Transport for NSW

Epping Bridge Project

REF Determination Report
Objective reference A69599019

May 2025

NSW GOVERNMENT

transport.nsw.gov.au

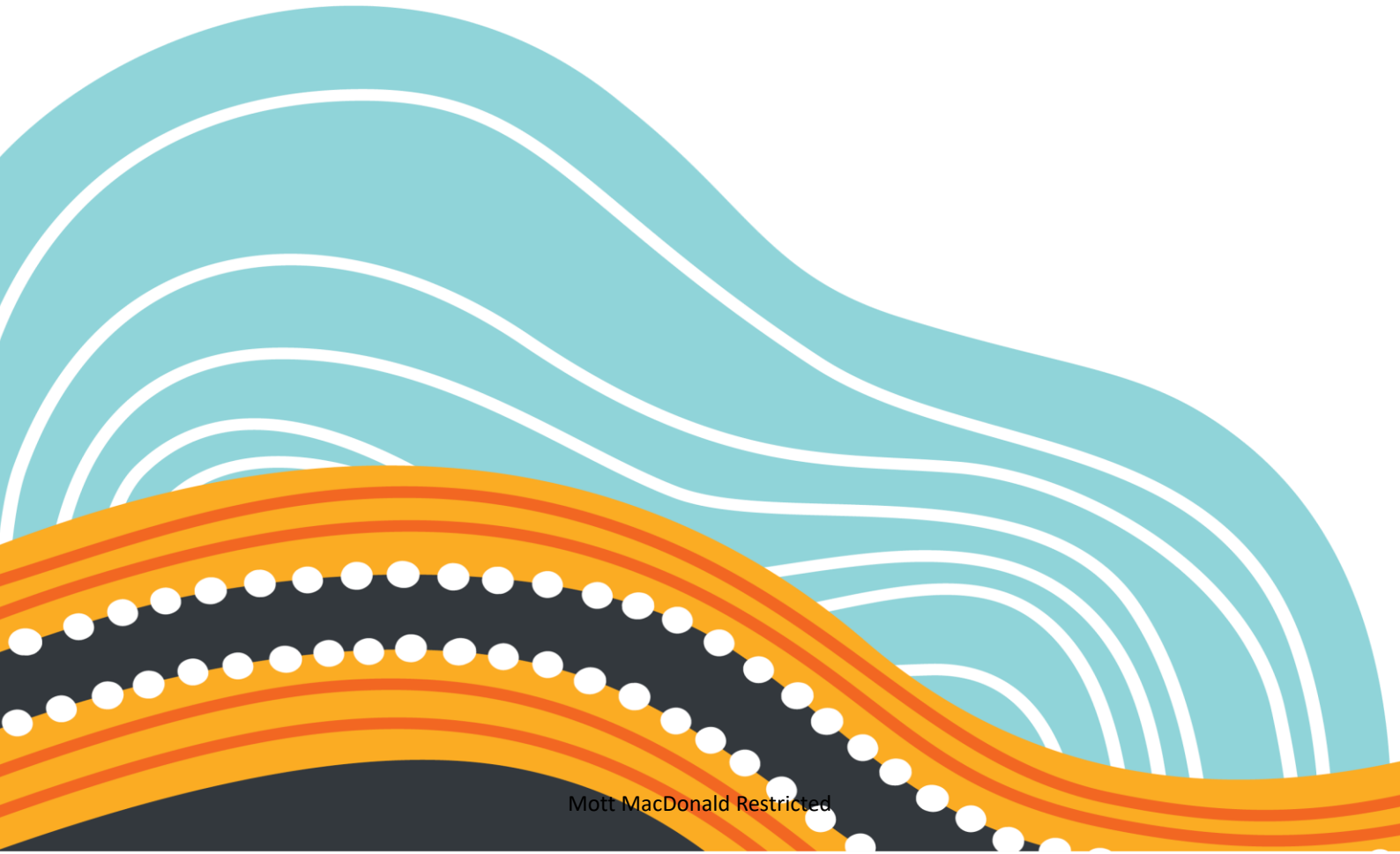
Acknowledgement of Country

Transport for NSW acknowledges the Wallumedegal people of the Dharug Nation as the Traditional Custodians of the lands on which the Epping Bridge Project is proposed.

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

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

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



Connecting with Country Statement

Transport for NSW (Transport) have engaged an Aboriginal consultant to provide advice on connecting with Country and to carry out Aboriginal engagement for the Epping Bridge Project through a Design with Country Strategy.

Transport aims to:

- share Aboriginal cultural knowledge with the broader community in a manner that educates and increases understanding about Aboriginal culture and heritage where appropriate
- contribute to strengthening Aboriginal culture and the first economy through increased engagement of Aboriginal knowledge holders in transport projects and services
- use the tools in storytelling to share Aboriginal culture and heritage with our customers and the wider community and promote greater awareness and understanding
- improve outcomes for Aboriginal people by restoring Country through strengthening language and culture, enhance sustainability and address disadvantage.

The Design with Country Strategy will guide and inform the design criteria for the Project by identifying opportunities for co-designing with Country and partnering with local knowledge holders and businesses throughout the project lifecycle.

Through engagement with the Metropolitan Local Aboriginal Land Council, Aboriginal cultural knowledge holders and identified Aboriginal groups, this strategy will provide an authentic voice and perspective of Aboriginal people from Aboriginal community representatives and provide opportunities to lead with Aboriginal knowledge to better connect with Country during planning and design of the project.

Executive summary

Overview of the Proposal

Recent investment in public transport development in Epping town centre to support growth includes the upgrade of Epping Station in 2013, and the new Sydney Metro North West Line that opened for operation in 2019. The Epping Bridge Project (the Proposal) would complement Epping Town Centre (town centre) road and intersection upgrades completed by Transport in 2018 to improve traffic flow and congestion in the area. The Proposal would provide a well-designed infrastructure element that makes a positive contribution to the town centre, which would:

- improve safety and reduce traffic congestion across the bridge
- improve pedestrian and cyclist safety
- improve access to the town centre for the local community, road users and businesses
- increase westbound lane capacity through the town centre
- provide for future bike and pedestrian connectivity through the town centre.

The Proposal would include the following key features:

- staged removal of the bridge
- construction of a new bridge, which would include:
    - an additional westbound traffic lane
    - an additional right turn lane southbound from Beecroft Road onto Blaxland Road
    - a pedestrian and cyclist shared path
    - a raised central median, with additional eastbound and westbound lanes
    - installation of new bridge safety screens
    - installation of new traffic signals
    - installation of new streetlights
- signalling and communications modifications within the rail corridor
- upgrade of approaches to the new bridge from Epping Road, Beecroft Road and Blaxland Road
- road and footpath adjustments to Bridge Street, High Street and Langston Place
- ancillary work including site stabilisation, protection and relocation of existing services and utilities, installation of new services and utilities, handrails, fencing, security measures, signage and wayfinding
- landscaping and site rehabilitation
- site remediation.

Transport, as the Proponent for the Proposal, has undertaken a Review of Environmental Factors (REF) that details the scope of work and environmental impacts associated with the Proposal. The REF was prepared by Mott MacDonald on behalf of Transport in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation).

Changes to the impacts of Proposal

Transport has reviewed the traffic performance impacts outlined in the REF in response to the number of submissions from the public that related to traffic. The traffic model that informed the Transport Impact Assessment in the REF was reviewed for accuracy and several discrepancies were identified. As a result, inputs and parameters within the model were revised and this produced some different results from those identified in the REF. The refined traffic modelling results provide a more accurate indication of the proposed benefits and impacts of the Proposal.

Section 3 of this Determination Report provides a summary of the changes between the original and refined modelling. A detailed breakdown of the methodology and results of the refined traffic modelling is presented in the updated Transport Impact Assessment, available on the Proposal website. The key outcomes are summarised as follows:

- improvement in all of the network performance indicators (including average speed, average vehicle delay, completed trips, unreleased trips, and average number of vehicle stops) during the AM and PM peaks for the 2029 and 2039 'with Proposal' scenarios when compared with the 'without Proposal' scenarios
- reduced travel times during the PM peaks for all routes during the 2029 and 2039 'with Proposal' scenarios including time savings of eight minutes and 52 seconds in 2029 and 13 minutes 49 seconds in 2039 for the Beecroft Road to Blaxland Road southbound route
- reduced travel times for all routes during the 2029 'with Proposal' scenario when compared with the 'without Proposal' scenario and reduced travel times during the 2039 'with Proposal' scenario for all routes excluding the Carlingford Road and Epping Road westbound route which experiences a minor increase in travel times compared to the 2039 'without Proposal' scenario
- increased or maintained intersection Level of Service (LoS) for all intersections in the 2029 and 2039 'with Proposal' scenarios for both peak periods including one intersection in the 2029 PM peak and two intersections in the 2039 PM peak that increase from LoS F in the 'without Proposal' scenarios to LoS C in the 'with Proposal' scenarios

The refined traffic modelling is presented in the updated Transport Impact Assessment, available on the Proposal webpage.

The refined modelling and updated Transport Impact Assessment has not resulted in any change to the concept design. Only impacts related to traffic are affected by the refined modelling. Impacts identified for other environmental factors are unchanged from those reported in the REF, including with respect to section 171 of the EP&A Regulation and impacts to matters of NES. No additional mitigation measures are required.

Purpose of this report

The purpose of this Determination Report is to document how Transport, as the Proponent of the Epping Bridge Project, has complied with its obligations under Division 5.1 of the EP&A Act and determined whether, or not, to proceed with the Proposal. Transport 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 Transport's response to the issues and comments raised in these submissions.

Conclusion

Based on the assessments in the REF, consideration of the submissions received and the updated Transport Impact Assessment undertaken subsequent to the public display of the REF, it is recommended that the Proposal be approved, subject to the mitigation measures included in the REF, as amended and included in Appendix D: Mitigation measures, and the proposed Conditions of Approval (refer Appendix C: Conditions of Approval).

Transport will continue to liaise with the community and other stakeholders as the Proposal progresses through detailed design and into the construction phase.

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Tables

1. Introduction

1.1 Background

Transport is responsible for strategy, planning, policy, procurement, regulation, funding allocation, and other non-service delivery functions for all modes of transport in NSW including road, rail, ferry, light rail, point to point, cycling and walking. Transport is the Proponent for the Epping Bridge Project (referred to as 'the Proposal' for the purposes of this document).

Recent investment in public transport development in Epping town centre to support growth includes the upgrade of Epping Station in 2013, and the new Sydney Metro North West Line that opened for operation in 2019. In July 2018, the NSW Government announced the widening of the bridge as the third major upgrade to road infrastructure within the Epping town centre which is identified in the NSW Government's Urban Activation Precincts Program and aims to deliver more homes in places with access to infrastructure, transport, services, and jobs.

The replacement of the ageing infrastructure of the bridge would allow critical links within Epping to be maintained and support future growth in the area.

The Proposal is designed to improve amenity, access and safety. The Proposal aims to deliver improved connectivity between modes including greater opportunities for active transport, encouraging greater public transport use by providing safe and welcoming spaces, and better integration of interchanges within the communities they serve.

For a description of the Proposal, refer to Section 1.4.

1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) was prepared by Mott MacDonald on behalf of Transport in accordance with Sections 5.5 and 5.7 of the *Environmental Planning and Assessment 1979* (EP&A Act), and Section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), to ensure that Transport takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposal. The REF is included at Appendix A: REF

The Epping Bridge Project REF was placed on public display between 13 September 2024 and 7 October 2024, with over 900 submissions received. Issues raised in these submissions are addressed in Section 2 of this report.

1.3 Determination Report

This Determination Report relates to the REF prepared for the Epping Bridge Project and should be read in conjunction with that document.

Figure 1-1 shows where the Proposal is within the planning approval and consultation process.

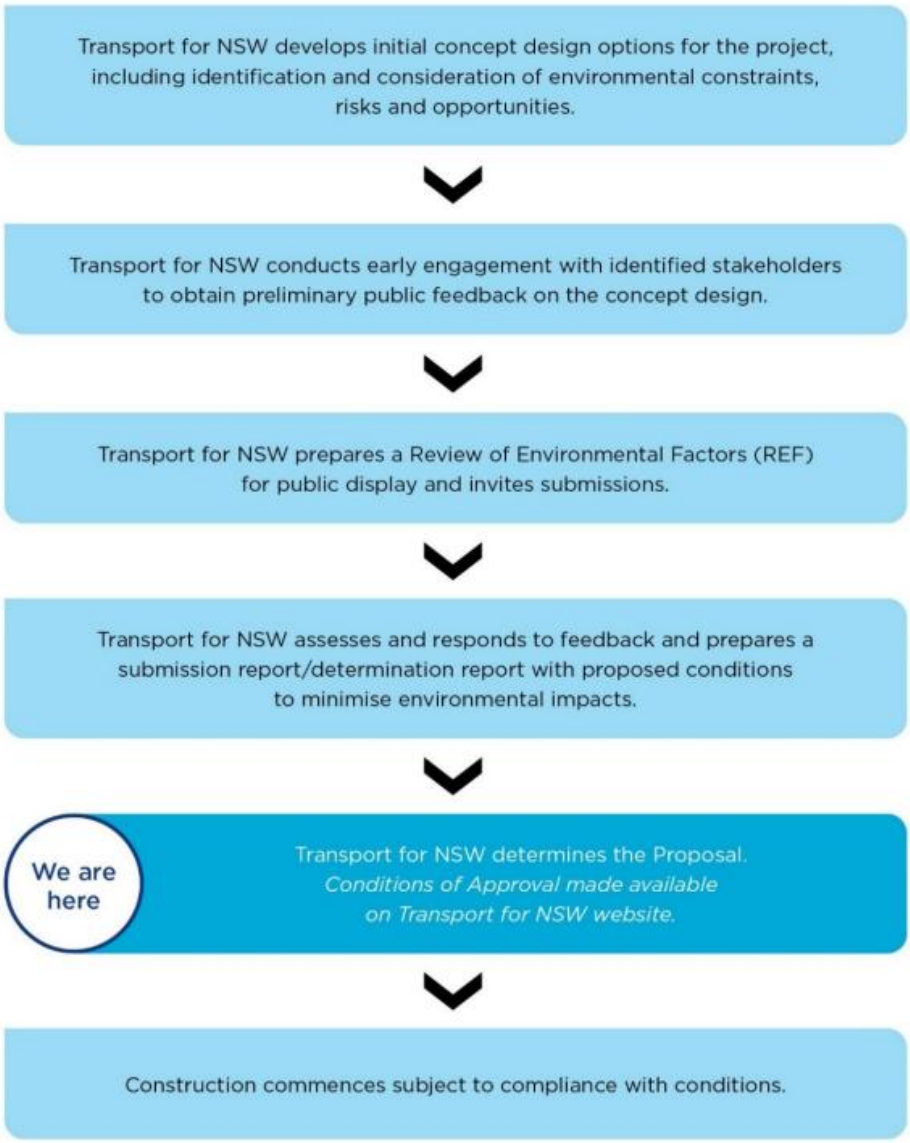

Figure 1-1 Planning approval consultation process for the Proposal

Prior to proceeding with the Proposal, Transport for NSW must make a determination in accordance with Division 5.1 of the EP&A Act. The purpose of this Determination Report is to address the following to allow for a determination of the Proposal:

- present a summary of the submissions received during the public display of the REF and Transport's response to the issues and comments raised in these submissions
- assess the environmental impacts of the Proposal, 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 Transport under the *Transport Administration Act 1988*:

a) to provide an efficient and accountable framework for the governance of the delivery of transport services

b) to promote the integration of the transport system

c) to enable effective planning and delivery of transport infrastructure and services

d) to facilitate the mobilisation and prioritisation of key resources across the transport sector

e) to co-ordinate the activities of those engaged in the delivery of transport services

f) to maintain independent regulatory arrangements for securing the safety of transport services.

1.4 Description of the Proposal in the REF

A detailed description of the Proposal is provided in Chapter 3 of the Epping Bridge Project REF, and would include:

- staged removal of the bridge
- construction of a new bridge, which would include:
  - an additional westbound traffic lane
  - an additional right turn lane eastbound from Beecroft Road onto Blaxland Road
  - a pedestrian and cyclist shared path
  - a raised central median, with additional eastbound and westbound lanes
  - installation of new bridge safety screens
  - installation of new traffic signals
  - installation of new streetlights
- signalling and communications modifications within the rail corridor
- upgrade of approaches to the new bridge from Epping Road, Beecroft Road and Blaxland Road
- road and footpath adjustments to Bridge Street, High Street and Langston Place
- ancillary work including site stabilisation, protection and relocation of existing services and utilities, installation of new services and utilities, handrails, fencing, security measures, signage and wayfinding
- landscaping and site rehabilitation
- site remediation.

A schematic outlining the key features of the Proposal is provided in Figure 1-2.

Construction is expected to commence in 2025 and take approximately five years to complete. The need for, and benefits of, the Proposal are outlined in Chapter 2 of the REF.

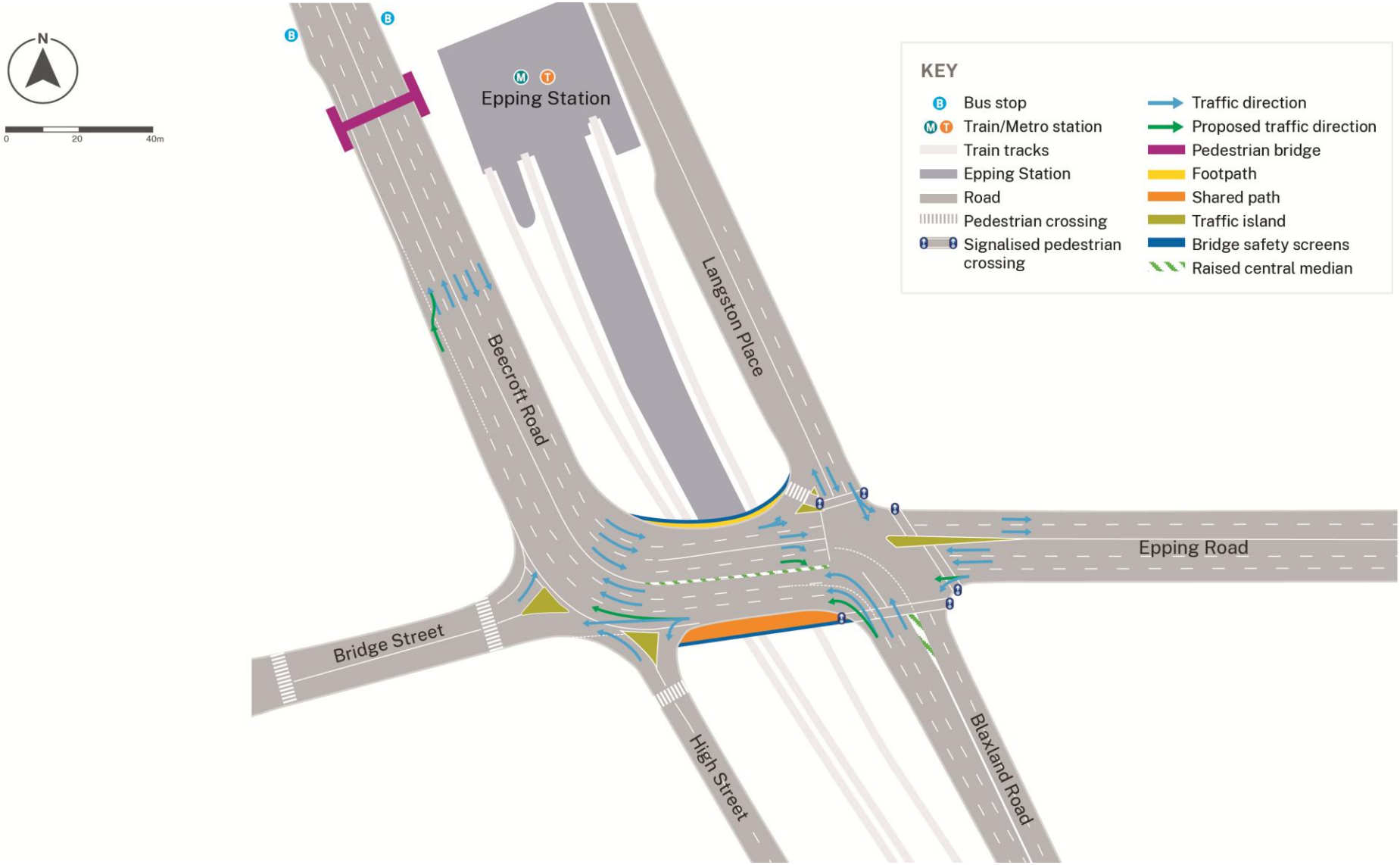

Figure 1-2 Key features of the Proposal (indicative only - subject to detailed design)

2. Consultation and assessment of submissions

2.1 Display of the Review of Environmental Factors

Transport prepared a Review of Environmental Factors (REF) for the Epping Bridge Project in August 2024. The REF was publicly displayed over a four week period between 13 September and 7 October 2024 and made available for download on the Transport corporate website[1] and the project's interactive portal[2].

Community members and stakeholders were encouraged to provide their feedback, leave comments and make submissions through a range of communication channels. This included leaving feedback at nine community drop-in sessions, leaving a comment on the interactive portal map, by calling the project team or by providing feedback via mail or email. Feedback and sentiment were also received via two geotargeted social media campaigns that ran for the duration of the public display period.

Contact details for the project were:

- email: parramatta@transport.nsw.gov.au
- phone: 1800 979 577
- mail: Director Environment and Sustainability

  Transport for NSW, 4 Parramatta Square

  12 Darcy Street Parramatta NSW 2150

The key consultation and engagement tools used during the public display period included:

- 'Have your Say' four-page community notification distributed via letterbox drop to 20,689 residents and 754 businesses in Epping, North Epping, Beecroft, Cheltenham, Carlingford and Marsfield
- Transport dedicated project webpage and interactive portal which provided:
  - an interactive map with information on the Proposal's key features and benefits, environmental and community impacts, and the opportunity to leave comments
  - before and after sliders
  - environmental documents
  - project videos (in English and simplified Chinese)
  - project images, including the key features of the Proposal schematic
  - Have your Say community notification (in English and in simplified Chinese, Korean, Hindi and Tamil)
  - Frequently Asked Questions
- NSW Government Have Your Say website[3]
- Transport Electronic Direct Mail (EDM) marketing notification distributed to 661 community members and stakeholders at the start, during and at the end of the public display period
- Services NSW Electronic Direct Mail (EDM) marketing notification distributed to 243,646 community members in the area.

[1] https://www.transport.nsw.gov.au/projects/current-projects/epping-bridge-project

[2] https://caportal.com.au/tfnsw/epping-bridge-project/documents

[3] https://yoursay.transport.nsw.gov.au/

- doorknocking to adjacent residents and businesses to advise of the public display and how to provide feedback
- publication via City of Parramatta Council website and Participate Parramatta e-News September 2024 edition
- signage with information on the Proposal and a QR code to the project webpage for further information on the project and how to provide feedback posted at bus stands around Epping bus interchange, Epping Station, and Langston Place Opal bike shed
- nine community drop-in sessions held between 13 September and 3 October 2024 at Epping Station, Coles Epping, Carlingford Court, and Eastwood Shopping Centre. Cantonese, Mandarin, Korean, Hindi, Tamil and Arabic speakers were available at these sessions
- two geotargeted social media campaigns between 13 September and 7 October 2024, which included seven social media posts geotargeted to the community in and around Epping, Beecroft, Carlingford, North Epping, and Cheltenham
- distribution of around 1,000 Have your Say (English and in simplified Chinese, Korean, Hindi and Tamil) community notifications and flyers to customers at the community pop up sessions and during doorknocking of adjacent residents and businesses
- placement of local newspaper advertisements in the Australian Chinese Daily on Saturday 14 September 2024 and Weekly Times on Wednesday 18 September 2024. The advertisements outlined the scope of the Proposal, information on where to view the REF and specialist studies on the Transport for NSW website, along with details on how to make a submission.

Other key stakeholders were informed of the public display via the following avenues:

- a letter to City of Parramatta Council outlining the scope of the Proposal, information on where to view the REF and specialist studies on the Transport website, along with details on how to make a submission as per consultation requirements under Section 2.10 and 2.11 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP).

2.2 REF submissions

Transport received 999 submissions across the consultation period via letter, email, telephone, community drop-in sessions, and online submissions including comments posted on the interactive portal and map. Community submissions and submissions received from City of Parramatta Council, Epping Civic Trust and active transport groups and organisations including Bicycle NSW, Bike North, Cyclist Action Movement West (CAM West) Bicycle User Group Inc, Gentle Giant Riders Inc (local seniors cycling club) and Better Streets Australia are addressed in Section 2.3.

Submissions included feedback on a range of issues in relation to the Proposal.

The key issues raised in submissions were:

- cost
- safety
- environmental and amenity impacts
- active transport consideration
- traffic management
- design
- community impacts.

From the submissions received 41 percent of the submissions supported, or partially supported the Proposal, 29 percent objected, or partially objected to the Proposal and 30 percent did not specifically state whether they supported or objected to the Proposal, instead focusing their submission on areas of concern or interest.

Of the stakeholder submissions received:

- City of Parramatta Council partially supported the Proposal

- Epping Civic Trust partially supported the Proposal
- Bicycle NSW objected to the Proposal
- Bike North Inc objected to the Proposal
- Cyclist Action Movement West (CAM West) Bicycle User Group Inc objected to the Proposal
- Better Streets Australia objected to the Proposal
- Gentle Giant Riders Inc did not state whether they supported or objected to the Proposal and focused their submission on how the Proposal could better support vulnerable members of the community, including elderly, mobility and vision impaired, pregnant community members, and/or parents.

2.3 Consideration and response to submissions

Community submissions

The key issues and sub issues raised in community submissions and responses are summarised in Table 2-1.

Table 2-1 Response to community submissions received

No	Submission no.	Issue/s raised	Transport for NSW response
0	General		
0.1	EBP036, EBP058, EBP074, EBP075, EBP113, EBP120, EBP121, EBP122, EBP130, EBP132, EBP134, EBP142, EBP151, EBP152, EBP153, EBP159, EBP169, EBP170, EBP173, EBP175, EBP176, EBP198, EBP210, EBP211, EBP212, EBP221, EBP224, EBP225, EBP226, EBP229, EBP239, EBP242, EBP245, EBP246, EBP248, EBP254, EBP255, EBP256, EBP257, EBP259, EBP262, EBP277, EBP291, EBP292, EBP295, EBP301, EBP303, EBP304, EBP320, EBP323, EBP329, EBP333, EBP353, EBP354, EBP361, EBP366, EBP367, EBP372, EBP374, EBP376, EBP377, EBP389, EBP406, EBP424, EBP425, EBP426, EBP427, EBP428, EBP430, EBP432, EBP439, EBP448, EBP454, EBP455, EBP461, EBP462, EBP465, EBP466,	Support for the Proposal and the identified benefits to the community was expressed in 406 of the submissions received including 141 in full support of the project.	Transport acknowledges community support for the Proposal and the identified benefits to the community. Responses to comments are incorporated within appropriate sections of the response table.

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP476, EBP477, EBP478, EBP479, EBP490, EBP493, EBP500, EBP504, EBP505, EBP509, EBP510, EBP514, EBP515, EBP516, EBP517, EBP518, EBP524, EBP537, EBP542, EBP546, EBP553, EBP559, EBP560, EBP562, EBP566, EBP569, EBP571, EBP572, EBP580, EBP581, EBP586, EBP589, EBP599, EBP601, EBP602, EBP624, EBP641, EBP642, EBP654, EBP657, EBP659, EBP663, EBP666, EBP673, EBP680, EBP712, EBP728, EBP749, EBP783, EBP788, EBP797, EBP806, EBP814, EBP817, EBP837, EBP845, EBP848, EBP863, EBP876, EBP893, EBP927, EBP978, EBP979,		
1	**Cost**		
1.1	EBP021, EBP031, EBP040, EBP061, EBP079, EBP085, EBP147, EBP165, EBP172, EBP179, EBP181, EBP188, EBP230, EBP231, EBP233, EBP234, EBP263, EBP275, EBP281, EBP282, EBP294, EBP300, EBP314, EBP319, EBP330, EBP335, EBP345, EBP346, EBP388, EBP401, EBP407, EBP435, EBP480, EBP481, EBP549, EBP573, EBP621, EBP622, EBP630, EBP661, EBP703, EBP707, EBP750, EBP757, EBP759, EBP768, EBP776, EBP796, EBP804, EBP807, EBP809, EBP816, EBP823, EBP826,	Cost is greater than the proposed benefit and does not represent good value for money	Epping Bridge is 124 years old and is reaching the end of its design life. The evolution of the project from a bridge widening to a bridge replacement project would provide the community with a safer and more efficient bridge. Replacing the bridge would also reduce future maintenance and operational costs and support Epping Town Centre development and future transport plans. Transport demand across Epping Bridge will continue to grow as Epping and its town centre continues to develop. The Proposal to replace the existing bridge with a new wider bridge would unlock vital road capacity and keep the approximately 63,000 vehicles that use the bridge each day moving quickly, safely and efficiently. Opportunities to achieve efficiencies in construction would be considered during detailed design. Key benefits of the Proposal include: • increased road capacity, improved traffic flow and travel times • improved road safety for all road users • improved connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP855, EBP869, EBP892, EBP904, EBP964, EBP972, EBP977, EBP985		• enhanced pedestrian and cyclist safety and mobility • reduced bridge maintenance and operational costs. The Proposal has also been designed to complement previous upgrades and future urban growth and renewal, including: • public transport investment in Epping Town Centre including the upgrade of Epping Station in 2013 and the opening of Metro North West Line in 2019 • road and intersection upgrades within Epping Town Centre in 2018 as part of the Epping Town Centre Urban Activation Plan to ease congestion in the area • future Epping Town Centre development. The Proposal would continue to be refined during detailed design. Transport would look for additional opportunities to achieve efficiencies in construction and cost during this process.
1.2	EBP011, EBP029, EBP038, EBP039, EBP041, EBP050, EBP056, EBP072, EBP078, EBP088, EBP108, EBP111, EBP205, EBP219, EBP236, EBP266, EBP273, EBP283, EBP284, EBP288, EBP299, EBP311, EBP378, EBP385, EBP394, EBP397, EBP408, EBP412, EBP415, EBP416, EBP419, EBP445, EBP451, EBP464, EBP499, EBP555, EBP594, EBP633, EBP662, EBP684, EBP724, EBP727, EBP736, EBP842, EBP885, EBP925, EBP926, EBP928, EBP937, EBP941, EBP945	Money would be better spent elsewhere such as other infrastructure projects like public transport, cycling facilities, and reducing M2 tolls	The Australian and NSW governments are jointly providing $220 million in funding for the Epping Bridge Project. Government funding is specific to portfolios and projects and is not transferable. The bridge is 124 years old and has had several upgrades since it was built. As the bridge nears the end of its design life, it would require significant maintenance in the future to extend its useful life. The Proposal builds on major public transport investment in Epping Town Centre with the upgrade of Epping Station in 2013 and opening of the Metro North West Line in 2019. A shared walking and cycling path and the inclusion of bridge safety screens would enhance pedestrian and cyclist safety and mobility and provide connectivity to the existing shared paths on Bridge Street and Epping Road. Additional pedestrian crossing improvement works at Epping Road, Blaxland Road and Langston Place, and Bridge and High streets would also enhance pedestrian and cyclist mobility within Epping Town Centre, at Epping Station, and at the bus interchange. The NSW Government has conducted a review of Sydney's tolling system. The Toll Review is now complete, with the Final Report published in July 2024. The Government is currently considering the recommendations of the Final Report. Further information on the tolling review can be found at Toll Review | Transport for NSW
1.3	EBP020, EBP233, EBP283, EBP308, EBP531, EBP551, EBP574, EBP603, EBP615, EBP623, EBP669, EBP700, FEBP702, EBP727, EBP731, EBP775, EBP802, EBP914,	The project is not a justified use of taxpayer money	The Proposal provides opportunities to achieve placemaking objectives, transport integration and active transport connections, network operation and safety outcomes and reduced future bridge maintenance costs. As the bridge nears the end of its design life, it would require significant maintenance in the future to extend its useful life. Replacing the bridge with a new, wider bridge

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP920, EBP923, EBP973		would provide the community with a safer and more efficient bridge. The Proposal builds on major public transport investment in Epping, including: • the upgrade of Epping Station in 2013 • the opening of Metro North West Line in 2019 • road and intersection upgrades completed in Epping Town Centre in 2018. The Proposal also aligns with future transport plans and supports future Epping Town Centre development by increasing road capacity to support future growth and renewal.
2	**Safety**		
2.1	EBP002, EBP033, EBP035, EBP049, EBP055, EBP073, EBP078, EBP108, EBP137, EBP317, EBP326, EBP357, EBP434, EBP495, EBP543, EBP583, EBP596, EBP637, EBP646, EBP658, EBP665, EBP681, EBP693, EBP741, EBP745, EBP756, EBP770, EBP781, EBP792, EBP812, EBP839, EBP887, EBP891, EBP910, EBP916, EBP936, EBP938, EBP962, EBP981	Conflicts between pedestrians and cyclists would arise on shared infrastructure and pedestrians would be subject to safety challenges on the new road	Design constraints including rail and metro infrastructure limit the depth and width of the bridge. The delineation of space and the safety of pedestrians and cyclists using the shared path on the bridge has been considered as part of the design and would continue to be prioritised during future detailed design. The upgraded shared walking and cycling path on the southern side of the bridge would reduce conflicts between pedestrians and cyclists and improve safety by offering more space for both modes of transport to manoeuvre and move across the bridge. This improvement would complement previous upgrades to active transport infrastructure at Epping Road and Bridge Street by City of Parramatta Council to support pedestrian and cyclist use in the area. The new shared walking and bike riding path would provide connectivity to the shared paths on Epping Road and Bridge Street and improve safety, capacity, and connectivity. The Proposal includes upgrades to existing pedestrian crossings on Bridge Street and High Street, including raised zebra crossings that would make pedestrians and cyclists more visible to drivers and create a safer pedestrian environment on the western side of the bridge. On the eastern side of the bridge, the signalised pedestrian crossing over Epping Road would be upgraded to a staged pedestrian crossing that would provide an opportunity for pedestrians to cross over Epping Road in two stages, if required. This would provide a safer pedestrian environment, particularly for people with restricted mobility. The NSW Government is committed to making active transport the preferred way to make short trips, and a viable, safe, and efficient option for longer trips. The proposed shared path arrangement would accommodate up to 100 pedestrians per hour and up to 200 cyclists per hour, providing capacity for future growth in active transport patronage. Mitigation measure 19 (see mitigation measures in Appendix D: Mitigation measures) requires that a Road

No	Submission no.	Issue/s raised	Transport for NSW response
			Safety Audit be undertaken as part of detailed design and upon completion of construction. In response to issues raised in submissions, Condition of approval 12, (see Appendix C: Conditions of Approval), requires that further opportunities to minimise conflicts between pedestrians and cyclists are explored during detailed design.
2.2	EBP001, EBP022, EBP676, EBP758	Structural integrity of the bridge as it currently stands is a safety concern	The existing bridge is 124 years old and is reaching the end of its design life. While the bridge is not currently unsafe it would require substantial ongoing maintenance to maintain continued safe and functional use.
2.3	EBP003, EBP005, EBP050, EBP065, EBP089, EBP091, EBP148, EBP150, EBP192, EBP195, EBP299, EBP306, EBP326, EBP339, EBP367, EBP376, EBP387, EBP412, EBP417, EBP435, EBP437, EBP471, EBP493, EBP501, EBP665, EBP670, EBP704, EBP729, EBP735, EBP739, EBP765, EBP770, EBP782, EBP843, EBP859, EBP918, EBP942, EBP963, EBP973, EBP974, EBP975, EBP982	The safety of vehicle users would be impacted by the Proposal and the interface between pedestrians and vehicle users create additional safety concerns.	The proposed new shared walking and cycling path, central median, and two additional traffic lanes over the bridge would improve space allocation between road and active transport users, enhancing road safety. A staged pedestrian crossing is proposed on the eastern approach of the bridge at the signalised intersection of Epping Road, Blaxland Road and Langston Place. The staged crossing would improve safety and accessibility for active transport users by: • improving visibility of crossing users • providing people with restricted mobility a safe location to rest during crossing • providing phase overlaps that offer similar crossing continuity to a single crossing. Further information on the staged crossing can be found in Section 4.4.1 of the Transport Impact Assessment which is available to view on the project webpage. Mitigation measure 19, as provided in Appendix D: Mitigation measures, requires that a Road Safety Audit be undertaken as part of detailed design and upon completion of construction, and design amendments made as required. During detailed design, Transport's Active Transport team would be consulted on appropriate active transport infrastructure to best navigate multiple modes of transport across the bridge. In response to issues raised in submissions, Condition of approval 5, as provided in Appendix C: Conditions of Approval, requires that a feasibility study is prepared to investigate the full or partial closure of High Street to improve active transport links and safety of active transport users. The feasibility study shall include an assessment of options and the environmental impacts associated with closure of High Street. Condition of approval 12 presented in Appendix C: Conditions of Approval requires that opportunities to achieve safety, connectivity and permeability for active transport users are to be explored during detailed design to minimise conflicts between vehicles, pedestrians and bike riders.

