

HEALTH INFRASTRUCTURE

New roundabout and associated works, Princes Highway, Moruya

Assessment of Review of Environmental Factors – Prepared by
Ethos Urban

1/08/2022

Version Number:1

 NSW GOVERNMENT	Health Infrastructure
<i>DETERMINED – APPROVAL</i>	
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Signed by: 	



Overview

This report has been prepared by Health Infrastructure (HI) as the Determining Authority in accordance with Part 5, Division 5.1 of the *Environmental Planning and Assessment Act 1979* for the construction of a new roundabout, tree removal and associated infrastructure works at the Princes Highway, Moruya. This review has considered the Review of Environmental Factors (REF) prepared by Ethos Urban dated 12 July 2022 including Appendices A to O.

The relevant legislation applied in determining the assessment of the REF includes:

- a) *Environmental Protection and Biodiversity Conservation Act 1999 (Cwth)*
- b) *Environmental Planning and Assessment Act 1979, particularly Section 1.3*
 - the objects of the Act, and Part 5, Section 5.5 duty to consider environmental impact
- c) *Environmental Planning and Assessment Regulation 2021, Section 171*
- d) *Biodiversity Conservation Act 2016*
- e) *Heritage Act 1977*
- f) *National Parks and Wildlife Act 1974*
- g) *Protection of the Environment Operations Act 1997*
- h) *Water Management Act 2000*
- i) *State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP)*
- j) *State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP)*
- k) *Eurobodalla Local Environmental Plan 2012(ELEP 2012)*
- l) *Guidelines for Division 5.1 Assessments (Feb 2022)*, prepared by the NSW Department of Planning.

Site Description and Proposed Works

Site

The subject site is located along the Princes Highway at Moruya, south of the Moruya Town Centre. The works affect the existing roadway and associated reserve located to the south of Lot 2, DP 1281576 located off Breamar Drive (this site is highlighted in green in **Figure 1** below and has been acquired for location of a new Hospital). The proposed works aim to provide direct future access to the adjoining greenfield site off the Princes Highway. The location of the subject site is highlighted red in **Figure 1** below.

The proposed works also include inground electrical and telecommunications reticulation works and associated lighting.

The Princes Highway at this location currently comprises of one lane in each direction and the road reserve contains some 275 trees and vegetation including native and exotic ground cover. The roadway is generally flat.

Immediately adjoining development to the north is a vacant, semi-rural greenfield site which has been acquired for development of a new Hospital. Further to the north are low scale residential housing developments and some undeveloped land. To the south are a series of semi-rural properties. To the west is TAFE NSW and eastward are more semi-rural properties with a scattering of residential dwellings.

The site is located within close proximity to the Moruya local Town Centre.



Figure 1: The subject site where the works are proposed highlighted red

Scope of Work

The proposed development involves the construction of a new roundabout along the Princes Highway at the subject site. In detail the works involve the following;

- Construction of a single lane roundabout which will allow for one lane of traffic in each direction to pass along the Princes Highway.
- Ancillary electricity reticulation and street lighting.
- Tree removal and replacement.

The roundabout includes a central island, proposed to be 20m in radius, with the single-lane entry path proposed to be 40-50 metres in length. The single-lane roundabout circulating carriageway width is proposed to be 7.3m. The roundabout has been designed in line with the *Austrroads Guide to Road Design Part 4B: Roundabouts*. **Figure 2** below includes a section of the detailed design.

The associated infrastructure and utilities to service the roundabout include the diversion of existing underground Telstra cables and electrical connections including the provision for additional pits and seven (7) new street lights.



Figure 2: Section of the detailed design of the proposed roundabout configuration

Planning Pathway

The subject site is zoned SP2 Classified Roads pursuant to the *Eurobodalla Local Environmental Plan 2012* (ELEP 2012). Environmental protection works, roadworks and ancillary infrastructure works are all permissible uses within the zone.

The proposed activity is to be undertaken by a public authority and consent is sought under the provisions of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TISEPP). The relevant sections of this SEPP in respect to the works are as follows:

- Road and road infrastructure facilities: Section 2.109 (1)
- Electricity transmission or distribution networks: Section 2.44 (1)
- Telecommunication works: Section 2.140 (1)
- Tree Removal: Section 2.109 (1)

Accordingly, all the works and tree removal can be undertaken by Health infrastructure as a public authority as 'Development without consent' as they are associated with the "road infrastructure works" in accordance with Section 2.108(3)(c) of the policy which permits "alterations or additions to an existing road (such as widening, narrowing, duplication or reconstruction of lanes, changing the alignment or strengthening of the road)". Section 2.109 (1) states that "Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land." The tree removal forms part of the "Development for the purpose of a road or road infrastructure works" that are required to be carried out and therefore satisfies the "without consent" provisions in the SEPP.

In respect to the ancillary telecommunication, electricity and distribution networks these works fall within "development without consent" requirements of the TISEPP in accordance with Division 5 (Electricity transmission or distribution networks) subdivision 1, section 2.44 (1) and Division 21 (Telecommunication and other communication facilities) section 2.140 (1).

Pursuant to the provisions of Part 5 of the *Environmental Planning and Assessment Act* (EP&A Act), the proposed works are defined as an 'activity' and are therefore subject to an environmental assessment (Review of Environmental Factors (REF)).

Environmental Planning and Assessment Regulation 2021 – Savings Provisions

The *Environmental Planning and Assessment Regulation 2021* (2021 EP&A Regulation) commenced on 1 March 2022 and replaces the previous *Environmental Planning and Assessment Regulation 2000*. Section 171 of the 2021 EP&A

Regulation provides a series of environmental factors that must be taken into consideration when assessing the environmental impact of activities under Part 5 of the EP&A Act. In order for the REF pathway to be accepted the proposed works, or activity must not generate or create a significant impact on the environment or immediate surrounds.

In this instance the REF considered the objects of Section 171 in its assessment of the proposal and the environmental and amenity impacts are not considered to be “significant” and can be ameliorated by the imposition of specific mitigation measures.

Review of Environmental Factors

Specific environmental factors identified by Ethos Urban as requiring consideration as a result of the proposed activity are:

- Aboriginal Heritage
- Non- Aboriginal Heritage and Archaeology
- Soil and Geology
- Hydrology, Flooding and Water Quality
- Ecology
- Bushfire
- Noise and vibration
- Air quality and Energy
- Visual Amenity
- Traffic, Access and Parking
- Hazardous Materials and Contamination
- Community impact
- Land uses and servicing
- Waste Generation
- Cumulative impacts

Consultation

Pursuant to clauses 2.12 and 2.13 of the TI SEPP, the proposal was notified to both Eurobodalla Shire Council and State Emergency Services (SES) as the site is identified as partially flood liable.

The notification commenced on 28 April 2022 and concluded on 19 May 2022. No formal response was received by either authority.

The new roundabout will be located on a section of an arterial road managed by Transport for NSW (TfNSW). Whilst there is no requirement to formally obtain owners consent, TfNSW have been consulted and have agreed ‘in principle’ to the works via a letter of agreement dated 31 May 2022 which accompanies the REF as well as additional formal

design requirements that TfNSW outlined in their letter dated 21 April 2022 (this correspondence forms Appendix O of the REF). All TfNSW requirements are included as mitigation measures.

