

Hill Road Upgrade

Addendum review of environmental factors

October 2025



Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

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.



Document controls

Approval and authorisation

Title	Hill Road Upgrade Addendum review of environmental factors
Accepted on behalf of Transport for NSW by:	Tony Lai Project Manager
Signed:	
Dated:	

Executive summary

The proposed modification

Transport for NSW proposes to modify the Hill Road Upgrade project. Key features of the proposed modification would include:

- At the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as the M4 On-Ramp:
 - Decommissioning redundant underground services
 - Installation of new utilities as per the approved final design.

As a consequence of this design modification, there would be additional impact to vegetation. The modification would require removal of 0.07 ha of vegetation located within the traffic islands at the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as adjacent to the M4 on-ramp.

Background

Transport for NSW completed a review of environmental factors (REF) of the Hill Road Upgrade in November 2021. The REF described the project, assessed the potential environmental and social impacts associated with the construction and operation of the project and identified safeguards and management measures to avoid, mitigate or manage those potential impacts.

The REF was placed on public display between 15 November to 12 December 2021. Following public display, submissions received were considered and responded to by Transport for NSW in the *Hill Road Upgrade Submissions Report* dated March 2022.

After consideration of the REF and submissions report, Transport for NSW made a decision to proceed with the project on 25 February 2022.

Need for the proposed modification

The proposed modification is needed for the Hill Road Upgrade works to install utilities infrastructure to complete connectivity and ensure appropriate capacity within the Project area to support adjacent development and future transport network flexibility. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

Proposal objectives

Section 2.3 of the project REF identifies the proposal objectives that apply to the proposed modification.

Options considered

Transport investigated the 'do nothing' option and the option of proceeding with the proposed modification.

The do nothing option was not considered suitable to continue as it would not deliver the objectives of the overarching project. The proposed modification was selected as the preferred option as it supports delivery of the proposal needs and objectives.

The proposed modification would have some environmental impacts additional to the approved project; however, these have been assessed as minor and can be appropriately managed with the implementation of existing safeguards and management measures identified within the REF and Submissions report.

Statutory and planning framework

The proposed modification is categorised as development for the purpose of road infrastructure facilities and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

Community and stakeholder consultation

Cumberland City Council and Transurban were consulted regarding of the proposed modification, and there were no objections to the removal of the trees.

Environmental impacts

The main environmental impacts for the proposed modification are:

Biodiversity

The proposed modification would impact an additional 0.07ha of vegetation. When combined with the 0.67ha of vegetation in the REF the proposal would have a cumulative impact of 0.74ha.

The proposed modification would require the removal of up to 0.06 ha of vegetation mapped as Castlereagh Ironbark Forest (PCT 3448) which conforms to the threatened ecological community (TEC) – Shale Gravel Transition Forest in the Sydney Basin Bioregion listed as Endangered under the EPBC Act. A test of significance confirmed that the proposed action would not have a significant impact on this Endangered Ecological Community (EEC) and does not warrant a Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR).

An additional safeguard has been included that trees would be offset in accordance with the *Tree and Hollow Replacement Guideline* (TfNSW, 2025).

Other impacts

The addendum REF also assesses impacts associated with other relevant environmental aspects including Aboriginal and non-Aboriginal heritage, soils and contamination, air quality, sustainability, property and land use, surface water, flooding and groundwater, hazard and risk, waste and resource management, and cumulative impacts. The addendum REF finds that these impacts during construction and operation of the proposal would be managed by implementation of safeguards and management measures outlined in this REF.

Justification and conclusion

The proposed modification assessed in this Addendum REF is necessary as part of the Hill Road Upgrade project. The potential impact of the modification on the environment and the surrounding sensitive receivers have been considered throughout the detailed design process.

Potential environmental impacts have been identified and the safeguards and mitigation measures documented in the Project REF, Submissions Report and this Addendum REF are considered satisfactory in addressing any potential environmental impacts.

In this context, the proposed modifications to the original proposal are considered justified.

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1. Introduction

1.1 Proposed modification overview

Transport for NSW proposes to modify the Hill Road Upgrade project. Key features of the proposed modification would include:

- At the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as the M4 On-Ramp:
 - Decommissioning redundant underground services
 - Installation of new utilities as per the approved final design.

As a consequence of this design modification, there would be additional impact to vegetation.

The modification would require removal of 0.07 ha of vegetation located within the traffic islands at the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as adjacent to the M4 on-ramp.

The location of the proposed modification is shown in Figure 1-1, and the proposed modification is shown in Figure 1-2. Section 3 describes the proposed modification in more detail.

Transport for NSW completed a review of environmental factors (REF) of the Hill Road Upgrade in November 2021. The REF described the project, assessed the potential environmental and social impacts associated with the construction and operation of the project and identified safeguards and management measures to avoid, mitigate or manage those potential impacts.

The REF was placed on public display between 15 November to 12 December 2021. Following public display, submissions received were considered and responded to by Transport for NSW in the *Hill Road Upgrade Submissions Report* dated March 2022.

After consideration of the REF and submissions report, Transport for NSW made a decision to proceed with the project on 25 February 2022.

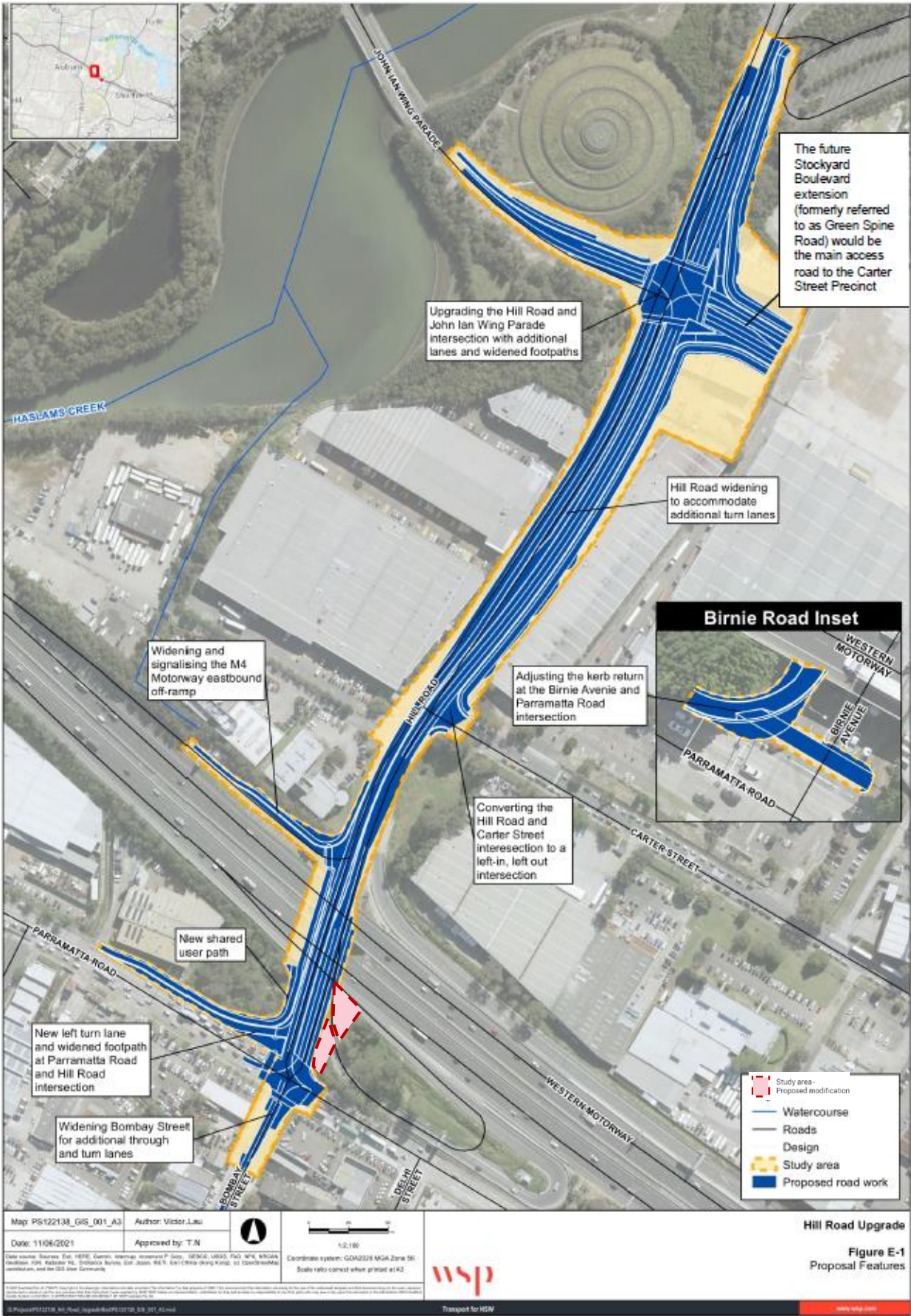


Figure 1-1: Location of the proposed modification (adapted figure from the project REF)