No	Submission no.	Issue/s raised	Transport for NSW response
3	Environmental and amenity impacts		
3.1	EBP003, EBP033, EBP106, EBP111, EBP137, EBP213, EBP287, EBP306, EBP522, EBP592, EBP629, EBP692, EBP723, EBP844, EBP877, EBP939, EBP960, EBP982	The loss of trees and green space as well as the addition of retaining walls impact the visual and amenity value of the area.	The Proposal would require the removal of vegetation, including 28 trees within the Proposal area due to construction impacts within their Tree Protection Zones (TPZ). Sixty trees within or in the vicinity of the Proposal area are identified for retention and would not be impacted by the Proposal. Trees within Forest Park would be maintained. An Arboricultural Impact Assessment (AIA) (Urban Arbor, 2023) was prepared to assess the Proposal's impacts on trees. The Arborist report recommended non-destructive root investigation to inform detailed design and minimise further impacts. These recommendations have been incorporated within mitigation measure 78 as provided in Appendix D: Mitigation measures In accordance with Transport's Tree and Hollow Replacement Guideline (Transport, 2023h), a minimum of 128 trees would be planted to offset the 28 trees proposed to be impacted by the works. This includes a replacement tree provided to Epping Station platform to maintain the existing character of the station. This is captured in mitigation measure 34 as provided in Appendix D: Mitigation measures. The removal of vegetation and addition of retaining walls would result in a low to moderate reduction of visual amenity. However, the Proposal would provide improvements to the accessibility and legibility of the entrances to the town centre. This would include public realm enhancements with new paving, landscaping, lighting, furniture and signage. Condition of approval 10, as presented in Appendix C: Conditions of Approval, requires that the finishes of retaining walls are to be detailed in the UDLP with the aim of minimising their visual prominence to the surround area.
3.2	EBP003, EBP033, EBP041, EBP108, EBP213, EBP287, EBP306, EBP371, EBP393, EBP545, EBP592, EBP637, EBP677, EBP692, EBP723, EBP877, EBP900, EBP934, EBP939, EBP960, EBP982	Greater consideration should be given to urban design, placemaking, landscaping, meaningful naming, and incorporation of nature values for aesthetic and amenity value.	The Urban Design and Landscape Plan (UDLP) would record the design process in respect to place making, built form, urban and landscape design and Connecting with Country aspects of the project. The detailed design would be presented to the Transport Design Review Panel. The Design Review Panel would consider the design and provide recommendations towards achieving design excellence in respect to place making, built form, urban and landscape design and Connecting with County aspects of the project. Existing landscaped areas within the Proposal area would be upgraded and new landscaped areas would be provided where possible to enhance the entrance to the town centre. The Proposal has applied landscape principles that would be further developed during detailed design, including the inclusion of trees to provide shade and reduce urban heat, climate resilient planting of species that are predominately native, hardy and drought tolerant and enhanced biodiversity through bee and bird attracting plant species.

No	Submission no.	Issue/s raised	Transport for NSW response
			Vegetation would be planted and maintained in a manner that retains significant or heritage views and vehicle sightlines. The UDLP would be prepared in consultation with Council and other asset/landowners, prior to finalisation of the detailed design (refer to mitigation measure 28 within Appendix D: Mitigation measures).
3.3	EBP016, EBP137, EBP306, EBP375, EBP408, EBP476, EBP509, EBP525, EBP577, EBP592, EBP611, EBP692, EBP793, EBP844, EBP877, EBP945, EBP985	Construction and increased use of the bridge during operation would result in increased noise and air pollution, resulting in reduced liveability and amenity	During construction, business and residential properties that are adjacent or nearby to the bridge and road construction areas are likely to experience: • increases in noise and vibration from construction activities • visual impacts such as light spill from night works • potential dust disturbance and impacts to air quality from construction vehicle emissions and dust generated during earthworks. Air quality impacts during construction are expected to be minor and would be mitigated through management strategies identified within the Construction and Environmental Management Plan (CEMP) and would be implemented as part of the project. Operational impacts to air quality would be equivalent to the existing environment. Higher construction noise levels are anticipated during high intensity activities. Section 6.3.3 of the REF provides a summary of the noise assessment during construction and indicates that the predicted construction noise levels for each construction scenario are expected to exceed the noise management levels and would require mitigation measures to be applied. These construction scenarios represent the worst-case impacts and the noisiest works that would be expected to occur during construction. The modelled construction noise levels at most noise receivers would not be expected to be reached during typical construction activities. During detailed design, the Contractor would prepare a detailed construction methodology and a Construction Noise and Vibration Management plan (CNVMP) that would minimise construction noise impacts wherever possible. The predicted changes in operational noise levels would be negligible and would be unlikely to result in any perceivable increase in traffic noise. Mitigation measures to manage impacts of construction noise and air quality are included within Appendix D and include: • preparation of a Construction Environmental Management Plan (CEMP) to detail the requirements and measures to be implemented during construction to minimise impacts to air quality and noise. The environmental performance of the Proposal would be reviewed every six months

No	Submission no.	Issue/s raised	Transport for NSW response
			• work during nighttime and outside of standard hours would be scheduled and undertaken in accordance with the Construction Noise & Vibration Management Plan (CNVMP) prepared for the Proposal and in accordance with the guidelines contained within the Epping Bridge Project Communications and Stakeholder Engagement Plan. These guidelines and plans have been developed to minimise disruptions to customers, pedestrians, motorists and nearby sensitive receivers wherever practicable • minimisation and control of emissions related to construction vehicles and machinery during the construction phase would be included within the CEMP.
4	**Traffic management**		
4.1	EBP011, EBP016, EBP017, EBP018, EBP020, EBP023, EBP026, EBP029, EBP030, EBP031, EBP032, EBP038, EBP040, EBP044, EBP045, EBP046, EBP048, EBP053, EBP054, EBP064, EBP067, EBP077, EBP078, EBP079, EBP085, EBP103, EBP105, EBP111, EBP123, EBP146, EBP155, EBP178, EBP185, EBP197, EBP200, EBP205, EBP209, EBP217, EBP236, EBP238, EBP241, EBP244, EBP264, EBP267, EBP288, EBP294, EBP297, EBP302, EBP305, EBP310, EBP311, EBP315, EBP334, EBP344, EBP356, EBP379, EBP381, EBP392, EBP508, EBP518, EBP536, EBP547, EBP548, EBP549, EBP554, EBP591, EBP594, EBP615, EBP620, EBP623, EBP635, EBP650, EBP651, EBP693, EBP707, EBP708, EBP709, EBP717, EBP738, EBP743, EBP744, EBP752, EBP757, EBP766, EBP778, EBP787, EBP795, EBP798,	The upgrade of the Epping Bridge does not address the wider network of roads and intersections around Epping that cause congestion.	Transport demand across Epping Bridge will continue to grow as Epping and its town centre develops. The Proposal to replace the existing bridge with a new wider bridge would unlock vital road capacity and keep approximately 63,000 vehicles that use the bridge each day moving quickly, safely and efficiently. The Proposal would enhance connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport and support Epping Town Centre development by increasing road capacity to support future growth and renewal. The Proposal would also complement: • public transport investment in Epping Town Centre with the upgrade of Epping Station in 2013 and opening of Metro North West Line in 2019 • road and intersection upgrades completed in Epping Town Centre in 2018 as part of the Epping Town Centre Urban Activation Plan to ease local congestion • future Epping Town Centre development, including Epping Town Centre Master Plan • future road and rail plans. The Proposal would include an additional westbound traffic lane and an additional right turn lane southbound from Beecroft Road onto Blaxland Road increasing road capacity over the bridge and improving safety for all road users. Refined traffic modelling of the road network and performance analysis of key intersections, undertaken to inform the updated Transport Impact Assessment has identified that the Proposal would generally improve traffic movements by decreasing the average network delay and number of vehicle stops while increasing the number of completed trips in the 'with Proposal' scenario in the AM and PM peaks in the 2029 and 2039 modelling scenarios. The level of performance of intersections would generally be improved or maintained in the AM and PM peaks under the 2029 and 2039 'with Proposal' scenarios compared to

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	EBP800, EBP808, EBP813, EBP822, EBP828, EBP833, EBP838, EBP844, EBP846, EBP855, EBP857, EBP867, EBP879, EBP890, EBP895, EBP898, EBP900, EBP904, EBP912, EBP915, EBP919, EBP923, EBP925, EBP940, EBP941, EBP942, EBP945, EBP960, EBP961, EBP972, EBP973		the 'without Proposal' scenarios for the same years. . Specifically, the Carlingford Road, Ray Road and Rawson Street intersection would see a high level of improvements in Level of Service (LoS) that would decrease average delays in the PM peak. The Epping Road, Blaxland Road, and Langston Place intersection would also see improvements in LoS that would decrease the average delays in the AM and PM peaks for the 2029 and 2039 'with Proposal' scenarios. Details of the modelled outcomes for intersections can be reviewed within the updated Transport Impact Assessment for the Proposal. Further information on the assessment and details of level of service definitions are contained within the updated Transport Impact Assessment which is available to view on the project webpage. Further improvements along the local or state road network or at other intersections around Epping are outside the scope of this Proposal. All local road network feedback has been passed on to City of Parramatta Council for their awareness and future planning consideration. Similarly, all state road network and intersection improvement feedback has been passed on to the relevant Transport departments for their awareness and consideration in future planning.
4.2	EBP002, EBP004, EBP011, EBP020, EBP022, EBP023, EBP025, EBP026, EBP029, EBP031, EBP038, EBP040, EBP041, EBP042, EBP044, EBP045, EBP046, EBP052, EBP056, EBP059, EBP060, EBP061, EBP066, EBP067, EBP072, EBP076, EBP077, EBP078, EBP079, EBP081, EBP082, EBP084, EBP085, EBP086, EBP088, EBP095, EBP097, EBP101, EBP103, EBP104, EBP105, EBP106, EBP117, EBP123, EBP124, EBP125, EBP131, EBP135, EBP137, EBP147, EBP150, EBP168, EBP178, EBP180, EBP186, EBP196, EBP197, EBP209, EBP217, EBP218, EBP231, EBP234, EBP236, EBP238, EBP241, EBP253, EBP254, EBP255, EBP260, EBP263, EBP264, EBP268,	The upgrade of the Epping Bridge would not address root causes of traffic congestion and would otherwise move the bottleneck to nearby intersections, furthering traffic across the bridge	The aim of the Proposal is to replace the existing bridge with a new, wider bridge that would unlock vital road capacity and keep the approximately 63,000 vehicles that use the bridge each day moving quickly, safely and efficiently. Extra capacity is being provided through an additional westbound traffic lane into Beecroft Road and an additional right turn lane southbound into Blaxland Road. The additional two lanes of traffic would increase capacity of these roads and ease congestion in both directions across the bridge. Refined traffic modelling shows that users travelling southbound onto Blaxland Road from the bridge would experience travel time savings of over eight minutes and 52 seconds minutes in 2029 and 13 minutes and 49 seconds in 2039 under the 'with Proposal' scenarios in the PM peak. Modelling of travel time impacts in the remainder of the network identified that the majority of routes would experience improved or maintained travel times in the AM and PM peaks for the 2029 and 2039 'with Proposal' scenarios. The additional lanes and raised central median would also improve road safety for all road users. Additional road improvement works at Beecroft Road, Blaxland Road, Epping Road, Bridge Street, High Street and Langston Place approaches to the bridge and traffic signal upgrade work at the intersection of Epping Road, Blaxland Road, and Langston Place would also improve traffic flow and road safety. Overall, the refined modelling indicates that the Proposal would decrease the average delays experienced by road users across the network in 2029 and 2039 'with Proposal' scenarios in the AM and PM compared to the 'without Proposal' scenarios. The intersection

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP272, EBP275, EBP286, EBP288, EBP289, EBP294, EBP300, EBP302, EBP305, EBP306, EBP307, EBP309, EBP310, EBP311, EBP314, EBP315, EBP319, EBP327, EBP330, EBP334, EBP340, EBP344, EBP356, EBP358, EBP367, EBP370, EBP378, EBP379, EBP381, EBP382, EBP392, EBP393, EBP398, EBP402, EBP412, EBP413, EBP414, EBP420, EBP434, EBP446, EBP458, EBP459, EBP464, EBP467, EBP471, EBP482, EBP483, EBP486, EBP495, EBP502, EBP508, EBP518, EBP536, EBP547, EBP548, EBP556, EBP573, EBP574, EBP575, EBP593, EBP595, EBP596, EBP600, EBP606, EBP615, EBP620, EBP623, EBP625, EBP630, EBP634, EBP635, EBP644, EBP650, EBP651, EBP665, EBP672, EBP674, EBP678, EBP682, EBP689, EBP693, EBP696, EBP707, EBP708, EBP709, EBP713, EBP717, EBP731, EBP733, EBP734, EBP738, EBP743, EBP747, EBP750, EBP752, EBP755, EBP757, EBP762, EBP764, EBP766, EBP772, EBP778, EBP795, EBP798, EBP804, EBP808, EBP810, EBP813, EBP822, EBP826, EBP827, EBP828, EBP833, EBP844, EBP846, EBP849, EBP866, EBP867, EBP872, EBP890, EBP896, EBP898, EBP904, EBP910, EBP912, EBP915,		performance throughout the network would be maintained or improved in the 'with Proposal' scenarios for 2029 and 2039 including several intersections that would experience a high increase in LoS in the PM peaks for both years. The Proposal would enhance connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport and support Epping Town Centre development by increasing road capacity to support future growth and renewal. The Proposal would provide well-designed infrastructure that makes a positive contribution to the town centre and aligns with future road plans. Transport will continue to consult with City of Parramatta Council to consider future opportunities at Epping to improve all modes of transport including traffic congestion. This includes consulting with Council on the Epping Town Centre Master Plan. Further information on the Epping Town Centre Master Plan can be found on City of Parramatta Council website at City of Parramatta Council | Epping Town Centre Master Plan.

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP916, EBP923, EBP928, EBP932, EBP934, EBP936, EBP941, EBP942, EBP943, EBP944, EBP945, EBP960, EBP961, EBP966, EBP972, EBP975		
4.3	EBP110, EBP165, EBP276, EBP316, EBP643, EBP691, EBP762, EBP865	Traffic in the area should be diverted away from Epping, such as by reducing M2 Hills Motorway tolls. Additionally, detours in place during construction are causing concern for users.	Community and stakeholder feedback on tolling changes has been forwarded on to the appropriate team within Transport for their awareness. The NSW Government has conducted a review of Sydney's tolling system. The Toll Review is now complete, with the Final Report published in July 2024. The Government is currently considering the recommendations of the Final Report. Further information on the tolling review can be found at Toll Review | Transport for NSW. Transport acknowledges that the Proposal would be completed over a long construction duration. Transport would look for opportunities to reduce the construction duration during detailed design and with the delivery partner. To minimise impacts to the road network and to road users, Transport would look to keep all five bridge lanes open to traffic during construction. There may, however, be short periods during construction when one of the five lanes would need to be closed to carry out specific activities, such as demolishing the existing bridge and sliding in the new bridge deck. There may also be times when state and local roads adjacent to the bridge may experience temporary road and lane closures while road and rail work is undertaken in these locations. To minimise impacts to road users, Transport would look at opportunities to carry out major road closure works during quieter periods in the year, such as over a Christmas period, to reduce impacts to road users. The community would be notified of all road changes in advance of any changes coming into effect. When road closures are required, the community would be advised of alternate travel routes in advance via multiple communication channels. This information would also be displayed on Variable Message Sign (VMS) boards around the area at least five business days before any changes come into effect. Mitigation measure 13, provided in Appendix D: Mitigation measures, requires that prior to the commencement of construction, a Traffic Management Plan (TMP) would be prepared to confirm the management and mitigation of traffic and parking arrangements and impacts during construction.
4.4	EBP003, EBP005, EBP007, EBP030, EBP032, EBP034,	The current design does not adequately	The Proposal supports enhanced safety and mobility for active transport users. Greater separation of road and active transport traffic would be achieved by installing a

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP035, EBP049, EBP059, EBP060, EBP070, EBP079, EBP080, EBP089, EBP092, EBP096, EBP101, EBP106, EBP108, EBP137, EBP219, EBP282, EBP296, EBP299, EBP355, EBP357, EBP367, EBP375, EBP384, EBP429, EBP447, EBP460, EBP508, EBP516, EBP532, EBP535, EBP543, EBP583, EBP590, EBP592, EBP596, EBP600, EBP629, EBP636, EBP646, EBP648, EBP693, EBP715, EBP723, EBP736, EBP745, EBP756, EBP759, EBP770, EBP784, EBP792, EBP793, EBP796, EBP808, EBP812, EBP820, EBP824, EBP825, EBP844, EBP864, EBP867, EBP882, EBP918, EBP920, EBP922, EBP924, EBP936, EBP938, EBP945, EBP964, EBP974, EBP981, EBP985	prioritise or improve safety or access for active transport users, especially across the bridge and at key intersections. Dedicated, separated bike lanes and pedestrian crossings with reduced wait times should be implemented.	shared path on the southern side of the bridge. The shared path would support pedestrians and bike riders in the area by connecting to existing shared paths either side of the bridge and complementing City of Parramatta Council active transport network plans in Epping and surrounds. Improvements to active transport infrastructure would enhance safety and mobility to the town centre, train station, and bus interchange. The existing pedestrian crossings on Bridge Street and High Street would be upgraded to raised zebra crossings to create a safer pedestrian environment on the western side of the bridge. The pedestrian crossing over Epping Road would be upgraded to a staged pedestrian crossing to improve road and pedestrian safety on the eastern side of the bridge. The upgraded crossing would make pedestrians more visible to drivers and provide an opportunity for people with restricted mobility to rest and more safely cross the road in two stages when required. Mitigation measure 19, described in Appendix D: Mitigation measures, states that a Road Safety Audit of the final design would be undertaken as part of detailed design and upon completion of construction to provide further confirmation of the design safety. Condition of approval 12, as presented in Appendix C: Conditions of Approval, requires opportunities to improve connectivity across all intersections, including improving the connection of the bridge to the town centre across High Street, are to be further explored and developed during detailed design. Opportunities that would be explored further during detailed design would include: • the installation of barriers, lighting, cyclist lanterns, combined pedestrian/cyclist crossings • improvements to connectivity and crossings at the signalised intersection of Epping Road, Blaxland Road and Langston Place • improvements to prioritise active transport crossing over High Street. Please refer to the previous responses provided at 2.1 and 2.3 for further information on proposed changes to pedestrian crossings, footpaths and upgraded walking and bike riding shared path as part of this Proposal.
4.5	EBP001, EBP005, EBP016, EBP026, EBP033, EBP040, EBP044, EBP048, EBP052, EBP073, EBP090, EBP123, EBP128, EBP131, EBP133, EBP135, EBP136, EBP145, EBP172, EBP179, EBP202, EBP208, EBP209, EBP241,	Traffic light sequences at other intersections are the root cause for traffic concerns and as such, improvements should be made to the	The new, wider bridge would unlock vital road capacity for approximately 63,000 vehicles that cross the bridge each day. Extra capacity would be provided through the provision of an additional westbound traffic lane into Beecroft Road and an additional right turn lane southbound into Blaxland Road. The additional westbound lane and southbound right turn lane into Blaxland Road enables traffic signalling at the Epping Road, Blaxland Road and Langston Place intersection to be optimised by reallocating additional

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP249, EBP250, EBP270, EBP275, EBP280, EBP282, EBP285, EBP315, EBP329, EBP330, EBP335, EBP339, EBP342, EBP343, EBP384, EBP393, EBP403, EBP407, EBP420, EBP467, EBP488, EBP508, EBP520, EBP547, EBP561, EBP563, EBP564, EBP565, EBP603, EBP604, EBP651, EBP652, EBP653, EBP685, EBP692, EBP694, EBP751, EBP755, EBP771, EBP780, EBP785, EBP796, EBP812, EBP819, EBP820, EBP822, EBP840, EBP843, EBP847, EBP851, EBP854, EBP855, EBP858, EBP864, EBP884, EBP887, EBP889, EBP891, EBP906, EBP914, EBP932, EBP934, EBP963, EBP967, EBP968, EBP977	cycling of traffic lights, road markings, and signage for lanes.	green time to cater for future demand and critical peak movements. Signal optimisation can only be achieved with additional westbound capacity. Traffic would be maintained through the intersection whilst additional signal time is given to the southbound right turn into Blaxland Road. The traffic signals are part of the Sydney Coordinated Adaptive Traffic System (SCATS), which is an intelligent real time traffic management platform that monitors, controls and optimises the movement of people and traffic in Sydney. SCATS is used to dynamically manage the road network responding to live conditions to keep traffic flowing. Traffic light sequencing would be considered as part of the broader network. The configuration of traffic lights at the completion of the Proposal would not contribute to congestion. A review of sequencing once the bridge is operational would be undertaken to ensure efficiency. The Proposal is currently in the concept design stage. Transport recognises that there is potential to explore opportunities to further improve traffic flow in the area during detailed design. This may include additional road markings and signage. Consideration of other intersection upgrades, including traffic signal arrangements at other intersections is out of scope for this Proposal. Community and stakeholder feedback on other intersections, including traffic signal arrangements, will be passed on to the relevant Transport departments for their awareness and future planning consideration.
4.6	EBP019, EBP026, EBP051, EBP062, EBP069, EBP070, EBP079, EBP082, EBP114, EBP116, EBP126, EBP146, EBP147, EBP149, EBP152, EBP167, EBP190, EBP191, EBP199, EBP210, EBP236, EBP237, EBP252, EBP258, EBP261, EBP276, EBP279, EBP281, EBP288, EBP290, EBP293, EBP298, EBP312, EBP348, EBP352, EBP355, EBP379, EBP383, EBP415, EBP425, EBP429, EBP433, EBP438, EBP443, EBP444, EBP445, EBP449, EBP457, EBP463, EBP469, EBP470, EBP474, EBP475, EBP480, EBP485, EBP494,	The timeframe for the Proposal and proposed completion date are too long.	Subject to approval, construction is expected to commence in 2025 and take approximately five years to complete. The long duration of construction accounts for certain work that would be required to occur during routine rail possessions, which are scheduled rail line closures when part of the rail network is temporarily closed and trains are not operating. This would include out of hours work to minimise disruptions to customers and ensure the safety of rail workers and operational assets. It is estimated that approximately 14 rail possessions would be required. Transport acknowledges that the Proposal would be completed over a long construction duration. Transport would look for opportunities to reduce the construction duration during detailed design and with the delivery partner.

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP497, EBP498, EBP499, EBP507, EBP519, EBP521, EBP522, EBP528, EBP538, EBP541, EBP544, EBP549, EBP552, EBP568, EBP576, EBP585, EBP588, EBP597, EBP605, EBP608, EBP614, EBP616, EBP618, EBP628, EBP632, EBP645, EBP647, EBP649, EBP655, EBP667, EBP671, EBP672, EBP674, EBP684, EBP686, EBP690, EBP697, EBP698, EBP704, EBP718, EBP724, EBP726, EBP737, EBP753, EBP754, EBP760, EBP762, EBP768, EBP769, EBP775, EBP791, EBP799, EBP805, EBP815, EBP816, EBP830, EBP835, EBP850, EBP853, EBP865, EBP866, EBP874, EBP903, EBP908, EBP928, EBP929, EBP934, EBP943, EBP963, EBP969		
4.7	EBP015, EBP071, EBP088, EBP137, EBP232, EBP299, EBP308, EBP322, EBP447, EBP452, EBP472, EBP585, EBP629, EBP714, EBP715, EBP745, EBP750, EBP759, EBP770, EBP784, EBP796, EBP812, EBP887, EBP961, EBP974, EBP985	Access to and useability of the Proposal for non-vehicle and public transport users is insufficient. Additionally, pedestrians and cyclists would be unable to adequately access the crossing and shared paths.	The new shared path and crossings would improve accessibility and safety for motorists, pedestrians, and cyclists within the town centre. Accessibility aspects of the crossings include audio tactile push buttons, ramps and tactile pavement, cycle lanterns and shorter staged crossing lengths, which benefits slower users who may need to rest frequently. Legibility of the entrances to the town centre would be improved through public realm enhancements with new paving, landscaping, lighting, street furniture, and signage. Mitigation measure 13, presented in Appendix D: Mitigation measures, states that prior to the commencement of construction, a Traffic Management Plan (TMP) would be prepared to maximise safety and accessibility for pedestrians and cyclists during construction. As per Mitigation measure 23 within Appendix D: Mitigation measures, access to bus stands would be maintained during construction in consultation with the bus operators where feasible and reasonable. Relocation of bus stands would be managed in accordance with the Traffic Management Plan. Additionally, the existing bus services available in the area would be maintained during operation of the Proposal to facilitate continued access to

No	Submission no.	Issue/s raised	Transport for NSW response
			public transportation. The travel times of these services would also be improved by the Proposal. Please refer to the previous responses provided at 2.1 and 2.3 for further information on proposed changes to pedestrian crossings, footpaths and the upgraded walking and bike riding shared path as part of this Proposal
5	**Design**		
5.1	EBP001, EBP759, EBP820, EBP867, EBP985	The REF does not assess how the Proposal aligns with the principles set out in the Road User Space Allocation and NSW Movement and Place design solution "Signalised crossings on all intersection legs" policy.	The Proposal does not provide "signalised crossings on all intersection legs" as there are technical design limitations that prevent alignment with the principles set out in the Road User Space Allocation and NSW Movement and Place design solution policy. Within the parameters of the technical design limitations and project scope, the shared path space allocation has been maximised to the extent that it does not impinge on road lane width requirements. The shared path on the southern side of Epping Bridge has been prioritised to be widened to connect with the City of Parramatta Council shared path network. The allocation of traffic lanes over the bridge aligns with the current configuration that is limited by space constraints within the Epping Town Centre. The Proposal provides additional capacity across the bridge that can be adjusted to meet future mode allocation of traffic lanes as part of broader network configurations in the future. In relation to the pedestrian crossing at High Street, a feasibility study would be undertaken during detailed design to consider options for closure of High Street to through traffic to facilitate the extension of the shared path over the bridge. This would include consultation with City of Parramatta Council and the community. If the closure of High Street was the preferred option, further environmental impact assessment would be undertaken.
5.3	EBP007, EBP009, EBP016, EBP051, EBP068, EBP082, EBP126, EBP160, EBP189, EBP234, EBP269, EBP273, EBP276, EBP280, EBP281, EBP288, EBP293, EBP359, EBP370, EBP379, EBP390, EBP395, EBP398, EBP409, EBP410, EBP423, EBP481, EBP489, EBP497, EBP499, EBP502, EBP518, EBP519, EBP538, EBP539, EBP550, EBP560, EBP584, EBP626, EBP628, EBP635, EBP665, EBP671, EBP678, EBP683, EBP687,	The Proposal would not continue to meet demand increases in line with the forecasted growth of the Epping area and surrounding suburbs.	Epping has seen significant growth in residential population over the last five years, with a further 25 percent growth expected in the suburb over the next 20 years, in line with projected growth trends across Sydney's Greater West. Epping Town Centre is also seeing signification development growth and renewal. The Proposal supports future growth and renewal of Epping Town Centre and aligns with the Epping Town Centre Master Plan and future road and rail plans. Epping Bridge is congested in peak periods, with high levels of traffic delay and queuing on surrounding roads. Traffic demand across the bridge will continue to grow as Epping and its town centre continues to develop. Replacing the existing five lane bridge with a new seven lane bridge would unlock vital road capacity for approximately 63,000 vehicles that cross the bridge each day. The Proposal would improve travel time for both car and bus passengers travelling in a westbound direction with the addition of a new lane increasing the road capacity for future users in alignment with the projected growth of the area. The refined traffic modelling identified only one

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP688, EBP696, EBP699, EBP702, EBP705, EBP706, EBP707, EBP714, EBP719, EBP720, EBP722, EBP736, EBP742, EBP743, EBP752, EBP764, EBP767, EBP768, EBP793, EBP807, EBP820, EBP847, EBP850, EBP856, EBP868, EBP869, EBP877, EBP889, EBP896, EBP901, EBP928		route under one scenario that would be expected to experience an increase in travel time as the Carlingford Road and Epping Road westbound route experiences a minor increase of three seconds during the AM peak for the 2039 'with Proposal' scenario. All other routes and scenarios would experience a decrease in travel time for both the 2029 and 2039 'with Proposal' scenarios for the AM and PM peaks. This includes users travelling southbound onto Blaxland Road from the bridge that would experience time savings of approximately eight minutes and 52 seconds in 2029 and approximately 13 minutes and 49 seconds in 2039 under the 'with Proposal' scenarios during the PM peak. Upgraded pedestrian and bike riding infrastructure would improve mobility and access to public transport services and businesses within the area.
5.4	EBP007, EBP051, EBP082, EBP160, EBP183, EBP189, EBP191, EBP207, EBP234, EBP247, EBP250, EBP265, EBP266, EBP273, EBP281, EBP289, EBP293, EBP297, EBP314, EBP325, EBP331, EBP340, EBP343, EBP345, EBP347, EBP358, EBP390, EBP395, EBP402, EBP421, EBP422, EBP423, EBP443, EBP445, EBP464, EBP481, EBP484, EBP496, EBP497, EBP499, EBP538, EBP539, EBP540, EBP543, EBP550, EBP552, EBP555, EBP558, EBP561, EBP614, EBP619, EBP626, EBP635, EBP656, EBP658, EBP662, EBP672, EBP682, EBP683, EBP687, EBP688, EBP699, EBP707, EBP719, EBP720, EBP725, EBP742, EBP743, EBP746, EBP750, EBP766, EBP768, EBP793, EBP807, EBP847, EBP850, EBP852, EBP856, EBP868, EBP869, EBP877, EBP889, EBP892, EBP915, EBP942	The Proposal would not result in significant benefits to the community and perceived benefits would be short term. The additional bridge lanes would not meaningfully reduce congestion and the bottleneck would be shifted elsewhere in the nearby network.	The Proposal would complement public transport projects and road and intersection upgrades completed in Epping Town Centre between 2013 and 2019. The Proposal would also support Epping Town Centre development and future transport plans. Currently, Epping Bridge is congested in peak periods with high levels of traffic delay and queuing down Epping Road, Beecroft Road, and Carlingford Road. Replacing the existing five lane bridge with a new seven lane bridge would unlock vital road capacity for approximately 63,000 vehicles that cross the bridge each day. Due to rail and environmental constraints the new bridge structure cannot accommodate any further widening. The Proposal would include an additional westbound traffic lane and an additional right turn lane southbound from Beecroft Road onto Blaxland Road to increase capacity and connectivity of the bridge over the rail line and to align with future road plans for Epping. The community would benefit from: • increased road capacity, improved traffic flow and travel times • improved road safety • improved connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport • enhanced pedestrian and cyclist safety and mobility. Additional road projects may be required in the future to further support Epping Town Centre development and future growth in the area. Transport will continue to consult with City of Parramatta Council on potential future opportunities to ease congestion around Epping Town Centre and improve all modes of transport.

No	Submission no.	Issue/s raised	Transport for NSW response
5.5	EBP021, EBP023, EBP025, EBP038, EBP039, EBP042, EBP044, EBP047, EBP048, EBP059, EBP061, EBP063, EBP064, EBP072, EBP081, EBP084, EBP086, EBP087, EBP091, EBP103, EBP104, EBP112, EBP118, EBP127, EBP128, EBP129, EBP139, EBP141, EBP145, EBP155, EBP161, EBP166, EBP168, EBP171, EBP175, EBP177, EBP178, EBP180, EBP182, EBP183, EBP188, EBP192, EBP196, EBP201, EBP202, EBP204, EBP205, EBP206, EBP214, EBP215, EBP217, EBP220, EBP227 (bridge St access), EBP230, EBP244, EBP251, EBP252, EBP260, EBP263, EBP274, EBP297, EBP300, EBP302, EBP308, EBP313, EBP314, EBP327, EBP331, EBP334, EBP335, EBP336, EBP337, EBP345, EBP359, EBP368, EBP369, EBP380, EBP387, EBP391, EBP397, EBP402, EBP404, EBP421, EBP435, EBP440, EBP452, EBP453, EBP457, EBP458, EBP460, EBP463, EBP468, EBP472, EBP473, EBP481, EBP483, EBP501, EBP511, EBP513, EBP519, EBP523, EBP529, EBP533, EBP541, EBP550, EBP554, EBP567, EBP575, EBP578, EBP587, EBP593, EBP613, EBP615, EBP616, EBP617, EBP620, EBP621, EBP627, EBP634, EBP645, EBP650, EBP651, EBP652, EBP664,	Lane configuration of the design is non-optimal and changes regarding merges, turning only lanes, lane width, and curves are suggested.	The Proposal replaces the existing five lane bridge with a new, wider, safer and more efficient seven lane bridge. Construction of the new bridge would include an additional westbound traffic lane and an additional right turn lane southbound from Beecroft Road into Blaxland Road to ease congestion, reduce travel times and improve road safety. Due to rail and environmental constraints the new bridge structure cannot accommodate any further widening. The third westbound lane merges back into two lanes just before the pedestrian overbridge on Beecroft Road. There is currently no road corridor available to provide three continuous westbound lanes along Beecroft Road. Future Epping Town Centre development and renewal may unlock further opportunities to improve road capacity in this area. Transport is consulting with City of Parramatta Council on the Epping Town Centre Master Plan, which will focus on the western part of Epping Town Centre and the area around and adjacent to the Epping Bridge Project. Benefits of this Master Plan are expected to include: • improved circulation within the precinct, including accessible laneways and connections to Boronia Park • consideration of traffic, built form and the public domain. Further information on Council's Master Plan can be found on the City of Parramatta Council website. Based on the refined traffic modelling of the road network and performance analysis of key intersections within the road network, there would be some negative impacts compared to the 2023 base year. There would be decreases in intersection LoS during the PM peak for three intersections: Carlingford Road, Ray Road, and Rawson Street; Beecroft Road and Carlingford Road; and Bridge Street and Rawson Street when compared to the 2023 baseline performance. All other intersections in both the AM and PM peak would have mostly beneficial operational impacts compared to the 2023 base year. Additionally, all intersections would experience a maintained or improved LoS during the 2029 and 2039 'with Proposal' scenarios compared the 'without Proposal' scenarios. Details of the modelled outcomes for intersections are contained within the updated Transport Impact Assessment for the Proposal. For more information on the assessment and details of level of service definitions, please refer to the Transport Impact Assessment. The Proposal's design, including lane merges, turning only lanes, lane width, and road and lane alignment would be further developed and refined during detailed design.

