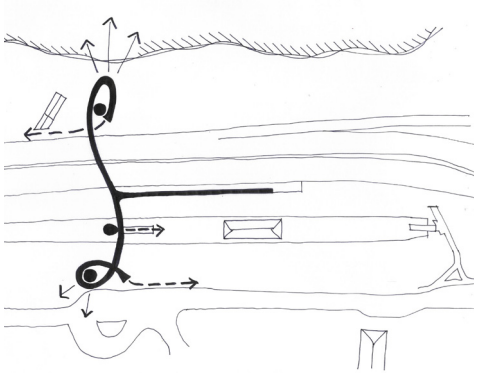
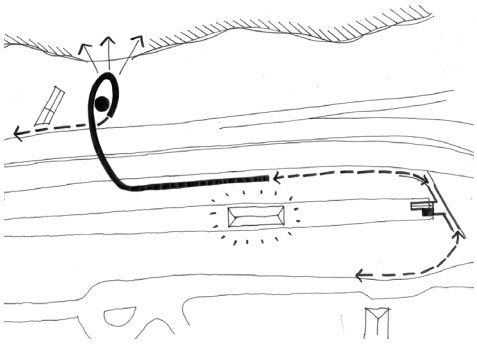
| Characteristics | Plan | Photomontage |
|---|---|---|
| **Option 1** | | |
| – Located in the same location as the REF design<br>– Split bridge of two gentle curves<br>– Maintains the movement desire lines<br>– New entry on Railway Parade<br>– Steel bridge with smooth underside<br>– One-sided section<br>– Transparent mesh screens<br>– Viewing points at each end<br>– Rectangular lift towers<br>– Total of 4 lifts with stairs to ground. |  |  |
| **Option 2** | | |
| – Curved 'S' shaped form<br>– Maintains the movement desire lines<br>– New entry on Railway Parade<br>– Steel bridge with smooth underside<br>– Trough-shaped section<br>– Transparent mesh screens<br>– Viewing points at each end<br>– Circular lift towers<br>– Total of 3 lifts with stairs to ground, & 1 ramp. |  |  |
| **Option 3 (selected option)** | | |
| – Curved 'loop' shape<br>– Bridge over GWH only<br>– Changes the movement desire lines<br>– Station entry at existing footbridge<br>– Steel bridge with a smooth underside<br>– Trough-shaped section<br>– Viewing points at each end<br>– Single circular lift tower<br>– Transparent mesh screens<br>– Total of 2 lifts with stairs & 1 ramp to ground. |  |  |

Table 1: Preliminary concept options

The three options were presented to the Design Review Panel, the Community Representatives Consultation Group, and the local Aboriginal Elders. The project team conducted a Multi-Criteria Analysis on all three options where the options were assessed based on customer experience, community consultation, maintenance and constructibility, Urban Design and Precinct Planning, Heritage, and Environment and Sustainability. Through this process, the project team evaluated the bridge option that was most respectful of the existing heritage values and landscape and the least visually intrusive. Option 3 was selected as the preferred option; this is the curved steel bridge described in this report.

Refer to *Urban Design & Public Domain Plan: Medlow Bath Station Upgrade (150496-MED-AR-RPT-30002)* for further details.

## 4.2 Design Intent

The intent of the architectural design is to provide an accessibility upgrade that respects the heritage condition of the precinct using as inspiration the local characteristics, natural environment, and history of Medlow Bath. The design has been developed through the testing of elements and their connections to the station fabric that is place specific. The upgrade takes a minimalist approach to the new works with the goal of inserting as little new built fabric as possible, while still meeting the project accessibility scope. The overall design is to be complementary while it is also protecting the heritage fabric and values of the station. As a result of the contextual analysis, the new elements were minimized and, more significantly, became divided into two parts to reflect the two distinct characters of the village:

1– The smaller scale residential area to the east of the station. Here the lift access to the station is inserted at the end of the platform connecting to the existing footbridge. This retains the historical configuration of the station.

2– The larger-scale area to the west of the station consists of the Great Western Highway, the Hydro Majestic and the Megalong Valley. The new footbridge crossing the highway responds to this character and scale.

## 4.3 Design Inspiration

Surrounding Medlow Bath village is the magnificent Blue Mountains National Park, situated along the ridge line of the Megalong Valley and providing picturesque views of the natural landscape. At times, this valley becomes even more enriched through the phantom falls phenomena. This natural weather phenomenon occurs regularly through the valley and creates a waterfall effect of a curtain of mist cascading down the escarpment. This idea, of movement atop the ridgeline, is reflected in the fluid, whimsical design of the proposed footbridge over the Great Western Highway. Along with the Phantom Falls phenomenon, the graceful, curved language of the proposed bridge is also inspired by the meandering natural pathways through the mountains. This option brings an elegant approach to the built form by minimising hard-edged man-made forms and reflecting the softer curves of the Blue Mountains formations.

## 4.4 Architectural Design Description

### 4.4.1 The Bridge

The new bridge spans only the Great Western Highway and is separate from the rail infrastructure, resulting in a much-reduced scale of built form compared to the approved REF design. This significant reduction in visual impact is balanced by changes to the established pedestrian desire lines with the closure of the level crossing and increase in the travel distances for some of the community.

