



# Transport Access Program

# **Wahroonga Station Upgrade**

## Determination Report



*Artist's impression of the proposed Wahroonga Station Upgrade, subject to change during detailed design.*



# **Wahroonga Station Upgrade Determination Report**

**Transport Access Program  
Ref – 6417507**

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### Document control

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# Glossary and abbreviations

Term	Meaning
<b>CBD</b>	Central Business District
<b>CEMP</b>	Construction Environmental Management Plan
<b>CLMP</b>	Community Liaison Management Plan
<b>CoA</b>	Condition of Approval
<b>Concept design</b>	The concept design is the preliminary design presented in the REF, which would be refined by the Construction Contractor (should the Proposed Activity proceed) to a design suitable for construction (subject to TfNSW acceptance).
<b>Construction Contractor</b>	The Construction Contractor for the Proposed Activity would be appointed by TfNSW to undertake the detailed design and construction of the Proposed Activity.
<b>DDA</b>	<i>Disability Discrimination Act 1992 (Cwlth)</i>
<b>Detailed design</b>	Detailed design broadly refers to the process that the Construction Contractor undertakes (should the Proposed Activity proceed) to refine the concept design to a design suitable for construction (subject to TfNSW acceptance).
<b>DSAPT</b>	<i>Disability Standards for Accessible Public Transport (2002)</i>
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
<b>EP&amp;A Regulation</b>	<i>Environmental Planning and Assessment Regulation 2000 (NSW)</i>
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
<b>Infrastructure SEPP</b>	<i>State Environmental Planning Policy (Infrastructure) 2007 (NSW)</i>
<b>NES</b>	Matters of 'National Environmental Significance' under the EPBC Act
<b>NSW</b>	New South Wales
<b>Proponent</b>	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in this instance, TfNSW.
<b>Proposed Activity</b>	The construction and operation of the Wahroonga Station Upgrade.
<b>REF</b>	Review of Environmental Factors
<b>SoHI</b>	Statement of Heritage Impact
<b>TfNSW</b>	Transport for NSW (the Proponent)
<b>TGSIs</b>	Tactile Ground Surface Indicators
<b>TPZ</b>	Tree Protection Zone

# Executive summary

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## Overview of Proposed Activity

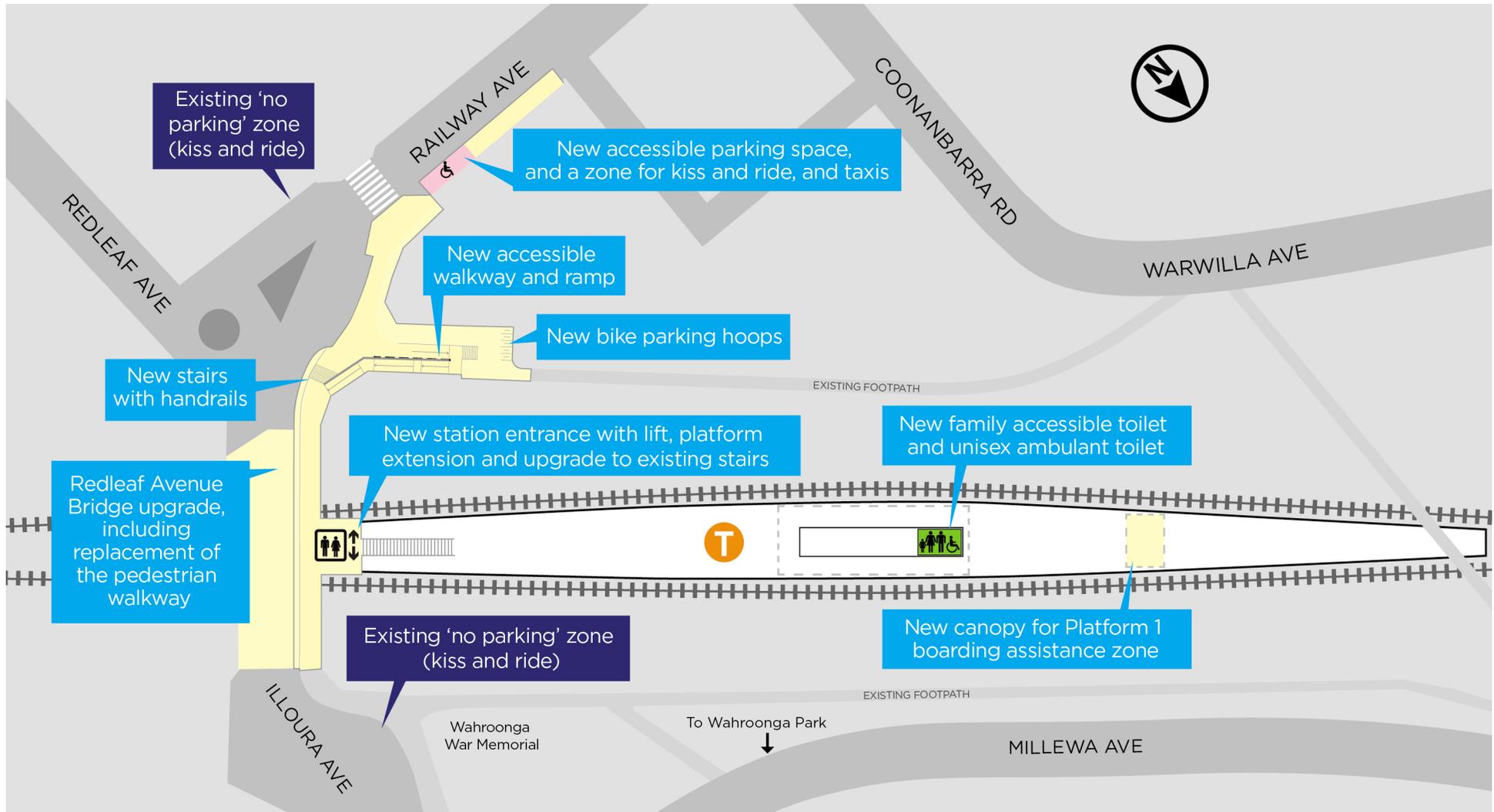
The Transport Access Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure. The program aims to provide:

- stations that are accessible to those with disabilities, are less mobile and parents/carers with prams and customers with luggage
- modern buildings and facilities that meet the needs of a growing population
- modern interchanges that support an integrated network and allow seamless transfers for all customers
- safety improvements including extra lighting, lift alarm, fences and security measures at stations.

Wahroonga Station has been identified for an accessibility upgrade as it does not currently meet key requirements of the *Disability Standards for Accessible Public Transport* (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA). The proposed upgrade works would provide:

- refurbishment of the Redleaf Avenue bridge and replacement of the pedestrian walkway structure with a new footbridge
- a new passenger lift and station entrance to provide access from the Redleaf Avenue bridge to the island platform
- a new walkway at platform level linking the lift to the platform
- a new accessible ramp and pathway to provide access from the station to Wahroonga shopping village
- a proposed interchange zone in Railway Avenue, to provide an accessible parking space, and a zone for taxis and kiss and ride
- a new family accessible toilet and unisex ambulant toilet within the station building
- an additional canopy for weather protection on the platform at the boarding assistance zone (north of the station building)
- improvements to station lighting and CCTV to increase safety and security
- improvements to customer information and communication systems including wayfinding modifications, public address (PA) system upgrade and new hearing induction loops.

An overview of the Proposed Activity is shown in Figure 1.



**Figure 1 Key features of the Proposed Activity (indicative only, subject to detailed design)**

TfNSW, as the Proponent for the Proposed Activity, has undertaken a Review of Environmental Factors (REF) that details the scope of works and environmental impacts associated with the Proposed Activity. The REF was prepared by RPS on behalf of TfNSW in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

No modifications have been made to the Proposed Activity since the REF was prepared, however confirmation of the Proposed Activity scope is provided in Section 1.4 and modifications may be considered during the detailed design phase. Should design modifications be required as a result of the detailed design process, these would be assessed to determine consistency with the Proposed Activity (as approved), including significance of impact on the environment. Additional mitigation measures and/or consultation would be undertaken where necessary.

### **Purpose of this report**

The purpose of this Determination Report is for TfNSW, as the Proponent of the Wahroonga Station Upgrade, to determine whether or not to proceed with the Proposed Activity. TfNSW must make a determination in accordance with the provisions of Division 5.1 of the EP&A Act.

This report also presents a summary of the submissions provided during the public display of the REF, and TfNSW's response to the issues and comments raised in these submissions.

### **Conclusion**

Based on the assessments in the REF and a review of the submissions received from the community and stakeholders, it is recommended that the Proposed Activity be approved, subject to the mitigation measures included in the REF and the proposed Conditions of Approval. TfNSW will continue to liaise with the community and other stakeholders as the Proposed Activity progresses through detailed design and into the construction phase.

# 1 Introduction

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## 1.1 Background

The Transport Access Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure. The program aims to provide:

- stations that are accessible to those with disabilities, are less mobile and parents/carers with prams and customers with luggage
- modern buildings and facilities that meet the needs of a growing population
- modern interchanges that support an integrated network and allow seamless transfers for all customers
- safety improvements including extra lighting, lift alarm, fences and security measures at stations.

Wahroonga Station has been identified for an accessibility upgrade as it does not currently meet key requirements of the *Disability Standards for Accessible Public Transport* (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA). The non-compliant station entrance and stairs to the platform do not facilitate access for people with reduced mobility, parents/carers with prams or customers with luggage. There are no accessible parking spaces, no lift facilities and inadequate Tactile Ground Surface Indicators (TGSIs) to stairs, platforms and interchange facilities.

TfNSW is the Proponent for the Wahroonga Station Upgrade (referred to as the 'Proposed Activity' for the purposes of this document). Also refer to Section 1.4 for a description of the Proposed Activity.

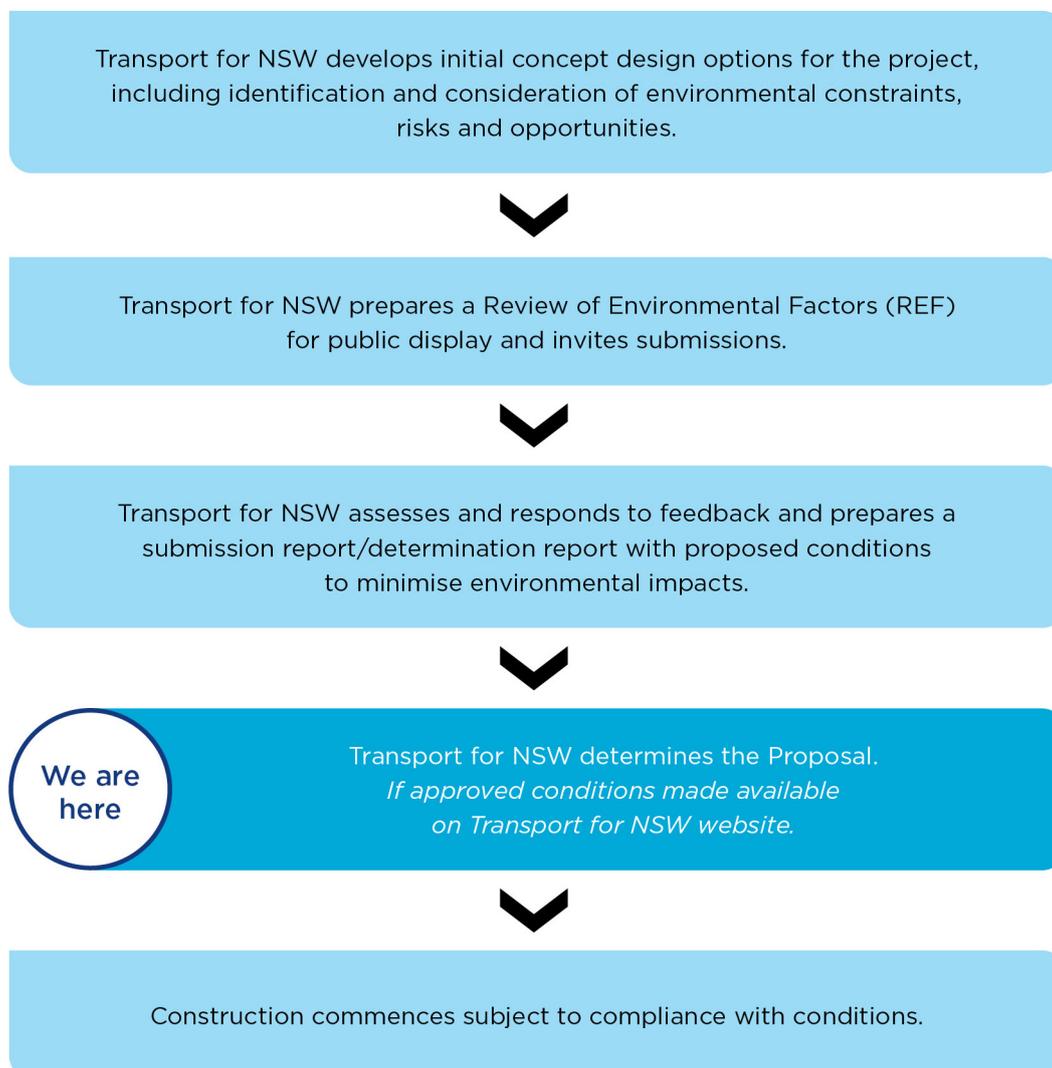
## 1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) has been prepared by RPS on behalf of TfNSW in accordance with Sections 5.5 and 5.7 of the *Environmental Planning and Assessment 1979* (EP&A Act), and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), to ensure that TfNSW takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposed Activity. The REF is included at Appendix A.

The Wahroonga Station Upgrade REF was placed on public display from 3 December 2019 to 17 December 2019, with 40 submissions received. Issues raised in these submissions are addressed in Section 2.3 of this report.

### 1.3 Determination Report

Prior to proceeding with the Proposed Activity, the Secretary for TfNSW must make a determination in accordance with Division 5.1 of the EP&A Act (refer Figure 2).



**Figure 2: Planning approval process**

The purpose of this Determination Report is to address the following to allow for a determination of the Proposed Activity:

- present a summary of the submissions received during the public display of the REF and TfNSW’s response to the issues and comments raised in these submissions
- assess the environmental impacts with respect to the Proposed Activity, which are detailed in the environmental impact assessment (and any proposed modifications, as detailed and assessed in this Determination Report)
- identify mitigation measures to minimise potential environmental impacts
- determine whether potential environmental impacts are likely to be significant

- address whether the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) apply to the Proposed Activity.