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP676, EBP689, EBP694, EBP695, EBP698, EBP700, EBP701, EBP703, EBP707, EBP709, EBP716, EBP721, EBP732, EBP733, EBP740, EBP753, EBP758, EBP763, EBP772, EBP773, EBP774, EBP777, EBP778, EBP786, EBP787, EBP794, EBP795, EBP800, EBP801, EBP803, EBP807, EBP808, EBP809, EBP813, EBP819, EBP827, EBP833, EBP836, EBP838, EBP849, EBP850, EBP851, EBP854, EBP855, EBP860, EBP867, EBP873, EBP875, EBP878, EBP880, EBP881, EBP884, EBP886, EBP888, EBP889, EBP892, EBP894, EBP895, EBP897, EBP902, EBP905, EBP907, EBP910, EBP911, EBP916, EBP917, EBP919, EBP923, EBP930, EBP931, EBP933, EBP937, EBP939, EBP940, EBP942, EBP960, EBP961, EBP963, EBP964, EBP966, EBP967, EBP972, EBP973, EBP975, EBP983		
5.6	EBP008, EBP012, EBP013, EBP066, EBP085, EBP107, EBP110, EBP117, EBP131, EBP138, EBP156, EBP157, EBP165, EBP167, EBP185, EBP232, EBP233, EBP236, EBP243, EBP267, EBP271, EBP328, EBP341, EBP350, EBP351, EBP360, EBP364, EBP365, EBP386, EBP407, EBP408, EBP409, EBP444, EBP445, EBP498, EBP499, EBP507, EBP509,	Roadworks during construction for the specified timeline would require the identification of additional access routes that do not hinder the community.	Transport acknowledges that the Proposal would be completed over a long construction duration. Transport would look for opportunities to reduce the duration and impacts of construction during detailed design and with the delivery partner. Upon completion, the Proposal would improve access to the town centre for the local community, road users and businesses. During construction, traffic is primarily impacted by the reduced capacity of the road network due to lane closures and reduced speeds through the construction area. Construction work would be staged and the degree of impact would change with each construction stage. To ease construction impacts for motorists and bus users, five lanes across the bridge would remain open to traffic for the duration of construction. It is, however, expected that there would be short periods during construction

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP557, EBP584, EBP585, EBP588, EBP597, EBP608, EBP610, EBP613, EBP616, EBP628, EBP632, EBP643, EBP665, EBP711, EBP762, EBP770, EBP799, EBP805, EBP830, EBP835, EBP865, EBP874, EBP899, EBP921, EBP926, EBP943, EBP969, EBP977		when one of the five lanes over the bridge would need to be closed to carry out specific activities, such as demolishing the existing bridge and sliding in the new bridge deck. There may also be times when the state and local roads adjacent to the bridge may experience temporary road and lane closures while road and rail work would be carried out in these locations. To minimise impacts to road users at these times, Transport would look at opportunities where major road closure work could be carried out during a quieter period in the year, such as over a Christmas period. Advanced notice of traffic related impacts including information on road detours would be advised to the local community and motorists via printed, online and social media channels. Road detour information would also be displayed on Variable Message Sign (VMS) boards around the area at least five business days before any changes come into effect. Mitigation measure 13, as provided in Appendix D: Mitigation measures, requires that prior to the commencement of construction, a Traffic Management Plan (TMP) would be prepared to confirm the management and mitigation of access to private properties, bus stands and train station.
5.7	EBP004 (Rawson St one way), EBP006 (building design), EBP020, EBP021, EBP024, EBP031, EBP037 (tunnel), EBP040, EBP042, EBP044, EBP045, EBP048, EBP051, EBP052 (flyover), EBP077 (tunnel/overpass), EBP082, EBP083 (against bridge), EBP087, EBP094 (tunnel), EBP109 (flyover), EBP115 (tunnel), EBP119 (railway bridge), EBP124 (flyover), EBP125 (overpass), EBP135 (flyover), EBP137, EBP147 (tunnel), EBP149 (2 level bridge), EBP154 (Langston Place right turn), EBP155, EBP160, EBP161 (underpass), EBP162 (tunnel), EBP163 (additional bridge), EBP171 (remove footbridge), EBP177 (tunnel), EBP186 (overpass),	Alternative developments, such as overpasses, underpasses, tunnels or new roads, are more suited to address the traffic concerns in the area compared to the current design to replace Epping Bridge.	The existing bridge crossing over the rail line has been operational for 124 years and has been identified for upgrade as it is nearing the end of its design life. Replacing the bridge would reduce future maintenance and operational costs and better support Epping Town Centre development and future transport plans. The constraints of the existing rail and metro infrastructure and lack of available land on adjacent roads limits the opportunities for further bridge widening and alternatives, including overpasses, underpasses, flyovers, tunnels, or new roads. Replacing the bridge with a new, wider structure would provide various benefits including improved safety and reduced traffic congestion. The Proposal would provide additional benefits including improved pedestrian and cyclist safety and improved access to the town centre for the local community, road users and businesses. While these alternative suggestions are out of scope for this Proposal, Transport will share this feedback with appropriate departments within Transport and City of Parramatta Council for their awareness and future planning consideration.

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP187 (tunnel), EBP188 (another bridge), EBP195 (overpass), EBP197 (tunnel/overpass), EBP200 (tunnel), EBP202 (flyover), EBP207 (overpass), EBP208 (overpass), EBP216 (tunnel), EBP231 (additional bridge), EBP233 (multilevel road), EBP238(overpass or tunnel), EBP240 (flyover), EBP247 (tunnel), EBP250 (underpass), EBP273 (overpass), EBP275 (tunnel), EBP282, EBP284, EBP293 (new bridge), EBP308 (tunnel), EBP311 (tunnel), EBP324, EBP325 (other road), EBP332 (overpass), EBP335 (design choice), EBP338, EBP340 (overpass), EBP344 (tunnel), EBP362 (new road), EBP363 (tunnel), EBP371 (tunnel), EBP378 (overpass), EBP379 (additional bridge), EBP385, EBP399, EBP400 (overpass), EBP404 (overpass), EBP407, EBP420 (pedestrian underpass), EBP423 (tunnel), EBP436 (additional bridge), EBP441 (additional bridge), EBP449 (underpass/tunnel), EBP450, EBP453 (tunnel), EBP470 (second crossing), EBP486 (widening road), EBP492 (overpass), EBP503 (roundabout/overpass), EBP512 (additional bridge), EBP526, EBP534 (overpass), EBP536 (overpass), EBP540 (roundabout), EBP541 (bypass), EBP555 (flyover), EBP564 (flyover), EBP570 (flyover), EBP578 (underpass),		

No	Submission no.	Issue/s raised	Transport for NSW response
	EBP585, EBP598 (second bridge), EBP603, EBP610, EBP612, EBP619, EBP628, EBP633, EBP637, EBP639 (overpass), EBP640 (bypass), EBP651, EBP658, EBP665, EBP670 (overpass), EBP671, EBP679, EBP684 (move pedestrian bridge), EBP685, EBP694, EBP702, EBP709, EBP710, EBP711, EBP714 (flyover), EBP717, EBP725, EBP727 (tunnel), EBP729, EBP746, EBP748, EBP755, EBP764, EBP775, EBP778, EBP779, EBP780, EBP790, EBP795, EBP802, EBP805, EBP818, EBP823, EBP824, EBP828 (overpass), EBP832, EBP840, EBP841, EBP847, EBP852, EBP857, EBP859, EBP861, EBP868, EBP871, EBP877, EBP881, EBP891, EBP898, EBP901, EBP909, EBP913, EBP922, EBP925, EBP935, EBP937, EBP970, EBP977, EBP984		
6	**Community impacts**		
6.1	EBP018 (schools), EBP024, EBP088, EBP965	Sensitive receivers in the area would be subject to noise impacts during construction and operation.	During construction, adjacent and nearby residential and business properties to the bridge and road construction areas are likely to experience increases in noise and vibration. Transport would look to reduce noise and vibration impacts from construction activities wherever possible to minimise disruption to adjacent and nearby residents and businesses. Due to the constrained working environment and the need to minimise road and rail disruptions, work would need to occur outside standard hours and would include night work over multiple consecutive nights per week during some stages of the construction program. Work during nighttime and outside of standard hours would be scheduled and undertaken in accordance with the Construction Noise and Vibration Management Plan

No	Submission no.	Issue/s raised	Transport for NSW response
			(CNVMP) that would be developed in conjunction with the construction program for the project. The CNVMP would identify opportunities to minimise construction noise and identify appropriate mitigations for impacted noise receivers to minimise impacts wherever possible and align with the construction schedule that would be developed during the detailed design. The CNVMP would include procedures for notifying sensitive receivers that are likely to be affected by construction activities and procedures for responding to noise and vibration complaints, including a dedicated 24-hour construction hotline. These guidelines and plans are developed to minimise disruptions to customers, pedestrians, motorists and nearby sensitive receivers wherever practicable. Alternative accommodation or respite would be offered to residents affected by temporary noise impacts and who meet the noise eligibility threshold for alternative accommodation and respite from noisy works. Transport would engage all residents adjacent to work areas via door knock and letters before any noisy work commences. If any construction work triggers alternative accommodation or respite, appropriate arrangements would be made with residents as required. Due to the expected long construction duration for this project, Transport would also explore alternate ways to support residents to stay at home during noisy works. Mitigation measure 47, as provided in Appendix D: Mitigation measures, states respite would be incorporated during operation of equipment such as hydraulic hammers and jackhammer. Refer to response 3.3 for further information on noise impacts and mitigation measures that would be used during construction.
6.2	EBP057, EBP060, EBP157, EBP184, EBP194, EBP231, EBP232, EBP233, EBP243, EBP267, EBP318, EBP328, EBP341, EBP364, EBP365, EBP407, EBP408, EBP507, EBP538, EBP539, EBP575, EBP585, EBP608, EBP616, EBP628, EBP630, EBP643, EBP667, EBP730, EBP731, EBP761, EBP775, EBP802, EBP835, EBP850, EBP857, EBP904, EBP965	Construction would cause disruption to residents and businesses.	Please refer to response 3.3 and 6.1 for information on noise and vibration impacts and mitigation measures and hours of work. During construction, there would be construction activities that would cause disruption to residents and businesses adjacent to work areas. Opportunities to minimise impacts would be addressed through the detailed design of the Proposal. Impacts of the Proposal that arise from engineering constraints or impacts from construction activities that cannot be improved through the design, are addressed through project-specific and standard mitigation measures. These measures aim to minimise or mitigate potential impacts that may arise during construction and operation. These measures draw on best management practice, specialist knowledge, and government standards and guidelines. The Construction Environmental Management Plan (CEMP) for the Proposal (mitigation measure 1 as per Appendix D: Mitigation measures) would outline the practices and procedures to manage and minimise impacts, including to traffic and pedestrian management, noise and vibration and air quality. The CEMP would be

No	Submission no.	Issue/s raised	Transport for NSW response
			frequently reviewed throughout the construction period to ensure that appropriate mitigation measures to minimise the impact to the environment are implemented throughout construction of the Proposal.
6.3	EBP383, EBP396, EBP590, EBP715, EBP750, EBP756, EBP770, EBP784, EBP796, EBP812, EBP887, EBP891, EBP924	The design is not inclusive of vulnerable members of the community.	The Proposal has been designed to improve accessibility and mobility for all community members, including more vulnerable and less mobile community members wherever possible. The upgraded staged pedestrian crossing at the intersection of Epping Road, Blaxland Road and Langston Place would improve pedestrian safety at this location by making crossing pedestrians more visible to drivers. The staged approach also provides an opportunity for people with restricted mobility to rest and safely cross over Epping Road in two stages, if required. Providing a new shared path over the bridge and upgraded raised pedestrian (zebra) crossings at Bridge and High streets also provides safer walking environments for more vulnerable and less mobile community members. It is noted that the footpaths and shared paths in and around the Proposal follow the grades of the roads and underlying topography which are steeper than the maximum grades required to meet the *Disability Discrimination Act 1992* (DDA) requirements. Opportunities to adjust footpath grades to better support members of the community who have mobility issues is therefore limited by the constraints of the surrounding urban environment.
6.4	EBP024, EBP078, EBP144, EBP274 (links don't work), EBP318, EBP434, EBP705, EBP761, EBP883, EBP945	Concerns raised regarding the community engagement process.	Transport received 999 responses from the community and key stakeholders during the public display period, demonstrating a strong community interest in the project. As per Section 5.1 of the REF, the consultation strategy for the Proposal was developed to: • raise community awareness of the public display of the REF and concept design and opportunity to provide feedback • provide the community with information to inform their understanding of the Proposal's design, key benefits and impacts to the community • inform the community and stakeholders how they can provide feedback and talk to the project team • foster community and stakeholder feedback. The community was provided with multiple ways to provide feedback as well as multiple opportunities to talk to the project and environmental teams via the nine community drop-in sessions offered during the four-week public display period. The community pop-up sessions, wherever possible, included Chinese, Korean, Hindi, Arabic and/or Tamil speakers that were available to enable community members to engage in their preferred language.

No	Submission no.	Issue/s raised	Transport for NSW response
			To further enhance engagement and feedback from the multicultural communities within Epping and surrounds, the 'Have your Say' community notification was translated into simplified Chinese, Hindi, Korean and Tamil. Community information videos outlining the Proposal's key features and benefits were also developed in simplified Chinese, as well as in English. These were made available via social media and the project webpage and interactive portal. The community was invited to provide feedback on the Proposal between Friday 13 September and Monday 7 October 2024. Further opportunities for feedback included via the NSW Government 'Have Your Say' webpage, via the dedicated Interactive portal and map as well as via phone, email or post. The community were also encouraged to register for project updates from communication and stakeholder engagement channels and platforms. Further information on the consultation approach and communication and stakeholder engagement tools used during the public display period can be viewed in Section 2.1 of this report. Transport has carefully reviewed the feedback received and will consider the feedback during development of the detailed design, wherever it is feasible to do so.
7	**Out of scope**		
7.1	EBP005, EBP006, EBP007, EBP009, EBP048, EBP070, EBP087, EBP097, EBP127, EBP158, EBP171, EBP209, EBP217, EBP232, EBP241, EBP272, EBP280, EBP284, EBP286, EBP329, EBP337, EBP358, EBP398, EBP423, EBP468, EBP481, EBP513, EBP529, EBP530, EBP592, EBP606, EBP801, EBP838, EBP926, EBP944	Suggestions and comments regarding the relocation of bus stands on Beecroft Road (in scope) and incorporation of bus only lanes (out of scope).	The Proposal would require permanent relocation of bus stands at the Epping bus interchange. To enable the provision of the additional westbound traffic lane six bus stands at the Epping bus interchange would need to be permanently relocated further north along Beecroft Road. • Bus Stand C on the eastern side of Beecroft Road would need to be relocated north along Beecroft Road to the northern side of the pedestrian bridge • Bus stands G and H on the western side of Beecroft Road would also need to be relocated to the northern side of the pedestrian bridge • Bus Stands D, E and F would be relocated about 48 metres further north along the western side of Beecroft Road to accommodate the relocation of Bus Stands G and H. During consultation with key stakeholders, a preference to keep the existing bus stand D, E, F, G and H arrangements unchanged was expressed. During the later stages of concept design, the design team identified a revised bus interchange and traffic configuration that would achieve this. This option would be further developed in consultation with key stakeholders during the detailed design phase. There is currently no available road corridor space to extend the new westbound lane to provide three continuous westbound lanes on Beecroft Road. The third westbound lane would merge back into two lanes just before the pedestrian overbridge.

No	Submission no.	Issue/s raised	Transport for NSW response
			Future Epping Town Centre development and renewal may unlock opportunities to adjust the road corridor to include additional bus and traffic lanes as part of broader network configurations. This is however, out of scope forthis Proposal.
7.2	EBP102, EBP105, EBP111, EBP117, EBP177, EBP207, EBP211, EBP223, EBP241, EBP317, EBP349, EBP394, EBP410, EBP491, EBP495, EBP609, EBP631, EBP660, EBP673, EBP719, EBP720, EBP798, EBP819, EBP834, EBP910, EBP916, EBP940, EBP980	Lack of parking in the area should be addressed.	The Proposal would result in the permanent loss of up to 21 on-street parking spaces on Beecroft Road and up to three spaces at High Street. Parking surveys undertaken in January 2024 indicated that there is adequate parking supply in the Proposal area and adjacent area to offset these losses. The exact number of parking spaces to be removed is, however, indicative and subject to detailed design. Future Epping Town Centre development and renewal may unlock opportunities to provide additional parking spaces for the wider area. This is however, out of scope for this Proposal.
7.3	EBP005	Pedestrian lift providing access to the train and metro station is unreliable and should be moved.	The pedestrian overbridge on Beecroft Road provides stair and lift access to Beecroft Road and Epping Station for pedestrians, people with mobility issues, prams and bikes. Transport acknowledges that the Beecroft Road pedestrian bridge lifts experienced frequent faults and breakdowns over 2024 and apologises for any inconvenience that this has caused the community. The two lifts are reaching their end of life and Transport plans to replace both lifts in the near future. Due to the ongoing lift issues, extensive investigation work was carried out in early 2024 to identify the cause of the faults in both lifts. As a result of these investigations replacement parts were installed in late July and early August 2024. Transport is continuing to closely monitor the lifts and keep the community updated as soon as further information is available regarding lift replacement works. Future Epping Town Centre development may provide a further opportunity to upgrade the pedestrian overbridge and lifts.
7.4	EBP014 (Centenary Drive and Arthur Street, Homebush), EBP268 (Macquarie/Marsfield), EBP305 (roundabout), EBP316 (divert to other roads), EBP330 (Pembroke Street), EBP364 (Ray Road), EBP373 (Rawson Street upgrade), EBP394 (roundabout), EBP437 (roundabout), EBP454 (Pymble), EBP457 (Eastwood), EBP475 (Rawson	Suggestions for improvements to roads and congestion outside of the Proposal area.	Upgrades to other intersections or local roads is outside the scope of this Proposal. Feedback on other road improvements outside of the Proposal area that would improve road and pedestrian safety and/or other intersection efficiencies and local road network travel times will be passed on to the relevant Transport departments. Additionally, City of Parramatta Council, as the responsible authority for managing and maintaining local roads, would be made aware of these suggestions for future transport planning considerations. Feedback on local road improvements can also be made directly to City of Parramatta Council via 02 9806 5050 or council@cityofparramatta.nsw.gov.au

No	Submission no.	Issue/s raised	Transport for NSW response
	Street), EBP487 (Rawson), EBP505, EBP705 (Herring Road), EBP726, EBP789 (New Line Road), EBP915 (Eastwood)		
7.5	EBP069, EBP261, EBP269, EBP307, EBP325, EBP352, EBP411, EBP436, EBP489, EBP668, EBP705, EBP943	Epping is being overdeveloped, too many new buildings are being proposed or constructed in the Proposal area.	Epping Town Centre is experiencing significant development growth and renewal as part of broader NSW Government housing strategies for the area. To support this growth, community infrastructure that meets the needs of an increasing community and connects both the new and existing populations of Epping are important. Recent investment in transport infrastructure at Epping to support Epping town centre development includes the upgrade of Epping Station in 2013 and the new Metro North West Line which opened in 2019. As part of the NSW Government's Urban Activation Precincts Program a series of road and intersection projects were also completed in 2018 to improve traffic flow and road safety and help reduce traffic delays and congestion in the area. The Proposal aligns with strategic policy to further support the community of Epping.
7.6	EBP140	Concerns around the Proposal resulting in similar impacts to Rozelle interchange project.	Transport is committed to keeping the community informed and consulted on the development and delivery of transport infrastructure projects. This commitment is driven by the belief that meaningful communication with the community and key stakeholders is a crucial element in the successful planning and delivery of our projects. Transport encourages any community member who has any questions or concerns about the project, as it progresses, to contact the project team for further information. The project team can be contacted via parramatta@transport.nsw.gov.au or free call 1800 979 577 (during business hours). The project team will actively engage with the Rozelle Interchange project team to better understand community concerns raised regarding that project and lessons learned. The project team would continue to look for opportunities to improve community experience and outcomes for the Epping Bridge Project as the Proposal develops and during construction.
7.7	EBP405, EBP638	Suggestions for other projects and improvements in the Parramatta locality including a connecting	The REF public display sought community feedback on the Epping Bridge Project to understand community sentiment and concerns regarding potential environmental impacts, constraints, risks and opportunities for the Proposal. For comments relating to matters outside the scope of this Proposal, where possible we have sourced responses and included these in the response table. For all other

No	Submission no.	Issue/s raised	Transport for NSW response
		railway line and similar improvements to the Proposal.	community comments, the project team have passed on feedback to relevant departments and teams within Transport and/or City of Parramatta Council for their awareness and future planning consideration.
7.8	EBP491, EBP607	Additional land parcels should be purchased to facilitate additional lanes.	The acquisition of land to provide additional traffic lanes is out of scope for this Proposal. The constraints of the existing road and rail corridor, metro infrastructure, and existing adjacent town centre development limits opportunities for further widening of the bridge and adjacent road corridors. Future Epping Town Centre development may provide an opportunity for additional road improvements, including widening of Beecroft Road to provide additional lanes. The Epping Town Centre Master Plan is now being developed by City of Parramatta Council. The Master Plan focuses on the western part of Epping Town Centre and the area around and adjacent to the Epping Bridge Project. Further information can be found on City of Parramatta Council website at City of Parramatta Council | Epping Town Centre Master Plan.
7.9	EBP008, EBP049, EBP157, EBP181, EBP191, EBP216, EBP321, EBP341, EBP370, EBP382, EBP394, EBP398, EBP419, EBP507, EBP531, EBP557, EBP579, EBP593, EBP603, EBP635, EBP645, EBP669, EBP761, EBP798, EBP830, EBP857, EBP868, EBP885, EBP923, EBP926, EBP940, EBP960, EBP961, EBP966, EBP967	Tolls on other roads present a limiting factor for residents to use alternative routes during construction and therefore toll fees on the M2 Hills Motorway should be waived during the construction of the Proposal.	The NSW Government has conducted a review of Sydney's tolling system. The Toll Review is now complete, with the Final Report published in July 2024. The Government is currently considering the recommendations of the Final Report. Further information on the tolling review can be found at Toll Review | Transport for NSW. Community and stakeholder feedback on tolling suggestions has been forwarded on to the appropriate team within Transport for their awareness and further consideration.

Other stakeholder submissions

Issued raised in by other stakeholder such as councils and community groups are summarised in Table 2-1 with responses provided.

Table 2-2 Response to other stakeholder submissions

No	Stakeholder.	Issue/s raised	Transport response
2	Safety		

No	Stakeholder.	Issue/s raised	Transport response
2.1	City of Parramatta Council	Visibility and sight lines should be improved where possible	The Proposed concept design is compliant with Austroads guidelines. Further efficiencies and improvements beyond compliance would be investigated, wherever possible, during detailed design.
3	**Environment and amenity impacts**		
3.1	City of Parramatta Council	Inadequate assessment of the visual and heritage impacts of retaining walls in Forest Park	The Statement of Heritage Impact (SoHI) (Mott MacDonald, 2023) assessment identified that the existing brick retaining wall along the western side of Forest Park is a minor contributory element. Several mature trees that contribute significantly to the listing, including two Hoop Pines and two Bunya Pines, a mature cypress and a Canary Island Pine, would be retained. A number of measures have been proposed to minimise impacts to heritage structures, including replacing the brick walls with a root sensitive design that offers the potential for a better subsurface environment for the roots of significant trees identified for retention. Condition of approval 10 requires that the finishes of the retaining walls are to be aesthetically appropriate to the heritage character of Forest Park.
3.2	City of Parramatta Council	Inadequate assessment of the impacts of the removal of significant trees and vertical encroachment to trees in Forest Park	Seven trees located within Forest Park, adjacent to the eastern edge of Blaxland Road, would require root investigations and tree sensitive construction during detailed design to ensure their retention. These trees are considered important to the visual and heritage character of the park. Condition of approval 8, as presented in Appendix C: Conditions of Approval, requires that an arborist is appointed to provide advice in relation to work in proximity of trees, including advice in relation to tree investigation, impact mitigation, design and establishment of tree protection, design, and construction advice for the duration of the project. The

No	Stakeholder.	Issue/s raised	Transport response
			advice of the project arborist is to be adhered to during design and construction to ensure the protection of trees identified for retention. Information from root investigations would be utilised to design tree sensitive retaining wall footings for the replacement wall on Blaxland Road. The design of Blaxland Road would minimise level changes and impacts of overhead wiring from services in proximity to Forest Park to retain the canopy of significant heritage plantings (mitigation measure 58 as per Appendix D: Mitigation measures) Landscape principles identified in the REF (Section 3.2.9) would be implemented to guide construction activities and to support revegetation. Condition of approval 10, as presented in Appendix C: Conditions of Approval, requires that the finishes of retaining walls along Blaxland Road are to appropriately consider the heritage character of Forest Park.

No	Stakeholder.	Issue/s raised	Transport response
3.3	City of Parramatta Council	Council is not supportive of the visually dominant orange coloured throw screening across the bridge (bridge safety screens). Council suggests the following changes: • more refined elegant colour intervention not reminiscent of workman's fencing • transparent throw screens to not interrupt views and promote safety perception in accordance with Crime Prevention Through Environmental Design (CPTED) principles • mesh, not perforated metal, fence screens to enhance visual permeability and elegant presentation • further consideration of throw screen elevations including shaped/tapered ends transitioning more smoothly to existing fencing.	The design of the throw screens is indicative and would be further developed in consultation with City of Parramatta Council during detailed design. Transport has engaged an Aboriginal consultant to develop a Connecting to Country report that aims to integrate Aboriginal cultural knowledge and principles into the design. The opportunities for the design of the bridge safety screens would be included within this report, and recommendations of this report would be included in the Urban Design and Landscape Plan (UDLP) where appropriate. A UDLP would be prepared by the Contractor, in consultation with Council and other asset/land owners and submitted to Transport for written approval by the Urban Design Public Transport and Precincts team, prior to finalisation of the detailed design (mitigation measure 28 as per Appendix D: Mitigation measures). The detailed design would be presented to the Transport's Design Review Panel. for review and recommendations to achieving design excellence in respect to place making, built form, urban and landscape design and recommendations from the Connecting with County Report and aspects of the project (mitigation measure 29 as per Appendix D: Mitigation measures).
4	**Traffic management**		
4.1	City of Parramatta Council	Insufficient consideration of optimisation of intersections and traffic lights	The updated Transport Impact Assessment includes an assessment of key intersections within the Proposal Area. Table 4.2 of the updated Transport Impact Assessment indicates from the results of the refined traffic modelling, that the intersection performance would be maintained or improved for all of the intersections when comparing the with and 'without Proposal' scenarios for 2029 and 2039 during the AM and PM peaks. Additionally, average network delay and average

No	Stakeholder.	Issue/s raised	Transport response
			number of vehicles stops would decrease in the 'with Proposal' scenarios for 2029 and 2039 during both peaks. By 2039, the modelling assumes that there would be an increase in general traffic in line with population growth in the area. As a result, the modelling indicates that some intersections would have a decline in LoS during the AM and PM peak compared to the LoS in 2023. However, the scenarios show that the intersections would perform as well as or better in the 'with Proposal' scenarios compared to the 'without Proposal' scenarios in 2029 and 2039. There is potential that future modal shift to public and active transport would further reduce delays associated with increased traffic, to minimise longer term impacts to intersection functionality. Opportunities to improve the safety and functionality of all intersections would be explored and developed during detailed design. A feasibility study would be undertaken during detailed design to consider options for closure of High Street to through traffic to improve road and pedestrian safety at this location. Consideration of High Street closure would be undertaken in consultation with City of Parramatta Council and the community. If the closure of High Street was the preferred option, further environmental impact assessment would be undertaken.
5	**Design**		
c	City of Parramatta Council	Sub-optimal active transport links are proposed which should be improved, including inadequate storage space on the splitter island for the left turn into Langston Place and the number of stages between the Epping Road shared path and the bike lockers.	The arrangement of the proposed shared path is consistent with a Scenario E arrangement outlined in AUSTROADS Guide to Road Design Part 6A: Paths for Walking and Cycling (AGRD06A-17, 2021), which is suitable for frequent and concurrent commuting and recreational uses.

No	Stakeholder.	Issue/s raised	Transport response
		Council requests secure bicycle parking on the western side of the station should be explored. Council requests pedestrian crossing across the western leg (Beecroft Road) of the signalised intersection of Epping Road, Blaxland Road and Langston Place. Beecroft Road/Blaxland Road/Epping Road/Langston Place.	In alignment with Condition of approval 12, opportunities for secure bicycle parking on the western side of Beecroft Road would be considered as part of detailed design. Transport has considered the needs of the 63,000 motorists that cross the bridge every day and the needs of active transport users. An additional pedestrian crossing at this location would reduce the efficiency of the intersection by increasing the distance between stop lines and cause delays to traffic. An additional crossing on the western approach of the intersection would: • reduce the capacity of both Epping Road and Blaxland Road • compromise the feasibility of left turn island on the north-west corner - requiring significant widening of Epping bridge and Langston Place departure.
6	**Community impact**		
6.1	City of Parramatta Council	Further consideration of public domain treatment is required Council suggests that level changes and narrowing of Epping Road footpath may impact accessibility. Further clarification of pedestrian/cyclist wait times at staged crossings is requested.	A Public Domain Plan (PDP) is proposed to be prepared as part of the Urban Design and Landscaping Plan (UDLP). The PDP would provide further information on public domain treatment as the design progresses. The PDP and UDLP would be presented to Transport's independent design review panel. The Proposal would not result in narrowing of footpaths. The proposed staged crossing would be more efficient and reduce delays for vehicles and pedestrians. The design balances the needs of all transport modes. Further opportunities to improve active transport outcomes of the Proposal would be explored during detailed design, with a specific focus on providing further

No	Stakeholder.	Issue/s raised	Transport response
			accessibility and safety for bike riders. Condition of approval 12, as presented in Appendix C: Conditions of Approval, requires that opportunities to achieve safety, connectivity and permeability for active transport users are to be explored during detailed design to minimise conflicts between vehicles, pedestrians and bike riders. Opportunities that would be explored further during detailed design would include: • the installation of barriers, lighting, cyclist lanterns, combined pedestrian/cyclist crossings • improvements to connectivity and crossings at the signalised intersection of Epping Road, Blaxland Road and Langston Place • improvements to prioritise active transport crossing over High Street. Transport would continue to consult with City of Parramatta Council as the Proposal progresses to detailed design and would provide further clarification on design elements where required or requested.
6.2	City of Parramatta Council	The proposed retaining walls are significant and vertical configuration and finish treatment should be optimised during design to minimise visual impacts. Council suggested the following: • smooth top of wall • bagged concrete block walls and wall facings to be avoided Natural stone materials or high quality in-situ concrete walls recommended. Requests extra details for walls on property boundaries on Epping and Blaxland Road Requests involvement in all public domain elements at the detailed design stage.	A Public Domain Plan (PDP) would be prepared as part of the Urban Design and Landscape Plan (UDLP). The PDP would detail public domain treatment and would be reviewed by Transport's independent design review panel. Condition of approval 10, as presented in Appendix C: Conditions of Approval, requires that the finishes of retaining walls are to be detailed in the UDLP with the aim of minimising their visual prominence to the surround area. Transport would continue to consult with Council as the Proposal progresses to detailed design and provide further clarification on design elements where required or requested.

