

Transport Access Program

Warrawee Station Upgrade

Determination Report



Artist's impression of the proposed Warrawee Station Upgrade, subject to detailed design.

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Glossary and abbreviations

Term	Meaning
CBD	Central Business District
CCTV	Closed-circuit television
CEMP	Construction Environmental Management Plan
CoA	Condition of Approval
Concept design	The concept design is the preliminary design presented in the REF, which would be refined by the Construction Contractor (should the Proposal proceed) to a design suitable for construction (subject to TfNSW acceptance)
Construction Contractor	The Construction Contractor for the Proposed Activity would be appointed by TfNSW to undertake the detailed design and construction of the Proposed Activity
DDA	<i>Disability Discrimination Act 1992 (Cwlth)</i>
Detailed design	Detailed design broadly refers to the process that the Construction Contractor undertakes (should the Proposal proceed) to refine the concept design to a design suitable for construction (subject to TfNSW acceptance)
DSAPT	<i>Disability Standards for Accessible Public Transport 2002</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
ISCA	Infrastructure Sustainability Council of Australia
LGA	Local Government Area
NES	Matters of 'National Environmental Significance' under the EPBC Act
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
Proponent	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in this instance, TfNSW
Proposed Activity	The construction and operation of the Warrawee Station upgrade
REF	Review of Environmental Factors
Roads and Maritime	Roads and Maritime Services (to be amalgamated into TfNSW from 1 July 2019)
TfNSW	Transport for NSW (the Proponent)
TGSI	Tactile ground surface indicators

Executive summary

Overview of Proposed Activity

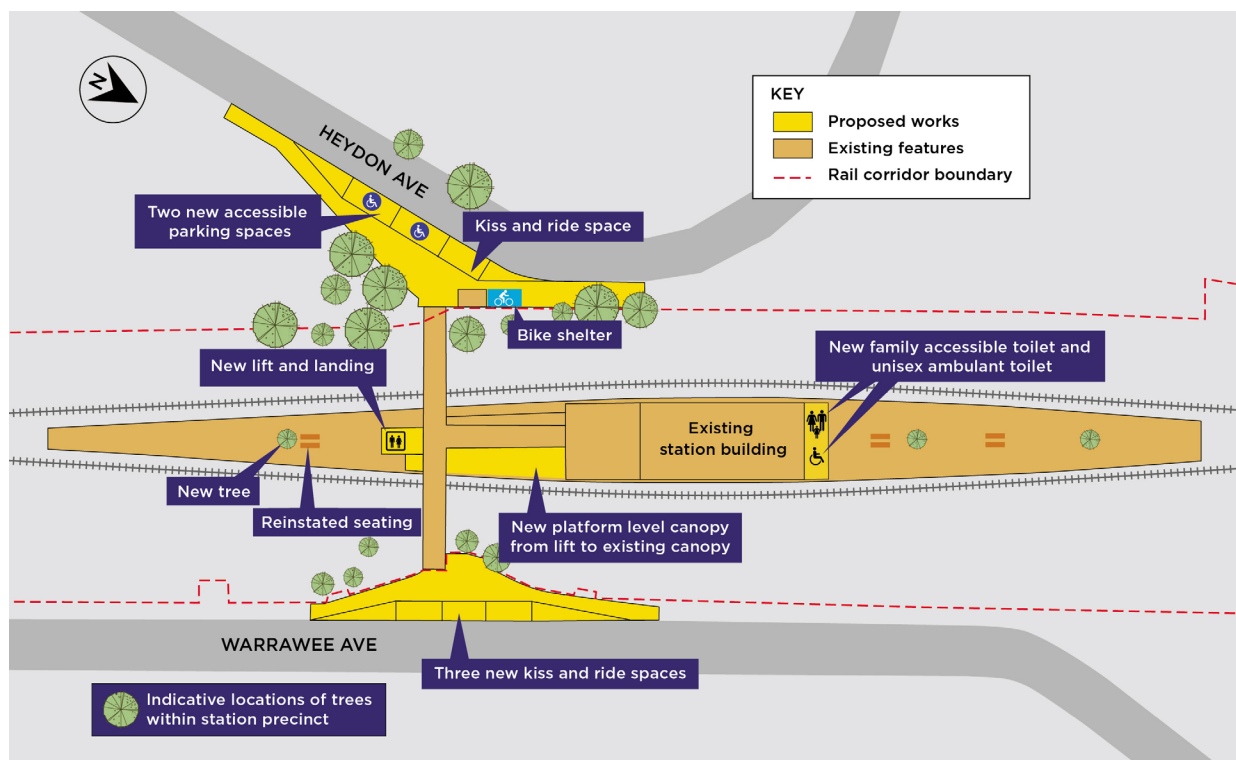
Transport for NSW (TfNSW) is responsible for improving the customer experience of transport services, transport policy and regulation, planning and program administration, procuring transport services and infrastructure and freight.

TfNSW is the Proponent for the Warrawee Station Upgrade (the Proposed Activity), which is part of the Transport Access Program. The 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 a station precinct that is accessible to people with a disability, limited mobility, parents/carers with prams and customers with luggage.

In summary, the Proposed Activity, as outlined in the Review of Environmental Factors (REF), would provide:

- a new lift to the station platform
- new accessible parking spaces, kiss-and-ride spaces, and pedestrian facilities on Heydon Avenue and Warrawee Avenue
- improved amenities such as a new ambulant toilet and family accessible toilet.

An overview of the Proposal is shown in Figure ES.1 below.



(Indicative only, subject to detailed design)

Figure ES.1: Key features of the Proposed Activity (including proposed additional bike shelter)

The need for, and benefits of, the Proposed Activity are outlined in Chapter 2 of the REF. Construction is expected to commence in late 2019 and take up to 18 months to complete.

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 WSP Australia 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).

Modifications to the Proposed Activity

It is proposed to include a new bike shelter and an additional five (5) bike hoops as part of the Warrawee Station TAP upgrade. This change has arisen from a number of community submissions indicating a desire for further bike parking opportunities. The final location of the new bike shelter is to be determined during detailed design, however would be within 100 metres of the station. Pending further discussions with Ku-ring-gai Council, the bike shelter may be located at the location of the existing brick bus shelter.

Should design modifications be required as a result of the detailed design process, these modifications would be assessed to determine consistency with the Approved Project, 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 Warrawee Station Upgrade, to determine whether or not to proceed with the Proposed Activity. TfNSW must make a determination in accordance with the provisions of Part 5, 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

1.1 Background

The NSW Government is committed to facilitating and encouraging use of public transport, such as trains, by upgrading stations to make them more accessible, and improving interchanges around stations with other modes of transport such as buses, bicycles and cars. The Transport Access Program is an initiative targeted at achieving compliance with the *Disability Standards for Accessible Public Transport 2002* (DSAPT) Regulations across the network.