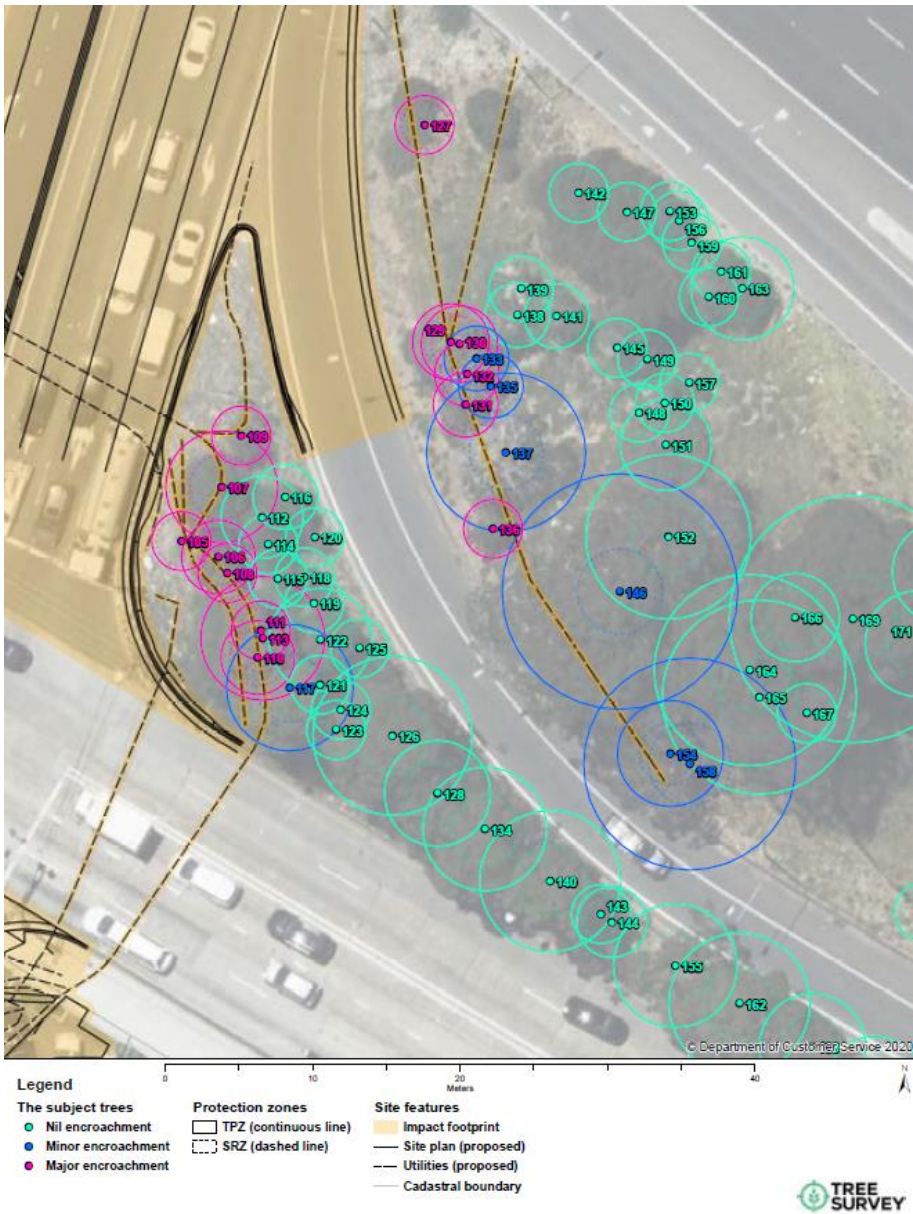


Figure 1-2: The proposed modification (adjacent to the M4 on-ramp)
NB. Tree number 109 is no longer present and was removed in accordance with a separate environmental assessment.

1.2 Purpose of the report

This addendum review of environmental factors (REF) has been prepared by Transport for NSW. For the purposes of these works, Transport for NSW is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the project REF, and submissions report for the project. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed work and assessment of associated environmental impacts has been undertaken in context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Is an EIS Required? Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979* (Is an EIS Required? guidelines) (DUAP, 1995/1996), *Roads and Road Related Facilities EIS Guideline* (DUAP, 1996), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so, the addendum REF helps to fulfil the requirements of:

- Section 5.5 of the EP&A Act including that Transport for NSW examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity

The findings of the addendum REF would be considered when assessing:

- Whether the proposed modification is likely to result in a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured
- The potential for the proposed modification to significantly impact any other matters of national environmental significance or Commonwealth land and therefore the need to make a referral to the Australian Department of Climate Change, Energy, the Environment and Water for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2. Need and options considered

2.1 Strategic need for the proposed modification

Section 2 of the project REF addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification is needed for the Hill Road Upgrade works to:

- Install utilities infrastructure to complete connectivity and ensure appropriate capacity within the Project area to support adjacent development and future transport network flexibility.

2.2 Proposal objectives and development criteria

Section 2.3 of the project REF identifies the proposal objectives and development criteria that apply to the proposed modification. The proposed modification would assist in meeting these proposal objectives and development criteria.

2.3 Alternatives and options considered

2.3.1 Do Nothing

This option would not provide the area with the necessary infrastructure to complete utility connectivity and capacity. It would also fail to support future growth, development, and transport network flexibility. This option was not pursued further.

2.3.2 Additional utilities adjustments

Proposed utilities adjustments including removal of redundant infrastructure and installation of new utilities infrastructure as per the final approved design.

Potential design refinements were explored to locate utilities within the verge and road, however these options were found not viable because utility authority criteria for space and design requirements could not be met and therefore were not pursued further.

2.3.3 Preferred Option

The additional utilities adjustments option was selected as the preferred option because it supports delivery of the proposal needs and objectives.

3. Description of the proposed modification

3.1 The proposed modification

Transport for NSW proposes to modify the Hill Road Upgrade project. Key features of the proposed modification would include:

- At the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as the M4 On-Ramp:
 - Decommissioning redundant underground services
 - Installation of new utilities as per the approved final design.

As a consequence of this design modification, there would be additional impact to vegetation. An additional 0.07 hectares of vegetation would be removed, on top of the 0.67 hectares already assessed in the Review of Environmental Factors (REF). This 0.07ha includes 13 trees (as shown in Figure 1-2 and described in Table 3-1) which would suffer major encroachment (more than 10%) into the Tree Protection Zones (TPZs). Field-validated vegetation mapping shown in Figure 3-1 identifies that the majority of the increased footprint area (0.06ha out of the 0.07ha) is mapped as Castlereagh Ironbark Forest (PCT-3448) which conforms to the Endangered Shale Gravel Transition Forest in the Sydney Basin Bioregion listed as Endangered under the EPBC Act.

The impacted vegetation also falls within the curtilage of a locally listed heritage area (Item I188 - "Stand of *Eucalyptus longifolia*" (Sydney Red Gum) within the Cumberland Council Local Environmental Plan) shown in Figure 3-2 .

Table 3-1: Details of trees requiring removal

Tree ID*	Species Name	Encroachment within Tree Protection Zone	Within Heritage Item (I188)?	Within TEC?	Notes
105	<i>Acacia</i> sp.	30%	No	Yes	Mature Exotic/native species
106	<i>Corymbia maculata</i>	24%	No	Yes	Semi-mature
107	<i>Corymbia maculata</i>	50%	No	Yes	Semi-mature
108	<i>Corymbia maculata</i>	27%	No	Yes	Juvenile
110	<i>Olea africana</i>	24%	No	No	Mature Exotic species
111	<i>Casuarina glauca</i>	50%	No	Yes	Juvenile
113	<i>Corymbia maculata</i>	50%	No	Yes	Mature
127	<i>Olea africana</i>	50%	Yes	No	Semi-mature Exotic species
129	<i>Melaleuca decora</i>	50%	Yes	Yes	Mature
130	<i>Melaleuca decora</i>	50%	Yes	Yes	Mature
131	<i>Melaleuca decora</i>	50%	Yes	Yes	Semi-mature
132	<i>Melaleuca decora</i>	50%	Yes	Yes	Semi-mature
136	<i>Corymbia maculata</i>	50%	Yes	Yes	Semi-mature



Figure 3-1 Field-validated vegetation mapping

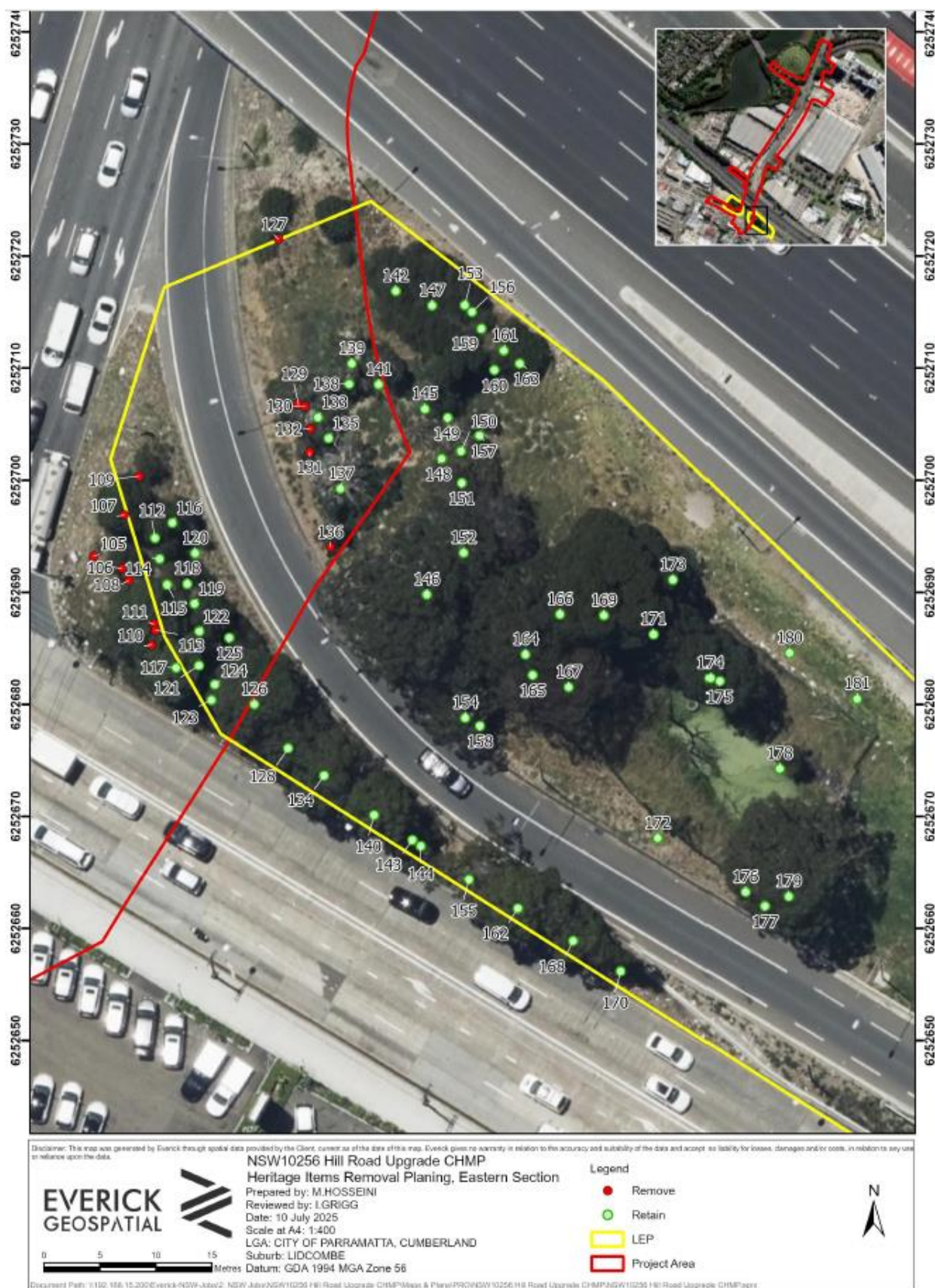


Figure 3-2 Eastern portion of Stand of *Eucalyptus longifolia* (I188) showing trees removed and retained
NB. Tree number is no longer present and was removed in accordance with a separate environmental assessment.

