Transport
for NSW

Mariyung Fleet:

Rail Infrastructure Upgrades

Austinmer Station Platform Extension

Environmental impact assessment checklist

June 2025

NSW GOVERNMENT

transport.nsw.gov.au

Document review tracking

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0.2	5/06/2025	Redacted	Redacted	Draft for internal review
1.0	18/05/2025	Redacted	Redacted	Final for Determination

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1. Details of the proposal

Proposal	Details
Proposal name	Mariyung Fleet: Rail Infrastructure Upgrades– Austinmer Platform Extension
Location	Austinmer Station, NSW
Timeframe	From late June 2025 to December 2026

2. Description of proposed activity

2.1 Project background

Transport for NSW (Transport) is delivering a new, state-of-the-art fleet of intercity trains called the Mariyung.

The new trains will provide a new level of comfort and convenience for the thousands of customers who travel between Sydney and the Central Coast, Newcastle, the Blue Mountains and the South Coast.

To accommodate the new Mariyung fleet, Transport needs to modify some existing rail infrastructure at various locations across the rail network to support the changes to the operating model.

Work across the Mariyung fleet will include modifications within the rail corridor, including platforms, train stopping markers, signalling and lighting.

2.2 Scope of works

This Environmental Impact Assessment (EIA) checklist has been prepared for platform extension and associated works required to ensure the Mariyung fleet can safely be accommodated at Austinmer Station (the Proposal).

The proposed works at Austinmer Station would primarily consist of the demolition of the existing ramp at the city (northern) end of platform 2, followed by the installation of permanent extension structures at the ends of both platforms 1 and 2. Lighting upgrades and CCTV upgrades are also proposed.

The works would involve the following:

- Demolition of the existing ramps and part of the platform structures at the northern (city) ends of platforms 1 and 2
    - Following demolition of the end of platform 2 stainless steel anchors would be inserted into the remaining brickwork to stabilise the end of the platform retaining wall
    - Early and original bricks would be salvaged during the demolition for potential reuse or repair works
- Installation of temporary and permanent platform extension structures at the northern (city) ends of platforms 1 and 2, including new stairways on both platforms:
    - The platform 1 permanent extension would consist of a concrete culvert platform measuring about 3.8m long and 3.4m wide, with stair access installed on the west side
    - The platform 2 permanent extension would consist of a concrete culvert platform measuring about 5.8m long and 3.6m wide, with stair access installed on the north side
    - The temporary works following demolition would serve as platform fill retaining walls to ensure that the stability of the platform is maintained, and temporary stairs would maintain access to the rail corridor

    - The temporary retaining structure would include the installation of approximately 6m deep sheet piles with an in-situ concrete wall with anchor rods approximately 0.5m deep
    - It is anticipated that temporary platform works would be present for about eight (8) weeks between completion of the demolition and permanent construction scope
    - The construction of the platform extensions would require excavations to a depth of about 1.6m.
- Removal of existing fences and installation of new end of platform and extension fencing in loop top design at the northern (city) ends of platforms 1 and 2 to match existing fencing at the station
- Removal of existing gates and installation of new gates on platforms 1 and 2
- Installation of finishing works including car markers, Tactile Ground Surface Indicators (TGSIs), coping edge, and wearing surfaces on the platform extensions
- Upgrades to lighting on platforms 1 and 2, including trenching for combined services routes (CSR) and associated above ground pipework
- Installation of a new signal pit adjacent to the west side of platform 1, and the installation of new and modification and/or relocation of existing signal infrastructure and associated routes.
- Installation of a new concrete path at ground level adjacent to the city end of Platform 1 to provide access to signal infrastructure
- New CCTV camera installation on platforms 1 and 2. Two options are being considered for the installation of new CCTV cameras:
    - Option 1 (preferred option for providing CCTV coverage): The new cameras are proposed to be attached to the platform building canopies in the same location as existing CCTV cameras, and would be attached to existing camera mounts using new brackets. Where possible existing conduit routes would be used, but if these are not suitable then the installation of new above ground conduits or upgrades to existing conduit routes may be required.
    - Option 2 (alternative option): If the preferred option is not suitable, a new CCTV pole with attached camera would be installed on Platforms 1 and 2 between the platform buildings and the city ends of the platforms.
- Establishment of temporary work areas including compounds, crane pads, and laydown and stockpiling areas:
    - The temporary compounds would generally be limited to a site caravan or small site sheds and associated generator and portaloos
    - The temporary work areas would be limited to cleared ground, would not be situated on or abutting any heritage structures, and would be returned to their original state upon completion of works
    - Shallow excavations may be required for the establishment of crane pads, while the other areas typically would involve no ground disturbance
    - Minor tree branch trimming may be required for plant access, but no trees would be wholly removed
    - It is estimated that temporary compounds may be present for up to 15 weeks.
- Geotechnical investigations, including non-destructive digging (NDD) service investigations in the vicinity of the platform extension footprint and in the rail corridor to identify known and unknown utilities prior to construction. NDD investigations would consist of a combination of potholes and slit trenches using a hydro vacuum truck to a depth of about 1.5-2m.

Minor adjustments may need to be made to the scope of works on site to respond to localised or unexpected constraints during construction. Possible changes may include, but would not be limited to, the following:

- Relocation of geotechnical and NDD investigation locations and/or conduit/CSR alignments up to about 5m to respond to unexpected finds, services, or construction limitations

- Minor adjustments to the final positions of new platform fence installations and service infrastructure
- Minor and localised adjustments to construction methods and final installations to ensure adherence to design and safety standards
- Alternative positioning of CCTV cameras if the preferred options are not suitable
- New fixings into brickwork if existing penetrations or new penetrations into mortar are not suitable
- Additional temporary work areas.

The location of the Proposal is provided in **Figure 1** below. Extracts of the design plans for the proposed works are shown in **Appendix A**.

Note: *Should detailed design result in changes to the aforementioned scope, then additional assessment may be required.*

Figure 1 Overall Proposal site (Source: Transport for Tomorrow, 2025). Laydown areas for construction within the Project Boundary will be selected based on landowner agreements.

2.3 Construction details

Access and ancillary facilities

The Proposal site is shown in Figure 1 and is located entirely within the rail corridor. Works would be undertaken primarily at the city (northern) ends of Platforms 1 and 2, with some lighting and CCTV upgrades work on the existing platforms.

Site access is proposed from various locations near the railway corridor near Austinmer Station, including Railway Avenue, Hilldale Walk, Little Dunne Street, Kirton Road and Wigram Road (refer to **Figure 1**). Access to the corridor would be confirmed when the laydown areas are agreed with landowners. Access gates would be locked at all times, except during site access and/or egress where traffic management will be in place.

Construction duration and working hours

Construction is anticipated to commence in late June 2025 and take approximately 18 months to complete.

Where possible, the works would generally be undertaken in standard working hours (7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm Saturday). Some works may need to be undertaken outside of standard hours for safety reasons and to minimise impacts on rail operations. Works undertaken outside standard construction hours would be subject to prior approval from Transport through submission of the Out of Hours Works (OOHW) Application via the online system and the affected community would be notified as outlined in the TfNSW Construction Noise and Vibration Guideline – Public Infrastructure (TfNSW, 2023) and aligned with the TfNSW Standard Requirements.

Construction plant and equipment

The following types of plant and equipment are proposed to be included throughout the construction duration:

• Mobile Crane	• water cart
• Hi-rail excavator	• Semi-trailers
• small drill rig	• light vehicle
• Hi-rail articulated dump-truck	• flat-bed truck
• Non-HR excavators	• sucker truck
• dumpy	• piling rig
• tipper	• electric powered tools
• street sweeper	• general hand tools
• bogey (spoil removal)	• concrete pump
• concrete truck	
• concrete mixer.	

Vehicles would regularly enter and depart the Proposal site during all shifts with traffic control in place.

The anticipated number of vehicle movements is about 20 vehicle movements per day at about 2 per hour.

Construction personnel

The work would require a team of up to 40 personnel.

Impacts on utilities/authorities

No public utilities are expected to require relocation as a result of the Proposal.

Waste generated

Waste is expected to be as follows:

- Spoil from excavations
- Construction waste; including steel, plastics, timber, concrete, bricks.

Hazardous/dangerous goods

The Proposal would require some hazardous goods such as fuel, concrete cleaning liquids, solvents during the construction or operation. Any hazardous goods may be stored on site during construction periods and would be handled in accordance with the associated safety data sheets.

3. Site characteristics

Characteristic	Details
Land use	Austinmer Railway Station is located in the suburb of Austinmer, approximately 80km south of the Sydney CBD, and within the Wollongong Local Government Area (LGA). The station and surrounds are zoned SP2 Railway Infrastructure Facilities in accordance with the Wollongong Local Environmental Plan (LEP) 2009.
Social context	The Proposal site is characterised by the following: • Residential (R2 Low Density Residential) receivers to the north, east and south of the site. The nearest residential receiver, 45 The Grove, Austinmer to the platform extension works is located approximately 30m south east of the Proposal. • Vegetated areas (RE1 Public Recreation) approximately 180m south west of the south western boundary as well as and immediately north of the north eastern boundary of the Proposal study area • A small Local Centre (E1 Local Centre) is located approximately 50m to the south of the Proposal, including the Austinmer Veterinary Hospital and All Saint's Anglican Church, located approximately 50m south and 110 m south east of the Proposal respectively.
Flora and fauna	A search of the EPBC Act Protected Matters Search Tool and Bionet Atlas of NSW was undertaken on 15 April 2025 to determine the likelihood of occurrence for threatened fauna and flora species, populations and ecological communities within a 1km radius around the Proposal site. The EPBC search identified 104 Listed Threatened Species and 54 Listed Migratory Species and 7 Listed Threatened Ecological Communities within a 1 km radius of the Proposal. The Bionet Atlas of NSW searches did not identify any species in the vicinity of the Proposal. Further information is attached in **Appendix B**. A search of the Sydney Trains WEBGIS viewer indicates that the station platforms and much of the rail corridor is bounded by Illawarra Escarpment Bangalay Blue Gum Wet Forest (Plant Community Type 3153) and Illawarra North-Pittwater Bangalay Moist Forest (PCT 3155) (see **Appendix B**), which are wet sclerophyll forests characterised by tall, open, sclerophyllous tree canopy and understory of soft- leaved shrubs, ferns and herbs. They occur on low to mid-elevation escarpment benches, slopes and gullies on the Illawarra Escarpment and hills on the Illawarra coastal plain. The tree canopy very frequently has a high cover of one or more species from the *Eucalyptus saligna - botryoides* complex. The mid stratum typically includes *Acmena smithii* with a high cover, along with *Livistona australis*. The ground layer frequently includes *Blechnum neohollandicum, Adiantum aethiopicum, Gymnostachys anceps and Oplismenus imbecilli*. No Threatened Ecological Communities (TECs) are associated with these PCTs. The PCT (3546) (see **Appendix B**) immediately north of the south western boundary of the Proposal area (in the vicinity of where geotechnical investigations are proposed) is comprised of Coastal Sand Littoral Scrub-Forest. This PCT is distributed throughout the Sydney Basin IBRA bioregion and the Illawarra subbioregion, mostly within the littoral zone on coastal dunes in the Illawarra. The upper stratum frequently includes *Banksia integrifolia*. And rarely, a Eucalypt canopy consisting mostly of *Eucalyptus botryoides* may be present. *Breynia oblongifolia* is a very common shrub species in this community. The ground layer is dominated by *Lomandra longifolia*. No Threatened Ecological Communities (TECs) are associated with these PCT. A search of the NSW Rural Fire Service bushfire prone land mapping tool undertaken on 15/04/2025 (see **Appendix B**) shows that the Proposal is located in the vicinity of a 100m buffer zone for Category 1 vegetation to the north and east, and a 30m buffer zone for Category 2 vegetation to the south west (adjacent to the proposed site access point off Kirton Road).

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Aboriginal Heritage</td><td>An Aboriginal Heritage Information Management System (AHIMS) search was undertaken on 21 February 2025 and did not identify any known Aboriginal sites or places within 50 metres of the Proposal. Refer to Appendix B for AHIMS search results.

A search of the National Native Title Register found one (1) result for the Local government area of Wollongong City Council (Tribunal file #: NND2007/001), pertaining to the parcel of land described as Lot 323 DP823189, located in Kembla Grange (approximately 25km south of the project). In early 2007, the Federal Court of Australia determined that no native title exists in relation to the land.

Austinmer Station (Place ID 101151) was included as an Indicative place on the Register of National Estate (RNE) prior to the RNE's closure in 2007. The RNE record is considered as reference only and no longer has statutory basis.</td></tr>
<tr><td>Non-Aboriginal heritage</td><td>Austinmer Station is listed on the State Heritage Register (SHR 01077) and TAM S170 Register (SHI 4801131). It is also a locally listed item under the Wollongong LEP 2009 (Item no. 6259). The SHR listing identifies the station (dating from 1887) and platform building (dating from 1915) as rare examples of historic and aesthetic significance.

Austinmer Station has undergone a number of physical modifications over the years, particularly in 1985, when the height of the platforms was raised to their current level, as well as subsequent installations of modern infrastructure, platform furniture, and services. The current platform 1 and platform 2 both retain sections of the 1915 brick coping and retaining wall. While most of the brick platform wall on platform 1 has been removed as part of the upgrades over the years, the Platform 2 brick platform wall is still largely intact.

More information about the station's non-Aboriginal heritage can be found on the Statement of Heritage Impact (SoHI) prepared by Artefact (Appendix C).
<table>
<tr><th>Item name</th><th>Listing</th><th>Item No</th><th>Significance</th></tr>
<tr><td>Austinmer Railway Station Group</td><td>SHR</td><td>01077</td><td>State</td></tr>
<tr><td>Austinmer Railway Station Group</td><td>TAM s170</td><td>SHI 4801131</td><td>State</td></tr>
<tr><td>Austinmer Railway Station</td><td>Wollongong LEP 2009</td><td>6259</td><td>Local</td></tr>
<tr><td>Austinmer-Moore Street and The Grove Heritage Conservation Area (HCA)</td><td>Wollongong LEP 2009</td><td>4N/A</td><td>Local</td></tr>
</table>

The boundaries of the Proposal include part of the Austinmer-Moore Street and The Grove HCA, which is local heritage listed in the Wollongong LEP 2009. However, the SoHI concluded that the Proposal would cause little to no physical and visual impacts to this listing.</td></tr>
<tr><td>Hydrology and flooding</td><td>The suburb of Austinmer is contained within the Northern Suburbs Catchment, which forms part of the Wollongong Coast River Basin.

