



More Trains, More Services

# Hurstville Crossover Project

Determination Report



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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</i> (Cwlth)
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</i> (NSW)
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i> (NSW)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cwlth)
ISCA	Infrastructure Sustainability Council of Australia
LGA	Local Government Area
MNES	Matters of National Environmental Significance under the EPBC Act
NSW	New South Wales
OEH	(former) 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 Hurstville Crossover
REF	Review of Environmental Factors
TfNSW	Transport for NSW (the Proponent)
TGSI	Tactile ground surface indicators

# Executive summary

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## 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 Hurstville Crossover (the Proposed Activity), which is part of the More Trains, More Services Program. The Program is a NSW Government initiative to simplify and modernise Sydney's existing heavy rail network. The program aims to improve capacity throughout the network, with a view to providing 'turn up and go' services for many customers.

The Proposed Activity, as outlined in the Review of Environmental Factors (REF), would include:

- construction of a new crossover (approximately 100 metres in length) between the existing Up and Down tracks of the Illawarra Main including minor adjustments to the vertical and horizontal elevation of the tracks
- modification and addition of overhead wiring (OHW) structures, including new OHW supports beneath the existing bridge
- installation of new signals, turnouts and associated trackside equipment
- modification of the existing combined services route to accommodate the new signalling infrastructure
- minor modification of an existing drainage channel.