3.2 Design criteria and engineering constraints

Section 3.2.1 of the project REF and Section 4 of the submissions report detail the design criteria and engineering constraints of the project. The proposed modification described and assessed in this addendum REF is consistent with the design criteria and engineering constraints for the project.

3.3 Construction activities

There are no proposed changes to construction hours or for a change to the expected duration of the works from the approved project described in Section 3.2.4 of the project REF.

4. Statutory and planning framework

4.1 Environmental Planning and Assessment Act 1979

4.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2 (Infrastructure) of State Environmental Planning Policy (Transport and Infrastructure) 2021 aims to facilitate the effective delivery of infrastructure across the State.

Section 2.109 of SEPP (Transport and Infrastructure) permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is for road infrastructure facilities and is to be carried out on behalf of Transport for NSW, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Precincts – Central River City)
- State Environmental Planning Policy (Precincts – Eastern Harbour City)
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021

Section 2.10 to 2.15 of SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation is not required in accordance with the SEPP (Transport and Infrastructure).

4.1.2 Environmental Planning and Assessment Regulation 2021

The Environmental Planning and Assessment Regulation 2021 came into force on 1 March 2022, replacing the *Environmental Planning and Assessment Regulation 2000* that was considered in Section 4.1 of the project REF.

This regulation requires the following criteria to be assessed in Reviews of Environmental Factors:

- Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the EP&A Act
- Other relevant environmental factors.

The statutory planning framework of the proposal, including relevant strategic plans, was considered throughout Section 2.1 of the project REF. It is considered that all relevant environmental factors have been addressed throughout Chapter 6 of the project REF.

As a result, no further assessment is required in relation to the *Environmental Planning and Assessment Regulation 2021*.

4.1.3 Local Environmental Plans

The proposal modification area is located within the Cumberland City Council local government area (LGA). The project REF identified that this LGAs was regulated by the Auburn Local Environmental Plan 2010 (LEP). In November 2021, this LEP was replaced by the Cumberland LEP 2021.

While the Cumberland LEP 2021 has replaced the former Auburn LEP, it did so by incorporating the provisions of the former Auburn LEP. As a result, the zoning and development standards in the area of the proposed modification remains SP2, and therefore has been addressed by Section 4 of the project REF.

4.2 Commonwealth legislation

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act a referral is required to the Australian Government for *proposed 'actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land'*. These are considered in Appendix A and section 6 of the addendum REF.

A referral is not required for proposed road actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015.

Potential impacts to these biodiversity matters are also considered as part of section 6 of the addendum REF and Appendix C.

Findings – matters of national environmental significance (other than biodiversity matters)

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there would be no change to the findings of the determined activity and would be unlikely to cause a significant impact on matters of national environmental significance or the environment of Commonwealth land. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

4.3 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of road infrastructure facilities and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

5. Consultation

Cumberland City Council and Transurban were consulted regarding of the proposed modification, and there were no objections to the removal of the trees.

6. Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposed modification of the Hill Road Upgrade project. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the guidelines Roads and Related Facilities EIS Guideline (DUAP, 1996) and Is an EIS required? (DUAP, 1999) the factors specified in section 171 of the *Environmental Planning and Assessment Regulation 2021*. The factors specified in section 171(2) of the *Environmental Planning and Assessment Regulation 2021* are also considered in Appendix A.

Site-specific safeguards and management measures are provided to ameliorate the identified potential impacts.

6.1 Environmental assessment screening

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
Biodiversity	A biodiversity assessment undertaken for the REF identified that the proposal is located in an urbanised and industrialised locality. Impacts to vegetation would be 0.67 hectares of vegetation within the study area comprising one native plant community type (PCT) and one non-native vegetation type: - PCT 724* Broad-leaved Ironbark – Grey Box – <i>Melaleuca decora</i> grassy open forest on clay/gravel soils of the Cumberland Plain, Sydney Basin (0.03ha) - Miscellaneous ecosystem – Urban exotic/native landscape plantings (0.64 ha) *PCT 724 was decommissioned as of June 2022 and has now been split into PCT 3320 and PCT 3448. No threatened ecological communities listed under the Environmental Protection Biodiversity Conservation Act 1999 (EPBC Act) were recorded within the study area. No threatened flora species have been recorded or are considered affected by the Proposal.	The proposed modification would require the removal of up to 0.06 ha of vegetation mapped as Castlereagh Ironbark Forest (PCT 3448). Ground truthing by an ecologist confirmed that this vegetation conformed to the threatened ecological community (TEC) – Shale Gravel Transition Forest in the Sydney Basin Bioregion listed as Endangered under the EPBC Act. This 0.06 ha includes 11 individual trees: - one <i>Acacia spp.</i> - five <i>Corymbia maculata</i> (Spotted Gum) - one <i>Casuarina glauca</i> (Swamp Oak) - four <i>Melaleuca decora</i>. A test of significance confirmed that the proposed action would not have a significant impact on this Endangered Ecological Community (EEC) and does not warrant a Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR). All vegetation proposed for removal provides only low-quality foraging habitat and is unlikely to offer breeding habitat for threatened species due	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
	The Proposal is unlikely to significantly impact threatened species, ecological communities or migratory species, within the meaning of the EPBC Act. No biodiversity offsets are required to offset the impact to native vegetation or threatened species habitat identified from the Proposal. Further details are described in Section 6.1 of the REF.	to the highly urbanised nature of the surrounding landscape and the presence of more suitable habitat elsewhere. No threatened flora or fauna species were recorded or are expected to preferentially occupy the Subject Land. The proposed modification does not trigger the Biodiversity Offset Scheme threshold under the BC Act and is unlikely to significantly impact any listed species or communities. Further details are described in the Biodiversity Assessment Report Memo (East Coast Ecology, 19 June 2025) contained in Appendix C. An additional two trees (0.01) ha of miscellaneous ecosystems comprising exotic and planted vegetation would also be cleared for a total impact of 0.07 ha in addition to the approved 0.67ha within the REF. The cumulative area of vegetation impact is 0.74ha. An additional safeguard has been included that the trees removed would be offset in accordance with the <i>Tree and Hollow Replacement Guideline</i> (TfNSW, 2025). Existing safeguards within the approved REF are adequate to manage potential biodiversity risks.	
Non-Aboriginal heritage	A non-Aboriginal heritage assessment undertaken for the REF identified that there would be direct physical impacts to the Cumberland LEP 2021 item I188 (formerly Auburn Local Environmental Plan (LEP) item I20) a stand of <i>Eucalyptus longifolia</i> from vegetation clearing on the southern and western edges of the LEP curtilage at the intersection of Parramatta Road and Hill Road. The Proposal would result in a minor direct physical impact to heritage item I188 (formerly I20). The potential for significant archaeology to be located within the study area is low as the prevailing historic land uses of the study area have been for agricultural and industrial activities. Further details are described in Section 6.8 of the REF.	The proposed modification would require the removal of up to additional 13 trees, including seven trees which are located within the northern end of the southern portion of the heritage item, Stand of <i>Eucalyptus longifolia</i> (I188). An ecological assessment has determined that none of the trees have been identified as <i>Eucalyptus longifolia</i> and therefore do not represent the description and values for which the heritage item has been determined. The proposed modification does not result in any further removal of <i>Eucalyptus longifolia</i> trees within the heritage item (I188) and would have little to no impact on the significance of the heritage item. The removal of other tree species would also have little to no impact on the significance of the Heritage Item. Further details are described in the Statement of Heritage Impact (Everick Heritage, 13 June 2025) contained in Appendix D.	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
		There are no additional mitigation measures proposed.	
Landscape character and visual amenity	The Proposal is located primarily in an industrial and commercial area, with areas of recreational amenity to the north of the Proposal toward Sydney Olympic Park. Native vegetation has been largely cleared with only patches of small remnant vegetation along Hill Road and the eastbound M4 Motorway on ramp. Construction of the Proposal would result in a temporary change to the landscape character and visual amenity from the establishment of the construction sites, the site compound and ancillary facilities. Construction impacts would be from a change to the existing composition of the landscape character and its setting, removal of small amounts of vegetation and the temporary introduction of machinery and equipment, stockpiles, and stored materials affecting the overall amenity and setting. The main receivers impacted would be those overlooking the construction sites, site compound and ancillary facilities located on the east side of Hill Road near the proposed Stockyard Boulevard intersection. On completion of construction, impacted areas would be reinstated and landscaped. The operation of the Proposal would align with a typical urban landscape and would be in keeping with the character of the local area. However, the completed Proposal would change the existing conditions associated with property acquisition and the introduction of new road infrastructure, landscaping and development. The Proposal would result in low and moderate visual impacts due to the increase of sensitive receptors from the land use change from the completed Carter Street Precinct. Potential impacts are mitigated by a series of landscape and urban design mitigation strategies (e.g. Urban Design Plan, revegetation, tree planting) to minimise landscape and visual impacts from the Proposal. Further details are described in Section 6.9 of the REF.	The proposed modification would require the removal of up to additional 13 trees located on the north-eastern corner of the Parramatta Road and Hill Road intersection, as well as adjacent to the M4 on-ramp. The landscape character and visual impact assessments used for the proposed modification have been adopted from Appendix J of the REF. Landscape Character Assessment The proposed modification is included within the Landscape Character Zone 9 (LCZ) 3 – Parramatta Road Commercial Zone, as identified in the REF, and shown in Figure 6-1.  Figure 6-1 LCZ 3 – Parramatta Road Commercial Zone The landscape character assessment associated with the modification, adopted from the REF for LCZ 3- Parramatta Road Commercial Precinct is included in Table 6-1.	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?						
		Table 6-1 Landscape character impact assessed for LCZ 3- Parramatta Road Commercial Precinct <table><tr><th>Sensitivity</th><th>Magnitude</th><th>Landscape character Impact</th></tr><tr><td>Low The Proposal footprint would be moderately visible from this zone and the overall character of Parramatta Road commercial zone would be minutely affected. The sensitivity is low due to the existing road corridor character and ability to absorb change.</td><td>Moderate The widened road and turning lane would become a more dominant feature in the landscape at the Hill Road intersection and its junction with Parramatta Road. It would influence the core commercial characteristics of the zone due to its proximity.</td><td>Moderate Reinstated low grasses and sedge vegetation along the verge of the M4 corridor & off ramp to mitigate the impact in the long-term once the amenity planting establishes and matures.</td></tr></table> Visual Impact Assessment The proposed modification is included within the Viewpoint 8 - Bombay Street/Parramatta Rd Intersection, as identified in the REF, and shown in Figure 6-2. 	Sensitivity	Magnitude	Landscape character Impact	Low The Proposal footprint would be moderately visible from this zone and the overall character of Parramatta Road commercial zone would be minutely affected. The sensitivity is low due to the existing road corridor character and ability to absorb change.	Moderate The widened road and turning lane would become a more dominant feature in the landscape at the Hill Road intersection and its junction with Parramatta Road. It would influence the core commercial characteristics of the zone due to its proximity.	Moderate Reinstated low grasses and sedge vegetation along the verge of the M4 corridor & off ramp to mitigate the impact in the long-term once the amenity planting establishes and matures.	
Sensitivity	Magnitude	Landscape character Impact							
Low The Proposal footprint would be moderately visible from this zone and the overall character of Parramatta Road commercial zone would be minutely affected. The sensitivity is low due to the existing road corridor character and ability to absorb change.	Moderate The widened road and turning lane would become a more dominant feature in the landscape at the Hill Road intersection and its junction with Parramatta Road. It would influence the core commercial characteristics of the zone due to its proximity.	Moderate Reinstated low grasses and sedge vegetation along the verge of the M4 corridor & off ramp to mitigate the impact in the long-term once the amenity planting establishes and matures.							