On the western side of the GWH, the single circular lift shaft, identified as Lift 2, introduces a strong anchor point for the curve of the bridge, echoing the curved building forms and colouring of the Hydro Majestic, and allowing the access stairs to gently encircle the lift tower. The resulting landing area creates a dynamic viewing experience looking west across the escarpment and the Megalong Valley.

The fabricated steel bridge delivers a sinuous, free-flowing form with a smooth continuous soffit. It is supported by walls integrated into the circular lift tower to remove the visual clutter of multiple support columns below the bridge. The trough-shaped bridge section with solid parapet edges enfolds the user, giving protection from the strong sensory experience of passing over live traffic at a height (refer to Figure 8 and 10). The transparent tensile mesh screens do not interrupt the lines of the bridge and are designed to allow views through and out of the bridge.

Between the GWH and the rail corridor, the bridge comes to ground via a ramp, leading users along a new footpath to the existing station entry footbridge. The ramp utilises the natural slope of the ground to help limit its length. The ramp reduces the visual impact on the precinct by eliminating the need for another lift in this location.

### 4.4.2 The Station Entry Lift

The insertion of a new lift, identified as Lift 1, on the eastern side of the GWH and reconfigured stairs from the existing footbridge at the north end maintains the operational usage of the station in its historical configuration, respecting the heritage values of the place. The predominantly steel lift shaft at the station has a warm toned brick base to tie into the heritage station character and glazed elements in the upper section to increase the sense of transparency of the new structure and reflect the sky.

The final overall design incorporates these two additions to the station precinct that are respectful of the heritage values of SHR curtilage and existing character and at the same time create a positive impact linking some of the most recognisable characteristics of Medlow Bath. The design concept echoes the surrounding context of place through elegant built form, the landscape, and the outstanding natural context.

### 4.4.3 Colour Palette

The material palette has been selected to respond to the heritage principles and the character of the station and its surrounding context. The material choices and colours aim to affirm the principle of clean lines and simplicity. The materials and finishes will be durable, robust, sustainable, maintainable, safe, and cost effective.

**The Bridge and GWH Lift:**

The steel bridge will be painted a neutral soft light grey colour, responding directly to the Hydro Majestic and reducing the visibility of the bridge when set against the sky. Stainless steel screen posts and mesh will be minimally visible. The lift tower is clad in white glazed bricks in a vertical orientation to better facilitate the laying of brick around the radius of the curve. The lift lobby areas are lined with high gloss green tiles to echo the luxurious fabrics used at the Hydro Majestic.

**The Station Entry Lift:**

Responding directly to the existing station building, the new flat-roofed lift shaft uses brick cladding to ground itself into the platform while a steel upper portion with fixed glazing connectsinto the existing footbridge. All steel work on the lift shaft will be charcoal grey in colour to appear as a subtle addition to the heritage station. The selection injects a neutral, yet sophisticated, tone to the new works and provides a counterbalance to the existing heritage buildings on the station.




Figure 7: Existing and proposed colour palettes.