Warrawee Station has been identified for an accessibility upgrade as it currently does not meet key requirements of the DSAPT or the *Commonwealth Disability Discrimination Act 1992* (DDA). TfNSW is the Proponent for the Warrawee Station Upgrade (referred to as the 'Proposed Activity' for the purposes of this document).

The Proposed Activity would fulfil the Transport Access Program objectives by proposing to provide:

- stations that are accessible to customers with disabilities, limited mobility, parents/carers with prams, and customers with luggage
- modern buildings and facilities for all modes that meet the needs of a growing population
- safety improvements including extra lighting, lift alarm, fences and security measures for car parks and interchanges, including stations, bus stops and wharves
- signage improvements so customers can more easily use public transport and transfer between modes at interchanges

The Proposal is consistent with NSW planning strategies, including *NSW: Making It Happen* (NSW Government 2015) and the *Future Transport Strategy 2056* (TfNSW 2018). The Proposal would also ensure that Warrawee Station would meet legislative requirements under the DSAPT.

1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) was prepared by TfNSW in accordance with section 5.5 and section 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 in Appendix A.

The Warrawee Station Upgrade REF was placed on public display by TfNSW from 30 April to 14 May 2019, with 24 submissions received, including a submission received from Ku-ring-gai Council on 7 June 2019.

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 1).

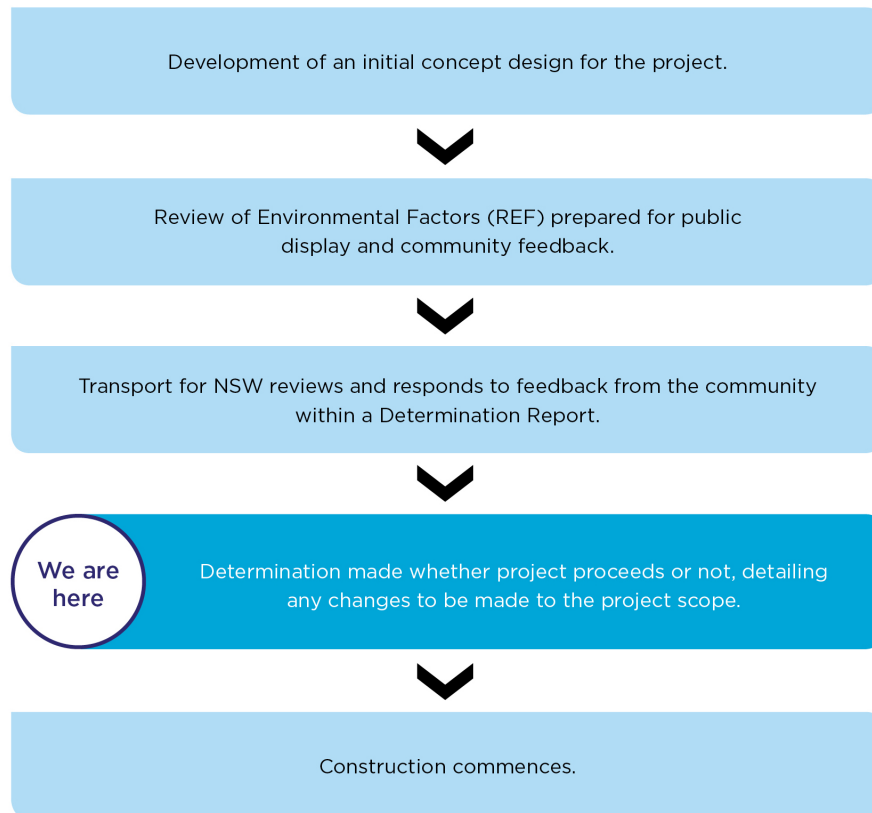


Figure 1: Planning approval process

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 Review of Environmental Factors (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

Warrawee Station is located on the North Shore Line (T1 service), about 22 kilometres by rail from Central Station. It is within the Ku-ring-gai local government area (LGA) in Sydney's north. Warrawee Station does not currently meet key requirements of the DSAPT or the DDA. It also does not allow for equitable access to the station platforms.

An overview of the Proposed Activity, which is the subject of the Warrawee Station Upgrade REF, is provided in the Executive Summary with full details set out in Chapter 3 of the REF. In summary, the Proposed Activity, as outlined in the REF, comprises:

- construction of a new lift and landing to provide access between the existing pedestrian bridge and the platforms
- upgrade of the existing stairs to include new compliant handrails, TGSIs, nosings and anti-throw screens
- construction of a new platform canopy from the lift to the existing canopy
- internal station building works including:
 - reconfiguration of the existing male and female toilets within the station building to accommodate:
 - a new family accessible toilet
 - a new unisex ambulant toilet
 - other minor building modifications required to accommodate new electrical equipment including a main switchboard, and new or upgraded station communications equipment
- parking, kiss-and-ride, and pedestrian works including:
 - provision of two new accessible car parking spaces and one kiss-and-ride space along Heydon Avenue
 - provision of three new kiss-and-ride spaces along Warrawee Avenue
 - provision of a paved area and associated kerb ramp works at both the Heydon Avenue and Warrawee Avenue entrances
 - removal of existing bollards and replacement of a single bollard at the Heydon Avenue and Warrawee Avenue entrances
- upgrade of the existing platform surfaces (re-grading/re-surfacing) across the platform to provide compliant accessible paths and ramps to station amenities
- landscaping/planting within the station precinct
- electrical upgrades including a new transformer (to be installed on rail land near Warrawee Avenue). A new service pole would also be required to take the existing electricity supply to the transformer and an undergrounding of the 11kv from the service pole to the transformer
- ancillary works including adjustments to lighting, electronic ticketing, relocation or replacement of existing customer facilities (drinking fountain, vending machine, seating and telephone booth), improvement to station communications systems (including CCTV cameras), hearing loops, wayfinding signage and installation of yellow lines and TGSIs.

The need for, and benefits of the Proposed Activity are outlined in Chapter 2 of the REF.

Construction is expected to commence in late 2019 and take up to 18 months to complete.

2 Consultation and assessment of submissions

2.1 REF public display

The Warrawee Station Upgrade REF was on public display between 30 April and 14 May 2019 at three locations, as well as on the [TfNSW website](#)¹ and the [yoursay page](#)². Community consultation activities undertaken for the public display included:

- a community information session on Tuesday 7 May 2019 at Warrawee Station
- installation of project signage at the station
- distribution of a project newsletter to the local community, key stakeholder groups and to commuters at the station during peak morning and afternoon/evening times, outlining the Proposed Activity and inviting feedback on the REF
- public display of the REF at:
 - Ku-ring-gai Council
818 Pacific Highway
Gordon NSW 2072
 - Turramurra Library
5 Ray Street
Turramurra NSW 2074
 - TfNSW Office
Level 5, Tower A, Zenith Centre
821 Pacific Highway
Chatswood NSW 2067
- placement of an advertisement in the North Shore Times on 5 May 2019
- placement of information on the TfNSW website and the launch of a virtual reality feature, allowing submissions to be made through this platform
- a briefing to Ku-ring-gai Council officers on 22 March 2019.

