

New Intercity Fleet – Springwood to Lithgow Rail Corridor Modifications

Medlow Bath Station Statement of Heritage Impact

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Medlow Bath Station Statement of Heritage Impact

Client: Transport for New South Wales
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Executive summary

Transport for NSW (TfNSW) is the government agency responsible for the delivery of major transport infrastructure projects in NSW and is the proponent for the New Intercity Fleet - Springwood to Lithgow Rail Corridor Modifications (the Project).

In May 2014, the NSW Government announced it is delivering the New Intercity Fleet, to replace trains carrying customers from Sydney to the Central Coast, Newcastle, Blue Mountains and the South Coast. The introduction of the New Intercity Fleet would allow for the replacement of the older electric train fleets currently used to provide intercity services.

The New Intercity Fleet would:

- provide a more consistent and improved level of customer service for intercity customers
- facilitate the retirement of two electric train sets currently in operation
- reduce the costs of intercity operations
- increase capacity for intercity customers.

The Project would involve works within the curtilage of the Medlow Bath Railway Station Group (Medlow Bath Station). Medlow Bath Station is listed on the following registers as State significant:

- State Heritage Register (SHR) as “Medlow Bath Railway Station Group”. SHR# 01190
- *RailCorp Section 170 Heritage and Conservation Register* SHI# 4801011
- Heritage schedule of the *Blue Mountains Local Environmental Plan 2015* (Blue Mountains LEP), Mb003.

The proposed works at Medlow Bath Station would include the following:

- modifications to station platforms including adding to and cutting back platform copings (coping modifications) of up to 25 centimetres
- re-positioning of rail tracks (track slewing) in order to accommodate increased loadings and distance to platforms, and ensuring adequate passing distance between trains
- relocation of services where required, and installing additional support where cables are removed from the platform coping overhang
- reinstate finishes such as tactile pavers and/or yellow and white line markers as required at all stations.

An assessment of the Project against the heritage significance of Medlow Bath Station concluded that the Project would have a minor impact on the heritage significance of the station. The coping modifications would result in a variation in treatment along the face. However, with the implementation of appropriate mitigation measures, it is anticipated that the coping modifications would largely be unnoticeable and would not impact on the aesthetic significance of Medlow Bath Station. It is anticipated that the track slewing would be largely unnoticeable and would not impact on fabric of heritage significance.

Mitigation measures have been provided in this report to ensure the heritage significance of Medlow Bath Station is preserved during the works.

1 Introduction

1.1 Background

Transport for NSW (TfNSW) is the government agency responsible for the delivery of major transport infrastructure projects in New South Wales (NSW) and is the proponent for the New Intercity Fleet - Springwood to Lithgow Rail Corridor Modifications (the Project).

In May 2014, the NSW Government announced it is delivering the New Intercity Fleet, to replace trains carrying customers from Sydney to the Central Coast, Newcastle, Blue Mountains and the South Coast. The introduction of the New Intercity Fleet would allow for the replacement of the older electric train fleets currently used to provide intercity services.

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- modifications to station platforms including adding to and cutting back platform copings (coping modifications) of up to 25 centimetres
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- relocation of services where required, and installing additional support where cables are removed from the platform coping overhang
- reinstate finishes such as tactile pavers and/or yellow and white line markers as required at all stations.

1.2 Site location

Medlow Bath Station is located approximately 115 kilometres west of Central Station, within the Blue Mountains City local government area. Medlow Bath Station services the Blue Mountains Line and intercity trains.

The Project site encompasses Medlow Bath Station, which is bound by Railway Parade to the east and by the Great Western Highway to the west, as shown on Figure 1.

The State Heritage Register curtilage for Medlow Bath Station is defined as being:

“West: RailCorp property boundary to Great Western Highway; East: RailCorp property boundary to Railway Parade; North: Northern edge of the footbridge; South: 5 metres from the south end of the level crossing.”

(NSW Heritage Division, 2013)



Figure 1 Location of Medlow Bath Station vicinity

1.3 Report methodology

This heritage assessment has been undertaken in accordance with the NSW Heritage Division *Assessing Heritage Significance* (NSW Heritage Office, 2001) and *Statements of Heritage Impact* (NSW Heritage Office, 2002) and includes:

- desktop searches of relevant heritage registers
- review of Project drawings and concept design reports and the following key documents:
 - heritage register listings for Medlow Bath Station
 - historic plans for Medlow Bath Station held by the Sydney Trains Plans Room
- background research into the historical development of Medlow Bath Station using the historic plans, historical photographs, newspapers and other primary and secondary historical sources as relevant and referenced in Section 3
- site inspection on 7 April 2017 by AECOM staff assessing the existing Medlow Bath along with the existing character of the Project site and surrounding land uses. Note: all photographs within this report were taken during the site inspection unless otherwise stated
- assessment of the Project against the heritage significance of Medlow Bath Station. The assessment has been undertaken in light of the conservation processes and principles found in *The Burra Charter: The Australian ICOMOS Charter for Places of Cultural Significance* (2013). *The Burra Charter* is considered to be the pre-eminent guidance document for the management of change for places of heritage significance within Australia
- the Project has also been assessed against the Sydney Trains document *Heritage Platforms Conservation Management Strategy*, as the most relevant management document.

1.3.1 Impact assessment

In order to consistently identify the potential impact of the proposed works, the terminology contained in Table 1 has been referenced throughout this document.

Table 1: Terminology for assessing the magnitude of heritage impact

Grading	Definition
Major	Actions that would have a long-term and substantial impact on the significance of a heritage item. Actions that would remove key historic building elements, key historic landscape features, or significant archaeological materials, thereby resulting in a change of historic character, or altering of a historical resource. These actions cannot be fully mitigated.
Moderate	Actions involving the modification of a heritage item, including altering the setting of a heritage item or landscape, partially removing archaeological resources, or the alteration of significant elements of fabric from historic structures. The impacts arising from such actions may be able to be partially mitigated.
Minor	Actions that would result in the slight alteration of heritage buildings, archaeological resources, or the setting of an historical item. The impacts arising from such actions can usually be mitigated.
Negligible	Actions that would result in very minor changes to heritage items and no significant alteration of its heritage values.
Neutral	Actions that would have no heritage impact.