The natural watercourse within the Northern Suburbs Catchment that is closest to the Proposal is Hicks Creek, a creek system which like several other creek systems in the catchment runs through culverts and under bridges in the developed portions of the catchment. Hicks Creek traverses under the rail corridor beneath the middle of both platforms at Austinmer Station and runs approximately 30m south at its closest point to the proposed extension work area at platform 2. Hicks Creek drains into Austinmer Beach located approximately 500m east of the Proposal. An unnamed stormwater channel also traverses beneath Railway Avenue to the north east of the station, flowing beneath the rail corridor towards the eastern boundary of the Proposal study area before converging with Hicks Creek beneath The Grove and draining into Austinmer Beach.

It is expected that all areas within the railway corridor will be serviced by the existing drainage and stormwater catchment network that drain stormwater away from the rail corridor to the surrounding local receiving waters.

Flood studies are yet to be completed by Wollongong City Council for the Northern Suburbs Catchment, and as such the flood extents for Hicks Creek is presently unknown. The Illawarra Flood Emergency Sub Plan (NSW SES, 2022) report identifies that properties and public</td></tr>
</table>

Characteristic	Details
	infrastructure within Austinmer and Austinmer North Beaches are at potential risk from coastal inundation during a 1% Annual Exceedance Probability (AEP) storm event. However, it is unclear whether this extends to the Proposal area, which is located approximately 500m west of Austinmer Beach. Areas immediately north east, east and south east of the station are designated as a Coastal Use Area under the State Environmental Planning Policy (Resilience and Hazards) 2021. The proposed access and laydown areas to the east of the station are expected to intersect with the Coastal Use Area.
Soils and contamination	The Proposal site is located entirely within the rail corridor and it therefore has potential to contain various contaminated materials from historical and operational sources. Such sources relate to the long-term operation of the railway and the history of nearby contaminating activities. Possible sources of contamination may include fill materials, hazardous materials from structures, leaks and spills of fuels or chlorinated, historical use of pesticides, and asbestos dust from train brake pads. A search conducted on 15 April 2025 on eSPADE tool showed that much of the proposal area is encompassed by the Gwynneville Soil Landscape profile (9029gw). This soil landcape forms the lower portion of the Illawarra Escarpment. The geology is comprised of resistant interbedded quartz lithic sandstone, grey siltstone and claystone, carbonaceous claystone, clay and laminate of the Illawarra Coal Measures. Soils are comprised shallow Brown Podzolic Soils and Xanthozems on upper slopes, Lithosols on simple slopes and shallow Brown Earths on midslopes and lower slopes. The soil landscape profile is considered to have steep slopes with an extreme erosion and mass movement hazard, as well as localised flooding. Areas immediately north west and west of the proposal area are encompassed by the Illawarra Escarpment Soil Landscape profile (9029ie). A search of the NSW EPA Contaminated Land Record of Notices, List of Contaminated Sites and POEO Public Register on 15 April 2025 did not identify any sites within one (1) kilometre of Austinmer Railway Station. The site is located on an area classified as Class 5, where Acid Sulfate Soils (ASS) are not likely to be present. A Hazardous Materials (HAZMAT) Register is also presently maintained by Sydney Trains for the Austinmer Station main building. More information is provided in **Appendix B**.

4. Control measures

Characteristic	Yes	No
Will a project and site specific EMP be prepared?	☐	☒
Are appropriate control measures already identified in an existing EMP?	☒	☐

The existing CEMP for the Rail Infrastructure Upgrades would be reviewed and if required updated to include the new scope contained in the EIA checklist and to capture any additional control measures.

5. Legislative framework

The *Environmental Planning & Assessment Act 1979* (EP&A Act) establishes the system of environmental planning and assessment in NSW. Division 5.1 specifies the environmental impact assessment requirements for activities undertaken by public authorities, such as Transport for NSW (Transport), which do not require development consent under Part 4 of the EP&A Act. Division 15, Section 2.92 and Section 2.93 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP (Transport and Infrastructure)) allows for the development of 'rail infrastructure facilities' by or on behalf of a public authority without development consent on any land. Consequently, development consent is not required for the Proposal however, the environmental impacts of the Proposal have been assessed under the provisions of Division 5.1 of the EP&A Act.

Section 171 of the Environmental Planning & Assessment Regulation 2021 (EP&A Regulation) sets out the environmental factors which must be considered when determining if an activity assessed under Division 5.1 of the *Environmental Planning & Assessment Act 1979* (EP&A) has or is likely to have a significant impact on the environment.

The purpose of this impact assessment checklist is to provide an environmental impact assessment which takes into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity, fulfilling the requirements of section 5.5 of the EP&A Act, the EP&A Regulation and the Guidelines for Division 5.1 Assessments (DPE, 2022) (now DPHI). **Appendix D** specifically responds to the environmental factors for consideration under Section 171 of the EP&A Regulation.

The (Commonwealth) EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places - defined in the EPBC Act as 'matters of National Environmental Significance (NES)'. The EPBC Act requires the assessment of whether the Proposal is likely to significantly impact on matters of NES or Commonwealth land. These matters are considered in full in **Appendix E**.

As the Proposal would not or is not likely to have a significant impact on any matters of NES or on Commonwealth land, a referral to the Commonwealth Minister for the Environment is not required.

6. Engagement

6.1 SEPP (Transport and Infrastructure) consultation

Sections 2.10-2.15 of the SEPP (Transport and Infrastructure) require that public authorities undertake consultation with councils and other agencies when proposing to carry out development without consent. Table 6-2 provides details of consultation requirements and outcomes for the Proposal under the SEPP (Transport and Infrastructure).

Table 6-1: Summary of SEPP (Transport and Infrastructure) consultation requirements

Section	Description	Relevance to the proposal
2.10	Consultation with councils- development with impacts on council-related infrastructure or services	There is no proposed impact to council related infrastructure and services. Therefore, consultation with Council is not required.
2.11	Consultation with councils- development with impacts on local heritage	The Proposal was assessed through a Statement of Heritage Impact (SoHI) undertaken by Artefact **(Appendix C)**, which concluded that the works would cause minor physical and visual impacts to the heritage item overall. Consultation with Council is also not required under the *State Environmental Planning Policy (Transport & Infrastructure) 2021* as the impacts are not greater than minor.
2.12	Consultation with councils- development with impacts on flood liable land	The Proposal is unlikely to change the flood patterns to more than a minor extent therefore consultation with Council is not required.
2.13	Consultation with State Emergency Service- development with impacts on flood-liable land	The Proposal does not comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance therefore consultation with SES is not required.
2.14	Consultation with councils- development with impacts on certain land within the coastal zone	While areas of the Proposal may intersect with a Coastal Use Zone area, the Proposal is not within a Coastal Vulnerability area, and as such consultation with Council is not required.
2.15	Consultation with public authorities other than councils	No additional consultation with public authorities is required.

Section	Description	Relevance to the proposal
2.122	Traffic generating development	The Proposal is not deemed a traffic-generating development. Accordingly, consultation with the relevant division of Transport is not required.

6.2 Community engagement

Transport would communicate and/or engage with residents, businesses, and community members, and other stakeholders in the lead- up to and during construction.

This would help to ensure that:

- the community and stakeholders are notified in advance of any upcoming work, including changes to pedestrian or traffic access arrangements and out of hours construction activities
- accurate and accessible information is made available
- a timely response is given to issues and concerns raised by the community.

The Transport email address projects@transport.nsw.gov.au , Transport Infoline (1800 684 490) and 24-hour Construction Response Line (1800 775 465) would continue to be available during the construction phase. Targeted notification methods, such as the use of letters, notifications, signage and verbal communications, would be provided when necessary.

Transport's Rail Infrastructure Upgrades project website (www.transport.nsw.gov.au/projects/current-projects/rail-infrastructure-upgrades-project) would also include updates on the progress of construction.

7. Impact assessment

7.1 Construction

An environmental impact assessment associated with the construction of the Proposal is provided in Table 7-1.

Table 7-1: Construction impact assessment for the Proposal

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
General	Nature and extent of impacts are detailed below. General Environmental Management Control measures would be implemented	1. A project wide Construction Environmental Management Plan (CEMP) (or equivalent as agreed by Transport Director Environment & Sustainability) shall be prepared by the Contractor in accordance with the relevant requirements of the Contract, Conditions of Approval, Control Measures, any conditions of any licences, permits or other approvals issued by government authorities for the Proposal, all relevant legislation and regulations, and accepted best practice management. The CEMP shall comply with the relevant requirements of Environmental Management Plan Guideline, NSW Department of Planning, Industry and Environment, 2020) and be approved by Transport Director Environment & Sustainability (DES) prior to the commencement of construction and following any revisions made throughout construction. The CEMP must be implemented for the duration of construction. 2. An Environmental Controls Map (ECM) shall be prepared in accordance with Transport's Environmental Control Map Guideline (EMF-EM-GD0148) prior to the commencement of construction for implementation for the construction unless otherwise agreed with the Transport Environment & Sustainability Representative (TESR). The ECM is to be approved by the TESR and may be prepared in stages, as set out in the CEMP. The ECM shall be displayed on site and included in onsite inductions 3. The ECM shall confirm the construction laydown area and access points to be used following agreement with landowners.	☒	☒	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
		4. Any modifications to the Proposal, would be subject to further assessment and approval by Transport. This assessment would need to demonstrate that any environmental impacts resulting from the change have been minimised. The further assessment must be submitted to Transport 6 weeks prior to commencement of works relating to the modification (unless otherwise agreed with the TESR) and approved prior to the commencement works. 5. Prior to the commencement of construction, all contractors shall be inducted on the key project environmental and sustainability risks, procedures, mitigation measures and conditions of approval. As part of the site induction, a heritage induction would be provided to workers informing them of the location of known heritage items and guidelines to follow if unexpected heritage items or deposits are location during construction.			
Flora and fauna	Vegetation adjacent to the Proposal site and access roads, has the potential to be impacted through vehicle movements, parking and storage of materials outside of designated areas. However, there is no vegetation trimming or removal required with this Proposal and thus, no direct impacts to vegetation or habitats are anticipated. The proposed work area and laydown areas are predominantly bounded by vegetation from the Illawarra Escarpment Bangalay Blue Gum Wet Forest and Illawarra North-Pittwater Bangalay Moist Forest PCTs (see **Appendix B**), which do not have any associated TECs. These areas will be designated as Tree Protection Zones (TPZ) on the ECM and cordoned off from the works as no-go zones. No works or storage of construction materials should occur within the TPZs. Should any equipment, materials, and site facilities need to be stored near the TPZs, this should be managed via site controls such as flagging and signage to ensure these activities remain outside of the TPZs.	6. Trees, vegetation and habitat to be retained shall be protected through temporary protection measures in accordance with Biodiversity Management Guideline (EMF-BD-GD-0039). 7. Separate approval, in accordance with Transport's Removal or Trimming of Vegetation Application (EMFEM-TT-0144), is required for the trimming, cutting, pruning or removal of all trees or vegetation where the impact has not already been identified in the planning approval for the Proposal. 8. Where tree or vegetation removal is required, replacement would be in accordance with Transport's Tree and hollow replacement guidelines (EMF-BD-GD-0012). 9. Weed control measures, consistent with Transport's Biodiversity Management Guideline (EMF-BD-GD0039) and the Pesticides Regulation 2017, would be developed and implemented as part of the CEMP to manage the potential dispersal and establishment of weeds during the construction phase of the Proposal. This would include the management and disposal of weeds in accordance with the *Biosecurity Act 2015*.	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	Although located in the vicinity of buffer zones for Category 1 and Category 2 vegetation, the Proposal and access points do not intersect with any bushfire prone land, and are therefore unlikely to be impacted by bushfire risk. Weeds may be present in proximity to the Proposal site and have the potential to spread due to the movement of construction plant and equipment. With the implementation of the proposed control measures, any potential impacts on flora and fauna would be minimised. Due to the nature of the scope of work, impacts on threatened ecological communities or threatened flora species are not anticipated.				
Water and flooding	There is a moderate risk of sediment runoff from excavation works and the laydown areas into the adjacent Hicks Creek, which traverses beneath the platforms (as well as an unnamed stormwater channel traversing beneath the railway corridor towards the eastern boundary of the Proposal study area), eventually draining into Austinmer Beach approximately 500m east of the Proposal. Hicks Creek is approximately 30m south at its closest point to the proposed extension work area at platform 2. There is also a minor risk of spills associated with the use of equipment and paint that could flow to the track drainage. However, the excavation is limited and unlikely to be exposed for long periods, and the risk of sediment runoff into the creek would be appropriately managed with appropriate erosion and sediment controls in place. During construction, severe storms and subsequent flash flooding have the potential to impact the Proposal.	10. Site specific erosion and sediment control measures shall be implemented in accordance with the 'BlueBook' – Managing Urban Stormwater: Soils and Construction 14th Edn (Landcom, 2004). 11. All chemicals and hazardous liquids shall be stored away from drainage lines, within an impervious bunded area in accordance with Australian Standards, EPA Guidelines and Transport's Chemical Storage and Spill Response Guideline (EMF-EM-GD-0137). Adequate water quality and hazardous materials procedures (including spill management procedures, use of spill kits and procedures for refuelling and maintaining construction vehicles/equipment) shall be implemented in accordance with relevant EPA guidelines and Transport's Chemical Storage and Spill Response Guideline (EMF-EM-GD-0137) during the construction phase. All staff would be made aware of the location of the spill kits and be trained in how to use the kits in the case of a spill. 12. Severe weather alert mitigation measure to minimise the impact of flooding shall be incorporated into site documentation, including but not limited to: • checking for Severe Weather Warnings prior to the commencement of works • Ensuring appropriate drainage	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	With the implementation of the proposed control measures, any potential impacts on water and flooding would be minor, short-term and be appropriately managed.	• Inspection of the sediment and erosion controls.			
Air quality	There is potential for air quality to be impacted from minor ground disturbance activities through dust generation, and emissions from plant and equipment. However, with appropriate controls in place it is expected that this impact would be negligible, short-term and can be appropriately managed.	13. Air quality measures shall be implemented consistent with Transport's Air Quality Management Guideline (EMFAQ-GD-0063).	☒	☐	
Soils and contamination	There would be limited local ground disturbance as a result of the Proposal. During construction there is potential for impacts such as erosion of exposed soils and stockpiles and the discovery of contamination. The impacts of erosion would be managed through the control measures outlined in 'Water and Flooding'. While the NSW EPA database searches did not identify any contaminated sites within one (1) kilometre of Austinmer Station, the Proposal site has the potential to contain contaminated materials and/or asbestos-containing materials associated with the historical and ongoing use as a rail corridor. The site is located on Class 5 ASS, therefore ASS is not expected to be encountered during excavations. A HAZMAT Register is presently maintained by Sydney Trains for the Austinmer Station main building. However, the Proposal is located beyond the platforms and away from the Main Building and should not impact or disturb any building materials. Construction of the Proposal would have negligible, short-term impact on soils and contamination and can be appropriately managed.	14. If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA guidelines, including the Consultants Reporting on Contaminated Land guidelines (NSW EPA, 2020). The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure 15. A copy of any contamination report shall be submitted to the TESR for review. The DES shall determine whether consultation with the relevant Council and/or EPA is required prior to continuation of construction within the affected area. Works in the vicinity of any contaminated material shall not re-commence until clearance has been received from the TESR. 16. If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA, Safe Work	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
		Australia and SafeWork NSW guidelines and include the proposed methodology for the remediation of the asbestos contamination. Remediation activities must not take place until receipt of the investigation report. The event must be reported in Transport incident management system as a report only event in accordance with the Transport Environmental Incident Procedure. Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation 17. Any concrete washout shall be established and maintained in accordance with Transport's Concrete Washout Guideline – draft (EMF-EM-GD-0145) with details included in the CEMP and location marked on the ECM unless otherwise agreed with the TESR.			
Noise and vibration	The Proposal site is bounded by low density residential receivers to the north, east and south, vegetated areas to the south west and north east, and a small local centre to the south. The nearest sensitive receiver locations are: • 45 The Grove, Austinmer (residential), located approximately 30m south east of the proposed platform extension works • 2 Kirton Road, Austinmer (residential), located approximately 20m south of the proposed geotechnical investigation works on the south western boundary of the Proposal • 28 Hilldale Walk, Austinmer (residential), located approximately 24m south east of the proposed geotechnical investigation works on the north eastern boundary of the Proposal. • Austinmer Veterinary Hospital, located approximately 50m south of the Proposal • All Saint's Anglican Church, located approximately 110m south east of the Proposal.	18. Noise and vibration measures shall be consistent with Transport's Construction Noise and Vibration Guideline (Public Transport Infrastructure) (EMF-NVGD-0060). 19. In the event that Out of Hours Works (OOHW) are required, further assessment would be undertaken and an OOHW application submitted via the online OOHW application system for approval by Transport prior to OOHW being undertaken. 20. The community would be notified in line with Transport's Construction Noise and Vibration Guideline (Public Transport Infrastructure) (EMF-NV-GD-0060) and the TfNSW Standard Requirements.	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	A simple noise assessment was completed using Transport's tools with adopted background noise levels of 40 dB(A) for day, 35 dB(A) for evening, and 30 dB(A) for night time at Austinmer Station. The noise area category (based on AS 1055.3-1997) is consistent with R1 for rural residences with low traffic noise. The noise assessment predicts elevated noise impacts at the nearest sensitive receiver, as follows: • Daytime & OOHW Period: ~30-35 dBA exceedance above the background noise levels (highly intrusive). • Evening and Night periods: ~40dB(A) above background noise levels (highly intrusive). It is predicted that for the nearest residential receiver the RBLs will not exceed the highly noise affected construction noise management level of >75dBA during standard construction hours. It should also be noted that the assessment has carried out a "worst case" scenario for noise modelling, and noise levels are predicted based on all sources operating simultaneously within the worksite. However, in practice, all activities/plant are very unlikely to be operating at the same time. Noise experienced by nearby receivers is likely to be lower than the noise model predictions. Where possible, it is proposed that the works would be undertaken in standard working hours (7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm Saturday) or daytime hours during possessions (7:00am to 6:00pm) to limit any potential noise impacts. However, works may occur during an out of hours period to provide a safe working environment to staff and ensure the safety of public and/or avoid disruptions to public transport or major roads which cannot be achieved at any time during standard hours. For any works outside standard construction hours, separate Out of Hours Works (OOHW) approval would be sought from Transport. OOHW should not proceed				