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

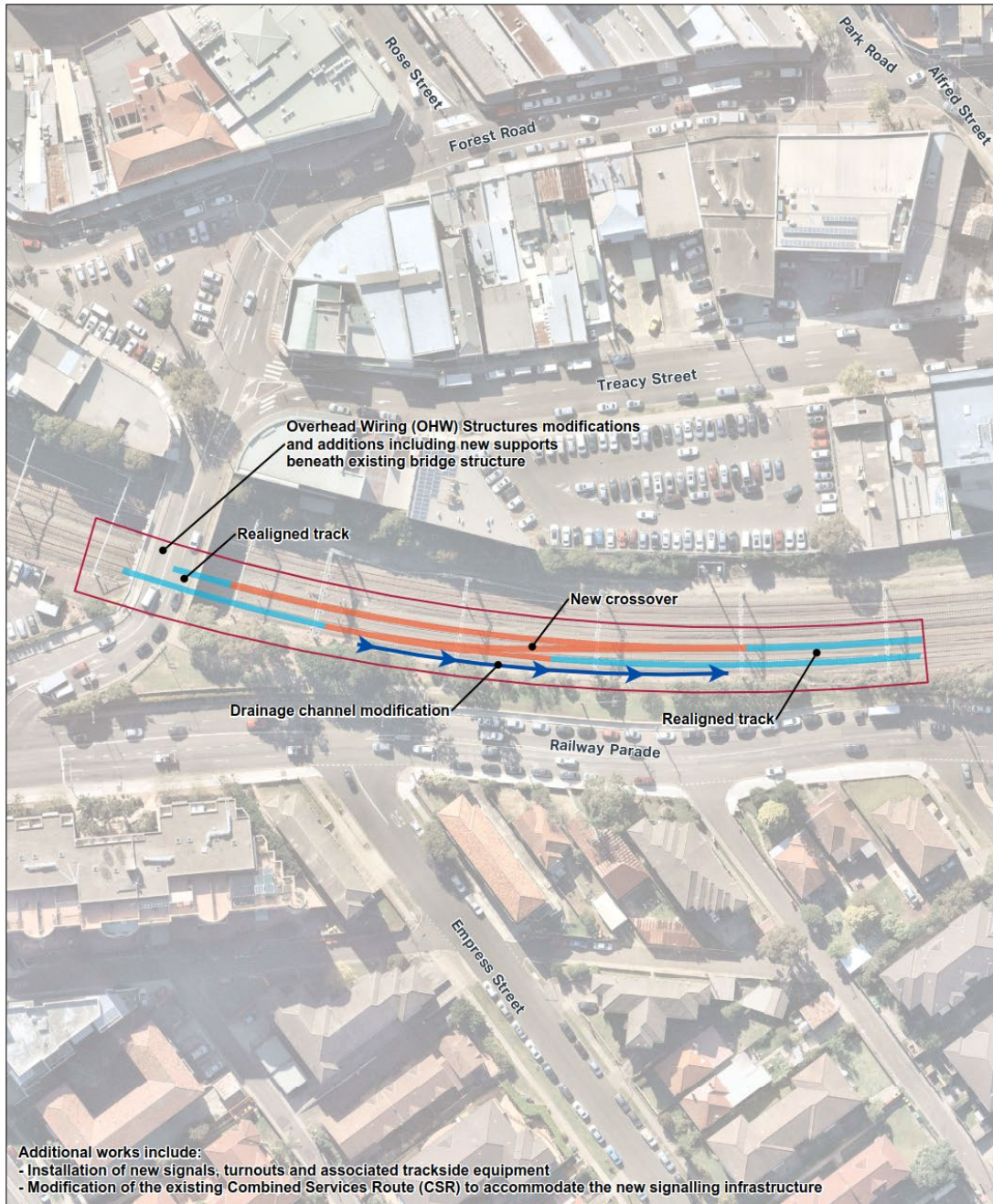


FIGURE 1: PROPOSED WORKS

**AECOM**



**Legend**

- Extent of proposed works
- New crossover
- Realigned track
- Drainage channel modification

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**Figure 1: Key features of the Proposal**

The need for, and benefits of, the Proposed Activity are outlined in Chapter 2 of the REF. Construction is expected to commence in late 2020 and take approximately one year to complete.

TfNSW, as the Proponent for the Proposed Activity, has prepared a REF that details the scope of works and environmental impacts associated with the Proposed Activity. The REF was prepared by AECOM Australia Pty Ltd (AECOM) 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**

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 Hurstville Crossover, 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 More Trains, More Services Program (the Program) is about building a modern and up to date rail system that will play its part in making Sydney a more productive and liveable city. The Program is a NSW Government initiative to simplify and modernise Sydney's existing heavy rail network.

While the Program will eventually deliver benefits to the entire network, TfNSW propose to start by targeting improvements on Sydney's busiest lines. The first lines to benefit from the program will be the T4 Eastern Suburbs and Illawarra Line, the South Coast Line and the T8 Airport and South Line. The Program is central to delivering the NSW Government's long-term vision and commitment to the state's transport and infrastructure needs.

The Program proposes to increase the total number of peak services on the T4 Eastern Suburbs and Illawarra Line by approximately 30 percent and providing a more comfortable journey for customers in the Sutherland Shire, Illawarra and South Coast.

As part of the Program, Hurstville to Bondi Junction all station services will swap operation from the Illawarra Local tracks to the Illawarra Main tracks to optimise the capacity of the T4 corridor. The Hurstville Crossover (the Proposed Activity) would introduce a crossover on the City side of Hurstville Station to enable all station services operating on the Down Illawarra Main track to terminate at Platform 4 at Hurstville Station and commence back towards the city on the Up direction on the Up Illawarra Main track.

The Hurstville crossover has been development to meet the specific needs:

- separation of intercity services from suburban traffic allowing a higher number of all stops services without impeding through trains
- allowing suburban services to operate on the Illawarra Main line between the City and Hurstville
- providing high frequency operations, with the ability to turn back trains (i.e. where a train terminates and then departs in the opposite direction) at Hurstville on Platforms 3 and 4
- maintain signal locations and minimise extent of signalling works.

The Proposed Activity is consistent with NSW planning strategies, including the *Future Transport Strategy 2056* (TfNSW, 2018) and the *Greater Sydney Region Plan* (Greater Sydney Commission, 2018).

## 1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) was prepared by TfNSW in accordance with section 5.5 of the EP&A Act, and clause 228 of the 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.