1.3.2 Sydney Trains Heritage Platforms Conservation Management Strategy

A conservation management strategy (CMS) for heritage platforms managed and maintained by Sydney Trains was prepared by Australian Museum Consulting on behalf of Sydney Trains in 2015¹. This heritage strategy was produced in order to effectively and consistently manage modifications to heritage significant station platforms throughout NSW. The report provides an overview of historic station platforms, a comparative analysis of station platform materials, and produces strategic recommendations for future works at stations to provide consistent responses to heritage management of those stations.

Specific strategic recommendations pertinent to the proposed works are discussed in Section 7.3 of this report.

1.3.3 Report authorship and acknowledgements

This report has been prepared by Susan Lampard (Senior Heritage Specialist). Chris Lewczak (Senior European Heritage Specialist) provided a technical review of the content.

1.4 Report limitations

The purpose of this report is to identify and assess historic heritage and archaeological potential which might be impacted by the Project. Predictions have been made within this report about the probability of subsurface archaeological materials occurring within the site, based on surface indications and environmental contexts. However, it is possible that materials may occur in areas without surface indications and in any environmental context. Any unexpected finds would be managed in accordance with TfNSW's *Unexpected Heritage Finds Guideline* (Transport for NSW, 2015). This report is based on a reference design for the Project.

A summary of the statutory requirements regarding historical heritage is provided in Section 2. The summary is provided based on the experience of the authors with the heritage system in Australia and does not purport to be legal advice. It should be noted that legislation, regulations and guidelines change over time and users of the report should satisfy themselves that the statutory requirements have not changed since the report was written.

¹ Australian Museum Consulting, 2015. *Heritage Platforms Conservation Management Strategy*. Prepared for Sydney Trains.

2 Statutory context

2.1 Commonwealth legislation

2.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) defines 'environment' as both natural and cultural environments and therefore includes Aboriginal and non-Aboriginal historic cultural heritage items. Under the EPBC Act, protected heritage items are listed on the National Heritage List (NHL) (items of significance to the nation) or the Commonwealth Heritage List (CHL) (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE). The RNE has been suspended and is no longer a statutory list; however, it remains as an archive. Medlow Bath Railway Station Group is identified on the RNE (Indicative Place ID 101203). Any significance ascribed under the listing would be protected under the State Heritage Register listing (refer to Section 2.2.1).

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

- it is undertaken on Commonwealth land and would have or is likely to have a significant impact on the environment on Commonwealth land
- it is undertaken by the Commonwealth and would have or is likely to have a significant impact.

Medlow Bath Station has not been identified on the NHL or CHL and therefore the Project would not require a referral under the EPBC Act with respect to heritage.

2.2 State legislation

2.2.1 Heritage Act 1977

The NSW *Heritage Act 1977* (as amended) was enacted to conserve the environmental heritage of NSW. Under Section 32, places, buildings, works, relics, movable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the NSW State Heritage Register) Items that are assessed as having State heritage significance can be listed on the State Heritage Register by the Minister on the recommendation of the NSW Heritage Council. Medlow Bath Railway Station Group has been identified as meeting the criteria for listing on the State Heritage Register as item #01190.

Projects to alter, damage, move or destroy places, buildings, works, relics, movable objects or precincts protected by an IHO or listed on the State Heritage Register require an approval under Section 60. The 'relics provision' requires that no archaeological relics be disturbed or destroyed without prior consent from the Heritage Council of NSW. Therefore, no ground disturbance works may proceed in areas identified as having archaeological potential without first obtaining an Excavation Permit pursuant to Section 60 of the *Heritage Act 1977*, or an Archaeological Exemption.

Under Section 170 of the Heritage Act 1977, NSW Government agencies are required to maintain a register of heritage assets. The register places obligations on the agencies, but not on non-government proponents, beyond their responsibility to assess the impact on surrounding heritage items.

The Medlow Bath Railway Station Group has been identified on the RailCorp Section 170 Heritage and Conservation Register under State Heritage Inventory database (SHI #4801011). Under Section 170A(1)(c) Sydney Trains must provide the Heritage Division with written notice prior to demolition of any place, building or work entered in its register. Listing on the State Heritage Register overrides this requirement as approval under Section 60 is required.

Archaeological features and deposits are afforded statutory protection by the 'relics provision'. Section 4(1) of the Heritage Act 1977 (as amended 2009) defines 'relic' as follows:

any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance.

2.2.2 Environmental Planning and Assessment Act 1979

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

2.2.3 State Environmental Planning Policy (Infrastructure) 2007

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

Clause 14 of ISEPP 2007 applies to infrastructure developments carried out by, or on behalf of, a public authority if the development is likely to impact a local heritage item or heritage conservation area (other than a heritage item that is also a State heritage item). Under ISEPP 2007, a public authority, or person/s acting on behalf of a public authority, must not carry out a development to which this clause applies, unless an assessment of the proposed impact has been prepared and forwarded to the local government of the area for comment. Comments received within 21 days must be taken into consideration. This Clause is not of relevance to the Project as the Medlow Bath Station is an item of State heritage and approval under Section 60 of the *Heritage Act 1977* (refer Section 2.2.1) is deemed to adequately protect the heritage significance.

2.3 Local government

Medlow Bath Station is located within the Blue Mountains City LGA.

2.3.1 Blue Mountains Local Environmental Plan 2015

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

- (1) The objectives of this clause are as follows:
 - a. to conserve the environmental heritage of the Blue Mountains

- b. to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,
- c. to conserve archaeological sites,
- d. to conserve Aboriginal objects and Aboriginal places of heritage significance.

(2) Development consent is required for any of the following:

- a. demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):
 - i. a heritage item,
 - ii. an Aboriginal object,
 - iii. a building, work, relic or tree within a heritage conservation area,
- b. altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,
- c. disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation would or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,
- d. disturbing or excavating an Aboriginal place of heritage significance,
- e. erecting a building on land:
 - i. on which a heritage item is located or that is within a heritage conservation area, or
 - ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,
- f. subdividing land:
 - i. on which a heritage item is located or that is within a heritage conservation area, or
 - ii. on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

Medlow Bath Railway Station is a listed item of environmental heritage on Schedule 5 of the Blue Mountains LEP, identified as #Mb003.

2.4 Heritage registers

Medlow Bath Station has been identified as holding State significance and is listed on the State Heritage Register, RailCorp Section 170 Heritage and Conservation Register and the Blue Mountains LEP.