No	Stakeholder.	Issue/s raised	Transport response
6.3	City of Parramatta Council	Indicative granite paving pattern shown on the Bridge Street footpath is incorrect and must comply with Parramatta's Public Domain Guidelines	The paving treatment is indicative only and would be further resolved in detailed design. in consultation with City of Parramatta Council. A Public Domain Plan (PDP) would be prepared as part of the Urban Design and Landscape Plan (UDLP). The PDP would detail public domain treatment and would be reviewed by Transport's independent design review panel.
6.4	Epping Civic Trust	The proposed increase in capacity over the railway bridge is of very limited value. As soon as commuters travel over the bridge (from east to west) they would be forced to merge from three lanes to two lanes, as Beecroft Road has a bus stand and a fixed lift installation from the footpath to the station, which blocks the space for a potential third lane. Thus the bottleneck that commuters currently encounter at the bridge would only be moved about 200 metres further west, with no prospect of remedy. The proposed bridge widening appears to offer an advantage for commuters traveling from west to southeast, turning right on Blaxland Road, as the additional right-turning lane should improve travel times through that intersection. The Epping Civic Trust believes that a better investment to improve travel times and connectivity would be to encourage through-commuters onto the M2 Hills Motorway tollway, by improving the access roads to the M2 Hills Motorway, and by introducing distance-based tolling so it is more affordable for commuters on that road. The Epping Civic Trust requests improved bus services (eg route 550) from Carlingford to Epping and Marsfield, to encourage more commuters to take public transport rather than driving their cars.	There is currently no capacity to extend the new westbound lane to provide three continuous westbound lanes on Beecroft Road due to existing road and rail corridor space constraints and existing adjacent town centre development. The third westbound lane would merge back into two lanes just before the pedestrian overbridge. Future Epping Town Centre Masterplan development may unlock opportunities to widen the road and provide three continuous westbound lanes along Beecroft Road. In the interim, the addition of a partial third westbound lane would ease congestion over the bridge and future proof further potential development of a third continuous westbound lane. One of the main aims of the Proposal is to improve road safety and traffic congestion across the bridge. One way in which this is achieved is through the provision of the additional lane capacity for the right hand turn movement from the bridge into Blaxland Road. This provision would reduce wait times and improve intersection performance as seen in the refined traffic modelling which shows travel times would decrease from along the Beecroft Road, Blaxland Road northbound and southbound routes in the 2029 and 2039 'with Proposal' scenarios for both peak periods. The NSW Government has conducted a review of Sydney's tolling system. The Toll Review is now complete, with the Final Report published in July 2024. The

No	Stakeholder.	Issue/s raised	Transport response
			Government is currently considering the recommendations of the Final Report. Further information on the tolling review can be found at Toll Review | Transport for NSW Improving access roads to the M2 Hills Motorway is out of scope for this Proposal. This feedback has been passed on to the appropriate team within Transport for their awareness and consideration. Suggestions for other improvements to the road network are outside the scope of this Proposal and will be passed on to City of Parramatta Council and the relevant departments within Transport for their awareness and consideration in future transport planning. Changes to bus timetables are outside the scope of this Proposal. Bus timetables are regularly reviewed by Transport and this feedback has been passed on to the relevant team within Transport for their awareness and future bus timetable review consideration.
7	**Active transport**		
7.1	Cyclist Action Movement West	The Proposal does not offer viable alternatives to car use as the default mode of transport. The active transport linkages could be improved by: • making sure signal phasing timings do not disadvantage pedestrians and cyclist across Epping Road • delineating the western side of Langston Place as a shared path or a dedicated two-way cycleway • making the slip lane zebra crossing a combined pedestrian and cyclist crossing • installing bicycle lanterns on the signalised crossing of Blaxland Road • including a crossing on the western side of Blaxland Road/Langston Place intersection	While the Proposal design is constrained by the rail and road corridor the design would enhance active transport safety and mobility. The new shared walking and bike riding path and safety screens would improve pedestrian and cyclist safety over the bridge as well as improving connectivity to the existing shared paths on Bridge Street and Epping Road. Pedestrian and cyclist mobility would be further enhanced to Epping Town Centre, Epping Station and bus interchange through additional pedestrian crossing improvement works at Epping Road, Bridge Street and High Street. Providing an upgraded staged pedestrian crossing across Epping Road at the intersection of Blaxland Road and Langston Place would improve pedestrian safety at the intersection by making crossing pedestrians more visible to drivers. The staged approach also provides

No	Stakeholder.	Issue/s raised	Transport response
		• creating a combined pedestrian and cyclist crossing of High Street • extending the station platforms to create a new entrance to the station via the new shared path.	an opportunity for people with restricted mobility to rest and more safely cross over Epping Road in two stages, if required. Providing upgraded raised pedestrian (zebra) crossings at Bridge and High streets provides safer walking environments at these locations. Opportunities to improve connectivity across all intersections, including improving the connection of the bridge to the town centre across High Street would be further explored and developed during detailed design. Opportunities that would be explored further during detailed design would include: • the installation of barriers, lighting, cyclist lanterns, combined pedestrian/cyclist crossings • improvements to connectivity and crossings at the signalised intersection of Epping Road, Blaxland Road and Langston Place • improvements to prioritise active transport crossing over High Street. An extension of the Epping Station platform to provide an additional station entrance is outside the scope of the Proposal. This feedback has been passed on to the relevant team within Transport for their consideration.
7.2	Gentle Giants Riders Inc	The Proposal does not remediate the issues for vulnerable members of the community (such as elderly, mobility impaired, vision impaired, pregnant or parenting people) or other members of the community. Suggestions include: • installing two bus only lanes on the widened bridge deck to minimise car use and maximise active or public transport use • adding a pedestrian crossing on the western side of the	The Proposal has been designed to improve accessibility and mobility for all community members, including the more vulnerable members of the community wherever possible. Accessibility design aspects of the crossings would include audible crossing indicators, braille, and kerb ramps and tactile tiles at kerb ramps. Three bus services, including two night services, currently utilise the bridge. There are 19 AM movements and 18 PM movements across the bridge during peak hours. The inclusion of two bus only lanes would limit the number of general

No	Stakeholder.	Issue/s raised	Transport response
		Langston/Epping/Blaxland Road intersection • installing raised pedestrian/cyclist priority crossings on High Street and Bridge Street • ensuring that the staged crossing in Epping Road can be completed in one stage for able bodied users and two stages for slower users • reclassifying the western footpath of Langston Place as shared user path.	traffic lanes to the same as the existing bridge configuration. This would not address the need for additional traffic capacity across the bridge. Transport has considered the needs of motorists and active transport users in the development of this concept design. An additional crossing on the western approach of the intersection would: • reduce the capacity of both Epping Road and Blaxland Road • compromise the feasibility of left turn island on the north-west corner - requiring significant widening of Epping bridge and Langston Place departure. The Proposal includes upgrades to existing pedestrian crossings on Bridge Street and High Street, including raised pedestrian crossings that would make pedestrians and cyclists more visible to drivers and create a safer pedestrian and cyclist environment on the western side of the bridge. The upgraded staged pedestrian crossing at the intersection of Epping Road, Blaxland Road and Langston Place would improve pedestrian safety at the intersection by making crossing pedestrians more visible to drivers. The staged approach also provides an opportunity for people with restricted mobility to rest and more safely cross over Epping Road in two stages, if required. Providing a new shared path over the bridge, improved lighting and upgraded raised pedestrian (zebra) crossings at Bridge and High streets also provides safer walking environments for more vulnerable and less mobile community members. The footpaths and shared paths in and around the Proposal follow the grades of the roads and underlying topography which are steeper than the maximum grades required to meet the DDA requirements. Opportunities to adjust footpath grades to better support members

No	Stakeholder.	Issue/s raised	Transport response
			of the community who have mobility issues is therefore limited by the constraints of the surrounding urban environment. The allocation of traffic lanes over the bridge in the current configuration is limited by space constraints on Beecroft Road. The Proposal provides additional capacity across the bridge that can be adjusted to meet future mode allocation of bus and traffic lanes as part of broader network configurations in the future. Replacement of several existing streetlights with newer, more energy efficient, and longer lasting LED street lights would increase visibility and contribute to a safer night environment for the community. Condition of approval 12, as presented in Appendix C: Conditions of Approval, requires that opportunities to improve connectivity across all intersections, including improving the connection of the bridge to the town centre across High Street and to Langston Place to be further explored and developed during detailed design.
7.3	Bicycle NSW	The Proposal would deliver poor outcomes for pedestrians, bike riders, and the future liveability of Epping. Bicycle NSW is not providing a detailed submission at this stage.	Epping Bridge is 124 years old and is reaching its end of design life. The evolution of the project from a bridge widening to a bridge replacement project would provide the community with a safer and more efficient bridge. The Proposal to replace the existing bridge with a new wider bridge would unlock vital road capacity and keep the 63,000 vehicles that use the bridge each day moving quickly, safely and efficiently. The Proposal would: • enhance connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport • support Epping Town Centre development by increasing road capacity to support future growth and renewal

No	Stakeholder.	Issue/s raised	Transport response
			• build on major public transport investment in Epping Town Centre with the upgrade of Epping Station in 2013 and opening of Metro North West Line in 2019 • complement road and intersection upgrades completed in Epping Town Centre in 2018 as part of the Epping Town Centre Urban Activation Plan to ease congestion in the area • align with future road and rail plans • improve road safety for all road users. The Proposal would enhance the safety of pedestrians and cyclists by providing improved active transport infrastructure across the bridge. The upgraded shared walking and bike riding path would be wider than the existing path, reducing conflicts between pedestrians and cyclists by offering more space for manoeuvring and movement. The new shared path would also provide connectivity to the existing shared paths on Epping Road and Bridge Street, which support pedestrian and cyclist use in the area. Feedback from the community and key stakeholders on active transport elements would be included in the investigation of opportunities to improve pedestrian and cyclist connections between the bridge and the Epping town centre during detailed design. Transport is consulting with City of Parramatta Council on the Epping Town Centre Master Plan and Council's plans regarding access around Epping town centre, including between Beecroft Road and Rawson Street and consideration of broader connections to public open space and amenity.
7.4	Better Streets Australia	The Proposal would not meet the Proposal's stated objectives. The Proposal would achieve:	The project would complement public transport projects and road and intersection upgrades completed in Epping Town Centre

No	Stakeholder.	Issue/s raised	Transport response
		• limited to no safety improvements for any road users • no travel time savings for drivers (1 km/h improvement to 2029 then degrading thereafter) • worse traffic congestion after 2029 • significantly worse access for people on foot • limited improvement for people riding bikes, and no safety improvement • worse place outcomes. Recommendations include: • review and publish how the project performs against the Transport for NSW Road User Space Allocation Policy, which is a mandatory corporate policy • increase bridge capacity using mode shift and dedicated bus lanes, not adding more lanes for cars • if the project proceeds, narrow the width of the general traffic lanes, to reduce traffic speeds and improve safety, and provide more space for people walking and riding • remove the Langston Place slip lane • Close High Street to through traffic and open it to pedestrians and bike riders.	between 2013 and 2019. The project would also support Epping Town Centre development and future transport plans. Currently, Epping Bridge is congested in peak periods with high levels of traffic delay and queuing down Epping Road. Replacing the existing five lane bridge with a new seven lane bridge would unlock vital road capacity for approximately 63,000 vehicles that cross the bridge each day. The community would benefit from: • increased road capacity, improved traffic flow and travel times • improved road safety • improved connectivity to Epping Town Centre, Epping Station and bus interchange for all modes of transport • enhanced pedestrian and cyclist safety and mobility. Additional road projects may be required in the future to further support Epping Town Centre development and future growth in the area. The new shared walking and bike riding path and bridge safety screens would improve pedestrian and cyclist safety over the bridge as well as improving connectivity to the existing shared paths on Bridge Street and Epping Road. Pedestrian and cyclist mobility to Epping Town Centre, Epping Station and the bus interchange would be further enhanced through additional pedestrian crossing improvement works at Epping Road, Bridge Street and High Street. Providing an upgraded staged pedestrian crossing across Epping Road at the intersection of Blaxland Road and Langston Place would improve pedestrian safety at the intersection by making crossing pedestrians more visible to drivers. The staged approach also provides an opportunity for people with restricted mobility to rest and more

No	Stakeholder.	Issue/s raised	Transport response
			safely cross over Epping Road in two stages, if required. Providing upgraded raised pedestrian (zebra) crossings at Bridge and High streets would also provide safer walking environments at these locations. The allocation of traffic lanes over the bridge in the current configuration is limited by space constraints on Beecroft Road. The Proposal provides additional capacity across the bridge that can be adjusted to meet future mode allocation of traffic lanes as part of broader network configurations in the future. The design balances the needs of active transport and vehicles at intersections. Options for changes to the slip lane into Langston Place were considered during the early design phase however the current configuration provides flexibility of movement across and into Langston Place while balancing the needs of all users. The Proposal includes adjustments to the kerb radius, kerb height, and the storage capacity of the pedestrian island to improve safety. Condition of approval 12, requires opportunities to improve the safety and functionality of all intersections for both pedestrians and bike riders are to be further explored and developed during detailed design. Condition of approval 5 requires that a feasibility study is to be undertaken during detailed design to consider options for closure of High Street to through traffic to improve road and pedestrian safety at this location. Consideration of High Street closure would be undertaken in consultation with City of Parramatta Council and the community. If the closure of High Street was the preferred option, further environmental impact assessment would be undertaken. In response to concerns raised regarding the time savings for drivers throughout the public

No	Stakeholder.	Issue/s raised	Transport response
			display process, Transport has undertaken refined traffic modelling to understand the traffic impacts as a result of the Proposal. The refined traffic modelling shows that all of the identified routes experience improved (or at the minimum) maintained travel times in the AM and PM peaks for the 2029 'with Proposal' scenario when compared to the 2023 base case and 2029 'without Proposal' scenario. By 2039, all routes under the 'with Proposal would experience a decrease in travel time during the PM peak compared to the 'without Proposal' scenario. During the 2039 AM peak, all routes expect Carlingford Road to Epping Road (westbound) would have decreased travel times under the 'with Proposal' scenario compared to the 'without Proposal' scenario. The Carlingford Road and Epping Road westbound route would experience a slight increase in travel time of three seconds. All network performance indicators were improved under the 'with Proposal' scenarios for both peak periods in 2029 and 2039. This would include a decrease in average network delay of two minutes and 55 seconds and reduction of average number of vehicle stops by 5.38 stops in the 2039 PM peak under the 'with Proposal' scenario.
7.5	Bike North Inc	Bike North does not support the Epping Bridge Project as described in the REF and the Proposal is contradictory to the Transport for NSW Road User Space Allocation Policy. Facilities along this route should be improved as part of this project. This should include: • the ability of cyclists to use the Blaxland Road crossing including cyclist arrow lanterns • cycle crossing added to the pedestrian crossing on High Street.	The design of the Proposal, although constrained by the rail and road corridor, would enhance active transport safety and mobility. The new shared walking and bike riding path and safety screens would improve pedestrian and cyclist safety over the bridge as well as improving connectivity to the existing shared paths on Bridge Street and Epping Road. Pedestrian and cyclist mobility through Epping Town Centre, Epping Station and bus interchange would be further enhanced by pedestrian crossing improvements at Epping Road, Bridge Street and High Street.

No	Stakeholder.	Issue/s raised	Transport response
			The upgraded staged pedestrian crossing across Epping Road at the intersection of Blaxland Road and Langston Place would improve pedestrian safety at the intersection by making crossing pedestrians more visible to drivers and provides an opportunity for people with restricted mobility to rest and safely cross over Epping Road in two stages, if required. Additionally, the upgraded raised pedestrian (zebra) crossings at Bridge and High streets also provide safer walking environments at these locations. Condition of approval 12 requires that opportunities to improve connectivity across all intersections, including improving the connection of the bridge to the town centre across High Street, are to be further explored and developed during detailed design. Opportunities that would be explored further during detailed design would include: • the installation of barriers, lighting, cyclist lanterns, combined pedestrian/cyclist crossings • improvements to connectivity and crossings at the signalised intersection of Epping Road, Blaxland Road and Langston Place • improvements to prioritise active transport crossing over High Street. Condition of approval 5 requires that a feasibility study is to be undertaken during detailed design to consider options for closure of High Street to through traffic to facilitate the extension of the existing shared path. This would include consultation with City of Parramatta Council and the community. If the closure of High Street is the preferred option, further environmental impact assessment would be undertaken.

2.4 Future consultation

Should Transport proceed with the Proposal, consultation activities would continue, including with City of Parramatta Council and other key stakeholders regarding design development. In addition, Transport would notify residents, businesses and community members in the lead up to start of construction and throughout construction. Consultation activities would help to ensure that:

- local council and other key stakeholders have an opportunity to be informed and/or involved in design development
- the community and key stakeholders are notified in advance of any upcoming work, traffic access arrangements and out of hours construction activities, including changes that affect pedestrians and bike riders, bus and train passengers
- 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 delivery partner's email address and a 24 hour construction infoline would be available during the construction phase. Targeted consultation methods, such as use of community notifications, signage, social media, email notifications, door knocks to adjacent residents and business owners, individual briefings, and other types of verbal communications, would continue to occur. The Transport for NSW project webpage[4] would also include updates on the progress of construction and ways for the community to make enquiries and provide feedback.

[4] https://caportal.com.au/tfnsw/epping-bridge-project

3. Changes to the impacts of the Proposal

Transport has reviewed the traffic performance impacts outlined in the REF in response to the number of submissions from the public that related to traffic. The traffic model that informed the Transport Impact Assessment in the REF was reviewed for accuracy and several discrepancies were identified. As a result nputs and parameters within the model were revised and this produced some different results from those identified in the REF. The refined traffic modelling results provide a more accurate indication of the proposed benefits and impacts of the Proposal.

This section provides a summary of the changes between the original and refined modelling. A detailed breakdown of the methodology and results of the refined traffic modelling is presented in the updated Transport Impact Assessment, available on the Proposal website.

The refined traffic modelling included changes to travel time, intersection performance, network performance, and average delays during the construction, 2029 operation, and 2039 operation outcomes of the Proposal. The updated Transport Impact Assessment compares the traffic conditions in the scenarios 'with Proposal' and 'without Proposal' for 2029 and 2039 during the AM and PM peaks. In addition to the potential impacts that were originally considered in the Transport Impact Assessment undertaken for the REF, clarity over the 2023 baseline condition of the modelling parameters has been provided in the refined modelling and updated Transport Impact Assessment.

3.1 Results of detailed analysis

The results of the refined modelling presented in the updated Transport Impact Assessment have been summarised and provided below. These have been colour coded to show changes between the original assessment provided in the REF and the revised assessment. A summary of these findings is also provided in Section 3.2. The reference colour scheme is provided in Table 3-1.

Table 3-1 Colour coding used to identify the results of the revised assessment

Colour	Modelling outcome
	Reduced impact from original modelling (major)
	Reduced impact from original modelling (minor)
	No change between modelling or new value
	Increased impact from original modelling (minor)
	Increased impact from original modelling (major)

3.1.1 Construction

Network performance

The updated assessment of impacts to network performance during construction did not identify any changes when compared to the original assessment presented in the REF. The assessment of the modelling included the AM and PM vehicle kilometres travelled, vehicle hours travelled, average network speed, average network delay, completed trips, unreleased trips (vehicles restricted from entering the network during a time period due to network traffic), and average number of vehicle stops across five stages of construction.

The key findings relating to network performance are provided in Section 3.2.

Table 3-2 shows the results of the assessment of network performance.

Table 3-2 Construction Stages - Network Performance Summary - AM and PM Peaks

Model Performance Parameters	2023 Base Year	Stage 1A	Stage 4A	Stage 5B	Stage 5B (80% demand)	Stage 6
AM Peak (07:30 – 08:30)						
Vehicle kilometres travelled (km)	9651	9684	9601	9046	7755	9645

Model Performance Parameters	2023 Base Year	Stage 1A	Stage 4A	Stage 5B	Stage 5B (80% demand)	Stage 6
Vehicle hours travelled (hours)	369	387	404	572	263	361
Average network speed (km/h)	26	25	24	16	29	27
Average network delay (s)	1:52	1:43	1:53	3:37	1:11	1:29
Completed trips	6119	6154	6073	5759	4901	6122
Unreleased trips	5	3	5	300	0	4
Average Number of vehicle-stops	3.12	3.04	3.51	7.54	2.14	2.67
PM Peak (17:00-18:00)						
Vehicle kilometres travelled (VKT) km	9563	9610	9568	9579	7706	9570
Vehicle hours travelled (VHT) Hours	345	376	383	365	254	370
Average network speed (km/h)	28	26	25	26	30	26
Average network delay (s)	1:38	1:36	1:41	1:31	1:05	1:34
Completed trips	6252	6305	6247	6246	5041	6266
Unreleased trips	0	0	0	0	0	0
Average Number of vehicle-stops	2.29	2.48	2.52	2.65	1.83	2.50

Intersection performance

The updated assessment of impacts to network performance during construction did not identify any changes to the LoS of six intersections within the network during five stages of construction compared to the original assessment presented in the REF.

The key findings relating to intersection performance are provided in Section 3.2.

Table 3-3 shows the results of intersection performance assessment.

Table 3-3 Intersection Performance Comparison - Construction Stages - AM Peak

Intersection	2023 Base Year	Stage 1A	Stage 4A	Stage 5B	Stage 5B (80% Demand)	Stage 6
	LOS	LOS	LOS	LOS	LOS	LOS
AM Peak						
Carlingford Road & Ray Road & Rawson Street	F	F	F	F	C	E
Beecroft Road & Carlingford Road	B	B	B	C	B	B
Bridge Street / Rawson Street	C	C	D	E	C	D
Beecroft Road / High Street / Bridge Street	A	B	B	B	A	B
Epping Road & Blaxland Road & Langston Place	C	C	C	E	C	C
Epping Road & Essex Street	C	B	B	B	B	B
PM Peak						

Intersection	2023 Base Year	Stage 1A	Stage 4A	Stage 5B	Stage 5B (80% Demand)	Stage 6
	LOS	LOS	LOS	LOS	LOS	LOS
Carlingford Road & Ray Road & Rawson Street	C	C	C	C	B	C
Beecroft Road & Carlingford Road	B	B	B	B	B	B
Bridge Street / Rawson Street	D	D	C	F	C	E
Beecroft Road / High Street / Bridge Street	B	D	C	F	B	F
Epping Road & Blaxland Road & Langston Place	D	D	E	D	C	D
Epping Road & Essex Street	C	C	C	C	B	C

3.1.2 Operation

Travel Time

The key findings relating to travel time are provided in Section 3.2.

Changes as a result of the refined modelling

The refined modelling and updated Transport Impact Assessment present some changes from the outcomes reported in the REF. Travel times improved for the following routes in the refined modelling for the 2029 'with Proposal' scenario for the AM peak and PM peaks:

- AM:
  - Beecroft Road to Blaxland Road (Northbound): Decreased from 2:18 to 2:17
  - Carlingford Road to Epping Road (Eastbound): Decreased from 7:02 to 3:05
  - Carlingford Road to Epping Road (Westbound): Decreased from 3:10 to 3:07.
- PM:
  - Beecroft Road to Blaxland Road (Northbound): Decreased from 3:25 to 2:39
  - Beecroft Road to Blaxland Road (Southbound): Decreased from 2:34 to 2:26
  - Carlingford Road to Epping Road (Eastbound): Decreased from 7:33 to 2:51
  - Carlingford Road to Epping Road (Westbound): Decreased from 3:16 to 2:27.

Travel times worsened slightly for the Beecroft Road to Blaxland Road southbound route from 2:37 to 2:41 during the 2029 'with Proposal' in the AM peak. However, this still represents an improvement against the refined modelling of the 2029 'without Proposal' scenario. None of the travel times in the PM peak for the 2029 'with Proposal' scenario worsened as a result of the refinement of the modelling.

The updated Transport Impact Assessment includes the 2039 'without Proposal' scenario that was not included in the Transport Impact Assessment undertaken for the REF. This now provides for comparison between the 2039 'with Proposal' and 2039 'without Proposal' scenarios, to clearly indicate the benefits and impacts of the Proposal. The assessment indicates that the travel times for the 2039 'with Proposal' scenario for all routes in the PM peak and all routes in the AM (except for Carlingford Road and Epping Road westbound) experience improvements against the 2039 'without Proposal' scenario. It is expected that the Blaxland Road and Beecroft Road southbound route would experience time savings of 13 minutes and 49 seconds under the 2039 'with Proposal' scenario.

The results for the REF Transport Impact Assessment and the updated Transport Impact Assessment are provided in Table 3-4 for the AM peak and Table 3-5 for the PM peak.

Table 3-4 Future Year Scenarios Travel Time Summary - AM Peaks

Route	2029 Without Proposal (mins)	2029 With Proposal (mins)	2039 Without Proposal (mins)	2039 With Proposal (mins)
Original modelling				
Blaxland Road/Beecroft Road (Northbound)	2:20	2:18	-	-
Blaxland Road/Beecroft Road (Southbound)	4:19	2:37	-	-
Carlingford Road/Epping Road (Eastbound)	7:09	7:02	-	-
Carlingford Road/Epping Road (Westbound)	3:12	3:10	-	-
Revised modelling				
Blaxland Road/Beecroft Road (Northbound)	02:19	02:17	02:21	02:19
Blaxland Road/Beecroft Road (Southbound)	04:16	02:41	03:51	02:41
Carlingford Road/Epping Road (Eastbound)	06:46	03:05	06:08	03:39
Carlingford Road/Epping Road (Westbound)	03:12	03:07	03:15	03:18

Table 3-5 Future Year Scenarios Travel Time Summary - PM Peaks

Route	2029 Without Proposal (mins)	2029 With Proposal (mins)	2039 Without Proposal (mins)	2039 With Proposal (mins)
Original modelling				
Blaxland Road/Beecroft Road (Northbound)	2:52	3:25	-	-
Blaxland Road/Beecroft Road (Southbound)	10:45	2:34	-	-
Carlingford Road/Epping Road (Eastbound)	6:45	7:33	-	-
Carlingford Road/Epping Road (Westbound)	3:17	3:16	-	-
Revised modelling				
Blaxland Road/Beecroft Road (Northbound)	02:49	02:39	04:52	03:27
Blaxland Road/Beecroft Road (Southbound)	11:18	02:26	16:22	02:33
Carlingford Road/Epping Road (Eastbound)	05:21	02:51	08:37	07:22
Carlingford Road/Epping Road (Westbound)	03:10	02:27	05:03	02:54

Network Performance

The key findings relating to network performance are provided in Section 3.2.

Changes between the modelling

Network performance improved for the following intersections during the revised modelling for the 2029 'with Proposal' scenario during the AM peak and PM peaks:

- AM:
  - average speed: increased from 23km/h to 29.9 km/h
  - average network delay: decreased from two minutes and 14 seconds to one minute and 26 seconds
  - completed trips: increased from 6268 to 6348 trips
  - unreleased trips: decreased from 106 trips to 27 trips
  - average number of vehicle stops: decreased from 3.96 to 2.31 stops.
- PM:
  - average speed: increased from 23km/h to 31.7 km/h
  - average network delay: decreased from two minutes and 11 seconds to one minute and 14 seconds
  - completed trips: increased from 6535 trips to 6555 trips
  - unreleased trips: decreased from 6 trips to 0 trips
  - average number of vehicle stops: decreased from 3.76 to 1.85.

None of the network performance indicators in the AM or PM peak for the 2029 'with Proposal' scenario were worsened by the refined modelling. All of the parameters represent an improvement against the 2029 'without Proposal' scenario, indicating overall benefits of the Proposal.

Network performance improved for the following intersections after the refined modelling for the 2039 'with Proposal' scenario during the AM peak and PM peaks:

- AM:
  - average speed: increased from 24km/h to 27.4km/h
  - average network delay: decreased from two minutes and five seconds to one minute and 41 seconds
  - completed trips: increased from 6485 to 6710
  - unreleased trips: decreased from 310 trips to 36 trips
  - average number of vehicle stops: decreased from 3.77 to 2.70.
- PM:
  - average speed: increased from 15km/h to 19.4km/h
  - average network delay: decreased from three minutes and 55 seconds to two minutes and 49 seconds
  - completed trips: increased from 6763 trips to 6965 trips
  - unreleased trips: decreased from 322 trips to 40 trips
  - average number of vehicle stops: decreased from 7.56 to 6.37.

None of the network performance indicators in the AM or PM peak for the 2039 'with Proposal' scenarios were worsened by the refined modelling. The travel times for the 2039 'with Proposal' scenario represent an improvement against the 2039 'without Proposal' scenario in the AM and PM peaks for all parameters. In particular, the number of unreleased trips (vehicles restricted from entering the area during a time period due to network traffic) decreased by 259 in the AM peak and 475 in the PM peak.

The results for the original modelling and refined modelling are provided in Table 3-6 for the AM peak and Table 3-7 for the PM peak.

Table 3-6 Forecast AM Peak Hour Network Performance

Model Performance Parameters	2029 Without Proposal	2029 With Proposal	2039 Without Proposal	2039 With Proposal
Original modelling				
Vehicle Kilometres Travelled (km)	9858	9844	-	10084
Vehicle Hours Travelled (hours)	449	421	-	662
Average Network Speed (km/h)	22	23	-	24
Average Network Delay (minutes)	2:29	2:14	-	2:05
Completed trips	6278	6268	-	6485
Unreleased trips	109	106	-	310
Average Number of Vehicle-stops	4.33	3.96	-	3.77
Revised modelling				
Vehicle Kilometres Travelled (km)	9882*	9952*	10153*	10437*
Vehicle Hours Travelled (hours)	432*	333*	440*	380*
Average Network Speed (km/h)	22.9	29.9	23.1	27.4
Average Network Delay (minutes)	2:20	1:26	2:16	1:41
Completed trips	6290	6348	6525	6710
Unreleased trips	105	27	295	36
Average Number of Vehicle-stops	3.98	2.31	3.98	2.70

*Increases and decreases of these performance indicators can be seen as an improvement or deterioration from the baseline original modelling depending on preferred outcomes of the Proposal. For the objectives of this Proposal, increased vehicle kilometres travelled and vehicles hours travelled is considered an increased benefit.

Table 3-7 Forecast PM Peak Hour Network Performance

Model Performance Parameters	2029 Without Proposal	2029 With Proposal	2039 Without Proposal	2039 With Proposal
Original modelling				
Vehicle Kilometres Travelled (km)	9894	9876	-	10060
Vehicle Hours Travelled (hours)	447	427	-	662
Average Network Speed (km/h)	22	23	-	15
Average Network Delay (minutes)	2:21	2:11	-	3:55
Completed trips	6528	6535	-	6763
Unreleased trips	7	6	-	322
Average Number of Vehicle-stops	3.63	3.76	-	7.56
Revised modelling				

Model Performance Parameters	2029 Without Proposal	2029 With Proposal	2039 Without Proposal	2039 With Proposal
Vehicle Kilometres Travelled (km)	9887*	9925*	9687*	10389*
Vehicle Hours Travelled (hours)	422*	313*	875*	535*
Average Speed (km/h)	23.4	31.7	11.1	19.4
Average Network Delay (minutes)	2:09	1:14	5:44	2:49
Completed trips	6518	6555	6466	6965
Unreleased trips	0	0	515	40
Average Number of Vehicle-stops	3.10	1.85	11.75	6.37

*Increases and decreases of these performance indicators can be seen as an improvement or deterioration from the baseline original modelling depending on preferred outcomes of the Proposal. For the objectives of this Proposal, increased vehicle kilometres travelled and vehicles hours travelled is considered an increased benefit.

Intersection Performance

The key findings relating to intersection performance are provided in Section 3.2.

The refined modelling identified that each of the intersections perform higher in the 2029 'without Proposal scenario' when compared to the 2023 base LoS. This improvement has been identified as a result of the assumptions for modal shift changes and future network upgrades within the surrounding network that have been included within the model to provide an accurate indication of the traffic conditions.

Changes between the modelling

Intersection performance LoS improved for the following intersections after the refined modelling for the 2029 'with Proposal' scenario during the AM peak and PM peaks:

- AM:
  - Carlingford Road, Ray Road, and Rawson Street: Increased from F to D
  - Bridge Street and Rawson Street: Increased from E to B
  - Epping Road and Essex Street: Increased from D to C.
- PM:
  - Carlingford Road, Ray Road, and Rawson Street: Increased from F to C
  - Bridge Street and Rawson Street: Increased from E to A
  - Epping Road, Blaxland Road, and Langston Place: Increased from C to B
  - Epping Road and Essex Street: Increased from D to C.

None of the intersection performances in the AM or PM peak for the 2029 'with Proposal' scenario were worsened by the refined modelling. All of the routes would experience an improved or maintained LoS compared to the 2029 'without Proposal' scenario.

Intersection performance LoS improved for the following intersections after the refined modelling for the 2039 'with Proposal' scenario during the AM peak and PM peaks:

- AM:
  - Carlingford Road, Ray Road, and Rawson Street: Increased from F to D
  - Bridge Street and Rawson Street: Increased from F to B
- PM:
  - Beecroft Road, High Street, and Bridge Street: Increased from D to A

- Epping Road, Blaxland Road, and Langston Place: Increased from E to C.

Intersection performance LoS for the Bridge Street and Rawson Street intersection decreased from D to F in the PM peak for the 2039 'with Proposal' scenario.

All other routes would experience an improved or maintained LoS under the 2039 'with Proposal scenario' compared to the 2039 'without Proposal' scenario.

The results for the original modelling and refined modelling are provided in Table 3-8 for the AM peak and Table 3-9 for the PM peak.

Table 3-8 Forecast AM Peak Hour Intersection Performance

Year	Carlingford Rd & Ray Rd & Rawson St	Beecroft Rd & Carlingford Rd	Bridge Street / Rawson Street	Beecroft Road / High Street / Bridge Street	Epping Rd & Blaxland Rd & Langston Pl	Epping Rd & Essex St
Original modelling						
2023 Base Year	F	B	C	A	C	C
2029 Without Proposal	F	B	E	B	D	D
2029 With Proposal	F	B	E	A	C	D
2039 Without Proposal	-	-	-	-	-	-
2039 With Proposal	F	B	F	A	C	D
Revised modelling						
2023 Base Year	F	B	C	A	C	C
2029 Without Proposal	F	B	B	A	D	D
2029 With Proposal	D	B	B	A	C	C
2039 Without Proposal	F	B	C	A	D	D
2039 With Proposal	D	B	B	A	C	D

Table 3-9 Forecast PM Peak Hour Intersection Performance

Year	Carlingford Rd & Ray Rd & Rawson St	Beecroft Rd & Carlingford Rd	Bridge Street /Rawson Street	Beecroft Road / High Street / Bridge Street	Epping Rd & Blaxland Rd & Langston Pl	Epping Rd & Essex St
Original modelling						
2023 Base Year	C	B	D	B	D	C
2029 Without Proposal	F	C	D	B	D	D
2029 With Proposal	F	B	E	A	C	D
2039 Without Proposal	-	-	-	-	-	-
2039 With Proposal	F	C	D	D	E	C
Revised modelling						
2023 Base Year	C	B	D	B	D	C
2029 Without Proposal	F	C	A	A	D	C
2029 With Proposal	C	B	A	A	B	C
2039 Without Proposal	F	F	F	A	F	D
2039 With Proposal	F	C	F	A	C	C

3.2 Summary

The refined modelling was completed in response to the number of submissions received from the public and stakeholders during the public display of the REF. The review of the original modelling identified several discrepancies that were resolved within the refined modelling. This provided a more accurate overview of the potential impacts of the Proposal on traffic within the network. The results of the refined modelling identified the following impacts:

- Travel times:
- travel times along Beecroft Road northbound would be improved across both the AM and PM peak periods in the 'with Proposal' scenarios for the years 2029 and 2039
- Beecroft Road southbound travel times would improve in the AM peak periods in the 'with Proposal' scenarios for 2029 and 2039
    - Beecroft Road southbound travel times would improve significantly in the PM peaks under the 'with Proposal' scenarios by eight minutes and 52 seconds in 2029 and by 13 minutes and 49 seconds in 2039 compared to the 'without Proposal' scenarios

- travel times along Carlingford Road and Epping Road eastbound would improve by three minutes and 41 seconds in 2029 and by two minutes and 29 seconds in 2039 in the 'with Proposal' scenarios during the AM peak period compared to the 'without Proposal' scenarios. Travel times along this route would improve by two minutes and 30 seconds in 2029 and by one minute and 15 seconds in 2039 under the 'with Proposal' scenarios during the PM peak compared to the 'without Proposal' scenarios
- travel times along Carlingford Road and Epping Road westbound are similar between the 'without Proposal' and 'with Proposal' scenarios for the years 2029 and 2039 in the AM peak period however the route would experience a minor increase in travel time of three seconds in the 2039 'with Proposal' scenario. During the PM peak period, Carlingford Road and Epping Road westbound travel times have improved by 43 seconds in 2029 and two minutes and nine seconds in 2039 in the 'with Proposal' scenarios compared with the 'without Proposal' scenarios.

- Network performance:
  - all construction scenarios except Stage 5B (80% Demand) would yield lower average network speeds and slightly higher average network delays compared to the 2023 base year in both AM and PM peaks
- during the construction Stage 5B, there would be unreleased trips in the AM peak due to the eastbound lane closure at Epping Road / Blaxland Road / Langston Place intersection
  - the average network speeds would be improved during both the AM and PM peak periods in the 2029 and 2039 'with Proposal' scenarios compared to the 'without Proposal' scenarios with an increase of 8.3 km/h expected across the network during the PM peaks
  - the average network delay would be lower during both the AM and PM peak periods in the 'with Proposal' scenarios for the years 2029 and 2039. The average network delay would be decreased by two minutes and 55 seconds in the 2039 'with Proposal' scenario during the PM peak
- the number of unreleased trips would be lower during both the AM peak periods by 79 trips for the 2029 'with Proposal' scenario and by 259 trips for the 2039 'with Proposal' scenario
  - the number of unreleased trips during the PM peak periods would be maintained at zero in the 2029 'with Proposal' scenario and decreased by 475 in the 2039 'with Proposal scenario'
  - vehicles in the network would experience less stops during the AM peaks under the 2029 and 2039 'with Proposal' scenarios compared to the 'without Proposal' scenarios
  - vehicles in the network would experience 1.25 less stops in the 2029 and 5.38 less stops in 2039 in the 'with Proposal' scenario during the PM peak periods
  - this indicates that the Proposal would enhance traffic flow and reduce congestion during peak hours.
- Intersection performance:
  - generally, the Stage 5B construction scenario would represent the greatest decrease in LoS when compared to the 2023 base year for both the AM and PM peaks
  - during the AM peak periods, all intersections would experience maintained or improved LoS in the 'with Proposal' scenarios for 2029 and 2039 when compared to the 'without Proposal' scenarios
  - during the PM peak periods, all intersections would experience maintained or improved LoS in the 'with Proposal' scenarios for 2029 and 2039 when compared to the 'without Proposal' scenarios
  - during the PM peak for the 2029 'with Proposal' scenario, the Carlingford Road, Ray Road, and Rawson Street intersection would experience an increase in LoS from F to C and the Epping Road, Blaxland Road, and Langston Place intersection would experience an increase in Los from D to B when compared to the 'without Proposal' scenario
  - during the PM peak for the 2039 'with Proposal' scenario, the Beecroft and Carlingford Road intersection and Epping Road, Blaxland Road, and Langston Place intersection would experience increases in LoS from F to C when compared to the 'without Proposal' scenario.