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?						
		Figure 6-2 Visual impact assessment for Viewpoint 8 - Bombay Street / Parramatta Rd Intersection The visual impact assessment associated with the modification, adopted from the REF for Viewpoint 8 - Bombay Street/Parramatta Rd Intersection is included in Table 6-1. Table 6-2 Visual impact assessment for Viewpoint 8 - Bombay Street / Parramatta Rd Intersection <table><tr><th>Sensitivity</th><th>Magnitude</th><th>Visual Impact</th></tr><tr><td>Low Motorists on Parramatta Road would have low sensitivity to change in the M4 Motorway environment. Customers would also have low sensitivity as they are pre-occupied with car purchasing activities.</td><td>High The Proposal would be visible in the foreground to motorists and customers to the car sale yards on either corner of Bombay Street. Existing tall sedge species to be removed and reinstated.</td><td>Moderate</td></tr></table> The proposed changes are not anticipated to result in any additional landscape character and visual amenity impacts during construction. Operation phase impacts are mitigated by the retained vegetation buffer between the road corridor and motorway, and would further mitigate over time as amenity planting establishes and matures. The trees removed would be managed in accordance with the <i>Tree and Hollow Replacement Guideline</i> (TfNSW, 2025). There are no additional mitigation measures proposed.	Sensitivity	Magnitude	Visual Impact	Low Motorists on Parramatta Road would have low sensitivity to change in the M4 Motorway environment. Customers would also have low sensitivity as they are pre-occupied with car purchasing activities.	High The Proposal would be visible in the foreground to motorists and customers to the car sale yards on either corner of Bombay Street. Existing tall sedge species to be removed and reinstated.	Moderate	
Sensitivity	Magnitude	Visual Impact							
Low Motorists on Parramatta Road would have low sensitivity to change in the M4 Motorway environment. Customers would also have low sensitivity as they are pre-occupied with car purchasing activities.	High The Proposal would be visible in the foreground to motorists and customers to the car sale yards on either corner of Bombay Street. Existing tall sedge species to be removed and reinstated.	Moderate							

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
Hydrology and flooding	The Proposal is partly within flood-prone land and may be impacted by a 20% AEP flood at Hill Road, the M4 underpass, and Parramatta Road, potentially altering flow paths and causing localised flooding. Construction may increase erosion and sedimentation risks, mitigated through flow diversion, weather monitoring, and equipment management. Operationally, minor increases in impervious area and peak flows are expected, with less than 1% change in total flow volume. Road elevation changes may slightly alter drainage paths, creating new wet areas. Overall, flood impacts are minor and contained within the Proposal. Further details are described in Section 6.2 of the REF	The proposed modification would not substantially alter surface elevations or flood impacts from those described in the REF. As a result, it is not anticipated that the modification would result in any changes to flood impacts from those described in the REF and Submissions Report. There are no additional mitigation measures proposed.	No
Surface water and groundwater	Construction works of the Proposal have the potential to impact on surface water. The main risk is from sediment runoff or degraded water quality caused by excavation, vegetation removal and other surface work, particularly before or during periods of heavy rain. Erosion and sedimentation control measures are proposed to manage potential surface water quality issues. Existing groundwater levels and flow levels are not expected to have any impacts as there are no deep excavations that may encounter the groundwater table. During operations, alterations to the surface water flows are expected to be within the capacity of the stormwater network. There is a potential for pollutant deposit built up on road surfaces and pavement areas during dry weather and are likely to be washed into watercourses during wet weather. Further details are described in Section 6.3 of the REF	The proposed modification would not substantially change the impact on surface water or groundwater from that described in the REF. As a result, it is not anticipated that the proposed changes would result in any changes to topography, geology and soils impacts from those described in the REF and Submissions Report. There are no additional mitigation measures proposed.	No
Contamination, geology and soils	A Stage 1 Contamination Assessment undertaken for the REF identified a number of locations with moderate to high contamination risk that were identified to have potential to impact upon construction and operation of	The proposed modification involves ground-disturbing activities similar to those described within the REF. As a result, it is not anticipated that the proposed changes would result in any changes to contaminated land impacts from those described in the REF and Submissions Report.	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
	the site. Impacts would be managed through prescribed safeguards and management measures. The land use near and within the Proposal study area includes a number of medium to large sized operational commercial businesses. The types of business are primarily industrial such as retail warehousing, mechanical equipment, high-tech speciality chemicals and automotive businesses. The Proposal is located adjacent to the Sydney Olympic Park site and the Homebush Bay area where extensive landfilling and reclamation using uncontrolled waste took place across the Sydney Olympic Park early 1980s. The Proposal would not be impacting any known landfill area, however there is still a possibility of historical fill material may be beneath the study area. Potential contamination would be managed during construction via a Contaminated Land Management Plan, and implemented as part of the CEMP. Further details are described in Section 6.4 of the REF	The Contaminated Land Management Plan would be updated to capture the modification area. There are no additional mitigation measures proposed.	
Traffic and transport	Construction of the Proposal would result in travel delays due to lane closures and increased construction traffic, affecting commuters, buses, and heavy vehicles. Temporary changes to pedestrian and cycling routes, bus stop locations, and property access would also occur. Most construction activity would be confined to the Hill Road corridor, with minor disruptions to Parramatta Road and the M4 eastbound off-ramp. Works likely to significantly affect road network performance would be scheduled outside peak hours or at night. Construction-related haulage and service vehicle movements would impact service and access roads, while detours for public and active transport may increase travel times. Event day traffic at Sydney Olympic Park would be affected during both construction and operation, with ongoing consultation with SOPA planned. Once operational, the Proposal would improve traffic flow and reduce delays along Hill Road and Carter Street. Intersections at Hill Road are expected to maintain satisfactory performance (LOS A–C), while Parramatta Road	The proposed modification involves the same construction impacts as identified in the REF. In operation, potential traffic and transport impacts have also been assessed as unchanged. Overall, the proposed modification would be consistent with the traffic and transport impacts described in the REF and Submissions Report. There are no additional mitigation measures proposed.	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
	intersections would remain congested (LOS E–F). New road configurations may alter turning movements for nearby commercial and industrial properties, though alternative routes would minimise impacts. A Traffic Management Plan and further consultation will guide mitigation of non-event day impacts. Further details are described in Section 6.5 of the REF.		
Noise and vibration	Noise and vibration assessment undertaken for the REF identified that construction would result in noise and vibration impacts at nearby sensitive receiver locations. This would be managed by the implementation of noise and vibration safeguards and management measures. The environment within and around the Proposal is considered urban, with the dominant noise source being road traffic from the exiting and adjacent M4 Motorway as well as vehicle movements on Hill Road and Parramatta Road. The nearest sensitive residential and commercial receivers are located around 10 metres from the Proposal. The noise and vibration impact assessment was prepared, acknowledging that although the Carter Street Precinct has received overall planning approval, many of the residential receivers identified in the Carter Street Precinct have not yet been constructed. As such, noise and vibration impacts assessed for receivers in the Carter Street Precinct represent a worst case scenario and the actual land use status of these properties would be confirmed before and during construction of the project. Construction of the Proposal would exceed the Noise Management Levels (NMLs) and also result in sleep disturbance impacts at receivers in the three residential noise catchment areas surrounding the Proposal. In addition, commercial receivers along Parramatta Road are expected to be affected by noise generated by construction activities during construction. Further details are described in Section 6.6 of the REF.	The proposed modification does not involve substantial changes to construction methodology, resources, equipment, working hours or project duration. As a result, the construction noise and vibration impact of the proposed modification are expected to be unchanged with those described in the REF and Submissions Report. Out of hours works would continue to be managed in accordance with the Noise and Vibration Management Plan. The modification would have no change to Operational noise or vibration and would remain consistent with the approved REF and Submissions report. There are no additional mitigation measures proposed.	No
Aboriginal cultural heritage	An Aboriginal heritage assessment undertaken for the REF identified that the proposal would not impact previously recorded items under the Aboriginal	The proposed modification area falls within the study area assessed for the REF and Submissions report. No known items of Aboriginal heritage were	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
	Heritage Information Management system (AHIMS). The proposal would impact areas that have been assessed as of very low to low Aboriginal archaeological sensitivity and therefore impacts to Aboriginal objects are considered unlikely. Further details are described in Section 6.7 of the REF	identified within the project including the proposed modification area. Aboriginal cultural heritage assessment completed for the REF concluded that unexpected Aboriginal heritage finds are considered to be unlikely due to high levels of disturbance associated with previous road construction activities. The Stage 1 assessment letter is included in Appendix E. There are no additional mitigation measures proposed.	
Socio-economic	An assessment of social and economic factors undertaken for the REF identified that the proposal would have both wider regional and local benefits through improved road safety, new street trees and landscaping, revitalised business environments and the encouragement of physical activity. During construction, the community and businesses in the area would likely experience temporary traffic delays, noise, air quality and visual amenity impacts as well as temporary impacts to businesses. Further details are described in Section 6.10 of the REF.	The approved project and proposed changes would continue to deliver urban renewal and visual amenity improvements to support adjacent development and future transport network flexibility. Potential traffic, noise, air quality and visual amenity impacts are assessed separately in this table. As a result, it is not anticipated that the proposed changes would result in any changes to socio-economic impacts from those described in the REF and Submissions Report.	No
Air quality	An assessment undertaken for the REF identified that, during construction, minor air quality impacts would potentially occur surrounding the proposal area. During operation, near roadside concentrations of all air quality indicators, including carbon monoxide, nitrogen dioxide and particular matter, are predicted to decrease from existing. Further details are described in Section 6.11 of the REF.	The proposed modification construction methodology would not be substantially changed from that described in the REF and Submissions Report. The proposed changes would not change traffic and transport impacts when compared with the approved project and therefore there would be no changes to operational air quality impacts from those described in the REF and Submissions Report As a result, it is not anticipated that the proposed changes would result in any changes to air quality impacts from those described in the REF and Submissions Report.	No