Table 2 Summary of listed heritage items within Project site

Heritage list	Items within the Project site	Level of significance	Items adjacent to the Project site	Level of significance	Distance to Project site (metres)
World Heritage List	Nil	n/a	Nil	n/a	n/a
National Heritage List	Nil	n/a	Nil	n/a	n/a

Heritage list	Items within the Project site	Level of significance	Items adjacent to the Project site	Level of significance	Distance to Project site (metres)
Commonwealth Heritage List	Nil	n/a	Nil	n/a	n/a
Register of the National Estate (non-statutory)	Nil		Nil	n/a	n/a
State Heritage Register	Medlow Bath Railway Station Group (State Heritage Register #01188)	State			
Sydney Trains Section 170 Heritage and Conservation Register	Medlow Bath Railway Station Group (SHI #4801011)	State	n/a	n/a	n/a
Blue Mountains LEP 2015	Medlow Bath Railway Station (MB003)	State	Melbourne House, Cosy Cot, Sheleagh Cottage (MB019) Former post and Telegraph store (MB008) Urunga (MB017) Avenue of Radiata Pines (MB015) Hydro Majestic (MB002)	Local Local Local Local Local	80 45 36 100 130



Figure 2 Heritage items within the vicinity of Medlow Bath Station

3 Historical context

3.1 European crossing of the Blue Mountains

For 25 years the Blue Mountains formed an impenetrable barrier to the expansion of the New South Wales Colony. Convicts seeking to escape were the first to attempt the crossing, but the strategy of following creeks or rivers upstream was unsuccessful when falls or rapids were met. Gregory Blaxland, William Lawson and William Charles Wentworth made the first real headway with their expedition in May 1813 (State Library of New South Wales, 2014). Later that same year, surveyor George Evans found a way through to Bathurst (National Museum of Australia, n.d.). Captain William Cox was tasked by Governor Lachlan Macquarie to form a road along this line, which was to become the basis for the Great Western Highway.

3.2 Railway development

Settlement in the area commenced with Brown's Sawmill. The sawmill was the initial impetus for a halt stop created in 1881, but the stop was renamed Medlow in 1883 and then Medlow Bath in 1903, following the opening of the nearby Hydro Majestic Hotel (NSW Heritage Division, 2013).

The original 1881 siding platform was 30 metres long and included some platform structures. These structures were altered in 1899, prior to being demolished for the duplication of the railway line (NSW Heritage Division, 2013).

During the duplication of the line in 1902, the siding platform and associated structures were replaced with the extant island platform and station platform building was constructed in the free classical architectural style. No plans of the initial construction phase have been located to date, but early images of the island platform indicate that it had a gravelled surface with a concrete deck (Figure 3 and Figure 4). As with many of the platforms on the Blue Mountains Line, the platform face was constructed of unreinforced concrete cast *in situ*.

In 1943, plans were drawn up to the platform was extended at the southern end to bring the overall platform length to 600 feet (182.88 metres). The annotation on the plans for the Project indicate that at this time the platform wall was raised (Figure 5). It is assumed that these works included modifications to the coping, which is evident in the physical fabric (refer to Section 4).

In 1952, the tracks were slewed for the insertion of overhead wiring structures, associated with the electrification of the line (refer to Department of Railways NSW Way and Works Branch "Medlow Bath proposed slewing of goods siding for O.H. wiring structures" approved 8.8.1952. Sydney Trains Plan Room No. CV0069901). The track associated with platform 1 was slewed again in 1980/1981 and a section of the coping of platform 1 was cut back (refer to Public Transport Commission of NSW Rail Division – Way and Works Branch "Medlow Bath Realignment of Up main through platform 115.812 949km to 116.045 685km" approved 15.12.1980. Sydney Trains Plan Room No. CV0071228).

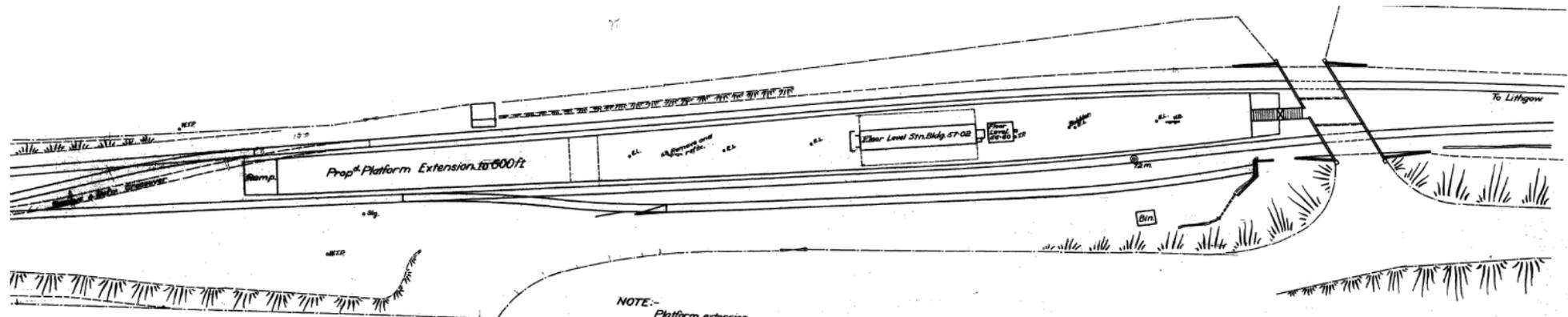
Further modifications in the vicinity of Medlow Bath Station, based on plans held by Sydney Trains are limited to alterations to the overbridge and footbridge associated with Medlow Bath Station and are therefore not of relevance to the Project.



Figure 3 “Medlow Bath Railway Station (NSW)” 1954. View south. Held by State Archives & Records. Digital Id 17420_a014_a014000748



Figure 4 “Group of people on the platform at Medlow Bath railway station, New South Wales” c. 1910 Held by National Library of Australia. Call number: PIC Box PIC/6015#PIC/6015/34. Note the cast concrete coping



NOTE:-
 Platform extension
 to be 3'-2" above rail level.
 Existing platform wall
 to be raised to 3'-2" above
 rail level.

WARNING SCANNED IMAGE
 EDMS CV0071754

DEPARTMENT OF RAILWAYS N.S.W.	
WAY AND WORKS BRANCH	
MEDLOW BATH	
EXTENSION OF PLATFORM TO 600 FT.	
DRAWN J.H.	SCALE 8 1/2" = 100'
TRACED BY W.S.	CHECKED
DATE 30-9-43	DATE APPROVED 1/10/43
W.R. BOOBY PER	W.R. BOOBY PER
5/10/43	NOV 18 1943
NO 1820-34,104	

Figure 5 "Medlow Bath extension of platform to 500 FT." Department of Railways NSW Way and Works Branch. 1943. Sydney Trains Plan Room No. CV0071754

4 Physical description

4.1 Introduction

This section provides a physical description of Medlow Bath Station to provide an understanding of the physical elements that contribute to Medlow Bath Station's heritage significance. The Project does not include modifications to any of the buildings. For the sake of brevity, therefore, these items are not described here. A full description of these items can be found within the SHR listing².