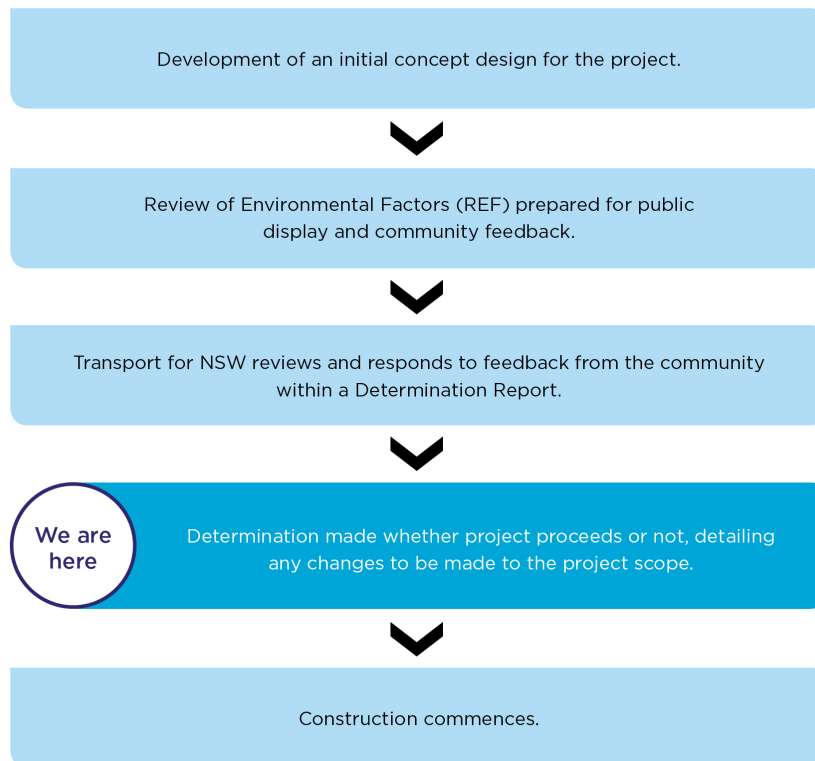
The Hurstville Crossover Extension REF was placed on public display by TfNSW from Wednesday 30 October 2019 to Friday 13 November 2019, with four submissions received.

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 REF (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

Hurstville Station is a major stop for trains travelling on the T4 Eastern Suburbs and Illawarra Line and the South Coast Line. To improve efficiency of the network TfNSW proposes to construct and operate a new rail crossover in the vicinity of Hurstville Station (the Proposed Activity).

The crossover would be constructed around 170 metres east of Hurstville Station, in the Suburb of Hurstville, NSW. The Proposal Area is located around 14 kilometres south-west of the Sydney Central Business District (CBD) and within the Georges River local government area (LGA).

An overview of the Proposed Activity, which is the subject of the Hurstville Crossover 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 crossover (100 metres in length) between the existing Up and Down tracks of the Illawarra Main including minor adjustments to the vertical and horizontal elevation of the tracks
- modification and addition of OHW structures, including new OHW supports beneath the existing bridge
- installation of new signals, turnouts and associated trackside equipment
- modification of the existing combined services route to accommodate the new signalling infrastructure
- minor modification of an existing drainage channel.

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

Construction is expected to commence in late 2020 and take approximately one year to complete.

## 2 Consultation and assessment of submissions

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### 2.1 REF public display

The Hurstville Crossover REF was on public display between Wednesday 30 October 2019 and Friday 13 November 2019 at three locations, as well as on the [TfNSW website](#)<sup>1</sup> and the [your say page](#)<sup>2</sup>. Community consultation activities undertaken for the public display included:

- public display of the REF at various locations
- distribution of a project update to the local community and rail customers, outlining the Proposal and inviting feedback on the REF
- advertisement of the REF public display in local newspapers (St George and Sutherland Shire Leader) with a link to the TfNSW website that includes a summary of the Proposal and information on how to provide feedback
- consultation with Georges River Council, Sydney Trains and other non-community stakeholders.
- public display of the REF at:
  - Oatley Public Library  
26 Letitia Street  
Oatley NSW 2223
  - Georges River Service Centre,  
Corner MacMahon and Dora Streets,  
Hurstville NSW 2220
  - Transport for NSW Office  
The Gateway  
241 O’Riordan Street  
Mascot NSW 2020