2.2 REF submissions

A total of 25 submissions were received by TfNSW, including one submission received from Ku-ring-gai Council, one submission from Bicycle NSW (WAR22) and 23 submissions from the community. Of the 25 submissions, 11 expressed support for the Proposed Activity.

In addition to general support for the Proposal Activity, key issues that were raised in the submissions included:

- requests for more commuter parking
- suggestions to improve the road configuration and lighting on Hastings Road and Warrawee Avenue to improve traffic flow and safety
- suggestions to improve disability parking
- requests for additional bicycle parking to be made available at the station.

¹ www.nsw.gov.au/improving-nsw/have-your-say/warrawee-station-upgrade/

² www.yoursay.transport.nsw.gov.au/warrawee

Additional issues raised by some submissions also included:

- pedestrian accessibility of the station including requests to upgrade pedestrian paths and lighting along adjoining streets
- requests for additional landscaping and visual amenity improvements for the station precinct
- request for additional Project scope elements, including requests for the inclusion of the following elements as part of the Proposed Activity:
 - additional platform infrastructure such as seating and water stations
 - changing the direction of vehicle traffic on Warrawee Avenue
 - road signage for parking zones and school zones along adjacent streets
- general concern regarding current traffic impacts associated with Knox Grammar School, on both Heydon and Warrawee Avenues, during school drop off and pick-up.

2.3 Consideration and response to submissions

Community submissions

A summary of all issues raised in community submissions, and TfNSW's responses to these issues is provided in Table 1.

Table 1: Response to community submissions received

No	Stakeholder	Issue/s raised	TfNSW response
1	Support for Proposed Activity		
1.1	WAR02, WAR04, WAR05, WAR06, WAR07, WAR09, WAR10, WAR11, WAR12, WAR17, WAR20, WAR22 (Bicycle NSW)	Twelve submissions expressed support for the Proposed Activity.	The respondent's support for the Proposed Activity is noted.
2	Scope of works		
2.1	WAR12, WAR13, WAR18	Three submissions suggested that the Proposed Activity also include pedestrian crossings from the station across adjacent roads. One of the submissions also requested that the Proposed Activity include the construction of a footpath along both sides of Warrawee Avenue and Hastings Road.	The current proposal includes the provision of DSAPT compliant access paths at each entrance to Warrawee Station. This includes the pedestrian areas between the station entrance and the new kiss-and-ride and accessible parking spaces. Any further upgrades to footpaths or the provision of crossings within the wider station precinct have not been considered as part of the scope for the currently Proposed Activity. TfNSW will forward this request to Ku-ring-gai Council for their consideration.

No	Stakeholder	Issue/s raised	TfNSW response
			<p>Additionally, a Road Safety Audit would be undertaken during detailed design. Any independent findings outside the project boundary would also be provided for Council's consideration and/or action. This may include pedestrian crossings or footpath improvements.</p>
2.2	WAR15	One submission requested an additional set of stairs be constructed as part of the Proposed Activity to relieve congestion, in particular during school periods.	<p>The objectives of the Proposed Activity, as detailed in Section 2.1.3 of the REF, include achieving compliance to DSAPT standards, improving accessibility for people with mobility issues, and improving the customer experience with access to station facilities.</p> <p>Despite short periods of higher demand during school start and finish times, it is not considered that patronage at the station is sufficient to require the provision of an additional stairwell to support the new accessible lift facilities proposed.</p> <p>In addition, the availability of the lift is likely to improve pedestrian flows on the stairs as many commuters with luggage, prams etc. would use the lift rather than stairs.</p>
2.3	WAR10, WAR21	Two submissions suggest that additional station amenity infrastructure be provided including additional seating and water fountains.	<p>As described in Section 3.1.1 of the REF, the Proposed Activity would include the provision for the relocation or replacement of existing customer facilities such as water fountains and seating on the platform. As described, an additional seat would be provided on Warrawee Avenue near the proposed kiss-and-ride spaces.</p> <p>Opportunities for additional facilities would be further considered during the detailed design phase.</p> <p>It is likely a bottle filler would be able to be included with the water fountain, the exact specifications would be investigated during detailed design.</p>
2.4	WAR18	One submission requested a flashing 'school zone' sign be installed in the station precinct.	<p>The provision of additional road signage is outside the scope of the Proposed Activity.</p> <p>The request will be forwarded to the appropriate team within Roads and Maritime for their consideration.</p> <p>A Road Safety Audit would be undertaken during detailed design, and any independent findings outside the project boundary will be provided for Council's consideration and or action.</p>

No	Stakeholder	Issue/s raised	TfNSW response
2.5	WAR19, WAR 23	<p>One submission suggested that the Proposed Activity include the installation of extra lighting in the station precinct along Warrawee Avenue.</p> <p>One submission also raised concerns about additional lighting on the station affecting neighbouring properties</p>	<p>As noted in section 2.1.2 of the REF, one of the objectives of the Transport Access Program is to improve safety through the provision of elements such as extra lighting. Lighting upgrades and the provision of additional lighting relative to the project scope at Warrawee Station are part of the Proposed Activity.</p> <p>Any further upgrades to lighting along footpaths within the wider station precinct have not been considered as part of the project scope for the currently Proposed Activity.</p> <p>A lighting scheme would however be developed during detailed design. A key component of the lighting scheme would be to ensure lighting is compliant with the requirements of Australia Standard AS4282 <i>Control of the Obtrusive Effect of Outdoor Lighting</i>.</p> <p>The request for additional lighting along Warrawee Avenue will be forwarded to Kuring-gai Council for their consideration.</p>
3	Traffic and Transport		
3.1	WAR01, WAR03, WAR22 (Bicycle NSW)	<p>Three submissions requested that the activity include provisions for secure bicycle storage.</p>	<p>Warrawee Station currently provides two bicycle storage racks located on each side of the station.</p> <p>As part of the detailed design of the Proposed Activity and in response to community feedback, TfNSW has reviewed the configuration of the existing bicycle facilities to increase capacity. This would include the provision of a new bike shelter and five bicycle storage hoops.</p> <p>The final location of the proposed bike shelter and hoops would be determined during detailed design. Consideration would be given to providing the bike shelter in the location of the existing brick bus shelter on Heydon Avenue, following Council's recommendation that the brick bus shelter be removed (refer to Table 2).</p>
3.2	WAR08, WAR14	<p>Two submissions requested that additional car parking spots be provided.</p> <p>One submission also specified the need for a multi-storey car park.</p>	<p>The Proposed Activity has been designed to meet DSAPT compliance requirements for accessible access to the train station.</p> <p>While a new commuter carpark is not proposed at the station as part of the current scope of works, two additional DDA compliant parking spaces and additional kiss-and-ride spaces would be provided as part of the Proposed Activity.</p>