In summary, the project scenarios for the Epping Bridge Project show improved network performance, intersection performance, and travel times compared to the 'without Proposal' scenarios.

4. Staging of site investigations and the Combined Services Route (CSR) relocation work

To expedite the overall construction schedule and utilise scheduled rail possessions, site investigations and the CSR relocation work would be brought forward in the program of work ahead of the main bridge work. The CSR construction impact area was identified in Figure 1-4 of the REF as a separate impact area as it is considered to have a lower impact than other proposed work. As such, a review of the conditions of approvals in Appendix C and mitigation measures in Appendix D has been undertaken to determine applicability to these early packages of work. Conditions of approval and mitigation measures relevant to site investigations and the CSR relocation work are contained in Appendix E.

5. Consideration of environmental impacts

5.1 NSW Environmental Planning and Assessment Act 1979

The REF addresses the requirements of Section 5.5 of the EP&A Act. In considering the Proposal, 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 Section 171 of the EP&A Regulation, an assessment is provided in Chapter 6 and Appendix A of the REF.

In respect of the Proposal 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 Proposal has been assessed in accordance with the NSW Department of Planning and Environment's Guidelines for Division 5.1 assessments[6]. It is concluded that the Proposal is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Accordingly, an environmental impact statement under Division 5.2 of the EP&A Act is not required.

5.2 NSW Heritage Act 1977

The Proposal would be undertaken within the curtilage of three non-Aboriginal heritage items.

In accordance with Section 170a of the Heritage Act, if the Proposal includes demolition of significant fabric, Transport Asset Manager (TAM) must provide notification of the work to Heritage NSW 14 days (or 40 days if the item is identified as being of State significance but is not listed on the NSW State Heritage Register) prior to the commencement of the work.

The Epping Railway Station Group has been identified on the TAM Section 170 Heritage and Conservation Register. Essex Street Conservation Area (C10) and Forest Park (I071) are both listed on the Parramatta Local Environmental Plan 2023. The potential non-Aboriginal heritage impacts of the Proposal have been assessed in Section 6.5 of the REF and Statement of Heritage Impact (Mott MacDonald, 2023).

As none of the non-Aboriginal heritage items within the Project area are listed on the State Heritage Register, no application under Section 60 of the *NSW Heritage Act 1977* was required for approval.

5.3 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

As part of the consideration of the Proposal, 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, would have, or is likely to have a significant impact. A summary of the evaluation is provided in Appendix A and Appendix B of the REF and this Determination Report respectively.

It is considered that the Proposal 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.

6. Conditions of Approval

If approved, the Proposal would proceed subject to the Conditions of Approval included in Appendix C and mitigation measures as modified by this report and included in Appendix D.

7. Conclusion

Having regard to the assessment in the REF, consideration of the submissions received, and the refined traffic modelling and updated Transport Impact Assessment subsequent to the public display of the REF, it can be concluded that the Proposal 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 (EIS) is not required to be prepared under Division 5.2 of the EP&A Act.

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

The environmental impact assessment (REF and Determination Report) is recommended to be approved subject to the Conditions of Approval (refer to Appendix C: Conditions of Approval) and mitigation measures as modified by this report (refer Appendix D: Mitigation measures).

Decision statement

EPPING BRIDGE PROJECT

APPROVAL

I, Elisha Pearce, as delegate of the Secretary, Transport for NSW:

1. Have examined and considered the Proposal in the *Epping Bridge Project Review of Environmental Factors* August 2024 and the *Epping Bridge Project Determination Report May* 2025 in accordance with Section 5.5 of the NSW *Environmental Planning and Assessment Act 1979.*
2. Consider that the Proposal is not likely to have a significant impact on the environment and an EIS is not required.
3. The Proposal will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values. A Species Impact Statement or BDAR is not required.
4. Determine that the Proposal is not likely to impact a matter of national environmental significance, or any Commonwealth land and therefore, a referral to the Australian Climate Change, Energy, the Environment and Water is not required.
5. Determine on behalf of Transport for NSW (the Proponent) that the Proposal may be carried out in accordance with the Conditions of Approval and mitigation measures in this Determination Report (*May* 2025), consistent with the Proposal described in the *Epping Bridge Project Review of Environmental Factors*.

Elisha Pearce
Director Central River City,
Sydney Integration
Planning, Integration and Passenger
Transport for NSW

Date: 13/05/2025

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Transport, 2024, *Epping Bridge Project Review of Environmental Factors,* Sydney. Accessed: https://caportal.com.au/tfnsw/epping-bridge-project

Urban Arbor, 2023, *Arboricultural Impact Assessment Report*, Sydney

Terms and acronyms used in this Report

Drafting guidance:

Provide a list of the technical terms and acronyms used in the Determination Report and their definitions. The below are examples only and should be included only if relevant.

Term	Meaning
BC Act	*Biodiversity Conservation Act 2016* (NSW)
BDAR	Biodiversity Development Assessment Report
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CLP	Community Liaison Plan
Construction Contractor	The Construction Contractor for the Proposal would be appointed by Transport for NSW to undertake the detailed design and construction of the Proposal.
CPTED	Crime Prevention Through Environmental Design
DDA	*Disability Discrimination Act 1992* (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 Transport for NSW acceptance).
Determination Report	This document – a report prepared by Transport for NSW to assess and address certain matters to allow for a determination of the Proposal under, and in accordance with Division 5.1 of the EP&A Act.
DSAPT	*Disability Standards for Accessible Public Transport (2002)*
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021* (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
Transport & Infrastructure SEPP	*State Environmental Planning Policy (Transport and Infrastructure) 2021* (NSW)

LEP	Local Environmental Plan
LGA	Local Government Area
NES	Matters of 'National Environmental Significance' under the EPBC Act
NSW	New South Wales
Proponent	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in this instance, Transport for NSW.
the Proposal	The construction and operation of the Epping Bridge Project
REF	Review of Environmental Factors
SCATS	Sydney Coordinated Adaptive Traffic System
SIS	Species Impact Statement
TAM	Transport Asset Manager
UDLP	Urban Design and Landscape Plan

Appendix A: REF

The REF and supporting technical studies (including an updated Transport Impact Assessment) are available online at the Project Wepbage (https://caportal.com.au/tfnsw/epping-bridge-project) .

Appendix B: Matters of NES and Section 171

Matters of National Environmental Signficance

Factor	Impact
(a) Any impact on a World Heritage property?	Nil
(b) Any impact on a National Heritage place?	Nil
(c) Any impact on a wetland of international importance?	Nil
(d) Any impact on a listed threatened species or communities?	Nil
(e) Any impacts on listed migratory species?	Nil
(f) Any impact on a Commonwealth marine area? (g) [State whether the Proposal would impact on a Commonwealth marine area. If impacts are likely, describe the nature and extent of the impacts.]	Nil
(h) Does the Proposal involve a nuclear action (including uranium mining)?	Nil
(i) Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

Consideration of section 171(2) factors

Factor	Description of impact	Duration and extent
a) Environmental impact on the community.	The construction of the Proposal is anticipated to impact the community. Impacts would be temporary are associated to construction noise, reduced traffic capacity and reduced visual amenity in the locality. Conditions of approval and mitigation measures would be implemented to manage and minimise negative impacts during construction. The operation of the Proposal would result in an increase in the road capacity, improved safety and reduced congestion through the town centre.	Short-term, moderate, negative impact Long-term, positive impact
b) The transformation of the locality.	The Proposal would replace the existing Epping Bridge and upgrade approaches to the bridge. The works are located within existing road and rail corridors, in an urban environment. The new bridge, bike and pedestrian paths would improve access to the town centre for the local community, road users and businesses. New visible elements would be added to the bridge including additional lanes, retaining walls and safety screens. The appearance of new elements would cause minor visual changes to the surrounding area. The detailed design phase of the Proposal would minimise the changes to the surrounding area by ensuring design is consistent with existing public domain elements and area and specific urban design principles. The Proposal would require the removal of 28 trees which currently screen visual elements in the area. Visual impacts of the Proposal on the locality would be reduced through the implementation of mitigation measures outlined in Appendix D: Mitigation measures. There would be some residual impact associated on the removal of trees along the rail corridor.	Long-term, moderate, negative impact
c) Any environmental impact on the ecosystems of the locality.	The Proposal would remove 28 trees of planted native and exotic varieties. The locality is a highly modified, urban environment with limited fauna habitat values. Environmental impacts are anticipated to be minor and would not be expected to result in adverse impacts to the ecosystems of the locality. The implementation of mitigation measures would minimise impacts, including tree replacement in accordance with the ratios outlined in the Tree and Hollow Replacement Guidelines (Transport, for NSW, 2023). Areas of BGHF has been identified within the rail corridor and construction compound located on High Street. This vegetation would be managed in accordance with condition of approval 9, as presented in Appendix C: Conditions of Approval, which requires works within these areas to be undertaken in accordance with recommendations of an ecology assessment that will be prepared to inform the CEMP.	Nil
d) Any reduction of the aesthetic, recreational, scientific or other	The Proposal would result in a temporary reduction in the aesthetic quality of the locality as a result of construction impacts including noise, visual and traffic changes. Permanent changes to the landscape character during operation that would result from removal of the 28 trees	Short-term, moderate, negative

Factor	Description of impact	Duration and extent
environmental quality or value of a locality.	within and surrounding the Proposal area, would reduce the aesthetic qualities and values of the area. The installation of safety screens and new retaining features are also expected to reduce the aesthetic quality for some viewpoints. Impacts to qualities of the area surrounding the Proposal would be minimised through the implementation of mitigation measures This would include the development of an Urban Design and Landscape Plan (UDLP). The UDLP would ensure good urban design outcomes in alignment with the current and future character of the Epping considered are achieved during detailed design. Several mitigation measures have been included that relate to urban design, including lighting requirements, graffiti management, and tree replacement measures. These are presented in Appendix D, as mitigation measure 28-35. However, the Proposal would provide the opportunity to enhance the entrance to Epping town centre through the upgrade of the existing retained landscape areas within the Proposal area and provision of new landscaped areas where possible. The Proposal would improve legibility of the entrances to the town centre, including public realm enhancements with new paving, landscaping, lighting, furniture and signage.	Long-term, moderate, negative Long-term, major, positive
e) Any effect on any locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.	The station is listed on TAM's Section 170 Heritage and Conservation Register. The Proposal would result in some minor impacts to some parts of the station that are heritage listed, including minor visual impacts and vibration impacts. Mitigation measure 61 requires vibration testing to be conducted prior to and during vibration inducing work to understand the vibration limits for sensitive structures within the railway corridor and its surrounds. Visual inspections are also to be carried out during these works for early identification of aesthetic and/or structural damage. Forest Park is listed by the Parramatta LEP as an item of local heritage value. The primary heritage concerns are the retention of trees within the park and existing brick retaining wall along the western side of the park as these contribute to the heritage significance of the listing. Mitigation measures provided in Appendix D address the potential impacts to heritage listed items within the Proposal area. Mitigation measure 58 provides requirements for the proposed retaining walls in proximity to Forest Park and Blaxland Road to be designed to avoid impacts to heritage significant plantings within Forest Park. Additionally, condition of approval 10 requires the finishes of the retaining walls are detailed in the UDLP to ensure the work is aesthetically appropriate for the heritage character of Forest Park. The Epping Bridge Project Review of Environmental Factors assessed the Proposal in the context of the likelihood of impacts to Aboriginal archaeology and heritage and determined that there is low potential for the Proposal to impact on any archaeological remains or items of Aboriginal heritage.	Long-term, minor, negative Nil Nil

Factor	Description of impact	Duration and extent
	Impacts to non-Aboriginal and Aboriginal heritage would be minimised through the implementation of the mitigation measures provided in Appendix D: Mitigation measures.	
f) Any impact on the habitat of protected fauna (within the meaning of the *Biodiversity and Conservation Act 2016*).	Protected fauna have not been identified within the Proposal area. Therefore the Proposal is unlikely to impact on the habitat of protected fauna. The Proposal area is considered to provide limited suitable habitat for threatened species. The existing bridge has potential habitat features for threatened microbat species, however no evidence of microbats was found within the existing bridge. Mitigation measure 85, provided in Appendix D: Mitigation measures, stipulates that an Unexpected Threatened Species Finds Procedure is to be followed in response to any observations of microbats during construction, followed by the preparation of a Microbat Management Plan (MMP). Mitigation measure 86, provided in Appendix D: Mitigation measures, requires that works are to stop if any habitat features are identified during clearing and an ecologist is to be called to safely remove and relocate the fauna.	Nil
g) Any endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air.	The Proposal is unlikely to endanger any species of animal, plant or other form of life living on land, in water or in the air. The Proposal area is considered to provide limited suitable habitat for threatened species. The existing bridge has potential habitat features for threatened microbat species. However, no evidence of microbats was found within the existing bridge. The compound location within the rail corridor on High Street has the potential to impact species that are consistent with the critically endangered ecological community, Blue Gum High Forest. However impacts would be mitigated by the implementation of compound exclusion areas and appropriate protection measures. Mitigation measures have been identified to minimise any potential for impacts as a result of the Proposal. This includes (but are not limited to): • replacement planting (mitigation measure 77) • unexpected finds procedures for any discovery of microbats (mitigation measure 85) • management of habitat features during vegetation clearing (mitigation measure 86)	Nil
h) Any long-term effects on the environment	The Proposal would have positive long-term effects by improving road safety and connectivity and contributing to the urban renewal that aligns with the Epping Activation Program. To address impacts relating to vegetation loss, mitigation measure 77 requires that all vegetation requiring removal is to be offset in accordance with Transport's Biodiversity Policy. This includes the replanting of locally	Positive Moderate, negative

Factor	Description of impact	Duration and extent
	native species which will assist in the reduction of long-term impacts to the environment.	
i) Any degradation of the quality of the environment.	The construction of the Proposal is anticipated to impact the quality of the environment. Impacts would be temporary and are associated with construction noise, reduced traffic capacity, reduced functionality for active transport users, and reduced visual amenity on the community in the locality, including vegetation loss. Mitigation measures would be implemented to manage and minimise negative impacts during construction. These impacts are expected to be managed by the mitigation measures that would be implemented during construction. This includes (but is not limited to): • preparation of the CNVMP (mitigation measure 36) • specified hours for special audible characteristics activities (mitigation measure 39) • implementation of noise barrier (mitigation measure 46) • preparation of the TMP (mitigation measure 13) • predetermination of construction vehicle routes and appropriate haulage and delivery times (mitigation measure 16 and 24) • retainment of pedestrian access during construction wherever possible and maintained partial access to the Langston Place Opal bike shed (mitigation measure 17 and mitigation measure 18) • replanting of removed vegetation in line with Transport's Biodiversity Policy (mitigation measure 77) • preparation of the UDLP (mitigation measure 28)	Short term, moderate negative Long term, moderate negative
j) Any risk to the safety of the environment.	During construction, pollution impacting the environment could occur from sedimentation of watercourses through transported sediment, exposure of contaminated soils, plant emissions, waste, spilt fuels and chemicals. Mitigation measures have been identified to minimise these impacts. Operation of the Proposal would improve safety for road users and active transport users.	Short-term, minor, negative Long-term, positive
k) Any reduction in the range of beneficial uses of the environment.	The Proposal is not anticipated to result in any reduction in the range of beneficial uses of the environment.	Nil
l) Any pollution of the environment.	During construction pollution of the environment could occur from sedimentation of watercourses through transported sediment, exposure of contaminated soils, plant emissions, waste, spilt fuels and chemical. Mitigation measures outlined in Appendix D would minimise impacts.	Short term, minor, negative
m) Any environmental problems associated with the disposal of waste	The Proposal is unlikely to result in environmental problems associated with the disposal of waste. All waste would be managed and disposed of in accordance with a site-specific Waste Management Plan that would be prepared as part of the Construction Environmental Management Plan. The implementation of mitigation	Nil

Factor	Description of impact	Duration and extent
	measures would ensure waste is reduced, reused, or recycled where possible.	
n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	Resources needed for the Proposal are readily available and are not in short supply.	Nil
o) The cumulative environmental effect with other existing or likely future activities.	Cumulative impacts have been assessed and are discussed within Section 7.3 of the Epping Bridge Project Review of Environmental Factors. A range of Proposals have been identified within Epping which could create a cumulative environmental impact on traffic, noise, and/or visual amenity. The implementation of the identified mitigation measures in Appendix D would manage potential cumulative impacts.	Short term, moderate, negative
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	As the Proposal is not located within a coastal area, it would not impact on coastal process and/or coastal hazards, including projected climate change conditions.	Nil
q) Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	The Proposal would support the ongoing redevelopment of Epping in accordance with the Epping Activation Program. The Proposal aligns with a range of the Greater Sydney Region Plan, primarily: • Objective 1. Infrastructure that supports the three cities • Objective 3. Infrastructure adapts to meet future needs • Objective 6. Services and infrastructure meet communities' changing needs. Epping is a metropolitan centre within the Central River City as such the *Central City District Plan* applies to the Proposal. The Proposal aligns with following objectives: • Planning Priority C1. Planning for a city supported by infrastructure • Planning Priority C3. Providing services and social infrastructure to meet people's changing needs.	Nil
r) Other relevant environmental factors	In considering the potential impacts of the Proposal all relevant environmental factors have been considered within Chapter 6 of the REF	Nil

Appendix C: Conditions of Approval

CONDITIONS OF APPROVAL

Epping Bridge Project

Note: These conditions must be read in conjunction with the final mitigation measures in the Epping Bridge Project Review of Environmental Factors as modified in Appendix D of the Determination Report.

Schedule of acronyms and definitions used:

Acronym	Definition
AFC	Approved For Construction
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CIR	Contamination Investigation Report
CLP	Community Liaison Plan
CMP	Contamination Management Plan
CoA	Conditions of Approval
dBA	Decibels (A-weighted scale)
DES	Director Environment and Sustainability (or nominated delegate)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPL	Environment Protection Licence issued by the Environmental Protection Authority under the *Protection of the Environment Operations Act 1997*
EMR	Environmental Management Representative
EMS	Environmental Management System
HIS	Heritage Interpretation Strategy
ISO	International Standards Organisation
OEH	Former NSW Office of Environment and Heritage
ONVMP	Operational Noise and Vibration Management Plan
OOHWP	Out of Hours Work Protocol
PECM	Pre-Construction Environmental Compliance Matrix
POCR	Pre-Operational Compliance Report
RBL	Rating Background Level
REF	Review of Environmental Factors
SMP	Sustainability Management Plan
SDG	Sustainable Design Guidelines
Transport	Transport for NSW
TMP	Traffic Management Plan
UDLP	Urban Design and Landscape 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 Transport 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 work including jack hammering and compaction, for Construction.
Emergency Work	Includes work to avoid loss of life, damage to external property, utilities and infrastructure, prevent immediate harm to the environment, contamination of land or damage to a heritage (Aboriginal or non-Aboriginal) item.
Environmental Impact Assessment (EIA)	The documents listed in Condition 1 of this approval.
Environmental Management Representative (EMR)	An independent environmental representative appointed to the Project or a delegate nominated by Transport for NSW.
Feasible	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given project constraints such as safety and maintenance requirements.
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.
Project	The construction and operation of the Epping Bridge Project as described in the Environmental Impact Assessment.
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.
Reasonable	Selecting reasonable measures from those that are feasible involves making a judgment to determine whether the overall benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.

No.	Condition	Responsibility	Timing
	General		
1.	**Terms of Approval** The Project shall be carried out in accordance with the environmental impact assessment (EIA) for this Project, unless otherwise agreed to by the DES (or delegate) and supported by written justification, which comprises the following documents: a) *Epping Bridge Project – Review of Environmental Factors* (Mott Macdonald, August 2024), including associated Mitigation Measures and supporting specialist studies b) *Epping Bridge Project – Determination Report* (Mott MacDonald, May 2025). In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.	Contractor and Transport	Throughout
2.	**Statutory Requirements** These conditions do not remove any 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 terms and conditions	Contractor and Transport	Throughout

No.	Condition	Responsibility	Timing
	of such licences, permits, approvals and permissions must be complied with at all times.		
	Environmental Management		
3.	Requirements for documents, plans or programs which must be reviewed and approved by the Transport Environment and Sustainability Representative (TESR) (including the Construction Environmental Management Plan (CEMP)) are outlined in the Mitigation Measures. All reviews and approvals associated with these Mitigation Measures shall meet the following requirements (unless otherwise approved by the TESR or DES or if specifically noted in a Mitigation Measure): a) Evidence of completed consultation with government agencies and relevant service/utility providers, submitted with the CEMP b) a copy of the plan submitted to the TESR for review at least 21 days prior to commencement of Construction or the related works being commenced c) any comments made by the TESR in accordance with b) must be adequately addressed prior to submission for approval d) periodic review and update of the plan submitted to the TESR for endorsement Construction must not commence until the DES has provided written approval of the plan/s.	Contractor	Pre-construction/ Construction
	Additional Conditions of Approval		
4.	**Acoustic consultant** A Suitably qualified and experienced acoustic consultant shall be available and be responsible for preparing construction noise and vibration management plan (CNVMP) for the Proposal, including a construction noise and vibration impact assessment (CNVIA), noise modelling, recommendations for construction staging, methodology and plant and equipment to minimise noise impacts to receivers, recommendation and implementation of noise mitigation, undertaking site inspections, verification monitoring, preparation and implementation of documentation and ensuring the Proposal meets the requirements of the EPA's Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009), Transport's Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2024), Transport's Out of Hours Work Protocol (OOHWP) and the Noise and Vibration Impact Assessment for the Proposal (Mott MacDonald, 2024a). Details of the consultant, including relevant experience, defined responsibilities and resource allocation throughout the Proposal (including time to be spent on-site/off-site) are to be submitted for the written approval of the DES, at least 21 days prior to commencement of construction of the Proposal (or such time as otherwise approved by the DES). Any adjustments to acoustic resource allocations (on-site or off-site) are to be approved by the DES.	Contractor	Pre-construction/ construction
5.	**Feasibility study** Undertake a feasibility study to investigate the full or partial closure of High Street to improve active transport links and safety of active transport users. The feasibility study shall include an assessment of options and the environmental impacts associated with the closure of High Street, including (but not limited to):	Contractor	Pre-construction/ construction

No.	Condition	Responsibility	Timing
	• Changes to the function/accessibility of on street parking and associated impacts to High St businesses • active transport outcomes • visual and urban design outcomes • operational traffic noise impact of the proposed closure of High Street and re-routing of traffic on local roads • Transport's assessment of traffic impacts • Transport's consultation report (detailing consultation with stakeholders, including City of Parramatta Council and the community) A report on the outcomes of the feasibility study must be provided to the Principal 3 months after Contract Award. Note: Where a feasible option is identified, changes to High Street may require further assessment under the EP&A Act.		
6.	**Out of Hours Work Community Engagement** Any work that would need to occur outside standard hours (including night work over consecutive nights per week) shall be scheduled and undertaken in accordance with the CNVMP and in accordance with the guidelines contained within the Epping Bridge Project Communications and Stakeholder Engagement Plan to minimise disruptions to customers, pedestrians, motorists and nearby sensitive receivers wherever possible.	Contractor	Construction
7	**Removal of Trees or Vegetation** A Tree and Hollow Replacement Plan is to be prepared in accordance with Transport's *Tree and Hollow Replacement Guideline*. Trees and vegetation nominated to be removed in the Arboricultural Impact Assessment (AIA) (UrbanArbor, 2023) will be clearly demarcated onsite prior to construction, to avoid unnecessary vegetation removal. Landowners consent shall be obtained prior to vegetation removal, should TAM not be the landowner. Trees and vegetation to be retained will be protected through temporary protection measures discussed in mitigation measures below. Separate approval, in accordance with Transport's EMF-EM-TT-0144 Removal or trimming of vegetation application, is required for the trimming, cutting, pruning or removal of all trees or vegetation where the impact has not already been identified in the REF or Determination Report for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the mitigation measures.	Contractor	Design and Construction
8	Prior to any works commencing at the site a Project Arborist shall be appointed. The Project Arborist shall be qualified to a minimum AQF level 5 and/or equivalent qualifications and experience and shall provide advice in relation to work in proximity of trees (including root and canopy), including advice in relation to tree investigation, impact mitigation, design and establishment of tree protection, design and construction advice for the duration of the project. The advice of the project arborist shall be adhered to during design and construction to ensure the protection of trees identified for retention.	Contractor	Design and Construction
9	The Proposal will comply with the recommendations of the ecology assessment of the area proposed to be used for High Street rail corridor access and an in-corridor construction	Contractor	During construction

No.	Condition	Responsibility	Timing
	compound titled Epping Road Bridge Works Ecological Impact Assessment by Niche dated 16 April 2024. When utilising the High Street rail corridor compound, activities must be undertaken in accordance with the recommendations of the ecology report. Materials storage/laydown activities shall not occur within BGHF protection areas or impact any ecology values, as identified within the ecology report. Areas that are excluded from use for compound and access and BGHF protection areas identified in the ecology report must be established and maintained to protect BGHF and any other ecological values. Recommendations of the ecology report are to be implemented and incorporated within the CEMP.		
10	The finishes of the retaining walls shall be detailed in the urban design and landscape plan (UDLP) to ensure that the new work is aesthetically appropriate for the visual prominence from the public domain. For retaining walls along Blaxland Road, the finishes shall be appropriate having regard for the heritage character of Forest Park.	Contractor	Design and Construction
11	The design of the shared path must minimise obstructions and optimise pavement material for cyclists, having regard for the Austroads Guide to Road Design, Part 6A: Paths for Walking and Cycling (AGRD6A-21)	Contractor	Design and Construction
12	Opportunities to achieve safety, connectivity and permeability for active transport users shall be explored during detailed design, including but not limited to: • minimise conflicts between pedestrians and cyclists • minimise conflicts between vehicles, pedestrians and cyclists, including opportunities for the installation of separation fences to separate vehicles and active transport spaces • improve the connectivity of crossings for pedestrians and cyclists • improve the safety and functionality of all intersections for pedestrians and cyclists • improve the connection to the Epping town centre for pedestrians and cyclists.	Contractor	Design

Appendix D: Mitigation measures

Note that the changes made since the publication of the REF are indicated by underlined text where an addition has been made and strikethrough text for deletions.

No.	Mitigation measure	Responsibility	Timing
	General		
1	**Construction Environmental Management Plan** A Construction Environmental Management Plan (CEMP) shall be prepared and implemented prior to the commencement of construction which addresses the following matters, as a minimum: a) project risk assessment including environment and sustainability aspects and impacts b) traffic and pedestrian management (a separate Traffic Management Plan (TMP) is required) <u>including locations for construction worker parking that limit impacts to available on street parking in proximity to the station where feasible to do so</u> c) urban design, landscape character and visual amenity d) noise and vibration management, including traffic noise generated by the Project e) water and soil management f) air quality management (including dust suppression) g) Aboriginal and non-Aboriginal heritage management h) biodiversity management i) storage and use of hazardous materials j) contaminated land management (including acid sulphate soils) k) weed management l) waste management m) bushfire risk n) environmental incident reporting and management procedures o) non-compliance and corrective/preventative action procedures p) details of approvals, licences and permits required to be obtained under any other legislation for the Project. The CEMP shall: i. detail how the Contractor shall comply with the Conditions of Approval, Mitigation Measures, 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 Environmental Management Plan Guideline – Guideline for Infrastructure Projects (NSW Department of Planning Industry and Environment, 2020) iii. include an environmental compliance matrix for the Project (or such stages of the Project as approved by the Transport Environment and Sustainability Representative (TESR)) that details compliance with all relevant conditions and mitigation measures iv. include an Environmental Policy. The CEMP shall be reviewed and updated at six monthly intervals (unless otherwise approved with the TESR) and in	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	response to any actions identified as part of the TESR's review of the document, or in response to non-compliance or incidents, or to scope changes or modifications. Updates to the CEMP shall be made within 7 days of the completion of the review or receipt of actions identified in the Transport review of the document. The CEMP must be approved by the DES or delegate prior to the commencement of construction and following review, and be implemented for the construction.		
2	**Environmental Controls Map** An Environmental Controls Map (ECM) shall be prepared in accordance with Transport's Environmental controls map guideline (EMF-EM-GD-0148) prior to the commencement of construction for implementation for the construction. The ECM is to be approved by the TESR and may be prepared in stages, as set out in the CEMP. A copy of the ECM shall be submitted to the TESR for review and written approval in accordance with Mitigation Measure 4. The ECM shall be prepared as a map – suitably enlarged in both A0 and A3 sizes and mounted on the wall of a site office and included in site inductions, supported by relevant written information. Updates to the ECM shall be made within 7 days of the completion of the review or receipt of actions identified by any TESR audit of the document and submitted to the TESR for written approval.	Contractor	Pre-construction
3	**Site Induction** Prior to the commencement of construction, all contractors shall be inducted on the key project environmental and sustainability risks, procedures, mitigation measures and conditions of approval. The induction shall be given by the Environmental Personnel and as a minimum shall include: • details of the approved ECM as required by Mitigation Measure 2 and where the ECM is located on site, and a briefing on the CEMP as required by Mitigation Measure 1 • information on the protection measures to be implemented to protect vegetation, penalties for breaches and location of areas of sensitivity • preliminary identification of Aboriginal cultural heritage material. This training shall include information such as the importance of Aboriginal cultural heritage material and places to the Aboriginal community, as well as the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites. • details of the noise and vibration management strategies and requirements to be implemented throughout all construction stages in alignment with the CNVMP. A heritage induction informing them of the location of known heritage items and guidelines to follow if unanticipated heritage items or deposits are located during construction.	Contractor	Pre-construction
4	**Transport Environmental Management Approvals** Requirements for documents, plans or programs which must be reviewed and approved by the TESR (including the CEMP) are outlined in the Mitigation Measures. All reviews and approvals associated with these Mitigation Measures shall meet the following requirements (unless otherwise approved by the TESR or DES or if specifically noted in a Mitigation Measure):	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	a) completed consultation with government agencies and relevant service/utility providers and evidence of consultation submitted with the plan b) a copy of the plan submitted to the TESR for review at least 21 days prior to commencement of Construction or the related works being commenced c) any comments made by the TESR in accordance with b) must be adequately addressed prior to submission for approval d) a copy of the plan submitted to the TESR to obtain written approval from the DES at least 5 days prior e) periodic review and update of the plan submitted to the TESR for written approval Construction must not commence until the DES has provided written approval of the plan/s.		
5	**Environment Personnel** Suitably qualified and experienced environmental management personnel shall be available and be responsible for implementing the environmental objectives for the Project, including undertaking regular site inspections, preparation and implementation of environmental documentation and ensuring the Project meets the requirements of the Environmental Management System (EMS). Details of the environmental personnel, including relevant experience, defined responsibilities and resource allocation throughout the Project (including time to be spent on-site/off-site) are to be submitted for the written approval of the DES, at least 21 days prior to commencement of construction of the Project (or such time as otherwise approved by the DES). Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the DES.	Contractor	Pre-construction and construction
6	**Service Relocation** Services relocations shall be undertaken in consultation with the relevant authorities. Existing services and exclusion zones shall be identified on the ECM and on site to avoid direct impacts during construction.	Contractor	Pre-construction and construction
7	**Detailed Design Validation** A detailed design validation report (DDVR) for the Project shall be prepared and submitted at each design stage to detail how compliance is achieved against: • the final Project description. • all design mitigation measures detailed in the REF. • any conditions of approval in the determination report for the Project. A final DDVR shall accompany the Approved for Construction (or equivalent) submission. The Proponent shall: a) submit a copy of the DDVR to the TESR for review b) update and submit a DDVR revision at each design stage or as required, including as the design progresses c) the TESR is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the DDVR. Upon completion of the final TESR review period a copy of the DDVR will be submitted to the DES (or nominated delegate) for written approval. The DDVR will be submitted	Contractor	Pre-construction and following each design phase