Other Considerations

Ecology

A Prescribed Ecological Actions Report (PEAR) prepared by Abel Ecology, dated 17 May 2022 accompanies the REF. As part of this assessment a biodiversity survey was carried out and the report considers whether there is likely to be any significant effect on any endangered ecological community, endangered population, threatened species or their habitats, as per the listings in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act 1999) (Commonwealth legislation).

Given that the proposal (activity) falls within part 5 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act) the assessment of the proposal must ensure that any works will not produce a “significant impact” as per the requirements of Section 171 of the Regulations. A “test of significance” was conducted and concluded that the proposal is not likely to significantly affect any threatened species, endangered or critically endangered species. As a result, a Biodiversity Development Assessment Report (BDAR) prepared in accordance with the Biodiversity Assessment Method and an Species Impact Statement (SIS) are not required.

The provisions of the EPBC Act 1999 in this case do not apply and the proposal does not require referral to the Commonwealth.

The main findings and conclusions of the report are summarised below;

- Some threatened species have been sighted and are mapped within a 5 km radius of the site. The assessment noted that the site contains a potential foraging habitat for these species, the report concludes that *“the extent of habitat modification is minor and unlikely to affect the life cycles of these species such that a viable local population will be placed at risk of extinction. These species will continue to forage on site and in the surrounding area.”*
- Vegetation across the subject site includes an area of Lowland Grassy Woodland common in the South East Corner Bioregion which is classified as a Threatened Ecological Community. The proposal will involve the clearing of 0.33ha of native vegetation for the proposal and construction will occur on an already partly disturbed area. This endangered ecological community (EEC) appears to be reasonably extensive in the locality, so its local occurrence is unlikely to be placed at risk of extinction by the proposal. Furthermore, the native vegetation marked for removal occurs on the outer fringes of the EEC.
- Due to the position of the trees, their removal will not impact or fragment the existing woodland on site from the woodland on surrounding properties. Their removal is unlikely to affect the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction. In conclusion the report states that *“The proposed activity is unlikely to have a significant effect on Lowland Grassy Woodland in the South East Corner bioregion. Therefore, neither a BDAR nor a SIS is recommended.”*
- Five (5) hollow-bearing trees have been identified with four (4) located where the roadworks are proposed and require removal. These habitat trees have been found to provide nesting and roosting sites for several species.
- The site falls within the South Coast Koala management area. More than 15% of the trees within the proposed area and on the site are recognised species within the SEPP Biodiversity and Conservation 2021 (Koala Habitat Protection). The site is therefore a potential Koala habitat. The report states that *“one Koala has been recorded within 2 km of the site in the last 18 years. However, Koalas, or evidence of Koalas, was not seen on site and it is unlikely that any Koalas use the site. The site is not considered core Koala habitat.”*

The report recommends the following mitigation measures;

- a preclearance survey shall be conducted for the hollow-bearing trees (as identified in the PEAR) and requires the relocation of the resident fauna, and the hollows salvaged and relocated under the provisions of a Hollow Management Guideline document.

- Additional measures are proposed in relation to tree protection, tree replacement planting, the preparation of a Vegetation Management Plan and the creation of an offset area for the loss of vegetation. These are discussed in more detail in the tree removal section below.

Subject to the implementation of the proposed mitigation measures the impacts of the proposal are considered to be satisfactory and will not have a significant impact on the local environment.

Tree removal

The development will potentially affect some 275 trees that sit within the adjoining road reserve. A detailed Arborist assessment was prepared by Abel Ecology, dated 17 May 2022 and accompanies the REF.

The assessment concluded that a total of 125 trees are directly impacted by the proposal, 121 are identified for removal and 4 are to be relocated as they are hollow-bearing fauna habitat trees (one additional hollow bearing tree was identified but this sits outside the zone of works). In summary, the trees and vegetation on site form part of a remnant patch of an endangered ecological community (Lowland Grassy Woodland common in the South East Corner Bioregion). Whilst the extent of this community is in poor condition due to more than 100 years of grazing practices, the removal of 121 trees will reduce the extent of this community. To ensure biodiversity is maintained a number of mitigation measures are proposed including;

- Preparing a Vegetation Management Plan;
- Creating a designated offset area where new trees, plants and vegetation in the form of the Lowland Grassy Woodland community can be established and maintained in perpetuity. A preliminary area has been considered which is located in the south-west corner of the adjoining greenfield site, which has been acquired by Health Administration Corporation for the purposes of a new Hospital.
- Planting a minimum of 121 new trees to replace those removed, and
- Establishing detailed tree protection measures for the trees and vegetation to be retained during site preparation and during construction.

These mitigation measures will ensure the proposal will satisfy environmental provisions and impacts will be minimised.

Aboriginal Heritage

An Aboriginal Archaeological Assessment has been prepared by Comber Consultants dated 12 May 2022. A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken as part of this report, which identifies that there are 18 Aboriginal sites in a 1km radius around the study area, including nine sites located immediately north of the study area. Physically, there were no Aboriginal objects observed within the study area because the road and road reserve were highly disturbed.

A site inspection and consultation with relevant Local Aboriginal Land Council members was also undertaken as part of the assessment. The report *concludes “that the area of the proposed works does not include any Aboriginal archaeological or cultural significance. It does not contain any Aboriginal objects and is not an Aboriginal place. Therefore, there are no constraints upon construction of the roundabout and associated works in respect of Aboriginal heritage.*

Flooding

A small portion of the road works along the southern side will be located on land that is identified as flood prone in accordance with Council's mapping. The works are limited in scope and the new road will be reinstated to the existing levels and alignment to create a clear and uniform connection and will therefore not alter the existing flood affectation. The main roundabout is located outside the flood prone area. A mitigation measure has been included to ensure the design and construction of the road satisfies Council's and TfNSW requirements in relation to flood planning provisions for that part of the roadway which is potentially flood affected.

Acid Sulphate Soils

A small section (the southern part of the roadway) is mapped as containing Class 2, Acid Sulphate Soils (ASS). A civil engineering assessment conducted by ptc consultants, dated 17 May 2022 accompanies the REF. The civil statement examines the potential impacts of the works on ASS and recommends that should it be a requirement to not disturb the soil, horizontal directional drilling could be used to install the electrical and telecommunication conduits through the potential acid sulfate area. This option is included as a mitigation measure. The proposed road works within the area are likely to be limited to mounding above existing surface to direct water flow to existing drainage channels and this is considered satisfactory and should not affect ASS.

Conclusion and Recommendation

The review of the REF and recommendations against the relevant legislation and the Best Practice Guidelines concurs with the finding that, subject to the mitigation measures shown below, the proposal will not have a significant impact on the environment. On that basis, an Environmental Impact Statement is not required.

Below are the final mitigation measures which must be implemented as part of this approval.

Mitigation measures

The following Mitigation Measures have been imposed to ensure that any development activity is carried out in accordance with the plans/documentation and any amendment approved under Part 5 of the *Environmental Planning and Assessment Act 1979*.