No	Stakeholder	Issue/s raised	TfNSW response
3.2 (cont.)			<p>TfNSW does not operate or manage street parking, however will provide the community responses to Ku-ring-gai Council for their consideration.</p> <p>TfNSW will include options for the location of the DDA parking spaces in the Road Safety Audit. Any further recommendations beyond the project boundary would be provided to Council for their consideration and action.</p>
3.3	WAR12, WAR13, WAR16, WAR20, WAR23	<p>Four submissions request additional disabled parking bays on Warrawee Avenue. One submission questions the need for two disabled parking bays on Heydon Avenue and suggests they be distributed on either side of the station.</p>	<p>The Proposed Activity is intended to increase the accessibility of the station and is not anticipated to result in overall increases in the patronage attending the station.</p> <p>As described in section 3.1.1 of the REF, two additional DDA compliant parking spaces would be provided on Heydon Avenue as part of the Proposed Activity. There are currently no DDA compliant parking spaces at Warrawee Station.</p> <p>Opportunities to convert one of the proposed kiss-and-ride spaces along Warrawee Avenue would be considered during the detailed design phase. This would be undertaken in conjunction with the proposed Road Safety Audit for the Proposed Activity (refer to Condition of Approval 40).</p>
3.4	WAR17, WAR20	<p>Two submissions requested that Hastings Road and Warrawee Avenue be designated as 'no parking' zones.</p> <p>One submission also noted that Warrawee Avenue and Hastings Road (between Bangalla Street and Eastern Road) be made one-way access.</p>	<p>Parking restrictions along Hastings Road and Warrawee Avenue are managed by Ku-ring-gai Council and are outside the scope of the Proposed Activity.</p> <p>Council noted in their submission that the existing parking conditions were adopted by Council in consultation with residents.</p> <p>The suggestions raised will be passed onto the relevant road authorities, including Council and the appropriate team within Roads and Maritime Services.</p>
3.5	WAR20	One submission suggested that the proposed disabled parking bays be designated as 4 hour maximum use.	TfNSW does not operate or manage on-street parking. This suggestion will be passed on to Council for their consideration and/or action.
3.6	WAR17, WAR18	Two submissions raised concerns around the operation of the local road network with respect to use during school periods including; student drop off, illegal manoeuvres and the lack of footpaths and road crossings, in particular along Heydon Avenue.	<p>The operation and use of the local road network, including along Heydon Avenue, is outside the scope of the Proposed Activity.</p> <p>Concerns raised outside the project's boundary will be passed onto the relevant road authorities including Ku-ring-gai Council and the appropriate team within Roads and Maritime Services.</p>

No	Stakeholder	Issue/s raised	TfNSW response
4 Urban design, landscape and visual amenity			
4.1	WAR02, WAR17	Two submissions requested additional landscaping as part of the Proposed Activity.	<p>As described in section 3.1.1. of the REF, the Proposed Activity would include replacement and improved landscaping within the station precinct. In particular, the design is likely to result in the removal of four (4) Chinese Elm trees located near the footbridge entry on Warrawee Avenue. It is proposed the landscaping works would include this area amongst others.</p> <p>Section 6.2.3 of the REF also noted that an Urban Design Plan would be prepared for the station (refer to Condition of Approval 35). The preparation of this plan would include consideration of opportunities to improve the urban domain and landscaping of Warrawee Station.</p> <p>Details of the exact landscaping design would be determined during detailed design.</p> <p>Any vegetation removed would also be offset in accordance with the TfNSW <i>Vegetation Offset Guide</i>.</p>
4.2	WAR24	One submission objected to the proposed removal of the existing mature Evergreen Ash tree located on the station platform.	<p>As described in section 6.7.2 of the REF, the existing Evergreen Ash tree is located at the location of the proposed lift shaft. Due to space constraints between the proposed lift and the tree, the tree would be required to be removed to accommodate the lift shaft and an appropriate landing area on the platform.</p> <p>As identified in the REF (and Condition of Approval 24 in Appendix B), all cleared vegetation would be offset in accordance with TfNSW's <i>Vegetation Offset Guide</i>.</p> <p>With specific respect to the Evergreen Ash tree, this would be replaced within the station precinct with a semi-mature Evergreen Ash with a minimum height of 2.0 metres.</p>
5 Proposal need and justification			
5.1	WAR08	One submission questioned the justification of the Proposed Activity and stating that developing parking facilities and increasing the number of trains servicing the station should be a higher priority.	<p>The Proposed Activity has been developed under the Transport Access Program, which aims to ensure stations are accessible to people with disabilities, limited mobility, parents/carers with prams, and customers with luggage, amongst other objectives. The provision of additional parking facilities does not align with the project objectives, and as such has not been considered during options assessment.</p>

No	Stakeholder	Issue/s raised	TfNSW response
			Timetabling of trains stopping at Warrawee Station is not part of the scope of the Proposed Activity, however TfNSW is currently investigating, through other projects and programs, opportunities to provide increased numbers of trains/services across the whole of the transport network.
6	Construction activities		
6.1	WAR17	One submission stated that the project timeline appeared to be long.	<p>As described in section 3.2.1 of the REF, the Proposed Activity is projected to take up to 18 months to complete. This timeline is subject to the detailed design methodology and the Construction Contractor's preferred methodology, program and sequencing of work. Where possible this timeframe would be reduced.</p> <p>Due to the nature of working around operational trains, work may not occur at all times during this period, with some critical elements of the Proposed Activity only able to occur during scheduled Sydney Trains rail shutdown periods (when trains services are not operating and overhead wiring power is switched off). Nevertheless, some works can occur during partial shutdowns or in safe areas away from operating trains.</p>
7	Errors and omissions		
7.1	WAR18	One submission questioned the labelling of Warrawee Avenue on the figures in the REF. It was suggested that this section of road was Hastings Road.	The road descriptions used in the REF are consistent with the NSW Government Planning Portal. It is considered that the labelling used in the REF is correct.
8	Operation		
8.1	WAR23	<p>One submission raised concerns around the noise from the operational lift during day and night.</p> <p>The submission also suggested installation of a sound proof wall either side of the station tracks or additional trees to block noise.</p>	<p>As described in section 6.3.2 of the REF, it is not expected the lifts would have a significant impact on noise.</p> <p>Operational noise is not anticipated to be noticeably different to what is currently experienced, therefore additional noise treatment such as noise walls are not proposed.</p>

Other stakeholder submissions

A response to the display of the REF was provided by Ku-ring-gai Council on 7 June 2019. The submission was generally supportive of the upgrades.