This report has been prepared having regard to, among other things, the objectives of TfNSW under the *Transport Administration Act 1988*:

- a) to plan for a transport system that meets the needs and expectations of the public
- b) to promote economic development and investment
- c) to provide integration at the decision-making level across all public transport modes
- d) to promote greater efficiency in the delivery of transport infrastructure projects
- e) to promote the safe and reliable delivery of public transport and freight services.

## 1.4 Description of the Proposed Activity in the REF

The Proposed Activity would include works to Wahroonga Station situated in the Ku-ring-gai Local Government Area. The station is located in the suburb of Wahroonga, about 20 kilometres north-west of the Sydney Central Business District (CBD). Wahroonga Station is also listed on the State Heritage Register, RailCorp Section 170 Heritage and Conservation Register and the heritage schedule of the *Ku-ring-gai Local Environmental Plan 2015*.

The Proposed Activity would provide safe and equitable access to the platforms and to the pedestrian network surrounding the station. Customer facilities and amenities would also be improved. The upgrade would also assist in supporting growth in public transport use and would provide an improved customer experience for existing and future users of the station.

A detailed description of the Proposed Activity is provided in Chapter 3 of the Wahroonga Station Upgrade REF, and would provide:

- refurbishment of the Redleaf Avenue bridge and replacement of the pedestrian walkway structure with a new footbridge
- a new passenger lift and station entrance to provide access from the Redleaf Avenue bridge to the island platform
- a new walkway at platform level linking the lift to the platform
- a new accessible ramp and pathway to provide access from the station to Wahroonga shopping village
- a proposed interchange zone in Railway Avenue, to provide an accessible parking space, and a zone for taxis and kiss and ride
- a new family accessible toilet and unisex ambulant toilet within the station building
- an additional canopy for weather protection on the platform at the boarding assistance zone (north of the station building)
- improvements to station lighting and CCTV to increase safety and security
- improvements to customer information and communication systems including wayfinding modifications, public address (PA) system upgrade and new hearing induction loops.

A schematic outlining the key features of the Proposed Activity is provided in Figure 3.

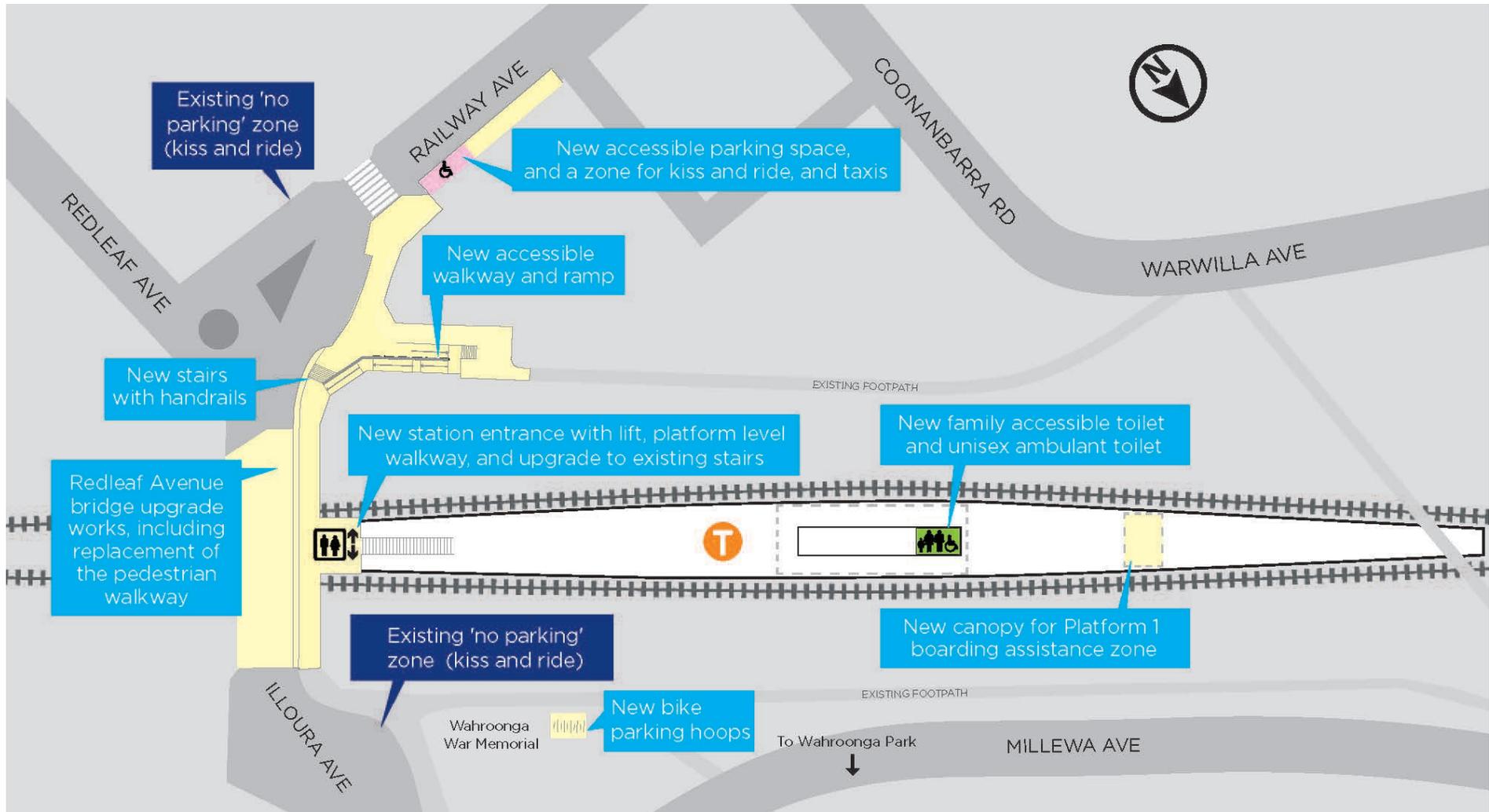
The key materials and finishes for the Proposed Activity are listed in Section 3.1.2 of the REF and are subject to detailed design. However, TfNSW wish to clarify the description of the materials for the canopies in the REF, which is that they would consist of metal sheet roofing with a light weight soffit in a soft warm timber tone (not timber lined).

The need for, and benefits of, the Proposed Activity are outlined in Chapter 2 of the REF. Construction is expected to commence in 2020 and take around 24 months to complete.

### **Preferred bike rack location**

During the preparation of the REF, two options for the location of the new bike racks were assessed – adjacent to the War Memorial on Illoura Avenue or near the station entrance off Railway Avenue.

The Illoura Avenue location has been selected as the preferred (refer Figure 3), in order to minimise the impact on nearby vegetation, as the bike parking behind the Wahrenonga shopping village may impact a mature Hoop Pine in close proximity. In acknowledging submissions received from the community, there are also opportunities to include additional bike racks at the Illoura Avenue location, which would be further explored during detailed design.



**Figure 3 Key features of the Proposed Activity (indicative only, subject to detailed design)**

## 2 Consultation and assessment of submissions

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### 2.1 REF public display

The Wahroonga Station Upgrade REF was placed on public display from 3 December to 17 December 2019 at three locations, as well as on the [TfNSW corporate website](#)<sup>1</sup> and TfNSW [Have Your Say website](#)<sup>2</sup>.

Community consultation activities undertaken for the public display included:

- a stall was held at Wahroonga Markets on Sunday 1 December
- a community information session was held on 9 December 2019 at Wahroonga Station
- distribution of around 1,500 flyers to customers at the station and 1,300 flyers letterbox dropped within the suburb of Wahroonga
- installation of project signage at Wahroonga Station at the station entrance, on the footbridge, and on the fence at Millewa Avenue and the corner of Railway Avenue / Redleaf Avenue
- public display of the REF at:
  - Ku-ring-gai Council – 818 Pacific Highway, Gordon
  - Turramurra Library – 5 Ray Street, Turramurra
  - Transport for NSW Office – Level 5, Tower A, Zenith Centre, 821 Pacific Highway, Chatswood
- placement of an advertisement in the North Shore Times outlining the scope of the Proposed Activity, information on where to view the REF and specialist studies on the TfNSW website, along with details on how to make a submission
- creation of a dedicated project webpage on the TfNSW corporate website, including a 360 degree virtual reality tour of the proposed station upgrade and integrated online message board on the TfNSW website
- a briefing to Ku-ring-gai Council officers on 18 November 2019
- a letter outlining the scope of the Proposed Activity, information on where to view the REF and specialist studies on the TfNSW website, along with details on how to make a submission was sent to Ku-ring-gai Council as per the consultation requirements under clause 13 and 14 of the Infrastructure SEPP.

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<sup>1</sup> <https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade>

<sup>2</sup> <https://yoursay.transport.nsw.gov.au/>

## 2.2 REF submissions

A total of 40 submissions were received by TfNSW, including one from Ku-ring-gai Council. These were received via letter, email, telephone and online submissions including the posted comments on the project website. Submissions indicated general support for the upgrade of Wahroonga Station to improve accessibility. These submissions also included feedback on a range of issues in relation to the Proposed Activity such as:

- request for additional customer access to the station from the Coonanbarra Road footbridge
- concern over the design of the new ramp and stairs to the Redleaf Avenue bridge from Railway Avenue, and how this would impact pedestrian behaviour and the existing entrance from the Wahroonga shopping village
- request for additional canopy cover such as on the platform, stairs to the concourse and the new ramp and stairs to Redleaf Avenue bridge.

## 2.3 Consideration and response to submissions

### Community submissions

**Table 1: Response to community submissions received**

No.	Submission no.	Issue/s raised	TfNSW response
<b>1</b>	<b>General</b>		
1.1	W001, W002 W003, W004 W006, W008 W019, W023 W034	Support for the Proposed Activity, and/or for improving accessibility at the station.	Noted.
1.2	W014	Hopes that the Proposed Activity is approved and completed in a timely manner.	Subject to approval, construction is expected to commence in 2020 and take around 24 months to complete.
1.3	W007, W008	The website advertised to prompt commuters to have a say on the Wahroonga Station Upgrade did not work.	TfNSW regrets that this link did not work at the time of enquiry. However all project details were made available to view on the TfNSW website: <a href="https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade">https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade</a>
1.4	W016	Requested additional information about the Proposed Activity, as well as upgrades at Warrawee Station and Turramurra Station.	For updates on the Wahroonga Station Upgrade please visit the Project webpage for more information: <a href="https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade">https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade</a> Warrawee Station is also being upgraded as part of the Transport

No.	Submission no.	Issue/s raised	TfNSW response
			<p>Access Program. Project information for the Warrawee Station Upgrade can be found at the Project webpage: <a href="https://www.transport.nsw.gov.au/projects/current-projects/warrawee-station-upgrade">https://www.transport.nsw.gov.au/projects/current-projects/warrawee-station-upgrade</a></p> <p>Turrumurra Station has previously been upgraded to include a lift to access the platform with boarding assistance, an accessible car space, and a family accessible toilet.</p> <p>To receive updates on any future projects at other stations, please refer to the Current Projects webpage: <a href="https://www.transport.nsw.gov.au/projects/current-projects">https://www.transport.nsw.gov.au/projects/current-projects</a></p>
1.5	W017	Concerned about the Opal facilities at Turrumurra Station.	The addition or upgrade of Opal card facilities at stations is reviewed on a regular basis by TfNSW, however is outside the scope of the Proposed Activity.
1.6	W021	Offered to donate a defibrillator to be installed at the station.	TfNSW has referred the offer to Sydney Trains as the operator of the network for consideration.
<b>2</b>	<b>Design</b>		
2.1	W002	Suggested altering the canopy design to be more sympathetic to the existing rotunda in Wahroonga Park.	The architectural design intent of the canopy and lift shaft is to create 'one elegant and sophisticated pavilion within the park-like setting', as described in the Architectural Design Report. This design was chosen to minimise bulk through combining the lift and the canopy structure, and to maximise the surrounding space on the concourse to achieve DDA compliance and improve pedestrian flows.
2.2	W003, W004 W006, W009 W013, W025 W028, W029 W034	Suggested additional canopy cover such as on the platform, stairs to the concourse and the new ramp and stairs to Redleaf Avenue bridge.	Section 2.4 of the REF discusses the options considered for improving access to Wahroonga Station, which considered a new canopy structure over the concourse and stairs. However, this was discounted as TfNSW has sought to reduce the visual impacts to the heritage setting of the State heritage-listed station by installing canopies to comply with DDA requirements (i.e. at lift landings and platform boarding assistance zone).