### 2.2 REF submissions

A total of four submissions were received by TfNSW. All submissions received were from residents in the vicinity of the Proposal

Key issues that were raised in the submissions included:

- concerns over train line service function
- concerns over noise impacts from the project

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<sup>1</sup> <https://www.transport.nsw.gov.au/projects/more-trains-more-services>

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

Other issues raised included requests for train maintenance, the slow termination time of trains and concerns over the infrequently used Platforms 1 and 2 transitioning to future use as a metro line. These issues are considered outside the scope of this proposal.

## 2.3 Consideration and response to submissions

### Noise impacts

One submission (submission number 2) expressed concern that the Proposed Activity would result in greater noise impacts due to the increase in large trains using the line.

Section 6.3.2 of the REF outlines the operational noise criteria for rail noise. The *Rail Infrastructure Noise Guideline* (RING) (EPA, 2013) provides the applicable noise trigger levels for the assessment of airborne noise. The RING trigger levels apply where redevelopment of an existing rail line increases existing  $L_{Aeq(15hour)}$  rail noise levels by 2 dB or more, or existing  $L_{Amax}$  rail noise levels by 3 dB or more, *and* predicted rail noise levels exceed the trigger levels below in Table 1. Since work associated with the Proposal comprises a redevelopment of the existing T4 Illawarra and Eastern Suburbs Line and South Coast Line, all sensitive receivers surrounding the project area are subject to the redeveloped noise criteria.

**Table 1 Airborne heavy rail noise trigger levels for residential land uses**

Period	Noise trigger level dB(A)
Day (7am to 10pm)	65 $L_{Aeq(15hour)}$ OR 85 $L_{AFmax}$
Night (10pm to 7am)	60 $L_{Aeq(9hour)}$ OR 85 $L_{AFmax}$

Section 6.3.3 of the REF addressed the operational impacts of rail pass by noise within ‘no build’ (without the Proposed Activity) and ‘build’ (with the Proposed Activity) scenarios. Predicted noise levels were modelled using SoundPLAN v8.0 environmental noise modelling software. The model accounted for ground topography, ground absorption and reflection, buildings (residential and commercial), receivers, existing and future rail centrelines, train movement numbers, lengths, speeds and rolling stock types, track conditions, and rail noise source reference levels as derived from TfNSW’s *Rail Noise Database*.

The assessment found that there are some predicted exceedances of the overall  $L_{Amax}$  criteria, however the change in noise levels between the ‘build’ and the ‘no build’ scenarios remains below the 3 dB(A) threshold outlined in the RING. Therefore, there are no predicted exceedances of the applicable RING criteria due to the operation of the proposal. As such, no further action is necessary.

### Service frequency

One submission (submission number 1), expressed concern over the Eastern Suburbs and Illawarra Line function being altered or cancelled during construction and operation.

Works for the Proposal are required to be undertaken during scheduled track possession periods. These are scheduled closures where part of the rail network is temporarily closed, and trains do not operate. Carrying out the works during scheduled track possessions is necessary to allow for them to be undertaken safely. It is estimated that approximately four scheduled track possessions would be required to undertake construction, noting that these possession periods would occur regardless of the Proposal in order to facilitate other necessary works elsewhere on the line. The scheduled track possessions would affect all train

services that would ordinarily pass through the Proposal Area. During these periods bus services would replace trains.

Operational changes to services on the T4 Illawarra Line are still being developed as part of the More Trains, More Services program. As part of this development, priority will be given to optimising timetable and journey outcomes for customers across the network.

This will be undertaken by considering customer and community feedback, as well as through analysis of Opal card data that shows where and when are customers are travelling.