Table 2 outlines issues raised by Ku-ring-gai Council as part of their submission, along with TfNSW's response.

Table 2: Response to other stakeholder submissions received

No	Issue/s raised	TfNSW response
1	Traffic and transport	
1.1	Council noted that, with respect to the proposed allocation of new accessible parking and drop off/pick up points proposed as part of the Proposed Activity, that it would be a more equitable to distribute these spaces on each side of the station, rather than the currently proposed two accessible spaces on the western side with no provision on the eastern side.	As described in section 3.1.1 of the REF, two additional DDA compliant parking spaces would be provided on Heydon Avenue as part of the Proposed Activity. There are currently no DDA compliant parking spaces at Warrawee Station. During detailed design TfNSW will consider opportunities to modify the allocation of the proposed kiss-and-ride spaces and DDA compliant parking spaces on Heydon and Warrawee Avenues. This would also be considered in conjunction with the proposed Road Safety Audit for the Proposed Activity (refer to Condition of Approval 40).
2	Heritage	
2.1	Council noted concurrence with the conclusions and recommendations contained within the Statement of Heritage Impact report and supported its adoption to inform the design and construct phase of the Warrawee Station Accessibility Upgrade project.	Council's support and concurrence with the conclusions and recommendations contained within the Statement of Heritage Impact is noted.
3	Civil works	
3.1	Council noted that consideration should be given to removing the existing bus shelter along Heydon Avenue.	TfNSW will consult further with Council during detailed design to consider the removal of the brick bus shelter. As part of the detailed design of the Proposed Activity, TfNSW will review the configuration of the existing bicycle facilities with an aim to increase capacity. The Council suggested removal of the brick bus shelter may provide an opportunity to install the bicycle shelter at this location.
4	Arborist	
4.1	Council noted that they had no issues with tree impacts identified as part of the Proposed Activity provided the works are undertaken in accordance with the Arborist report.	Council's comments with respect to support and concurrence with the conclusions and recommendations contained within the Arborists report are noted.

2.4 Future consultation

Should TfNSW proceed with the Proposed Activity, consultation activities would continue, including consultation with Ku-ring-gai Council and other relevant stakeholders 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)³, TfNSW Infoline (1800 684 490) and 24-hour Construction Response Line (1800 775 465) 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/projects-tap)⁴ would also include updates on the progress of construction.

³ projects@transport.nsw.gov.au

⁴ <http://www.transport.nsw.gov.au/projects-tap>

3 Changes to the Proposed Activity

3.1 Summary of design changes

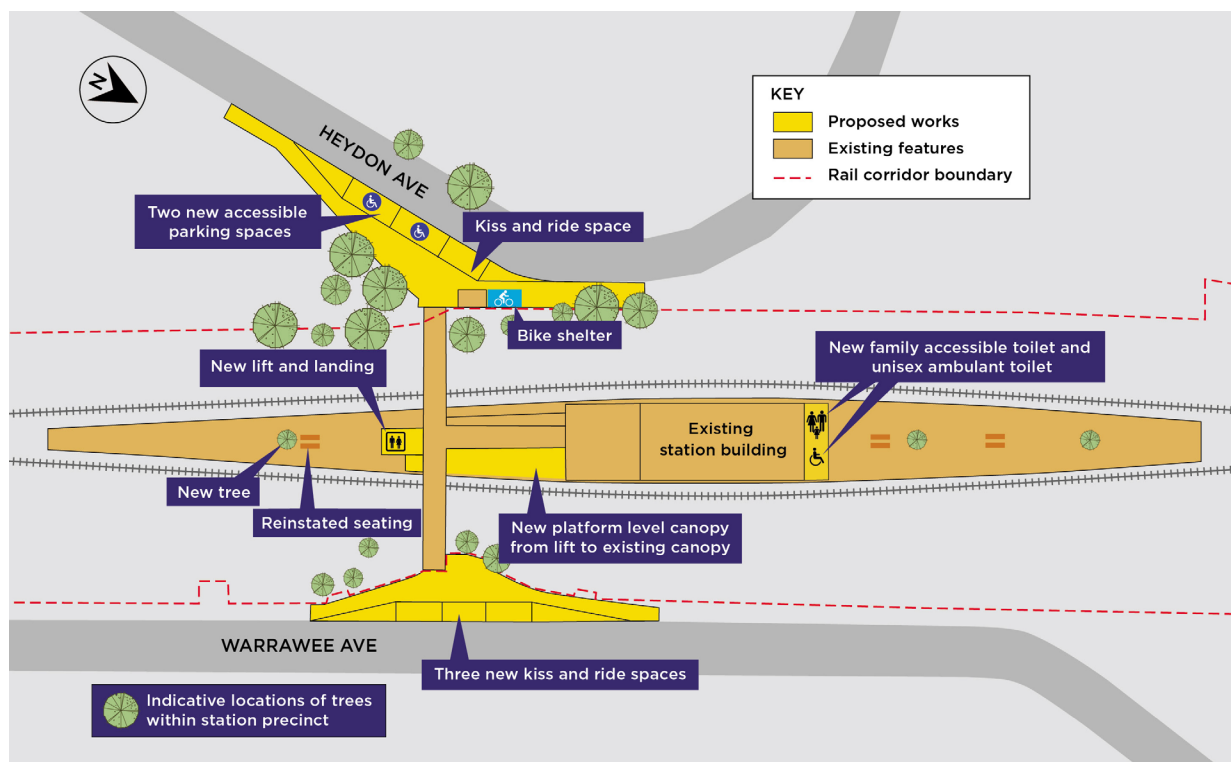
As a result of the submissions received during the public display, one change to the Proposed Activity from the works as described in the REF. This change is described below.

Additional bicycle parking

It is proposed to include a new bike shelter and an additional five (5) bike hoops as part of the Proposed Activity. This change has arisen as a result of a number of community submissions and a submission from Ku-ring-gai Council. These submissions indicated a desire for further bike parking opportunities.

The final location of the new bike shelter would be determined during detailed design. However, the final location would be within about 100 metres of Warrawee Station. Subject to further discussions with Ku-ring-gai Council, the bike shelter may be located at the existing brick bus shelter on the western side of the station along Heydon Avenue, near the existing overbridge. In its submission, Council noted that the upgrade of the station offered an opportunity to remove this shelter.

The potential location of the additional bicycle parking is shown in Figure 2 below.



(Indicative only, subject to detailed design)

Figure 2: Key features of the Proposed Activity (including proposed additional bike shelter along Heydon Avenue)

3.2 Assessment of design changes

The works required to provide additional bicycle parking are not considered to have any noticeable additional impacts (such as impacts to ecology, heritage, noise, lighting, visual, traffic etc.) compared to those identified in the REF.