No.	Submission no.	Issue/s raised	TfNSW response
2.3	W007	Suggested increasing the height of the railing at the new access to the station entrance to align with the higher barriers / fencing.	TfNSW interprets this submission as related to the virtual reality model as seen from the Redleaf Avenue bridge, which is indicative only and subject to detailed design. The glass safety screens and fencing will be designed to meet standards and would align to form a consistent height.
2.4	W007	Support for the retention of the existing stairs from the concourse to the platform.	Noted. The stairs will remain in situ with minor modifications to improve safety.
2.5	W010, W030 W024, W035	<p>Questioned the design for the proposed stairs from Wahroonga shopping village to the Redleaf Avenue bridge due to:</p> <ul style="list-style-type: none"> <li>• why the need for stairs given the slight slope/incline of the existing footpath</li> <li>• concern over the safety of the stairs as opposed to a ramp</li> <li>• bulky design of the pedestrian ramp and stairs impacting the heritage setting</li> <li>• adverse impacts on pedestrian flows.</li> </ul> <p>One respondent recommended installing an additional footbridge from the Redleaf Avenue bridge concourse to Railway Avenue or widening the proposed footpath on the Redleaf Avenue bridge to reduce congestion and safety issues associated with the proposed stairs.</p>	<p>To achieve equitable access, the existing footpath requires upgrading to achieve a compliant grade between the modified Redleaf Avenue footbridge and the Wahroonga shopping village.</p> <p>The current concept design proposes a new switchback ramp and stairs to address the increased grade difference. However, during detailed design, further investigations to determine the feasibility of lowering the bridge height in order to maintain a footpath and construct a new accessible ramp would be undertaken, which would potentially remove the need for the stairs (refer to Condition of Approval (CoA) number 45).</p>
2.6	W035	Questioned the utility of the platform canopy due to its isolation from the station concourse and lift, and recommends its removal from the design.	<p>A canopy for weather protection at the boarding assistance zone is required by the DDA and DSAPT.</p> <p>This new canopy area has been designed to the minimum area required to provide protection for customers in a wheelchair or using a pram.</p>

No.	Submission no.	Issue/s raised	TfNSW response
2.7	W040	Noted the design of the Proposed Activity would destroy the visual amenity of the suburb of Wahroonga as this would not complement the surrounding setting such as the regal houses and tree-lined streets.	The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT. A new station entrance (with lift access) is required to meet these requirements. The Proposed Activity has been thoughtfully designed to minimise impacts to the heritage features of the station and surrounds. Refer to item number 4.1 for more information of the design for the Proposed Activity.
<b>3 Traffic, transport and access</b>			
<b>Access</b>			
3.1	W004, W011 W015, W018 W020, W022 W026, W031 W038	Suggested the construction of a staircase from the Coonanbarra Road footbridge to the platform for reasons including: <ul style="list-style-type: none"> <li>its proximity to commuter car parks and residential areas reducing travel/walking distances for customers</li> <li>improving access from nearby schools</li> <li>to reduce pedestrian congestion at the existing entrance.</li> </ul>	TfNSW has considered this suggestion. To provide equitable access in compliance with the DDA and DSAPT, this would require the installation of lifts on both sides of the Coonanbarra Road footbridge, and a lift to the platform. However, there are several issues in providing this secondary access including: <ul style="list-style-type: none"> <li>this option would not provide an equitable access for the primary station entrance via the existing Redleaf Avenue bridge, and therefore would not comply with key requirements of the DDA and DSAPT</li> <li>significant modifications such as additional structural support to the footbridge (which has state-heritage significance) to accommodate the additional access infrastructure and maintain structural integrity</li> <li>the platform is too narrow at its northern end to accommodate the additional infrastructure while maintaining the minimum safety clearances required to the platform edges.</li> </ul> Therefore, creating a secondary entrance / exit from the footbridge was not considered feasible or consistent with the objectives of the Proposed Activity.

No.	Submission no.	Issue/s raised	TfNSW response
3.2	W029	Recommended an additional staircase / entrance to the platform to ease pedestrian congestion.	The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT. The provision of the lift at the station entrance would provide an alternate form of access to the platform and ease pedestrian congestion on the existing stairs. The provision of a secondary staircase to improve capacity is outside the scope of the Proposed Activity.
3.3	W031, W038	Recommended improvements (including drainage and lighting) to the existing footpath behind the Wahroonga shopping village to the Warwilla Avenue commuter car park.	The footpath to the Warwilla Avenue commuter car park is currently maintained by Ku-ring-gai Council. TfNSW will pass on this feedback to Ku-ring-gai Council for consideration.
3.4	W027	Recommended there is consideration given to the accessibility of the Wahroonga shopping village and public transport services during construction of the Proposed Activity.	A detailed construction methodology would be developed as part of the Construction Environmental Management Plan (CEMP) and associated Traffic Management Plan during the next phase of the Proposed Activity to manage potential traffic and access impacts (refer to CoA 37). This would ensure that access to public transport services is maintained and the construction impacts on the retail services within Wahroonga shopping village are mitigated.
<b>Active transport</b>			
3.5	W012 W027 W030	Recommended improved bike parking at the station.	Bike racks (with capacity for ten bikes) would be installed adjacent to the War Memorial on Illoura Avenue. There is also an opportunity to include more bike racks, and this would be further explored during detailed design (refer to CoA 36).
3.6	W032	Recommended the installation of a bike rail/stairway attached to the edge of the stairs from Wahroonga shopping village to the Redleaf Avenue bridge.	Community members with bikes or prams would be able to cross the corridor and access the proposed lift (and platform) using the ramp from Redleaf Avenue.

No.	Submission no.	Issue/s raised	TfNSW response
<b>Interchange facilities</b>			
3.7	W008	Recommended a formalised kiss and ride zone on Warwilla Avenue.	Warwilla Avenue is approximately 200 metres from the station entrance on Redleaf Avenue. The formalised shared kiss and ride / taxi zone on Railway Avenue has therefore been selected due to its proximity to the station entrance. The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT. Additional formalised kiss and ride on Warwilla Avenue is therefore not included as part of the Proposed Activity.
3.8	W034	Recommended realigning the curve of the road at the Illoura Avenue 'No Parking' area to create a better line of sight to the traffic coming over the Redleaf Avenue bridge.	Aside from the upgrade to the Redleaf Avenue bridge and the modifications for the accessible parking and shared taxi / kiss and ride zone, no other changes to the surrounding road network are proposed as part of the Proposed Activity. Any modifications to Illoura Avenue would be the responsibility of Ku-ring-gai Council.
3.9	W037	Concerned about the traffic impacts and safety of the existing 'No Parking' area on Railway Avenue if this is to be utilised for kiss and ride. Recommends kiss and ride be relocated to the adjacent parking zone on Railway Avenue (westbound) after the pedestrian crossing.	The Proposed Activity does not include any modifications to the 'No Parking' area before the pedestrian crossing heading westbound on Railway Avenue. However, the Proposed Activity includes the provision of a shared zone for taxi / kiss and ride in the eastbound lane (within the existing taxi rank). This location was chosen to have the least impact on the existing parking spaces as well as its proximity to the station entrance. CoA 39 requires that a Road Safety Audit is undertaken as part of the detailed design process and on completion of construction and includes assessment of the kiss and ride area.

No.	Submission no.	Issue/s raised	TfNSW response
<b>Traffic</b>			
3.10	W029	Noted the existing traffic congestion around the station	<p>The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT.</p> <p>Modifications to the road network to relieve traffic congestion is not within the scope of the Proposed Activity and is the responsibility of Ku-ring-gai Council.</p>
<b>4 Heritage</b>			
4.1	W035	<p>Concerned that the unique visual amenity of Wahroonga Station would be impacted / lost with the contrasting modern structures proposed for the canopies. The respondent has suggested that the current approach is in conflict with the Sydney Trains <i>Canopies and Shelters Design Guide for Heritage Stations</i> (2016) which states:</p> <p><i>“New design should enhance the setting and significance of a place. In rare cases, where the station has a significant overall character that has been preserved through time, it may be justifiable to design the new structures as reproductions of the existing ones. In most cases, the appropriate response will be a modern structure with design qualities that are sensitive to the original.”</i></p> <p>Therefore, it is recommended that due to the preservation of the significant heritage character of Wahroonga Station, that the new structures be designed to replicate features of the existing station e.g. the architectural style of the original station building into the design of the canopies (noting examples of heritage replications have been adopted for buildings at Gordon and Waverton Station). Further, a detailed documentary record can easily distinguish between original infrastructure and new infrastructure, and could help</p>	<p>An Architectural Design Report for the Proposed Activity has been reviewed and endorsed by a number of stakeholders including the heritage architect who authored the Sydney Trains <i>Canopies and Shelters Design Guide for Heritage Stations</i> (2016).</p> <p>The design has been guided by the principles of <i>The Burra Charter: The Australia ICOMOS charter for places of cultural significance</i> (2013), which states that <i>“new work should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place”</i> (Article 22.2). For certain elements such as the station entrance, it was considered to be inappropriate to replicate heritage features.</p> <p>To clearly distinguish new features from heritage fabric, a contemporary design has been applied to the canopies on both the concourse and at the boarding assistance zone, which allows the existing heritage station building to remain the dominant feature.</p> <p>A summary of the design intent of the lift and canopy at the station entrance from Redleaf Avenue bridge includes the following:</p> <ul style="list-style-type: none"> <li>the geometry of the canopy allows the lift shaft over-run to pop through above the roofing and reduce overall bulk with a lowered canopy height, and improve sight lines to the station building</li> <li>the roof canopy and lift shaft are designed as one elegant and</li> </ul>

No.	Submission no.	Issue/s raised	TfNSW response
		<p>preserve the aesthetic value of the station.</p>	<p>sophisticated pavilion to complement the park-like setting</p> <ul style="list-style-type: none"> <li>• the canopy soffit tapers upwards from the lift shaft to form a lined ceiling of timber tones with corners</li> <li>• the proposed painted steel outer edge extension creates a thin visual line on all four eaves with particular focus on the visual experience upon approach to the station from the footbridge</li> <li>• decorative details have also been included to be sympathetic to, and reflective of, the heritage features of the station (refer to item number 4.2).</li> </ul>
4.2	W035	<p>Suggested consideration should be given to opportunities for incorporating cues from the existing structures for the treatment of the new canopies (i.e. materials). In particular, the proposed timber lined soffit on the canopies do not resonate with any existing structure at the station.</p>	<p>As outlined in item number 4.1 above, the design intent was to create new contemporary features whilst respecting the cultural significance of the place (noting the existing concourse does not form part of the significant historic fabric of the station).</p> <p>There are a number of visual cues to the surrounding heritage environment incorporated in the proposed materials (subject to detailed design) including:</p> <ul style="list-style-type: none"> <li>• the selection of brick as a key material at the lift base and the replication of the existing brick parapet on the Redleaf Avenue bridge which was inspired by the brick detailing on the Redleaf Avenue bridge and the nearby bullnose garden edges and pavement brick header courses</li> <li>• a lightweight soffit in a soft warm timber tone (deep walnut) to create a pavilion sympathetic to the park-like setting, drawing on elements of the nearby Wahroonga Park and gardens.</li> </ul> <p>For constructability reasons, other materials such as steel have been selected due to strength to weight ratios and ease of transportation / handling.</p>

No.	Submission no.	Issue/s raised	TfNSW response
4.3	W035	<p>Concerned that the unity in the proposed design between the platform canopy and the concourse canopy may exacerbate certain negative visual impacts by sandwiching the heritage station building between two inconsistent modern structures. The platform canopy risks undermining the spatial integrity and heritage value of Wahroonga Station as it may change the relationship between the station's elements.</p> <p>Also concerned about the permanent visual impact of the proposed platform canopy on the existing Blueberry Ash trees which are currently considered a cohesive, intact and essentially unaltered visual fabric.</p>	<p>The need for a new canopy at the boarding assistance zone is to achieve compliance with DDA and DSAPT and is viewed in the Architectural Design Report as an opportunity to introduce a similar structure to the concourse canopy with a low profile.</p> <p>Having a similar design would reduce the visual impact of the new elements to reduce the overall impact to the heritage qualities of the station, and both elements are visually and physically separated from the Blueberry Ash trees and station building.</p> <p>The platform canopy has been designed as a portal structure with a lightweight canopy covering, and a minimalistic supporting structure.</p> <p>The canopy is located between existing Blueberry Ash planters, which would be protected during construction, and helps to evoke a pavilion imagery for a station which has an expansive garden setting.</p>
4.4	W035	<p>Concerned the additional visual bulk of the proposed new concourse would diminish the presence of the existing heritage balustrade on the Redleaf Avenue bridge.</p>	<p>The concourse has been designed to the minimum standards required to achieve DDA and DSAPT compliance and maximise pedestrian flow, and therefore features a minimalistic design to help draw attention to the existing heritage features of the station, such as the balustrade.</p> <p>The original balustrade would be retained, where possible, and has been incorporated into the walkway protection screen design as an interpretation of the existing walkway construction. It is noted however, that the existing heritage balustrade is in poor condition due to the extent of deterioration and corrosion and opportunities for possible salvage and reuse would be explored during detailed design.</p>
4.5	W035	<p>Concerned the glass screens that surround the concourse in the concept art seem unnecessary and risk being a magnet for graffiti vandals.</p>	<p>A glass material has been chosen for the safety screens to offer lightness and transparency, whilst retaining the properties to meet safety requirements in a protective screen, required by the Australian safety</p>

No.	Submission no.	Issue/s raised	TfNSW response
			standards. TfNSW will continue to explore opportunities to reduce the height of these screens to the minimum height possible.
4.6	W035	The 'heritage green' colour which is a feature of Wahroonga Station has not been incorporated into the design of the new concourse balustrade and refurbished stairs, and should replace the proposed grey colouring.	<p>The revised colour selection at Wahroonga Station has been determined with reference to a series of site specific and general railway painting guidelines.</p> <p>A Historic Paint Analysis was undertaken for Wahroonga Railway Station (2017) by OHM consultants. Due to certain building elements being replaced over time, the historic record of paint history on site is incomplete. However, the report confirms that the 'green' colour scheme is a more recent addition to the station. This is supported by the Sydney Trains Paint Study–Heritage Assurance Review (2018) which identifies that 'mid-blues and greens' were used as corporate colours throughout the 1960s and 1970s.</p> <p>This colour change does not reflect the range of colours used at the time of construction and are not authentic representations of the period. Due to the incomplete nature of the historic record on site, a combination of site specific data and the relevant engineering standard (ESB010 Heritage Paint Schemes) have been used to formulate a sympathetic paint scheme that closely reflects the stone colours that would have been available and prevalent at the time of construction.</p> <p>Similarly, the recessive grey colour selected for the balustrade and bridge elements reflects a historic approach to painted metal elements.</p>
4.7	W035	Questioned the decision to demolish the Redleaf Avenue footbridge, as opposed to restore the structure. Suggested that given the existing 1927 footbridge's heritage significance, consideration should be given in the detailed planning stage to restore and retain the existing footbridge as opposed to the demolition, to retain as much of the existing	<p>The heritage listing for the Wahroonga Railway Station Group recognises the brick arch overbridge (road bridge) as significant heritage fabric, however the footbridge is not separately identified.</p> <p>Plans from 1924 indicate that the footbridge was designed as a temporary addition (refer to Plate 3.12 of the Statement of Heritage Impact (SoHI) (RPS, 2019b)). While efforts to retain fabric within the</p>

No.	Submission no.	Issue/s raised	TfNSW response
		physical and visual fabric of the footbridge as possible.	<p>heritage curtilage have been prioritised, retaining / repairing the steel fabric of the footbridge would adversely compromise the overall lifespan and functionality of the road bridge and station access.</p> <p>The Peer Review of the various proposals for the Redleaf Avenue footbridge (Mott MacDonald, 2019) also notes that the existing steelwork of the footbridge is prone to corrosion, being both partially exposed and being inadequately waterproofed where embedded within, or being in contact with, other structures. Therefore, replacing the footbridge structure (as opposed to repairing) achieves the best fit of ongoing functionality with the maintenance of the heritage significance of the site as a whole.</p>
4.8	W035	Recommended that consideration should be given to replanting lost vegetation with not only native and endemic species, but also appropriate exotic ornamental species consistent with the heritage listing of Wahroonga Station and the maintenance of its visual setting.	TfNSW has incorporated this recommendation into CoA 25 so that vegetation planted onsite is to consist of locally endemic native species <u>and</u> exotic species characteristic of the heritage-listed Wahroonga Station gardens.
<b>5 Biodiversity</b>			
5.1	W035 W036	Requested the retention of the garden bed near Wahroonga shopping village due to its amenity value. One respondent noted that this is one of the most prominent features of Wahroonga Station.	The Proposed Activity includes landscape design which is detailed in the Urban Design and Public Domain Plan (refer CoA 36). Additional landscaping at new garden beds adjacent to the accessible ramp would include a selection of native shrubs and grasses, with flowering climbing plants intended to provide vegetative cover to the exposed retaining walls.