Once finalised, any changes to services along the Eastern and Illawarra Line will be communicated to customers well in advance of implementation.

### **Train termination timing**

One submission (submission number 4) raised concern over the possibility of train termination being a slow process when terminated at platform 4.

The Proposed Activity relates only to the construction and operation of the Hurstville Crossover. The efficiency of train termination at Hurstville Station will be considered as part of timetable and service changes facilitated by the Hurstville Crossover.

### **Train maintenance**

One submission (submission number 3) requested that the trains be maintained and kept clean at all times.

The Proposed Activity relates only to the construction and operation of the Hurstville Crossover. Comments relating to the presentation of trains will be passed onto Sydney Trains for consideration.

### **Metro station usage**

One submission (submission number 4) raised concerns over the less frequent use of Platforms 1 and 2 and these platforms eventually transitioning to use for a future metro line.

The Proposed Activity relates only to the construction and operation of the Hurstville Crossover. Potential future upgrades to Hurstville Station are considered outside the scope of this Proposal.

## **2.4 Future consultation**

Should TfNSW proceed with the Proposed Activity, consultation activities would continue, including consultation with Georges River 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:

- Georges River 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](#)<sup>3</sup>, 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](#)<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> <https://www.transport.nsw.gov.au/projects/more-trains-more-services>

### **3 Changes to the Proposed Activity**

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As a result of the submissions received during the public display, there are no changes to the Proposed Activity from the works as described in the REF.

## 4 Consideration of the environmental impacts

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### 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 of the EP&A Regulation, an assessment is provided in Chapter 6 of the REF and Appendix B of the REF.

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 areas of outstanding biodiversity) 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.

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

As part of the consideration of the Proposed Activity, all Matters of National Environmental Significance (MNES) and any impacts on Commonwealth land for the purposes of the EPBC Act have been assessed. In relation to MNES, 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 MNES.

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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>



## **5 Conditions of Approval**

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

## 6 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 areas of outstanding biodiversity value) 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 Proposed Activity would contribute to the delivery of service improvements on the T4 Eastern Suburbs and Illawarra, and South Coast Lines, including capacity, reliability and connectivity improvements for customers. The Proposal would benefit the network by introducing a crossover on the City side of Hurstville Station to enable all station services operating on the Down Illawarra Main track to terminate at Platform 4 at Hurstville Station and commence back towards the city on the Up direction on the Up Illawarra Main track.

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

## HURSTVILLE CROSSOVER

### APPROVAL

I, BEN GROTH, as delegate of the Secretary, Transport for NSW:

1. Have examined and considered the Proposed Activity in the *Hurstville Crossover Review of Environmental Factors* (October, 2019) and the *Hurstville Crossover Determination Report* (January, 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 (January, 2020), consistent with the Proposal described in the *Hurstville Crossover Review of Environmental Factors* (October, 2019) as amended by this Determination Report (January, 2020).



Ben Groth  
A/ Director, Planning and Environment  
Infrastructure and Place  
Transport for NSW

Date: 16/1/20

## References

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TfNSW (November 2018), *Chemical Storage and Spill Response Guidelines*, Sydney

TfNSW (October 2019), *More Trains, More Services Hurstville Crossover: Review of Environmental Factors*, Sydney

TfNSW (April 2019), *Unexpected Heritage Finds Guideline*, Sydney

TfNSW (July 2019), *Vegetation Management (Protection and Removal) Guideline*, Sydney

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

NSW Department of Environment, Climate Change and Water (DECCW) (September 2010), *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, Sydney

# Appendix A      Review of Environmental Factors

Please refer to the TfNSW website to access the Hurstville Crossover REF:

- Link to TfNSW, More Trains, More Services Program website:  
<https://www.transport.nsw.gov.au/projects/more-trains-more-services>

# Appendix B Conditions of Approval

## CONDITIONS OF APPROVAL

### Hurstville Crossover

Note: these conditions of approval must be read in conjunction with the final mitigation measures in the *Hurstville Crossover Review of Environmental Factors* (October, 2019).