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	until the application is approved and after notification to the local community. The Proposal would not involve any vibration intensive activities, and therefore no vibration impacts are expected.				
Aboriginal heritage	An AHIMS search conducted on 21 February 2025 did not identify any known Aboriginal sites or places within the Proposal site or a buffer of 50m. No impact on any potential Aboriginal heritage items is expected as part of the works. Step 1 of Transport's Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI) was completed for the Proposal and identified the Proposal can proceed without further detailed investigation.	21. If previously unidentified or unexpected Aboriginal heritage/archaeological items are uncovered during construction, the procedures contained in Transport's Unexpected Heritage Finds Procedure (EMF-HE-PR0076) would be followed. If human remains are found, work shall cease in the vicinity of the find, the site must be secured and the NSW Police and/or Heritage NSW notified. Where required, approvals for archaeological investigations, which may include an Aboriginal Heritage Impact Permit, would be obtained prior to work recommencing at the location. A discovery of suspected human remains greater than 100 years old is an archaeological case and is not subject to the requirements of NSW Coroners Act 2009. Works in the vicinity of the find shall not recommence until written approval to recommence has been received from the DES. 22. Where required, further archaeological investigations and an Aboriginal Heritage Impact Permit would be obtained prior to works recommencing at the location. 23. If the scope of the Proposal changes, consultation with Transport's Aboriginal Cultural Heritage engagement team shall be undertaken to reassess any potential impacts on Aboriginal cultural heritage.	☒	☐	
Non-Aboriginal heritage	The Proposal was assessed through a Statement of Heritage Impact (SoHI) undertaken by Artefact **(Appendix C)**. The SoHI has concluded: • The proposed works are located within the curtilage of Austinmer Station (SHR 01077, SHI 4801131, LEP 6259) and would cause minor physical and visual impacts to the heritage items overall.	24. A Section 60 Approval must be obtained from Heritage NSW prior to the commencement of construction. Where the approval contains pre-construction conditions, they must be implemented prior to the commencement of construction. 25. All works shall be carried out in a manner assessed in the SoHI, with mitigations in the SoHI **(Appendix C)** are to be implemented. If there are any changes to scope then further assessment and approval may be required.	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	• The proposed works are located within the curtilage of the Austinmer-Moore Street and The Grove HCA, and would cause little to no physical and visual impacts to the heritage item. • The study area has low potential to contain archaeological remains of former platform and railway infrastructure that may reach the threshold of local significance. It is expected that there would be little to no impacts to significant archaeology, and potential archaeological remains would be limited to infrastructure remains of little to no research potential.				
Community and socioeconomic	Due to the nature of Proposal and the location of the site works in the rail corridor, the impact to the community is anticipated to be minor and short-term. Potential noise impacts have been addressed above. There would be no adverse social impacts given the temporary and minor nature of the works.	26. Community members shall be notified of upcoming works as required.	☒	☐	
Traffic and parking	All works are proposed to take place in the rail corridor therefore impacts would be limited to vehicles entering and exiting the laydown and work sites, using the local road network and parking in the vicinity of the station or in the rail corridor. Vehicles would regularly be entering/departing the laydown and work site during all shifts. No lane closures or road changes are anticipated. Traffic control would be employed where required to facilitate plant accessing site. Minor impacts to other road users may include increased travel time due to reduced speed limits around the Proposal site and increased truck and construction machinery movement. Some parking may be utilised during construction periods. Given the short duration of the more intensive construction works (i.e. during possessions) any impact to local traffic and parking are expected to be minor, short-term and	27. Traffic management measures will be included in construction documentation, in consultation with Council where required. 28. Access points and any temporary parking impacts shall be shown on the ECM for the works. 29. For works occurring during normal operation (i.e. not in a possession), works areas shall be demarcated to restrict public access with cones, tape, barricading or similar whilst works are undertaken. 30. Construction vehicles shall park in the rail corridor where possible to reduce the impact to public parking. 31. The community, residents and car park users shall be notified in advance about any changes impacting public car parking, should in-corridor parking not be available. 32. Offsite staging areas will be in low impact areas. If impractical, additional controls shall be identified in the construction documentation and implemented.	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	minimised through the implementation of control measures.				
Waste and resource management	Removal of the existing ramps and part of both platform structures, as well as existing platform fencing and gates would be required as part of the Proposal to facilitate the platform extension. Early and original bricks from the brick platform wall of platform 2 would be salvaged during the demolition for potential reuse or repair works (for example for repair work at Austinmer Station or other stations on the Illawarra line with similar brick work). Other wastes likely to be generated include spoil, concrete, steel and general construction waste. The Proposal is designed in accordance with Transport's Baseline Sustainability Requirements (BSRs) which specifies the following targets for waste diversion which relate to the Proposal: • 100% of usable spoil shall be reused, recycled or repurposed • 90% of inert, non-hazardous waste shall be reused, recycled or repurposed • 100% of clean concrete is reused, recycled or repurposed.	33. Waste that cannot be reused or recycled at appropriately licensed facilities shall be disposed of at a NSW Government licensed waste management facility. 34. All waste generated during construction must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal dockets retained for audit purposes and reporting to Transport.	☒	☐	
Economic	It is not anticipated that local business would experience more than a minor disruption during construction, as the works would occur mostly during scheduled track possessions.	35. Business owners will be notified as required	☒	☐	
Visual and urban design	Construction works would be contained within the rail corridor with temporary fencing, hoarding or barriers erected during works and retained between possessions for public safety and security, and to reduce the visual impact of the works to nearby sensitive visual receivers such as residents. Such changes would have minor visual impact given the scale and temporary nature of the works. During night works,	36. Worksite compounds would be screened with shade cloth (or similar material, where necessary) to minimise visual impacts from key viewing locations. 37. Temporary hoardings, barriers, traffic management and signage would be removed when no longer required. 38. During construction, graffiti would be removed in accordance with Transport's Standard Requirements.	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during construction if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	there is potential for light spill to impact the sensitive receivers on the northern and eastern sides of the corridor.	39. Light spill from the construction area into adjacent visually sensitive properties would be minimised by directing construction lighting into the construction areas and ensuring the site is not over-lit. This includes the sensitive placement and specification of lighting to minimise any potential increase in light pollution.			
Hazard and risk	A search of the NSW Rural Fire Service bushfire prone land mapping tool undertaken on 15/04/2025 (see **Appendix B**) shows that the Proposal is located in the vicinity of a 100m buffer zone for Category 1 vegetation to the north and east, and a 30m buffer zone for Category 2 vegetation to the south west. Regardless of being within the buffer zones from bushfire-prone land, the mitigation measures would be implemented to minimise the risk of the bushfire.	40. Bushfire risk management measures shall be incorporated into site documentation to minimise risk of bushfire from construction activities particularly during high risk days. 41. High risk activities would be undertaken with care or avoided where possible during high risk bushfire weather. 42. Severe weather event mitigation measures shall be incorporated into site documentation, including but not limited to: • checking for Severe Weather Warnings prior to the commencement of works.	☒	☐	
Climate change and sustainability	Construction of the Proposal would result in increased greenhouse gas emissions indirectly, associated with the materials required for construction. Additionally, transport of plant and materials to the site, and the fuel consumption of construction plant and equipment would also contribute greenhouse gases to the atmosphere. Due to the small scale and short duration of the construction works, greenhouse gas emissions are not expected to be significant. The Proposal is designed in accordance with the Transport for NSW Baseline Sustainability Requirements (BSRs). The design has specified materials that meet the BSRs including initiatives such as cement replacement in concrete.	43. Materials selection shall be in accordance with the sustainability initiatives specified within the design	☒	☐	
Cumulative impacts	No cumulative impacts have been identified.	Nil	☒	☐	
Other [such as landuse, shared heritage and geotechnical]	No further impacts have been identified.	Nil	☒	☐	

7.2 Operations

An environmental impact assessment associated with the operation of the Proposal is provided in Table 7-2.

Table 7-2: Operations impact assessment for the proposal

Aspect	Nature and extent of impacts (negative and positive) during operation if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
General	No operational impacts are anticipated. The Proposal is required for safe operation of the Mariyung and are in keeping with standard design of rail infrastructure.	Nil	☒	☐	
Flora and fauna	No operational impacts are anticipated.	Nil	☒	☐	
Water and flooding	No operational impacts are anticipated.	Nil	☒	☐	
Air quality	No operational impacts are anticipated.	Nil	☒	☐	
Soils and contamination	No operational impacts are anticipated.	Nil	☒	☐	
Noise and vibration	No operational impacts are anticipated.	Nil	☒	☐	
Aboriginal heritage	No operational impacts are anticipated.	Nil	☒	☐	
Non-Aboriginal heritage	The Proposal would involve the introduction of platform extensions and associated activities within the heritage curtilage of Austinmer Station. The SoHI identifies that the proposed works at the end of platform 1 are unlikely to affect heritage significant fabric as most of the brick platform wall has been removed during upgrades over the years. However, as platform 2's brick platform wall is still largely intact, the Proposal to remove the brick platform wall beneath the ramp at the end of platform 2 and install a modern concrete platform extension in its place would further alter the fabric and appearance of early and original elements of the station, resulting in minor adverse impacts to the heritage significance of the station.	Nil	☒	☐	

Aspect	Nature and extent of impacts (negative and positive) during operation if control measures implemented	Control measures	Endorsed *(for Rail Development and Delivery E&S use only)*		
			Yes	No	Comments
	The SoHI also identifies that the proposed platform lighting and CCTV upgrades would increase the presence of modern materials at the station. While this would contribute to the sum total of adverse heritage impacts, the proposed platform lighting and CCTV upgrades would be unlikely to have more than little to no adverse impacts on the heritage significance of the station.				
Community and socioeconomic	No operational impacts are anticipated.	Nil	☒	☐	
Traffic and parking	No operational impacts are anticipated.	Nil	☒	☐	
Waste and resource management	No operational impacts are anticipated.	Nil	☒	☐	
Economic	No operational impacts are anticipated.	Nil	☒	☐	
Visual and urban design	The Proposal is designed to minimise the light spill in accordance with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting. The Proposal would involve the introduction of platform extensions and associated activities that would be within an area visible to the public. The extension is in-keeping with the existing rail infrastructure environment and not expected to cause any visual impacts.	Nil	☒	☐	
Hazard and risk	No operational impacts are anticipated.	Nil	☒	☐	
Climate change and sustainability	No operational impacts are anticipated.	Nil	☒	☐	
Cumulative impact	No operational impacts are anticipated.	Nil	☒	☐	
Other [such as landuse, shared heritage and geotechnical]	No operational impacts are anticipated.	Nil	☒	☐	

8. Certification

Considerations	Yes	No
Are you confident that the impacts of the activity are known and understood?	☒	☐
Are you confident that the impacts of the activity can be managed so as not to significantly affect the environment?	☒	☐

I certify (refer to Table 8-1) that to the best of my knowledge this EIA checklist:

- Examines and takes into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the project.
- Takes into account the environmental factors listed in Section 171 of the EP&A Regulation.
- Is accurate in all material respects and does not omit any material information.