No.	Submission no.	Issue/s raised	TfNSW response
<b>6</b>			
<b>Safety</b>			
6.1	W004, W028	Issue with the current condition of the stairs (particularly during wet weather) which poses a safety/slip hazard to pedestrians and one respondent requested additional canopies to help address this issue.	<p>The Proposed Activity would address this issue by installing new stainless-steel handrails and non-slip treads to the existing stairs, along with new or reinstated TGSIs which would improve customer safety.</p> <p>During detailed design, further investigations would be made into reinstating the nosings on the stairs to improve drainage where necessary.</p>
<b>7</b>			
<b>Amenities</b>			
7.1	W001	Required further information regarding any changes to seating arrangements at the station.	<p>The Proposed Activity does not include the net removal of seats at Wahroonga Station, however existing seating may require relocation, which would be determined during detailed design.</p> <p>Additional bench seating would be provided at the boarding assistance zone on the platform, and along the accessible path of travel from the accessible parking to platform to meet key DDA and DSAPT requirements.</p> <p>The addition of any new or replacement seating would be sympathetic to the heritage features of the station (i.e. the seats would feature timber as opposed to steel).</p>
7.2	W001	Requested a bin compound under the existing stairs to the platform.	<p>The Proposed Activity includes the adjustment to rubbish bin locations, however at this stage of the design the Proposed Activity does not include a bin compound. Any adjustments would be determined during detailed design in consultation with Sydney Trains.</p>
7.3	W004, W031	Requested passenger information display boards / Opal facilities at the concourse on the Redleaf Avenue bridge.	<p>To maximise efficiency of pedestrian flows and ensure access across the footbridge is maintained at the concourse level, new passenger information display boards and Opal facilities would be installed at platform level.</p>

No.	Submission no.	Issue/s raised	TfNSW response
7.4	W034	Recommended separate male and female toilet facilities.	The toilet refurbishment work to create a new family accessible toilet and unisex ambulant toilet is required to ensure Wahroonga Station meets legislative requirements under the DDA and the DSAPT. Due to existing space constraints and to minimise heritage impacts to the station building, it is not feasible to provide separate female/male facilities. Toilet facilities would continue to be managed by Sydney Trains.
<b>8</b>	<b>Socio-economic</b>		
8.1	W005, W031 W033	Recommended retaining the small retail outlet on the Redleaf Avenue bridge due to the adverse socio-economic impacts associated with the proposed removal.	<p>The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT, and the preferred option as described in Section 2.4 of the REF includes replacement of the existing retail/concourse with a new lift and landing area.</p> <p>The removal of the small retail outlet is necessary to achieve the required space for pedestrian flows and accessible pathways, leaving insufficient space to reinstate a retail facility at this location.</p> <p>While it is noted that the removal of this facility would have an adverse impact on the business owner, who has been consulted during design development, there are similar services provided in the nearby Wahroonga village, and as such it is expected that this would have an overall minor impact to the community.</p>
8.2	W036	Concerned about the visual impact on businesses on Railway Avenue during construction due to the impact of plant and machinery.	<p>The REF has concluded that the Proposed Activity would have the potential to impact commercial facilities in Wahroonga shopping village due to the construction noise, vibration, dust and visual impacts.</p> <p>Where possible, the placement of crane set-up locations and construction laydown sites would be in places predominately screened with either vegetation or within land managed by Sydney Trains, such as the rail corridor.</p>

No.	Submission no.	Issue/s raised	TfNSW response
8.3	W030	Requested information about the retention of the community notice board at the Wahroonga shopping village.	Therefore, the visual impact during construction is not considered to be significant and would be temporary during construction. Measures to mitigate visual impacts during construction would be included in a CEMP for the Proposed Activity and would include measures such as minimising light spill during night works and screening of compounds (refer to CoA 12).
			During detailed design, TfNSW will investigate options for the relocation of the community notice board in consultation with Ku-ring-gai Council (refer to CoA 36).

## Other stakeholder submissions

Table 2 outlines issues raised by Ku-ring-gai Council (W039) in their submission, along with TfNSW's response.

**Table 2: Response to other stakeholder submissions received from Ku-ring-gai Council**

Issue no.	Issue/s raised	TfNSW response
<b>1</b>	<b>General</b>	
1.1	Support for the Proposed Activity, and/or for improving accessibility at the station.	Noted.
<b>2</b>	<b>Traffic, Transport and Access</b>	
2.1	Requests the Transport Access Program 3 Pedestrian Modelling and Traffic Transport and Access Impact Assessment Wahroonga Station (GHD, July 2019) is provided as part of the Proposed Activity documentation.	The Transport Access Program 3 Pedestrian Modelling and Traffic Transport and Access Impact Assessment Wahroonga Station (GHD, 2019) was based on an earlier concept design. All information relevant to the concept design assessed in the REF has been adapted from the GHD report, and contained within the Traffic, Transport and Access Impact Assessment (SLR, 2019).
2.2	Indicated that the Traffic, Transport and Access Impact Assessment (SLR, 2019) included an inferred mode share attributed to station users who either catch public transport, walk or cycle to the station which appears to be relatively high in comparison to nearby stations. Updated data on mode splits should be obtained to clarify mode share to access the station.	<p>The Traffic, Transport and Access Impact Assessment (SLR, 2019) acknowledges that no formal mode share surveys have been conducted, however mode shares have drawn on the pedestrian counts at nearby zebra pedestrian crossings. The purpose of the pedestrian counts was to gain a greater understanding of the construction and operational impacts of upgrades to the Redleaf Avenue bridge and the Wahroonga Station entrance.</p> <p>The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT and therefore upgrades to the surrounding parking / active transport network are considered supplementary.</p>
2.3	Consideration should be given to upgrading the bus stop and the pedestrian refuge on Millewa Avenue as part of the station upgrade.	The objective of the Proposed Activity is to provide equitable access in accordance with key requirements of the DDA and DSAPT at Wahroonga Station, therefore the upgrade of nearby bus stops is outside the scope of the Proposed Activity.

Issue no.	Issue/s raised	TfNSW response
2.4	If the proposed bicycle racks were at the base of the new accessible ramp, improved lighting coverage with CCTV cameras is supported given the seclusion.	Bike racks (with capacity for ten bikes) would be installed adjacent to the War Memorial on Illoura Avenue. There is also an opportunity to include more bike racks, and this would be further explored during detailed design (refer to CoA 36). Improved CCTV and lighting upgrades would be determined during detailed design.
2.5	Evidence of consultation with NSW Taxi Council and/or taxi operators regarding reallocation of this kerbside space should be provided.	Initial consultation with NSW Taxi Council occurred in October 2018. Further consultation with NSW Taxi Council will be undertaken during the detailed design phase.
2.6	Requests clarifications regarding the layout of the accessible parking space and shared taxi / kiss and ride.	The Proposed Activity would create a shared interchange zone on Railway Avenue for formalised kiss and ride and taxi use with room for two car spaces, in addition to one accessible parking space (refer to Figure 3).
2.7	Provided recommendations to improve the traffic diversions / detours proposed. Council provided additional traffic flow data to assist in confirming the Traffic Control Plans to be implemented during construction.	This recommendation and additional traffic flow data would be provided to the Construction Contractor to assist in the finalisation of the Traffic Management Plan.
<b>3 Landscape</b>		
3.1	Required clarification as to where the offset trees (28 in total) would be planted and what type of trees they would be. Recommended the proposed species selection is consistent with the heritage nature of the site. Preferably, canopy species should be utilised where possible to maximise tree heights.	Where possible, offset trees would be planted in proximity to Wahroonga Station. TfNSW has incorporated Council's recommendation regarding heritage plantings into CoA 25 for vegetation planted onsite to consist of locally endemic native species and exotic species characteristic of the heritage-listed Wahroonga Station gardens.
3.2	Recommends the paving on the new path at Wahroonga shopping village replace the existing (i.e. concrete with brick paving bands).	Refer to item number 4.6 below.
3.3	Requested the detailed design of the landscape / public domain design should be provided to Council so that the design and material selection can be agreed well in advance of construction.	Consultation with Ku-ring-gai Council would continue during design development. Ku-ring-gai Council would have an opportunity to provide feedback on the detailed design which would include landscape and public domain features.

Issue no.	Issue/s raised	TfNSW response
3.4	Requested information provided in the Arboricultural Impact Assessment (Allied Tree Consultancy, 2019) such as the nature of the proposed pruning and its impact on amenity, tree protection zone encroachment, and tree protection measures.	<p>The Arboricultural Impact Assessment (Allied Tree Consultancy, 2019) is located on the Project webpage:  <a href="https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade">https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade</a></p> <p>This report considers the impact of the proposed design on trees, where any part of the zones of protection (i.e. Tree Protection Zone (TPZ) and Structural Root Zone) may encroach into the area proposed for works. Recommendations based on the tree significance and condition, together with the impact on these trees, regarding the Proposed Activity are included in the assessment.</p>
3.5	Requested information regarding the potential impacts on adjacent trees as part of the padmount construction.	<p>Please refer to the Arboricultural Impact Assessment (Allied Tree Consultancy, 2019) for all details regarding the trees in proximity to the padmount (and cable servicing). No trees in this location are marked for removal, as the route of cable servicing line should be located on the outside perimeter of each TPZ. Where practically possible, TfNSW will design the proposed electrical infrastructure to reduce any impact on the zones of protection for each tree.</p>

Issue no.	Issue/s raised	TfNSW response
<b>4</b>	<b>Heritage</b>	
4.1	<p>With respect to the assessment ratings in the SoHI (RPS, 2019b), Council generally were in agreement however considers that the overall impacts of the proposed Redleaf Avenue bridge refurbishment works to be of a moderate adverse impact (rather than minor as assessed by RPS) due to:</p> <ul style="list-style-type: none"> <li>• balustrade removal resulting in the significant loss of heritage fabric (refer to item number 4.9)</li> <li>• parapet removal resulting in the significant loss of heritage fabric (refer to item number 4.8)</li> <li>• the loss of the original Redleaf Avenue bridge walkway is considered a considerable loss of significant heritage fabric, however necessary for safety / maintenance requirements</li> <li>• the introduction of the proposed safety screen impeding the visual connection between the station and the surrounding area (refer to item number 4.10).</li> </ul>	<p>The SoHI (RPS, 2019b) has considered the impacts to the heritage balustrade, parapet, walkway and safety screen, and has considered the overall impacts associated with the proposed Redleaf Avenue bridge refurbishment as minor for the following reasons:</p> <ul style="list-style-type: none"> <li>• the curved steel balustrade would be retained where possible and has been incorporated into the walkway protection screen design as an interpretation of the existing walkway construction</li> <li>• while the existing brick parapet on the bridge separating pedestrian and vehicles needs to be replaced with concrete to meet safety standards, a brick finish is proposed to be installed on the pedestrian-side to help maintain the setting of the station and surrounds</li> <li>• the Redleaf Avenue bridge refurbishment includes the removal of significant fabric, including the removal of the post 1935 existing walkway/footbridge. In order to mitigate the overall impact, retention of the existing staircase has been prioritised as TfNSW has considered the relative importance of the footbridge in the context of the broader significance of the station. Please see item number 4.7 in Table 1 for more information regarding the removal of the footbridge</li> <li>• the protection screens across the bridge to be installed with glazing and to the minimum height required to reduce visual impacts</li> <li>• while the new footbridge would remove heritage fabric, the Proposed Activity maintains the style and spatial integrity of the bridge while distinguishing between original fabric and new materials, as well as maintain views to and from the station.</li> </ul>

Issue no.	Issue/s raised	TfNSW response
4.2	<p>With respect to the assessment ratings in the SoHI, Council generally were in agreement however considered the loss of the concourse and stair trestle to have a moderate adverse heritage impact (rather than minor as assessed by RPS) due to the loss of substantial amounts of original visual fabric and the subsequent impact to the ability of the historical development of the station to be interpreted. However, it was noted by Council that the proposed mitigation measures identified in the SoHI (RPS, 2019b) are well-considered and would allow for the retention and visual appreciation of one of the stair trestles which is to be retained in situ.</p>	<p>The SoHI (RPS, 2019b) notes that the station access works include the removal of significant fabric, including the 1927 concourse slab and one stair trestle (1909). This would have a direct impact and affect the significance of the station.</p> <p>However, as the trestle supporting the existing stairs has been recognised as a sacrificial element to be removed in order to proceed with the Proposed Activity, and the design allows for the retention of much of the original fabric of the station, these works would have a minor adverse impact to the heritage significance of the station group.</p>
4.3	<p>Ku-ring-gai Council supports the recommendations made in the SoHI (RPS, 2019). Some of the specific elements supported by Council include:</p> <ul style="list-style-type: none"> <li>• the location of the accessible station entrance from the Wahroonga shopping village as opposed to Millewa Avenue</li> <li>• the lift / concourse / canopies designed as modern elements within a heritage setting</li> <li>• the design and material choices of the canopies / lift such as the lowered canopy height, choice of brick on the lift shaft and timber for the canopy soffit</li> <li>• the replacement of the Redleaf Avenue bridge walkway as opposed to the restoration (to achieve the safety and maintenance requirements)</li> <li>• retention of the stairs with minor modifications to achieve safety standards</li> <li>• extension of the platform to create the walkway to the lift</li> <li>• modifications to the toilet facilities in the station building</li> <li>• the platform canopy at the boarding assistance zone, which has been kept to a minimum size and is a reasonable distance from the station building.</li> </ul> <p>Ku-ring-gai Council also made heritage recommendations relating to detailed design, which are further addressed in the items below.</p>	<p>Noted. In accordance with CoA 41, the Heritage Report to be prepared by the Heritage Advisor will address how the detailed design has considered the recommendations provided by Council.</p>