4.2 Station platform and coping

4.2.1 Description of platform

Medlow Bath Station has a single island platform, accessed via a pedestrian footbridge. On the platform stands a brick face station building (1902), which is unattended. Adjacent to the station building is a weatherboard signal room (1922). These buildings would not be impacted by the proposed works.

The island platform services platform 1, on the eastern side facing Railway Parade and platform 2, fronting the Great Western Highway. It is approximately 183 metres long and ten metres wide.

4.2.2 Platform coping

The 1902 portion of the platform is constructed of unreinforced concrete, cast *in-situ* with a concrete deck (Figure 6). The cast *in-situ* concrete coping had a vertical profile, and stepped or flared foot and in most cases a projecting moulded coping. The platform was extended in 1946 to the current length, with the extension built out of brick with a corbelled brick coping (Figure 7). The height of the 1902 concrete deck was raised at this time by adding four courses of brick on top of the original concrete deck (Figure 6). The brick coping overhangs the concrete deck to create an additional corbel along the majority of the platform 2. A portion of coping on platform 1 was cut back in 1980/1981 (refer Section 3.2) and this work is evident as a rough, uneven surface.

² <http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5012100>



Figure 6 View of 1902 section of the platform showing the brick additions above



Figure 7 View of juncture between the 1902 unreinforced concrete platform (right of image) and the 1946 brick extension to platform (left of image)



Figure 8 View of 1980/1981 coping modifications on platform 1

4.3 Rail corridor

The track consists of sleepers, ballast and rail (Figure 9). It is noted that the sleepers are concrete throughout the Medlow Bath Station precinct, indicating they have been replaced as the initial construction of the line would have been on wooden sleepers. It is anticipated that these items are not individually or collectively significant, having undergone extensive modifications and replacements since the lines were laid in 1902. Section 3.2 notes that track slewing was undertaken in 1952 and 1980/1981.



Figure 9 View north of tracks. Note concrete sleepers

5 Significance assessment

5.1 Assessment criteria

5.1.1 Significance assessment criteria

In order to understand how a development would impact on a heritage item, it is essential to understand why an item is significant. An assessment of significance is undertaken to explain why a particular item is important and to enable the appropriate site management and curtilage to be determined. The process of assessing heritage significance is outlined in the guideline *Assessing Heritage Significance* (NSW Heritage Office, 2001) which is part of the *NSW Heritage Manual* (Heritage Branch, Department of Planning). The *Assessing Heritage Significance* guidelines establish seven evaluation criteria which reflect four categories of significance and whether a place is rare or representative.

A heritage item can be identified as being significant at a local level (i.e. to the people living in the vicinity of the site), at a State level (i.e. to all people living within NSW) or be significant to the country as a whole and be of National or Commonwealth significance. In accordance with the guideline *Assessing Heritage Significance*, an item would be considered to be of State significance if it meets two or more criteria at a State level, or of local heritage significance if it meets one or more of the criteria outlined in Table 3. The Heritage Council require the summation of the significance assessment into a succinct paragraph, known as a Statement of Significance. The Statement of Significance is the foundation for future management and impact assessment.

Table 3 Significance assessment criteria

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

Criterion	Inclusions/Exclusions
Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area).	An item is excluded if it is not rare or if it is numerous, but under threat. The item must demonstrate a process, custom or other human activity that is in danger of being lost, is the only example of its type or demonstrates designs or techniques of interest.
Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW’s (or local area’s): <ul style="list-style-type: none"> • cultural or natural places cultural; or • natural environments. 	An item is excluded under this criterion if it is a poor example or has lost the range of characteristics of a type.

5.1.2 Significance grading

This report includes an assessment of the relative contributions of individual components of Medlow Bath Station to its overall heritage value. Components are assessed according to the grading in Table 4.

Table 4 Grading of significance. Source: NSW Heritage Office, 2001

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

5.2 Assessment of significance for Medlow Bath Railway Station Group

The State Heritage Register significance assessment for Medlow Bath Station is included in Table 5.

Table 5 State Heritage Register significance assessment of the Medlow Bath Railway Station Group (NSW Heritage Division, 2013)

Criterion	Assessment
Criterion (a) – an item is important in the course, or pattern, of NSW’s cultural or natural history (or the cultural or natural history of the local area).	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.
Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s cultural or natural history (or the cultural or natural history of the local to area).	No assessment provided against this criterion.
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).	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.
Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	The place has the potential to contribute to the local community’s sense of place and can provide a connection to the local community’s history.
Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history (or the cultural or natural history of the local area). Significance under this criterion must have the potential to yield new or further substantial information.	No assessment provided against this criterion.
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).	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.
Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW’s (or local area’s): <ul style="list-style-type: none"> • cultural or natural places cultural; or • natural environments. 	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.

5.2.1 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.”

(NSW Heritage Division, 2013)

The significance assessment and statement of significance will be used to assess whether the Project would impact on the significance of Medlow Bath Station in Section 6.

5.2.2 Station components significance

Table 6 includes an assessment of the relative contributions of individual components of Medlow Bath Station to its overall heritage value.

Table 6 Grades of significance of components of Medlow Bath Station

Grading	Component
Exceptional	Station building (1902) Signal box (1922) Island platform (1902) – excluding 1940s modifications
High	Footbridge (1901, 1994)
Moderate	Moveable heritage – two timber bench style seats in waiting room
Low	1980s modifications to the coping of platform 1 Platform landscape plantings
Intrusive	Nil

5.3 Adjacent and overlapping heritage items

Section 2 identified a number of listed heritage items located within 50 metres of Medlow Bath Station. The statements of significance for these items are provided in Table 7, against which the impact will be assessed in Section 7.

Table 7 Adjacent and overlapping heritage items

Heritage item	Listing	Significance	Description
Melbourne House, Cosy Cot, Sheleagh Cottage	These cottages are listed on the Blue Mountains LEP (MB019).	Local	These three cottages date from the turn of the century and are associated with local identities.