Should the proposed additional bicycle parking be provided at the existing bus shelter, the works would result in a small amount of additional demolition waste. This waste would be managed in accordance with the previously proposed mitigation measures outlined in section 6.11.2 of the REF.

Should additional design modification(s) be required as a result of the detailed design process, these modifications would be assessed to determine consistency with the Approved Project, including significance of impact on the environment. Additional mitigation measures and/or consultation would be undertaken where necessary.

4 Consideration of the environmental impacts

4.1 *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?*⁵ 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 Part 5.2 of the EP&A Act is not required.

4.2 *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.

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

5 Conditions of Approval

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

6 Conclusion

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 Part 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 Proposed Activity is expected to provide a better experience for public transport by improving interchange facilities and ensuring that Warrawee Station is accessible to people with a disability, limited mobility, parents/carers with prams and customers with luggage.

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 Appendix B).

Determination

WARRAWEE STATION UPGRADE

APPROVAL

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

1. Have examined and considered the Proposed Activity in the *Warrawee Station Review of Environmental Factors* (April 2019) and the *Warrawee Station Upgrade Determination Report* in (June 2019) 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 (June 2019), consistent with the Proposal described in the *Warrawee Station Upgrade Review of Environmental Factors* (April 2019) as amended by this Determination Report (June 2019).



Louise Sureda
Director, Planning and Environment
Infrastructure and Place
Transport for NSW

Date: 20.6.19

References

TfNSW (April 2019), *Transport Access Program Warrawee Station Upgrade: Review of Environmental Factors*, Sydney

NSW Department of Planning (1995), *Is an EIS required?*, Sydney

Appendix A Review of Environmental Factors

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

- *Warrawee Station Upgrade Review of Environmental Factors* – Transport Access Program (Desksite reference 6240065), April, 2019
- Link to Transport for NSW website: <https://www.transport.nsw.gov.au/projects-tap>

Appendix B Conditions of Approval

CONDITIONS OF APPROVAL

Warrawee Station Upgrade

Note: these conditions of approval must be read in conjunction with the final mitigation measures in the *Warrawee Station Upgrade Review of Environmental Factors* (April 2019).

Schedule of acronyms and definitions used

Acronym	Definition
ADEIA	Associate Director Environmental Impact Assessment (or nominated delegate)
ADEM	Associate Director Environmental Management (or nominated delegate)
ADSPD	Associate Director, Sustainability, Planning & Development (or nominated delegate)
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CLMP	Community Liaison Management Plan
CoA	Conditions of Approval
dBA	Decibels (A-weighted scale)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EMR	Environmental Management Representative
EMS	Environmental Management System
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> .
ISO	International Standards Organisation
OEH	NSW Office of Environment and Heritage
OOHWP	Out of Hours Works Protocol
PCSR	Pre Construction Sustainability Report
PDP	Public Domain Plan
PECM	Pre-construction environmental compliance matrix
POCR	Pre-operational compliance report

Acronym	Definition
RBL	Rating Background Level
REF	Review of Environmental Factors
TfNSW	Transport for NSW
TMP	Traffic Management Plan
UDP	Urban Design Plan

Term	Definition
Construction	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, unless otherwise agreed by the ADEM).
Contamination	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.
Designated Works	Includes tunnelling, blasting, piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction, for Construction.
Emergency Work	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 (indigenous or non-indigenous) item.
Environmental Impact Assessment (EIA)	The documents listed in Condition 1 of this approval.
Environmental Management Representative	An independent environmental representative appointed to the Project or a delegate nominated by Transport for NSW.
Noise Sensitive Receiver	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.
Reasonable and feasible	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.
the Project	The construction and operation of the Warrawee Station Upgrade as described in the Environmental Impact Assessment.
the Proponent	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.

CoA number	Condition
	General
1	<p>Terms of Approval</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> <ul style="list-style-type: none"> a) <i>Warrawee Station Upgrade – Review of Environmental Factors</i>, (TfNSW, April 2019) b) <i>Warrawee Station Upgrade – Determination Report</i>, (TfNSW, June 2019) <p>In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.</p>
2	<p>Project Modifications</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>
3	<p>Statutory Requirements</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>
4	<p>Pre-Construction Environmental Compliance Matrix</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>
5	<p>Construction Environmental Compliance Report</p> <p>The Proponent shall prepare a construction environmental compliance report (CECR) which addresses the following matters:</p> <ul style="list-style-type: none"> (a) compliance with the construction environmental management plan (CEMP) and these conditions (b) compliance with Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability Rating Scheme (v1.2) (c) compliance with any approvals or licences issued by relevant authorities for construction of the Project (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) (e) environmental monitoring results, presented as a results summary and analysis (f) details of the percentage of waste diverted from landfill and the percentage of spoil beneficially reused

CoA number	Condition
5 (cont.)	<p>(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)</p> <p>(h) details of any review and amendments to the CEMP resulting from construction during the reporting period</p> <p>(i) any other matter as requested by the ADEM.</p> <p>The Proponent shall:</p> <p>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</p> <p>ii) submit a copy of the CECR to the ADEM (or nominated delegate) for approval upon completion of the EMR review period.</p> <p>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.</p>
6	<p>Pre-Operation Compliance Report</p> <p>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.</p> <p>The Proponent shall:</p> <p>(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.</p> <p>(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).</p>
7	<p>Graffiti and advertising</p> <p>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:</p> <p>(a) offensive graffiti will be removed or concealed within 24 hours</p> <p>(b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week</p> <p>(c) graffiti that is neither offensive or highly visible will be removed or concealed within a month</p> <p>(d) any unauthorised advertising material will be removed or concealed within 24 hours.</p>

CoA number	Condition
Communications	
8	<p>Community Liaison Management Plan</p> <p>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, Taxi Council and businesses). The CLMP shall comply with the obligations of these conditions and should include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> 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. <p>The CLMP shall be prepared to the satisfaction of the Director Community Engagement (or nominated delegate) prior to the commencement of construction and implemented, reviewed and revised as appropriate during construction of the Project.</p>
9	<p>Community Notification and Liaison</p> <p>The local community shall be advised of any activities related to the Project with the potential to impact upon them.</p> <p>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.</p> <p>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).</p>
10	<p>Website</p> <p>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:</p> <ul style="list-style-type: none"> 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. <p>All documents uploaded to the website must be compliant with the <i>Web Content Accessibility Guidelines Version 2.0</i>.</p>

CoA number	Condition
11	<p>Complaints Management</p> <p>The Proponent shall set up a 24 hour construction response line number.</p> <p>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.</p> <p>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.</p>
	Environmental Management
12	<p>Construction Environmental Management Plan</p> <p>A Construction Environmental Management Plan (CEMP) shall be prepared prior to commencement of construction which addresses the following matters, as a minimum:</p> <ul style="list-style-type: none"> 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) indigenous and non-indigenous 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. <p>The CEMP shall:</p> <ul style="list-style-type: none"> i) 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 ii) comply with the relevant requirements of <i>Guideline for Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004) iii) include an Environmental Policy.