Figure 8: View along GWH looking south towards the bridge and ramp

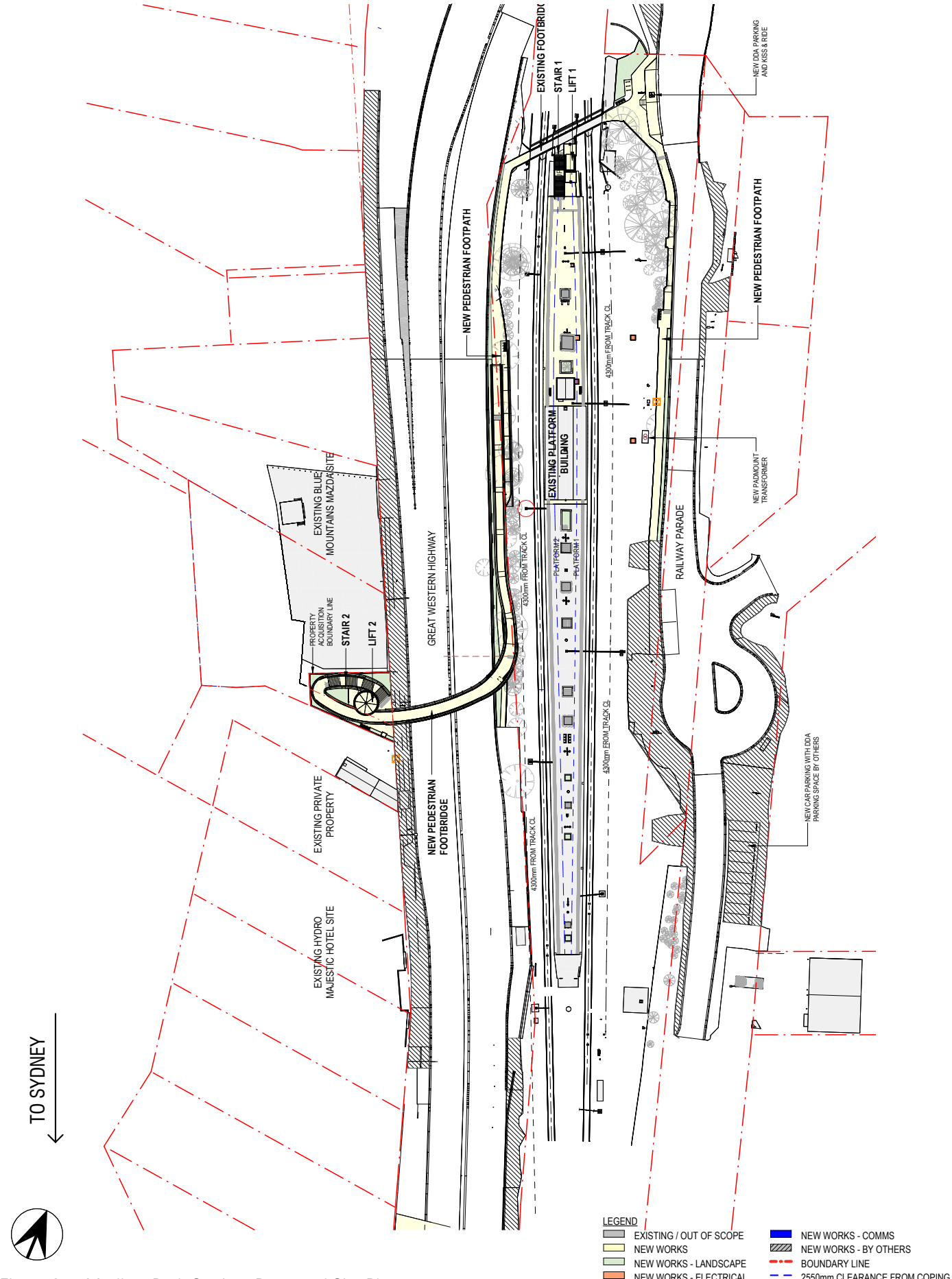



Figure 9: Medlow Bath Station: Proposed Site Plan



Figure 10: View along GWH looking north towards the bridge



Figure 11: Station entry lift at the heritage platform

## 4.5 Landscape Design

The landscape design for Medlow Bath Station aims to improve the customer experience by softening the proposed hardscape along Great Western Highway and Railway Parade, as well as improving the quality of planting along the platform. The site boundary and constraints limit the amount of planting ; however, it has been maximised and retained where possible while facilitating pedestrian movement and accessibility requirements. The key landscape proposals are outlined below:

**Great Western Highway**

- Planting of small and medium sized shrubs is proposed around the stairs and lift
- On the eastern side of the Highway, colourful native low-level, semi-shade tolerant planting is proposed to allow sightlines through to pedestrians, maximising safety.

**Station**

- New larger and colourful planting is proposed along the platform to help improve the visual amenity and responds to the local heritage and village character
- Some additional planters contain significant hedges or trees but have no understory planting. These will be retained and a lower planting mix proposed to surround the existing planting up to 300mm high.

**Railway Parade**

- The kiss and ride area contains a proposed seat and three bike racks, which is surrounded by largely native shrub and ground cover planting
- Where possible, the proposed accessible footpath is separated by a planted verge, which includes a mix of exotic and native species which will integrate well with the local landscape character and proposed adjacent road upgrade.

The proposed plant palette is a mix of native and exotic species which responds to the proposed Great Western Highway upgrade (adjacent to the site), the Balarinji Indigenous Consultation, the local village character and the Blue Mountains Plant list. Refer to *Urban Design & Public Domain Plan: Medlow Bath Station Upgrade (150496-MED-AR-RPT-30002)* for further details.