Issue no.	Issue/s raised	TfNSW response
4.4	Concerned about the potential loss of the landscaped setting adjacent to the Wahroonga shopping village as a consequence of the new ramp and footbridge abutments, as the garden setting of Wahroonga Station is of heritage significance. It is recommended that TfNSW investigate all options to minimise loss of vegetation as a result of the works (even if this requires modifications to the current upgrade designs) and replace lost plantings with an equal number of new plantings of suitable species which relate to the heritage values of the area.	Further investigation of additional design options for the Railway Avenue entrance (refer CoA 45) would consider the feasibility of retaining the garden bed. Where retention is not possible, cleared vegetation would be offset in accordance with CoA 25 which identifies that all vegetation planted on-site is to consist of locally endemic native species and exotic species characteristic of the heritage-listed Wahroonga Station gardens.
4.5	Recommended that options to cover or shield new or existing fencing with vegetation be investigated to mitigate the visual impacts of the overall loss of greenery to the general area.	The Proposed Activity includes landscape design which is proposed in the Urban Design and Public Domain Plan (also refer to CoA 36). Landscaping at new garden beds adjacent to the accessible ramp has been included with the intention to provide vegetative cover of the exposed retaining walls (i.e. through flowering climbing plants). Opportunities to incorporate vegetative cover elsewhere would be further explored during detailed design. It is also noted that CoA 41 requires a Heritage Report to be prepared by the Heritage Advisor identifying how the detailed design has considered this recommendation provided by Council.
4.6	Recommended that that the replacement footpath replicate the existing brick and concrete design.	Replicating the existing brick and concrete design of the footpath would be further explored during detailed design as part of the final section of materials and finishes (refer to CoA 41).
4.7	Recommended that TfNSW incorporate bullnose brick elements to the proposed new garden beds.	Incorporating bullnose brick elements to the proposed new garden beds would be further explored during detailed design (refer to CoA 41).
4.8	Recommended the reuse of the existing bricks within the new brick parapet or alternatively within the new footpaths. If the bricks from the existing parapet to Redleaf Avenue cannot be reused in the new brick parapet, it is recommended they be reused in other features such as the footpaths. The use of the brick bullnose finish is supported as this is consistent with the current parapet and surrounding brick kerbs.	Reusing the bricks from the parapet in the new parapet would be prioritised, however options for incorporating the bricks into other features at the station such as the footpath would be further explored during detailed design (refer to CoA 41).

Issue no.	Issue/s raised	TfNSW response
4.9	Recommended that original sections of balustrading to the Redleaf Avenue bridge and footpath be identified, repaired and retained. In particular, TfNSW should consider removing and repairing existing sections of the original balustrade and reinstating it to be raised above the footpath level to avoid corrosion. Should additional height be required for safety reasons, this can be added to the bottom of the balustrade to raise the overall height.	The Peer Review of the proposals for the Redleaf Avenue footbridge (Mott MacDonald, 2019) confirmed that the existing balustrade to the footbridge is partially constructed out of original riveted steel, which has partially been replaced by welded steel of a similar pattern. Both the existing and replaced balustrade show signs of corrosion to the balustrade bottom rail and to the balustrade base fixings into the deck. In order to accommodate the greater height needed for the handrail and reduce the potential for corrosion, investigations to lift the balustrade base out of contact with the deck would be explored during detailed design (refer to CoA 41).
4.10	Recommended TfNSW consider lowering the height of the glass safety screens, or reducing the width of the mullions, to minimise their impacts to the relationship between the station and the surrounding area.	TfNSW is currently investigating options to lower the height of the glass safety screens to the minimum height possible to meet the Australian safety standards (refer to CoA 41).
4.11	It is recommended that TfNSW investigate options to mitigate the visual impacts of the concrete barrier (roadside of the brick parapet) as the existing parapet is considered detrimental to the heritage significance of the Wahroonga station group. It is recommended the concrete barrier has some form of visual softening using design or art elements to make this new element visually acceptable.	TfNSW would investigate options to improve the design of the new concrete barrier (whilst meeting the required road and safety requirements), acknowledging its current heritage significance (also refer to CoA 41).
4.12	Recommended that new signage should not directly attached to any significant heritage fabric.	CoA 44 identifies that the design and construction of the Proposed Activity is be undertaken in accordance with the recommendations made in the SoHI. Recommendation 3 of the SoHI (RPS, 2019b) states protective measures must be put in place to protect significant fabric of the station building and platform. Care must be taken when installing fixtures and fittings to the exterior of the building to minimise heritage impact.

Issue no.	Issue/s raised	TfNSW response
4.13	<p>Recommended that any changes/additions to significant heritage fabric be undertaken in consultation with a qualified heritage specialist in regard to elements such as:</p> <ul style="list-style-type: none"> <li>• signage</li> <li>• seating, rubbish bins, lighting and other facilities</li> <li>• improvements to station security and communication systems</li> <li>• station power supply</li> <li>• temporary construction compounds.</li> </ul>	<p>CoA 41 specifies that a suitably qualified and experienced Heritage Advisor would be engaged to provide ongoing heritage, design and conservation advice throughout detailed design and any subsequent relevant design modifications.</p>
4.14	<p>Agreed that the likelihood for archaeology is considered low in this location. Should any relics or archaeological be uncovered during construction works TfNSW must adhere to all relevant legislative requirements and best practice guidelines.</p>	<p>Refer to CoA 40 for details of the procedure if previously unidentified Aboriginal or non-Aboriginal heritage/archaeological items are uncovered during construction works.</p>
4.15	<p>Council considered the impact of the Proposed Activity on adjacent heritage items and concluded that the proposed works would not have a significant impact on these sites, so long as Council's recommendations to reduce heritage impacts are implemented.</p>	<p>CoA 41 identifies that the Heritage Report to be prepared by the Heritage Advisor will address how the detailed design has considered the recommendations provided by Council. Heritage items in close proximity to the Proposed Activity, such as the Inter-war Shops on Railway Avenue and Wahroonga Park, would also be identified as no-go zones during construction (refer to CoA 47).</p>

## 2.4 Future consultation

Should TfNSW proceed with the Proposed Activity, consultation activities would continue, including consultation with Ku-ring-gai Council regarding design development. In addition, TfNSW would notify residents, businesses and community members in the lead up to and during construction. The consultation activities would help to ensure that:

- local council and other stakeholders have an opportunity to provide feedback on the detailed design
- the community and stakeholders are notified in advance of any upcoming works, including changes to pedestrian or traffic access arrangements and out of hours construction activities
- accurate and accessible information is made available
- a timely response is given to issues and concerns raised by the community
- feedback from the community is encouraged.

The [TfNSW email address](mailto:projects@transport.nsw.gov.au)<sup>3</sup> and TfNSW Infoline (1800 684 490) would continue to be available during the construction phase. Targeted consultation methods, such as use of letters, notifications, signage and verbal communications, would continue to occur. The [TfNSW website](http://www.transport.nsw.gov.au/wahroonga)<sup>4</sup> would also include updates on the progress of construction.

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<sup>3</sup> [projects@transport.nsw.gov.au](mailto:projects@transport.nsw.gov.au)

<sup>4</sup> <http://www.transport.nsw.gov.au/wahroonga>

### 3 Consideration of the environmental impacts

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#### ***Environmental Planning and Assessment Act 1979***

The REF addresses the requirements of Section 5.5 of the EP&A Act. In considering the Proposed Activity, all matters affecting or likely to affect the environment are addressed in the REF and the Determination Report and associated documentation.

In accordance with the checklist of matters pursuant to clause 228(3) of the EP&A Regulation, an assessment is provided in Chapter 6 of the REF and Appendix B of the REF.

In respect of the Proposed Activity an assessment has been carried out regarding potential impacts on critical habitat, threatened species, populations or ecological communities or their habitats, under Section 5.7 of the EP&A Act.

The likely significance of the environmental impacts of the Proposed Activity has been assessed in accordance with the then NSW Department of Planning's 1995 best practice guideline [\*Is an EIS Required?\*](#)<sup>5</sup> It is concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Accordingly, an environmental impact statement under Division 5.2 of the EP&A Act is not required.

#### ***Environment Protection and Biodiversity Conservation Act 1999***

As part of the consideration of the Proposed Activity, all matters of national environmental significance (NES) and any impacts on Commonwealth land for the purposes of the EPBC Act have been assessed. In relation to NES matters, this evaluation has been undertaken in accordance with Commonwealth Administrative Guidelines on determining whether an action has, will have, or is likely to have a significant impact. A summary of the evaluation is provided in Chapter 6 and Appendix A of the REF.

It is considered that the Proposed Activity described in the REF is not likely to have a significant impact on any Commonwealth land and is not likely to have a significant impact on any matters of NES.

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<sup>5</sup> Refer to the National Library of Australia's 'Trove' website  
<http://trove.nla.gov.au/work/7003034?selectedversion=NBD11474648>

## **4 Conditions of Approval**

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If approved, the Proposed Activity would proceed subject to the Conditions of Approval included at Appendix B.

## 5 Conclusion

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Having regard to the assessment in the REF and consideration of the submissions received, it can be concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Consequently, an environmental impact statement is not required to be prepared under Division 5.2 of the EP&A Act.

It is also considered that the Proposed Activity does not trigger any approvals under Part 3 of the EPBC Act.

The environmental impact assessment (REF and Determination Report) is recommended to be approved subject to the proposed mitigation and environmental management measures included in the Conditions of Approval (refer to Appendix B).

# Determination

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## WAHROONGA STATION UPGRADE

### APPROVAL

I, LOUISE SUREDA, as delegate of the Secretary, Transport for NSW:

1. Have examined and considered the Proposed Activity in the *Wahroonga Station Upgrade Review of Environmental Factors* (December 2019) and the *Wahroonga Station Upgrade Determination Report* (March 2020) in accordance with section 5.5 of the *Environmental Planning and Assessment Act 1979*.
2. Determine on behalf of Transport for NSW (the Proponent) that the Proposed Activity may be carried out in accordance with the Conditions of Approval in this Determination Report (March 2020), consistent with the Proposed Activity described in the *Wahroonga Station Upgrade Review of Environmental Factors* (December 2019).



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Louise Sureda  
Director, Planning and Environment  
Environment and Sustainability Branch  
Safety, Environment and Regulation Division  
**Transport for NSW**

Date: 25.3.20

## References

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- Allied Tree Consultancy, 2019, Arboricultural Impact Assessment, Wollongong
- Australia ICOMOS, 2013, *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*
- NSW Department of Planning, 1995, Is an EIS required?, Sydney
- GHD, 2019, Transport Access Program 3 Pedestrian Modelling and Traffic Transport and Access Impact Assessment (TT&AIA) Wahroonga Station, Sydney
- Mott MacDonald, 2019, Peer Review of the proposals for the Redleaf Avenue footbridge, Sydney
- RPS, 2019a, Wahroonga Station Upgrade Review of Environmental Factors, Sydney
- RPS, 2019b, Wahroonga Station Upgrade – Statement of Heritage Impact, Sydney
- SLR, 2019a, Wahroonga Station Upgrade – Traffic, Transport and Access Impact Assessment, SLR Consulting Australia, Brisbane

# Appendix A      Review of Environmental Factors

Please refer to the TfNSW website to access the Wahroonga Station Upgrade REF:

- *Wahroonga Station Upgrade Review of Environmental Factors* – Transport Access Program (Desksite reference 6417507), December 2019
- Link to REF on the Transport for NSW website:  
<https://www.transport.nsw.gov.au/projects/current-projects/wahroonga-station-upgrade>

# Appendix B Conditions of Approval

## CONDITIONS OF APPROVAL

### Wahroonga Station Upgrade

Note: these Conditions of Approval must be read in conjunction with the final mitigation measures in the Wahroonga Station Upgrade Review of Environmental Factors.

#### Schedule of acronyms and definitions used:

Acronym	Definition
ADEIA	TfNSW Associate Director Environmental Impact Assessment (or nominated delegate)
ADEM	TfNSW Associate Director Environmental Management (or nominated delegate)
ADSPD	TfNSW Associate Director Sustainability, Planning and Development (or nominated delegate)
AFC	Approved for Construction
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CLMP	Community Liaison Management Plan
CoA	Condition of Approval
dBA	Decibels (A-weighted scale)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environment Protection Licence issued by the Environmental Protection Authority under the <i>Protection of the Environment Operations Act 1997</i> .
EMS	Environmental Management System
ISO	International Standards Organisation
OEH	Former NSW Office of Environment and Heritage
OOHWP	Out of Hours Works Protocol
PECM	Pre-Construction Environmental Compliance Matrix
POCR	Pre-Operational Compliance Report
RBL	Rating Background Level
REF	Review of Environmental Factors

<b>Acronym</b>	<b>Definition</b>
<b>TfNSW</b>	Transport for NSW
<b>TMP</b>	Traffic Management Plan
<b>TPZ</b>	Tree Protection Zone
<b>UDP</b>	Urban Design Plan

Term	Definition
<b>Construction</b>	Includes all work in respect of the Project, other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, or other activities determined by the TfNSW ADEM to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction compounds (in accordance with this approval), or minor clearing (except where threatened species, populations or ecological communities would be affected).
<b>Contamination</b>	The presence in, on or under land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
<b>Designated Works</b>	Includes tunnelling, blasting, piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction, for Construction.
<b>Emergency Work</b>	Includes works to avoid loss of life, damage to external property, utilities and infrastructure, prevent immediate harm to the environment, contamination of land or damage to a heritage (Aboriginal or non-Aboriginal) item.
<b>Environmental Impact Assessment (EIA)</b>	The documents listed in Condition 1 of this approval.
<b>Feasible</b>	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given project constraints such as safety and maintenance requirements.
<b>Noise Sensitive Receiver</b>	In addition to residential dwellings, noise sensitive receivers include, but are not limited to, hotels, entertainment venues, pre-schools and day care facilities, educational institutions (e.g. schools, TAFE colleges), health care facilities (e.g. nursing homes, hospitals), recording studios, places of worship/religious facilities (e.g. churches), and other noise sensitive receivers identified in the environmental impact assessment.
<b>Project</b>	The construction and operation of the Wahroonga Station Upgrade as described in the Environmental Impact Assessment.
<b>Proponent</b>	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in the case of the Project, Transport for NSW.
<b>Reasonable</b>	Selecting reasonable measures from those that are feasible involves making a judgment to determine whether the overall benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.