#### Schedule of acronyms and definitions used

Acronym	Definition
<b>ADEIA</b>	Associate Director, Environmental Impact Assessment (or nominated delegate)
<b>ADEM</b>	Associate Director Environmental Management (or nominated delegate)
<b>ADSPD</b>	Associate Director, Sustainability, Planning & Development (or nominated delegate)
<b>CECR</b>	Construction Environmental Compliance Report
<b>CEMP</b>	Construction Environmental Management Plan
<b>CLMP</b>	Community Liaison Management Plan
<b>CoA</b>	Conditions of Approval
<b>dBA</b>	Decibels (A-weighted scale)
<b>ECM</b>	Environmental Controls Map
<b>EIA</b>	Environmental Impact Assessment
<b>EMR</b>	Environmental Management Representative
<b>EMS</b>	Environmental Management System
<b>EPA</b>	NSW Environment Protection Authority
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EPL</b>	Environment Protection Licence issued by the Environment Protection Authority under the <i>Protection of the Environment Operations Act 1997</i> .
<b>ISO</b>	International Standards Organisation
<b>OEH</b>	former NSW Office of Environment and Heritage
<b>OOHWP</b>	Out of Hours Works Protocol
<b>PCSR</b>	Pre Construction Sustainability Report
<b>PDP</b>	Public Domain Plan
<b>PECM</b>	Pre-construction environmental compliance matrix
<b>POCR</b>	Pre-operational compliance report
<b>RBL</b>	Rating Background Level

Acronym	Definition
<b>REF</b>	Review of Environmental Factors
<b>TfNSW</b>	Transport for NSW
<b>TMP</b>	Traffic Management Plan
<b>UDP</b>	Urban Design Plan

<b>Term</b>	<b>Definition</b>
<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, unless otherwise agreed by the ADEM).
<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 (indigenous or non-indigenous) item.
<b>Environmental Impact Assessment (EIA)</b>	The documents listed in Condition 1 of this approval.
<b>Environmental Management Representative</b>	An independent environmental representative appointed to the Project or a delegate nominated by Transport for NSW.
<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>Reasonable and feasible</b>	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.
<b>the Project</b>	The construction and operation of the Hurstville Crossover as described in the Review of Environmental Factors.
<b>the 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.



CoA number	Condition
	<b>General</b>
1	<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> <ul style="list-style-type: none"> <li>a) <i>Hurstville Crossover – Review of Environmental Factors</i>, (TfNSW, October 2019)</li> <li>b) <i>Hurstville Crossover – Determination Report</i>, (TfNSW, January 2020)</li> </ul> <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><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>
3	<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>
4	<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>
5	<p><b>Construction Environmental Compliance Report</b></p> <p>The Proponent shall prepare a construction environmental compliance report (CECR) which addresses the following matters:</p> <ul style="list-style-type: none"> <li>(a) compliance with the construction environmental management plan (CEMP) and these conditions</li> <li>(b) compliance with 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> </ul>

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<p><b>5</b> <b>(cont.)</b></p>	<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>
<p><b>6</b></p>	<p><b>Pre-Operation Compliance Report</b></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>
<p><b>7</b></p>	<p><b>Graffiti and advertising</b></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>
<p><b>Communications</b></p>	
<p><b>8</b></p>	<p><b>Community Liaison Management Plan</b></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> <p>a) details of the protocols and procedures for disseminating information and liaising with</p>

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	<p>the community and other key stakeholders about construction activities (including timing and staging) and any associated impacts during the construction period</p> <p>b) stakeholder and issues identification and analysis</p> <p>c) procedures for dealing with complaints or disputes and response requirements, including advertising the 24 hour construction response line number</p> <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><b>Community Notification and Liaison</b></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><b>Website</b></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> <p>a) a copy of the documents referred to under Condition 1 of this approval</p> <p>b) a list of environmental management reports that are publicly available</p> <p>c) 24 hour contact telephone number for information and complaints.</p> <p>All documents uploaded to the website must be compliant with the <i>Web Content Accessibility Guidelines Version 2.0</i>.</p>
11	<p><b>Complaints Management</b></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>