General measures

1. Development in Accordance with Plans and Documentation

- 1.1 The proposal must be carried out generally in accordance with the Review of Environmental Factors dated 12 July 2022 prepared by Ethos Urban on behalf of NSW Health Infrastructure (including accompanying appendices A - O) and generally in accordance with the following plans/documentation as modified below and by any of the under-mentioned measures:

Drawing Title	Drawing Ref	Revision	Date	Prepared by
Civil Works Plan	SK-0301	Rev 1 P1	19/04/2022	ptc consultants
Electrical Services – Electrical Reticulation Layout	SV_EL_DWG_SD_15PW12	Rev C	28/04/2022	Conrad Gargett Architect
Electrical Services – Street Lighting	SV_EL_DWG_SD_15PW13	Rev C	28/04/2022	Conrad Gargett Architect
Electrical Services – Telstra Diversion scope of work	SV_EL_DWG_SD_15PW11	Rev C	28/04/2022	Conrad Gargett Architect
Erosion and Sediment Control Plan	SK-0101	Rev P1	19/04/2022	ptc consultants

2. Crown Certificate

- 2.1 A Certificate under Section 6.28 (s109R) of the *Environmental Planning and Assessment Act 1979* is to be obtained prior to any work commencing.

3. Building Code of Australia

- 3.1 All building work is to be undertaken in accordance with the Building Code of Australia and referenced Australian Standards, including the requirements of AS 1428.1 General Requirements for Access.

4. Approvals

- 4.1 The applicant is to obtain all other necessary approvals required by State and Commonwealth legislation and relevant Council policies. A copy of all approvals is to be kept on site.

5. Long Service Levy

- 5.1 For work costing \$25,000 or more, a Long Service Leave Levy shall be paid. For further information contact the Long Service Payments Corporation on their Helpline 131441.

6. Protection of Vegetation and Tree Management

- 6.1 Clearance of native vegetation shall be minimised as far as practicable.
- 6.2 Trees not identified for removal as part of this approval must be protected in accordance with AS 4970:2009 'Protection of trees on development sites'.
- 6.3 A project arborist (minimum Level 5 qualified arborist) is to be engaged to ensure and certify that tree protection measures are satisfactorily implemented and to provide advice as applicable. The arborist will inspect the site at least once within every six months during construction, and once upon completion of construction.

Prior to commencement of works

Note: The following Measures are to be complied with prior to the commencement of works on the subject site, and at other stages where stated.

7. Community Notification

- 7.1 Prior to commencement of work, the proponent must notify in writing Council and the occupier of any land within 40 metres of the boundary of the site works. The notification should outline the project, the expected timing for commencement and completion of construction works.
- 7.2 Complaints received prior to and during the undertaking of works shall be recorded and attended to promptly. On receiving a complaint, works shall be reviewed to determine whether issues relating to the complaint can be avoided or minimised. Feedback shall be provided to the complainant explaining what remedial actions were taken.
- 7.3 The proponent shall develop a complaints management system and record details of all complaints received and the means of resolution of those complaints. The Complaints Register shall be made available on request.
- 7.4 A site notice board must be located at the entrance or other appropriate location on the site in a prominent position and must including the following:
- (a) 24-hour contact person for the site;
 - (b) Telephone, facsimile numbers and email addresses;
 - (c) Site activities and time frames.
- 7.5 The site notice must be erected no less than 2 days prior to the commencement of works.

8. Construction Traffic Management

- 8.1 Before the commencement of construction, consultation with the relevant owner and provider of services that are likely to be affected by the development should be undertaken to make suitable arrangement for access to, diversion, protection, and support of the affected infrastructure.
- 8.2 A Traffic Control Plan (TCP) shall be prepared by a suitable qualified person (orange card) and implemented for the works in accordance with the requirements of the Traffic Control at Worksites Manual (RTA 2010 V4) and AS1742.3. Licensed traffic controllers will assist with traffic control during the Project. The plan is to be prepared by a qualified person holding the current Transport for NSW 'Prepare Work Zone Traffic Management Plans' accreditation.

- 8.3 A Construction Traffic Management Plan (CTMP) shall be prepared in consultation with TfNSW prior to commencement of works. The recommendations in the preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) prepared by Bitzios dated 5 May 2022 shall be included in the updated CTMP.
- 8.4 An Access Management Plan shall be prepared to manage internal site traffic and pedestrian movements to ensure the safety of workers and public within the site and neighbouring residents and property owners are to be informed in writing at least two weeks prior with respect to any changes to any pedestrian, parking and/or traffic movements.

9. Detailed Design - TfNSW requirements

- 9.1 The concept design is to be updated to ensure it addresses the following TfNSW requirements;
- The designs for the works within the Princes Highway road reserve are to demonstrate compliance with the applicable requirements in *Austrroads Guide to Road Design*.
 - Details of pavement design, including any subsurface drainage, are required and must be in accordance with Austrroads standards.
 - Compliance with the TfNSW geotechnical testing requirements for test pits is required.
 - A verge (minimum 1.0m) is to be provided between all kerbs for support.
 - A table drain will be required on the Princes Highway LHS between Ch. 260.00 to Ch. 300.00 at the edge of the shoulder.
 - The invert level of the drain is to be below the level of the edge of the shoulder on the Princes Highway cross sections 90 to 130 LHS.
- 9.2 Lighting provided must demonstrate compliance with the Australian Standard (AS) 1158.2005-2015 and ensure required clearances as per *Austrroads Guide to Road Design* are provided.
- 9.3 A detailed signs and lines plan is required. This must ensure all pavement markings and signage is in compliance with TfNSW delineation guidelines, AS1742.2 and other relevant standards.
- 9.4 The applicant shall enter into a Works Authorisation Deed (WAD) with the TfNSW, or other suitable arrangement as agreed to by TfNSW, to progress the delivery of the works.

Notes:

- To initiate this process, the applicant is to email development.south@transport.nsw.gov.au requesting to commence the detailed design and delivery. Please include a copy of this letter.
- TfNSW will then appoint a project manager who will coordinate TfNSW's involvement in the detailed design and delivery of the works.
- A WAD is a legally binding contract between TfNSW and the applicant, authorising the applicant to undertake works on a state road.
- Any civil works on a State road or at an intersection with a State road need to be undertaken by a pre-qualified contractor. A copy of pre-qualified contractors can be found on the RMS website at: <http://www.rms.nsw.gov.au/doingbusinesswithus/tenderscontracts/prequalifiedcontractors.htm>
- More information on WADs can be found at:

www.rms.nsw.gov.au/documents/projects/factsheet-development-process.pdf

- 9.5 The Applicant is to pay TfNSW's costs involved with the delivery of the works, including costs associated with the roundabout itself as well as project management and surveillance.
- 9.6 Prior to the commencing works within the Princes Highway road reserve, the applicant must:

- i) Obtain TfNSW acceptance to the detailed design and TfNSW concurrence and consent to the works under Section 138 of the Roads Act, 1993.
- Notes:*
- TfNSW will be exercising its powers under Section 64 of the Roads Act, 1993 to become the roads authority.
 - Preliminary comments to be addressed as part of the detailed design are contained in Attachment
 - TfNSW's acceptance of the detailed design will also represent its concurrence and consent under Section 138 of the Roads Act, 1993.
- ii) Provide a copy of the HI determination under Part 5 of the Environmental Planning & Assessment Act, 1979 (i.e. a copy of the determined review of environmental factors, REF) to TfNSW.
- Notes:*
- The determination under Part 5 of the Environmental Planning and Assessment Act, 1979 must be reflective of the design that TfNSW has provided its acceptance to as required in 1. above.
- iii) Develop and implement a community information strategy in relation to the works, in consultation with, and to the satisfaction of, TfNSW.
- iv) Apply for, and obtain a Road Occupancy Licence (ROL) from the TfNSW Traffic Operations Unit (TOU) prior to commencing roadworks on a State road or any other works that impact a travel lane of a State road or impact the operation of traffic signals on any road.
- Notes:*
- The application will require a Traffic Management Plan (TMP) to be prepared by a person who is certified to prepare Traffic Control Plans. Should the TMP require a reduction of the speed limit, a Speed Zone Authorisation will also be required from the TOU.
 - The developer must submit the ROL application 10 business days prior to commencing work. It should be noted that receiving an approval for the ROL within this 10 business day period is dependent upon TfNSW receiving an accurate and compliant TMP.
 - An approved ROL does not constitute an approval to commence works until an authorisation letter for the works has been issued by TfNSW Project Manager.

- 9.7 The geotechnical requirements for the pavement investigation requires a minimum of three test pits. One on either side of the Princes Highway in the area where the pavement will be constructed and one on the Princes Highway, middle of a lane, to provide information on the existing highway pavement.

For each pit, Log existing pavement materials. DCP test the subgrade and collect sufficient subgrade sample for testing as prescribed below.

Test Type	Pavement
Field Moisture Content and Bulk Density	X
Particle Size Distribution and hydrometer	X
Atterberg Limits	X
MDD and CBR	X
In-situ Density of Existing Subgrade.	X
Hand Dynamic Cone Penetration	X

- 9.8 A pavement investigations report is to be prepared and should include the following:

- (i) Test hole logs.
- (ii) Photographs (colour) of test holes and other relevant detail.
- (iii) All laboratory test reports.
- (iv) Survey location of all investigation sites.
- (v) Discussion of all results.
- (vi) All other relevant detail required by the pavement designer.

- 9.9 The Pavement design report must include geotechnical advice with respect to the following:
- (i) Consultation with the pavements designer to assess and define all requirements.
 - (ii) Design subgrade CBR values for all pavements.
 - (iii) Advice on specific issues relevant to pavement design including drainage requirements, subgrade support, need for bridging layers, specific requirements for fill material (including upper zone of formation), and swell/shrink characteristics of underlying materials.
 - (iv) Assessment on the residual and differential settlements of all supporting foundations and their corresponding effect on the pavement choice, design and timing of construction.
 - (v) Advice on alternatives, including stabilisation and the effect of high moisture content on the performance of flexible pavements including temporary pavements, tie-in areas etc.

10. TfNSW additional general requirements

- 10.1 The proposed works shall satisfy the following general requirements
- i) The Works must be designed and constructed in accordance with all relevant standards and specifications including, but not limited to, the following:
 - *Austrroads Guide to Road Design*
 - *Austrroads Guide to Traffic Management*
 - *Austrroads Guide to Pavement Technology*
 - ii) Where required, the developer must ensure that lighting is provided/upgraded in accordance with Australian Standard AS/NZS1158.
 - iii) Prior to construction, the Developer must provide TfNSW with a copy of a determined Review of Environmental Factors.
 - iv) Prior to the design review commencing, the Developer must pay TfNSW **\$36,286 (incl. GST)**, to cover costs incurred during design review. Note: TfNSW will issue an invoice following the execution of this letter.
 - v) As a component of the Works Authorisation Deed and prior to construction, the Developer must ensure their consultant/s and their contractor/s have an appropriate level of insurance in place. This must include public liability, professional indemnity insurance, NSW Workers Compensation, motor vehicle and contract works and plant and equipment. During construction, the Developer is responsible for all matters relating to occupational health & safety, environmental management and traffic management

11. Ecology

- 11.1 A preclearance survey is to be conducted for the designated hollow-bearing trees (as identified in the Prescribed Ecological Actions Report prepared by Abel Ecology and dated 5 May 2022) to relocate resident fauna, and the hollows salvaged and relocated under the provisions of a Hollow Management Guideline document. The Hollow Management Guideline shall be prepared by a suitably qualified Ecologist.
- 11.2 The hollow bearing trees are to be relocated prior to the commencement of works.

12. Vegetation management

- 12.1 A Vegetation Management Plan (VMP) shall be prepared by a qualified Ecologist and as part of the proposal and an environmental offset area must be established to ameliorate the impacts of the proposal. The VMP shall outline the parameters of an offset area and the vegetation to be planted within this area must be native to the Lowland Grassy Woodland ecological community (refer to Measure 23.13). Detailed specifications of the offset area and planting requirements shall be included in the VMP which shall be prepared by a Qualified landscape professional.

- 12.2 The proposed area designated as “approximate zone for tree planting” prepared and dated 6 July 2022 shall be considered as a potential offset area.

13. Tree Protection Measures

- 13.1 Tree protection fencing is to be in place before the introduction of machinery or other materials to the site and before commencement of works. Fencing is to be located to at least the canopy dripline, be of sturdy construction and retained in-situ during works unless altered by the project arborist. All site activities are excluded from this zone setback accordingly and shall be implemented in accordance with AS4687 which specifies the applicable fencing requirements.

14. Flooding

- 14.1 The design and construction of the road and associated infrastructure services shall satisfy Council and TfNSW requirements in relation to flood planning provisions for that part of the roadway which is potentially flood affected.

15. Acoustic

- 15.1 For all construction works, the contractor shall prepare a detailed Construction Noise and Vibration Management Plan (CNVMP). The plan is to consider minimising acoustic impacts and should include but not be limited to the following:
- Roles and responsibilities
 - Noise and vibration sensitive receiver locations
 - Areas of potential impact
 - Mitigation strategy
 - Monitoring methodology
 - Community engagement strategy.

16. Acid Sulphate Soils

- 16.1 Prior to the commencement of works a suitable investigation should occur to assess Acid Sulfate Soils (ASS) risks in the context of the proposed development works, and assess whether there is the need to develop and implement an ASS management plan.
- 16.2 Some of the ancillary works, including installation of conduits for electrical services, will be undertaken in the potential acid sulfate area. These works are limited to trenching and/or under boring for conduit installation. Should it be a requirement to not disturb the soil, horizontal directional drilling could be used to install the conduits through the potential acid sulfate area. Alternate and preferred construction methods should be stipulated in the Acid Sulphate Soils management plan if one is required to be prepared.