Table 8-1: Certification of the proposal

Name	Role	Signature	Date
Redacted	Author	Redacted	18/06/2025
Redacted	Transport Environment and Sustainability Representative	Redacted	18/06/2025
Redacted	Transport Community and Place Representative	Redacted	18/06/2025
Redacted	Transport Project Manager	Redacted	18/06/2025

9. Project approvals

THIS SECTION IS FOR RAIL DEVELOPMENT AND DELIVERY, ENVIRONMENT AND SUSTAINABILITY USE ONLY.

9.1 Planning approvals

Is the project a part of an activity/development which has already been approved under the EP&A Act?

☐ Yes If yes, this assessment cannot be used.

☒ No If no, is the project to be assessed under Part 4 or Division 5.1?

If the project is to be assessed under Division 5.1, has this assessment found that the activity is likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats?

☐ Yes If yes, the project is required to be assessed under Division 5.2.

☒ No If no, with the inclusion of the proposed control measures the project can be appropriately assessed under Division 5.1.

9.2 Environmental approvals

Identify all other approvals required for the project:

- Approval under Section 60 of the NSW *Heritage Act 1977* from Heritage NSW is required

Is further assessment required?

☒ No No further assessment required.

☐ Yes Further assessment required

9.3 Endorsement by Senior Environment & Sustainability Representative

I endorse the assessment of the Proposed Activity as outlined in this Environmental Impact Assessment Checklist.

Name	E&S Manager Position	Signature	Date
Redacted	Senior Manager, Environment & Sustainability	Redacted	19/06/2025

9.4 Decision statement

Under delegation from the Secretary Transport of New South Wales, I certify that I have reviewed and endorsed the contents of this environmental impact assessment checklist, and to the best of my knowledge, it is in accordance with the EP&A Act, the EP&A Regulation and the Guidelines approved under Section 170 of the EP&A Regulation, and the information is neither false nor misleading.

I determine that the proposed activity may be carried out subject to the following conditions of approval.

1. Works are to be undertaken in accordance with the proposed control measures (including any Planning and Environment endorsement comments) identified in the impact assessment tables in this *Environmental impact assessment checklist.*

Name	Role	Signature	Date
Redacted	Project Director	Redacted	19/06/2025

10. Abbreviations

Term	Meaning
AHIMS	Aboriginal Heritage Information Management System
AS	Australian Standard
APAS	Australian Paint Approval Scheme
ASS	Acid Sulfate Soils
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016* (NSW)
CEMP	Construction Environmental Management Plan
CCTV	Closed Circuit Television
DDA	*Disability Discrimination Act 1992* (Cwlth)
DES	TfNSW Director Environment & Sustainability
DPHI	NSW Department of Planning, Housing and Infrastructure (Formerly NSW Department of Planning and Environment (DPE))
DSAPT	*Disability Standards for Accessible Public Transport (2002)*
E&S	Environment and Sustainability, a branch within Safety, Environment and Regulation (SER) of Transport for NSW
ECM	Environmental Control Map
EMS	Environmental Management System
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	Environmental Planning and Assessment Regulation 2021 (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
EPL	Environment Protection Licence
Heritage Act	*Heritage Act 1977* (NSW)
SEPP (Transport and Infrastructure)	*State Environmental Planning Policy (Transport and Infrastructure) 2021* (NSW)
LEP	Local Environmental Plan
LGA	Local Government Area
NML	Noise Management Level
PoEO Act	*Protection of the Environment Operations Act 1997* (NSW)
SEPP	State Environmental Planning Policy
SHI	State Heritage Inventory
TAM	Transport Asset Manager of NSW (formerly TAHE)

11. Definitions

Term	Meaning
Concept design	The concept design is the preliminary design presented in this EIA Checklist, which would be refined by the Contractor (should the Proposal proceed) to a design suitable for construction (subject to Transport for NSW acceptance).
Construction	Includes all work in respect of the Project, other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, or other activities determined by the TfNSW DES to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction compounds (in accordance with this approval), or minor clearing (except where threatened species, populations or ecological communities would be affected, unless otherwise agreed by the DES).
Contractor	The entity appointed by Transport for NSW to undertake the construction of the Proposal. The Contractor is therefore responsible for all work on the proposal, both design and construction.
Determining authority	A Minister or public authority on whose behalf an activity is to be carried out or public authority whose approval is required to carry out an activity (under Division 5.1 of the EP&A Act).
Disability Standards for Accessible Public Transport	The Commonwealth Disability Standards for Accessible Public Transport 2002 (as amended), authorised under the Commonwealth Disability Discrimination Act 1992 (DDA).
Out of hours work	Defined as work undertaken outside standard construction hours (i.e., outside of 7am to 6pm Monday to Friday, 8am to 1pm Saturday and no work on Sundays/public holidays).
Proponent	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act.
The Proposal	The construction and operation of the proposed work.
Sensitive receivers	Land uses which are sensitive to potential noise, air and visual impacts, such as residential dwellings, schools and hospitals.
Transport Environment and Sustainability Representative	Within Rail Development and Delivery Projects this includes: • Environment and Sustainability Officer • Senior Environment and Sustainability Officer • Environment and Sustainability Manager • Senior Manager Environment and Sustainability

Appendix A: Draft Design Plans

FROM SYDNEY

TO COUNTRY

1 LOCATION PLAN
SCALE 1 : 250

LEGEND

- EXISTING PLATFORM
- TO BE REMOVED
- NEW PLATFORM

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

OFFICIAL

FOR REVIEW AND COMMENT

REFERENCES:

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REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
A	SYSTEM DESIGN REVIEW	GC 18/3/25	RW 18/3/25	HN 18/3/25

CO-ORDINATE SYSTEM: ISG66-56.1 GDA2020

HEIGHT DATUM: AHD

SCALE: 1:250

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SCALE 1:250 AT A1

DESIGN LOT CODE:

CLIENT: NSW GOVERNMENT Transport for NSW

PREPARED FOR:
RAIL DELIVERY
INFRASTRUTURE AND PLACE
TRANSPORT FOR NSW

NETWORK COMPLEX CODE: HRC

CCG ARCHITECTS
Transport for TOMORROW
CCG ARCHITECTS Transport ARCHITECTURE

DRAWN	SAYAN SUWANNASILP	18.03.25
DESIGNED	GLENN CAMERON	18.03.25
DRG CHECK	GLENN CAMERON	18.03.25
DESIGN CHECK	ROBERT WILLOUGHBY	18.03.25
DESIGN MNGR	ROBERT WILLOUGHBY	18.03.25
APPROVED	HISHAM NOORI	18.03.25

AUSTINMER
ILLAWARRA LINE - 65.450KM TO 65.750KM
NIF SOUTH COAST LINE CONCEPT DESIGN
ARCHITECTURAL
LOCATION PLAN

DRAWING SET No.24-136 | PART: | SHEET: 1 OF 1 | A1
STATUS: SYSTEM DESIGN REVIEW | BRIDGE No:

DRG No.	REV	VER	EDMS No.	AMD No.
HOCS015-CCG-AUS-AR-DRG-003001	A		TBC	

DF 807954

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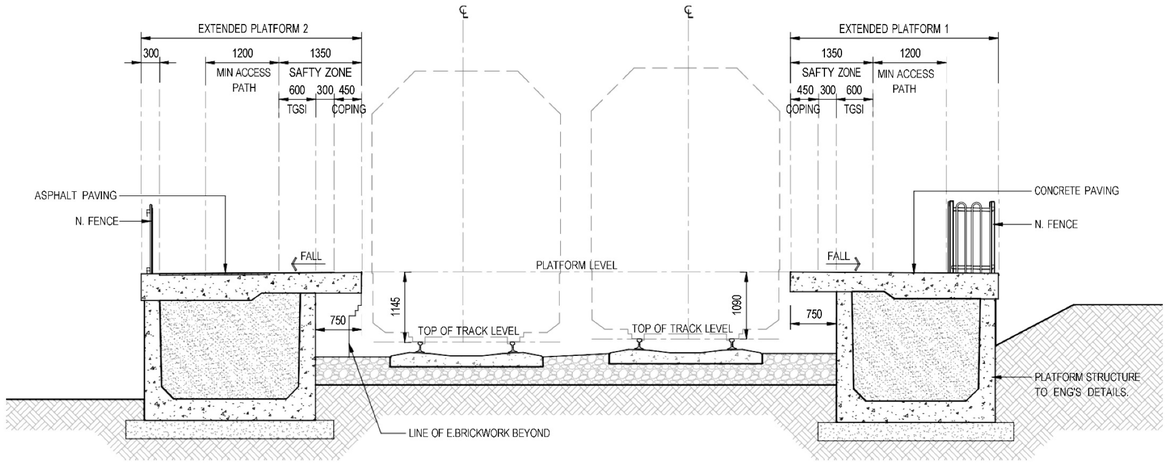

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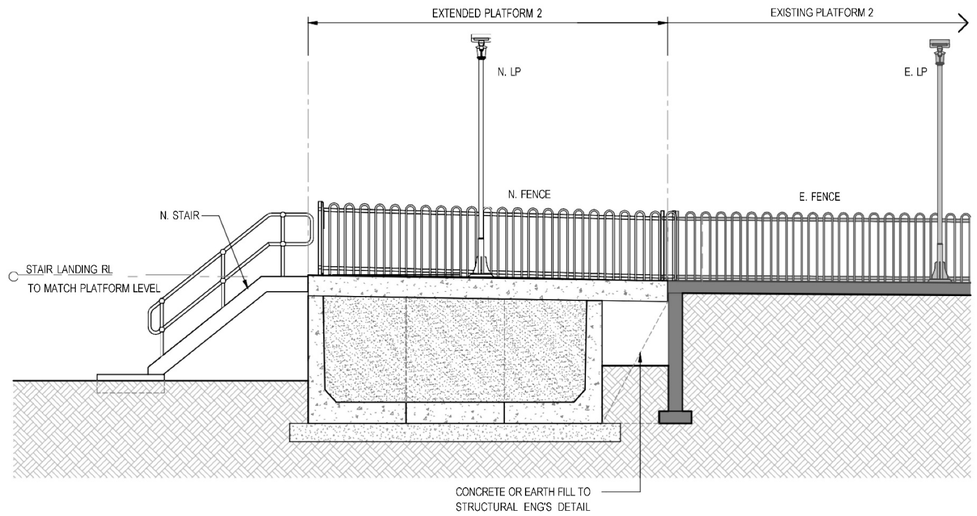
SCALE 1 : 50



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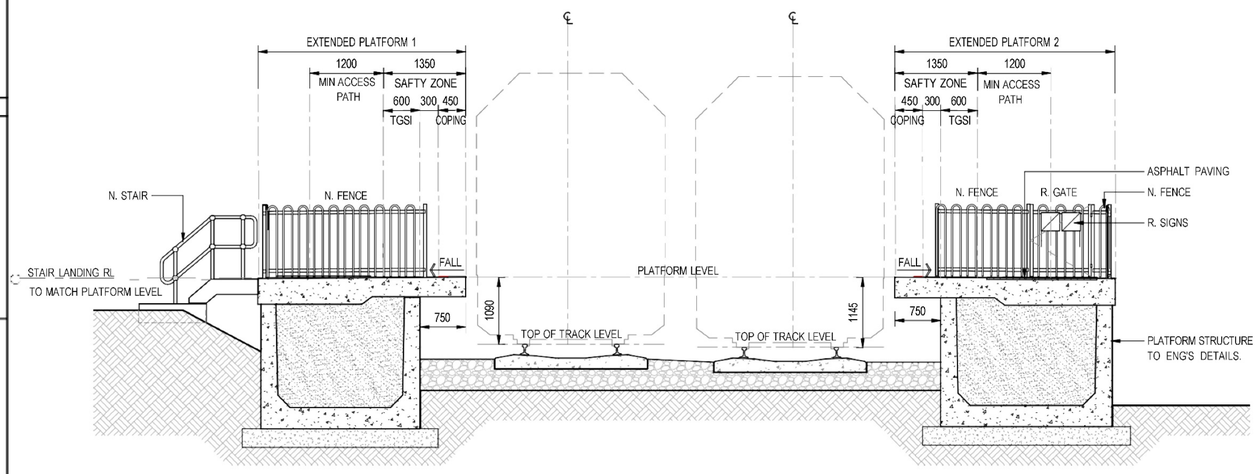
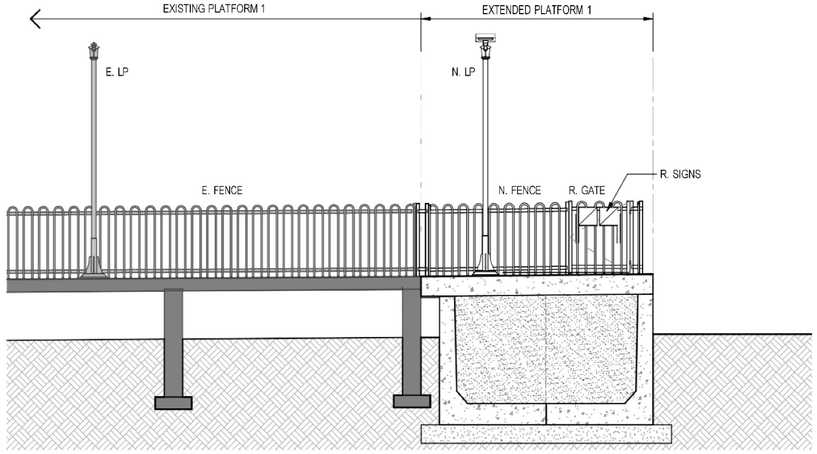


S3 5002 SECTION 3 (TO CITY)
SCALE 1 : 50



S4 5002 SECTION 4
SCALE 1 : 50

NOTES:

1. REFER TO TRACK PACKAGE FOR EXACT POSITIONING OF NEW CARMARKERS.
2. REFER TO STRUCTURAL & DRAWINGS CV0261000-B FOR END STAIR DETAILS.
3. ALL STEEL SHALL BE SOURCED FROM STEELMAKERS WITH COMMITMENTS TO DECARBONISE OR ACHIEVE CARBON NEUTRALITY BY THE YEAR 2050 AT MINIMUM.