Heritage item	Listing	Significance	Description
Former post and Telegraph store	The Former post and Telegraph store is listed on the Blue Mountains LEP (MB008).	Local	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.
Urunga	Urunga is listed on the Blue Mountains LEP (MB017).	Local	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.
Avenue of Radiata Pines (MB015)	The Avenue of Radiata Pines is listed on the Blue Mountains LEP (MB015).	Local	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.
Hydro Majestic	The Hydro Majestic is listed on the Blue Mountains LEP (MB002)	Local	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.

6 Archaeological assessment

The significance assessment associated with the Medlow Bath State Heritage Register listing does not identify Medlow Bath Station as holding archaeological significance or potential. In addition, the works at Medlow Bath Station would be limited to platform coping modifications and track slewing. These works would not require any excavations or ground disturbing activities and therefore further analysis of the archaeological significance or potential is not warranted at this time.

7 Impact assessment

7.1 Proposed works

7.1.1 Overview

The Project, within the curtilage of Medlow Bath Station would include the following key elements:

- modifications to station platforms including adding to and cutting back platform copings (coping modifications) of up to 25 centimetres
- re-positioning of rail tracks (track slewing) in order to accommodate increased loadings and distance to platforms, and ensuring adequate passing distance between trains
- relocation of services where required, and installing additional support where cables are removed from the platform coping overhang
- reinstate finishes such as tactile pavers and/or yellow and white line markers as required at all stations.

The proposed works are shown on Figures SK-H1201 Rev B and SK-H1202 Rev A. The extent of the modifications the platform copings and track slewing are indicated in Table 8 to Table 9 and Table 10 to Table 11 respectively.

7.1.2 Platform coping modifications

To enable the passage of the New Intercity Fleet trains through Medlow Bath Station and maintain a safe gap, modifications to the coping (the edge of the platform) have been identified as necessary.

Platform coping cutbacks would be undertaken using a road saw or a demolition saw. The type of saw would depend on the depth of cut (roads saws have a larger blade so can cut deeper), and the safety controls that the contractor selects. The process for both saw types would be the same:

- alignment of cut to be marked out on the platform
- any services that may be under the platform coping cantilever (overhang) would need to be removed, and the surplus coping supported to prevent uncontrolled fall
- using one of the above saws, the concrete/brick would be cut along this alignment
- any locations where the new coping edge has imperfections or exposed reinforcement, would need to be treated with a thin grout / epoxy.

In some instances it would be necessary to extend the coping to reduce the gap between the trains and platform. It may be necessary to erect formwork and pour concrete into sections where greater modifications are required. The process would involve:

- cut back the existing edge by about 50 millimetres
- application of a corrosive inhibiting compound to the existing exposed cut steel
- drilling of holes for anchors, surveying and marking coping set-out
- installation of temporary timber framework and the use of packers as required to ensure formwork does not project past the coping edge

- installation of new galvanised steel plates and anchors
- installation of infill repair mortar
- trowelling a 15 millimetre deep joint in the new repair mortar as a continuation of the existing platform slab joints
- installation of tactiles and painting.

The works include the removal of up to 26 millimetres off the vertical face of the corbelled coping and the addition of up to 238 millimetres on platform 1. On platform 2, up to 74 millimetres is proposed for removal from the vertical face. No additions have been identified on platform 2.

The proposed coping modifications are shown in Table 8 and Table 9. Negative values indicate where cutback is necessary, while positive values indicate the addition of concrete. There is no tolerance associated with negative values, however, where a positive value of less than 5 millimetres is identified, this work may not be completed. All values would be confirmed during detailed design and may be subject to change.

Table 8 Proposed coping modifications to platform 1

Kilometerage	Horizontal difference. negative value = coping cutback in mm	Kilometerage	Horizontal difference. negative value = coping cutback in mm
115712	16	115810	5
115720	4	115820	-17
115730	-3	115830	27
115740	7	115840	11
115750	3	115850	-6
115760	6	115860	-26
115770	10	115870	-7
115780	23	115880	-11
115790	26	115890	87
115800	13	115895	238

Table 9 Proposed coping modifications to platform 2

Kilometerage	Horizontal difference. negative value = coping cutback in mm	Kilometerage	Horizontal difference. negative value = coping cutback in mm
115713	-32	115810	-48
115720	-74	115820	-33
115730	-61	115830	-27
115740	-55	115840	-46
115750	-50	115850	-52
115760	-44	115860	-58

Kilometerage	Horizontal difference. negative value = coping cutback in mm	Kilometerage	Horizontal difference. negative value = coping cutback in mm
115770	-38	115870	-63
115780	-32	115880	-63
115790	-32	115890	-61
115800	-37	115896	-57

7.1.3 Track slewing

Track slewing refers to vertical alterations in the rail positioning to ensure adequate distance to platforms, and passing distance between trains. The works would include the temporary disconnection of signalling and communications infrastructure, re-positioning of the tracks and the replacement of ballast, headstock and other items as required. The works would result in the track associated with platform 1 been moved up to 99 millimetres. The works to the track associated with platform 2 would involve the movement of the tracks by up to 26 millimetres. The extent of the modifications are shown in Table 10 and Table 11.

Table 10 Proposed track slewing to platform 1

Kilometerage	Horizontal difference. Positive value = pull away from platform	Kilometerage	Horizontal difference. Positive value = pull away from platform
115712	68	115810	99
115720	65	115820	81
115730	64	115830	50
115740	62	115840	20
115750	61	115850	9
115760	61	115860	14
115770	63	115870	31
115780	65	115880	29
115790	69	115890	28
115800	80	115896	31

Table 11 Proposed track slewing to platform 2

Kilometrage	Horizontal difference. Positive value = pull away from platform	Kilometrage	Horizontal difference. Positive value = away from platform
115713	-3	115810	6
115720	-3	115820	24
115730	-4	115830	26
115740	-4	115840	12
115750	-3	115850	11
115760	-3	115860	9
115770	-5	115870	6
115780	-4	115880	5
115790	-3	115890	4
115800	-1	115896	-1

7.2 Project justification and options

7.2.1 Justification

Improving transport customer experience is a focus of the NSW Government's transport initiatives. Trains are an important component of the transport system and, as such, play a critical role in shaping the customer's experience and perception of public transport. The introduction of the New Intercity Fleet would allow for the replacement of the existing intercity trains that are approaching the end of their service life and are experiencing a number of adverse operational impacts including declining reliability, lower availability (due to maintenance and failures), higher maintenance costs and lower customer amenity. The New Intercity Fleet would provide a better experience for public transport customers by delivering an accessible, modern, safe and comfortable travel experience.