No.	Mitigation measure	Responsibility	Timing
	to Transport for review and Confirmation that the design achieves compliance.		
8	**Environmental Incident Procedure** Where non-compliances or incidents arise, an event report must be completed in the Transport incident management system and returned to the Principal's Representative in accordance with 'EMF-EM-PR-0001 Environmental Incident Procedure'.	Contractor	Construction
9	**Project Modifications** Any modifications to the Project (as defined in this REF and/or ~~future~~ Determination Report), requiring an ~~amendment~~ **addendum** REF (as determined by the TESR), would be subject to further assessment and approval by Transport. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been mitigated. The further assessment must be submitted and approved prior to commencement of works relating to the modification.	Contractor	As required
10	**Project Changes** Any modifications to the Project (as defined in this REF and/or future Determination Report), which may be amended by a consistency assessment (as determined by the TESR), if approved, would be subject to further assessment and approval by Transport. This assessment would need to demonstrate that any environmental impacts resulting from the change have been minimised. The further assessment must be submitted to Transport 6 weeks prior to commencement of works relating to the modification.	Contractor	As required
11	**Modification/Change Register** A project modification/change register shall be created and maintained throughout the project to identify project changes or modifications. The register will be updated and submitted at each design stage or as required, including as the design progresses. The register will be submitted to TESR for review of changes and direction on the approval pathway these changes or modifications should apply.	Contractor	As required
	Traffic and site access		
12	**Road Condition Reports** Prior to construction commencement and at the completion of construction, road condition surveys and reports on the condition of roads and footpaths to be affected by construction shall be prepared and provided to Transport for information. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear, shall be repaired at the Contractor's expense.	Contractor	Pre-construction and post-construction
13	**Traffic Management Plan** Prior to the commencement of construction, a Traffic Management Plan (TMP) shall be prepared and shall include at a minimum: • 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. • maximising safety and accessibility for pedestrians and cyclists. • ensuring adequate sight lines to allow for safe entry and exit from the site. • ensuring access to railway stations, businesses, entertainment premises and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made).	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	• managing impacts and changes to on and off street parking and requirements for any temporary replacement provision. • parking locations for construction workers away from stations and busy residential areas and details of how this would be monitored for compliance. • routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses. • details for relocating bus stands, kiss and ride, taxi ranks and rail replacement bus stands if required, including appropriate signage to direct patrons, in consultation with the relevant bus/taxi operators. Particular provisions would also be considered for the accessibility impaired. • 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. Consultation with the relevant roads authorities shall be undertaken during preparation of the construction TMP. The performance of all project traffic arrangements must be monitored during construction.		
14	**Community notification** Communication shall be provided to the community and local residents to inform them of changes to **bus stops,** parking, pedestrian access and/or traffic conditions including vehicle movements and anticipated effects on the local road network relating to site work.	Contractor	Construction
15	**Road Occupancy Licences** Road Occupancy Licences for temporary road closures shall be obtained, where required. The temporary full and partial closures and traffic management controls on public roads shall be managed and implemented in accordance with the provisions of a Road Occupancy Licence(s).	Contractor	Construction
16	**Construction vehicle routes** Where feasible, vehicles performing construction deliveries or haulage should utilise the predetermined routes for the relevant construction area or compound to minimise impacts on the wider road network and residents.	Contractor	Construction
17	**Opal bike shed, Langston Place** During construction, partial use of the Opal bike shed on Langston Place is to be maintained. The existing bike shed is to be reinstated as early as possible.	Contractor	Detailed design / Construction
18	**Pedestrian access** Pedestrian access across the bridge must be maintained at all times during construction, wherever it is safe and feasible to do so. Adequate information on pedestrian diversions shall be provided to affected pedestrians during any pedestrian closure of Epping Bridge, including advanced notification, appropriate wayfinding and directional signage along detour routes. A notification strategy shall be included within the CLMP.	Contractor	Construction
19	**Road safety audit** A Road Safety Audit shall be undertaken as part of detailed design and upon completion of construction, and design amendments made as required.	Contractor	Detailed design / Construction
20	**Access to private properties**	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
	~~Access to private properties is to be maintained throughout construction.~~ Impacts to access to residential and commercial properties in proximity to the construction area shall be avoided wherever possible. If access is required to be impeded, impacts shall be minimised as much as practicable and prior notification to affected landowners and community members shall be undertaken in accordance with the Community Liaison Management Plan (CLMP).		
21	**Safe access assessment** Prior to the use of overflow carparking at 36 and 38 Essex Street, a safe access assessment must be undertaken to ensure safety of workers, pedestrians and other road users.	Contractor	Construction
22	**Use of two-way radios to avoid queuing** Queuing on public roads shall be avoided by the use of two-way radios to call up haulage trucks from layover areas on a 'just in time' basis.	Contractor	Construction
23	**Access to bus stands** Access to bus stands shall be maintained during construction in consultation with the bus operators where feasible and reasonable, relocations shall be managed in accordance with the TMP.	Contractor	Construction
24	**Construction deliveries and haulage** Construction deliveries and haulage shall be timed to occur outside peak traffic times where feasible and reasonable to minimise impacts on the road network	Contractor	Construction
25	**Sydney Metro approval** Sydney Metro would need to approve proposed works within the second reserve. An engineering assessment of the Project demonstrating that induced effects on the underground rail infrastructure are acceptable to Sydney Metro, in accordance with the performance requirements outlined in Section 9 of *Sydney Metro Underground Corridor Protection Technical Guideline* must be prepared and submitted during detailed design.	Contractor	Detailed design
26	**Revised rail replacement bus operations strategy** Transport shall work with stakeholders during Detailed Design to develop a revised rail replacement bus operations strategy to complement the Project.	Transport and Contractor	Detailed design
27	**Stakeholder consultation – refining traffic configuration** Further consultation with stakeholders shall be undertaken during the Detailed Design phase to refine the traffic configuration with the aim of retaining the location of the existing bus stands, where feasible.	Transport and Contractor	Detailed design
	Urban design, landscape and visual amenity		
28	**Urban Design and Landscape Plan** An Urban Design and Landscape Plan (UDLP) shall be prepared by the Contractor, in consultation with Council and other asset/land owners, and submitted to Transport for written approval by the Urban Design Public Transport and Precincts team, prior to finalisation of the detailed design. The UDLP shall: a) demonstrate a robust understanding of the precinct through a comprehensive site analysis, including connectivity with street networks, mode change locations, active transport, and pedestrian movement b) identify opportunities and constraints c) establish precinct specific principles to guide and test design options	Contractor	Prior to design finalisation

No.	Mitigation measure	Responsibility	Timing
	d) consider Crime Prevention Through Environmental Design (CPTED) principles, including night-time safety of customers and the community. e) consider opportunities for: ○ Connecting with Country. ○ community engagement. ○ integrated heritage interpretation and adaptive reuse. ○ public art. f) address Transport Sustainable Design Guideline (SDG) evidence requirements g) be prepared by a suitably qualified and experienced urban design professional The UDLP is to include a Public Domain Plan for the preferred design option and will provide analysis of the: i. landscape design approach including design of pedestrian and bicycle pathways, street furniture, interchange facilities, new planting and integration of any artwork ii. Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing, retaining walls and landscaping iii. an Artist's Impression or Photomontage to communicate the proposed changes to the precinct The following design guidelines are available to assist and inform the UDLP: • TAP Urban Design Plan, Guidelines, Transport for NSW, Draft 2018. • ~~Around the Tracks - urban design for heavy and light rail, Transport for NSW, Interim Issue December 2016~~ Beyond A to B – Urban design policy, procedures, and principles for public transport infrastructure (Transport for NSW, August 2024). • Managing Heritage Issues in Rail Projects Guidelines, Transport for NSW, Interim 2016. • Creativity Guidelines for Transport Systems, Transport for NSW, Interim 2016. • Water Sensitive Urban Design Guidelines for Transport for NSW Projects, 2023.		
29	**Transport's Design Review Panel** At 30% design stage, the design shall be presented to Transport's Design Review Panel. Transport's Design Review Panel is an independent, multi-disciplinary panel of eminent experts who provide impartial design review and recommendations~~. This will contribute~~ to achieve~~ing~~ design excellence in respect to place making, built form, urban and landscape design and Connecting with County aspects of the project.	Contractor	Prior to design finalisation
30	**Lighting Scheme** 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 relevant standards. The lighting scheme shall address the following as relevant, but not limited to: a) consideration of lighting demands of different areas b) strategic placement of lighting fixtures to maximise ground coverage c) use of LED lighting	Contractor	Prior to design finalisation

No.	Mitigation measure	Responsibility	Timing
	d) demonstrate that light spill and glare has been minimised to sensitive receivers 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) ensuring security and warning lighting is not directed at neighbouring properties. The proposed lighting scheme is to be submitted to Transport's technical team for acceptance prior to design finalisation.		
31	**Worksite Compounds and Hoardings** Worksite compounds shall be screened for the construction with shade cloth (or similar material, where necessary and safe to do so), with Transport for NSW branding unless approved otherwise by the Transport Community and Stakeholder Engagement Manager, to minimise visual impacts from key viewing locations. Temporary hoardings, barriers, traffic management and signage shall be removed as soon as safety requirements allow. This material should comply with The Infrastructure Project Style Guide November 2022 (Transport, 2022c). Work shall be conducted behind temporary hoardings/screens wherever practicable. The installation of construction hoarding shall take into consideration the location of residential receivers to ensure that 'line of sight' is broken, where feasible.	Contractor	Construction
32	**Graffiti and Advertising** Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures built as part of the Project shall be maintained free of graffiti, or any advertising not authorised by Transport, during the construction period. Graffiti and unauthorised advertising shall be removed or covered within the following timeframes unless otherwise approved with Transport: a) offensive graffiti will be removed or concealed within 24 hours b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week c) graffiti that is neither offensive or highly visible will be removed or concealed within a month d) any unauthorised advertising material will be removed or concealed within 24 hours.	Contractor	Construction
33	**Design principles** Where feasible and reasonable, the design principles identified in the LCVIA shall be incorporated into the detailed design of the Project.	Contractor	Detailed design
34	**Replacement of the tree on Epping Station platform** The existing tree on Epping Station platform is to be replaced to respect and retain the existing character of the station.	Contractor	Detailed design
35	**Lighting** Lights must be provided to luminate areas under the temporary bridge construction structure to ensure safety of passengers on Epping Station platform.	Contractor	During construction
	Noise and vibration		
36	**Construction Noise and Vibration** Prior to commencement of construction, a Construction Noise and Vibration Management Plan (CNVMP) shall be prepared and implemented in accordance with the requirements of the EPA's Interim Construction Noise Guideline (Department of Environment and Climate Change,	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	2009), Transport's Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2024) and the Noise and Vibration Impact Assessment for the Project (Mott MacDonald, 2024a). The CNVMP shall include, but not be limited to: a) details of construction activities and an indicative schedule for construction b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the REF) d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise and vibration complaints e) an Out of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Mitigation Measure 38 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 written approval by the DES or as approved by EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with the Transport Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2024) f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, identification of 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 The CNVMP shall consider and outline measures to reduce the noise and vibration impacts from construction activities. Where practicable at source measures including by construction planning/staging and equipment selection shall be prioritised over at receiver measures. Reasonable and feasible mitigation measures include: • regularly training workers and contractors (such as at the site induction and toolbox talks) on the importance of minimising emissions and how to use equipment in ways to minimise noise and vibration. • avoiding any unnecessary emissions when carrying out manual operations and when operating plant. • ensuring spoil is placed and not dropped into awaiting trucks or other plant/vehicles. • avoiding/limiting simultaneous operation of noisy or vibratory plant and equipment within discernible range of a sensitive receiver where practicable. • switching off any equipment not in use for extended periods e.g. heavy vehicles engines shall be switched off whilst being unloaded. • avoiding deliveries at night/evenings or other sensitive times wherever practicable.		

No.	Mitigation measure	Responsibility	Timing
	• no idling of delivery trucks. • ensuring truck drivers are informed of designated vehicle routes, parking locations and acceptable delivery hours for the site. • minimising talking loudly; no swearing or unnecessary shouting, or loud stereos/radios onsite; no dropping of materials from height where practicable, no throwing of metal items and slamming of doors. • maximising the offset distance between noisy or vibratory plant and sensitive receivers and maintaining safe working distances for workers. • directing noise-emitting plant away from sensitive receivers. • regularly inspecting and maintaining plant to avoid increased noise levels from rattling hatches, loose fittings etc. • use of quieter and less vibration emitting construction methods where feasible and reasonable. • non-tonal movement alarms (or an equivalent mechanism) 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.		
37	**Property Condition Surveys** Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of the following buildings/structures: i. all buildings/structures/roads within a distance of 50 metres from the edge of the Designated Works (measured in a straight line) ii. all heritage listed buildings and other sensitive structures within 150 metres from the edge of the Designated Works. iii. all locations that used for construction compounds 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 and provided to Transport. 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. Construction compound locations are to include an assessment of any pre-existing contamination. All owners of assets to be surveyed, as defined above, are to be advised (at least 14 days prior to the first survey) of the scope and methodology of the survey, and the process for making a claim regarding property damage. A copy of the survey(s) shall be given to each affected owner and Transport. A register of all properties surveyed shall be maintained.	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	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).		
38	**Standard Construction Hours** Construction activities shall be restricted to the hours of 7:00 am to 6:00 pm (Monday to Friday); 8:00 am to 1:00 pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours: a) any works which do not cause noise emissions to be more than 5dBA higher than the rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers b) out of hours work identified and assessed in the REF or the approved OOHWP c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as approved by the DES d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm e) any other work as approved by the DES and considered essential to the Project, or as approved by EPA (where an EPL is in effect).	Contractor	Construction
39	**Special Audible Characteristics Activities** As per the *Construction noise and vibration guideline (public transport infrastructure)* (Transport for NSW, 2024), construction activities with special audible characteristics shall be limited to standard hours, and start no earlier than 8am unless otherwise approved by the DES in accordance with the CNVS. 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 continuous hours, followed by a minimum one hour respite period, unless otherwise approved to by the DES, or as approved by EPA (where relevant to the issuing of an EPL). Note. *Special audible characteristics* refers to noise with characteristics that can cause annoyance and disturbance, containing noticeable factors such as tonality, low frequency noise, impulsive or intermittent noise events. These characteristics may not be considered noisy in a quantitative sense.	Contractor	Construction
40	**Vibration Criteria** To avoid structural impacts as a result of vibration or direct contact with structures, the proposed work shall be undertaken in accordance with the safe work distances outlined in the Noise and Vibration Impact Assessment (Mott MacDonald, 2024a). Where these distances cannot be met vibration trials and attended vibration monitoring of the trials shall be undertaken in order to assess and mitigate vibration impacts. Vibration resulting from construction received at any structure outside of the Project shall be limited to: a) for structural damage vibration –British Standard BS 7385-2:1993 Evaluation and measurement for vibration in buildings Part 2 and/or German Standard DIN 4150:Part 3 – 1999: Structural Vibration in Buildings: Effects on Structures	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
	b) for human exposure to vibration – the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) which includes British Standard BS 6472-2:1992 Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz). These limits apply unless otherwise approved by the DES through the CEMP.		
41	**Piling** Wherever practical, piling activities shall be completed using non-percussive piles. If percussive piles are proposed to be used, written approval of the DES shall be obtained prior to commencement of piling activities.	Contractor	Construction
42	**Vibration Impacts to Heritage Structures** To effectively mitigate potential impacts of vibration on heritage structures within the station, activities that cause vibration shall be managed in accordance with British Standard BS 7385-2:1993. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage objective of 2.5mm/s peak component particle velocity (from DIN 4150) shall be considered. Real time vibration monitoring shall be conducted at commencement of relevant work to confirm compliance with the adopted standard. If vibration levels approach the determined trigger level, then the construction activity shall cease and the heritage structure shall be assessed and alternative construction methodologies developed, where practicable, before construction recommences.	Contractor	Construction
43	**Construction method revision** Construction method revision shall be undertaken to include lower source vibration level plant where feasible and reasonable	Contractor	Detailed design
44	**Attended vibration verification monitoring** Attended vibration verification monitoring shall be undertaken at affected receivers at the commencement of works to confirm site-specific safe working distance	Contractor	Pre-construction / construction
45	**Permanent vibration monitors** Permanent vibration monitors with an alarm system (flashing light, audible alarm, SMS etc) to warn relevant parties when approaching vibration limits shall be installed at affected receivers.	Contractor	Pre-construction
46	**Noise barriers** Noise barriers shall be used around loud equipment such as hydraulic hammer, jackhammer and concrete saw cutting wherever possible	Contractor	Construction
47	**Natural respite** Natural respite shall be incorporated during operation of demolition equipment such as hydraulic hammers and jackhammer.	Contractor	Construction
48	**Noise reducing shrouds** Noise reducing shrouds on hydraulic hammer shall be used during operation.	Contractor	Construction
49	**Hydraulic hammer** Hydraulic hammer contact with reinforcing bar within concrete structures shall be minimised.	Contractor	Construction
	Heritage management		
50	**Heritage Induction** As part of the site induction in accordance with Mitigation Measure 3, a heritage induction shall be provided to workers	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	prior to construction, informing them of the location of known heritage items and guidelines to follow if unexpected heritage items or deposits are located during construction. All construction staff would undergo an induction in the preliminary identification of Aboriginal cultural heritage material. This training shall include information such as the importance of Aboriginal cultural heritage material and places to the Aboriginal community, as well as the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites.		
51	**Unexpected Heritage Finds** If previously unidentified or unexpected Aboriginal objects or non-Aboriginal heritage/archaeological items are uncovered during construction, the procedures contained in Transport's *Unexpected heritage finds procedure (EMF-HE-PR-0076* (Transport for NSW, 2024) shall be followed, and work within the vicinity of the find would cease immediately. The TESR shall be immediately notified to co-ordinate a response, which may include direction to seek appropriate advice from a suitably qualified and experienced Heritage Advisor (in consultation with Heritage NSW). Works in the vicinity of the find shall not re-commence until written approval to recommence has been received from the DES. The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Guideline. If human remains are found, work shall cease in the vicinity of the find, the site must be secured and the NSW Police and/or Heritage NSW notified. Where required, approvals for archaeological investigations, which may include an Aboriginal Heritage Impact Permit, shall be obtained prior to work recommencing at the location. A discovery of suspected human remains greater than 100 years old is an archaeological case and is not subject to the requirements of NSW Coroners Act 2009.	Contractor	Construction
52	**Protection of heritage items listed on the TAM Section 170 Conservation Register** Design and construction of the Project within the curtilage of the Section 170 listed 'Epping Rail Station Group' must be undertaken in accordance with the recommendations made in the Statement of Heritage Impact (Mott MacDonald, 2023). In accordance with Section 170a of the Heritage Act, if the Project includes demolition of significant fabric, TAM must provide notification of the work to Heritage NSW no less than 14 days (or 40 days if the item is identified as being of State significance, but is not listed on the NSW State Heritage Register) prior to the commencement of the work. The notification shall be supported by an Addendum Statement of Heritage Impact (SOHI). The Addendum SOHI must address impacts from detailed design and provide relevant recommendations and mitigation measures to avoid or minimise heritage impacts to the station.	Contractor	Detailed design and construction
53	**Council Notification** As Forest Park is listed on the heritage schedule of the Parramatta LEP 2023, Parramatta Council shall be notified of the proposed work in accordance with the CEMP.	Transport	Pre-construction
54	**Protection from Damage** During construction, suitable measures shall be put in place to ensure the retained heritage elements are protected from damage. Measures may include hoardings, use of spotters during the movement of equipment and other measures as necessary.	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
55	**Heritage curtilages** The location of heritage curtilages shall be clearly shown on Environmental Control Maps (ECMs).	Contractor	Pre-construction
56	**Stacking and storage around heritage structures** Stacking and storage shall not take place on or against or within any heritage structures on both the Epping Railway Station Group and Forest Park. The movement of plant should be planned in accordance with Transport's Temporary Works and Protection at heritage sites during construction Fact sheet (EMF-HE-FS-0166). Appropriate fencing or barriers shall be installed around (but not fixed to) heritage elements where construction processes come within close proximity to heritage elements.	Contractor	Pre-construction / construction
57	**Unexpected damage to heritage elements** Any unexpected damage to any heritage elements associated with the Epping Railway Station Group or Forest Park Heritage Items shall be reported to Transport's Project Manager. This reported unexpected damage shall be documented and disclosed to Transport's Environment and Sustainability Representative.	Contractor / Transport Project Manager	Construction
58	**Retaining walls** To avoid damage to significant heritage plantings, the proposed retaining walls in proximity to Forest Park shall adopt a design that is sensitive to surrounding tree roots as per the recommendations of the *AIA* 2023 prepared by Urban Arbor. The design of Blaxland Road shall minimise level changes and overhead wiring in proximity to Forest Park to retain the canopy of significant heritage plantings.	Contractor	Detailed design
59	**Heritage interpretation** Heritage Interpretation shall be provided on construction hoarding and signage of the construction areas in proximity to heritage items. This is in order to mitigate temporary visual impacts to the Epping Railway Station Group and other items and shall include the temporary bridge construction platform. Specialist Heritage Advice shall be sought for heritage interpretation solutions on the hoarding, and integration with Transport's Community Engagement Plan for these works.	Contractor	Detailed design
60	**Structural assessments** Prior to works commencing, the construction contractor shall undertake structural assessments of the station building and brick retaining wall on the western side of the rail corridor (Part of Station Building Listing) in order to determine the integrity and condition of these structures. Findings of these assessments must be used to determine safe working distances between plant and the structures, and this information shall be incorporated into the noise and vibration management plan for the works. The vibration limits used to determine safe working distances shall be based on the British Standard BS 7385:1993 for all structures which are considered sound by the inspection. Should the assessment find a structure to be of greater vulnerability to the impacts of construction vibration, due it's structural integrity, the German Standard DIN 4150 - Part 3 (2016) 'Vibration in buildings - Effects on Structures' (DIN 41503:2016) vibration limit of 2.5mm/s peak component particle velocity must be used to set the vibration limit for these structures. Ways to mitigate vibration impacts should be considered, such as:	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	• choosing alternative, lower impact equipment or methods where possible (bored piling, grip jacking or the use of a hammer cushion if impact piling is unavoidable). • scheduling the use of multiple vibration-causing activities so that they do not occur at the same time. • isolating the equipment causing the vibration on resilient dampening mounts where possible.		
61	**Vibration testing and monitoring** The construction contractor must conduct vibration testing and monitoring, as per the Vibration Management Plan, both prior to and during vibration-generating activities occurring during the construction process, to ensure that vibration limits set for each structure are not exceeded. The construction contractor must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring of heritage listed structures. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, the construction contractor must review the construction methodology and where feasible and reasonable, implement additional mitigation measures. Should the screening vibration limits be exceeded during works, those works shall cease and visual inspection to check for potential damage shall be conducted. The contractor must then follow the steps above to review and implement additional mitigation measures. Further mitigation measures shall be discussed with a heritage specialist and their effects observed.	Contractor	Pre-construction
62	**Urban Design and Landscaping** The finishes of the bridge abutments and tie-in structures shall be detailed in the urban design and landscape plan (UDLP) to ensure that the new work is aesthetically appropriate for the nineteenth century railway setting	Contractor	Pre-construction
	Socio-economic		
63	**Local Goods and Services** Sustainability criteria for the Project shall be established to encourage the Contractor to purchase goods and services locally, helping to ensure the local community benefits from the construction of the Project.	Contractor	Pre-construction
64	**Public Feedback** Feedback through the public display process shall be used to facilitate opportunities for the community and stakeholders to have input into the Project, where practicable.	Transport	Pre-construction
65	**Website** Project information shall be made available to members of the public, either on dedicated pages on the Transport/Project website or details provided as to where/if hard copies of this information may be accessed. Project information to be provided includes: a) a copy of the documents referred to under Condition 1 of any future approval b) 24 hour contact telephone number for information and complaints. All documents uploaded to the website must be compliant with the Web Content Accessibility Guidelines Version 2.2.	Transport	Pre-construction
66	**Community Liaison Management Plan** A Community Liaison Management Plan (CLMP) shall be prepared and implemented to engage with government agencies, relevant Councils, landowners, community	Contractor	Pre-construction and construction

No.	Mitigation measure	Responsibility	Timing
	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 shall include, but not necessarily be limited to: a) a comprehensive, project-specific analysis of stakeholders, issues and proposed strategies to manage issues through the duration of the Project b) details of the communication tools (traditional and digital) and activities that will be used to inform and engage with the community and stakeholders c) a program for the implementation of community liaison activities relating to key construction tasks and milestones with strategies for minimising impacts and informing the community d) policies and procedures for handling community complaints and enquiries, including the Contractor's nominated 24 hour contact for management of complaints and enquiries e) analysis of other major projects/influences in the area with the potential to result in cumulative impacts to the community and strategies for managing these. The CLMP shall be prepared to the satisfaction of the relevant Community and Place Director (or nominated delegate) prior to the commencement of construction and implemented, reviewed and revised 6-monthly during the construction of the Project.		
67	**Community Notification and Liaison** The local community shall be advised of any activities related to the Project with the potential to impact upon them. Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour Construction Response Line number. Construction-specific impacts including information on traffic changes, parking 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 7 days prior to such works being undertaken or other period as approved to by the relevant Community and Place Director.	Contractor	Pre-construction and construction
68	**Complaints Management** A 24 hour construction response line number shall be established and maintained for the construction. Details of all complaints received during construction, including complaints received in person and via email, 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 7 calendar days for verbal and/or written complaints. Information on all complaints received during the previous 24 hours shall be forwarded to the TESR each working day.	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
69	**Property adjustment plans** Property adjustment plans shall be developed in consultation with the affected property owners	Transport	Pre-construction
70	**Land acquisitions** All land acquisitions shall be conducted in accordance with Transport's Land Acquisition Policy and compensation shall be based on the requirements of the *Land Acquisition (Just Terms) Compensation Act 1991*	Transport	Pre-construction
71	**Connecting to Country consultation report** The recommendations of the connecting to Country consultation report shall be incorporated into the detailed design for the Project wherever it is reasonable and feasible to do so. This shall include incorporation of connecting with Country elements into the Urban Design and Landscape Plan.	Contractor	Detailed design
	Biodiversity		
72	**Removal of Trees or Vegetation** The Project shall be designed and constructed to retain as much existing vegetation as possible and disturbance of vegetation shall be limited to the minimum amount necessary to construct the Project. Trees and vegetation nominated to be removed in the AIA (Urban Arbor, 2023) shall be clearly demarcated onsite prior to construction, to avoid unnecessary vegetation removal. Landowners consent shall be obtained prior to vegetation removal, should TAM not be the landowner. Trees and vegetation to be retained shall be protected through temporary protection measures discussed in Mitigation Measures below. Separate approval, in accordance with Transport's EMF-EM-TT-0144 *Removal or trimming of vegetation application*, is required for the trimming, cutting, pruning or removal of all trees or vegetation where the impact has not already been identified in the REF or Determination Report for the Proposal. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the Mitigation Measures.	Contractor	Design and Construction
73	**Biodiversity Management** Construction of the Project must be undertaken in accordance with Transport's *Biodiversity Policy* (Transport, 2022d), including the Transport's *Biodiversity Assessment Guideline* (Transport, 2022e), Transport's *No net loss guidelines* (Transport, 2022f) and Transport's *Tree and hollow replacement guidelines* (Transport, 2023h).	Contractor	Construction
74	**Tree Protection Zones** Tree Protection Zones (TPZs) shall be established around trees to be retained, as nominated in the AIA (Urban Arbor, 2023) or as required to protect vegetation. Tree protection shall be undertaken in accordance with *AS 4970-2009 Protection of Trees on Development Sites* and shall include exclusion fencing of TPZs. The tree dripline may be used as a guide for protecting trees where an exclusion zone is not established by an arborist/ecologist. Should the approved development be altered by a post-approval assessment, consideration of any additional TPZs beyond those identified in the AIA (Urban Arbor, 2023) shall be required and may need to be supported by additional or addendum arboricultural advice.	Contractor	Construction
75	**Tree and Vegetation Damage** In the event of any tree or vegetation to be retained becoming damaged during construction, the Contractor shall immediately notify the Transport Project Manager and TESR to coordinate the response which may include contacting an	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
	arborist to inspect and provide advice on remedial action, where possible. Where arborist advice indicates that a tree or vegetation may be at risk of failure due to project works the priority should be to retain and protect the tree or vegetation. Following completion of construction the arborist should reassess the tree and their advice followed. Where tree or vegetation removal is required, replacement must be in accordance with the Transport's Biodiversity Policy (Transport, 2022d).		
76	**Weed Control** Weed control measures, consistent with Transport's *Biodiversity Policy* (Transport, 2022d) *and the* Pesticides Regulation 2017, shall be developed and implemented as part of the CEMP to manage the potential dispersal and establishment of weeds during the construction phase of the Project. This shall include the management and disposal of weeds in accordance with the *Biosecurity Act 2015.*	Contractor	Construction
77	**Replanting Program** Any vegetation removal shall be offset in accordance with Transport's *Biodiversity Policy* (Transport, 2022d). All vegetation planted on-site is to consist of locally native species, unless otherwise approved by the DES, following consultation with the relevant Council, where relevant, and/or the owner of the land upon which the vegetation is to be planted. A replanting strategy and maintenance schedule of offsetting on and offsite is to be provided to the TESR for review and approval at least 4 weeks prior to the commencement of replanting. All vegetation shall be maintained for at least 12 months following completion of construction or following planting (whichever ends last) (unless approved by the TESR).	Contractor	Construction and operation
78	**Non-destructive root investigations** Non-destructive root investigations shall be undertaken to determine the impact of the proposed works to the root systems of the Seven (7) trees and one (1) group of trees namely: 10, 11, 14, 22, 77, 79, 80 and G1. Tree sensitive construction methods may be required pending on the findings of the root investigations. See the AIA for information regarding root system works and tree sensitive construction techniques	Contractor	Construction
79	**Detailed Tree Management Plan** A detailed tree management plan (TMP) is to be prepared in accordance with AS4970-2009 and developed in combination with the overall construction management plan for the site. The TMP should be prepared by a consulting Arborist with a minimum AQF level 5 qualification.	Contractor	Detailed design
80	**Project Arborist** Prior to any works commencing at the site a Project Arborist should be appointed. The Project Arborist should be qualified to a minimum AQF level 5 and/or equivalent qualifications and experience and should assist with any development issues relating to trees that may arise. If at any time it is not feasible to undertake works in accordance with this, an alternative must be agreed in writing with the Project Arborist.	Contractor	Pre-construction
81	**Qualified Arborist** All tree work should be carried out by a qualified and experienced Arborist with a minimum of Australian Qualifications Framework (AQF) level 3 in arboriculture, in accordance with NSW Work Cover Code of Practice for the Amenity Tree Industry (1998) and AS4373 Pruning of amenity trees (2007).	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
82	**Tree protection zones** Work undertaken within a tree protection zone is to be supervised by a qualified and experienced Arborist with a minimum of Australian Qualifications Framework (AQF) level 3 in arboriculture.	Contractor	Construction
83	**Project Arborist site inspections** In accordance with AS4970-2009, the Project Arborist shall carry out regular site inspections to ensure works are carried out in accordance with this document throughout the development process. Site inspections are recommended on a monthly frequency throughout the development.	Contractor	Construction
84	**Underground services outside of the TPZ** Where possible, underground services shall be located outside the TPZ of retained trees via sensitive techniques in accordance with recommendations from AS4970-2009.	Contractor	Detailed design / Construction
85	**Microbats** In the event that any microbats are observed during construction, an Unexpected Threatened Species Finds Procedure shall be followed. Subsequently, a Microbat Management Plan (MMP) shall be prepared.	Contractor	Construction
86	**Habitat feature** If a habitat feature, such as a nest, is identified during clearing, works shall stop in the vicinity and an ecologist shall be called to safely remove and relocate the fauna.	Contractor	Construction
~~87~~	~~**BGHF in the rail corridor**~~ ~~An ecology assessment must be undertaken of the indicative area proposed to be used for rail corridor access and an in-corridor construction compound. The assessment must identify all ecology values within this area including BGHF. Materials storage/laydown activities shall not occur within BGHF or impact any ecology values, as identified within the ecology report. Exclusion areas must be established and maintained to protect BGHF an any ither ecological values. Recommendations of the ecology report are to be implemented and incorporated within the CEMP.~~	~~Transport/Contractor~~	~~Pre and during construction~~
88	**Mulch and landscaping** 1. Mulch used in landscaping must, to the extent possible, be derived from trees, shrubs and any other vegetative material that is approved by the Principal for use as mulch, removed during the clearing and grubbing works on the Site. If the mulch produced in this way is insufficient or not available, make up the shortfall by using imported hardwood chip that complies with Australian Standard AS 4454, the EPA Mulch Order 2016 and Mulch Exemption 2016. Imported hardwood chip must also comply with the following requirements: a) Hardwood chip must only be derived from waste hardwood timber. Woodchip derived from trees which have been specifically harvested for that purpose will not be accepted under any circumstances b) The material must comprise hardwood chips with not more than 5% fines by volume, and must not contain any bark c) The average size of the woodchip must be approximately 30 mm x 20 mm x 5 mm and the maximum length of chip must not exceed 50 mm d) Hardwood chip must be free of soil, weeds, stones, vermin, insects or other foreign material.	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
	2. Prior to procuring, the Contractor must provide in writing to the Principal the source of mulch, as well as a sample of mulch and product documentation demonstrating compliance, for approval or for other quality assurance diligence and surveillance purposes. 3. Prior to importing, the Contractor must ensure all imported mulch is visually inspected at the supplier's premises, with samples collected and tested in accordance with AS 4454. The Contractor must track batches of mulch to ensure the same mulch inspected and tested is delivered to site. 4. During unloading and land application, the Contractor must ensure that a suitably qualified expert visually inspects each load of mulch for compliance. All visual inspections of mulch must be documented and include as a minimum: a) location, date, and time of inspection b) name of inspector c) product name, supplier name, volume of material d) photographs of material inspected e) sample collection details (when applicable).		
	Soils and water		
89	Storage and Use of Hazardous Materials Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, Transport's Chemical storage and spill response guidelines (Transport, 2023k) and Australian and ISO standards. These measures shall include: a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment are to be undertaken in clearly marked designated areas 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.	Contractor	Pre-construction
90	Erosion and Sediment Control Soil and water management measures shall be prepared, implemented and maintained for the mitigation of water quality impacts during construction of the Project in accordance with Managing Urban Stormwater: Soils and Construction Volume 14th Edition (Landcom, 2004). The following are required, based on the amount of disturbance proposed:	Contractor	Pre-construction and construction

No.	Mitigation measure	Responsibility	Timing
	• soil and water management measures included on the ECM and in the CEMP for less than 250m2 of disturbance. • erosion and sediment control plan (ESCP) for between 250-2,500m2 of disturbance. • soil and water management plan (SWMP) for over 2,500m2 of disturbance. Management measures shall be established prior to any clearing, grubbing or site establishment activities and shall be maintained and regularly inspected (particularly following rainfall events) to ensure their ongoing functionality. At a minimum inspection shall occur monthly and shall be reported in the inspection report. Management measures shall be maintained until the work is complete and areas are stabilised. The management measures shall be reviewed and updated throughout construction so they remain relevant to the activities being undertaken.		
91	**Vehicle Maintenance** Vehicles and machinery shall be properly maintained and routinely inspected to minimise the risk of fuel/oil leaks. Construction plant, vehicles and equipment shall also be refuelled offsite, or in a designated refuelling area.	Contractor	Construction
92	**Pollution Incident** In the event of a pollution incident, work shall cease in the immediate vicinity and the Contractor shall immediately notify the Transport Project Manager and TESR in accordance with the Transport Environmental Incident Procedure (EMF-EM-PR-0010. The EPA shall be notified, in accordance with Part 5.7 of the POEO Act.	Contractor	Construction
93	**Groundwater** Should groundwater be encountered during excavation work, groundwater shall be managed in accordance with the requirements of the Waste Classification Guidelines (EPA, 2014) and Transport's Water Discharge and Reuse Guideline (Transport for NSW, 2019e).	Contractor	Construction
94	**Existing drainage systems** The existing drainage systems shall remain operational throughout construction and the erosion and sediment control plan (ESCP) shall take this into consideration during the design and implementation of control measures.	Contractor	Construction
95	**Stabilise exposed soils** Exposed soils shall be stabilised, surfaces reinstated and landscaping completed as soon as practicable after construction. Temporary erosion and sediment control shall remain in place until permanent stabilisation methods are implemented.	Contractor	Post-construction
	Contamination		
96	**Waste Management Plan** The CEMP (or separate Waste Management Plan, if necessary) must address waste management and shall at a minimum: • identify all potential waste streams associated with the work and outline methods of disposal of waste that cannot be reused or recycled at appropriately licensed facilities. • apply the waste hierarchy to resource output streams and justification provided. • detail other onsite management practices such as keeping areas free of rubbish. • specify controls and containment procedures for hazardous waste and asbestos waste.	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	• outline the reporting regime for collating construction waste data.		
97	**Unidentified Contamination (Other Than Asbestos)** If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and 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 the *Guidelines for Consultants Reporting on Contaminated Sites* (Office of Environment and Heritage, 2011). The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure. A copy of any contamination report shall be submitted to the TESR for review in accordance with Mitigation Measure 4. The DES shall determine whether consultation with the relevant Council and/or EPA is required prior to continuation of construction within the affected area.	Contractor	Construction
98	**Asbestos Management** If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA, Safe Work Australia 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. The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure. Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology. *Note: In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Mitigation Measure 97 and Mitigation Measure 98.*	Contractor	Construction
99	**Spoil Reuse, Removal and Classification** All excavated spoil suitable for reuse shall be reused on site and distributed as approved by the TESR. The quantity and locations for reuse of excavated material shall be further reviewed and confirmed with the TESR during construction. All spoil to be removed from site shall be tested to confirm the presence of any contamination. Any contaminated spoil shall be disposed of at an appropriately licensed facility. All spoil and waste must be classified in accordance with the *Waste Classification Guidelines Part 1: Classifying waste* (EPA, 2014) prior to disposal.	Contractor	Construction
100	**Hazardous Materials Survey** A Hazardous Materials Survey in accordance with AS 2601 (2001) *Demolition of Structures* shall be undertaken by an appropriately qualified environmental scientist prior to the demolition of bridge and support structures.	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	Subsequent removal of any hazardous material is to be undertaken in accordance with applicable EPA, SafeWork NSW and Safe Work Australia guidelines.		
101	**Concrete Washout** Any concrete washout shall be established and maintained in accordance with Transport's EMF-EM-GD-0145 *Concrete washout guideline* (Transport for NSW, 2023a) with details included in the CEMP and location marked on the ECM.	Contractor	Construction
102	**Remediation** A remediation strategy to be prepared for the project to be detailed in an Environmental (Contamination) Management Plan and shall include a Remediation Action Plan for the area identified for land acquisition within 2-16 Epping Road. **Contamination management shall be in accordance with Transport's Contaminated land management procedure (EMF-LM-PR-0016)**	Contractor	Pre-construction
103	**Underground storage tank locations** The investigation of the location and condition of underground storage tanks within 2-16 Epping Road shall be undertaken, and the findings incorporated into the Remediation Action Plan for the area identified for land acquisition within 2-16 Epping Road.	Contractor	Pre-construction
104	**Epping Bridge Detailed Site Investigation** The recommendations from Section 10 of the Epping Bridge Detailed Site Investigation (JK Environments, 2024) shall be implemented. This shall include the preparation and implementation of a Remediation Action Plan (RAP) and site validation.	Contractor	Pre-construction / Construction
105	**Removing FCF and surface clearance certificate** A suitably qualified/licensed contractor is to remove all visible FCF from the areas of the site with exposed soils. A surface clearance certificate is then to be issued by a Licensed Asbestos Assessor prior to use of 2-16 Epping Road. Any other measures from the Environmental (Contamination) Management Plan relevant to the set up and operation of the construction compound must be implemented.	Contractor	Pre-construction
106	**Removal of Underground storage tanks** Any required removal of storage tanks and remediation of contaminated soils in accordance with a remediation strategy contained within the Environmental (Contamination) Management Plan or Remediation Action Plan for the area identified for land acquisition within 2-16 Epping Road.	Contractor	Construction
107	**Remediation of contaminated soils at 2-16 Epping Road** The remediation of contaminated soils in accordance with a remediation strategy for the area identified for land acquisition within 2-16 Epping Road.	Contractor	Construction
	Air quality		
108	**Minimising Impacts to Air Quality** To minimise air quality impacts and the generation of dust from construction activities, the following measures shall be implemented: • plant and machinery shall be switched off when not in use, and not left idling. • vehicle and machinery movements during construction shall be restricted to designated areas and sealed/compacted surfaces where practicable. • apply water (or alternate measures) to exposed surfaces (e.g. unpaved roads, stockpiles, hardstand areas and other exposed surfaces).	Contractor	Pre-construction and construction