LEGEND

EXISTING PLATFORM

E.	EXISTING
N.	NEW
R.	RELOCATED
LP.	LIGHT POLE
TGSI	TACTILE
TME	TO MATCH EXISTING

OFFICIAL

FOR REVIEW AND COMMENT

REFERENCES:

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED.

REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
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CO-ORDINATE SYSTEM: ISG66-56.1 GDA2020 | HEIGHT DATUM: AHD | DESIGN LOT CODE:

SCALE: 1:50
0 1 2 3
SCALE 1:50 AT A1

CLIENT: NSW GOVERNMENT Transport for NSW

PREPARED FOR:
RAIL DELIVERY
INFRASTRUTURE AND PLACE
TRANSPORT FOR NSW

NETWORK COMPLEX CODE: HRC

CCG ARCHITECTS Transport for TOMORROW
CCG ARCHITECTS Transport ARCHITECTURE

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DRG CHECK	GLENN CAMERON	18.03.25
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AUSTINMER
ILLAWARRA LINE - 65.450KM TO 65.750KM
NIF SOUTH COAST LINE CONCEPT DESIGN
ARCHITECTURAL
SECTIONS

DRAWING SET No.24-136 | PART: | SHEET: 1 OF 1 | A1
STATUS: SYSTEM DESIGN REVIEW | BRIDGE No:
DRG No. HOCS015-CCG-AUS-AR-DRG-008001 | REV A | VER | EDMS No. TBC | AMD No.

DF 801554

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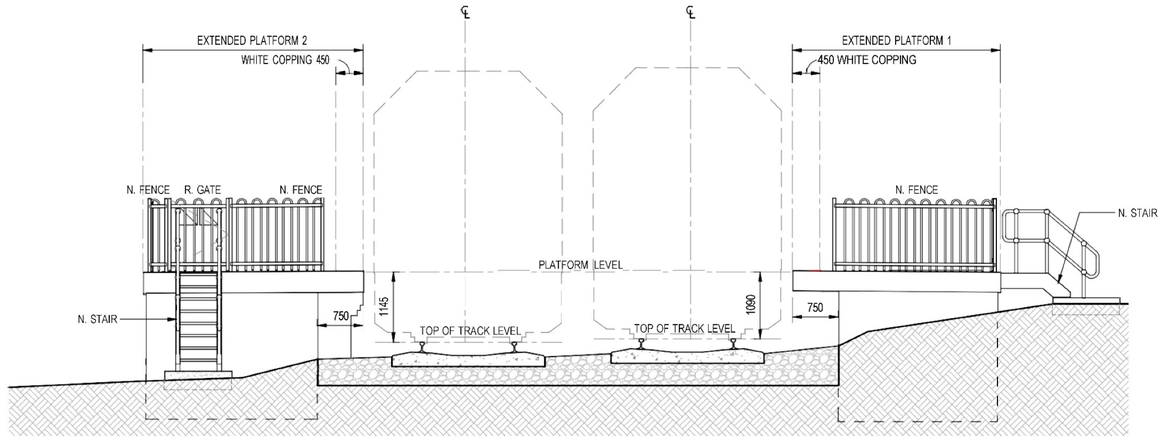
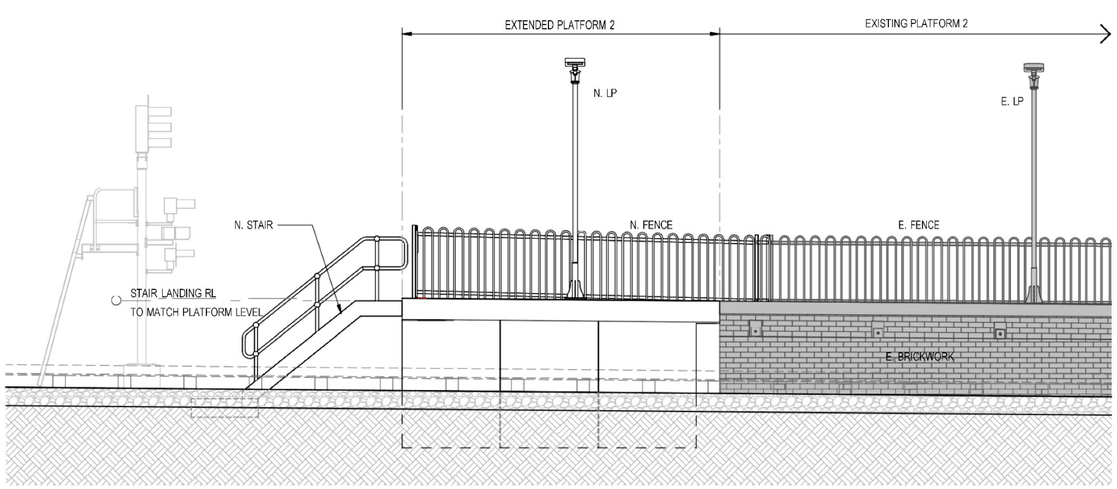
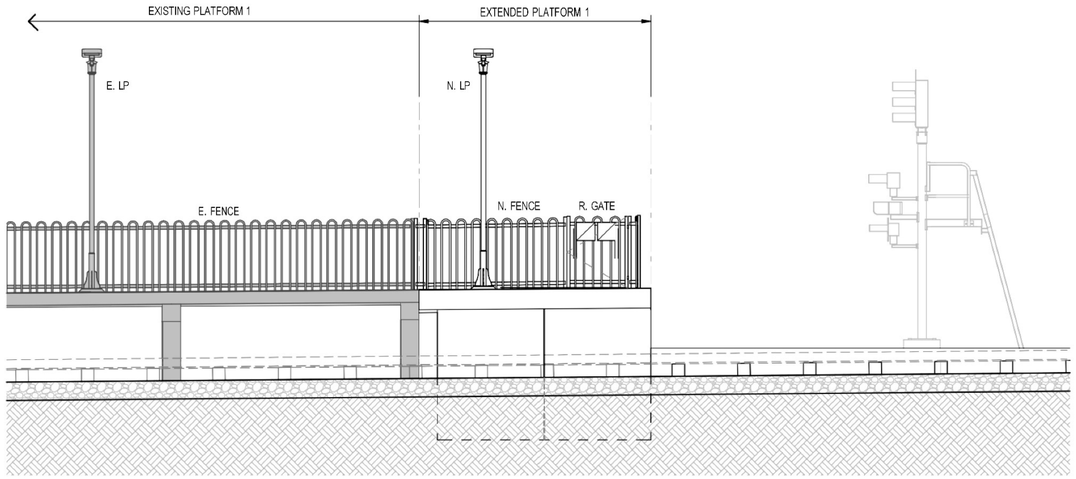
Plot Date & Time 20-Mar-25 4:57:44 PM



E1 5002 **ELEVATION 1**
SCALE 1 : 50



E2 5002 **ELEVATION 2**
SCALE 1 : 50



E3 5002 **ELEVATION 3**
SCALE 1 : 50

LEGEND

	EXISTING PLATFORM
E.	EXISTING
N.	NEW
R.	RELOCATED
LP.	LIGHT POLE
TGSI	TACTILE
TME	TO MATCH EXISTING

NOTES:

1. REFER TO TRACK PACKAGE FOR EXACT POSITIONING OF NEW CARMARKERS.
2. REFER TO STRUCTURAL & DRAWINGS CV0261000-B FOR END STAIR DETAILS.
3. ALL STEEL SHALL BE SOURCED FROM STEELMAKERS WITH COMMITMENTS TO DECARBONISE OR ACHIEVE CARBON NEUTRALITY BY THE YEAR 2050 AT MINIMUM.

OFFICIAL

FOR REVIEW AND COMMENT

REFERENCES:

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED.

REV	DESCRIPTION	DESIGNER INITIAL/DATE	VERIFIED INITIAL/DATE	APPROVED INITIAL/DATE
A	SYSTEM DESIGN REVIEW	GC 18/3/25	RW 18/3/25	HN 18/3/25

CO-ORDINATE SYSTEM: ISG66-56.1 GDA2020

HEIGHT DATUM: AHD

SCALE: 1:50

0 1 2 3
SCALE 1:50 AT A1

DESIGN LOT CODE:

CLIENT:
NSW GOVERNMENT Transport for NSW

PREPARED FOR:
RAIL DELIVERY
INFRASTRUTURE AND PLACE
TRANSPORT FOR NSW

NETWORK COMPLEX CODE: HRC

Transport for TOMORROW CCG ARCHITECTS
CCG ARCHITECTS Transforl ARCHITECTURE

DRAWN	SAYAN SUWANNASILP	18.03.25
DESIGNED	GLENN CAMERON	18.03.25
DRG CHECK	GLENN CAMERON	18.03.25
DESIGN CHECK	ROBERT WILLOUGHBY	18.03.25
DESIGN MNGR	ROBERT WILLOUGHBY	18.03.25
APPROVED	HISHAM NOORI	18.03.25

AUSTINMER
ILLAWARRA LINE - 65.450KM TO 65.750KM
NIF SOUTH COAST LINE CONCEPT DESIGN
ARCHITECTURAL
ELEVATIONS

DRAWING SET No.24-136	PART:	SHEET: 1 OF 1	A1
STATUS: SYSTEM DESIGN REVIEW	BRIDGE No:		
DRG No. HOCS015-CCG-AUS-AR-DRG-008002	REV A	VER	EDMS No. TBC / AMD No.

DF 801554

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Plot Date & Time 20-Mar-25 4:57:46 PM

Appendix B: Background Searches

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 09-May-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	7
Listed Threatened Species:	104
Listed Migratory Species:	54

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	79
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	4
Key Ecological Features (Marine):	None
Biologically Important Areas:	3
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community may occur within area
Coastal Upland Swamps in the Sydney Basin Bioregion	Endangered	Community may occur within area
Illawarra and south coast lowland forest and woodland ecological community	Critically Endangered	Community likely to occur within area
Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Upland Basalt Eucalypt Forests of the Sydney Basin Bioregion	Endangered	Community may occur within area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Endangered	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat may occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area

Scientific Name	Threatened Category	Presence Text
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat known to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area
Sternula albifrons Little Tern [82849]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area
FISH		
Epinephelus daemelii		
Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
Hippocampus whitei		
White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat likely to occur within area
Macquaria australasica		
Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area
Prototroctes maraena		
Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area
Seriolella brama		
Blue Warehou [69374]	Conservation Dependent	Species or species habitat known to occur within area
FROG		
Heleioporus australiacus australiacus		
Giant Burrowing Frog, Eastern Owl Frog [92013]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Litoria aurea		
Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat likely to occur within area
Litoria littlejohni		
Northern Heath Frog, Littlejohn's Tree Frog [64733]	Endangered	Species or species habitat likely to occur within area
Litoria watsoni		
Southern Heath Frog, Watson's Tree Frog [91509]	Endangered	Species or species habitat may occur within area
Mixophyes balbus		
Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat may occur within area
MAMMAL		
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat may occur within area
Chalinolobus dwyeri		
Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland population)		
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area
Eubalaena australis		
Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Isoodon obesulus obesulus		
Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat likely to occur within area
Notamacropus parma		
Parma Wallaby [89289]	Vulnerable	Species or species habitat may occur within area
Petauroides volans		
Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus trisulcatus Long-nosed Potoroo (southern mainland) [86367]	Vulnerable	Species or species habitat likely to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
PLANT		
Acacia bynoeana Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat may occur within area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat may occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat likely to occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area
Daphnandra johnsonii Illawarra Socketwood [67186]	Endangered	Species or species habitat likely to occur within area
Genoplesium baueri Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat may occur within area
Hibbertia acaulothrix [87409]	Endangered	Species or species habitat may occur within area
Leucopogon exolasius Woronora Beard-heath [14251]	Vulnerable	Species or species habitat may occur within area
Melaleuca biconvexa Biconvex Paperbark [5583]	Vulnerable	Species or species habitat may occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area
Persoonia hirsuta Hairy Geebung, Hairy Persoonia [19006]	Endangered	Species or species habitat likely to occur within area
Persoonia nutans Nodding Geebung [18119]	Endangered	Species or species habitat may occur within area
Prasophyllum affine Jervis Bay Leek Orchid, Culburra Leek-orchid, Kinghorn Point Leek-orchid [2210]	Endangered	Species or species habitat may occur within area
Prostanthera densa Villous Mintbush [12233]	Vulnerable	Species or species habitat may occur within area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area
Pultenaea aristata [18062]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Rhizanthella slateri		
Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area
Rhodamnia rubescens		
Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat known to occur within area
Rhodomyrtus psidioides		
Native Guava [19162]	Critically Endangered	Species or species habitat may occur within area
Syzygium paniculatum		
Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe		
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
Xerochrysum palustre		
Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
REPTILE		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Hoplocephalus bungaroides		
Broad-headed Snake [1182]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
SHARK		
Carcharias taurus (east coast population)		
Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Sphyrna lewini		
Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat likely to occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes		
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea		
Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area
Calonectris leucomelas		
Streaked Shearwater [1077]		Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis		
Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora		
Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans		
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi		
Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
Fregata ariel		
Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Macronectes giganteus		
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli		
Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Phaethon lepturus		
White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phoebetria fusca		
Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Sternula albifrons		
Little Tern [82849]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri		
Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Migratory Marine Species		
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharias taurus Grey Nurse Shark [64469]		Foraging, feeding or related behaviour likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Limosa lapponica Bar-tailed Godwit [844]	Vulnerable	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area
Sterna striata White-fronted Tern [799]		Foraging, feeding or related behaviour likely to occur within area
Sternula albifrons as Sterna albifrons Little Tern [82849]	Vulnerable	Species or species habitat may occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Thalassarche bulleri platei as Thalassarche sp. nov.		
Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area
Thalassarche carteri		
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta		
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area
Fish		
Acentronura tentaculata		
Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Festucalex cinctus Girdled Pipefish [66214]		Species or species habitat may occur within area
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat likely to occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse [66275]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Solenostomus paradoxus Ornate Ghostpipefish, Harlequin Ghost Pipefish, Ornate Ghost Pipefish [66184]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Mammal		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Reptile		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Whales and Other Cetaceans		[Resource Information]
Current Scientific Name	Status	Type of Presence
Mammal		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area