Environmental factor	Potential impacts of the approved project (Adapted from the REF)	Potential impacts of the proposed modification	Additional assessment required?
Waste and resource use	An assessment undertaken for the REF identified that waste generated during construction of the proposal would be managed in accordance with relevant guidelines. Operational waste was not anticipated to change from existing levels. Further details are described in Section 6.12 of the REF.	The proposed modification construction methodology would not be substantially changed from that described in the REF and Submissions Report. As a result, it is not anticipated that the proposed changes would result in any changes to waste and resource use impacts from those described in the REF and Submissions Report.	No
Greenhouse gas and climate change	Further details are described in Section 6.13 of the REF.	The proposed modification construction methodology would not be substantially changed from that described in the REF and Submissions Report. As a result, it is not anticipated that the proposed changes would result in any changes to greenhouse gas and climate change impacts from those described in the REF and Submissions Report.	No
Hazards and risk management	An assessment undertaken for the REF identified that environmental and safety hazards and risks, including spills, discharge, contaminated material and traffic accidents, would be managed through prescribed safeguards and management measures. Further details are described in Section 6.14 of the REF.	The proposed modification construction methodology would not be substantially changed from that described in the REF and Submissions Report. As a result, it is not anticipated that the proposed changes would result in any changes to hazards and risk management impacts from those described in the REF and Submissions Report.	No
Cumulative impacts	Searches undertaken at the time of writing of the REF identified a number of projects with the potential to result in cumulative impacts with the proposal as described in the REF. Further details are described in Section 6.15 of the REF.	A search of the Development Application registers for Cumberland Council and Parramatta City Council, and a search of the NSW Planning Portal, did not identify any projects with the potential to result in cumulative impacts that were not previously addressed in the REF and Submissions Report. Given no additional traffic impacts would result, the proposed modification would not result in any changes to the potential cumulative impacts described in the REF and Submissions Report.	No

7. Environmental management

7.1 Environmental management plans

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposed modification. Should the proposed modification proceed, these management measures would be incorporated into the Project Environmental Management Plan (PEMP) and Contractors Environmental Management Plan (CEMP) and applied during the construction and operation of the proposed modification.