17. Contamination and Hazardous Materials

- 17.1 Preliminary soil sampling and analysis should be undertaken to make an assessment of the soil contamination conditions prior to commencement of any soil disturbance on site as part of the proposed development works.
- 17.2 An unexpected finds procedure is to be included in an overarching Construction Management Plan (CMP) for the work, in the event that other contamination is encountered which have not been identified during this assessment.
- 17.3 A waste classification report/statement should be undertaken prior to the off-site disposal of any waste. Any waste must be transported by an appropriately licensed transporter and disposed to a facility that is licensed to receive that class of waste. It is recommended that this report is sent to the proposed receiving facility to confirm their acceptance of the material prior to off-site disposal. If the description of the soil differ from that described within, then further assessment for waste classification purposes may be required prior to off-site disposal.

18. Waste Management

- 18.1 A Construction Waste Management Plan (WMP) shall be prepared by an appropriately qualified contractor prior to the commencement of works. The Waste Management Plan should be prepared in accordance with DECCW's "Waste Classification Guidelines (2008)" and the Protection of the Environment Operations Act 1997 and in accordance with Eurobodalla Council's requirements for the management of construction waste and its removal and handling.
- 18.2 The Demolition/Construction Waste Management Plan is to include the following requirements and details:
- The type and volume of all waste materials (e.g. excavation material, green waste, bricks, concrete, timbers, plasterboard and metals) is to be estimated prior to the commencement of works, with the destination for each waste identified. Waste should be re-used or recycled as much as practicable. Where not practicable, the location of a suitable waste disposal facility is to be identified.
 - Cleaning out of batched concrete mixing plant is not permitted within any construction compound.
 - Non-recyclable waste and containers are to be regularly collected and disposed of at a licensed disposal site. Frequency of collection should be identified.
 - No burning or burying of waste is permitted on the site.
 - Any bulk garbage bins delivered by authorised waste contractors are to be placed and kept within the property boundary.
- 18.3 The following mitigation measures will be implemented in order to prevent adverse impacts in relation to waste generated by the proposed works:
- No materials will be used in a manner that will pose a risk to public safety and waste generated from the proposed works will be recycled where possible.
 - Unnecessary resource consumption will be avoided.
 - Non-recyclable wastes will be collected and disposed of or recycled in accordance with Office of Environment and Heritage (OEH) guidelines.

19. Construction Management

- 19.1 A detailed Construction Management Plan (CMP) is to be prepared prior to the commencement of works and implemented during the undertaking of works. The Construction Management Plan is to include, but not be limited to:
- How compliance with the environmental controls and mitigation measures detailed in this REF is to be achieved.
 - Construction noise management measures.
 - Vibration management measures.
 - Sediment and erosion control measures.
 - Construction site management measures.
 - Construction traffic management measures.
 - Air quality and dust management measures.
 - Restrictions on hours during construction.
 - Unexpected finds protocols
 - Training of responsibilities under National Parks and Wildlife Act 1975, Heritage Act 1977 and any other relevant legislation.

20. Erosion and Sediment Control

- 20.1 An Erosion and Sediment Control Plan (ESCP) shall be prepared in accordance with Section 2.2 of the Landcom/ Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book) and ensure any water diversion or control outlets associated with the works do not result in scouring.
- 20.2 The ESCP shall include proposed dune stabilisation works to be conducted on public land that meet the requirements of the Coastal Protection Act 1979 and the Code of Practice under the Coastal Protection Act 1979. At a minimum, the following information must be included in the ESCP:
- a site survey which identifies contours and approximate grades and the direction(s) of fall;
 - locality of site and allotment boundaries;
 - location of adjoining road(s) and all impervious surfaces;
 - existing vegetation and site drainage;
 - nature and extent of clearing, excavation and filling;
 - location and type of proposed erosion and sediment control measures;
 - location of site access and stabilisation of site access;
 - provision for the diversion of run off around disturbed areas;
 - location of material stockpiles;
 - proposed site rehabilitation and landscaping;
 - staging of construction works, and
 - maintenance program for erosion and sediment controls measures.

All design criteria and calculations used to size sediment and erosion control measures should be shown, and construction standard drawings are to be provided on each type of sediment and erosion control measure proposed.

- 20.3 Works will only commence once all erosion and sediment controls have been established. The controls will be maintained in place until the works are complete and all exposed erodible materials are stable.
- 20.4 Erosion and sedimentation controls will be checked and maintained (including clearing of sediment from behind barriers) on a regular basis (including after any precipitation events) and records kept and provided on request.

21. Services and Utilities

- 21.1 Prior to the commencement of works, any services and utilities that may be impacted by the works are to be appropriately relocated.

22. Induction

- 22.1 An Aboriginal heritage induction should be provided to all employees, contractors and subcontractors engaged in the road construction on the significance of the Aboriginal heritage, that it an offence to harm Aboriginal objects and be advised of their responsibilities under the *National Parks and Wildlife Act 1974* in respect of Aboriginal heritage.

During construction/undertaking of work

Note: The following Conditions are to be complied with during the approved construction/the undertaking of works.

23. Tree Protection and Management

- 23.1 Trees to be retained are to be protected in accordance with AS 4970 -2009 Protection of Trees on Development Sites and in accordance with the tree preservation and protection measures outlined in the Aborist Assessment prepared by Abel Ecology and dated 17 May 2022.
- 23.2 No building materials, builder sheds, ancillary structures, equipment and the like are permitted to be stored under the canopy of any existing trees.

- 23.3 Trees removed are to be replaced at a replacement ratio of greater than 1:1 and as indicated by the Arborist Assessment prepared by Abel Ecology, dated 17 May 2022 with a minimum pot size of 200L. In this case a minimum of 121 new trees are required to be planted as part of this project.
- 23.4 The following methods are to be implemented to minimise potential damage to retained trees, e.g. from soil compaction and site activity. Trees are to be protected at all stages of the development, and growing conditions are to be improved within the Tree Protection Zone (TPZ). These guidelines are consistent with AS4970-2009 Protection of trees on development sites.
- 23.5 All site workers are to be aware of relevant tree protection requirements. Nominated trees will be removed or transplanted as per the tree protection plan. An arborist is to supervise tree removal, pruning and transplanting and certify the completed works.
- 23.6 All trees not nominated for retention are to be removed prior to any construction activity. Approved tree pruning and removal operations near retained trees are to be carried out in a way that avoids soil compaction and damage to canopy, trunk or roots. Works are to be supervised by an arborist or the person responsible for site management.
- 23.7 Stumps are to be ground, not dozed or dug out, if in the vicinity of retained trees. Machinery (other than stump machines) is to be kept beyond the nominated protection zones of retained trees during all operations.
- 23.8 Where access is required within the TPZ, temporary ground protection measures will be required (e.g. metal plates, rumble boards or exterior-grade ply over aggregate) capable of supporting the required load without deflection. Trunk protection may be required, e.g. battens wrapped around the trunk to a height of 2 metres.
- 23.9 Material stockpiles or dumps, parking, excavation, site sheds, preparation of chemicals, fires, wash down areas or similar are to be located clear of TPZs. Areas designated for such requirements are not to divert drainage water into tree protection areas. Machine trenching is to be excluded from the TPZ of retained trees.
- 23.10 A project arborist is to be formally engaged to ensure and certify that tree protection measures are satisfactorily implemented and to provide advice as applicable prior to, during and after construction. The arborist will inspect the site at least once within every three (3) months prior to commencement, during construction, and once upon completion of construction.
- 23.11 The following tree protection and preservations measures are to be implemented prior, during and after construction;
- Construct tree protection fence(s) at a minimum radius distance(s), measuring from the centre of the tree, prior to construction to prevent unnecessary root damage.
 - Construct tree protection fences using chain wire mesh panels to a height of 1.8 metre high. Fences are to be held in place with secure footings in accordance with the provisions shown in the Arborists Report prepared by Abel Ecology and dated 17 May 2022.
 - Exclude all site activity from tree protection zones during construction in accordance with the 'Tree protection guidelines' as stipulated in Appendix 3 of the Arborist report prepared by Abel Ecology and dated 17 may 2022.
 - Do not remove tree protection fences until construction is completed, at which time the arborist will sign-off on fence removal and provide further advice as applicable.
 - Apply mulch 100-150 mm deep with a radius of at least two (2) metres, (or to the edge of the calculated tree protection zone where possible) around retained trees adjacent to excavation works prior to construction to stimulate growth of absorbing roots.
 - Re-apply mulch annually to ameliorate impacts of root loss.