CoA number	Type
<b>General</b>	
<b>1</b>	<p><b>Terms of Approval</b></p> <p>The Project shall be carried out generally in accordance with the environmental impact assessment (EIA) for this Project, which comprises the following documents:</p> <ol style="list-style-type: none"> <li>a) <i>Wahroonga Station Upgrade – Review of Environmental Factors</i> (RPS, December 2019)</li> <li>b) <i>Wahroonga Station Upgrade – Determination Report</i> (RPS, March 2020).</li> </ol> <p>In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.</p>
<b>2</b>	<p><b>Project Modifications</b></p> <p>Any modification to the Project as approved in the EIA would be subject to further assessment. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been minimised. The assessment shall be subject to approval under delegated authority by TfNSW. The Proponent shall comply with any additional requirements from the assessment of the Project modification.</p>
<b>3</b>	<p><b>Statutory Requirements</b></p> <p>These conditions do not relieve the Proponent of the obligation to obtain all other licences, permits, approvals and land owner consents from all relevant authorities and land owners as required under any other legislation for the Project. The Proponent shall comply with the terms and conditions of such licences, permits, approvals and permissions.</p>
<b>4</b>	<p><b>Pre-Construction Environmental Compliance Matrix</b></p> <p>A Pre-Construction Environmental Compliance Matrix (PECM) for the Project (or such stages of the Project as agreed to by the Associate Director Environmental Management (ADEM)) shall be prepared detailing compliance with all relevant conditions and mitigation measures prior to commencement of construction. The PECM shall also include details of approvals, licences and permits required to be obtained under any other legislation for the Project.</p> <p>A copy of the PECM shall be submitted to the ADEM for approval, at least 21 days prior to commencement of construction of the Project (or within such time as otherwise agreed to by the ADEM).</p>
<b>5</b>	<p><b>Construction Environmental Compliance Report</b></p> <p>A Construction Environmental Compliance Report (CECR) for the Project shall be prepared which addresses the following matters:</p> <ol style="list-style-type: none"> <li>a) compliance with the Construction Environmental Management Plan (CEMP) and these conditions</li> <li>b) compliance with the Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability Rating Scheme (v1.2)</li> <li>c) compliance with any approvals or licences issued by relevant authorities for construction of the Project</li> <li>d) implementation and effectiveness of environmental controls (the assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP)</li> <li>e) environmental monitoring results, presented as a results summary and analysis</li> <li>f) details of the percentage of waste diverted from landfill and the percentage of spoil beneficially reused</li> </ol>

CoA number	Type
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- g) number and details of any complaints, including summary of main areas of complaint, actions taken, responses given and intended strategies to reduce recurring complaints (subject to privacy protection)
- h) details of any review and amendments to the CEMP resulting from construction during the reporting period
- i) any other matter as requested by the ADEM.

The Proponent shall:

- i) submit a copy of the CECR to the EMR for review. The EMR is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the CECR
- ii) submit a copy of the CECR to the ADEM (or nominated delegate) for approval upon completion of the EMR review period.

The first CECR shall report on the first six months of construction and be submitted within 21 days of expiry of that period (or at any other time interval agreed to by the ADEM). CECRs shall be submitted no later than six months after the date of submission of the preceding CECR (or at other such periods as requested by the ADEM) for the duration of construction.

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**6 Pre-Operation Compliance Report**

A Pre-Operation Compliance Report (POCR) for the Project shall be prepared, prior to commencement of operation of the Project. The POCR shall detail compliance with all Conditions of Approval, licences and permits required to be obtained under any other legislation for the Project.

The Proponent shall:

- a) submit a copy of the POCR to the EMR for review. The EMR is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the POCR.
- b) upon completion of the EMR review period submit a copy of the POCR to the ADEM (or nominated delegate) for approval. The POCR is to be provided to the ADEM at least one month prior to the scheduled operation of the Project (or such time as otherwise agreed to by the ADEM).

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**7 Graffiti and advertising**

Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures within the project footprint or built as part of the Project are to be maintained free of graffiti and advertising not authorised by the Proponent during the construction period. Graffiti and unauthorised advertising will be removed or covered within the following timeframes:

- (a) offensive graffiti will be removed or concealed within 24 hours
- (b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week
- (c) graffiti that is neither offensive or highly visible will be removed or concealed within a month
- (d) any unauthorised advertising material will be removed or concealed within 24 hours.

**Communications**

**8 Community Liaison Management Plan**

A Community Liaison Management Plan (CLMP) shall be prepared and implemented to engage with government agencies, relevant councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies and businesses). The CLMP shall comply with the obligations of these conditions and should include, but not necessarily be limited to:

CoA number	Type
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- a) details of the protocols and procedures for disseminating information and liaising with the community and other key stakeholders about construction activities (including timing and staging) and any associated impacts during the construction period
- b) stakeholder and issues identification and analysis
- c) procedures for dealing with complaints or disputes and response requirements, including advertising the 24 hour construction response line number
- d) details (including a program) of training for all employees, contractors and sub-contractors on the requirements of the CLMP.

The CLMP shall be prepared to the satisfaction of the Director Community Engagement prior to the commencement of construction of the Project and implemented, reviewed and revised as appropriate during construction of the Project.

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**9 Community Notification and Liaison**

The local community shall be advised of any activities related to the Project with the potential to impact upon them.

Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour construction response line number.

Construction-specific impacts including information on traffic changes, access changes, detours, services disruptions, public transport changes, high noise-generating work activities and work required outside the nominated working hours shall be advised to the local community at least seven days prior to such works being undertaken or other period as agreed to by the Director Community Engagement or as required by the Environment Protection Authority (EPA) (where an Environment Protection Licence (EPL) is in effect).

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**10 Website**

The Proponent shall provide electronic information (or details of where hard copies of this information may be accessed by members of the public) related to the Project, on dedicated pages within its existing website, including:

- a) a copy of the documents referred to under Condition 1 of this approval
- b) a list of environmental management reports that are publicly available
- c) 24 hour contact telephone number for information and complaints.

All documents uploaded to the website must be compliant with the Web Content Accessibility Guidelines 2.0.

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**11 Complaints Management**

The Proponent shall set up a 24 hour construction response line number.

Details of all complaints received during construction are to be recorded on a complaints register. A verbal response to phone enquiries on what action is proposed to be undertaken is to be provided to the complainant within two hours during all times construction is being undertaken and within 24 hours during non-construction times (unless the complainant agrees otherwise). A verbal response to written complaints (email/letter) should be provided within 48 hours of receipt of the communication. A detailed written response is to be provided to the complainant within seven calendar days for verbal and/or written complaints.

Information on all complaints received during the previous 24 hours shall be forwarded to the TfNSW Community Engagement Manager and the TfNSW Environment and Planning Manager each working day.

**Environmental Management**

**12 Construction Environmental Management Plan**

A Construction Environmental Management Plan (CEMP) shall be prepared prior to commencement of construction which addresses the following matters, as a minimum:

- a) traffic and pedestrian management (in consultation with the relevant roads authority)
- b) noise and vibration management
- c) water and soil management
- d) air quality management (including dust suppression)
- e) Aboriginal and non-Aboriginal heritage management
- f) flora and fauna management
- g) storage and use of hazardous materials
- h) contaminated land management (including acid sulphate soils)
- i) weed management
- j) waste management
- k) sustainability
- l) environmental incident reporting and management procedures
- m) non-compliance and corrective/preventative action procedures.

The CEMP shall:

- 1. comply with the Conditions of Approval, conditions of any licences, permits or other approvals issued by government authorities for the Project, all relevant legislation and regulations, and accepted best practice management
- 2. comply with the relevant requirements of *Guideline for Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004)
- 3. include an Environmental Policy.

The Proponent shall:

- i) consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP
- ii) submit a copy of the CEMP to the ADEM for approval at least 21 days prior to the commencement of construction (or within such time as otherwise agreed to by the ADEM)
- iii) review and update the CEMP at regular intervals, and in response to any actions identified as part of Project audits
- iv) ensure updates to the CEMP are made within seven days of the completion of the review or receipt of actions identified by any audit of the document, and be submitted to the ADEM for approval.

The CEMP must be approved by the ADEM prior to the commencement of construction work associated with the Project.

**13 Environment Personnel**

Suitably qualified and experienced environmental management personnel shall be available and be responsible for implementing the environmental objectives for the Project, including undertaking regular site inspections, preparation of environmental documentation and ensuring the Project meets the requirements of the Environmental Management System (EMS).

Details of the environmental personnel, including relevant experience, defined responsibilities and resource allocation throughout the project (including time to be spent on-site/off-site) are to be submitted for the approval of the ADEM, at least 21 days prior to

CoA number	Type
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commencement of construction of the Project (or within such time as otherwise agreed to by the ADEM).

Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the ADEM.

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**14 Environmental Management Representative**

Prior to the commencement of construction, the ADEM shall appoint an EMR for the duration of the construction period for the Project.

The EMR shall provide advice to the ADEM in relation to the environmental compliance and performance of the Project. The EMR shall have responsibility for:

- a) considering and advising the Proponent on matters specified in these conditions and compliance with such
- b) reviewing and where required by the ADEM, providing advice on the Project's induction and training program for all persons involved in the construction activities and monitoring implementation
- (c) periodically auditing the Project's environmental activities to evaluate the implementation, effectiveness and level of compliance of on-site construction activities with authority approvals and licences, the CEMP and associated plans and procedures, including carrying out site inspections weekly, or as required by the ADEM
- (d) reporting weekly to the Proponent, or as required by the ADEM
- (e) issuing a recommendation to the Proponent for work to stop immediately, if in the view of the EMR circumstances so require. The stop work recommendation may be limited to specific activities if the EMR can easily identify those activities
- (f) requiring reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts
- (g) reviewing corrective and preventative actions to ensure the implementation of recommendations made from the audits and site inspections
- (h) providing reports to the Proponent on matters relevant to the carrying out of the EMR role as necessary
- (i) where required by the ADEM, providing advice on the content and implementation of the CEMP and environmental controls map (ECM) in accordance with the conditions
- (j) reviewing and approving updates to the CEMP.

The EMR shall be available during construction activities to inspect the site(s) and be present on-site as required.

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**15 Environmental Controls Map**

The Proponent shall prepare an environmental controls map (ECM) in accordance with TfNSW's *Guide to Environmental Controls Map* (3TP-SD-015) prior to the commencement of construction for implementation for the duration of construction. The ECM is to be endorsed by the EMR and may be prepared in stages as set out in the CEMP.

The Proponent shall submit a copy of the ECM to the EMR for review and endorsement. The EMR is to be given a minimum period of 7 days to review and endorse the ECM. Following receipt of the EMR's endorsement, the ECM shall be submitted to the ADEM (or nominated delegate) for approval, at least 14 days prior to commencement of construction (or such time as is otherwise agreed to by the ADEM).

The ECM shall be prepared as a map – suitably enlarged (e.g. A3 size or larger) for mounting on the wall of a site office and included in site inductions, supported by relevant written information.

CoA number	Type
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Updates to the ECM shall be made within 7 days of the completion of the review or receipt of actions identified by any EMR audit of the document, and be submitted to the EMR for approval.

### Hours of Work

#### 16 Standard Construction Hours

Construction activities shall be restricted to the hours of 7.00am to 6.00pm (Monday to Friday); 8.00am to 1.00pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours:

- a) any works which do not cause noise emissions to be more than 5 dBA higher than the rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers
- b) out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP)
- c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as agreed by the ADEM
- d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm
- e) any other work as agreed by the ADEM (or nominated delegate) and considered essential to the Project, or as approved by the EPA (where an EPL is in effect).

#### 17 High Noise Generating Activities

Rock breaking or hammering, jack hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel and any other activities which result in impulsive or tonal noise generation shall not be undertaken for more than three hours, without a minimum one hour respite period unless otherwise agreed to by the ADEM, or as approved by the EPA (where relevant to the issuing of an EPL).

### Noise and Vibration

#### 18 Construction Noise and Vibration

Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW's *Construction Noise and Vibration Strategy (7TP-ST-157)* and the EPA's *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). The mitigation measures shall include, but not be limited to:

- a) details of construction activities and an indicative schedule for construction works
- b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers
- c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the EIA)
- d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints
- e) an Out Of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 14 of this approval, including a risk assessment process which deems the out of hours activities to be of low, medium or high environmental risk, is to be developed. All out of hours works are subject to approval by the ADEM, or as approved by the EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with TfNSW's *Construction Noise and Vibration Strategy (7TP-ST-157)*

CoA number	Type
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- f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, clearly indicating the frequency of monitoring, the locations at which monitoring shall take place, recording and reporting of monitoring results and if any exceedance is detected, the manner in which any non-compliance shall be rectified.

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**19**      **Vibration Criteria**

Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to:

- a) for structural damage vibration –British Standard BS 7385-2:1993 *Evaluation and measurement for vibration in buildings Part 2* and German Standard DIN 4150:Part 3 – 1999: *Structural Vibration in Buildings: Effects on Structures*
- b) for human exposure to vibration – the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006) which includes British Standard BS 6472-2:1992 *Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz)*.

These limits apply unless otherwise approved by the ADEM through the CEMP.

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**20**      **Piling**

Wherever practical, piling activities shall be completed using non-percussive piles. If percussive piles are proposed to be used, approval of the ADEM shall be obtained prior to commencement of piling activities.

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**21**      **Non-Tonal Reversing Beepers**

Non-tonal reversing beepers (or an equivalent mechanism) shall be fitted and used on all construction vehicles and mobile plant regularly used on site (i.e. greater than one day) and for any out of hours work.