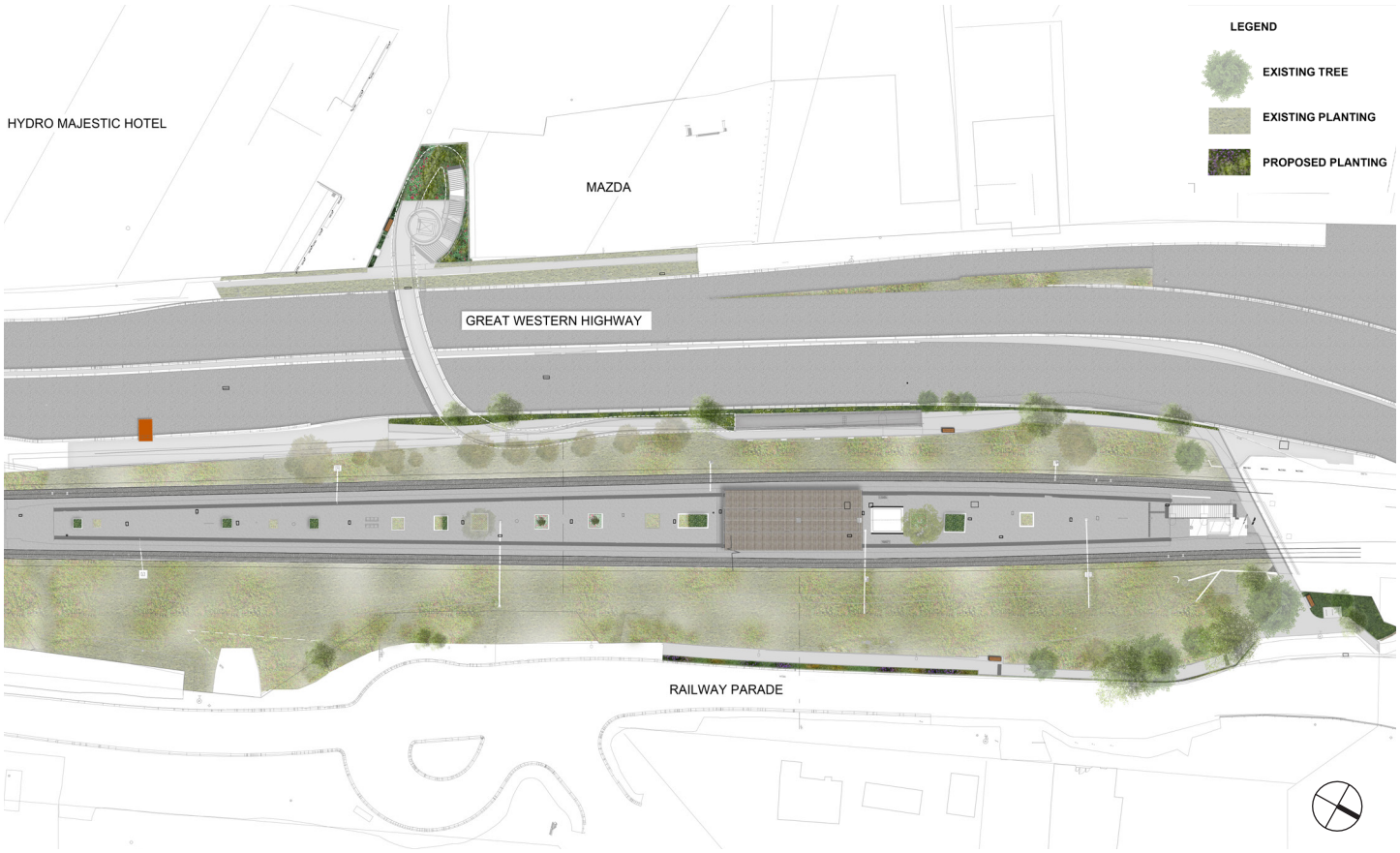



Figure 12: Medlow Bath Station: Proposed Landscape Plan

# 5.0 Visual Impact Assessment

## 5.1 Methodology

The following steps have been taken in developing this visual impact assessment (VIA):

- Assess existing context and character
- Assess visibility of the proposal
- Identify key viewpoints
- Assess visual impacts and compare it the impacts of REF design
- Identify mitigation strategies to minimise visual impacts.

The assessment of the existing context draws on the Urban Design report (150496-MED-AR-RPT-30002) which covers land use and character, access and movement, local context analysis, and includes diagrammatic maps.

For clarity and comparison with the REF outcomes, this VIA uses the same viewpoints as REF A*ppendix K: Medlow Baht urban design, landscape character and visual impact assessment*. All viewpoints are relatively close range – within the immediate station precinct – as the topography, vegetation, and built-up nature of the town centre means that the works will not be visible from further afield.

The REF *Appendix K: Medlow Bath urban design, landscape character and visual impact assessment*, in addition to the Medlow Bath Station Upgrade, outlines works associated with the proposed Great Western Highway upgrade. For the sake of completeness, this VIA also considers the future context of the Great Western Highway upgrade, though the works fall outside the scope of this Project. The GWH REF illustrated an indicative bridge structure which is now superseded by this Project's pedestrian bridge. However, the proposed upgrades to the road corridor and footpaths adjacent to the pedestrian bridge will be delivered and are therefore shown in a composite visualisation for each viewpoint.

**'Sensitivity'** refers to the quality of the view and how sensitive that view or character is to the proposed change.

**'Magnitude'** refers to the nature and scale of the project and its proximity to the viewer.

The combination of sensitivity and magnitude is used to provide an overall rating of the visual impact of the project on each view. The "Visual Impact Grading Matrix" is provided in Table 2 below:

| Sensitivity \ Magnitude | High | Moderate | Low | Negligible |
|---|---|---|---|---|
| High | High | High-Moderate | Moderate | Negligible |
| Moderate | High-Moderate | Moderate | Moderate-low | Negligible |
| Low | Moderate | Moderate-low | Low | Negligible |
| Negligible | Negligible | Negligible | Negligible | Negligible |

Table 2: Landscape character and visual impact rating matrix. Source: Guideline for landscape character and visual impact assessment : environmental impact assessment practice note EIA-N04

## 5.2 Visual Absorption Capacity and Viewing Catchment

'Visual Absorption Capacity' refers to the extent to which the existing visual environment can reduce or eliminate the perception of the proposed development.