The NSW Government's decision to introduce the New Intercity Fleet would result in a number of changes from the existing fleet increasing the length of the trains up to 205 metres and an increased train width to cater for growing customer patronage and improved customer comfort. Modifications to existing rail infrastructure are essential to accommodate and operate the new trains while meeting appropriate safety and design standards. It should be noted that a number of existing trains cannot run on the Blue Mountains Line and work to standardise the line is needed, regardless of the New Intercity Fleet.

The Project includes essential enabling works that would facilitate the safe and reliable operation of New Intercity Fleet between Springwood and Lithgow on the Blue Mountains Line. The Project would also allow the Blue Mountains Line to be compatible with the existing electrified rail network.

7.2.2 Project options to achieve necessary width clearances

TfNSW commissioned the development of a series of design reports for the early development of the Project. The outcomes of these assessments then informed the scope of works needed to allow for the safe operation of the New Intercity Fleet along the Blue Mountains Line. Options for enabling the safe and efficient operation of the New Intercity Fleet on the Blue Mountains Line were developed following a succession of workshops with TfNSW, relevant stakeholders (including Sydney Trains and NSW TrainLink) and the project team.

TfNSW assessed four options to achieve necessary width clearances for the Proposal. These options are provided in Table 12.

Table 12 Summary of width clearance design options

Option	Design detail	Options discussion
1 – Track slewing only	Movement of rail laterally within the rail corridor to provide necessary clearances from nearby objects	The slewing of track would not impact heritage significant fabric or heritage significant views of Medlow Bath Station. This would result in neutral physical and visual impacts to the platform coping at Medlow Bath Station. This option was discounted because widespread track slewing would result in significant readjustments of existing overhead wiring structure configurations throughout the Blue Mountains Line.
2 –Coping modification only	Leaving existing track in its present configuration and ensuring necessary clearances by reducing platform width. Also involves the removal of intervening or overhanging objects (specifically, the canopies of platform buildings)	This option would involve a greater amount of removal of existing platforms and station buildings than the preferred option (Option 3). This option would result in the trimming of the canopies of the island platform station building at Medlow Bath, which would result in greater heritage impacts.
3 – Combination of track slewing and coping modification (the preferred option)	Design detail for this option has been provided in Section 7.1	This option presents a balanced approach between potentially deep platform and building excisions in Option 2, and the necessity to readjust overhead wiring structures implicit in Option 1. As described in Section 7.4, this option would result in a minor physical and minor visual impacts to the heritage significance of Medlow Bath Station.
4 – Do nothing option	No modifications to platform edges or existing track configuration	Due to the larger size of the New Intercity Fleet, the do nothing option would fail to meet safety and operational standards for the introduction of the new fleet. This option would fail to meet the objectives of the Project.

Further details regarding the need for the project, the design development and project options are provided in Section 2 of the *New Intercity Fleet – Springwood to Lithgow Rail Corridor Modifications Review of Environmental Factors* (AECOM 2017).

7.3 Heritage Platforms Conservation Management Strategy

In addition, the works have been assessed against the *Heritage Platforms Conservation Management Strategy* (Australian Museum Business Services, 2015). This document is considered to replace *Conservation Guide: Railway Station Platforms* (Office of Rail Heritage, 2013). The strategy was developed in order to protect heritage platforms from incremental changes and works associated with large scale renewals. An assessment against the relevant strategies is provided in Of relevance to the current Project are strategies 1, 2, 3, 5, 7, 8, 11 and 12, Due to the minor nature of the Project some of these strategies are not applicable.

Section 9 provides some recommendations to ensure compliance with the Heritage Platforms Conservation Management Strategy.

Table 13 Assessment of Project against the Heritage Platforms Conservation Strategy

Strategy	Comment
<p>Strategy 1: <i>Manage and operate heritage platforms in a way that recognises the heritage values of each place. This includes the heritage value of each platform, its associated elements, and the overall heritage value of its station or place</i></p>	<p>The heritage value of the platform has been recognised through the design process and by limiting the impacts to the Medlow Bath Station. Track slewing has been used to minimise the extent of the coping modifications. Reliance on coping modifications alone to achieve the required width clearance may have resulted to impacts to additional heritage items, such as to awnings associated with the station platform buildings. As discussed in Section 7.2, the implementation of both track slewing and coping modifications achieves the necessary width clearances, while reducing the level of impact to heritage fabric and the need to relocate other structures, principally overhead wiring stanchions, along the rail corridor.</p>
<p>Strategy 2: <i>Conserve a representative sample of principal platform types, and other key aspects of heritage platform design and arrangement in use within the Sydney Trains managed railway network</i></p>	<p>It is acknowledged that the New Intercity Fleet Project as a whole would result in alterations to six stations listed on the State Heritage Register (Katoomba, Lithgow, Medlow Bath, Eskbank, Blackheath and Lawson) and nine stations listed on the Sydney Trains Section 170 Heritage and Conservation Register (Bell, Bullaburra, Faulconbridge, Hazelbrook, Leura, Linden, Newnes Junction, Wentworth Falls and Woodford Stations). Within the context of the 626 platforms identified within the Heritage Platforms Conservation Management Strategy, it is considered that there would remain a representative sample of unmodified principal platform types.</p>
<p>Strategy 3: <i>Where there are numerous, good representative examples of a type, more significant heritage platforms with good integrity should be prioritised for proactive conservation</i></p>	<p>The Project does not include proactive conservation and it is therefore considered that this strategy is not relevant.</p>
<p>Strategy 5: <i>Conserve and manage the fabric of heritage platforms in accordance with statutory requirements and heritage best practice</i></p>	<p>The impacts have been minimised by limiting the works to the coping through the implementation of a combination of slewing the tracks and coping modifications. The proposed works would blend into the Medlow Bath Station environment due to the fabric and surface treatments, as discussed below.</p>
<p>Strategy 7: <i>Retain and conserve original or other historic platform detailing and surface features where these contribute to the heritage significance of the platform and the station precinct</i></p>	<p>The modification of the coping will remove both original and non-original platform detailing, subject to detailed design. The brick coping is considered to be significance fabric associated with the island platforms, and the modifications would result in a loss. This is unavoidable as leaving the copings intact may have resulted in greater impacts to other aspects of the stations, modifications to awnings associated with the significant station building.</p>
<p>Strategy 8: <i>Major change should be managed through an integrated planning process, which considers measures to</i></p>	<p>As discussed in Section 7.2, the planning process considered the heritage significance of Medlow Bath Station and a combination of track slewing and coping modification was implemented, which</p>