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**22**      **Noise Impact on Educational Facilities**

Potentially affected pre-schools, schools, universities and any other affected permanent educational institutions shall be consulted in relation to noise mitigation measures to identify any noise sensitive periods (e.g. exam periods). As much as reasonably practicable noise intensive construction works in the vicinity of affected educational buildings are to be minimised.

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**23**      **Property Condition Surveys**

Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of the following buildings/structures:

- (a) all buildings/structures/roads within a plan distance of 50 metres from the edge of the Designated Works
- (b) all heritage listed buildings and other sensitive structures within 100 metres from the edge of the Designated Works.

Property condition surveys need not be undertaken if a risk assessment indicates that selected buildings/structures/roads identified in (a) and (b) will not be affected as determined by a qualified geotechnical and construction engineering expert with appropriate registration on the National Professional Engineers Register prior to commencement of Designated Works.

Selected potentially sensitive buildings and/or structures shall first be surveyed prior to the commencement of the Designated Works and again immediately upon completion of the Designated Works.

CoA number	Type
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All owners of assets to be surveyed, as defined above, are to be advised (at least 14 days prior to the first survey) of the scope and methodology of the survey, and the process for making a claim regarding property damage.

A copy of the survey(s) shall be given to each owner. A register of all properties surveyed shall be maintained.

Any damage to buildings, structures, lawns, trees, sheds, gardens, etc. as a result of construction activity direct and indirect (i.e. including vibration and groundwater changes) shall be rectified at no cost to the owner(s).

### Flora and Fauna

#### 24 Removal of Trees or Vegetation

Separate approval, in accordance with TfNSW's *Application for Removal or Trimming of Vegetation* (9TP-SD-078), is required for the trimming, cutting, pruning or removal of trees or vegetation where the impact has not already been identified in the EIA for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the conditions of that approval.

#### 25 Replanting Program

All cleared vegetation shall be offset in accordance with TfNSW's *Vegetation Offset Guide* (9TP-SD-087). All vegetation planted on-site is to consist of locally endemic native species and exotic species characteristic of the heritage-listed Wahroonga Station gardens, unless otherwise agreed by the ADEM, following consultation with the relevant council, where relevant, and/or the owner of the land upon which the vegetation is to be planted.

### Contamination and Hazardous Materials

#### 26 Duty to Notify

If previously unidentified contamination is identified within the site, the Proponent is to determine whether there is a Duty to Report under Section 60 of the *Contaminated Land Management Act 1997*, and notify the EPA in accordance with the EPA's *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997* (Department of Environment and Climate Change, 2009).

#### 27 Unidentified Contamination (other than asbestos)

If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance relevant EPA guidelines, including *Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011).

A copy of any contamination report must be submitted to the ADEM for review for a minimum period of seven days. The ADEM shall determine whether consultation with the relevant council and/or EPA is required prior to continuation of construction works within the affected area.

**Note:** *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 27 and Condition 28.*

**28 Asbestos Management**

If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA and SafeWorkNSW guidelines, and include the proposed methodology for the remediation of the asbestos contamination. Remediation activities must not take place until receipt of the investigation report.

Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology.

**Note:** *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 27 and Condition 28.*

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**29 Storage and Use of Hazardous Materials**

Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, TfNSW's *Chemical Storage and Spill Response Guidelines* (9TP-SD-066) and Australian and ISO standards. These measures shall include:

- a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks
- b) spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits are to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits are to be kept in close proximity to potential discharge points in support of preventative controls
- c) all hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks
- d) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.

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**30 Contamination Investigation**

If recommended by the Phase 1 preliminary site investigation report, a Phase 2 detailed site investigation shall be undertaken prior to construction commencing. The assessment shall generally be undertaken in accordance with:

- (a) *The National Environment Protection (Assessment of Site Contamination) Amendment Measure (NEPM) 2013*
- (b) *Contaminated Sites - Sampling Design Guidelines (EPA, 1995)*
- (c) *AS4482 (2005) Guide to investigation and sampling of site with potentially contaminated soil (2005).*

The report shall be prepared in accordance with the DECCW's *Guidelines for Consultants Reporting on Contaminated Sites* (Office of Environment and Heritage, 2011). The report shall include a preliminary waste classification in accordance with the NSW EPA *Waste Classification Guidelines* (EPA, 2014).

Specific requirements for further investigation, remediation or management of any contamination within the identified areas recommended in the Stage 2 Detailed Site Investigation shall be included in the CEMP as appropriate.

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<b>31</b>	<b>Contamination Management Plan</b> Specific requirements for further investigation, remediation and management of any potential contamination within the identified areas recommended in the Phase 2 contamination assessment shall be included in a contamination management plan as appropriate.
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<b>Erosion and Sediment Control</b>	
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<b>32</b>	<b>Erosion and Sediment Control</b> Soil and water management measures shall be prepared and implemented as part of the CEMP for the mitigation of water quality and hydrology impacts during construction of the Project. The management measures shall be prepared in accordance with <i>Managing Urban Stormwater: Soils and Construction - Volume 1, 4th Edition</i> (Landcom, 2004).
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<b>Lighting</b>	
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<b>33</b>	<b>Lighting Scheme</b> All permanent lighting for the Project is to be developed by a suitably qualified lighting designer and prepared in accordance with AS 1158 <i>Road Lighting</i> and AS 4282 <i>Control of the Obtrusive Effect of Outdoor Lighting</i> . The lighting scheme shall address the following as relevant: <ul style="list-style-type: none"><li>a) consideration of lighting demands of different areas</li><li>b) strategic placement of lighting fixtures to maximise ground coverage</li><li>c) use of LED lighting</li><li>d) minimising light spill by directing lighting into the station</li><li>e) control systems for lighting that dim or switch-off lights settings according to the amount of daylight the zone is receiving</li><li>f) motion sensors to control low traffic areas</li><li>g) allowing the lighting system to use low light or switch off light settings while meeting relevant lighting Standards requirements</li><li>h) ensuring security and warning lighting is not directed at neighbouring properties.</li></ul> The proposed lighting scheme is to be submitted with the design submission and accepted by TfNSW's Technical Design team.
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<b>Sustainability</b>	
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<b>34</b>	<b>Sustainability Officer</b> The Proponent shall identify a suitably qualified and experienced sustainability officer who is responsible for implementing sustainability objectives for the Project. Details of the sustainability officer, including defined responsibilities, duration and resource allocation throughout the appointment consistent with the Proponent's sustainability objectives are to be submitted to the satisfaction of the ADSPD prior to preparation of the Sustainability Management Plan (if applicable).
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<b>35</b>	<b>Sustainability Management Plan</b> Prior to commencement of construction, a Sustainability Management Plan shall be prepared to the satisfaction of the ADSPD. The Report shall include the following minimum components: <ul style="list-style-type: none"><li>a) an ISCA scorecard demonstrating credits targeted to meet an ISCA Infrastructure Sustainability Rating Scheme (v1.2) Design and as Built Excellent Rating</li></ul>
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- b) a statement outlining the Proponent's own corporate sustainability obligations, goals, targets, and in house tools
- c) a documented process to identify and progress innovation in sustainability. The process should identify any areas of innovation that are currently being explored and/or implemented on the project
- d) a list and description of specific sustainability initiatives that are specific to the project including how and when these initiatives are proposed to be implemented.

A copy of the Sustainability Management Plan shall be submitted to the ADSPD for approval, at least 14 days prior to the commencement of construction (or within such time as otherwise agreed to by the ADSPD).

### Urban Design and Landscaping

#### 36 Urban Design Plan

An Urban Design Plan (UDP) is to be submitted to TfNSW and endorsed by the Precincts and Urban Design team during detailed design. The UDP is to address the fundamental design principles as outlined in *Around the Tracks – urban design for heavy and light rail* (TfNSW, Interim 2016). The UDP shall:

- a) demonstrate a robust understanding of the Project site through a comprehensive site analysis to inform the design direction, demonstrate connectivity with street networks, transport modes, active transport options, and pedestrian distances
- b) identify opportunities and challenges
- c) establish site specific principles to guide and test design options
- d) demonstrate how the preferred design option responds to the design principles established in *Around the Tracks*, including consideration of Crime Prevention through Environmental Design Principles.

The UDP is to include the Public Domain Plan for the chosen option and will provide analysis of the:

1. landscape design approach including design of pedestrian pathways and bicycle parking pathways (including opportunities to increase capacity in excess of the proposed five racks), street furniture, interchange facilities, new planting, opportunities for public art and relocation of the community notice board
2. Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing and landscaping
3. an Artist's Impression or Photomontage to communicate the proposed changes to the precinct
4. a schedule which details the landscape maintenance requirements to be implemented for the 12 month period following the commencement of operation or as agreed with TfNSW.

The following design guidelines are available to assist and inform the UDP for the Project:

- i) *TAP Urban Design Plan, Guidelines* (TfNSW, Draft 2018)
- ii) *Commuter Car Parks, urban design guidelines* (TfNSW, Interim 2017)
- iii) *Managing Heritage Issues in Rail Projects Guidelines* (TfNSW, Interim 2016)
- iv) *Creativity Guidelines for Transport Systems* (TfNSW, Interim 2016)
- v) *Water Sensitive Urban Design Guidelines for TfNSW Projects* (TfNSW, 2016).

The UDP shall be:

- i) prepared prior to concept design/the finalisation of the Project's design for construction/design completion
- ii) prepared in consultation with councils and relevant stakeholders

iii) prepared by a registered architect and/or landscape architect.

### Traffic and Access

#### 37 Traffic Management Plan

A construction Traffic Management Plan (TMP) shall be prepared as part of the CEMP which addresses, as a minimum, the following:

- a) ensuring adequate road signage at construction work sites to inform motorists and pedestrians of the work site ahead to ensure that the risk of road accidents and disruption to surrounding land uses is minimised
- b) maximising safety and accessibility for pedestrians and cyclists
- c) ensuring adequate sight lines to allow for safe entry and exit from the site
- d) ensuring access to Wahroonga Station and surrounding businesses and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made)
- e) managing impacts and changes to on and off street parking and requirements for any temporary replacement parking (this could include revising on-street parking regulations and to maximise opportunities for new on-street parking in the vicinity of the station during the construction period)
- f) parking locations for construction workers away from stations and busy residential areas and details of how this would be monitored for compliance
- g) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses
- h) details for the locations of kiss and ride, taxi rank and replacement bus stops if required including appropriate signage to direct customers, in consultation with the relevant taxi/bus operator(s). Particular provisions should also be considered for the accessibility impaired
- i) measures to manage traffic flows around the area affected by the Project, including as required regulatory and direction signposting, line marking and variable message signs and all other traffic control devices necessary for the implementation of the TMP.

The Proponent shall consult with the relevant roads authority during preparation of the TMP as required, and obtain any approvals required under the *Roads Act 1993*. The performance of all Project traffic arrangements must be monitored during construction.

#### 38 Road Condition Reports

Prior to construction commencement, the Proponent shall prepare road condition surveys and reports on the condition of roads and footpaths affected by construction. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear shall be repaired at the Proponent's expense.

#### 39 Road Safety Audit

A Road Safety Audit shall be undertaken as part of the detailed design process and on completion of construction. The Road Safety Audit shall include, but not be limited to, detailed assessment of sight distances for vehicles and new taxi/kiss and ride area, accessible parking and identification of mitigation measures proposed.

The Road Safety Audit is to be submitted to and accepted by TfNSW. The findings of the Road Safety Audit would be provided to Ku-ring-gai Council for information.

Heritage Management

**40 Aboriginal and Non-Aboriginal Heritage**

If previously unidentified Aboriginal or non-Aboriginal heritage/archaeological items are uncovered during construction works, the procedures contained in the TfNSW *Unexpected Heritage Finds Guideline* (3TP-SD-115) shall be followed and all works in the vicinity of the find shall cease. The TfNSW Environment and Planning Manager shall be immediately notified to co-ordinate a response, which may include seeking appropriate advice from a suitably qualified and experienced heritage advisor (in consultation with the Department of Premier and Cabinet (Heritage NSW) where appropriate). Work in the vicinity of the find shall not re-commence until clearance has been received from TfNSW and/or the Heritage Advisor.

**41 Heritage Advisor**

A suitably qualified and experienced Heritage Advisor who is independent of the design and construction personnel shall be engaged to the satisfaction of the ADEIA. The Heritage Advisor will provide ongoing heritage, design and conservation advice throughout detailed design and any subsequent relevant design modifications.

The Heritage Advisor is required to provide specialist advice throughout the detailed design phase to ensure that the final design adheres to the recommendations of the heritage assessments provided in the EIA, and the approval issued by Heritage NSW under Section 60 of the *Heritage Act 1977*.

For works with the potential to affect the fabric of existing station building and/or moveable heritage items, the Heritage Advisor shall prepare and submit a Heritage Report to the ADEIA at least 21 days prior to commencement of these works (unless otherwise agreed by the ADEIA).

The report shall include, but not be limited to:

- a) confirmation of extent of involvement of the Heritage Advisor in the detailed design process at completion of Approved for Construction (AFC) design stage
- b) identification of the proposed scope of work to be undertaken which would affect significant heritage fabric identified in the State Heritage Register listing for the Wahroonga Railway Station Group
- c) how the detailed design has considered the recommendations in Ku-ring-gai Council's heritage submission (listed on page 14 of the submission)
- d) identification of any changes to, and/or additional to the scope of work identified in the EIA which would affect heritage fabric
- e) a description of the impacts, and recommended mitigation measures relating to any new or amended scope of work identified in (d) above, and
- f) confirmation that the detailed design is compliant with the requirements of the EIA, and the approval issued by Heritage NSW under Section 60 of the *Heritage Act 1977* (dated 12 March 2020).

Works with the potential to affect significant heritage fabric must not commence until the Heritage Report is approved by the ADEIA (unless otherwise agreed by the ADEIA).

**42 Vibration Impacts to Heritage Structures at the Station**

To effectively mitigate potential impacts of vibration on the heritage structures within the station, activities that cause vibration are to be managed in accordance with British Standard BS 7385-2:1993. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage objective of 2.5 mm/s peak component particle velocity (from DIN 4150) shall be considered. Real time vibration monitoring is to be conducted at commencement of relevant work to confirm compliance with the adopted standard. If vibration levels approach the determined trigger level, then the construction activity shall cease and the heritage structure is to be

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assessed and alternative construction methodologies developed, where practicable, before construction.