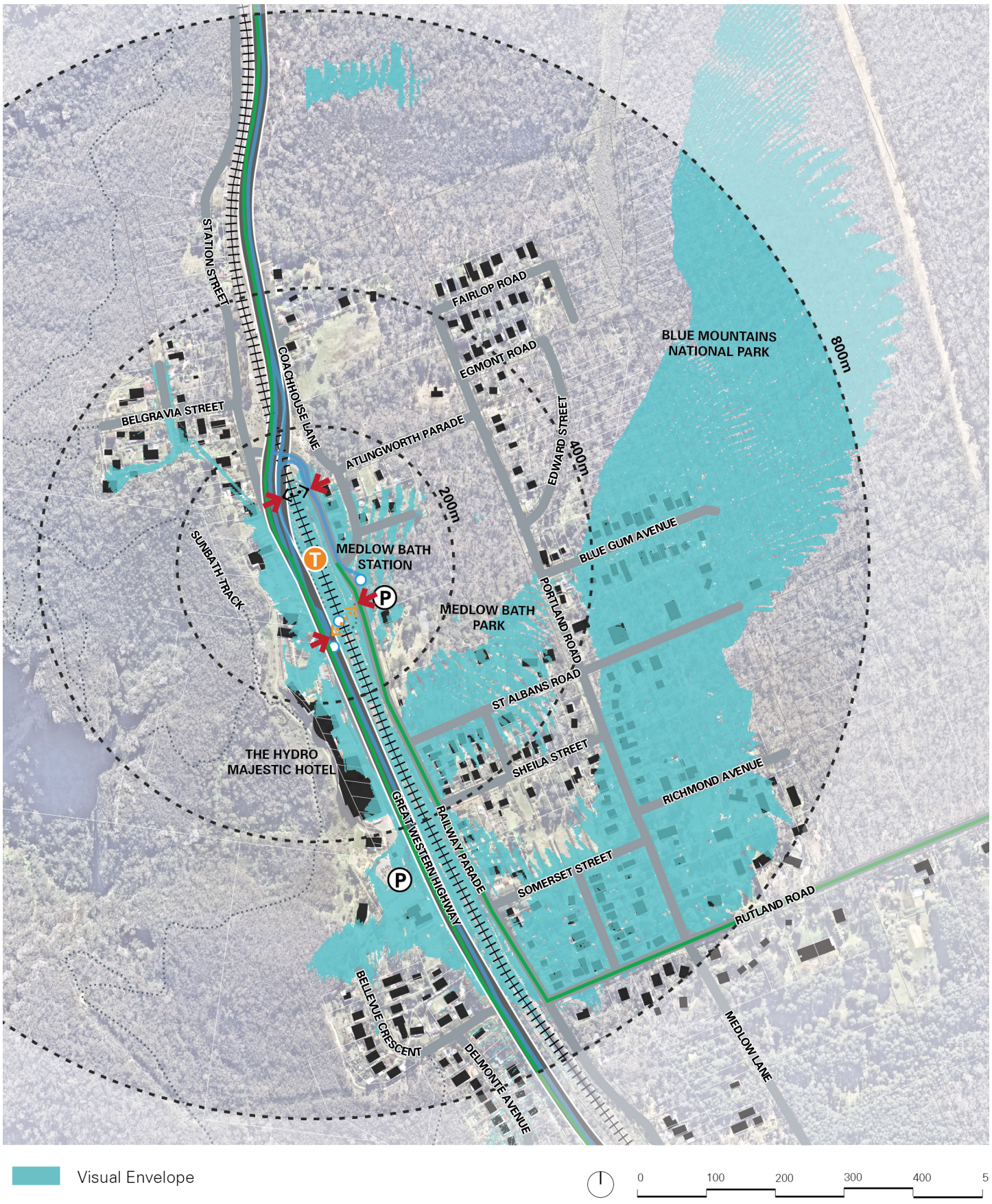
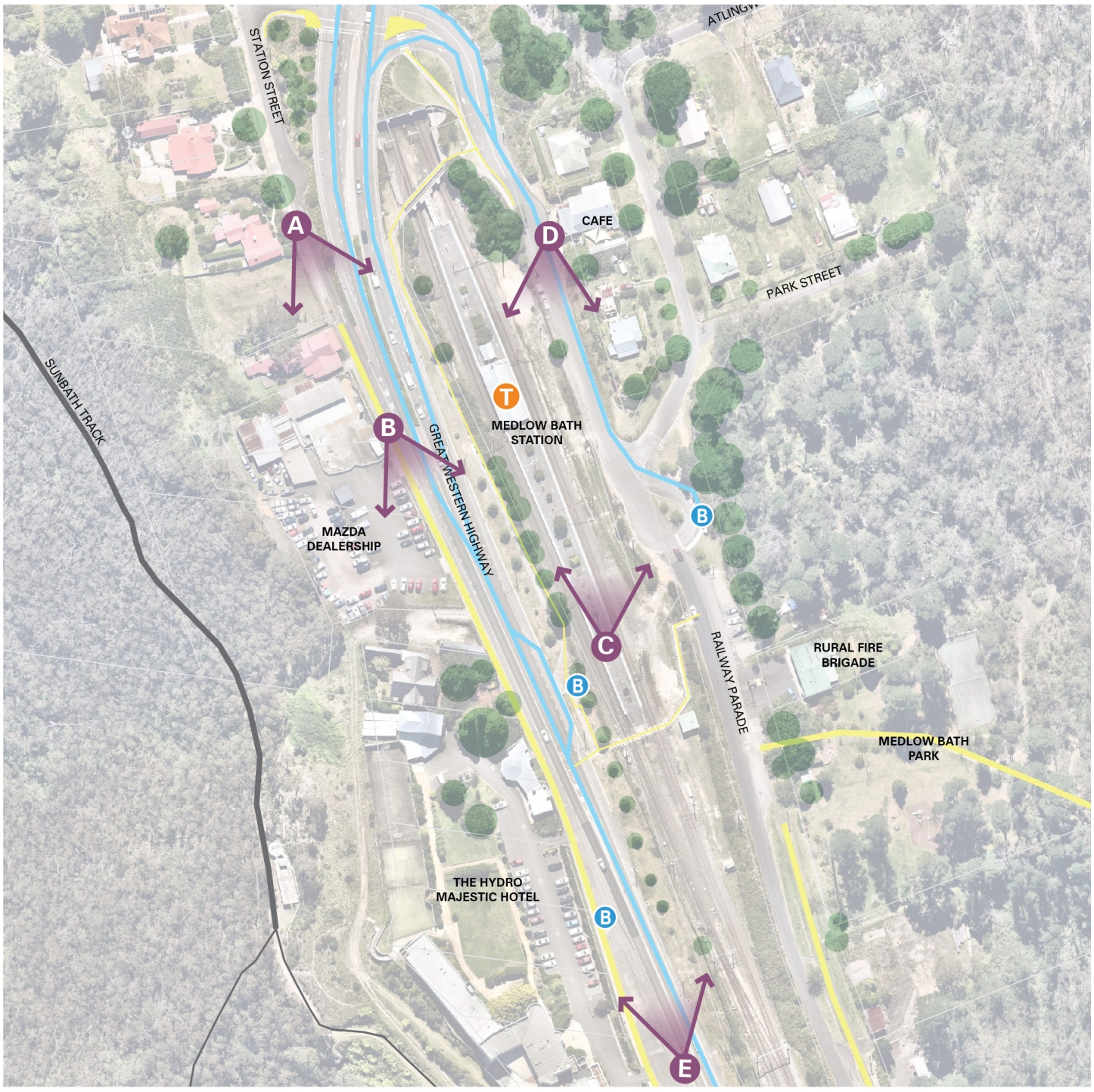