Current Scientific Name	Status	Type of Presence
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat likely to occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves		[Resource Information]
Protected Area Name	Reserve Type	State
Illawarra Escarpment	State Conservation Area	NSW

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed
Not controlled action (particular manner)			
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval

Title of referral	Reference	Referral Outcome	Assessment Status
Referral decision			
Breeding program for Grey Nurse Sharks	2007/3245	Referral Decision	Completed

Biologically Important Areas [Resource Information]

Scientific Name	Behaviour	Presence
Dolphins		
Tursiops aduncus		
Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur
Sharks		
Carcharias taurus		
Grey Nurse Shark [64469]	Foraging	Likely to occur
Whales		
Megaptera novaeangliae		
Humpback Whale [38]	Migration (north and south)	Known to occur

Bioregional Assessments [Resource Information]

SubRegion	BioRegion	Website
Sydney	Sydney Basin	BA website

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

Department of Climate Change, Energy, the Environment and Water GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

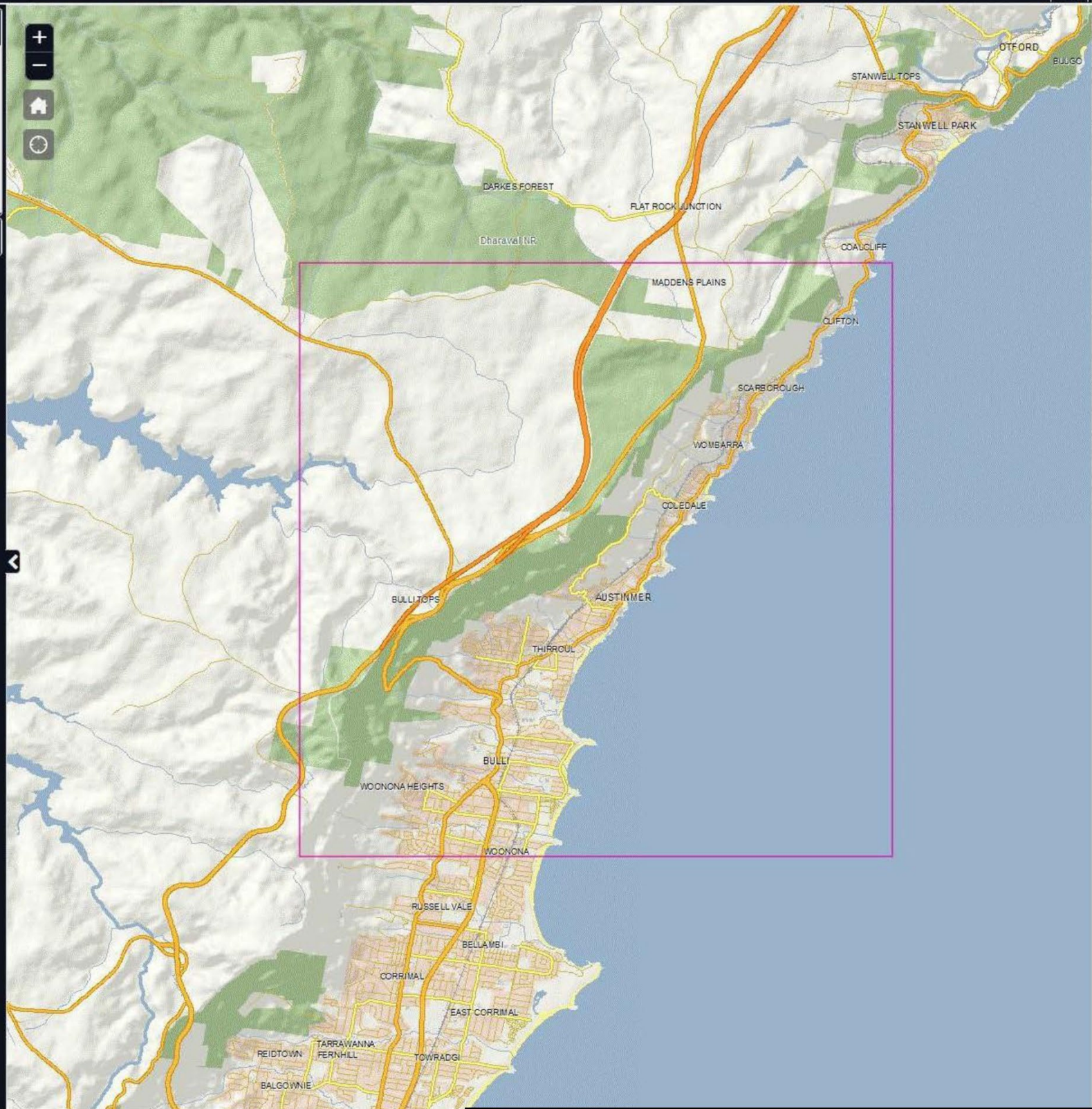
Layers

8 g Species records mapped as held

8 g Category 3 sensttive spp. o.01·c~1km) rounded

8 g Category 2 sensttive spp.0.1°(-10km) rounded

Print



® How to use the SEEDmap

Layers Legend

SVTM NSW Extant PCT

Plant Community Type With Labels

[Wet Sclerophyll Forests (Shrubby sub-formation)) Lower North Brown Myrlie Wet **Forest**

(Grassy Woodlands) **Northwest** Yellow Box Grassy Woodland

(Grassy Woodlands) Northwest Slopes Box-Blakelys Red GumWoodland

(Freshwater Wetlands) Northern Sands Machaenna-Eleochans Sedgeland

(Freshwater Wetlands) Northern Sands Balosk,on-Machaerina Wetland

(Freshwater Wetlands) Coast Sands Jomted Twig-rush Sedgeland

(Forested Wetlands) Coastal Valleys **Ripanan Forest**

(Forested Wetlands) Central Hunter **Riparian Forest**

(Dry Sclerophyll Forests (Shrubby sub-formation)) Monaro Ranges Exposed Shrub **Forest**

(Alpine Complex) Alpme Short Herbfield

(Alpine Complex) Alpme Snowpatch Fetdmark

(Alpine Complex) Alpine Snowpatch **Grassland**

(Alpine Complex) Alpme Snowpatch Herbfield

(Alpine Complex) Alpine Windswept Fetdmark

(Alpine Complex) Alpme andsub-alpine peatlands. damp herbfields and fens. **South Eastern Highlands Bioreg1on and Austrahan Alps 81oreg1on**

(Alpine Complex) Kosc1uszko Alpine Wet Heath

(Alpine Complex) Kosciuszko Frost Hollow **Grassland**

(Alpine Complex) Kosc1uszko Frost Hollow Grassy Open Heath

(Alpine Complex) Kosciuszko High Peaks Alpine Grassland

(Alpine Complex) Kosc1uszko High Plateau Grassy Open Heath

Q. Search for address, lot or location/POI..

PCT: 3153

PCT: 3155

PCT: 0

PCT: 3546

Basemap

Draw/ Measure

Tools

Save Map

Scale 864

20 m

Projected Coordinates (X/Y)

X: 16801511.39
Y: -4070033.22

Contact Us

AHIMS Web Services (AWS)

Search Result

Your Ref/PO Number : Austinmer
Client Service ID : 977538

Laing O'Rourke Australia Construction Pty Ltd

Date: 21 February 2025

Locked Bag 1008
Pymble New South Wales 2073
Attention: Redacted
Email: Redacted

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 1, DP:DP1149493, Section : - with a Buffer of 50 meters, conducted by Alan Karton on 21 February 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

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Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

ie ILLAWARRA ESCARPMENT Colluvial

Landscape—steep to very steep slopes on Quaternary talus. Local relief is 100–300 m; slope gradients 20–50%. Large landslips are very common. Mostly uncleared tall open-forest (wet sclerophyll forest) and closed-forest (rainforest).

Soils—deep colluvial soils Red Podzolic Soils (Dr3.21) and Brown Podzolic Soils (Dr4.21) occur on mid-slopes. Siliceous Sands (Uc4.21) occur along drainage lines. Lithosols (Uc5.11) occur where the talus is recent.

Limitations—mass movement and rock fall hazard. Steep slopes and extreme erosion hazard. Reactive, low wet bearing strength subsoils. Low to moderate soil fertility.

LOCATION

Along the Illawarra Escarpment from Stanwell Park to Bong Bong Pass.

LANDSCAPE

Geology

Quaternary talus—blocks of sandstone, deep colluvial detritus and soil materials. [The talus appears to be more widespread than mapped by Geological Survey (1974)].

Topography

Debris mantle covering the upper slopes and benches of the Illawarra Escarpment. Step to very steep slopes, gradients 20–50%. Local relief is 100–300 m. This soil landscape includes the cliffs of the escarpment. Large landslips are a very common feature. Below the escarpment bedrock outcrop is absent. Large surface and sub-surface sandstone boulders 2–25 m across are commonplace. Stream lines are unidirectional.

Vegetation

Mostly uncleared tall open-forest (wet sclerophyll forest) and closed-forest (rainforest). Tall open forest is dominated by blackbutt and includes lilly pilly, sandpaper fig, moreton bay fig, small-leaved fig, Port Jackson fig, deciduous fig, coachwood and red cedar.

Rainforest of the escarpment includes grey myrtle, brush bloodwood, whitewood and cabbage tree palm. Fuller (1980) has studied the vegetation of the escarpment.

Landuse

Undisturbed forest and State Recreation Areas occur—e.g., at Mount Kembla. A number of coalmine entrances are located in this soil landscape, and the urban fringes of Mount Ousley, Woronora Heights, Coledale and Thirroul extend onto its foot slopes.

Existing erosion

Indications of mass movement, including major slumping and landslips, are commonplace. Minor gully erosion (up to 50 cm) and sheet erosion are obvious after severe rain.

SOILS

Dominant Soil Materials

ie1—Loose dark brown sand. Loose sand to occasionally weakly pedal loam with a sandy fabric and rough-faced peds. This material occurs as topsoil.

Peds are polyhedral to crumb and range from <20–50 mm. Colour varies from dark brown (10YR 3/3) to brownish black (7.5YR 3/1) to brownish grey (7.5YR 4/1). The pH ranges from moderately acid (pH 5.5) to slightly acid (pH 6.5). Sandstone fragments varying from 2–200 mm are very common. Roots are common.

ie2—Moderately pedal sandy clay loam. Moderately pedal sandy clay loam to fine sandy loam with polyhedral to angular blocky rough-faced peds. This material occurs as subsoil.

Colour varies from dull yellowish brown (10YR 4/3) to brown (7.5YR 4/3) to reddish brown (5YR 4/8). The pH ranges from strongly acid (pH 4.5) to moderately acid (pH 5.5). Sandstone fragments and boulders are abundant.

ie3—Moderately pedal sandy clay. Moderately pedal sandy clay to heavy clay with polyhedral to sub-angular blocky rough-faced peds. This material occurs as subsoil.

Colour varies from dark reddish brown (2.5YR 3/6) to reddish brown (5YR 4/6) to dark brown (7.5YR 4/6). This material is often mottled (red, white or orange). The pH ranges from strongly acid (pH 4.5) to neutral (pH 7.0). Sandstone fragments and boulders are abundant.

Occurrence and Relationships

The depth of talus material varies but is usually >2 m.

Recently deposited talus. Up to 50 cm of stony sand (**ie1**) [Lithosols (Uc5.11)] occurs directly below cliffs.

Mid-slopes. Up to 20 cm of brown sand (**ie1**) usually overlies 80 cm of moderately pedal clay loam (**ie2**) which in turn overlies up to 100 cm of occasionally mottled pedal clay (**ie3**) [Red Podzolic Soils (Dr3.21) and Brown Podzolic Soils (Db4.21)].

Drainage lines. Up to 100 cm (**ie1**) (Siliceous Sands (Uc4.21) occurs.

LIMITATIONS TO DEVELOPMENT

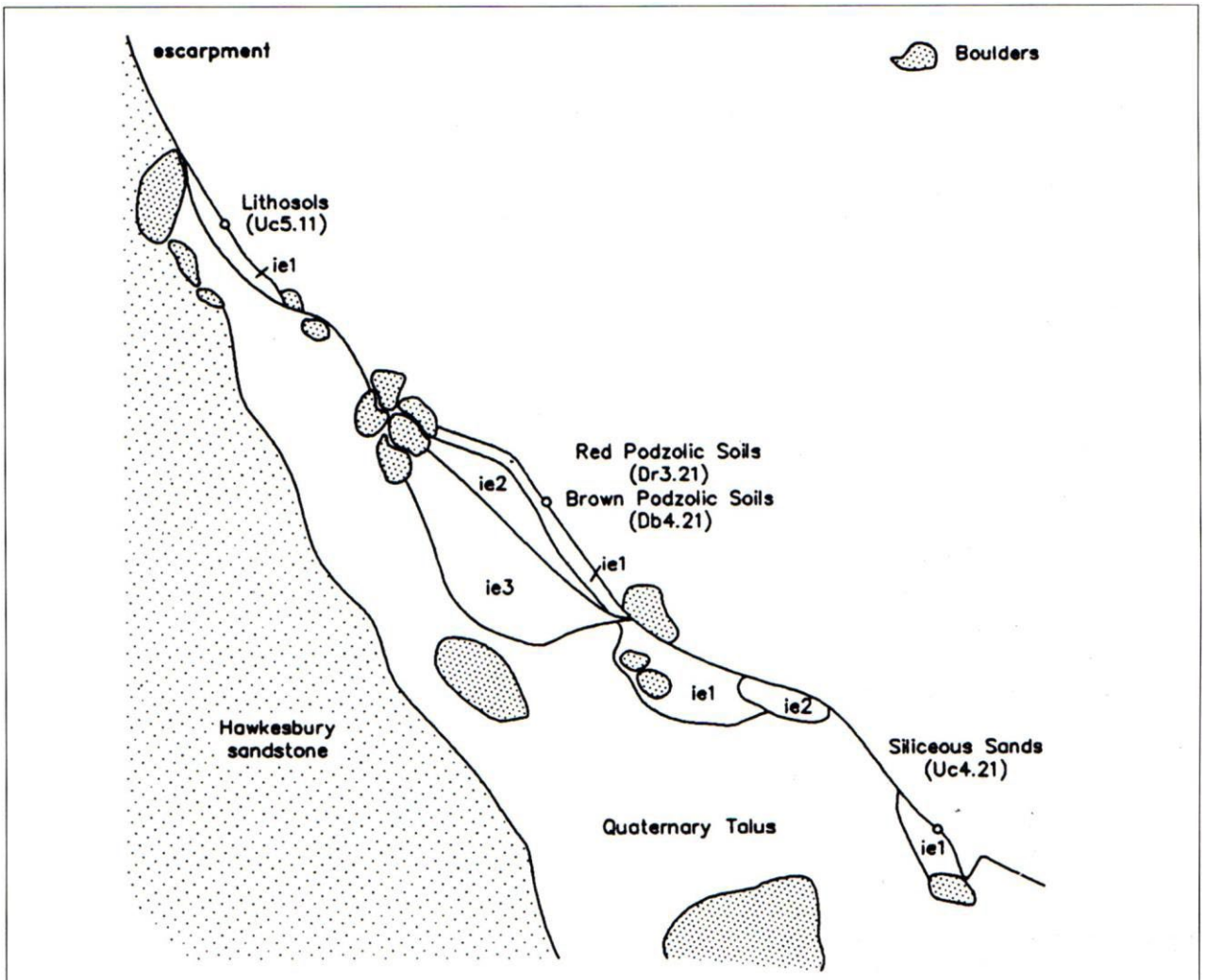
Soil Limitations

ie1 High permeability

Low available water-holding capacity
Stoniness
Low to medium plasticity

ie2 High permeability
Low available water-holding capacity
Stoniness
Low to medium plasticity

ie3 Low permeability
Low available water-holding capacity
Stoniness
Low to medium plasticity