7.2 Summary of environmental safeguards and management measures

Environmental safeguards and management measures for the Hill Road upgrade project are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in **bold** and *italicised* font. The safeguards and management measures will be incorporated into the, the CEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1: Summary of safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN1	General – minimise environmental impacts during construction	A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following: - any requirements associated with statutory approvals - details of how the project will implement the identified safeguards outlined in the REF - issue-specific environmental management plans - roles and responsibilities - communication requirements - induction and training requirements - procedures for monitoring and evaluating environmental performance, and for corrective action - reporting requirements and record-keeping - procedures for emergency and incident management - procedures for audit and review. The endorsed CEMP will be implemented during the undertaking of the activity.	Contractor/Transport for NSW project manager	Pre-construction/ detailed design	QA G36 Environment Protection
GEN2	General – notification	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor/Transport for NSW project manager	Pre-construction	QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN3	General – environmental awareness	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings. Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include: - threatened species habitat - adjoining residential areas requiring particular noise management measures.	Contractor/Transport for NSW project manager	Pre-construction/ detailed design	QA G36 Environment Protection
B1	Biodiversity	A Flora and Fauna Management Plan would be prepared in accordance with Transport for NSW's <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on Projects</i> (RMS, 2011) and implemented as part of the CEMP. It will include, but not be limited to: - plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas - requirements set out in the <i>Landscape Guideline</i> (RMS, 2008) - pre-clearing survey requirements - procedures for unexpected threatened species finds and fauna handling - protocols to manage weeds and pathogens.	Contractor	Detailed design/ pre-construction	Section 4.8 of QA G36 Environment Protection
B2	Vegetation	Native vegetation removal would be minimised through the detailed design process	Proposal design engineer	Detailed design	Additional safeguard
B3	Vegetation	Vegetation removal would be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011a).	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B4	Vegetation and habitat	A detailed landscape plan would be prepared during detailed design and include detailed species and planting guides as well as areas disturbed for construction. Where areas of habitat are to be re-established, this would occur consistent with <i>Guide 3: Re-establishment of Native Vegetation of the Roads and Maritime Biodiversity Guidelines</i> (RTA, 2011b). A detailed landscape plan would aim to: - enhance habitat - reconstruct habitat in strategic areas to link areas of conservation value increasing buffer zones.	Contractor	Detailed design	Additional safeguard
B5	Vegetation and habitat	Exclusion zones would be set up at the limit of clearing in accordance with <i>Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA 2011c). Exclusion zones would be established to avoid damage to native vegetation and fauna habitats identified for retention and prevent the distribution of weeds. The location of exclusion fencing to be installed would be identified by project environmental management plans and the function and importance of the exclusion zones would be communicated to construction personnel.	Contractor	Construction	Additional safeguard
B6	Vegetation and habitat	Weed species would be managed in accordance with Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011d).	Contractor	Construction	Additional safeguard
B7	Vegetation and habitat	A weed management plan consistent with the <i>Roads and Maritime Biodiversity Guidelines</i> (RTA, 2011e) would be developed as part of the construction environmental management plan. The weed management plan would include descriptions and mapping of major weed infestations and appropriate management actions to be undertaken in relation to each infestation.	Contractor	Construction	Additional safeguard
B8	Vegetation and habitat	Pest species would be managed within the study area.	Contractor	Construction	Additional safeguard
B9	Vegetation and habitat	Pathogens would be managed in accordance with Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011f).	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B10	Vegetation and habitat	Measures to prevent the spread of pathogens would be detailed in the construction environmental management plan. Measures would be consistent with Roads and Maritime <i>Biodiversity Guidelines – Guide 7 Pathogen Management</i> (RTA, 2011g). This would include measures to minimise the spread of Chytrid fungus and would be implemented during construction.	Contractor	Construction	Additional safeguard
B11	Habitat	Habitat removal would be minimised through detailed design.	Contractor	Detailed design	Additional safeguard
B12	Habitat	Pre-clearing surveys would be undertaken in accordance with <i>Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011c). Pre-clearing surveys would be undertaken by an experienced ecologist to identify any nesting/roosting animals present in the study area. This would include inspections of affected existing structures for microbats that may be present in cracks, fissures, scuppers, lifting holes or similar. An experienced ecologist would also be present during any clearing of native vegetation.	Contractor	Pre- construction	Additional safeguard
B13	Habitat	Pre-clearing surveys, if required, would be undertaken in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011c).	Contractor	Construction	Additional safeguard
B14	Habitat	The unexpected species find procedure would be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects ((RTA, 2011e)) if threatened flora species, not assessed in the biodiversity assessment, are identified in the study area.	Contractor	Construction	Additional safeguard
B15	Habitat	The unexpected species find procedure would be followed under <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA 2011a) if threatened ecological communities, not assessed in the biodiversity assessment, are identified in the study area.	Contractor	Construction	Additional safeguard
B16	Habitat	Habitat removal would be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011a).	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B17	Habitat	Habitat would be replaced or re-instated in accordance with Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011h), where possible.	Contractor	Construction	Additional safeguard
B18	Vegetation Offsets	Trees will be offset in accordance with the Tree and Hollow Replacement Guideline (TfNSW, 2025)	TfNSW/Contractor	Construction	Additional safeguard
F1	Flooding	Appropriate sediment and erosion controls (as detailed in the construction environmental management plan (CEMP)).	Contractor	Construction	Additional safeguard
F2	Flooding	To reduce any potential flood impacts during construction, any stockpiles should be outside the 1% AEP flood extent. Where this is not possible, stockpiles should not be placed in floodways and suitable erosion control is used.	Contractor	Construction	Additional safeguard
F3	Flooding	If the site compound cannot be situated outside the 1% AEP flood extent, any site building should be above flood planning level (1% AEP = 0.5m freeboard) and a site management plan that can reduce flood losses to personnel and equipment is developed and followed.	Contractor	Construction	Additional safeguard
F4	Flooding	Any works on existing drainage networks should be scheduled with consideration of rain/flash flood forecasts provided by the Bureau of Meteorology.	Contractor	Construction	Additional safeguard
WQ1	Soil and water	A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction.	Contractor	Detailed design/ pre-construction	Section 2.1 of QA G38 Soil and Water Management
WQ2	Soil and water	The SWMP would a site-specific Erosion and Sediment Control Plan/s for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design/ Pre-construction	Section 2.2 of QA G38 Soil and Water Management
WQ3	Soil and water	The SWMP would be prepared for the project in accordance with: Managing Urban Stormwater–Soils and Construction, Volume 1 Managing Urban Stormwater, 4th edition ('the Blue Book'). Managing Urban Stormwater–Soils and Construction, Volume 2D Main Road Construction.	Contractor	Detailed design/ Pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
WQ4	Erosion and sedimentation (Construction)	Measures would be implemented during construction to minimise the risk of erosion, sedimentation and pollution. These measures may include: • avoid disturbance where practicable, otherwise minimise the area of disturbance, particularly on and adjacent to river banks • designate of 'no-go' zones for construction plant and equipment • install upstream diversion channels to direct clean runoff from upstream catchments around or through disturbed areas (maintaining separation from runoff containing sediment) • shape disturbed land to minimise slope lengths and gradients and improve drainage • install/line catch drains to carry any sediment laden runoff to appropriate sediment control measures • minimise stockpiling of material • remove cleared or excavated materials as soon as practicable after excavation and appropriately dispose of or stockpile off-site • locate stockpiles away from drainage lines and creek channels • seed disturbed areas for temporary soil stabilisation • employ appropriate measures to prevent/minimise wind-blown dust from leaving the site (e.g. watering) • establish designated areas for plant and construction material storage within site compounds and other locations within the Proposal • store all chemicals and fuels associated with construction in secure roofed and bunded areas • retain erosion and sediment controls until disturbed areas are stabilised.	Contractor	Construction	Additional safeguard
WQ5	Erosion and sedimentation (Operation)	Measures would be implemented during operation to minimise the risk of erosion and sedimentation. These measures may include monitoring and remediation during schedule road maintenance of planting where vegetation cover has not established or has only partially established.	Transport for NSW	Operation	Additional safeguard
WQ6	Water quality	Detailed design would consider practicable measures to optimise pollution mitigation, and accidental oil/fuel spill containment. This would include GPTs or similar proprietary products.	Transport for NSW	Detailed design	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
WQ7	Water quality	Oil/fuel spill mitigation measures would be incorporated into the longitudinal drainage system (e.g. sandbagging of last pit in the drainage network following a spill event) as the longitudinal drainage system has been designed to be separate to any transverse drainage systems, in accordance with good practice and Transport for NSW water management policy.	Transport for NSW	Detailed design	Additional safeguard
WQ8	Water quality	Suitable protection measures would be provided at pipe outlets and at locations where there is a risk of creek bank instability due to discharges from the pavement drainage system.	Transport for NSW	Detailed design	Additional safeguard
C1	Contaminated land	A Contaminated Land Management Plan would be prepared in accordance with the <i>Guideline for the Management of Contamination</i> (TfNSW, 2013) and implemented as part of the CEMP. The plan will include, but not be limited to: - capture and management of any surface runoff contaminated by exposure to the contaminated land - further investigations required to determine the extent, concentration and type of contamination, as identified in the detailed site investigation (Phase 2) - management of the remediation and subsequent validation of the contaminated land, including any certification required - measures to ensure the safety of site personnel and local communities during construction.	Contractor	Detailed design/ Pre-construction	Section 4.2 of QA G36 Environment Protection
C2	Contaminated land	If contaminated areas are encountered during construction, appropriate control measures would be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area would cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA.	Contractor	Detailed design/ Pre-construction	Section 4.2 of QA G36 Environment Protection
C3	Accidental spill	A site specific emergency spill plan would be developed, and include spill management measures in accordance with the Transport for NSW <i>Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan would address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport for NSW and EPA officers).	Contractor	Detailed design/ Pre-construction	Section 4.3 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
C4	Contaminated land	An Asbestos Management Plan would be developed for the construction of the Proposal in accordance with the National Environment Protection (Assessment of site contamination) Measure 1999. The Plan would include an unexpected finds procedure to address any previously unidentified asbestos contamination encountered during construction.	Contractor	Pre-construction	Additional safeguard
C5	Excavation	Excavated material that is not suitable for onsite reuse or recycling would be transported to a site that may legally accept that material for reuse or disposal. Soils leaving the site will be waste classified so that correct resource recovery and or off-site disposal occur.	Contractor	Construction	Additional safeguard
C6	Excavation	Where excavated material cannot be classified as virgin excavated natural material, it would be classified and disposed of to an appropriately licensed landfill in accordance with the Waste Classification Guidelines–Part 1: Classifying Waste and Part 2: Immobilisation of Waste.	Contractor	Construction	Additional safeguard
T1	Traffic and transport	A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Transport for NSW <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (TfNSW, 2008). The TMP will include: • confirmation of haulage routes • measures to maintain access to local roads and properties • site specific traffic control measures (including signage) to manage and regulate traffic movement • measures to maintain pedestrian and cyclist access • requirements and methods to consult and inform the local community of impacts on the local road network • access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads • a response plan for any construction traffic incident • consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic • monitoring, review and amendment mechanisms.	Contractor	Detailed design/ Pre-construction	Section 4.8 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
T2	Traffic and transport	Where possible, current traffic movements and property access are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays.	Contractor	Construction	Additional safeguard
T3	Traffic and transport	Comply with Council requirements regarding traffic control, access and road/pedestrian access.	Contractor	Construction	Additional safeguard
T4	Traffic and transport	The following measures would be applied during event day traffic: - consultation with SOPA - where possible, current traffic movements and property access are to be maintained during the event. Any disturbance is to be minimised to prevent unnecessary traffic delays - if traffic disturbance is unavoidable, a TMP would be prepared.	SOPA	Construction & Operation	Additional safeguard
N1	Noise and vibration	A Noise and Vibration Management Plan (NVMP) would be prepared and implemented as part of the CEMP. The NVMP would generally follow the approach in the Interim <i>Construction Noise Guideline</i> (ICNG) (DECC, 2009) and identify: - all potential significant noise and vibration generating activities associated with the activity - feasible and reasonable mitigation measures to be implemented, taking into account <i>Beyond the Pavement: urban design policy, process and principles</i> (TfNSW, 2014) - a monitoring program to assess performance against relevant noise and vibration criteria - arrangements for consultation with affected property owners and sensitive receivers, including notification and complaint handling procedures - contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.	Contractor	Detailed design/ Pre-construction	Standard safeguard NV1 Section 4.6 of QA G36 <i>Environment Protection</i>
N2	Noise and vibration	All sensitive receivers likely to be affected would be notified at least seven days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification would provide details of: - the Proposal - the construction period and construction hours - contact information for project management staff - complaint and incident reporting.	Contractor	Detailed design/ Pre-construction	Standard safeguard NV2 Section 4.6 of QA G36 <i>Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N3	Noise	Where feasible, the use of noisy equipment such as jackhammers, vibratory rollers and profilers should be confined to standard hours or should be scheduled to be carried out early in the evening or night period.	Contractor	Construction	Additional safeguard
N4	Noise	Provide periods of respite from the use of noise intensive plant. Respite periods should be increased during periods where the community is more sensitive to noise such as evening and night-time hours.	Contractor	Construction	Additional safeguard
N5	Noise	Notify the community before starting any noise intensive work in accordance with the community consultation strategy.	Contractor/Transport for NSW	Construction	Additional safeguard
N6	Noise	Orientate stationary and directional noise sources away from sensitive receivers.	Contractor	Construction	Additional safeguard
N7	Noise	Use vehicles, obstacles and stockpiles onsite to provide shielding to receivers, especially for static noise sources.	Contractor	Construction	Additional safeguard
N8	Noise	Use equipment that has noise levels equal to or less than the sound power levels as defined in Appendix H of the REF.	Contractor	Construction	Additional safeguard
N9	Noise and vibration road traffic	Measures to reduce potential impacts from construction traffic: • specifying designated travel routes to and from the project site to avoid local roads and roads where residential receivers are potentially impacted • restricting deliveries to standard working hours where possible • prohibiting the use of engine/compression brakes in or near residential areas • promoting driving behaviour that reduces potential noise impacts • prohibiting engine be left idling near residential receivers when not in use • strategic positioning of site accesses to minimise the chance of trucks passing by residential receivers, especially at night.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N10	Sleep disturbance	Measures to reduce sleep disturbance: - works outside of standard hours should be performed in accordance with the CNVG - scheduled activities that are likely to cause maximum noise events such as deliveries, moving material or equipment, compacting and demolition works to avoid the night-time period (10 pm to 7 am) - avoid dropping tools or materials from height, striking materials, dragging materials or making metal on metal contact - educate workers on the importance of minimising noise and avoid creating short duration high noise level events - inform surrounding residents by mail, email or SMS of planned works prior to the works commencing.	Contractor	Construction	Additional safeguard
N11	Vibration	Measures to minimise the risk of vibration impacts: - the required locations for vibration intensive equipment would be reviewed during detailed design when more specific information is available - all equipment would be maintained and operated in an efficient manner, in accordance with manufacturer's specifications, to reduce the potential for adverse vibration impacts - ensure safe working distances - where work is required within the nominated safe working distances objectives for human comfort, implementation of additional vibration mitigation measures would follow as outlined in Appendix H of the REF.	Contractor	Construction	Additional safeguard
N12	Vibration	If vibration intensive equipment is to be used within the safe working distances, the following would apply: - lower powered equipment to be considered - attended vibration monitoring or vibration trials would be undertaken when proposed works are within the safe working distances to ensure that levels remain below the criterion as described in Appendix H of the REF.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N13	Vibration	To minimise potential vibration impacts to the heritage listed item, the following would be considered: - pre-construction arborist survey and advise safe working distances - regular surveys of the trees.	Contractor	Construction	Additional safeguard
N14	Operational noise and vibration	At-property architectural treatments would be provided to mitigate any operational noise impacts, subject to the property development timing, and application of those treatments being deemed feasible and reasonable. Treatment would be determined following an inspection of the property, and any mitigation offered would be implemented in consultation with impacted property owners.	Transport for NSW	Detailed design/ pre-construction	Additional safeguard
H1	Aboriginal heritage	<i>A Standard Management Procedure – Unexpected Heritage Items</i> (TfNSW, 2015) would be implemented as part of the CEMP. It would provide specific guidance on measures and controls to be implemented for managing unexpected impacts on Aboriginal heritage.	Contractor	Detailed design/ pre-construction	Section 4.9 of QA G36 Environment Protection
H2	Non-Aboriginal heritage	A Non-Aboriginal Heritage Management Plan (NAHMP) would be prepared and implemented as part of the CEMP. It would provide specific guidance on measures and controls to be implemented to avoid and mitigate impacts to Non-Aboriginal heritage.	Contractor	Detailed design/ pre-construction	Section 4.10 of QA G36 Environment Protection
H3	Non-Aboriginal heritage	<i>The Standard Management Procedure – Unexpected Heritage Items</i> (TfNSW, 2015) would be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered. Work would only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design/ pre-construction	Section 4.10 of QA G36 Environment Protection
H4	Non-Aboriginal heritage	Commitment to not destroying, modifying or physically affecting any heritage items outside of the study area.	Contractor	Detailed design/ pre-construction	Additional safeguard
H5	Non-Aboriginal heritage	Ensuring the Proposal's urban design considers local heritage values.	Proposal design engineer	Detailed design	Additional safeguard
H6	Non-Aboriginal heritage	Ensuring that any new ancillary facility locations avoid heritage impacts and secure the necessary approvals. The revegetation of affected areas, including within the curtilage of heritage item I20, with similar species of trees, shrubbery and seedlings.	Proposal design engineer	Detailed design/ pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
H7	Non-Aboriginal heritage	Preparing management guidelines under the CEMP to protect tree roots, trunks, branches and tree crowns and to avoid working within any tree drip lines.	Contractor	Construction	Additional safeguard
H8	Non-Aboriginal heritage	Protection of heritage item A52 if there is any future proposals to work within the curtilage of the item.	Contractor	Construction	Additional safeguard
S1	Socio-economic	A Communication Plan would be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The plan would include as a minimum: - mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions - contact name and number for complaints. The plan would be prepared in accordance with the <i>Community Involvement and Communications Resource Manual</i> (RTA, 2008).	Contractor/Transport for NSW	Pre-construction, Construction	SE1 QA G36 Environment Protection
S2	Socio-economic	Early and on-going communication and consultation would occur with property owners, business owners and residents about the property acquisition process.	Transport for NSW	Pre-construction	Additional safeguard
S3	Property acquisition	All property acquisition will be carried out in accordance with the <i>Land Acquisition Information Guide</i> (TfNSW, 2012) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Transport for NSW	Pre-construction	Additional safeguard
S4	Socio-economic	On-going communication and consultation with the owners of the impacted businesses would occur. This would include working with the business owners to manage and plan project construction activities and delivery to minimise impacts on their business operations.	Transport for NSW	Pre-construction	Additional safeguard
S5	Socio-economic	Ensure that works consider other active or planned construction projects in the area and that traffic and construction impact management approaches align to reduce cumulative impacts where possible. Consultation with local councils and relevant authorities could assist in early identification and mitigation.	Transport for NSW	Pre-construction, Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
A1	Air quality	An Air Quality Management Plan (AQMP) would be prepared and implemented as part of the CEMP. The AQMP would include, but not be limited to: • potential sources of air pollution • air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • mitigation and suppression measures to be implemented • compliance with Stockpile Site Management Guidelines (Roads and Maritime, 2015) • methods to manage work during strong winds or other adverse weather conditions • a progressive rehabilitation strategy for exposed surfaces.	Contractor	Detailed design	Standard safeguard AQ1 Section 4.4 of <i>QA G36 Environment Protection</i>
W1	Waste	A Waste Management Plan (WMP) would be prepared and implemented as part of the CEMP. The WMP would include but not be limited to: • measures to avoid and minimise • waste associated with the Proposal • classification of wastes and management options (re-use, recycle, stockpile, disposal) • statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions • procedures for storage, transport and disposal • monitoring, record keeping and reporting. The WMP would be prepared taking into account the Environmental Procedure - Management of Wastes on Roads and Maritime Services Land (RMS, 2014) and relevant Transport for NSW Waste Fact Sheets.	Contractor	Pre-construction	Standard safeguard WR1 Section 4.2 of <i>QA G36 Environment Protection</i>
W2	Waste	Waste material would not be left on site once the work has been completed	Contractor	Construction	Standard safeguard WR2 Section 4.2 of <i>QA G36 Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
W3	Waste	All wastes, including contaminated wastes, would be identified and classified in accordance with Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Disposal of any non-recyclable waste will be in accordance with the POEO Act and Waste Classification Guidelines: Part 1 Classifying Waste.	Contractor	Construction	Additional safeguard
G1	Construction greenhouse	Plant and equipment would be switched off when not in use. Vehicles, plant and construction equipment would be appropriately sized for the task and properly maintained so as to achieve optimum fuel efficiency. Materials would be delivered with full loads and would come from local suppliers, where possible. The energy efficiency and related carbon emissions would be considered in the selection of vehicle and plant equipment.	Contractor	Construction	Additional safeguard
HR1	Hazards and risk management	A Hazard and Risk Management Plan (HRMP) would be prepared and implemented as part of the CEMP. The HRMP would include, but not be limited to: • details of hazards and risks associated with the activity • measures to be implemented during construction to minimise these risks • record keeping arrangement, including information on the materials present on the site, material safety data sheets, and personnel trained and authorised to use such materials • a monitoring program to assess performance in managing the identified risks • contingency measures to be implemented in the event of unexpected hazards or risks arising, including emergency situations. The HRMP would be prepared in accordance with relevant guidelines and standards, including relevant Safe Work Australia Codes of Practice, and EPA or Office of Environment and Heritage publications.	Contractor	Detailed design/ pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
CI1	Cumulative construction impacts	The Consultation Plan would include consultation with proponents of the Carter Street Precinct, Stadium Australia Redevelopment, Sydney Olympic Park High School at Wentworth Point, Hill Road Master Plan, Parramatta Light Rail Stage 2 and Sydney Metro West projects to: • increase awareness of construction timeframes and impacts • coordinate impact mitigation and management such as respite periods.	Contractor	Pre-construction	Standard safeguard C11 Section 4.2 of <i>QA G36 Environment Protection</i>
CI1	Cumulative construction impacts	The Contractor’s CEMP would be revised as required to consider potential cumulative impacts from surrounding development activities as they become known. This would include input from consultation with the proponent and/or lead contractor.	Contractor	Pre-construction and construction	Additional safeguard