Figure 13: Viewshed analysis of the site prepared using Digital Elevation Model (DEM)

## 5.3 Visual Impact Analysis – Impact of proposed works from key view locations




**View points:**

- A View from Station Street looking south toward the proposed bridge
- B View along the existing footpath, adjacent to Blue Mountains Mazda, looking south towards the proposed bridge
- C View from the station platform looking north toward GWH
- D View from Railway Parade, adjacent to the cafe, looking south towards the proposed bridge
- E View along GWH looking north towards the proposed bridge

Project boundary
Railway Station
Bus Stop
Trees
View points

Figure 14: View location plan

### 5.3.1 View A



Figure 15: Existing view A - View from Station Street looking south toward the proposed bridge




Figure 16: Proposed view A - view from Station Street looking south toward the proposed bridge (composite visualisation)

| Viewpoint A | |
|---|---|
| **Location** | View from Station Street looking south toward the proposed bridge. |
| **Sensitivity** | High |
| **Magnitude** | Moderate |
| **Overall rating** | High-moderate |
| **Comment** | The sensitivity is considered to be high due to the residential nature of the properties, coupled with the use of sandstone and plantings to soften the adjacent infrastructure. Views further afield, in the future line-of-site of the bridge, are of a dense tree canopy, seen beyond the Great Western Highway. The bridge will be located some distance from this vantage point, with a moderate magnitude of impact. |



**REF Design**

| | |
|---|---|
| Sensitivity | High |
| Magnitude | Moderate |
| Overall rating | High-moderate |

Figure 17: REF design view A equivalent - source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

VIA Outcome: The Project design is physically more substantial than the REF design due to the larger lift structure and thicker bridge soffit. Whereas the REF structure stood out due to its colouring, the colour and form of the proposed bridge allows the structure to be recessive, blending into the distance and sky. As the bridge is observed from a distance, the resulting visual impact of the design remains high-moderate, with no material change from the REF.

*Note: composite visualisation shows proposed pedestrian bridge (within Project scope) with the adjacent public domain modifications to be completed as part of the GWH upgrade.*

### 5.3.2 View B




Figure 18: Existing view B - View along the existing footpath, adjacent to Blue Mountains Mazda, towards the proposed bridge




Figure 19: Proposed view B - view along the existing footpath, adjacent to Blue Mountains Mazda, towards the proposed bridge (composite visualisation)

| Viewpoint B | |
|---|---|
| **Location** | View along the existing footpath, adjacent to Blue Mountains Mazda, looking south towards the proposed bridge |
| **Sensitivity** | Low |
| **Magnitude** | High |
| **Overall rating** | Moderate |
| **Comment** | The sensitivity of this view is considered to be low due to the adjacent land uses and the defining feature of the highway. The new bridge will be a significant visual intervention, largely obstructing the view to the rail corridor to the east of the highway and cutting across the distant view.<br>Light colours, monolithic appearance and curved loop shape of the bridge blends in harmoniously with the surroundings. The bridge colour of a neutral soft light grey reduces the visibility of the bridge when set against the sky. The transparent mesh screens also reduces the visual bulk. Overall, the close proximity of the bridge to the view makes the magnitude of the visual impact high. |



**REF Design**

| | |
|---|---|
| Sensitivity | Low |
| Magnitude | Moderate |
| Overall rating | Moderate-low |

Figure 20: REF design view B equivalent- source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

VIA Outcome: The Project design is physically more substantial than the REF design due to the larger lift structure and thicker bridge soffit. Whereas the REF structure stood out due to its colouring, the colour and form of the proposed bridge allows the structure to be recessive, blending into the distance and sky. The REF design reinforced the horizontality of the bridge through its dark colour and expressed structure, with the stairs contrasting and creating visual clutter. The recessive nature of the new design, with a lighter colour and reduced expression of the structure results in the visual impact of the design being moderate, representing a minor increase from the REF.