■ *Schematic cross-section of Illawarra Escarpment soil landscape illustrating the occurrence and relationship of the dominant soil materials.*

Fertility

Fertility of individual soil materials is low. General soil fertility is moderate. Soils are acid, have moderate CEC and low to moderate nutrient status with low to moderate available water-holding

capacities. Although stony the soils are generally very deep and well structured, allowing large soil volumes available for roots.

Erodibility

ie1 has low erodibility as it consists of highly permeable coarse sand grains. The other soil materials (**ie2**, **ie3**) are moderately erodible.

Erosion Hazard

The erosion hazard for this soil landscape for non-concentrated flows is extreme. Calculated approximate soil loss during the first 12 months of urban development ranges up to 1 415 t/ha for topsoil and 1 230 t/ha for exposed subsoil. Soil erosion hazard for concentrated flows is high to extreme.

Surface Movement Potential

Sandy soils are stable. **ie3** is moderately reactive. Potential movements may be set off by poor drainage. Special foundation designs may be required in areas of mass movement hazard.

Landscape Limitations

Steep slopes
Mass movement
Extreme rock fall hazard
Extreme erosion hazard
Moderately reactive soils

Urban Capability

Generally not capable of urban development.

Rural Capability

Not capable of being cultivated or grazed.

gw	GWYNNEVILLE	Residual

Landscape—footslopes of the Illawarra Escarpment and isolated rises of the Wollongong Plain. Local relief 10–70 m; slopes 3–25%. Broad to moderately (250–850 m) rounded ridges and gently to steeply inclined slopes. Structural benches and occasional rock outcrop. Extensively cleared tall open orest and open forest.

Soils—shallow (50–100 cm) Brown Podzolic Soils (Db1.11, Db3.11) and Xanthozems (Gn4.34) on upper slopes, Lithosols (Um1.43, Uc1.23) on simple slopes and shallow (<50 cm) Brown Earths (Uf6.13) on midslopes and lower slopes**.**

Limitations—extreme erosion hazard, steep slopes, mass movement hazard, local flooding. Reactive subsoils and impermeable, low wet bearing strength clay subsoils.

LOCATION

Wollongong Plain between Austinmere and Dapto and the lower portion of the Illawarra Escarpment between Coledale and Bong Bong Pass.

LANDSCAPE

Geology

Illawarra Coal Measures—resistant interbedded quartz lithic sandstone, grey siltstone and claystone, carbonaceous claystone, clay and laminite.

Topography

Undulating to steep hills (local relief 10–70 m, slope gradients 3–25%). Landform elements include broad to moderate ridges (250–800 m), steeply inclined to moderately inclined foot slopes, and isolated rises on the coastal plain. This soil landscape is characterised by localised structural benches up to 80 m wide, localised bedrock outcrops and deep colluvial deposits.

Vegetation

In residential areas, the original tall open-forest (wet sclerophyll forest) and open-forest (dry sclerophyll forest) have been extensively cleared. Remaining species include bangalay, blackbutt, grey ironbark, swamp mahogany, forest red gum, spotted gum (Corrimal only), two-veined hickory and black wattle.

Landuse

Landuse is predominantly urban residential. Developed suburbs include Gwynneville, Bellambi, Dapto, Bulli, Figtree and Woonona Heights. Dairy production occurs on improved pastures, and stands of native timber are found in the vicinity of Mount Kembla.

Existing Erosion

Evidence of widespread previous mass movement includes isolated collapsed batters and indications of previous slumps and landslides. Localised moderate gully and sheet erosion occur near Dapto.

SOILS

Dominant Soil Materials

gw1—Friable brown sandy loam. Moderately pedal sandy loam to loam with rough-faced peds. This material usually occurs as topsoil.

Organic matter content is high. Peds range from 2–10 mm and are crumb to polyhedral. Colour varies from brownish black (10YR 3/2) to dull yellowish brown (10YR 5/3). The pH is slightly acid (pH 6.5). Sandstone fragments and gravels are common to abundant (10–90%) and range from 2–600 mm.

gw2—Friable sandy clay loam. Moderately pedal sandy clay loam with rough-faced peds. This material occurs as either topsoil or subsoil.

Peds range from 2–10 mm and are crumb to polyhedral. Colour varies from brownish black (10YR 3/2) to dull yellowish brown (10YR 5/3). The pH is slightly acid (pH 6.5). Sandstone fragments and gravels are common to abundant (10–90%) and range from 2–600 mm.

gw3—Brown pedal clay. Moderately pedal, light to heavy clay with rough-faced peds. This material occurs as subsoil.

Texture increases from light to heavy clay with depth. Peds are small, 5–20 mm, and are polyhedral or blocky. Colour varies from brown (7.5YR 4/6) to dull yellowish brown (10YR 5/4). Occasional orange mottles occur at depth. The pH ranges from moderately acid (pH 5.0) to slightly acid (pH 6.5). Gravel and rocks vary from rare to common. Roots are absent.

Occurrence and Relationships

Soil material distribution is variable throughout this landscape, reflecting previous mass movement.

Ridges. 10–30 cm of friable brown loam (**gw1**) overlies bedrock [Lithosols (Um1.43, Uc1.23)]. Depth is <50 cm.

Upper slopes and mid slopes. 10–30 cm of friable brown loam (**gw1**) overlies up to 100 cm brown pedal clay (**gw3**) [Brown Podzolic Soils (Db3.11) and Xanthozems (Gn4.34)]. Boundaries between soil materials are clear to gradual. Depth is >150 cm.

Lower slopes and localised positions on mid slopes. 20–50 cm of brown pedal clay (**gw2**) overlies either **gw3** or bedrock [Xanthozems (Gn4.34), Brown Earths (Uf6.13)]. Boundaries are gradual. Depth is <60 cm.

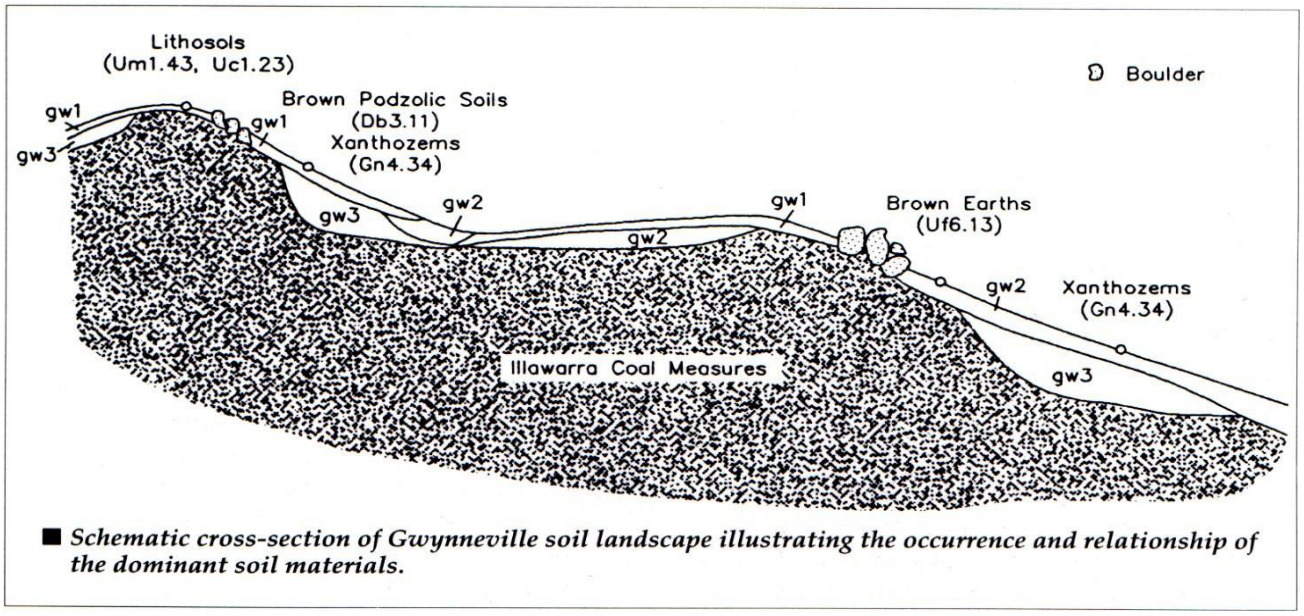
LIMITATIONS TO DEVELOPMENT

Soil Limitations

gw1 High permeability
Low available water-holding capacity
Stoniness (localised)

gw2 High permeability
Stoniness

gw3 Low permeability
Stoniness (localised)



■ *Schematic cross-section of Gwynneville soil landscape illustrating the occurrence and relationship of the dominant soil materials.*

Fertility

Fertility of **gw1** and **gw2** is moderate. Nutrient status and storage potential are high. **gw3** has low permeability and low fertility. Soils are shallow and have poor root penetration at depth. General fertility is moderate.

Erodibility

Soil erodibility is moderate. Soils are finely graded with coherent structures and moderately graded peds.

Erosion hazard

The erosion hazard for this soil landscape for non-concentrated flows is extreme. Calculated approximate soil loss during the first 12 months of urban development ranges up to 560 t/ha for topsoil and 500 t/ha for exposed subsoil. Soil erosion hazard for concentrated flows is moderate.

Surface Movement Potential

The soil materials vary from stable to slightly reactive.

Landscape Limitations

Steep slopes
Mass movement hazard
Rock fall hazard (localised)
Erosion hazard

Urban Capability

Low to moderate capability for urban development. Localised steep areas not capable of development.

Rural Capability

Generally capable of sustaining grazing but not capable of regular cultivation.

+ POEO Public Register

- Contaminated land record of notices

About the record ofnotices

List of notified sites

Tips for searching

Disdaimer

Dangerous goods licences

Pesticide licences

Radiation licences

Search results

Your search for: Suburb:AUSTINMER

Search Again Refine Search

did not find any records in our database.

If a site does not appear onthe record ttmay still be affected by contamination. For example:

- Contamination may bepresent but thesite hasnot beenregulated by the EPA underthe Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.

  The_EPAmay bereg_ulatmg contamination at the site through a licence or notice under the Protection of the Environment OperattonsAct 1997 (POEOAct).

  Contamination at the site may be being managed under the P.lanning_11rocess.

Search TIP

o search for **a** specific

ite, search by LGA(local overnment area) and carefully review allsites listed

... more search li

More information about particular sttes maybe available from:

- The POEO QUblic register
- The appropriate planning authority: for example, ona planning certificate issued by the local council under section 149 of the Environmental Planning andAssessment Act.

See Whars in the record andWhat's not in the record.

If you want to Know whether a specific stte has been the subject of noticesissued by theEPAunder the CLMAct, wesuggest that you search byLocal Government Area only andcarefully review thesttes that arelisted.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulatedunder the Environmentally Hazardous Chemicals Act 1985. Your inquiryusing the above search criteria has not matchedany record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPAbut not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA Further information about particular sites may be available from theappropriate planning authority, for example, on a planning certificate issuedby the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPAmay be regulating contamination at thestte through a licence under IIle Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO publicregister@

15April 2025

Appendix C: Statement of Heritage Impact

23 April 2025
Alan Karton
Senior Environmental Advisor
Transport for Tomorrow
Email: akarton@transfort.com.au

Dear Alan,

Re: Rail Infrastructure Upgrades Project: Austinmer Station, Statement of Heritage Impact

Project background

Transport for NSW is undertaking works at multiple railway stations as part of the Rail Infrastructure Upgrades project. The Mariyung component of the Rail Infrastructure Upgrades project consists of delivering a new, state-of-the-art fleet of intercity trains called the Mariyung (NSW Trains D Sets). To accommodate the new Mariyung fleet, Transport for NSW needs to modify some existing rail infrastructure at various locations across the rail network to support the changes to the operating model, including the modification of some platforms. The upgrades to the intercity line stations will enable the safe operation of the Mariyung trains.

Artefact Heritage and Environment (Artefact) have been engaged by Transport for Tomorrow (TfT), on behalf of Transport for NSW, to prepare a Statement of Heritage Impact (SoHI) to review the proposed ramp demolition, and temporary and permanent platform extension works at Austinmer Railway Station Group (Austinmer Station). Austinmer Station is a heritage item of State significance listed on the State Heritage Register (SHR), Transport Asset Manager of NSW (TAM) Section 170 Heritage and Conservation Register (TAM s170 Register), and Wollongong Local Environmental Plan 2009 (LEP).

The aim of this report is to identify the potential impacts that the proposed upgrade works would have on heritage assets at Austinmer Station. The report also provides advice on appropriate heritage approval pathways and provides management recommendations for mitigating the heritage impacts.