- Water fenced trees during periods of low rainfall. This will boost the vitality and adaptability of the trees, creating visual and shade assets that complement the site.
- Cleanly cut any roots with a thickness of 2 cm or more encountered during excavation to reduce damage to roots from tearing, splitting, and cracking.
- Show tree locations and protective fencing on all construction plans used on site.
- Engage a qualified ecologist to inspect hollow-bearing trees before they are removed. The ecologist will provide further advice if and when applicable.
- The habitat trees and any other trees found to have hollows that have not previously been identified as a habitat tree, must be inspected by a qualified ecologist, and all hollows removed and relocated.
- Protective fencing is to be placed at a minimum of the TPZ radius distance around trees in close proximity to construction zones.
- All site activity must be excluded from tree protection zones during demolition and construction phases in accordance with the 'Tree protection guidelines' stipulated in the Arborists Report.
- Route all trenching for underground services outside the TPZs of retained trees. If any underground service installation or underground boring will occur within TPZs, engage an arborist to supervise the activity.
- Crown pruning must comply with the appropriate class of pruning described in AS4373-2007 Pruning of amenity trees and be undertaken by a qualified arborist practising modern arboricultural methods.

23.12 Advice must be sought from a suitably skilled and experienced project arborist wherever roots over 40 mm diameter are encountered during excavation and works. The tearing of roots must be avoided, and root pruning undertaken as directed by the nominated arborist.

23.13 All landscaping or gardening associated with the proposal must use species that are native to the remnant Lowland Grassy Woodland ecological community. Species native to this community which are suitable for landscaping include:

- *Acacia implexa*
- *Angophora floribunda*
- *Bursaria spinosa*
- *Bossiaea buxifolia*
- *Eucalyptus tereticornis*
- *Eucalyptus eugenioides*
- *Eucalyptus bosistoana*
- *Dianella longifolia*
- *Dianella revoluta*
- *Hardenbergia violacea*
- *Jacksonia scorparia*
- *Lomandra longifolia*
- *Rubus parvifolius*
- *Themeda australis*

23.14 Any required root excavation inside a TPZ is to be done by hand and intact roots >40 mm in diameter are to be retained. Services are to be installed 100 mm clear of such roots. Damaged roots must be cut cleanly with sharp implements (backhoe blades and similar are excluded), with no root dressings or paints. Trenches are to be backfilled promptly to minimise soil desiccation. Underbore if no suitable alternative location is possible. All works within the TPZ are to be supervised by an arborist.

24. Earthworks

- 24.1 Any proposed cut or fill batters should not exceed 1H:4V gradient. Any proposed retaining is to be in accordance with Council's requirements for materials, sub-soil drainage requirements and the like.

25. Construction Site Management

- 25.1 Construction site fencing is to be installed around the construction site. Vehicle and workforce access points and roads to the construction compounds are to be clearly designated and controlled for authorised access only.
- 25.2 The worksite should be left tidy and rubbish free each day prior to leaving the site and at the completion of works.
- 25.3 The use and storage of hazardous materials and dangerous goods, including petroleum, distillate and other chemicals, shall be in accordance with the relevant legislation including, but not limited to:
- Protection of the Environment Operations Act 1997
 - Work Health and Safety Regulation 2017
 - AS 1940 The storage and handling of flammable and combustible liquids
 - Safe Work NSW Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace.
- 25.4 All materials on-site or being delivered to the site must be wholly contained within the site. The requirements of the Protection of the Environment Operations Act 1997 are to be complied with when placing/stockpiling loose material or when disposing of waste products or during any other activities likely to pollute drains or watercourses.
- 25.5 The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances.
- 25.6 All equipment and machinery should be secured against vandalism outside of working hours.
- 25.7 No batching plant is permitted on the site.
- 25.8 A copy of the approved and certified plans, specifications and documentation shall be kept on site at all times.
- 25.9 Any contractor(s) must meet all workplace safety legislation and requirements.
- 25.10 No vehicle maintenance is permitted in the demolition and construction areas except in emergencies.
- 25.11 Any loose material stockpiles are to be stored within the temporary construction compound(s) and are to be protected from possible erosion.

26. Erosion and Sediment Control

- 26.1 Disturbance of sediment during the construction phase of the development and the design management and implementation of pollution controls must be consistent with "Managing Urban Stormwater: Soils and Construction" (NSW Landcom, 2004), (Blue Book), and "approved Methods for the Modelling and Assessment of air pollutants in NSW (EPA)" to ensure containment of sediment to the immediate work site.
- 26.2 All sediment control measures must be regularly inspected and cleaned out and/or repaired as necessary, and all collected silt disposed of appropriately. Stockpiles should also have adequate sediment control measures in place.
- 26.3 Erosion and control measures are not to be removed until disturbed areas have stabilised.

27. Air Quality and Dust Management

- 27.1 Spraying of paint and other materials with the potential to become air borne particulates is only to be undertaken on days with still or light wind conditions.
- 27.2 No burning of materials is permitted.
- 27.3 Dust generated during construction activities is to be controlled to avoid impact on surrounding properties
- 27.4 All necessary maintenance for construction vehicles and equipment is to be undertaken during the construction period.
- 27.5 Excessive use of vehicles and powered construction equipment is to be avoided.
- 27.6 Exposed areas are to be progressively revegetated as soon as practical.
- 27.7 Vehicle wash down areas are to be established to ensure all mud and soil from construction vehicles is not carried onto public roads.
- 27.8 All vehicles involved in any excavation and/or demolition and departing the site with materials, spoil or loose matter must have their loads fully covered before entering the public roadway.
- 27.9 Vehicles, machinery and equipment will be maintained in accordance with manufacturer's specifications in order to meet the requirements of the Protection of the Environment Operations Act 1997 and associated regulations.