7.3 Licensing and approvals

No changes in licences and approvals have been revised for the Proposal (Section 7.3 of the REF). The relevant licensing and approvals for the modification are included in Table 7-2.

Table 7-2: Summary of licensing and approval required

Instrument	Requirement	Timing
Roads Act 1993 (s138)	If required, a road occupancy licence may be required in consultation with Cumberland Council and/or City of Parramatta Council.	Prior to start of the activity.

8. Conclusion

8.1 Justification

The proposed modification assessed in this Addendum REF is necessary as part of the Hill Road Upgrade project. The potential impact of the modification on the environment and the surrounding sensitive receivers have been considered throughout the detailed design process.

Potential environmental impacts have been identified and the safeguards and mitigation measures documented in the Project REF, Submissions Report and this Addendum REF are considered satisfactory in addressing any potential environmental impacts.

In this context, the proposed modifications to the original proposal are considered justified.

8.2 Objects of the EP&A Act

Object	Comment
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	The modified proposal contributes to the proposal objective to improve the transport network while minimising impacts on the natural and built environment. It is therefore consistent with the objective of promoting the social and economic welfare of the community and a better environment.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	Ecologically sustainable development is considered in Section 8.2.1 of the REF.
1.3(c) To promote the orderly and economic use and development of land.	The amended Proposal supports the objectives of the Carter Street Precinct Master Plan, Hill Road Master Plan and Sydney Olympic Park Master Plan through providing critical transport infrastructure to these key development areas.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the Proposal.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	The amended Proposal would have some impact on the natural environment detailed in Section 6.1. Existing safeguard measures are adequate to mitigate the impact and included in Section 7.2.
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	The amended Proposal would have no impact to Aboriginal cultural heritage. The proposed modification does not result in any further removal of <i>Eucalyptus longifolia</i> trees within the heritage item I188 (formerly I20) and a heritage assessment concluded it would have little to no impact on the significance of the heritage item. Refer to Section 6.1 and Appendix D for detail of potential impacts.
1.3(g) To promote good design and amenity of the built environment.	The Proposal has been developed with reference to the urban design standards and principles outlined in Section 2.2.2 of the REF
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Not relevant to the project.

Object	Comment
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	Not relevant to the project.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	The community was invited to participate in the environmental planning and assessment of this project and feedback was incorporated into a Submissions Report. This Addendum REF will be displayed on the project website for information.

8.3 Ecologically sustainable development

Ecologically sustainable development (ESD) is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends. The principles of ESD have been an integral consideration throughout the development of the project.

ESD requires the effective integration of economic and environmental considerations in decision-making processes. The four main principles supporting the achievement of ESD are discussed below.

8.3.1 The precautionary principle

The precautionary principle deals with reconciling scientific uncertainty about environmental impacts with certainty in decision-making. It provides that where there is a threat of serious or irreversible environmental damage, the absence of full scientific certainty should not be used as a reason to postpone measures to prevent environmental degradation.

This principle was considered during route options development (refer to Chapter 2). The precautionary principle has guided the assessment of environmental impacts for this REF and the development of mitigation measures.

The best-available technical information, environmental standards and measures have been used to minimise environmental risks, and street typology that minimises potential impacts on existing land uses, while also taking into consideration potential impacts on proposed future land use, was selected.

8.3.2 Intergenerational equity

Social equity is concerned with the distribution of economic, social and environmental costs and benefits. Inter-generational equity introduces a temporal element with a focus on minimising the distribution of costs to future generations. Benefits that the project provides to current and future generations of local communities and the surrounding region, that would maintain or enhance the health, diversity and productivity of the environment, were identified.

8.3.3 Conservation of biological diversity and ecological integrity

The twin principles of biodiversity conservation and ecological integrity have been a consideration during the design and assessment process with a view to identifying, avoiding, minimising and mitigating impacts. The proposed modification is not expected to have significant biodiversity impacts.

8.3.4 Improved valuation, pricing and incentive mechanisms

The principle of internalising environmental costs into decision making requires consideration of all environmental resources that may be affected by the carrying out of a project, including air, water, land and living things.

The value of the project to the community in terms of improved safety was recognised.

8.4 Conclusion

This addendum REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration where relevant, of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species, populations and ecological communities and their habitats and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

Potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives but would still result in additional vegetation impact. Safeguards and management measures as detailed in the existing REF and submissions report are adequate to ameliorate or minimise these expected impacts. The proposed modification would deliver utilities infrastructure required to support the overarching proposal objectives. On balance the proposed modification is considered justified, and the following conclusions are made.

8.4.1 Significance of impact under NSW legislation

The proposed modification would not result in a change to the findings of the project REF and the submissions report and would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

8.4.2 Significance of impact under Australian legislation

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

This addendum REF has been prepared to meet the requirements of the EPBC Act strategic assessment approval for Transport for NSW Division 5.1 road activities. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

9. Certification

This addendum review of environmental factors provides a true and fair review of the proposed modification in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposed modification.

Karina Rubenis
A/Senior Manager Environment & Sustainability
Transport for NSW

Date:

I have examined this addendum review of environmental factors and accept it on behalf of Transport for NSW.

Tony Lai
Project Manager
Transport for NSW

Date:

10. EP&A Regulation publication requirement

Respondent	Yes/No
Does this REF need to be published under section 171(4) of the EP&A Regulation?	Yes

11. Terms and acronyms used in this addendum

REF

Term /acronym	Description
AHIMS	Aboriginal Heritage Information Management Service database
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions
BC Act	<i>Biodiversity Conservation Act 2016 (NSW).</i>
CEMP	Construction / Contractor's environmental management plan
EIA	Environmental impact assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW).</i> Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth).</i> Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	<i>Fisheries Management Act 1994 (NSW)</i>
ha	Hectare
Heritage Act	<i>Heritage Act 1977 (NSW)</i>
LALC	Local Aboriginal Land Council
LCZ	Landscape Character Zone
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LoS	Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers.
NES	Matters of national environmental significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999.</i>
NPW Act	National Parks and Wildlife Act 1974 (NSW)
PCT	Plant Community Type
Roads and Maritime	NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all function are now managed by Transport for NSW
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Planning Systems)	State Environmental Planning Policy (Planning Systems) 2021
SEPP (Precincts – Central River City)	State Environmental Planning Policy (Precincts – Central River City) 2021

Term /acronym	Description
SEPP (Precincts – Eastern Harbour City)	State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
SEPP (Precincts – Regional)	State Environmental Planning Policy (Precincts – Regional) 2021
SEPP (Precincts – Western Parkland City)	State Environmental Planning Policy (Precincts – Western Parkland City) 2021
SEPP (Resilience and Hazards)	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021
TEC	Threatened Ecological Community
TSC Act	<i>Threatened Species Conservation Act 1995</i> (NSW)
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW.