CoA number	Condition
12 (cont.)	<p>The Proponent shall:</p> <ol style="list-style-type: none"> consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP submit a copy of the CEMP to EMR for review submit a copy of the CEMP to the ADEM (or nominated delegate) for approval review and update the CEMP at regular intervals, and in response to any actions identified as part of the EMR's audit of the document 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. <p>The CEMP must be approved by the ADEM prior to the commencement of construction work associated with the Project.</p>
13	<p>Environment Personnel</p> <p>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).</p> <p>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 commencement of construction of the Project (or within such time as otherwise agreed to by the ADEM).</p> <p>Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the ADEM.</p>
14	<p>Environmental Management Representative</p> <p>Prior to the commencement of construction, the ADEM shall appoint an EMR for the duration of the construction period for the Project.</p> <p>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:</p> <ol style="list-style-type: none"> considering and advising the Proponent on matters specified in these conditions and compliance with such 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 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 reporting weekly to the Proponent, or as required by the ADEM 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 requiring reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts reviewing corrective and preventative actions to ensure the implementation of recommendations made from the audits and site inspections

CoA number	Condition
14 (cont.)	<p>(h) providing reports to the Proponent on matters relevant to the carrying out of the EMR role as necessary</p> <p>(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</p> <p>(j) reviewing and approving updates to the CEMP.</p> <p>The EMR shall be available during construction activities to inspect the site(s) and be present on-site as required.</p>
15	<p>Environmental Controls Map</p> <p>The Proponent shall prepare an environmental controls map (ECM) in accordance with TfNSW's <i>Guide to Environmental Controls Map (3TP-SD-015)</i> 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.</p> <p>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).</p> <p>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.</p> <p>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.</p>
Hours of Work	
16	<p>Standard Construction Hours</p> <p>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:</p> <ol style="list-style-type: none"> 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 out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP) 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 Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm 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	<p>High Noise Generating Activities</p> <p>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), unless inaudible at nearby residential properties and/or other noise sensitive receivers.</p>

CoA number	Condition
	Noise and Vibration
18	<p>Construction Noise and Vibration</p> <p>Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW's <i>Construction Noise and Vibration Strategy</i> (7TP-ST-157) and the EPA's <i>Interim Construction Noise Guideline</i> (Department of Environment and Climate Change, 2009). The mitigation measures shall include, but not be limited to:</p> <ol style="list-style-type: none"> details of construction activities and an indicative schedule for construction works identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the EIA) 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 an Out Of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 10 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 <i>Construction Noise and Vibration Strategy</i> (7TP-ST-157) 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.
19	<p>Vibration Criteria</p> <p>Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to:</p> <ol style="list-style-type: none"> for structural damage vibration – German Standard DIN 4150:Part 3 – 1999: <i>Structural Vibration in Buildings: Effects on Structures</i> for human exposure to vibration – the acceptable vibration values set out in the <i>Environmental Noise Management Assessing Vibration: A Technical Guideline</i> (Department of Environment and Conservation, 2006). <p>These limits apply unless otherwise approved by the ADEM through the CEMP.</p>
20	<p>Piling</p> <p>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.</p>
21	<p>Non-Tonal Reversing Beepers</p> <p>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.</p>

CoA number	Condition
22	<p>Noise impact on educational facilities</p> <p>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.</p>
23	<p>Property condition surveys</p> <p>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:</p> <ul style="list-style-type: none"> (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. <p>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.</p> <p>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.</p> <p>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.</p> <p>A copy of the survey(s) shall be given to each owner. A register of all properties surveyed shall be maintained.</p> <p>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).</p>
Flora and Fauna	
24	<p>Replanting program</p> <p>All cleared vegetation shall be offset in accordance with TfNSW's <i>Vegetation Offset Guide</i> (9TP-SD-087). All vegetation planted on-site is to consist of locally endemic native species, 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.</p> <p>In addition, the Evergreen Ash tree to be removed on the platform should be replaced with a semi-mature Evergreen Ash with a minimum height of 2.0 metres, unless otherwise agreed with ADEM.</p>
25	<p>Removal of trees or vegetation</p> <p>Separate approval, in accordance with TfNSW's <i>Application for Removal or Trimming of Vegetation</i> (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.</p>

CoA number	Condition
Contamination and Hazardous Materials	
26	<p>Duty to Notify</p> <p>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 <i>Contaminated Land Management Act 1997</i>, and notify the EPA in accordance with the EPA's Guidelines on the Duty to Report Contamination under the <i>Contaminated Land Management Act 1997</i> (Department of Environment and Climate Change, 2009).</p>
27	<p>Unidentified Contamination (other than asbestos)</p> <p>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 <i>Guidelines for Consultants Reporting on Contaminated Sites</i> (OEH, 2011).</p> <p>The proponent shall:</p> <ul style="list-style-type: none"> (a) submit a copy of any contamination report to the EMR for review. The EMR is to be given a minimum period of seven days to review and provide any comments to the Proponent in relation to the report. (b) submit a copy of the report to the ADEM for consideration upon completion of the EMR review period. 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. <p>Note: <i>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.</i></p>
28	<p>Asbestos Management</p> <p>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 WorkCover 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.</p> <p>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.</p> <p>Note: <i>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.</i></p>

CoA number	Condition
29	<p>Storage and Use of Hazardous Materials</p> <p>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 <i>Chemical Storage and Spill Response Guidelines</i> (9TP-SD-066) and Australian and ISO standards. These measures shall include:</p> <ul style="list-style-type: none"> 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.
30	<p>Contamination investigation</p> <p>If recommended by the Stage 1 preliminary site investigation report, a Stage 2 detailed site investigation shall be undertaken prior to construction commencing. The assessment shall generally be undertaken in accordance with:</p> <ul style="list-style-type: none"> (a) <i>The National Environment Protection (Assessment of Site Contamination) Amendment Measure (NEPM) 2013</i> (b) <i>Contaminated Sites - Sampling Design Guidelines (EPA, 1995)</i> (c) <i>AS4482 (2005) Guide to investigation and sampling of site with potentially contaminated soil (2005).</i> <p>The report shall be prepared in accordance with the DECCW's <i>Guidelines for Consultants Reporting on Contaminated Sites</i> (Office of Environment and Heritage, 2011). The report shall include a preliminary waste classification in accordance with the NSW EPA <i>Waste Classification Guidelines</i> (EPA, 2014).</p> <p>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.</p>
31	<p>Contamination Management Plan</p> <p>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 (CMP) as appropriate.</p>
Erosion and Sediment Control	
32	<p>Erosion and Sediment Control</p> <p>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</i>, 4th Edition (Landcom, 2004).</p>