28. Construction

- 28.1 No blasting shall be permitted during construction.
- 28.2 The use of any rock excavation machinery or any mechanical pile drivers or the like is restricted to the hours of 7.00am to 5.00pm (maximum) on Monday to Friday only, to minimise the noise levels during construction and loss of amenity to the surrounding area.

29. Services

- 29.1 All services and utilities in the area of construction must be appropriately disconnected and reconnected as required. The contractor is required (if necessary) to consult with the various service authorities regarding their requirements for the disconnection of services.
- 29.2 Where services are found not to be adequate to support the development they shall be appropriately augmented.

30. Traffic Management

- 30.1 The proposed construction works shall comply with the provisions of the preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) prepared by Bitzios dated 5 May 2022 and shall be in accordance with a final CTPMP.
- 30.2 The services of a qualified Traffic Control subcontractor must be used to provide traffic control services for the construction phase of the project if need be. Traffic controllers will be trained, hold a current SafeWork NSW Traffic Control Work Training Card and comply with the requirements of the *Transport for NSW Traffic control at work sites Technical Manual (July 2018)*.
- 30.3 In the event that loading, unloading and/or storage of any plant, equipment and/or materials is required outside of the site area, an appropriate application for a Work Zone should be made to the relevant road authority.

- 30.4 The site access shall have a shakedown device installed in accordance with TfNSW requirements so that trucks do not track dirt onto the public road network.
- 30.5 All trucks entering or exiting the site are to have their loads sealed and covered. To further control dust onsite, exposed surfaces and stockpiles should be suppressed by regular watering.
- 30.6 Any right turn movements out of the site/construction area will be priority controlled, with the exception of articulated vehicles and b-double movements which are to be managed under the 'stop/go' traffic control system.
- 30.7 During peak seasons all through movements will be maintained and at a 60km/h speed through the works zone.
- 30.8 Existing traffic access and pedestrian access arrangements should be maintained during construction as much as practicable.
- 30.9 Appropriate signage shall be erected and details will be confirmed by appropriate Project personnel responsible for site safety during the development.
- 30.10 Traffic delay notifications will be issued to Council at least two weeks prior to commencement of works requiring full or partial road closure.
- 30.11 A dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters, and footpaths) shall be carried out by a suitably qualified person prior to the commencement of and after the completion of the Stage 2 construction works. A copy of the dilapidation report shall be provided to the Certifying Authority and Eurobodalla Shire Council prior to the commencement of the Stage 2 construction works for that activity and no later than one month upon completion of the Stage 2 construction works.
- 30.12 The cost of repairing any damage caused to Council or other Public Authority assets in the vicinity of the site as a result of the construction works associated with the approved development shall be met in full by the Contractor prior to the commencement of use of any stage of the development.
- 30.13 Independent Road Safety Audits shall be conducted of the TCPs in accordance with the *Transport for NSW Guidelines for Road Safety Audit Practices (2011)*, *Austrroads Guide to Road Safety Part 6: Road Safety Audit* and IPWEA guidelines.
- 30.14 In the event that a B-double is required, the site has capacity to facilitate these movements and all exit movements will be assisted by traffic control/gatemen shall occur.
- 30.15 Princes Highway is an approved 23m B-double route to and from the subject site. If larger vehicles are required during the main works phase of the project, approval must be sought from Transport for NSW and managed under that approval.
- 30.16 The project team will maximise the safety for road users and workers by isolating the active work areas from live traffic. This will be achieved by providing sufficient clearance between the work areas and adjacent travel lanes and using temporary safety barriers where required.
- 30.17 There are no parking areas on Princes Highway in proximity to the subject site. Therefore, construction works will not impact on any on-street or off-street parking spaces.
- 30.18 During the external works phase of the project, pedestrian and cyclist access to the surrounding road network will be maintained.
- 30.19 Construction works should not impact on any bus zones and any bus services operating on Princes Highway past the site must be maintained.

- 30.20 Vehicular access to adjacent properties will be maintained at all times as per the existing conditions. All existing traffic lanes and widths are being maintained as part of works being undertaken as part of the CTPMP.

31. Contamination

- 31.1 Should any new soil contamination information or contaminants be identified during the undertaking of works which have the potential to alter previous conclusions about site contamination, then the Managing Contractor and HI must be immediately notified and works must cease in the location of the contamination. Works must not recommence until a suitably qualified contaminated land specialist renders the site suitable for the proposed development.
- 31.2 Following completion of the remediation (if required), a Site Remediation & Validation Report (SRVR) which documents the completeness of the remedial work is to be submitted to HI and the EPA, if required.
- 31.3 Any contaminated materials or hazardous substances that need to be removed from site are to be classified first and then stored, transported and disposed of in accordance with EPA requirements at an EPA licensed waste facility.
- 31.4 If soils are to be disposed offsite during construction, they are required to be disposed in accordance with the waste classification, subject to additional sampling and analysis.
- 31.5 Construction works should not result in the contamination of the site.
- 31.6 A spill containment kit will be available at all times. All personnel will be made aware of the location of the kit and trained in its effective deployment.
- 31.7 The contractor shall develop a procedure for the management of acid sulfate material (ASM) including identification, testing and treatment of ASM encountered during the works and opportunities for reuse of treated ASM within the site.
- 31.8 Materials will be sourced from licensed quarries and operators. All materials will be certified uncontaminated and environmentally safe.
- 31.9 In a storm or an extended rainfall event, the structures located on site for sediment control shall be monitored and replaced or altered if necessary by the Contractor. Collected material shall be managed in accordance with remediation works by the Contractor.

32. Noise and Vibration Management

- 32.1 The recommendations of the Acoustic Report prepared by Arup and dated 8 May 2022 shall be implemented as part of the design and construction.
- 32.2 In general, practices to reduce construction noise impacts should be implemented, and may include the following;
- Adherence to the standard approved working hours as outlined in the Project Approval.
 - Manage noise from construction work that might be undertaken outside the recommended standard hours.
 - The location of stationary plant (concrete pumps, air-compressors, generators, etc.) as far away as possible from sensitive receivers.
 - Using site sheds and other temporary structures or screens/hoarding to limit noise exposure where possible.
 - Sealing of openings in the building (temporary or permanent) prior to commencement of internal works to limit noise emission.
 - The appropriate choice of low-noise construction equipment and/or methods.
 - Modifications to construction equipment or the construction methodology or programme. This may entail programming activities to occur concurrently where a noisy activity will mask a less noisy activity, or, at different times where more than one noisy activity will significantly

increase the noise. The programming should also consider the location of the activities due to occur concurrently.

- Carry out consultation with the community during construction including, but not limited to; advance notification of planned activities and expected disruption/effects, construction noise complaints handling procedures.

32.3 The following noise mitigation work practices are recommended to be adopted at all times on site:

- Regularly train workers and contractors (such as at toolbox talks) to use equipment in ways to minimise noise.
- Site managers to periodically check the site and nearby residences for noise problems so that solutions can be quickly applied.
- Avoid the use of radios or stereos outdoors.
- Avoid the overuse of public address systems.
- Avoid shouting and minimise talking loudly and slamming vehicle doors.
- Turn off all plant and equipment when not in use.