Appendix A

Consideration of section 171(2) factors and matters of National Environmental
Significance and Commonwealth land

Section 171(2) checklist

In addition to the requirements of the Is an EIS required? (1995/1996) guideline and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the addendum REF, the following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

Factor	Impact
Any environmental impact on a community? Consistent with REF - During construction, it is anticipated that there will be short-term impacts relating to noise, vibration and traffic and access with some minor impacts on vegetation and non-aboriginal heritage. Impacts would be managed and mitigated through safeguards listed in REF Chapter 7. The long-term benefit of the Proposal would result in an upgraded road and improved safety for the community.	Consistent with REF Short-term negative (minor), temporary Long-term positive (moderate)
Any transformation of a locality? Consistent with REF - Construction of the Proposal would temporarily transform the existing locality, predominantly through a minor visual amenity impact, associated with the removal of vegetation and road construction activities. Impacts would be managed and mitigated through safeguards listed in REF Chapter 7. In the longer term, the Proposal would positively transport the road corridor. The upgrades of the existing alignment would result in the removal of some vegetation. However, through revegetation procedures and implementation of urban design principles, the overall landscape character and visual amenity of the Proposal would be improved.	Consistent with REF Short-term negative (minor), temporary Long-term positive (moderate)
Any environmental impact on the ecosystems of the locality? The proposed modification would impact an additional 0.07ha of vegetation. When combined with the 0.67ha of vegetation in the REF the proposal would have a cumulative impact of 0.74ha. Overall, the potential impacts of the proposed works on biodiversity are not considered to be significant. Consistent with the REF, impacts would be managed and mitigated through safeguards listed in REF Chapter 7 (e.g. revegetation procedure). There would be no significant impact threatened species or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore the preparation of an SIS or BDAR is not required. The Proposal is not likely to significantly impact threatened species, ecological communities or migratory species, within the meaning of the EPBC Act.	Short-term negative (minor), temporary
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? Consistent with REF - There would be a minor reduction in the aesthetic quality of the locality due to the removal of vegetation, increase in road width and changes to intersections and footpaths. The existing aesthetic environment would be temporarily impacted by the presence of construction plant, equipment and staff. Mitigation measures would be implemented to reduce impacts and detailed design would be undertaken in line with the urban design principles of the Proposal. These include revegetation and landscaping of the road corridor and retention of vegetation where possible (refer to REF Chapter 7).	Consistent with REF Long-term negative (negligible)
Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations? Consistent with the REF, there would be a minor impact on a local heritage listing, Item No. I20. The impact would be from the direct removal of Shale gravel transition forest due to the upgrades at the intersection of Hill Road and Paramatta Road. The	Consistent with REF Short-term negative (minor), temporary

Factor	Impact
proposed modification not result in any further removal of <i>Eucalyptus longifolia</i> trees within the heritage item (I188) and would have little to no impact on the significance of the heritage item. Consistent with the REF, impacts would be managed and mitigated through safeguards listed in REF Chapter 7 (e.g. revegetation procedure). Overall, there would be no impacts 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.	
Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)? Consistent with the REF - No, the Proposal would not impact on protected fauna as listed under the Act.	Nil
Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air? The Proposal is unlikely to have significant impact on any threatened species, population or community listed under the BC Act or EPBC Act. The Proposed modification results in cumulative vegetation impact of 0.74 hectares of native vegetation and associated fauna habitat. The clearing of vegetation would primarily be associated with the modification of Hill Road and Parramatta Road intersection. Impacts would be managed and mitigated through safeguards listed in REF Chapter 7 (e.g. revegetation procedure).	Short-term negative (minor), temporary
Any long-term effects on the environment? Consistent with the REF - It is unlikely that the Proposal would have any long-term effects on the environment.	Nil
Any degradation of the quality of the environment? Consistent with the REF, the Proposal has the potential to degrade the quality of the environment through noise, visual, water, air, erosion and sedimentation pollution as well as accidental spills during construction. The potential impacts would be managed using a suite of safeguards and mitigation measures, which are outlined in REF Chapter 7. The study area would be reduced as far as practicable and rehabilitated as work progresses to minimise impacts. Removal of native vegetation would be kept to a minimum and appropriate mitigation incorporated to manage impacts to native flora and fauna. Long-term, the Proposal would provide a range of benefits including improved traffic conditions, cyclists and pedestrian facilities as well as drainage and flood immunity features.	Consistent with REF Short-term negative (minor) Long-term positive (moderate)
Any risk to the safety of the environment? Consistent with the REF, during construction, the Proposal is likely to temporarily reduce safety along the existing corridor and surrounding roads. Safety impacts would be managed through appropriate signage and a TMP. During operation, the Proposal would provide improved active transport safety with the new shared user path.	Consistent with REF Short-term negative (minor) Long-term positive (moderate)
Any reduction in the range of beneficial uses of the environment? Consistent with the REF, the Proposal would result in traffic impacts during construction. Construction traffic impacts would involve an increase in the volume of heavy vehicles, interruption of traffic flow and speeds and temporary obstructions to access to social infrastructure. These traffic impacts would reduce the beneficial use of Hill Road during the construction phase. In the long term, the Proposal would support future uses (e.g. development and Precincts) and there would be no reduction in the range of beneficial uses of the environment.	Consistent with REF Short-term negative (minor) Long-term positive (moderate)
Any pollution of the environment?	Consistent with REF Short-term negative (negligible)

Factor	Impact
Consistent with the REF, there would be some potential noise, visual, air, water, erosion and sedimentation impacts associated with the construction of the Proposal. Construction activities would be carefully managed with numerous safeguards and mitigation measures (refer to REF Chapter 7). The environmental safeguards and mitigation measures would be incorporated into the CEMP.	
Any environmental problems associated with the disposal of waste? Consistent with the REF, waste would be generated across a number of waste streams during construction. These streams would be managed in accordance with the Waste Avoidance and Resource Recovery Act 2001 and recycled where possible. Any waste generated during the proposed works would be contained and removed for disposal to approved facilities or to licensed landfill. Impacts would be managed and mitigated through safeguards listed in REF Chapter 7.	Nil
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply? Consistent with the REF, the Proposal would require resources such as concrete, road furniture and steel for signalisation and signage. These are common construction materials and readily available. The Proposal would not create any increased demand on these resources.	Nil
Any cumulative environmental effect with other existing or likely future activities? There is the potential for the Proposal to have a cumulative environmental effect with other existing or likely future activities. The key cumulative impacts associated with construction include 0.74ha vegetation removal, traffic congestion and delays, visual amenity and noise and vibration. Impacts would be managed and mitigated through safeguards listed in REF Chapter 7. The Proposal would have a long-term positive cumulative impact on road safety and visual amenity.	Short-term negative (minor) Long-term positive (moderate)
Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The Proposal is not located within a coastal area and would not result in any impact on coastal processes and coastal hazards.	Nil
Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1. Review and briefly summarise how your project aligns to the applicable planning statements and plans for the area. Local plans can be found on the Council website and see Regional and district plans (nsw.gov.au) .	The project, and the proposed modification support planned urban growth, and contributes to integrated land use and transport outcomes.

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposed modification should be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water.

Under the EPBC Act strategic assessment approval a referral is not required for proposed road actions that may affect nationally listed threatened species, populations, endangered ecological communities and migratory species. Impacts on these matters are assessed in detail as part of this addendum REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property?	Nil
Any impact on a National Heritage place?	Nil
Any impact on a wetland of international importance?	Nil
Any impact on a listed threatened species or communities?	Yes. The proposed modification would require the removal of up to 0.06 ha of vegetation mapped as Castlereagh Ironbark Forest (PCT 3448) which conforms to the threatened ecological community (TEC) – Shale Gravel Transition Forest in the Sydney Basin Bioregion listed as Endangered under the EPBC Act. A test of significance confirmed that the proposed action would not have a significant impact on this Endangered Ecological Community (EEC) and does not warrant a Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR).
Any impacts on listed migratory species?	Nil
Any impact on a Commonwealth marine area?	Nil
Does the proposed modification involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on Commonwealth land?	Nil

Appendix B

Statutory consultation checklists

Matters of National Environmental Significance and Commonwealth land

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Car park	Does the project include a car park intended for the use by commuters using regular bus services?	No		Section 2.110
Bus depots	Does the project propose a bus depot?	No		Section 2.110
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No		Section 2.110

Development within the Coastal Zone

Issue	Description	Yes / No / N/A	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Development with impacts on certain land within the coastal zone	Is the proposal within a coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?	No		Section 2.14

Note: See interactive map [Coastal management - \(nsw.gov.au\)](https://www.nsw.gov.au/coastal-management). Note the coastal vulnerability area has not yet been mapped.

Note: a certified coastal zone management plan is taken to be a certified coastal management program.

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No. No change from REF/Submissions report		Section 2.10
Traffic	Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	Triggered for the original REF though there is no new or additional impact as part of this modification therefore additional TISEPP consultation is not triggered.		Section 2.10
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No. No change from REF/Submissions report		Section 2.10
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	No. No change from REF/Submissions report		Section 2.10
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No. No change from REF/Submissions report		Section 2.10
Road and footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	Triggered for the original REF though there is no new or additional impact as part of this modification therefore additional TISEPP consultation is not triggered.		Section 2.10

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No. The proposal encroaches within a local heritage item, though a heritage assessment concluded that the impact is negligible therefore it does not trigger the threshold for consultation. Refer to section 6.1 of this report for more detail.		Section 2.11

Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?	No. The proposal is located within flood liable land though the modification makes no change to the flood risk and therefore it does not trigger the threshold for consultation. Refer to section 6.1 of this report for more detail.		Section 2.12
Flood liable land	Are the works located on flood liable land? (to any extent). If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance	No. The proposal is located within flood liable land though the modification makes no change to buildings, emergency works or routine maintenance Refer to section 6.1 of this report for more detail.		Section 2.13

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.

Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	No	DPHI	Section 2.15
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	DPHI	Section 2.15
Aquatic reserves and marine parks	Are the works adjacent to an aquatic reserve or a marine park declared under the <i>Marine Estate Management Act 2014</i> ?	No	Department of Industry	Section 2.15
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No	Rural Fire Service	Section 2.15
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	No	Director of the Siding Spring Observatory	Section 2.15
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in section 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	No	Secretary of the Commonwealth Department of Defence	Section 2.15
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	No	Mine Subsidence Board	Section 2.15

Appendix C

Biodiversity Assessment Report Memo
(East Coast Ecology, 19 June 2025)

Appendix D

Statement of Heritage Impact
(Everick Heritage, 13 June 2025)

Appendix E

Aboriginal cultural heritage assessment - Stage 1 assessment Results



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