No.	Mitigation measure	Responsibility	Timing
	• cover stockpiles when not in use. • appropriately cover loads on trucks transporting material to and from the construction site and securely fix tailgates of road transport trucks prior to loading and immediately after unloading. • prevent mud and dirt being tracked onto sealed road surfaces. • details on how methods for management of emissions shall be incorporated into project inductions, training and pre-start/toolbox talks. • details for procedure to ensure plant and machinery are regularly checked and maintained in a proper and efficient condition. These methods are to be identified in the CEMP.		
109	**Air quality management and monitoring** Air quality management and monitoring for the Project shall be undertaken in accordance with Transport for NSW's *Air Quality Management Guideline* (Transport for NSW, 2019i).	Contractor	Pre-construction and construction
110	**Weather forecast monitoring** Construction manager to monitor weather forecast and where necessary, modify or suspend dust generating activities, such as excavations and heavy truck movements during dry and high wind speed conditions.	Contractor	Construction
	Waste		
111	**Waste Management Plan** The Waste Management Plan must be prepared and address waste management and shall at a minimum: • identify all potential waste streams associated with the work and outline methods of disposal of waste that cannot be reused or recycled at appropriately licensed facilities. • detail other onsite management practices such as keeping areas free of rubbish. • specify controls and containment procedures for hazardous waste and asbestos waste. • outline the reporting regime for collating construction waste data.	Contractor	Pre-construction
112	**Unexpected Finds Protocol** An appropriate Unexpected Finds Protocol, considering asbestos containing materials and other potential contaminants, shall be included in the CEMP. Procedures for handling asbestos containing materials, including licensed contractor involvement as required, record keeping, site personnel awareness and waste disposal to be undertaken in accordance with WorkCover requirements.	Contractor	Pre-construction
113	**Reuse of excavated spoil** All excavated spoil suitable for reuse shall be reused on site and distributed as agreed with Transport for NSW and the Contractor. The reuse of excavated material shall be further reviewed and confirmed during construction.	Contractor	Construction
114	**Testing of removed spoil** All spoil to be removed from site shall be tested to confirm the presence of any contamination. Any contaminated spoil shall be disposed of at an appropriately licensed facility.	Contractor	Construction
115	**Classification of spoil and waste** All spoil and waste must be classified in accordance with the Waste Classification Guidelines Part 1: Classifying waste	Contractor	Construction

No.	Mitigation measure	Responsibility	Timing
	(EPA, 2014) prior to disposal at an appropriately licensed facility.		
116	**Concrete washout** Any concrete washout shall be established and maintained in accordance with Transport for NSW's Concrete Washout Guideline – draft (Transport for NSW, 2019j) with details included in the CEMP and location marked on the ECM.	Contractor	Construction
117	**Waste management** Waste management shall be undertaken in accordance with the Waste Avoidance and Resource Recovery Act 2001 (WARR Act). Waste management targets for reuse and recycling have been taken from the baseline sustainability requirements for the Project: • 100% clean ballast reused, recycled or repurposed. • 94% of inert and non-hazardous waste generated during. demolition and construction reused, recycled or repurposed. • 100% of useable spoil is reused, recycled or repurposed. • 100% clean concrete is reused, recycled, or repurposed. • 100% clean asphalt pavement is reclaimed. • 40% of waste generated from office activities diverted from landfill.	Contractor	Construction / Post-construction
	Sustainability, climate change and greenhouse gases		
118	**Sustainable Design Guidelines** Detailed design of the Project shall be undertaken in accordance with the Transport for NSW (SDG)ign Guidelines Version 4.0 (Transport NSW, 2019c) achieve a minimum silver rating.	Contractor	During design
119	**Carbon Footprint Exercise** The detailed design process shall undertake a compliant carbon footprinting exercise in accordance with Transport's Carbon Tool (Transport, 2024) or other approved modelling tools. The carbon footprint shall to be used to inform decision making in design and construction.	Contractor	During design
120	**Sustainability Officer** A suitably qualified and experienced Sustainability Officer shall be appointed who is responsible for implementing the sustainability objectives for the Project, in line with the Project's overarching Project Sustainability Plan. Details of the Sustainability Officer including defined responsibilities, duration and resource allocation throughout the appointment are to be submitted to the satisfaction of the Director of Sustainability prior to the preparation of the Sustainability Management Plan.	Contractor	Pre-construction
121	**Sustainability Management Plan** A Sustainability Management Plan (SMP) which details the approach to managing sustainability requirements and opportunities during design and construction shall be prepared. The SMP shall include the following as a minimum: a) a completed electronic checklist demonstrating compliance with the Transport SDG Version 4.0 (ST-114) b) a statement outlining the Construction Contactor's own corporate sustainability policies, obligations, goals, targets and commitments c) a description of the processes and methodologies for encouraging and identifying innovative sustainability outcomes on the Project, and the	Contractor	Pre-construction

No.	Mitigation measure	Responsibility	Timing
	areas targeted for innovative sustainable solutions to be explored and/or implemented on the Project. d) the approach to the identification of opportunities to reduce carbon emissions, energy use and embodied lifecycle impacts of the Project. This should include a summary of initiatives proposed for implementation to meet energy and carbon management objectives and targets. A Carbon Management Plan shall be included as a sub-plan to the S M P, aligned to the INSW Embodied Carbon Measurement for Infrastructure Guidance, e) the approach to sustainable procurement including how procurement processes have taken in to account the principles of ISO 20400: 2017 – Sustainable Procurement in the selection of all materials, products and services f) a description of the processes, standards and procedures for undertaking climate change risk assessments and strategies for mitigation of risks associated with climate change and extreme weather events. A copy of the SMP shall be submitted to the Director of Sustainability at least 30 days prior to the commencement of construction, for written approval (or such time as is otherwise approved by the Director).		
122	**Climate change impact assessment** The detailed design process shall undertake a climate change risk assessment with reference to the Transport Climate Change Risk Assessment Guidelines (Transport, 2021g) to identify the hazards/risks associated with future climatic conditions and determine the adaption options.	Contractor	Detailed design
123	**Minimise impacts of extreme heat** Detailed design shall consider inclusions to minimise impacts of extreme heat, including: • selection of materials for durability in extreme conditions that minimise heat retention • urban design elements that provide lighter coloured surfaces and adequate shade, that minimise water use and provide drainage sized for future rainfall predictions. Relevant wind codes, surface water modelling shall also be considered during detailed design. Some climate change risks in construction and operation shall be managed through management plans and procedures.	Contractor	Detailed design
	Cumulative impacts		
124	**Ongoing Cumulative Impacts** The potential cumulative impacts associated with the Project shall be further considered as the design develops and as further information regarding the location and timing of potential developments is released. Environmental management measures shall be developed in the CEMP, and implemented as appropriate.	Contractor	Pre-construction

Appendix E: CSR relocation works and site investigations conditions of approval and mitigation measures

Conditions of Approval			
No.	**Condition**	**Relevance to Early works**	**Comments**
General			
1	**Terms of Approval** The Project shall be carried out in accordance with the environmental impact assessment (EIA) for this Project, unless otherwise agreed to by the DES (or delegate) and supported by written justification, which comprises the following documents: a) Epping Bridge Project – Review of Environmental Factors (Mott Macdonald, August 2024), including associated Mitigation Measures and supporting specialist studies b) Epping Bridge Project – Determination Report (Mott MacDonald, December 2024). In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.	Applicable	
2	**Statutory Requirements** These conditions do not remove any 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 terms and conditions of such licences, permits, approvals and permissions must be complied with at all times.	Applicable	
Environmental Management			
3	Requirements for documents, plans or programs which must be reviewed and approved by the Transport Environment and Sustainability Representative (TESR) (including the Construction Environmental Management Plan (CEMP)) are outlined in the Mitigation Measures. All reviews and approvals associated with these Mitigation Measures shall meet the following requirements (unless otherwise approved by the TESR or DES or if specifically noted in a Mitigation Measure): a) Evidence of completed consultation with government agencies and relevant service/utility providers, submitted with the CEMP b) a copy of the plan submitted to the TESR for review at least 21 days prior to commencement of Construction or the related works being commenced c) any comments made by the TESR in accordance with b) must be adequately addressed prior to submission for approval d) periodic review and update of the plan submitted to the TESR for endorsement Construction must not commence until the DES has provided written approval of the plan/s.	Applicable	
Additional Conditions of Approval			
4	**Acoustic consultant** A Suitably qualified and experienced acoustic consultant shall be available and be responsible for preparing construction noise and vibration management plan (CNVMP) for the Proposal, including a construction noise and vibration impact assessment (CNVIA), noise	Not Applicable	To be undertaken by the main works contractor, not part of the early works scope.

	modelling, recommendations for construction staging, methodology and plant and equipment to minimise noise impacts to receivers, recommendation and implementation of noise mitigation, undertaking site inspections, verification monitoring, preparation and implementation of documentation and ensuring the Proposal meets the requirements of the EPA's Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009), Transport's Construction noise and vibration guideline (public transport infrastructure[JP1]) (Transport for NSW, 2023c), Transport's Out of Hours Work Protocol (OOHWP) and the Noise and Vibration Impact Assessment for the Proposal (Mott MacDonald, 2024a). Details of the consultant, including relevant experience, defined responsibilities and resource allocation throughout the Proposal (including time to be spent on-site/off-site) are to be submitted for the written approval of the DES, at least 21 days prior to commencement of construction of the Proposal (or such time as otherwise approved by the DES). Any adjustments to acoustic resource allocations (on-site or off-site) are to be approved by the DES.		
5	**Feasibility study** Undertake a feasibility study to investigate the full or partial closure of High Street to improve active transport links and safety of active transport users. The feasibility study shall include an assessment of options and the environmental impacts associated with the closure of High Street, including (but not limited to): · Changes to the function/accessibility of on street parking and associated impacts to High St businesses · active transport outcomes · visual and urban design outcomes · operational traffic noise impact of the proposed closure of High Street and re-routing of traffic on local roads · Transport's assessment of traffic impacts · Transport's consultation report (detailing consultation with stakeholders, including City of Parramatta Council and the community) A report on the outcomes of the feasibility study must be provided to the Principal 3 months after Contract Award. Note: Where a feasible option is identified, changes to High Street may require further assessment under the EP&A Act.	Not Applicable	To be undertaken by the main works contractor, not part of the early works scope.
6	**Out of Hours Work Community Engagement** Any work that would need to occur outside standard hours (including night work over consecutive nights per week) shall be scheduled and undertaken in accordance with the CNVMP and in accordance with the guidelines contained within the Epping Bridge Project Communications and Stakeholder Engagement Plan to minimise disruptions to customers, pedestrians, motorists and nearby sensitive receivers wherever possible.	Applicable	
7	**Removal of Trees or Vegetation** A Tree and Hollow Replacement Plan is to be prepared in accordance with Transport's Tree and Hollow Replacement Guideline. Trees and vegetation nominated to be removed in the AIA[JB2] (UrbanArbor, 2023) will be clearly demarcated onsite prior to construction, to avoid unnecessary vegetation removal. Landowners consent shall be	Not Applicable	Tree and Hollow replacement plan To be undertaken by the main works contractor, not part of the early works scope.

	obtained prior to vegetation removal, should TAM not be the landowner. Trees and vegetation to be retained will be protected through temporary protection measures discussed in mitigation measures below. Separate approval, in accordance with Transport's EMF-EM-TT-0144 Removal or trimming of vegetation application, is required for the trimming, cutting, pruning or removal of all trees or vegetation where the impact has not already been identified in the REF or Determination Report for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the mitigation measures.		
8	Prior to any works commencing at the site a Project Arborist shall be appointed. The Project Arborist shall be qualified to a minimum AQF level 5 and/or equivalent qualifications and experience and shall provide advice in relation to work in proximity of trees (including root and canopy), including advice in relation to tree investigation, impact mitigation, design and establishment of tree protection, design and construction advice for the duration of the project. The advice of the project arborist shall be adhered to during design and construction to ensure the protection of trees identified for retention.	Applicable	As applicable to early works.
9	The proposal will comply with the recommendations of the ecology assessment of the area proposed to be used for High Street rail corridor access and an in-corridor construction compound titled Epping Road Bridge Works Ecological Impact Assessment [JB3] by Niche dated 16 April 2024. When utilising the High Street rail corridor compound, activities must be undertaken in accordance with the recommendations of the ecology report. Materials storage/laydown activities shall not occur within BGHF protection areas or impact any ecology values, as identified within the ecology report. Areas that are excluded from use for compound and access and BGHF protection areas identified in the ecology report must be established and maintained to protect BGHF and any other ecological values. Recommendations of the ecology report are to be implemented and incorporated within the CEMP.	Applicable	
10	The finishes of the retaining walls shall be detailed in the urban design and landscape plan (UDLP) to ensure that the new work is aesthetically appropriate for the visual prominence from the public domain. For retaining walls along Blaxland Road, the finishes shall be appropriate having regard for the heritage character of Forest Park.	Not Applicable	Detailed design is not part of the early works scope.
11	The design of the shared path must minimise obstructions and optimise pavement material for cyclists, having regard for the Austroads Guide to Road Design, Part 6A: Paths for Walking and Cycling (AGRD6A-21)	Not Applicable	Detailed design is not part of the early works scope.
12	Opportunities to achieve safety, connectivity and permeability for active transport users shall be explored during detailed design, including but not limited to: · minimise conflicts between pedestrians and cyclists · minimise conflicts between vehicles, pedestrians and cyclists, including opportunities for the installation of separation fences to separate vehicles and active	Not Applicable	Detailed design is not part of the early works scope.

	transport spaces · improve the connectivity of crossings for pedestrians and cyclists · improve the safety and functionality of all intersections for pedestrians and cyclists · improve the connection to the Epping town centre for pedestrians and cyclists		

Environmental Mitigation Measures			
No.	**Mitigation Measure**	**Relevance to Early Works**	**Comments**
General			
1	**Construction Environment Management Plan** A Construction Environmental Management Plan (CEMP) shall be prepared and implemented prior to the commencement of construction which addresses the following matters, as a minimum: a) project risk assessment including environment and sustainability aspects and impacts b) traffic and pedestrian management (a separate Traffic Management Plan (TMP) is required) including locations for construction worker parking that limit impacts to available on street parking in proximity to the station where feasible to do so c) urban design, landscape character and visual amenity d) noise and vibration management, including traffic noise generated by the Project e) water and soil management f) air quality management (including dust suppression) g) Aboriginal and non-Aboriginal heritage management h) biodiversity management i) storage and use of hazardous materials j) contaminated land management (including acid sulphate soils) k) weed management l) waste management m) bushfire risk n) environmental incident reporting and management procedures o) non-compliance and corrective/preventative action procedures p) details of approvals, licences and permits required to be obtained under any other legislation for the Project. The CEMP shall: i. detail how the Contractor shall comply with the Conditions of Approval, Mitigation Measures, 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 Environmental Management Plan Guideline – Guideline for Infrastructure Projects (NSW Department of Planning Industry and Environment, 2020) iii. include an environmental compliance matrix for the Project (or such stages of the Project as approved by the Transport Environment and Sustainability Representative (TESR)) that details compliance with all relevant conditions and mitigation measures iv. include an Environmental Policy. The CEMP shall be reviewed and updated at six monthly intervals (unless otherwise approved with the TESR) and in response to any actions identified as part of the TESR's review of the document, or in response to non-compliance or incidents, or to scope changes or modifications. Updates to the CEMP shall be made within 7 days of the completion of the review or receipt of actions identified in the Transport review of the document. The CEMP must be approved by the DES or delegate prior to the commencement of construction and	Applicable	A CEMP for the construction phase of the Proposal would be prepared in accordance with the requirements of TfNSW's environmental management system. The CEMP would provide a centralised mechanism through which all potential environmental impacts relevant to the Proposal would be managed and outline a framework of procedures and controls for managing environmental impacts during construction. The CEMP would incorporate as a minimum all applicable Conditions of Approval and Environmental Mitigation Measures identified in the Epping Bridge Project Determination Report, any conditions from licences or approvals required by legislation, and a process for demonstrating compliance.

	following review, and be implemented for the construction.		
2	**Environmental Controls Map** An Environmental Controls Map (ECM) shall be prepared in accordance with Transport's Environmental controls map guideline (EMF-EM-GD-0148) prior to the commencement of construction for implementation for the construction. The ECM is to be approved by the TESR and may be prepared in stages, as set out in the CEMP. A copy of the ECM shall be submitted to the TESR for review and written approval in accordance with Mitigation Measure 4. The ECM shall be prepared as a map – suitably enlarged in both A0 and A3 sizes and mounted on the wall of a site office and included in site inductions, supported by relevant written information. Updates to the ECM shall be made within 7 days of the completion of the review or receipt of actions identified by any TESR audit of the document and submitted to the TESR for written approval.	Applicable	
3	**Site Induction** Prior to the commencement of construction, all contractors shall be inducted on the key project environmental and sustainability risks, procedures, mitigation measures and conditions of approval. The induction shall be given by the Environmental Personnel and as a minimum shall include: -details of the approved ECM as required by Mitigation Measure 2 and where the ECM is located on site, and a briefing on the CEMP as required by Mitigation Measure 1 -information on the protection measures to be implemented to protect vegetation, penalties for breaches and location of areas of sensitivity -preliminary identification of Aboriginal cultural heritage material. This training shall include information such as the importance of Aboriginal cultural heritage material and places to the Aboriginal community, as well as the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites. -details of the noise and vibration management strategies and requirements to be implemented throughout all construction stages in alignment with the CNVMP. A heritage induction informing them of the location of known heritage items and guidelines to follow if unanticipated heritage items or deposits are located during construction.	Applicable	
4	**Transport Environmental Management Approvals** Requirements for documents, plans or programs which must be reviewed and approved by the TESR (including the CEMP) are outlined in the Mitigation Measures. All reviews and approvals associated with these Mitigation Measures shall meet the following requirements (unless otherwise approved by the TESR or DES or if specifically noted in a Mitigation Measure): a) completed consultation with government agencies and relevant service/utility providers and evidence of consultation submitted with the plan b) a copy of the plan submitted to the TESR for review at least 21 days prior to commencement of Construction or the related works being commenced c) any comments made by the TESR in accordance with b) must be adequately addressed prior to submission for	Applicable	Early works do not require separate management plans, all management plans to be incorporated into a centralised CEMP.

	approval d) a copy of the plan submitted to the TESR to obtain written approval from the DES at least 5 days prior e) periodic review and update of the plan submitted to the TESR for written approval Construction must not commence until the DES has provided written approval of the plan/s.		
5	**Environment Personnel** Suitably qualified and experienced environmental management personnel shall be available and be responsible for implementing the environmental objectives for the Project, including undertaking regular site inspections, preparation and implementation of environmental documentation and ensuring the Project meets the requirements of the Environmental Management System (EMS). Details of the environmental personnel, including relevant experience, defined responsibilities and resource allocation throughout the Project (including time to be spent on-site/off-site) are to be submitted for the written approval of the DES, at least 21 days prior to commencement of construction of the Project (or such time as otherwise approved by the DES). Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the DES.	Applicable	Environmental personnel for early works be nominated as part of CEMP submission.
6	**Service Relocation** Services relocations shall be undertaken in consultation with the relevant authorities. Existing services and exclusion zones shall be identified on the ECM and on site to avoid direct impacts during construction.	Applicable	
7	**Detailed Design Validation** A detailed design validation report (DDVR) for the Project shall be prepared and submitted at each design stage to detail how compliance is achieved against: the final Project description. all design mitigation measures detailed in the REF. any conditions of approval in the determination report for the Project. A final DDVR shall accompany the Approved for Construction (or equivalent) submission. The Proponent shall: a) submit a copy of the DDVR to the TESR for review b) update and submit a DDVR revision at each design stage or as required, including as the design progresses c) the TESR is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the DDVR. Upon completion of the final TESR review period a copy of the DDVR will be submitted to the DES (or nominated delegate) for written approval. The DDVR will be submitted to Transport for review and Confirmation that the design achieves compliance.	Not Applicable	Detailed design will be informed by early works and will be undertaken by the main works contractor.
8	**Environmental Incident Procedure** Where non-compliances or incidents arise, an event report must be completed in the Transport incident management system and returned to the Principal's Representative in accordance with 'EMF-EM-PR-0001 Environmental Incident Procedure'.	Applicable	
9	**Project Modifications** Any modifications to the Project (as defined in this REF and Determination Report), requiring an addendum REF (as determined by the TESR), would be subject to further assessment and approval by Transport. This assessment	Applicable	

	would need to demonstrate that any environmental impacts resulting from the modifications have been mitigated. The further assessment must be submitted and approved prior to commencement of works relating to the modification.		
10	**Project Changes** Any modifications to the Project (as defined in this REF and Determination Report), which may be amended by a consistency assessment (as determined by the TESR), if approved, would be subject to further assessment and approval by Transport. This assessment would need to demonstrate that any environmental impacts resulting from the change have been minimised. The further assessment must be submitted to Transport 6 weeks prior to commencement of works relating to the modification.	Applicable	
11	**Modification/Change Register** A project modification/change register shall be created and maintained throughout the project to identify project changes or modifications. The register will be updated and submitted at each design stage or as required, including as the design progresses. The register will be submitted to TESR for review of changes and direction on the approval pathway these changes or modifications should apply.	Not Applicable	
Traffic and site access			
12	**Road Condition Reports** Prior to construction commencement and at the completion of construction, road condition surveys and reports on the condition of roads and footpaths to be affected by construction shall be prepared and provided to Transport for information. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear, shall be repaired at the Contractor's expense.	Applicable	
13	**Traffic Management Plan** Prior to the commencement of construction, a Traffic Management Plan (TMP) shall be prepared and shall include at a minimum: -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. -maximising safety and accessibility for pedestrians and cyclists. -ensuring adequate sight lines to allow for safe entry and exit from the site. -ensuring access to railway stations, businesses, entertainment premises and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made). -managing impacts and changes to on and off street parking and requirements for any temporary replacement provision. -parking locations for construction workers away from stations and busy residential areas and details of how this would be monitored for compliance. -routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses. -details for relocating bus stands, kiss and ride, taxi ranks and rail replacement bus stands if required, including appropriate signage to direct patrons, in		Traffic management to be incorporated into a subsection of the CEMP for the early works.

	consultation with the relevant bus/taxi operators. Particular provisions would also be considered for the accessibility impaired. -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. Consultation with the relevant roads authorities shall be undertaken during preparation of the construction TMP. The performance of all project traffic arrangements must be monitored during construction.		
14	**Community notification** Communication shall be provided to the community and local residents to inform them of changes to bus stops, parking, pedestrian access and/or traffic conditions including vehicle movements and anticipated effects on the local road network relating to site work.	Applicable	
15	**Road Occupancy Licences** Road Occupancy Licences for temporary road closures shall be obtained, where required. The temporary full and partial closures and traffic management controls on public roads shall be managed and implemented in accordance with the provisions of a Road Occupancy Licence(s).	Applicable	
16	**Construction vehicle routes** Where feasible, vehicles performing construction deliveries or haulage should utilise the predetermined routes for the relevant construction area or compound to minimise impacts on the wider road network and residents.	Applicable	
17	**Opal bike shed, Langston Place** During construction, partial use of the Opal bike shed on Langston Place is to be maintained. The existing bike shed is to be reinstated as early as possible.	Applicable	No anticipated impacts to Opal bike shed as part of early works
18	**Pedestrian access** Pedestrian access across the bridge must be maintained at all times during construction, wherever it is safe and feasible to do so. Adequate information on pedestrian diversions shall be provided to affected pedestrians during any pedestrian closure of Epping Bridge, including advanced notification, appropriate wayfinding and directional signage along detour routes. A notification strategy shall be included within the CLMP.	Applicable	
19	**Road safety audit** A Road Safety Audit shall be undertaken as part of detailed design and upon completion of construction, and design amendments made as required.	Not Applicable	Detailed design is not part of the early works scope.
20	**Access to private properties** Impacts to access to residential and commercial properties in proximity to the construction area shall be avoided wherever possible. If access is required to be impeded, impacts shall be minimised as much as practicable and prior notification to affected landowners and community members shall be undertaken in accordance with the Community Liaison Management Plan (CLMP).	Applicable	
21	**Safe access assessment** Prior to the use of overflow carparking at 36 and 38 Essex Street, a safe access assessment must be	Not Applicable	Overflow carparking will not be used during early works.

	undertaken to ensure safety of workers, pedestrians and other road users.		
22	**Use of two-way radios to avoid queuing** Queuing on public roads shall be avoided by the use of two-way radios to call up haulage trucks from layover areas on a 'just in time' basis.	Applicable	
23	**Access to bus stands** Access to bus stands shall be maintained during construction in consultation with the bus operators where feasible and reasonable, relocations shall be managed in accordance with the TMP.	Applicable	
24	**Construction deliveries and haulage** Construction deliveries and haulage shall be timed to occur outside peak traffic times where feasible and reasonable to minimise impacts on the road network	Applicable	
25	**Sydney Metro approval** Sydney Metro would need to approve proposed works within the second reserve. An engineering assessment of the Project demonstrating that induced effects on the underground rail infrastructure are acceptable to Sydney Metro, in accordance with the performance requirements outlined in Section 9 of Sydney Metro Underground Corridor Protection Technical Guideline must be prepared and submitted during detailed design.	Not Applicable	work within the second reserve will not occur during early works
26	**Revised rail replacement bus operations strategy** Transport shall work with stakeholders during Detailed Design to develop a revised rail replacement bus operations strategy to complement the Project.	Not Applicable	Detailed design is not part of the early works scope.
27	**Stakeholder consultation – refining traffic configuration** Further consultation with stakeholders shall be undertaken during the Detailed Design phase to refine the traffic configuration with the aim of retaining the location of the existing bus stands, where feasible.	Not Applicable	Detailed design is not part of the early works scope.
Urban design, landscape and visual amenity			
28	**Urban Design and Landscape Plan** An Urban Design and Landscape Plan (UDLP) shall be prepared by the Contractor, in consultation with Council and other asset/land owners, and submitted to Transport for written approval by the Urban Design Public Transport and Precincts team, prior to finalisation of the detailed design. The UDLP shall: a) demonstrate a robust understanding of the precinct through a comprehensive site analysis, including connectivity with street networks, mode change locations, active transport, and pedestrian movement b) identify opportunities and constraints c) establish precinct specific principles to guide and test design options d) consider Crime Prevention Through Environmental Design (CPTED) principles, including night-time safety of customers and the community. e) consider opportunities for: o Connecting with Country. o community engagement. o integrated heritage interpretation and adaptive reuse. o public art. f) address Transport Sustainable Design Guideline (SDG) evidence requirements g) be prepared by a suitably qualified and experienced urban design professional	Not Applicable	Detailed design is not part of the early works scope.

	The UDLP is to include a Public Domain Plan for the preferred design option and will provide analysis of the: i. landscape design approach including design of pedestrian and bicycle pathways, street furniture, interchange facilities, new planting and integration of any artwork ii. Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing, retaining walls and landscaping iii. an Artist's Impression or Photomontage to communicate the proposed changes to the precinct The following design guidelines are available to assist and inform the UDLP: -TAP Urban Design Plan, Guidelines, Transport for NSW, Draft 2018. -Beyond A to B – Urban design policy, procedures, and principles for public transport infrastructure (Transport for NSW, August 2024). -Managing Heritage Issues in Rail Projects Guidelines, Transport for NSW, Interim 2016. -Creativity Guidelines for Transport Systems, Transport for NSW, Interim 2016. -Water Sensitive Urban Design Guidelines for Transport for NSW Projects, 2023.		
29	**Transport's Design Review Panel** At 30% design stage, the design shall be presented to Transport's Design Review Panel. Transport's Design Review Panel is an independent, multi-disciplinary panel of eminent experts who provide impartial design review and recommendations. To achieve design excellence in respect to place making, built form, urban and landscape design and Connecting with County aspects of the project.	Not Applicable	Detailed design is not part of the early works scope.
30	**Lighting Scheme** 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 relevant standards. The lighting scheme shall address the following as relevant, but not limited to: a) consideration of lighting demands of different areas b) strategic placement of lighting fixtures to maximise ground coverage c) use of LED lighting d) demonstrate that light spill and glare has been minimised to sensitive receivers 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) ensuring security and warning lighting is not directed at neighbouring properties. The proposed lighting scheme is to be submitted to Transport's technical team for acceptance prior to design finalisation.	Not Applicable	Detailed design is not part of the early works scope.
31	**Worksite Compounds and Hoardings** Worksite compounds shall be screened for the construction with shade cloth (or similar material, where necessary and safe to do so), with Transport for NSW branding unless approved otherwise by the Transport Community and Stakeholder Engagement Manager, to minimise visual impacts from key viewing locations. Temporary hoardings, barriers, traffic management and	Not Applicable	Permenant compounds and hoarding will not be established during the early works.

	signage shall be removed as soon as safety requirements allow. This material should comply with The Infrastructure Project Style Guide November 2022 (Transport, 2022c). Work shall be conducted behind temporary hoardings/screens wherever practicable. The installation of construction hoarding shall take into consideration the location of residential receivers to ensure that 'line of sight' is broken, where feasible.		
32	**Graffiti and Advertising** Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures built as part of the Project shall be maintained free of graffiti, or any advertising not authorised by Transport, during the construction period. Graffiti and unauthorised advertising shall be removed or covered within the following timeframes unless otherwise approved with Transport: a) offensive graffiti will be removed or concealed within 24 hours b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week c) graffiti that is neither offensive or highly visible will be removed or concealed within a month d) any unauthorised advertising material will be removed or concealed within 24 hours.	Not Applicable	Permenant compounds and hoarding will not be established during the early works.
33	**Design principles** Where feasible and reasonable, the design principles identified in the LCVIA shall be incorporated into the detailed design of the Project.	Not Applicable	Detailed design is not part of the early works scope.
34	**Replacement of the tree on Epping Station platform** The existing tree on Epping Station platform is to be replaced to respect and retain the existing character of the station.	Not Applicable	Detailed design is not part of the early works scope.
35	**Lighting** Lights must be provided to luminate areas under the temporary bridge construction structure to ensure safety of passengers on Epping Station platform.	Not Applicable	Detailed design is not part of the early works scope.
Noise and Vibration			
36	**Construction Noise and Vibration** Prior to commencement of construction, a Construction Noise and Vibration Management Plan (CNVMP) shall be prepared and implemented in accordance with the requirements of the EPA's Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009), Transport's Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2023c) and the Noise and Vibration Impact Assessment for the Project (Mott MacDonald, 2024a). The CNVMP shall include, but not be limited to: a) details of construction activities and an indicative schedule for construction b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the REF) d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing	Applicable	Noise and vibration to be incorporated into a subsection of the CEMP for the early works.

	with and responding to noise and vibration complaints e) an Out of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Mitigation Measure 38 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 written approval by the DES or as approved by EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with the Transport Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2023c) f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, identification of 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 The CNVMP shall consider and outline measures to reduce the noise and vibration impacts from construction activities. Where practicable at source measures including by construction planning/staging and equipment selection shall be prioritised over at receiver measures. Reasonable and feasible mitigation measures include: -regularly training workers and contractors (such as at the site induction and toolbox talks) on the importance of minimising emissions and how to use equipment in ways to minimise noise and vibration. -avoiding any unnecessary emissions when carrying out manual operations and when operating plant. -ensuring spoil is placed and not dropped into awaiting trucks or other plant/vehicles. -avoiding/limiting simultaneous operation of noisy or vibratory plant and equipment within discernible range of a sensitive receiver where practicable. -switching off any equipment not in use for extended periods e.g. heavy vehicles engines shall be switched off whilst being unloaded. -avoiding deliveries at night/evenings or other sensitive times wherever practicable. -no idling of delivery trucks. -ensuring truck drivers are informed of designated vehicle routes, parking locations and acceptable delivery hours for the site. -minimising talking loudly; no swearing or unnecessary shouting, or loud stereos/radios onsite; no dropping of materials from height where practicable, no throwing of metal items and slamming of doors. -maximising the offset distance between noisy or vibratory plant and sensitive receivers and maintaining safe working distances for workers. -directing noise-emitting plant away from sensitive receivers. -regularly inspecting and maintaining plant to avoid increased noise levels from rattling hatches, loose fittings etc. -use of quieter and less vibration emitting construction methods where feasible and reasonable. -non-tonal movement alarms (or an equivalent mechanism) 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.		