32.4 Minimum working distances for vibration intensive plant, shall be implemented which is based on international standards and guidance in accordance with the Noise Assessment prepared by ARUP and dated 8 May 2022.

32.5 All works will be in accordance with AS2436-1981: Guide to Noise Control on Construction, Maintenance and Demolition Sites.

32.6 Building contractors are to implement the requirements of the Office of Environment “Interim Construction Noise Guideline (July 2009)” as far as practicable.

32.7 Construction is to be carried out in accordance with the Building Code of Australia deemed-to-satisfy provisions with respect to noise transmission.

32.8 All reasonable, practicable steps are to be undertaken to reduce noise and vibration from the site. Unnecessary noise is to be avoided when carrying out manual operations and operating plant.

32.9 Plant and equipment is to be maintained, checked and calibrated in accordance with the appropriate design requirements and to ensure that maximum sound power levels are not exceeded and where possible is to be strategically positioned on site to reduce the emission of noise from the site to the surrounding area, users of the site and on-site personnel.

32.10 Any equipment not used for extended periods is to be switched off.

32.11 All noise that will emanate from construction work shall be sensitively considered and the following measures implemented where possible during construction;

- The location of stationary plant (concrete pumps, air-compressors, generators, etc.) as far away as possible from sensitive receivers;
- Using site sheds and other temporary structures or screens/hoarding to limit noise exposure where possible.
- Sealing of openings in the building (temporary or permanent) prior to commencement of internal works to limit noise emission.
- Consider the use of low-noise construction equipment and/or methods.
- Modifications to construction equipment or the construction methodology or programme. This may entail programming activities to occur concurrently where a noisy activity will mask a less noisy activity, or, at different times where more than one noisy activity will significantly increase the noise. The programming should also consider the location of the activities due to occur concurrently.
- Carry out consultation with the community during construction including, but not limited to; advance notification of planned activities and expected disruption/effects, construction noise complaints handling procedures.

32.12 Identify feasible acoustic controls or management techniques (use of screens, scheduling of noisy works, notification of adjoining land users, respite periods) when excessive levels may occur.

- 32.13 For activities where acoustic controls and management techniques still cannot guarantee compliant noise levels, implement a notification process whereby nearby development is made aware of the time and duration of noise intensive construction processes.

33. Acoustic vibration

- 33.1 The recommended minimum working distances for vibration intensive plant, in accordance with international standards and guidance are to be implemented during construction which is in accordance with the provisions outlined in the Acoustic Report prepared by Arup and dated 8 May 2022.

34. Non Aboriginal Heritage

- 34.1 All personnel working on site will receive training in their responsibilities under the Heritage Act 1977.
- 34.2 If any item of European heritage is discovered during works, work shall cease immediately and the project heritage consultant, the relevant Council and/or Office of Environment and Heritage notified. Work shall not recommence until the significance of the find is established.

35. Aboriginal Heritage

- 35.1 If suspected Aboriginal material has been uncovered as a result of development activities within the Project Area:
- work in the surrounding area is to stop immediately
 - a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site
 - an appropriately qualified archaeological consultant is to be engaged to identify the material, and
 - if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH guidelines: Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010).
- 35.2 Should Human Remains be uncovered or found at any stage during earthworks within the Project Area, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station, the relevant Local Aboriginal Land Council and the OEH Regional Office are all to be notified as soon as possible.
- 35.3 If Aboriginal cultural materials are uncovered as a result of development activities within the Project Area, they are to be registered as Sites in the Aboriginal Heritage Information Management System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.
- 35.4 All effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.

36. Restriction on Hours during Construction

- 36.1 The undertaking of any construction activity on the subject site is to be limited to the following hours:
- Monday to Friday inclusive: 7.00am to 6.00pm
 - Saturdays: 8.00am to 1.00pm
 - Sundays and Public Holidays: No work permitted.
- 36.2 Entry and departure of vehicles from the site will be restricted to the imposed work hours.
- 36.3 Activities may be undertaken outside of hours in condition 36.1 and 36.2 if required

- By the police or a public authority for the delivery of vehicles, plant or materials; or
- in an emergency to avoid the loss of life, damage to property or to prevent environmental harm.

36.4 Consideration will be given to extending these hours to allow for specific work tasks on a case by case basis, subject to approval from Health Infrastructure being sought prior to this occurring and the assessment of any impact of this extension.

37. Public Works

37.1 All new driveway crossings, kerb and guttering and works within the public domain shall be designed and constructed in accordance with Eurobodalla Council's requirements.

Prior to commencement of operation

Note: The following Conditions are to be complied with prior to commencement of operation of the facility.

38. Works as Executed

38.1 Prior to use of the facility, "Works as Executed" drawings are to be submitted to HI.

39. TfNSW requirements

39.1 Prior to the operation of the roundabout, the applicant must complete all works to the satisfaction of TfNSW or as otherwise agreed to by TfNSW.

40. Tree Replacement

40.1 Prior to the commencement of the operation of the roundabout the 121 replacement trees must be planted at or immediately adjoining the site in accordance with the VMP and shall be to the satisfaction of the Arborist or Ecologist who has been engaged to oversee the project.

41. Sight lines

41.1 Any proposed fencing and landscaping adjacent to accessways are to be supported by a report from a suitably qualified engineer, confirming compliance with AS2980.1, prior to occupation to ensure sight distances are compliant.

42. Inspections

42.1 Formal and documented short-term and long-term inspections shall be undertaken at worksites by persons holding the Prepare Work Zone Traffic Management Plan qualification.

Operational measures

43. Landscaping – on going maintenance

43.1 After completion of all works, landscaping, planting and maintenance shall be in accordance with the Vegetation Management Plan and works certified by a qualified Landscape Consultant.

Advisory Notes

44. Project Compliance – DGN 40

44.1 Health Infrastructure (HI) as the applicant for planning approval on our projects, is responsible for ensuring that the conditions of consent are complied with during the course of the delivery of the Ambulance Station. To ensure that HI is complying with its legal obligations, compliance with the requirements of DGN 40 –

Compliance with Planning Approval Conditions is required. A copy of the template spreadsheet at DGN 40 is to be submitted to HI Planning by the end of each calendar month.

45. Lighting

- 45.1 The proposed lighting shall be compliant with lighting for roadways but to consider not creating any undue reflectivity and glare.

46. Greening our Facilities – Tree Planting Reporting

- 46.1 Prior to the operation of the roundabout, reporting on the number of trees planted as required under this approval by logging the relevant information into the relevant HI Tree Planting Reporting is required.

Determination

Acting as a delegate of the Health Administration Corporation, and, in accordance with Section 5.5 (formerly s111) of the Environmental Planning and Assessment Act 1979, having taken into account to the fullest extent possible all matters likely to affect the environment as a result of the proposed activity, I hereby determine the Review of Environmental Factors by granting approval subject to the Mitigation Measures above.



1 August 2022

Rebecca Wark

Date

Chief Executive Health Infrastructure