*Note: composite visualisation shows proposed pedestrian bridge (within Project scope) with the adjacent public domain modifications to be completed as part of the GWH upgrade.*

### 5.3.3 View C



Figure 21: Existing view C - View from the station platform looking north towards Railway Parade




Figure 22: Proposed view C - view from the station platform looking north towards Railway Parade (composite visualisation)

| Viewpoint C | |
|---|---|
| **Location** | View from the station platform looking north towards Railway Parade |
| **Sensitivity** | Moderate |
| **Magnitude** | Negligible |
| **Overall rating** | Negligible |
| **Comment** | This view is representative of a number of views from the station platform. A significant portion of the current view composition is occupied by the existing rail and road infrastructure, particularly when observed by rail station users. Considering the existing infrastructure, the viewpoint's sensitivity to change is assessed as moderate.<br>The scope of work on the east side of rail corridor is restricted to improving footpaths and landscaping. But the topographic conditions make the changes barely noticeable, resulting in a negligible visual impact. |



**REF Design**

| | |
|---|---|
| Sensitivity | Moderate |
| Magnitude | Moderate |
| Overall rating | Moderate |

Figure 23: REF design view C equivalent - source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

VIA Outcome: The bridge in the REF design would stand out as a prominent architectural feature due to its size and material composition compared to the surroundings. The proposed design spans only the Great Western Highway and is separate from the rail infrastructure. This reduces the length of the bridge and eliminates the need for lift and stairs from Railway Parade. Additionally the station entry lift is proposed to be at the northern end of the platform, further away from this view point. Consequently, this new design causes minimal change to the existing view.

*Note: composite visualisation shows proposed pedestrian bridge (within Project scope) with the adjacent public domain modifications to be completed as part of the GWH upgrade.*

### 5.3.4 View D



Figure 24: Existing view D - View from Railway Parade, adjacent to the cafe, looking south towards the proposed bridge

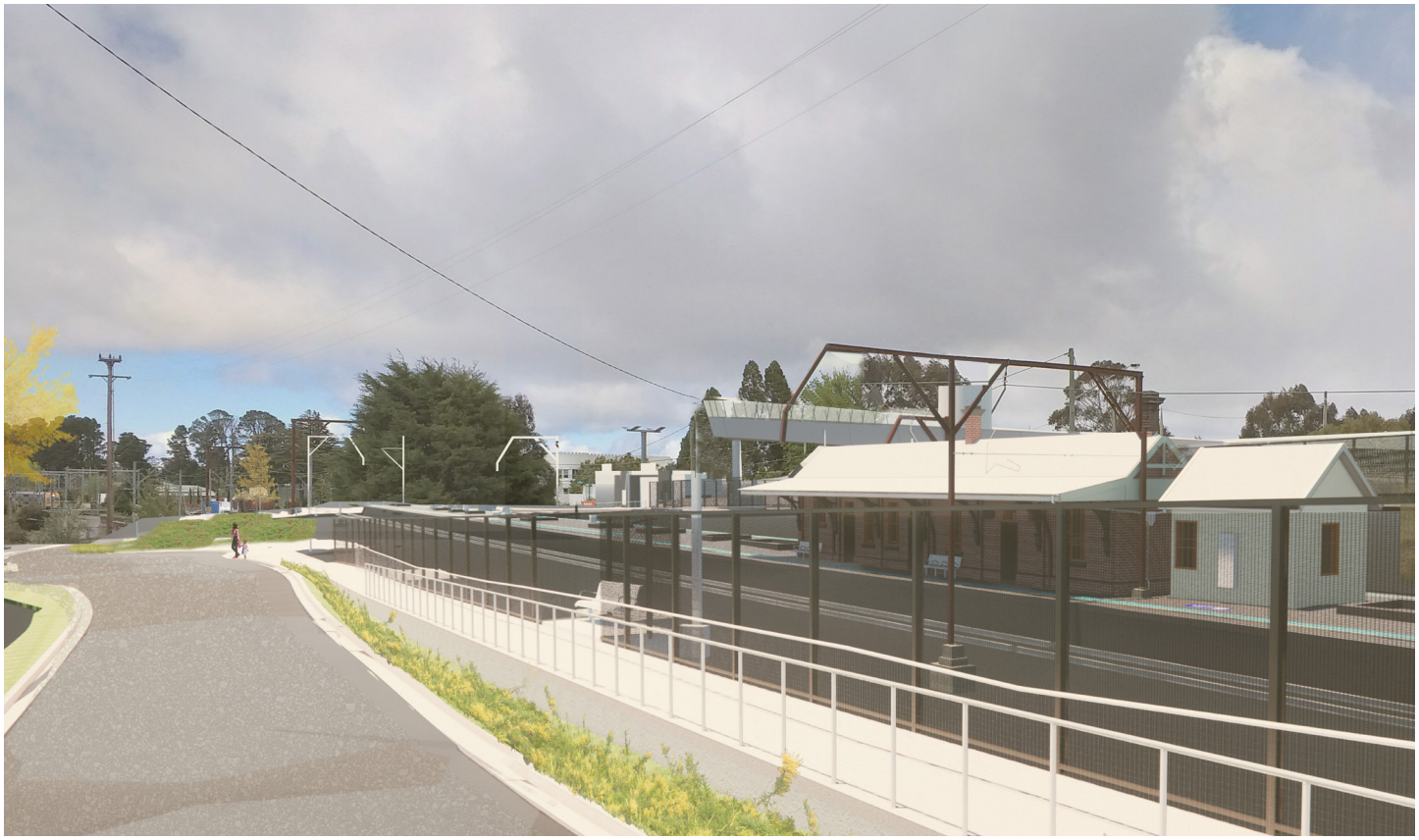


Figure 25: Proposed view D - view from Railway Parade, adjacent to the cafe, looking south towards the proposed bridge