37	**Property Condition Surveys** Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of the following buildings/structures: i. all buildings/structures/roads within a distance of 50 metres from the edge of the Designated Works (measured in a straight line) ii. all heritage listed buildings and other sensitive structures within 150 metres from the edge of the Designated Works. iii. all locations that used for construction compounds 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 and provided to Transport. 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. Construction compound locations are to include an assessment of any pre-existing contamination. All owners of assets to be surveyed, as defined above, are to be advised (at least 14 days prior to the first survey) of the scope and methodology of the survey, and the process for making a claim regarding property damage. A copy of the survey(s) shall be given to each affected owner and Transport. A register of all properties surveyed shall be maintained. Any damage to buildings, structures, lawns, trees, sheds, gardens, etc. as a result of construction activity direct and indirect (i.e. including vibration and groundwater changes) shall be rectified at no cost to the owner(s).	Applicable	For works in proximity to the heritage items
38	**Standard Construction Hours** Construction activities shall be restricted to the hours of 7:00 am to 6:00 pm (Monday to Friday); 8:00 am to 1:00 pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours: a) any works which do not cause noise emissions to be more than 5dBA higher than the rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers b) out of hours work identified and assessed in the REF or the approved OOHWP c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as approved by the DES d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm e) any other work as approved by the DES and considered essential to the Project, or as approved by EPA (where an EPL is in effect).	Applicable	

39	**Special Audible Characteristics Activities** As per the Construction noise and vibration guideline (public transport infrastructure) (Transport for NSW, 2023c), construction activities with special audible characteristics shall be limited to standard hours, and start no earlier than 8am unless otherwise approved by the DES in accordance with the CNVS. 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 continuous hours, followed by a minimum one hour respite period, unless otherwise approved to by the DES, or as approved by EPA (where relevant to the issuing of an EPL). Note. Special audible characteristics refers to noise with characteristics that can cause annoyance and disturbance, containing noticeable factors such as tonality, low frequency noise, impulsive or intermittent noise events. These characteristics may not be considered noisy in a quantitative sense.	Applicable	
40	**Vibration Criteria** To avoid structural impacts as a result of vibration or direct contact with structures, the proposed work shall be undertaken in accordance with the safe work distances outlined in the Noise and Vibration Impact Assessment (Mott MacDonald, 2024a). Where these distances cannot be met vibration trials and attended vibration monitoring of the trials shall be undertaken in order to assess and mitigate vibration impacts. Vibration resulting from construction received at any structure outside of the Project shall be limited to: a) for structural damage vibration –British Standard BS 7385-2:1993 Evaluation and measurement for vibration in buildings Part 2 and/or German Standard DIN 4150:Part 3 – 1999: Structural Vibration in Buildings: Effects on Structures b) for human exposure to vibration – the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006) which includes British Standard BS 6472-2:1992 Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz). These limits apply unless otherwise approved by the DES through the CEMP.	Applicable	vibration trials are not required as part of the early works scope.
41	**Piling** Wherever practical, piling activities shall be completed using non-percussive piles. If percussive piles are proposed to be used, written approval of the DES shall be obtained prior to commencement of piling activities.	Not Applicable	Piling will not be undertaken as part of the early works
42	**Vibration Impacts to Heritage Structures** To effectively mitigate potential impacts of vibration on heritage structures within the station, activities that cause vibration shall be managed in accordance with British Standard BS 7385-2:1993. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage objective of 2.5mm/s peak component particle velocity (from DIN 4150) shall be considered. Real time vibration monitoring shall be conducted at commencement of relevant work to confirm compliance with the adopted standard. If vibration levels approach the determined trigger level, then the construction	Applicable	

	activity shall cease and the heritage structure shall be assessed and alternative construction methodologies developed, where practicable, before construction recommences.		
43	**Construction method revision** Construction method revision shall be undertaken to include lower source vibration level plant where feasible and reasonable	Applicable	
44	**Attended vibration verification monitoring** Attended vibration verification monitoring shall be undertaken at affected receivers at the commencement of works to confirm site-specific safe working distance	Applicable	site specific working distances will not be established during early works
45	**Permanent vibration monitors** Permanent vibration monitors with an alarm system (flashing light, audible alarm, SMS etc) to warn relevant parties when approaching vibration limits shall be installed at affected receivers.	Applicable	Pending the outcome of the risk assessment in MM 37
46	**Noise barriers** Noise barriers shall be used around loud equipment such as hydraulic hammer, jackhammer and concrete saw cutting wherever possible	Applicable	
47	**Natural respite** Natural respite shall be incorporated during operation of demolition equipment such as hydraulic hammers and jackhammer.	Applicable	
48	**Noise reducing shrouds** Noise reducing shrouds on hydraulic hammer shall be used during operation.	Applicable	
49	**Hydraulic hammer** Hydraulic hammer contact with reinforcing bar within concrete structures shall be minimised.	Applicable	
Heritage management			
50	**Heritage Induction** As part of the site induction in accordance with Mitigation Measure 3, a heritage induction shall be provided to workers prior to construction, informing them of the location of known heritage items and guidelines to follow if unexpected heritage items or deposits are located during construction. All construction staff would undergo an induction in the preliminary identification of Aboriginal cultural heritage material. This training shall include information such as the importance of Aboriginal cultural heritage material and places to the Aboriginal community, as well as the legal implications of removal, disturbance and damage to any Aboriginal cultural heritage material and sites.	Applicable	
51	**Unexpected Heritage Finds** If previously unidentified or unexpected Aboriginal objects or non-Aboriginal heritage/archaeological items are uncovered during construction, the procedures contained in Transport's Unexpected heritage finds procedure (EMF-HE-PR-0076 (Transport for NSW, 2022) shall be followed, and work within the vicinity of the find would cease immediately. The TESR shall be immediately notified to co-ordinate a response, which may include direction to seek appropriate advice from a suitably qualified and experienced Heritage Advisor (in consultation with Heritage NSW). Works in the vicinity of the find shall not re-commence until written approval to recommence has been received	Applicable	

	from the DES. The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Guideline. If human remains are found, work shall cease in the vicinity of the find, the site must be secured and the NSW Police and/or Heritage NSW notified. Where required, approvals for archaeological investigations, which may include an Aboriginal Heritage Impact Permit, shall be obtained prior to work recommencing at the location. A discovery of suspected human remains greater than 100 years old is an archaeological case and is not subject to the requirements of NSW Coroners Act 2009.		
52	**Protection of heritage items listed on the TAM Section 170 Conservation Register** Design and construction of the Project within the curtilage of the Section 170 listed 'Epping Rail Station Group' must be undertaken in accordance with the recommendations made in the Statement of Heritage Impact (Mott MacDonald, 2023). In accordance with Section 170a of the Heritage Act, if the Project includes demolition of significant fabric, TAM must provide notification of the work to Heritage NSW no less than 14 days (or 40 days if the item is identified as being of State significance, but is not listed on the NSW State Heritage Register) prior to the commencement of the work. The notification shall be supported by an Addendum Statement of Heritage Impact (SOHI). The Addendum SOHI must address impacts from detailed design and provide relevant recommendations and mitigation measures to avoid or minimise heritage impacts to the station.	Applicable	
53	**Council Notification** As Forest Park is listed on the heritage schedule of the Parramatta LEP 2023, Parramatta Council shall be notified of the proposed work in accordance with the CLMP	Applicable	
54	**Protection from Damage** During construction, suitable measures shall be put in place to ensure the retained heritage elements are protected from damage. Measures may include hoardings, use of spotters during the movement of equipment and other measures as necessary.	Applicable	
55	**Heritage curtilages** The location of heritage curtilages shall be clearly shown on Environmental Control Maps (ECMs).	Applicable	
56	**Stacking and storage around heritage structures** Stacking and storage shall not take place on or against or within any heritage structures on both the Epping Railway Station Group and Forest Park. The movement of plant should be planned in accordance with Transport's Temporary Works and Protection at heritage sites during construction Fact sheet (EMF-HE-FS-0166). Appropriate fencing or barriers shall be installed around (but not fixed to) heritage elements where construction processes come within close proximity to heritage elements.	Applicable	
57	**Unexpected damage to heritage elements** Any unexpected damage to any heritage elements associated with the Epping Railway Station Group or	Applicable	

	Forest Park Heritage Items shall be reported to Transport's Project Manager. This reported unexpected damage shall be documented and disclosed to Transport's Environment and Sustainability Representative.		
58	**Retaining walls** To avoid damage to significant heritage plantings, the proposed retaining walls in proximity to Forest Park shall adopt a design that is sensitive to surrounding tree roots as per the recommendations of the AIA 2023 prepared by Urban Arbor. The design of Blaxland Road shall minimise level changes in proximity to Forest Park to retain the canopy of significant heritage plantings.	Not Applicable	Detailed design is not part of the early works scope.
59	**Heritage interpretation** Heritage Interpretation shall be provided on construction hoarding and signage of the construction areas in proximity to heritage items. This is in order to mitigate temporary visual impacts to the Epping Railway Station Group and other items and shall include the temporary bridge construction platform. Specialist Heritage Advice shall be sought for heritage interpretation solutions on the hoarding, and integration with Transport's Community Engagement Plan for these works.	Not Applicable	Permanent hoardings will not be established during early works.
60	**Structural assessments** Prior to works commencing, the construction contractor shall undertake structural assessments of the station building and brick retaining wall on the western side of the rail corridor (Part of Station Building Listing) in order to determine the integrity and condition of these structures. Findings of these assessments must be used to determine safe working distances between plant and the structures, and this information shall be incorporated into the noise and vibration management plan for the works. The vibration limits used to determine safe working distances shall be based on the British Standard BS 7385:1993 for all structures which are considered sound by the inspection. Should the assessment find a structure to be of greater vulnerability to the impacts of construction vibration, due it's structural integrity,, the German Standard DIN 4150 - Part 3 (2016) 'Vibration in buildings - Effects on Structures' (DIN 41503:2016) vibration limit of 2.5mm/s peak component particle velocity must be used to set the vibration limit for these structures. Ways to mitigate vibration impacts should be considered, such as: -choosing alternative, lower impact equipment or methods where possible (bored piling, grip jacking or the use of a hammer cushion if impact piling is unavoidable). -scheduling the use of multiple vibration-causing activities so that they do not occur at the same time. -isolating the equipment causing the vibration on resilient dampening mounts where possible.	Applicable	To be considered as party of the risk assessment as per mm 37
61	**Vibration testing and monitoring** The construction contractor must conduct vibration testing and monitoring, as per the Vibration Management Plan, both prior to and during vibration-generating activities occurring during the construction process, to ensure that vibration limits set for each structure are not exceeded. The construction contractor must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement	Applicable	Vibration monitoring will be undertaken as required.

	and noise monitoring of heritage listed structures. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, the construction contractor must review the construction methodology and where feasible and reasonable, implement additional mitigation measures. Should the screening vibration limits be exceeded during works, those works shall cease and visual inspection to check for potential damage shall be conducted. The contractor must then follow the steps above to review and implement additional mitigation measures. Further mitigation measures shall be discussed with a heritage specialist and their effects observed.		
62	**Urban Design and Landscaping** The finishes of the bridge abutments and tie-in structures shall be detailed in the urban design and landscape plan (UDLP) to ensure that the new work is aesthetically appropriate for the nineteenth century railway setting	Not Applicable	Detailed design is not part of the early works scope.
Socio-economic			
63	**Local Goods and Services** Sustainability criteria for the Project shall be established to encourage the Contractor to purchase goods and services locally, helping to ensure the local community benefits from the construction of the Project.	Not Applicable	crtieria will be established for the main works contractor.
64	**Public Feedback** Feedback through the public display process shall be used to facilitate opportunities for the community and stakeholders to have input into the Project, where practicable.	Not Applicable	
65	**Website** Project information shall be made available to members of the public, either on dedicated pages on the Transport/Project website or details provided as to where/if hard copies of this information may be accessed. Project information to be provided includes: a) a copy of the documents referred to under Condition 1 of any future approval b) 24 hour contact telephone number for information and complaints. All documents uploaded to the website must be compliant with the Web Content Accessibility Guidelines Version 2.2.	Applicable	
66	**Community Liaison Management Plan** A Community Liaison Management Plan (CLMP) shall be prepared and implemented to engage with government agencies, relevant Councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies, Taxi Council and businesses). The CLMP shall comply with the obligations of these conditions and shall include, but not necessarily be limited to: a) a comprehensive, project-specific analysis of stakeholders, issues and proposed strategies to manage issues through the duration of the Project b) details of the communication tools (traditional and digital) and activities that will be used to inform and engage with the community and stakeholders c) a program for the implementation of community liaison activities relating to key construction tasks and milestones with strategies for minimising impacts and informing the community	Applicable	

	d) policies and procedures for handling community complaints and enquiries, including the Contractor's nominated 24 hour contact for management of complaints and enquiries e) analysis of other major projects/influences in the area with the potential to result in cumulative impacts to the community and strategies for managing these. The CLMP shall be prepared to the satisfaction of the relevant Community and Place Director (or nominated delegate) prior to the commencement of construction and implemented, reviewed and revised 6-monthly during the construction of the Project.		
67	Community Notification and Liaison The local community shall be advised of any activities related to the Project with the potential to impact upon them. Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour Construction Response Line number. Construction-specific impacts including information on traffic changes, parking 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 7 days prior to such works being undertaken or other period as approved to by the relevant Community and Place Director.	Applicable	
68	**Complaints Management** A 24 hour construction response line number shall be established and maintained for the construction. Details of all complaints received during construction, including complaints received in person and via email, 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 7 calendar days for verbal and/or written complaints. Information on all complaints received during the previous 24 hours shall be forwarded to the TESR each working day.	Applicable	
69	**Property adjustment plans** Property adjustment plans shall be developed in consultation with the affected property owners	Not Applicable	Property adjustment plans are not part of the early works scope.
70	**Land acquisitions** All land acquisitions shall be conducted in accordance with Transport's Land Acquisition Policy and compensation shall be based on the requirements of the Land Acquisition (Just Terms) Compensation Act 1991	Not Applicable	Land acquisitions are not part of the early works scope.
71	**Connecting to Country consultation report** The recommendations of the connecting to Country consultation report shall be incorporated into the detailed design for the Project wherever it is reasonable and feasible to do so. This shall include incorporation of	Not Applicable	Urban deisgn and landscaping plan not part of the early works scope.

	connecting with Country elements into the Urban Design and Landscape Plan.		
Biodiversity			
72	**Removal of Trees or Vegetation** The Project shall be designed and constructed to retain as much existing vegetation as possible and disturbance of vegetation shall be limited to the minimum amount necessary to construct the Project. Trees and vegetation nominated to be removed in the AIA (Urban Arbor, 2023) shall be clearly demarcated onsite prior to construction, to avoid unnecessary vegetation removal. Landowners consent shall be obtained prior to vegetation removal, should TAM not be the landowner. Trees and vegetation to be retained shall be protected through temporary protection measures discussed in Mitigation Measures below. Separate approval, in accordance with Transport's EMF-EM-TT-0144 Removal or trimming of vegetation application, is required for the trimming, cutting, pruning or removal of all trees or vegetation where the impact has not already been identified in the REF or Determination Report for the proposal. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the Mitigation Measures.	Applicable	
73	**Biodiversity Management** Construction of the Project must be undertaken in accordance with Transport's Biodiversity Policy (Transport, 2022d), including the Transport's Biodiversity Assessment Guideline (Transport, 2022e), Transport's No net loss guidelines (Transport, 2022f) and Transport's Tree and hollow replacement guidelines (Transport, 2023h).	Applicable	
74	**Tree Protection Zones** Tree Protection Zones (TPZs) shall be established around trees to be retained, as nominated in the AIA (Urban Arbor, 2023) or as required to protect vegetation. Tree protection shall be undertaken in accordance with AS 4970-2009 Protection of Trees on Development Sites and shall include exclusion fencing of TPZs. The tree dripline may be used as a guide for protecting trees where an exclusion zone is not established by an arborist/ecologist. Should the approved development be altered by a post-approval assessment, consideration of any additional TPZs beyond those identified in the AIA (Urban Arbor, 2023) shall be required and may need to be supported by additional or addendum arboricultural advice.	Applicable	TPZ will be established in consultation with TESR, TPZs outside of the construction footprint of the early works need not be established, as agreed with TESR.
75	**Tree and Vegetation Damage** In the event of any tree or vegetation to be retained becoming damaged during construction, the Contractor shall immediately notify the Transport Project Manager and TESR to coordinate the response which may include contacting an arborist to inspect and provide advice on remedial action, where possible. Where arborist advice indicates that a tree or vegetation may be at risk of failure due to project works the priority should be to retain and protect the tree or vegetation. Following completion of construction the arborist should reassess the tree and their advice followed. Where tree or vegetation removal is required, replacement must be in accordance with the Transport's Biodiversity Policy (Transport, 2022d).	Applicable	

76	**Weed Control** Weed control measures, consistent with Transport's Biodiversity Policy (Transport, 2022d) and the Pesticides Regulation 2017, shall be developed and implemented as part of the CEMP to manage the potential dispersal and establishment of weeds during the construction phase of the Project. This shall include the management and disposal of weeds in accordance with the Biosecurity Act 2015.	Applicable	
77	**Replanting Program** Any vegetation removal shall be offset in accordance with Transport's Biodiversity Policy (Transport, 2022d). All vegetation planted on-site is to consist of locally native species, unless otherwise approved by the DES, following consultation with the relevant Council, where relevant, and/or the owner of the land upon which the vegetation is to be planted. A replanting strategy and maintenance schedule of offsetting on and offsite is to be provided to the TESR for review and approval at least 4 weeks prior to the commencement of replanting. All vegetation shall be maintained for at least 12 months following completion of construction or following planting (whichever ends last) (unless approved by the TESR).	Applicable	
78	**Non-destructive root investigations** Non-destructive root investigations shall be undertaken to determine the impact of the proposed works to the root systems of the Seven (7) trees and one (1) group of trees namely: 10, 11, 14, 22, 77, 79, 80 and G1. Tree sensitive construction methods may be required pending on the findings of the root investigations. See the AIA for information regarding root system works and tree sensitive construction techniques	Applicable	
79	**Detailed Tree Management Plan** A detailed tree management plan (TMP) is to be prepared in accordance with AS4970-2009 and developed in combination with the overall construction management plan for the site. The TMP should be prepared by a consulting Arborist with a minimum AQF level 5 qualification.	Applicable	detailed tree management plan to be developed by main works contractor, tree management to be incorporated into the CEMP for the early works contractor.
80	**Project Arborist** Prior to any works commencing at the site a Project Arborist should be appointed. The Project Arborist should be qualified to a minimum AQF level 5 and/or equivalent qualifications and experience and should assist with any development issues relating to trees that may arise. If at any time it is not feasible to undertake works in accordance with this, an alternative must be agreed in writing with the Project Arborist.	Applicable	
81	**Qualified Arborist** All tree work should be carried out by a qualified and experienced Arborist with a minimum of Australian Qualifications Framework (AQF) level 3 in arboriculture, in accordance with NSW Work Cover Code of Practice for the Amenity Tree Industry (1998) and AS4373 Pruning of amenity trees (2007).	Applicable	
82	**Tree protection zones** Work undertaken within a tree protection zone is to be supervised by a qualified and experienced Arborist with a minimum of Australian Qualifications Framework (AQF) level 3 in arboriculture.	Applicable	

83	**Project Arborist site inspections** In accordance with AS4970-2009, the Project Arborist shall carry out regular site inspections to ensure works are carried out in accordance with this document throughout the development process. Site inspections are recommended on a monthly frequency throughout the development.	Applicable	
84	**Underground services outside of the TPZ** Where possible, underground services shall be located outside the TPZ of retained trees via sensitive techniques in accordance with recommendations from AS4970-2009.	Applicable	
85	**Microbats** In the event that any microbats are observed during construction, an Unexpected Threatened Species Finds Procedure shall be followed. Subsequently, a Microbat Management Plan (MMP) shall be prepared.	Applicable	
86	**Habitat feature** If a habitat feature, such as a nest, is identified during clearing, works shall stop in the vicinity and an ecologist shall be called to safely remove and relocate the fauna.	Applicable	
87	~~BGHF in the rail corridor~~ ~~An ecology assessment must be undertaken of the indicative area proposed to be used for rail corridor access and an in-corridor construction compound. The assessment must identify all ecology values within this area including BGHF. Materials storage/laydown activities shall not occur within BGHF or impact any ecology values, as identified within the ecology report. Exclusion areas must be established and maintained to protect BGHF an any ither ecological values. Recommendations of the ecology report are to be implemented and incorporated within the CEMP.~~	N/A	
88	**Mulch and landscaping** 1. Mulch used in landscaping must, to the extent possible, be derived from trees, shrubs and any other vegetative material that is approved by the Principal for use as mulch, removed during the clearing and grubbing works on the Site. If the mulch produced in this way is insufficient or not available, make up the shortfall by using imported hardwood chip that complies with Australian Standard AS 4454, the EPA Mulch Order 2016 and Mulch Exemption 2016. Imported hardwood chip must also comply with the following requirements: a) Hardwood chip must only be derived from waste hardwood timber. Woodchip derived from trees which have been specifically harvested for that purpose will not be accepted under any circumstances b) The material must comprise hardwood chips with not more than 5% fines by volume, and must not contain any bark c) The average size of the woodchip must be approximately 30 mm x 20 mm x 5 mm and the maximum length of chip must not exceed 50 mm d) Hardwood chip must be free of soil, weeds, stones, vermin, insects or other foreign material. 2. Prior to procuring, the Contractor must provide in writing to the Principal the source of mulch, as well as a sample of mulch and product documentation demonstrating compliance, for approval or for other quality assurance diligence and surveillance purposes. 3. Prior to importing, the Contractor must ensure all imported mulch is visually inspected at the supplier's	Applicable	

	premises, with samples collected and tested in accordance with AS 4454. The Contractor must track batches of mulch to ensure the same mulch inspected and tested is delivered to site. 4. During unloading and land application, the Contractor must ensure that a suitably qualified expert visually inspects each load of mulch for compliance. All visual inspections of mulch must be documented and include as a minimum: a) location, date, and time of inspection b) name of inspector c) product name, supplier name, volume of material d) photographs of material inspected e) sample collection details (when applicable).		
Soils and water			
89	**Storage and Use of Hazardous Materials** Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, Transport's Chemical storage and spill response guidelines (Transport, 2023k) and Australian and ISO standards. These measures shall include: a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment are to be undertaken in clearly marked designated areas 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.	Applicable	
90	**Erosion and Sediment Control** Soil and water management measures shall be prepared, implemented and maintained for the mitigation of water quality impacts during construction of the Project in accordance with Managing Urban Stormwater: Soils and Construction Volume 14th Edition (Landcom, 2004). The following are required, based on the amount of disturbance proposed: soil and water management measures included on the ECM and in the CEMP for less than 250m2 of disturbance. erosion and sediment control plan (ESCP) for between 250-2,500m2 of disturbance. soil and water management plan (SWMP) for over 2,500m2 of disturbance. Management measures shall be established prior to any clearing, grubbing or site establishment activities and shall be maintained and regularly inspected (particularly following rainfall events) to ensure their ongoing functionality. At a minimum inspection shall occur monthly and shall be reported in the inspection report. Management measures shall be maintained until the	Applicable	

	work is complete and areas are stabilised. The management measures shall be reviewed and updated throughout construction so they remain relevant to the activities being undertaken.		
91	**Vehicle Maintenance** Vehicles and machinery shall be properly maintained and routinely inspected to minimise the risk of fuel/oil leaks. Construction plant, vehicles and equipment shall also be refuelled offsite, or in a designated refuelling area.	Applicable	
92	**Pollution Incident** In the event of a pollution incident, work shall cease in the immediate vicinity and the Contractor shall immediately notify the Transport Project Manager and TESR in accordance with the Transport Environmental Incident Procedure (EMF-EM-PR-0010. The EPA shall be notified, in accordance with Part 5.7 of the POEO Act.	Applicable	
93	**Groundwater** Should groundwater be encountered during excavation work, groundwater shall be managed in accordance with the requirements of the Waste Classification Guidelines (EPA, 2014) and Transport's Water Discharge and Reuse Guideline (Transport for NSW, 2019e).	Applicable	
94	**Existing drainage systems** The existing drainage systems shall remain operational throughout construction and the erosion and sediment control plan (ESCP) shall take this into consideration during the design and implementation of control measures.	Applicable	
Contamination			
96	**Waste Management Plan** The CEMP (or separate Waste Management Plan, if necessary) must address waste management and shall at a minimum: -identify all potential waste streams associated with the work and outline methods of disposal of waste that cannot be reused or recycled at appropriately licensed facilities. -apply the waste hierarchy to resource output streams and justification provided. -detail other onsite management practices such as keeping areas free of rubbish. -specify controls and containment procedures for hazardous waste and asbestos waste. -outline the reporting regime for collating construction waste data.	Applicable	Waste management to be incorporated into a subsection of the CEMP for the early works.
97	**Unidentified Contamination (Other Than Asbestos)** If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and 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 the Guidelines for Consultants Reporting on Contaminated Sites (Office of Environment and Heritage, 2011). The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure. A copy of any contamination report shall be submitted to the TESR for review in accordance with Mitigation	Applicable	

	Measure 4. The DES shall determine whether consultation with the relevant Council and/or EPA is required prior to continuation of construction within the affected area.		
98	**Asbestos Management** If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA, Safe Work Australia 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. The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure. Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology. Note: In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Mitigation Measure 97 and Mitigation Measure 98.	Applicable	
99	**Spoil Reuse, Removal and Classification** All excavated spoil suitable for reuse shall be reused on site and distributed as approved by the TESR. The quantity and locations for reuse of excavated material shall be further reviewed and confirmed with the TESR during construction. All spoil to be removed from site shall be tested to confirm the presence of any contamination. Any contaminated spoil shall be disposed of at an appropriately licensed facility. All spoil and waste must be classified in accordance with the Waste Classification Guidelines Part 1: Classifying waste (EPA, 2014) prior to disposal.	Applicable	
100	**Hazardous Materials Survey** A Hazardous Materials Survey in accordance with AS 2601 (2001) Demolition of Structures shall be undertaken by an appropriately qualified environmental scientist prior to the demolition of bridge and support structures. Subsequent removal of any hazardous material is to be undertaken in accordance with applicable EPA, SafeWork NSW and Safe Work Australia guidelines.	Not Applicable	demolition of bridge and support structures not part of the early works scope.
101	**Concrete Washout** Any concrete washout shall be established and maintained in accordance with Transport's EMF-EM-GD-0145 Concrete washout guideline (Transport for NSW, 2023a) with details included in the CEMP and location marked on the ECM.	Applicable	
102	**Remediation** A remediation strategy to be prepared for the project to be detailed in an Environmental (Contamination) Management Plan and shall include a Remediation	Not Applicable	not part of the early works scope

	Action Plan for the area identified for land acquisition within 2-16 Epping Road. Contamination management shall be in accordance with Transport's Contaminated land management procedure (EMF-LM-PR-0016)		
103	**Underground storage tank locations** The investigation of the location and condition of underground storage tanks within 2-16 Epping Road shall be undertaken, and the findings incorporated into the Remediation Action Plan for the area identified for land acquisition within 2-16 Epping Road.	Not Applicable	not part of the early works scope
104	**Epping Bridge Detailed Site Investigation** The recommendations from Section 10 of the Epping Bridge Detailed Site Investigation (JK Environments, 2024) shall be implemented. This shall include the preparation and implementation of a Remediation Action Plan (RAP) and site validation.	Not Applicable	not part of the early works scope
105	**Removing FCF and surface clearance certificate** A suitably qualified/licensed contractor is to remove all visible FCF from the areas of the site with exposed soils. A surface clearance certificate is then to be issued by a Licensed Asbestos Assessor prior to use of 2-16 Epping Road. Any other measures from the Environmental (Contamination) Management Plan relevant to the set up and operation of the construction compound must be implemented.	Not Applicable	not part of the early works scope
106	**Removal of Underground storage tanks** Any required removal of storage tanks and remediation of contaminated soils in accordance with a remediation strategy contained within the Environmental (Contamination) Management Plan or Remediation Action Plan for the area identified for land acquisition within 2-16 Epping Road.	Not Applicable	not part of the early works scope
107	**Remediation of contaminated soils at 2-16 Epping Road** The remediation of contaminated soils in accordance with a remediation strategy for the area identified for land acquisition within 2-16 Epping Road.	Not Applicable	not part of the early works scope
Air Quality			
108	**Minimising Impacts to Air Quality** To minimise air quality impacts and the generation of dust from construction activities, the following measures shall be implemented: -plant and machinery shall be switched off when not in use, and not left idling. -vehicle and machinery movements during construction shall be restricted to designated areas and sealed/compacted surfaces where practicable. -apply water (or alternate measures) to exposed surfaces (e.g. unpaved roads, stockpiles, hardstand areas and other exposed surfaces). -cover stockpiles when not in use. -appropriately cover loads on trucks transporting material to and from the construction site and securely fix tailgates of road transport trucks prior to loading and immediately after unloading. -prevent mud and dirt being tracked onto sealed road surfaces. -details on how methods for management of emissions shall be incorporated into project inductions, training and pre-start/toolbox talks. -details for procedure to ensure plant and machinery are regularly checked and maintained in a proper and	Applicable	

	efficient condition. These methods are to be identified in the CEMP.		
109	**Air quality management and monitoring** Air quality management and monitoring for the Project shall be undertaken in accordance with Transport for NSW's Air Quality Management Guideline (Transport for NSW, 2019i).	Applicable	
110	**Weather forecast monitoring** Construction manager to monitor weather forecast and where necessary, modify or suspend dust generating activities, such as excavations and heavy truck movements during dry and high wind speed conditions.	Applicable	
Waste			
111	**Waste Management Plan** The Waste Management Plan must be prepared and address waste management and shall at a minimum: -identify all potential waste streams associated with the work and outline methods of disposal of waste that cannot be reused or recycled at appropriately licensed facilities. -detail other onsite management practices such as keeping areas free of rubbish. -specify controls and containment procedures for hazardous waste and asbestos waste. -outline the reporting regime for collating construction waste data.	Applicable	Waste management to be incorporated into a subsection of the CEMP for the early works.
112	**Unexpected Finds Protocol** An appropriate Unexpected Finds Protocol, considering asbestos containing materials and other potential contaminants, shall be included in the CEMP. Procedures for handling asbestos containing materials, including licensed contractor involvement as required, record keeping, site personnel awareness and waste disposal to be undertaken in accordance with WorkCover requirements.	Applicable	
113	**Reuse of excavated spoil** All excavated spoil suitable for reuse shall be reused on site and distributed as agreed with Transport for NSW and the Contractor. The reuse of excavated material shall be further reviewed and confirmed during construction.	Applicable	
114	**Testing of removed spoil** All spoil to be removed from site shall be tested to confirm the presence of any contamination. Any contaminated spoil shall be disposed of at an appropriately licensed facility.	Applicable	
115	**Classification of spoil and waste** All spoil and waste must be classified in accordance with the Waste Classification Guidelines Part 1: Classifying waste (EPA, 2014) prior to disposal at an appropriately licensed facility.	Applicable	
116	**Concrete washout** Any concrete washout shall be established and maintained in accordance with Transport for NSW's Concrete Washout Guideline – draft (Transport for NSW, 2019j) with details included in the CEMP and location marked on the ECM.	Applicable	
117	**Waste management** Waste management shall be undertaken in accordance with the Waste Avoidance and Resource Recovery Act	Applicable	

	2001 (WARR Act). Waste management targets for reuse and recycling have been taken from the baseline sustainability requirements for the Project: -100% clean ballast reused, recycled or repurposed. -94% of inert and non-hazardous waste generated during. demolition and construction reused, recycled or repurposed. -100% of useable spoil is reused, recycled or repurposed. -100% clean concrete is reused, recycled, or repurposed. -100% clean asphalt pavement is reclaimed. -40% of waste generated from office activities diverted from landfill.		
Sustainability, climate change and greenhouse gases			
118	**Sustainable Design Guidelines** Detailed design of the Project shall be undertaken in accordance with the Transport for NSW (SDG)ign Guidelines Version 4.0 (Transport NSW, 2019c) achieve a minimum silver rating.	Not Applicable	To be undertaken by the main works contractor, not part of the early works scope.
119	**Carbon Footprint Exercise** The detailed design process shall undertake a compliant carbon footprinting exercise in accordance with Transport's Carbon Tool (Transport, 2024) or other approved modelling tools. The carbon footprint shall to be used to inform decision making in design and construction.	Not Applicable	Detailed design is not part of the early works scope.
120	**Sustainability Officer** A suitably qualified and experienced Sustainability Officer shall be appointed who is responsible for implementing the sustainability objectives for the Project, in line with the Project's overarching Project Sustainability Plan. Details of the Sustainability Officer including defined responsibilities, duration and resource allocation throughout the appointment are to be submitted to the satisfaction of the Director of Sustainability prior to the preparation of the Sustainability Management Plan.	Not Applicable	To be undertaken by the main works contractor, not part of the early works scope.
121	**Sustainability Management Plan** A Sustainability Management Plan (SMP) which details the approach to managing sustainability requirements and opportunities during design and construction shall be prepared. The SMP shall include the following as a minimum: a) a completed electronic checklist demonstrating compliance with the Transport SDG Version 4.0 (ST-114) b) a statement outlining the Construction Contactor's own corporate sustainability policies, obligations, goals, targets and commitments c) a description of the processes and methodologies for encouraging and identifying innovative sustainability outcomes on the Project, and the areas targeted for innovative sustainable solutions to be explored and/or implemented on the Project. d) the approach to the identification of opportunities to reduce carbon emissions, energy use and embodied lifecycle impacts of the Project. This should include a summary of initiatives proposed for implementation to meet energy and carbon management objectives and targets. A Carbon Management Plan shall be included as a sub-plan to the SMP, aligned to the INSW Embodied Carbon Measurement for Infrastructure Guidance, e) the approach to sustainable procurement including how procurement processes have taken in to account the principles of ISO 20400: 2017 – Sustainable	Not Applicable	To be undertaken by the main works contractor, not part of the early works scope.

	Procurement in the selection of all materials, products and services f) a description of the processes, standards and procedures for undertaking climate change risk assessments and strategies for mitigation of risks associated with climate change and extreme weather events. A copy of the SMP shall be submitted to the Director of Sustainability at least 30 days prior to the commencement of construction, for written approval (or such time as is otherwise approved by the Director).		
122	**Climate change impact assessment** The detailed design process shall undertake a climate change risk assessment with reference to the Transport Climate Change Risk Assessment Guidelines (Transport, 2021g) to identify the hazards/risks associated with future climatic conditions and determine the adaption options.	Not Applicable	Detailed design is not part of the early works scope.
123	**Minimise impacts of extreme heat** Detailed design shall consider inclusions to minimise impacts of extreme heat, including: selection of materials for durability in extreme conditions that minimise heat retention urban design elements that provide lighter coloured surfaces and adequate shade, that minimise water use and provide drainage sized for future rainfall predictions. Relevant wind codes, surface water modelling shall also be considered during detailed design. Some climate change risks in construction and operation shall be managed through management plans and procedures.	Not Applicable	Detailed design is not part of the early works scope.
Cumulative Impacts			
124	**Ongoing Cumulative Impacts** The potential cumulative impacts associated with the Project shall be further considered as the design develops and as further information regarding the location and timing of potential developments is released. Environmental management measures shall be developed in the CEMP, and implemented as appropriate.	Not Applicable	Detailed design is not part of the early works scope.

NSW GOVERNMENT