Strategy	Comment
<i>avoid, minimise, or mitigate adverse impacts on the heritage significance of the platform and the broader place at each stage of the process</i>	avoided potentially greater adverse impacts, such as modifications to the awning of the station associated with the significant station building. The integrated planning process included consultation with Sydney Trains and NSW TrainLink.
Strategy 11: <i>Heritage opportunities and constraints should be carefully considered throughout the options analysis and design process</i>	As discussed in Section 7.4, the heritage constraints of Medlow Bath Station has been carefully considered, with the option selected that minimises impacts to fabric. It is considered that the Project fulfils this strategy.
Strategy 12: <i>Make a record of existing structural designs, fabric, and uses before changes are made</i>	An archival recording would be prepared in accordance with guidelines <i>Photographic Recording of Heritage Items Using Film or Digital Capture</i> (NSW Heritage Office, 2006) prior to the commencement of works associated with the Project.

7.4 Heritage impact assessment

Medlow Bath Station has been identified as holding State significance. The assessed significance has been outlined in Section 5.1.2. Table 14 assesses the impact against each of the criterion.

Table 14 Assessment of heritage impact of Project against State Heritage Register criterion for the Medlow Bath Station Group

Criterion	Coping modifications	Track slewing
<p>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.</p>	<p>The modifications to the coping would not impact on the historical significance of Medlow Bath Station as it is anticipated that the Project would result in cutting only the upper courses of brick coping associated with the 1902 construction of Medlow Bath Station. Subject to detailed design, it is considered that the cutbacks to the coping would be to the top two to three courses of brick only.</p>	<p>It is considered that the historical significance is held in the extant 1902 structures at Medlow Bath Station. Therefore the track slewing would not impact on the historical significance as the tracks have previously been replaced and slewed and therefore no longer reflect the early construction phases associated with the duplication of the Blue Mountains Line.</p>
<p>b) – Associative significance: No assessment provided against this criterion.</p>	<p>The Project would not result in any impacts against criterion b, as no associative significance has been identified at Medlow Bath Station.</p>	
<p>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.</p>	<p>The modifications to the coping are considered to be negligible. It is anticipated that they would largely be unnoticeable and would not impact on the aesthetic significance of Medlow Bath Station. It is acknowledged that the cutting back of the coping and addition of concrete would result in a variation in treatment along the face. It is therefore recommended that the length of the corbeled brickwork be rendered with concrete to create a consistent presentation.</p>	<p>The relocation of the tracks are minor. It is anticipated that they would be unnoticeable to the general public and by their nature could not impact on the aesthetic significance of Medlow Bath Station, being indiscernible.</p>
<p>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 history.</p>	<p>The proposed works are unlikely to reduce the local community's sense of place or reduce their connection to the past as it is considered they would largely go unnoticed and would not attenuate the use of Medlow Bath Station as a means of public transport.</p>	
<p>e) – Research: No assessment provided against this criterion.</p>	<p>As no associative significance has been identified, the Project cannot impact upon it.</p>	

Criterion	Coping modifications	Track slewing
<p>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.</p>	<p>The proposed works would not impact on the assessed rarity of Medlow Bath Station as the Project would not alter the element identified as being rare, ie the signal box.</p>	
<p>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.</p>	<p>The modification to the coping and track slewing would not have an impact on the station building or the footbridge, elements identified as holding representative significance. It is therefore considered that the coping modifications would not impact on the assessed significance under this criterion.</p>	

7.5 Adjacent heritage items

Section 5.3 identified heritage items within 50 metres of Medlow Bath Station. In reviewing the works, it is clear that there will be no noticeable visual impacts from the works to the adjacent heritage items. Therefore, there will be no impact to the heritage significance of these items.

7.6 Cumulative impact assessment

While this document assesses the impacts of the New Intercity Fleet works on Medlow Bath Station in isolation, it is recognised that works will be necessary at other stations along the Blue Mountains Line, which are listed in Table 15.

All of these stations are listed on the RailCorp Section 170 Heritage and Conservation Register, with six stations also listed on the State Heritage Register.

Table 15: Stations included in the New Intercity Fleet project

Station	SHR?	Station	SHR?
Faulconbridge	No	Katoomba	Yes
Linden	No	Medlow Bath – the subject of this assessment	Yes
Woodford	No	Blackheath	Yes
Hazelbrook	No	Bell	No
Lawson	Yes	Newnes Junction (not in use)	No
Bullaburra	No	Eskbank (not in use)	Yes
Wentworth Falls	No	Lithgow	Yes
Leura	No		

The original development of the Blue Mountains Line out to Lithgow was largely undertaken in the 1860's. Stations were developed and added at later dates in response to ongoing residential development and the expansion of businesses. Many of the original timber items have since been replaced with brick and concrete structures, however there are a number of elements within each curtilage that retain their original heritage value and any works along the length of the line has the potential for cumulative impacts.

Since there original construction there has been a number of alterations and modifications to each station within the Project site. The Project would result in coping impacts (both cutbacks and addition) to every station along lengths of both the original fabric as well as fabric that has been previously modified. Where works are required, it has been recommended that the bricks show the original arrangement and give a clean outer appearance. As a result, the overall visual appearance and fabric arrangement would largely be retained, minimising any cumulative impacts. Through an assessment of the works, impacts to the heritage settings have been determined to be negligible to minor.

In the case of platform extensions at Katoomba Station and Lithgow Station, the works are unlikely to have a substantial cumulative impact as the design has located the extensions along sections of the platform that have been previously modified and are relatively minor in length when compared to the platform as a whole. As a result, the cumulative impacts from the platform extensions are anticipated to be negligible to minor.

Track slewing, overhead wiring system modification, signalling works and earthworks have been assessed as not contributing to the heritage of each of the station areas and as a result, no cumulative impacts would result from these works.

The additional elements that largely characterise the Blue Mountains Line (station buildings, signalling boxes, stabling yards and other structures that form part of the listing) would not be impacted as a result of the Project. The nature and visual character of the stations within the context of the greater Blue Mountains would be retained and any impacts would be largely temporary. As a result, given the nature of the works, the extent of physical impacts and mitigation measures proposed, cumulative impacts as a result of the Project are not anticipated.