| Viewpoint D | |
|---|---|
| **Location** | View from Railway Parade, adjacent to the cafe, looking south towards the station and proposed bridge |
| **Sensitivity** | Moderate |
| **Magnitude** | Moderate |
| **Overall rating** | Moderate |
| **Comment** | This viewpoint is representative of a number of views from the residences and local businesses along the Railway Parade. The view's sensitivity is considered moderate due to the existing spatial character, which would be susceptible to alterations. . Addition of new built elements would have an impact on the SHR curtilage and visual connection to the and the green backdrop, making the view more responsive to modifications.<br>The proposed design spans only the Great Western Highway and is separate from the rail infrastructure. This reduces the length of the bridge and eliminates the need for a lift from Railway Parade resulting in a significant reduction in visual impact The bridge will be positioned at a considerable distance from this viewpoint, with a low magnitude of impact. However, the new footpath and railings, along with the removal of existing vegetation will contribute to the magnitude of change. Therefore, the overall change within this view would be moderate. |



**REF Design**

| | |
|---|---|
| Sensitivity | Moderate |
| Magnitude | High |
| Overall rating | High-moderate |

Figure 26: REF design view D equivalent - source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

VIA outcome: The REF design originally proposed a full-length bridge extending across the railway corridor, with lifts and stairs on Railway Parade and at the centre of the station platform, significantly altering this view. In contrast, the proposed design now spans only the Great Western Highway, resulting in a shorter bridge length and eliminating the need for a lift and stairs from Railway Parade. Additionally, the station entry lift is planned for the northern end of the platform, away from this view. As a result, the new design effectively reduces the visual impact by minimising the built form.

### 5.3.5 View E



Figure 27: Existing view E - View along GWH looking north




Figure 28: Proposed view E -view along GWH looking north (composite visualisation)

| Viewpoint E | |
|---|---|
| **Location** | View along GWH adjacent to the Hydro Majestic, looking north towards the proposed bridge |
| **Sensitivity** | Moderate |
| **Magnitude** | Low |
| **Overall rating** | Moderate-low |
| **Comment** | The sensitivity of the area is evaluated as moderate due to various factors, including the presence of existing road infrastructure, the transient nature of viewers, and the significance of existing heritage items.<br>The bridge stands out as a prominent architectural feature due to its scale. However, the half bridge design significantly reduces its visual impact compared to the REF design by minimising its bulk. The use of a neutral soft light grey color, inspired by the Hydro Majestic, and the incorporation of transparent mesh further reduce the bridge's visibility against the sky. The proposed bridge structure will serve as a distinct landmark when traveling along the GWH, contributing to the character of the area. |



**REF Design**

| | |
|---|---|
| Sensitivity | Moderate |
| Magnitude | Moderate |
| Overall rating | Moderate |

Figure 29: REF design view E equivalent - source: Great Western Highway: Medlow Bath urban design, landscape character and visual impact assessment report

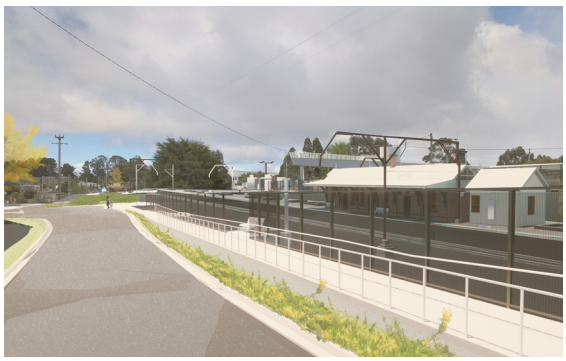
VIA Outcome: Despite the Project design featuring a larger lift structure and thicker bridge soffit, the reduction in bridge length and elimination of extra lifts and stairs significantly reduce the visual bulk. In contrast to the REF structure, the proposed bridge's color and form allow it to blend into the distance and sky, making it more recessive. While the REF design emphasised the bridge's horizontality through its dark color and expressed structure, creating visual clutter with contrasting lift structure, the Project design takes a more sympathetic approach, resulting in an overall low impact.

*Note: composite visualisation shows proposed pedestrian bridge (within Project scope) with the adjacent public domain modifications to be completed as part of the GWH upgrade.*

# 6.0 Conclusion

Taking into account the scale of the proposed architectural components and their proximity to the existing infrastructure and heritage items, the visual impact on the Medlow Bath station and its surrounding area can be described as moderate. The design aims to alleviate this impact by incorporating a sleek and streamlined structure for the bridge, utilising subdued colours, and implementing landscape screening wherever feasible.

| Viewpoint | Overall rating | |
|---|---|---|
| | REF design | Proposed Design |
| A | High-moderate | High-moderate |
| |  |  |
| B | Moderate-low | Moderate |
| |  |  |
| C | Moderate | Negligible |
| |  |  |

| Viewpoint | Overall rating | |
|---|---|---|
| | REF design | Proposed Design |
| D | High-moderate  | Moderate  |
| E | Moderate  | Moderate-low  |

Overall, the new design represents a decrease in visual impact from the REF design, as outlined in this report.

## References


- Guideline for landscape character and visual impact assessment : environmental impact assessment practice note EIA-N04, TfNSW, 2020
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- Medlow Bath Station Upgrade Architectural Design Report (150496-MED-AR-RPT-30001), DesignInc Sydney, 2023
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