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	<b>Environmental Management</b>
12	<p><b>Construction Environmental Management Plan</b></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"> <li>a) traffic and pedestrian management (in consultation with the relevant roads authority)</li> <li>b) noise and vibration management</li> <li>c) water and soil management</li> <li>d) air quality management (including dust suppression)</li> <li>e) indigenous and non-indigenous heritage management</li> <li>f) flora and fauna management</li> <li>g) storage and use of hazardous materials</li> <li>h) contaminated land management (including acid sulphate soils)</li> <li>i) weed management</li> <li>j) waste management</li> <li>k) sustainability</li> <li>l) environmental incident reporting and management procedures</li> <li>m) non-compliance and corrective/preventative action procedures.</li> </ul> <p>The CEMP shall:</p> <ul style="list-style-type: none"> <li>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</li> <li>ii) comply with the relevant requirements of <i>Guideline for Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004)</li> <li>iii) include an Environmental Policy.</li> </ul> <p>The Proponent shall:</p> <ol style="list-style-type: none"> <li>1. consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP</li> <li>2. submit a copy of the CEMP to EMR for review</li> <li>3. submit a copy of the CEMP to the ADEM (or nominated delegate) for approval</li> <li>4. review and update the CEMP at regular intervals, and in response to any actions identified as part of the EMRs audit of the document</li> <li>5. 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.</li> </ol> <p>The CEMP must be approved by the ADEM prior to the commencement of construction work associated with the Project.</p>
13	<p><b>Environment Personnel</b></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>

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	Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the ADEM.
14	<p><b>Environmental Management Representative</b></p> <p>Prior to the commencement of construction, the Proponent shall appoint an EMR for the duration of the construction period for the Project.</p> <p>The EMR shall provide advice to the Proponent in relation to the environmental compliance and performance of the Project. The EMR shall have responsibility for:</p> <ul style="list-style-type: none"> <li>(a) considering and advising the Proponent on matters specified in these conditions and compliance with such</li> <li>(b) reviewing and, where required by the Proponent, providing advice on the Project's induction and training program for all persons involved in the construction activities and monitoring implementation</li> <li>(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</li> <li>(d) reporting weekly to the Proponent, or as required by the ADEM</li> <li>(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</li> <li>(f) requiring reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts</li> <li>(g) reviewing corrective and preventative actions to ensure the implementation of recommendations made from the audits and site inspections</li> <li>(h) providing reports to the Proponent on matters relevant to the carrying out of the EMR role as necessary</li> <li>(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</li> <li>(j) reviewing and approving updates to the CEMP.</li> </ul> <p>The EMR shall be available during construction activities to inspect the site(s) and be present on-site as required.</p>
15	<p><b>Environmental Controls Map</b></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>

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	<b>Hours of Work</b>
16	<p><b>Standard Construction Hours</b></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"> <li>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</li> <li>out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP)</li> <li>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</li> <li>Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm</li> <li>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).</li> </ol>
17	<p><b>High Noise Generating Activities</b></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>
	<b>Noise and Vibration</b>
18	<p><b>Construction Noise and Vibration</b></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"> <li>details of construction activities and an indicative schedule for construction works</li> <li>identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers</li> <li>detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the EIA)</li> <li>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</li> <li>an Out Of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 16 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)</li> <li>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</li> </ol>

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	rectified.
19	<p><b>Vibration Criteria</b></p> <p>Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to:</p> <ul style="list-style-type: none"> <li>a) for structural damage vibration – British Standard 7385 Part 2-1993 <i>Evaluation and measurement for vibration in buildings Part 2</i></li> <li>b) 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).</li> </ul> <p>These limits apply unless otherwise approved by the ADEM through the CEMP.</p>
20	<p><b>Non-Tonal Reversing Beepers</b></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>
21	<p><b>Noise impact on educational facilities</b></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>
22	<p><b>Property condition surveys</b></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"> <li>(a) all buildings/structures/roads within a plan distance of 50 metres from the edge of the Designated Works</li> <li>(b) all heritage listed buildings and other sensitive structures within 100 metres from the edge of the Designated Works.</li> </ul> <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>