Stations are active heritage sites that need to be adapted and modified to meet modern customer expectations. It is a balancing act to meet these expectations while preserving the fabric that contributes to the heritage significance of the stations.

7.7 Summary of heritage impacts

In summary, it is concluded that the Project would have a negligible impact on the heritage significance of Medlow Bath Station. It is acknowledged that the cutting back of the coping and addition of concrete would result in a variation in treatment along the face. It is therefore recommended that the length of the corbeled brickwork be rendered to create a consistent presentation. With this mitigation measure, it is anticipated that the coping modifications would largely be unnoticeable and would have a minor impact on the fabric and aesthetic significance of Medlow Bath Station. It is anticipated that the track slewing would be largely unnoticeable and would have a negligible impact on fabric of heritage significance.

While limited impacts to the heritage significance of Medlow Bath Station have been identified, a Statement of Heritage Impact has been prepared and can be found in Section 8. It is considered that this heritage assessment clearly demonstrates there would be minimal impacts to the significance of Medlow Bath Station associated with the Project.

Table 16 Summary of heritage impacts

Proposed work	Impact to fabric	Visual impact	Impact to archaeological remains	Impacts to adjacent heritage items
Modification of platform coping	Minor	Negligible	Nil	Nil
Slewing of track within the rail corridor	Negligible	Negligible	Nil	Nil

8 Statement of Heritage Impact

The objective of a Statement of Heritage Impact is to evaluate and explain how the proposed development, rehabilitation or land use change would affect the heritage value of the site and/or place. A Statement of Heritage Impact should also address how the heritage value of the site/place can be conserved or maintained, or preferably enhanced by the Project.

This report has been prepared in accordance with the *NSW Heritage Office & Department of Urban Affairs and Planning NSW Heritage Manual (1996)* and *NSW Heritage Office Statements of Heritage Impact (NSW Heritage Office, 2002)*. The guidelines pose a series of questions as prompts to aid in the consideration of impacts based on the type of Project. The Project involves minor modifications to the coping and track slewing. The guideline suggests the following questions be used to direct discussion in relation to these two modification types: minor partial demolition, relating to the impact to coping and track slewing.

These questions are addressed, based on the impacts to the heritage significance of Medlow Bath Station, as outlined in Section 7.

Table 17 Statement of heritage impact for Medlow Bath Railway Station Group

Development	Discussion
What aspects of the Proposal respect or enhance the heritage significance of the study area?	The impact of the Project on the heritage significance of Medlow Bath Station is negligible to minor. The option to use both track slewing and coping modifications to achieve the required width clearances is considered to respect the heritage significance of the study area in that it avoided potential additional impacts to the platform station building awnings.
What aspects of the Proposal could have a detrimental impact on the heritage significance of the study area?	The coping modifications would result in a patched appearance along the length of the coping. This has been mitigated by recommending the entire length of the coping be rendered to present a consistent appearance.
Have more sympathetic options been considered and discounted?	<p>Due to the nature of platforms, they must be in close proximity to the carriage. TfNSW commissioned the development of a series of design reports for the early development of the Project. The outcomes of these assessments then informed the scope of works needed to allow for the safe operation of the New Intercity Fleet along the Blue Mountains Line. Options for enabling the safe and efficient operation of the New Intercity Fleet on the Blue Mountains Line were developed following a succession of workshops with TfNSW, relevant stakeholders (including Sydney Trains and NSW TrainLink) and the project team. The following options were considered to obtain the required width clearances:</p> <ul style="list-style-type: none"> • slewing only • coping modifications only • combination of both slewing and coping modifications (with ASA concessions) • do nothing. <p>The Project includes essential enabling works that would facilitate the safe and reliable operation of New Intercity Fleet between Springwood and Lithgow on the Blue Mountains Line. The Project would also allow the Blue Mountains Line to be compatible with the existing electrified rail network</p>

9 Conclusion and recommendations

Medlow Bath Station has been identified as holding State significance and is listed on the State Heritage Register (#11090), RailCorp Section 170 Heritage and Conservation Register and the Blue Mountains LEP.

An assessment of the Project against the heritage significance of Medlow Bath Station concluded that the Project would have a minor impact on the heritage significance of the station. The coping modifications would result in a variation in treatment along the face. However, with the implementation of appropriate mitigation measures, it is anticipated that the coping modifications would largely be unnoticeable and would not impact on the aesthetic significance of Medlow Bath Station. It is anticipated that the track slewing would be largely unnoticeable and would not impact on fabric of heritage significance.

The following are recommendations for the Project:

- A Section 60 permit under the *NSW Heritage Act 1977* would be required prior to impacts occurring within the Medlow Bath Railway Station Group curtilage.
- A heritage conservation architect should provide ongoing heritage and conservation advice throughout detailed design and any subsequent relevant design modifications. The nominated heritage architect should provide advice regarding the scope of works and ensure that the final design adheres to the *Sydney Trains Heritage Platforms Conservation Management Strategy* (Australian Museum Business Services, 2015).
- The nominated heritage conservation architect would be responsible for ensuring that material finishes and heritage recommendations provided in this Statement of Heritage Impact are enacted during detailed design and construction works.
- It is not anticipated the works would weaken or undermine the integrity of the platform. Further structure integrity investigations will be undertaken as part of the detailed design process. The results of the integrity investigations should be reviewed by the heritage conservation architect.
- It is recommended that the length of the corbeled brickwork coping be rendered, as appropriate and advised by the heritage conservation architect, to create a consistent presentation.
- The existing platform retaining wall would be archivally recorded prior to works. Archival recording of elements of Medlow Bath Station that would be impacted would be undertaken in accordance with the relevant NSW Heritage Council guidelines. These archival records and design plans for the proposed works would be lodged with Sydney Trains and Heritage Division for their records.
- The materials used should be compatible with the heritage brickwork and concrete and not adversely impact the material.
- The concrete coping of the proposed platform extensions and the mortar associated with the brick facade used in the works should adhere to Strategy 7 of the *Heritage Platforms Conservation Management Strategy*.
- The Construction Environmental Management Plan (CEMP) must include stop work procedures in accordance with TfNSW's Unexpected Heritage Finds Guideline (Transport for NSW, 2015) to manage activities in the unlikely event that intact archaeological relics or deposits are encountered
- A heritage induction should be provided to all on-site staff and contractors involved in the Project. The induction should clearly describe the heritage constraints of the site.

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