CoA number	Condition
	Lighting
33	<p>Lighting scheme</p> <p>A lighting scheme for the construction and operation of 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:</p> <ul style="list-style-type: none"> (a) consideration of lighting demands of different areas (b) strategic placement of lighting fixtures to maximise ground coverage (c) use of LED lighting (d) minimising light spill by directing lighting into the station and platform (e) control systems for lighting that dim or switch-off lights settings according to the amount of daylight the zone is receiving (f) motion sensors to control low traffic areas (g) allowing the lighting system to use low light or switch off light settings while meeting relevant lighting Standards requirements, and (h) ensuring security and warning lighting is not directed at neighbouring properties. <p>The proposed lighting scheme is to be submitted to and endorsed by the TfNSW Technical Design Team.</p>
	Sustainability
34	<p>Sustainability officer</p> <p>The Proponent shall appoint a suitably qualified and experienced sustainability officer who is responsible for implementing sustainability objectives for the Project.</p> <p>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 pre-construction sustainability report (PCSR).</p>
35	<p>Pre-construction sustainability report</p> <p>Prior to commencement of construction, a PCSR shall be prepared to the satisfaction of the ADSPD. The Report shall include the following minimum components:</p> <ul style="list-style-type: none"> (a) Completed ISCA Scorecard demonstrating credits targeted to meet an ISCA Infrastructure Sustainability Rating Scheme (v1.2) Design and As Built, Excellent Rating (b) a statement outlining the Proponent's own corporate sustainability obligations, goals, targets, in house tools, etc. (c) a section specifying a process to identify and progress innovation initiatives on the project as appropriate. The process should identify any areas of innovation that are currently being explored and/or implemented on the Project. <p>The Proponent shall submit a copy of the PCSR 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).</p>

CoA number	Condition
	Urban design and landscaping
36	<p>Urban Design Plan</p> <p>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 <i>'Around the Tracks' – urban design for heavy and light rail, TfNSW, Interim 2016</i>. The UDP shall:</p> <ul style="list-style-type: none"> a) Demonstrate a robust understanding of the 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 <i>'Around the Tracks'</i>, including consideration of Crime Prevention through Environmental Design Principles <p>The UDP is to include the Public Domain Plan (PDP) for the chosen option and will provide analysis of the:</p> <ul style="list-style-type: none"> a) Landscape design approach including design of pedestrian and bicycle pathways, street furniture, interchange facilities, new planting and opportunities for public art b) Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing and landscaping c) An Artist's Impression or Photomontage to communicate the proposed changes to the precinct. <p>The following design guidelines are available to assist and inform the UDP for the Proposal:</p> <ul style="list-style-type: none"> 1. <i>TAP Urban Design Plan, Guidelines</i>, TfNSW, Draft 2018 2. <i>Commuter Car Parks, urban design guidelines</i>, TfNSW, Interim 2017 3. <i>Managing Heritage Issues in Rail Projects Guidelines</i>, TfNSW, Interim 2016 4. <i>Creativity Guidelines for Transport Systems</i>, TfNSW, Interim 2016 5. <i>Water Sensitive Urban Design Guidelines for TfNSW Projects</i>, 2016
	Traffic and Access
37	<p>Traffic Management Plan</p> <p>The Proponent shall prepare a construction traffic management plan (TMP) as part of the CEMP which addresses, as a minimum, the following:</p> <ul style="list-style-type: none"> (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 railway stations, businesses, entertainment premises 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 provision (f) parking locations for construction workers away from stations and busy residential areas and details of how this will be monitored for compliance (g) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses

CoA number	Condition
37 (cont.)	<p>(h) details for relocating kiss-and-ride, taxi ranks and rail replacement bus stops if required, including appropriate signage to direct patrons, in consultation with the relevant bus operator. Particular provisions should also be considered for the accessibility impaired.</p> <p>(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.</p> <p>The Proponent shall consult with the relevant roads authority during preparation of the TMP, as required. The performance of all Project traffic arrangements must be monitored during construction.</p>
38	<p>Road condition reports</p> <p>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.</p>
39	<p>Road safety audit</p> <p>A Road Safety Audit would be undertaken as part of the detailed design process. The Road Safety Audit would include specific assessment of items including:</p> <ul style="list-style-type: none"> (a) sight distances associated with the proposed new accessible parking spaces and kiss-and-ride space along Heydon Avenue (b) sight distances associated with the three kiss-and-ride spaces proposed along Warrawee Avenue (c) the split of kiss-and-ride spaces and new accessible parking spaces on Heydon and Warrawee Avenues, including having one accessible parking space on either side of the station <p>The Road Safety Audit is to be submitted to and endorsed by TfNSW. Any recommendations made in the Audit relating to Ku-ring-gai Council matters outside the project scope and boundary would be provided to Council for their recommendation and or action.</p>
Heritage Management	
40	<p>Indigenous and non-Indigenous heritage</p> <p>If previously unidentified Indigenous or non-Indigenous heritage/archaeological items are uncovered during construction works, the procedures contained in the TfNSW <i>Unexpected Heritage Finds Guideline</i> (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 Heritage Division, OEH where appropriate). Works in the vicinity of the find shall not re-commence until clearance has been received from TfNSW and/or the heritage advisor.</p>

CoA number	Condition
41	<p>Heritage Advisor</p> <p>A suitably qualified and experienced Heritage Conservation Architect shall be engaged to the satisfaction of the ADEIA. The Heritage Conservation Architect will provide ongoing heritage, design and conservation advice throughout detailed design and any subsequent relevant design modifications.</p> <p>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. The Heritage Advisor must provide evidence as to their involvement in the design process at completion of AFC design, noting how the heritage requirements listed above have been addressed in the final design.</p>
42	<p>Vibration Impacts to Heritage Listed Structure at the Station</p> <p>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 German Standard DIN 4150 – Part 3 (DIN 1999) heritage specifications. Real time vibration monitoring is to be conducted at commencement of relevant works to confirm compliance with the German Standard DIN 4150. If vibration levels approach the determined trigger level, then the construction activity shall cease and the heritage structure is to be assessed and alternative construction methodologies developed, where practicable, before construction</p>
43	<p>Archival recording</p> <p>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 <i>Photographic recording of heritage items using film or digital capture</i> (NSW Heritage Office, 2006) and <i>How to prepare archival records</i> (NSW Heritage Office, 1998). Copies are to be provided to Ku-ring-gai Council and Sydney Trains Heritage Team for future reference. In particular, the station building and platforms, are to be comprehensively included as part of the archival recording.</p>
Site-specific conditions	
44	<p>During detailed design and in consultation with Ku-ring-gai Council, consider the opportunity to replace the brick bus shelter on Heydon Avenue with a bicycle shelter and additional hoops.</p>

END OF CONDITIONS