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	<b>Flora and Fauna</b>
23	<p><b>Removal of trees or vegetation</b></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>
	<b>Contamination and Hazardous Materials</b>
24	<p><b>Duty to Notify</b></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 <i>Duty to Report Contamination under the Contaminated Land Management Act 1997</i> (Environment Protection Authority, 2015).</p>
25	<p><b>Unidentified Contamination (other than asbestos)</b></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 with relevant EPA guidelines, including <i>Guidelines for Consultants Reporting on Contaminated Sites</i> (OEH, 2011).</p> <p>The proponent shall:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol> <p><b>Note:</b> <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 25 and Condition 26.</i></p>
26	<p><b>Asbestos Management</b></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 SafeWork NSW 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><b>Note:</b> <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 25 and Condition 26.</i></p>



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27	<p><b>Storage and Use of Hazardous Materials</b></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"> <li>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</li> <li>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</li> <li>c) all hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks</li> <li>d) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.</li> </ul>
28	<p><b>Contamination investigation</b></p> <p>If recommended by a 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"> <li>(a) <i>The National Environment Protection (Assessment of Site Contamination) Amendment Measure (NEPM) 2013</i></li> <li>(b) <i>Contaminated Sites - Sampling Design Guidelines (EPA, 1995)</i></li> <li>(c) <i>AS4482 (2005) Guide to the investigation and sampling of sites with potentially contaminated soil (2005)</i>.</li> </ul> <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>
29	<p><b>Contamination Management Plan</b></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>
<b>Erosion and Sediment Control</b>	
30	<p><b>Erosion and Sediment Control</b></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>

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	<b>Lighting</b>
31	<p><b>Lighting scheme</b></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"> <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 and platform</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, and</li> <li>(h) ensuring security and warning lighting is not directed at neighbouring properties.</li> </ul> <p>The proposed lighting scheme is to be submitted to and endorsed by the TfNSW Technical Design Team.</p>
	<b>Sustainability</b>
32	<p><b>Sustainability officer</b></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>
33	<p><b>Pre-construction sustainability report</b></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"> <li>(a) Completed ISCA Scorecard demonstrating credits targeted to meet an ISCA Infrastructure Sustainability Rating Scheme (v1.2) Design and As Built, Excellent Rating</li> <li>(b) a statement outlining the Proponent’s own corporate sustainability obligations, goals, targets, in house tools, etc.</li> <li>(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.</li> </ul> <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>
	<b>Traffic and Access</b>
34	<p><b>Traffic Management Plan</b></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"> <li>(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</li> </ul>

CoA number	Condition
	<p>disruption to surrounding land uses is minimised</p> <ul style="list-style-type: none"> <li>(b) maximising safety and accessibility for pedestrians and cyclists</li> <li>(c) ensuring adequate sight lines to allow for safe entry and exit from the site</li> <li>(d) ensuring access to railway stations, businesses, entertainment premises and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made)</li> <li>(e) managing impacts and changes to on and off street parking and requirements for any temporary replacement provision</li> <li>(f) parking locations for construction workers away from stations and busy residential areas and details of how this will be monitored for compliance</li> <li>(g) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses</li> <li>(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.</li> <li>(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.</li> </ul> <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>
35	<p><b>Road condition reports</b></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>
	<p><b>Heritage Management</b></p>
36	<p><b>Indigenous and non-Indigenous heritage</b></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.</p> <p>The TfNSW Environment and Planning Manager shall be immediately notified to coordinate a response, which may include seeking appropriate advice from a suitably qualified and experienced heritage advisor (in consultation with Heritage NSW 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>

END OF CONDITIONS