**43 Archival Recording**

Archival recording of the station as a whole, is to be undertaken prior to the commencement of construction in accordance with the NSW Heritage Division guidelines *Photographic recording of heritage items using film or digital capture* (NSW Heritage Office, 2006) and *How to prepare archival records* (NSW Heritage Office, 1998). Copies are to be provided to Ku-ring-gai Council and Sydney Trains Heritage Team for future reference.

**44 Protection of State Heritage Items**

Design and construction of the Project within the State Heritage Register curtilage of the 'Wahroonga Railway Station Group' must be undertaken in accordance with the conditions of the approval granted under Section 60 of the NSW *Heritage Act 1977* (issued 12 March 2020) and recommendations made in the Statement of Heritage Impact (RPS, 2019b).

In the event of any inconsistency between the conditions of the Section 60 approval and the Statement of Heritage Impact and/or these Conditions of Approval, the Section 60 approval will prevail to the extent of the inconsistency.

**Site Specific Conditions**

**45 Railway Avenue Entrance**

As part of the detailed design process, further investigation of additional design options to provide an accessible path of travel from the Wahroonga shopping village to the Redleaf Avenue bridge, which avoids the requirement for new stairs shall be undertaken.

The additional design options shall be documented in a design report and submitted to TfNSW at least 28 days prior to the commencement of Construction for review by the Director Community Engagement, the Director Planning and Environment, the Director Urban Design, and the Project Director Transport Access Program. The final design of the Railway Avenue Entrance shall be agreed by the above mentioned parties prior to the commencement of construction of the relevant elements within this area.

**46 Archaeological Potential**

The assessment of archaeological potential was limited to the State heritage curtilage and the proposed temporary construction compound at the Scouts Hall, which concluded that approval under the *Heritage Act 1977* (section 139 exception or section 140 permit) would not be required. Should ground disturbing works be required within any areas outside of the State heritage curtilage, further assessment of the potential archaeological impacts shall be undertaken to determine if further approvals under the *Heritage Act 1977* (section 139 exception or section 140 permit) are required.

**47 Additional Heritage Protection Measures**

Heritage plantings (i.e. hedging) and gardens not intended for removal shall be marked as no-go zones during construction and marked clearly on the ECM(s) prepared.

Heritage items in close proximity to the Project, such as the Inter-war Shops on Railway Avenue and Wahroonga Park, shall also be identified as no-go zones during construction and marked clearly on the ECMs prepared.

**48 Tree Protection**

A suitably qualified and experienced Project Arborist shall be engaged to provide specialist advice throughout the detailed design phase and oversee tree management during construction. The Project Arborist is to be independent of, and have no

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association(s) or interest(s) with any provider engaged to undertake vegetation trimming or removal for the Project.

The Project Arborist is to:

1. oversee and ensure Tree Protection Zones (TPZs) are established around trees to be retained, as nominated in the Arboricultural Impact Assessment Report (Allied Tree Consultancy, 2019).
2. to ensure tree protection is undertaken in line with *AS 4970-2009 Protection of Trees on Development Sites* and the *Arboricultural Impact Assessment*
3. to ensure that preference is given to the retention and protection of the Prickly-leaved Paperbark (*Melaleuca styphelioides*) (identified as Tree 2) near the footing of the Redleaf Avenue bridge through the implementation of the measures detailed in the Arboricultural Impact Assessment Report (Allied Tree Consulting, 2019).

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END OF CONDITIONS

# **Appendix C      Section 60 *Heritage Act 1977* Approval**



ref: DOC20/1061870

Mr Ben Groth  
Associate Director, Environmental Impact Assessment  
Transport of New South Wales (TfNSW)  
Level 5, Tower A Zenith Centre 821 Pacific Highway  
CHATSWOOD NSW 2067

Via Email: [Ben.Groth@transport.nsw.gov.au](mailto:Ben.Groth@transport.nsw.gov.au)  
Cc: Steven Barry [Steven.Barry@transport.nsw.gov.au](mailto:Steven.Barry@transport.nsw.gov.au)

Dear Mr Groth

**APPLICATION UNDER SECTION 60 OF THE *HERITAGE ACT 1977*  
WAHROONGA RAILWAY STATION GROUP, STATE HERITAGE REGISTER NO. 01280**

**Proposal:** Works related to the Transport Access Upgrade.

- refurbishment of the Redleaf Avenue bridge and replacement of the pedestrian walkway structure
- a new passenger lift and station entrance to provide access from the Redleaf Avenue bridge to the island platform
- a new walkway at platform level linking the lift to the platform
- a new accessible ramp and pathway to provide access from the station to Wahroonga shopping village
- a proposed interchange zone in Railway Avenue, to provide an accessible parking space, and a zone for kiss and ride and taxis
- a new family accessible toilet and unisex ambulant toilet within the station building
- an additional platform canopy for weather protection on the platform at the boarding assistance zone (north of the station building)
- improvements to station lighting and CCTV to increase safety and security
- improvements to customer information and communication systems, including wayfinding modifications, public address (PA) system upgrade, and new hearing induction loops.

**Section 60 application no:** S60/2019/229, received 28 February 2020

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As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above Section 60 application. Pursuant to section 63 of the *Heritage Act 1977*, approval is granted subject to the following conditions.

**APPROVED DEVELOPMENT**

1. All work shall comply with the information contained within:

a) Architectural drawings prepared for Transport for NSW, as listed in the table below.

Drawing No.	Title	Date	Rev
<b>Project Title:</b> PROPOSED WAHROONGA STATION UPGRADE			
150270-WAH-AR-DRG-34100	Wahroonga - Architectural - Cover Sheet & Drawing List	25/09/2019	8
150270-WAH-AR-DRG-34101	Wahroonga - Architectural - Proposed Site Plan - General Arrangement	4/10/2019	9

150270-WAH-AR-DRG-34102	Wahroonga - Architectural - Grid Setout Plan - General Arrangement	25/09/2019	8
150270-WAH-AR-DRG-34103	Wahroonga - Architectural - Existing & Demolition Plan - General Arrangement	25/09/2019	8
150270-WAH-AR-DRG-34104	Wahroonga - Architectural - Redleaf Avenue And Footbridge - Street Level Plan	25/09/2019	8
150270-WAH-AR-DRG-34105	Wahroonga - Architectural - Station Heritage Curtilage Plan - General Plan	25/09/2019	3
150270-WAH-AR-DRG-34106	Wahroonga - Architectural - Photos	25/09/2019	3
150270-WAH-AR-DRG-34110	Wahroonga - Architectural - Platform Level Sheet 1 - General Arrangement	4/10/2019	9
150270-WAH-AR-DRG-34111	Wahroonga - Architectural - Platform Level Sheet 2 - General Arrangement	4/10/2019	9
150270-WAH-AR-DRG-34112	Wahroonga - Architectural - Platform Level Sheet 3 - General Arrangement	4/10/2019	9
150270-WAH-AR-DRG-34113	Wahroonga - Architectural - Concourse Level Plan Sheet 1 - General Arrangement	25/09/2019	8
150270-WAH-AR-DRG-34114	Wahroonga - Architectural - Concourse Level Plan Sheet 2 - Section Details	25/09/2019	8
150270-WAH-AR-DRG-34120	Wahroonga - Architectural - North & South Elevations - Elevations	25/09/2019	8
150270-WAH-AR-DRG-34125	Wahroonga - Architectural - Sections - Sheet 1	25/09/2019	8
150270-WAH-AR-DRG-34140	Wahroonga - Architectural - Baz Platform Canopy - Plan And Rcp	25/09/2019	8
150270-WAH-AR-DRG-34141	Wahroonga - Architectural - Baz Platform Canopy - Elevation	25/09/2019	8
150270-WAH-AR-DRG-34142	Wahroonga - Architectural - Concourse & Footbridge Detail Protective Screen	25/09/2019	2
150270-WAH-AR-DRG-34150	Wahroonga - Architectural - Lift - Plan And Elevations Details	25/09/2019	8
150270-WAH-AR-DRG-34152	Wahroonga - Architectural - Lift - Sections	25/09/2019	8
150270-WAH-AR-DRG-34170	Wahroonga - Architectural - Platform Building Plan - Existing / Demo And Proposed Floor Plan	25/09/2019	8
150270-WAH-AR-DRG-34171	Wahroonga Architectural - Platform Building Elevations	4/10/2019	6
150270-WAH-AR-DRG-34172	Wahroonga - Architectural - Platform Building - F.A.T Toilet Plans And Elevations	4/10/2019	9
150270-WAH-AR-DRG-34173	Wahroonga - Architectural - Unisex Ambulant Toilet - Elevations	25/09/2019	2
150270-WAH-AR-DRG-34190	Wahroonga - Architectural - Perspective 1	4/10/2019	6
150270-WAH-AR-DRG-34191	Wahroonga - Architectural - Perspective 2	25/09/2019	5
150270-WAH-LA-DRG-34101	Wahroonga - Landscape Plan - General Arrangement	25/09/2019	6
150270-WAH-AR-SCH-34101	Material and Finishes Schedule	25/09/2019	7
150270-WAH-PM-SKE-34150	Trenching and excavation scope - sheet 1	-	-
150270-WAH-PM-SKE-34151	Trenching and excavation scope - sheet 2	-	-

b) *Wahroonga Station Upgrade – Statement of Heritage Impact*. Prepared by RPS, 18 November 2020, Issue 0.4.

**EXCEPT AS AMENDED** by the conditions of this approval.

## **DETAILS TO BE SUBMITTED FOR APPROVAL**

2. The following information is to be submitted for approval by the Heritage Council or delegate prior to the commencement of each component of the work.
  - a) A consolidated landscape plan must be completed prior to the commencement of works. The landscape plan must:
    - investigate all options to minimise loss of vegetation as a result of the works
    - provide detailed drawings, specifications and timelines for the removal of trees, restoration of impacted gardens beds, path and new tree plantings.
    - Include an updated heritage impact statement.

*Reason: To protect significant vegetation and ensure that design is appropriate to the heritage character and garden setting values of the place.*

- b) A revised finishes schedule for the concrete barrier to mitigate the visual impacts on the station group and the surrounding area.

*Reason: In response to community feedback and to ensure design is appropriate to the heritage character and values of the place.*

## **SWITCHBACK RAMP**

3. During development of detailed designs, opportunities should be investigated to reduce the footprint and impact of the ramp structure.

*Reason: In response to community feedback and to ensure design is appropriate to the heritage character and values of the place.*

## **OVERBRIDGE BARRIER**

4. Where possible, brickwork should be salvaged and reused for construction or interpretation. Consideration should be given for the reuse of salvaged materials in new barrier wall, or alternatively for garden beds or footpaths

*Reason: In response to community feedback and to ensure design is appropriate to the heritage character and values of the place.*

## **NEW COUNCOURSE SCREENS**

5. During development of detailed designs, opportunities should be investigated to reduce the height of the screens and reduce the width of the mullions.

*Reason: To minimize visual impacts to the relationship between the station and the surrounding area.*

## **PLATFORM BUILDING VENTS**

6. Re-grading of the station platform must not cover any existing wall vents on the station building.

*Reason: To ensure no long-term damage to the platform building caused by changes in ventilation to the substructure.*

## **HERITAGE CONSULTANT**

7. A suitably qualified and experienced heritage consultant must be nominated for this project. The nominated heritage consultant must provide input into the detailed design, provide heritage information to be imparted to all tradespeople during site inductions,

and oversee the works to minimise impacts to heritage values. The nominated heritage consultant must be involved in the selection of appropriate tradespersons and must be satisfied that all work has been carried out in accordance with the conditions of this consent.

*Reason: So that appropriate heritage advice is provided to support best practice conservation and ensure works are undertaken in accordance with this approval.*

### **SPECIALIST TRADESPERSONS**

8. All work to, or affecting, significant fabric shall be carried out by suitably qualified tradespersons with practical experience in conservation and restoration of similar heritage structures, materials and construction methods.

*Reason: So that the construction, conservation and repair of significant fabric follows best heritage practice.*

### **SITE PROTECTION**

9. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

*Reason: To ensure significant fabric including vegetation is protected during construction.*

### **PHOTOGRAPHIC ARCHIVAL RECORDING**

10. A photographic archival recording must be prepared prior to the commencement of works and at the completion of works. This recording must be in accordance with the Heritage NSW publication 'Photographic Recording of Heritage Items using Film or Digital Capture' (2006). The digital copy of the archival record must be provided to Heritage NSW.

*Reason: To capture the condition and appearance of the place prior to, and during, modification of the site which impacts significant fabric.*

### **UNEXPECTED HISTORICAL ARCHAEOLOGICAL RELICS**

11. The applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

*Reason: This is a standard condition to identify to the applicant how to proceed if historical archaeological deposits or relics are unexpectedly identified during works.*

### **ABORIGINAL OBJECTS**

12. Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and the Department of Planning, Industry and Environment is to be informed in accordance with the *National Parks and Wildlife Act 1974* (as amended). Works affecting Aboriginal objects on the site must not continue until the Department of Planning, Industry and Environment has been informed and the appropriate approvals

are in place. Aboriginal objects must be managed in accordance with the *National Parks and Wildlife Act 1974*.

*Reason: This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.*

### **COMPLIANCE**

13. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

*Reason: To ensure that the proposed works are completed as approved.*

### **DURATION OF APPROVAL**

14. This approval will lapse five years from the date of the consent unless the building works associated with the approval have physically commenced.

*Reason: To ensure the timely completion of works*

### **Advice**

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

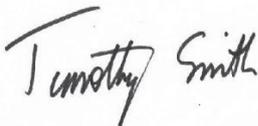
### **Right of Appeal**

If you are dissatisfied with this determination appeal may be made to the Minister under section 70 of the Act.

It should be noted that an approval under the Act is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

If you have any questions regarding the above Transport Access Program approval for Wahroonga Railway Station please contact Alexander Timms, Senior Heritage Officer at Heritage NSW on (02) 8837 6067 or via [Alexander.Timms@environment.nsw.gov.au](mailto:Alexander.Timms@environment.nsw.gov.au)

Yours sincerely



### **Tim Smith OAM**

Director Operations  
Heritage NSW, Community Engagement  
Department of Premier and Cabinet

**As Delegate of the Heritage Council of NSW**

12 March 2020