Study area

The study area assessed in this report primarily consists of the city (northern) ends of Platform 1 and Platform 2 Austinmer Station. Austinmer Station occupies Lot 1 DP 1149493. It is bounded to the west by Railway Avenue and by Hilldale Walk to the east. It is bounded to the north by Railway Ave, to the south by Gilchrist St, and to the southwest by Kirton Rd. It is situated within the village of Austinmer, in the Wollongong Local Government Area (LGA), and the parish of Southend, county of Cumberland.

The location of the study area is shown in Figure 1.

Figure 1: Location of the study area

Methodology

This report has been prepared in consideration of relevant state and federal heritage legislation, including the following:

- *Environmental Protection and Biodiversity Conservation Act 1999*
- NSW *Heritage Act 1977* (Heritage Act)
- NSW *Environmental Planning and Assessment Act 1979*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

This report has been informed by, and has been prepared in accordance with, relevant heritage guidelines and standards including:

- *Assessing heritage significance: Guidelines for assessing places and objects against the Heritage Council of NSW criteria* (Department of Planning and Environment, 2023)
- *Guidelines for preparing a statement of heritage impact* (Department of Planning and Environment, 2023)
- *Material Threshold Policy* (Department of Planning and Environment, 2022)
- *Investigating Heritage Significance Guidelines* (NSW Government, 2021)
- *Levels of Heritage Significance* (NSW Heritage Office, 2008)
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Department of Planning, 2009)
- *The Burra Charter*: The Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS 2013).

Proposed works

The proposed works at Austinmer Station would primarily consist of the demolition of the existing ramp at the city (northern) ends of Platform 2, followed by the installation of permanent extension structures at the ends of both Platforms 1 and 2. Lighting upgrades and CCTV upgrades are also proposed. The works would feature the following:

- Demolition of the existing ramps and part of the platform structures at the northern (city) ends of platforms 1 and 2 (Figure 3)
    - Following demolition of the end of Platform 2 stainless steel anchors would be inserted into the remaining brickwork to stabilise the end of the platform retaining wall
    - Early and original bricks would be salvaged during the demolition for potential reuse or repair works
- Installation of temporary and permanent platform extension structures at the northern (city) ends of Platforms 1 and 2, including new stairways on both platforms (Figure 4 to Figure 12)
    - The Platform 1 permanent extension would consist of a concrete culvert platform measuring about 3.8m long and 3.4m wide, with stair access installed on the west side
    - The Platform 2 permanent extension would consist of a concrete culvert platform measuring about 5.8m long and 3.6m wide, with stair access installed on the north side
    - The temporary works following demolition would serve as platform fill retaining walls to ensure that the stability of the platform is maintained, and temporary stairs would maintain access to the rail corridor

  - The temporary retaining structure would include the installation of approximately 6m deep sheet piles with an in-situ concrete wall with anchor rods approximately 0.5m deep
  - It is anticipated that temporary platform works would be present for about eight (8) weeks between completion of the demolition and permanent construction scope
  - The construction of the platform extensions would require excavations to a depth of about 1.6m
- Removal of existing fences and installation of new end of platform and extension fencing in loop top design at the northern (city) ends of Platforms 1 and 2 to match existing fencing at the station
- Removal of existing gates and installation of new gates on Platforms 1 and 2
- Installation of finishing works including car markers, Tactile Ground Surface Indicators (TGSIs), coping edge, and wearing surfaces on the platform extensions
- Lighting upgrades on Platforms 1 and 2, including trenching for combined services routes (CSR) and associated above ground pipework (Figure 14)
- The installation of a new signal pit adjacent to the west side of Platform 1, and the installation of new and modification and/or relocation of existing signal infrastructure and associated routes (Figure 12)Installation of a new concrete path at ground level adjacent to the city end of Platform 1 to provide access to signal infrastructure
- New CCTV camera installation on Platforms 1 and 2. Two options are being considered for the installation of new CCTV cameras:
  - Option 1 (preferred option): Proposed to be attached to the platform building canopies in the same location as existing CCTV cameras, and would be attached to existing camera mounts using new brackets. Where possible existing conduit routes would be used, but if these are not suitable then the installation of new above ground conduits or upgrades to existing conduit routes may be required. This is the preferred option for providing CCTV camera coverage (Figure 13)
    - Where possible, new/upgraded conduits attached to the platform buildings would use existing penetrations or would be fixed into mortar between bricks if new penetrations are required. New penetrations into brickwork would be a last resort
    - For Platform 1, the new CCTV camera on the platform building would connect to an existing surface conduit route that would be reused or upgraded. This would limit the amount of trenching required in the platform
  - Option 2 (alternative option): If the preferred option is not suitable, a new CCTV pole with attached camera would be installed on Platforms 1 and 2 between the platform buildings and the city ends of the platforms
- Establishment of temporary work areas including compounds, crane pads, and laydown and stockpiling areas:
  - The temporary compounds would generally be limited to a site caravan or small site sheds and associated generator and portaloos

  - The temporary work areas would be limited to cleared ground, would not be situated on or abutting any heritage structures, and would be returned to their original state upon completion of works
  - Shallow excavations may be required for the establishment of crane pads, while the other areas typically would involve no ground disturbance
  - Minor tree branch trimming may be required for plant access, but no trees would be wholly removed
  - It is estimated that temporary compounds may be present for up to 15 weeks
- Geotechnical investigations, including non-destructive digging (NDD) service investigations in the vicinity of the platform extension footprint and in the rail corridor to identify known and unknown utilities prior to construction. NDD investigations would consist of a combination of potholes and slit trenches using a hydro vacuum truck to a depth of about 1-5-2m.

It is noted that minor adjustments may need to be made to the scope of works on site to respond to localised or unexpected constraints during construction. Possible changes may include, but would not be limited to, the following:

- Relocation of geotechnical and NDD investigation locations and/or conduit/CSR alignments up to about 5m to respond to unexpected finds, services, or construction limitations
- Minor adjustments to the final positions of new platform fence installations and service infrastructure
- Minor and localised adjustments to construction methods and final installations to ensure adherence to design and safety standards
- Alternative positioning of CCTV cameras if the preferred options are not suitable
- New fixings into brickwork if existing penetrations or new penetrations into mortar are not suitable
- Additional temporary work areas.

It is expected that any minor adjustments would be in keeping with the approved and proposed works, would primarily be limited to similar fabric as initially proposed, or would not increase the overall level of heritage impact above what has been approved. The consistency of minor adjustments would be reviewed by suitably qualified Heritage Specialists in consultation with Transport for NSW Heritage Specialists.

Extracts of the design plans for the proposed works at Austinmer Station are shown in Figure 3 through Figure 14.

Figure 2: General Arrangement Plan of the proposed works (Source: Transport for Tomorrow, 2025)

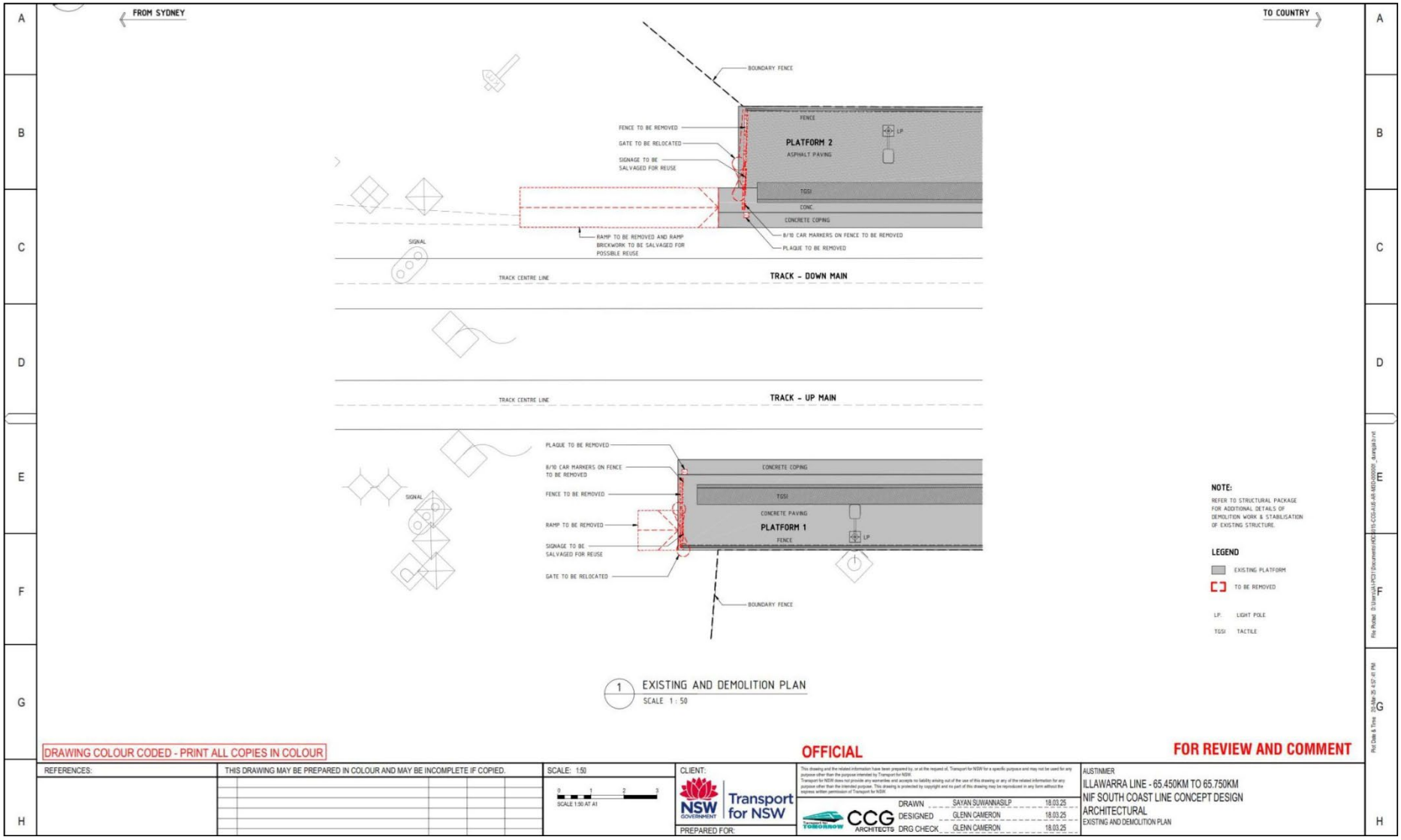


Figure 3: Plan of proposed demolitions at Austinmer Station (Source: Transport for Tomorrow, 2025)

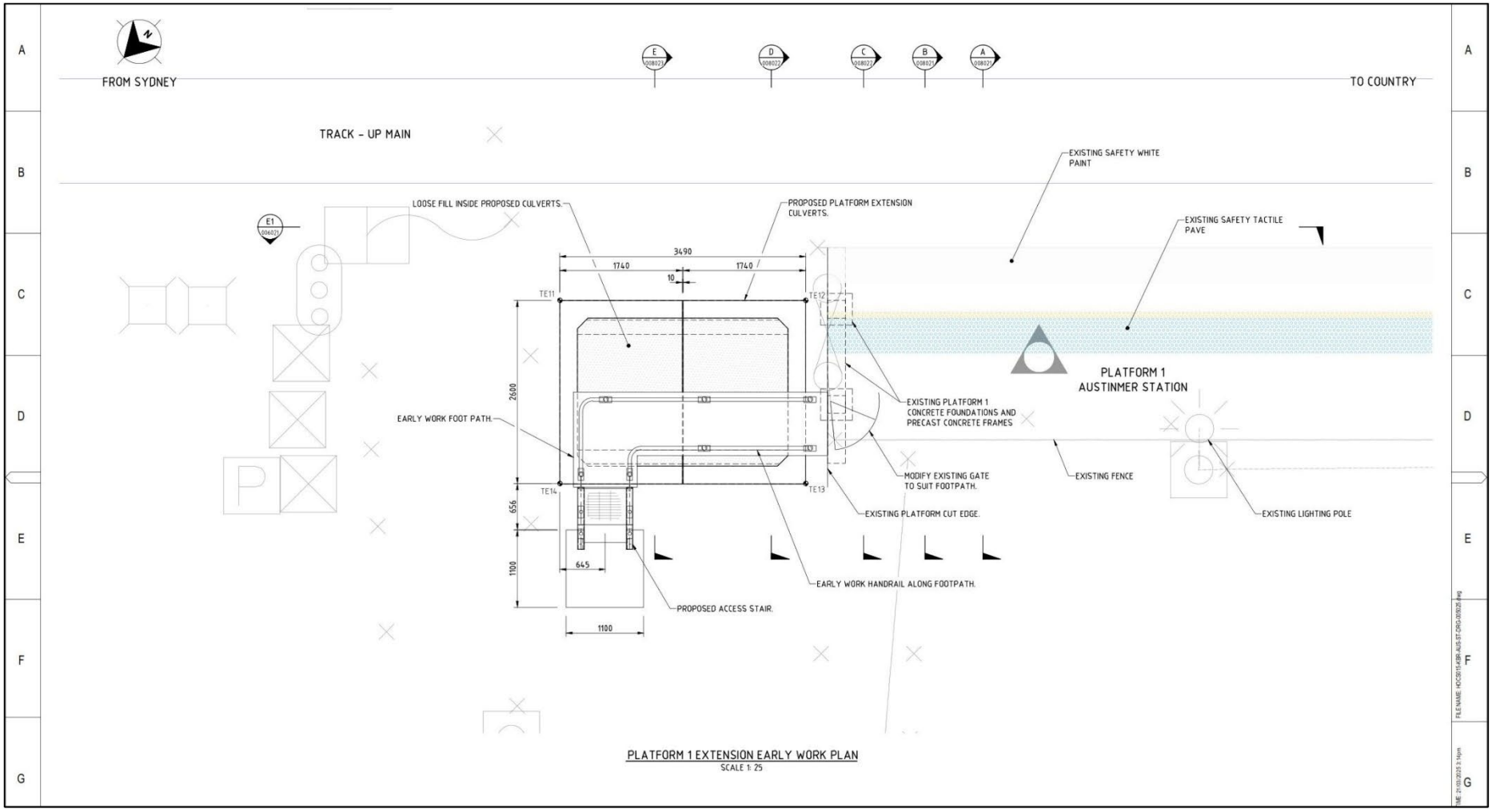


Figure 4: Plan of early platform 1 extension works (Source: Transport for Tomorrow)

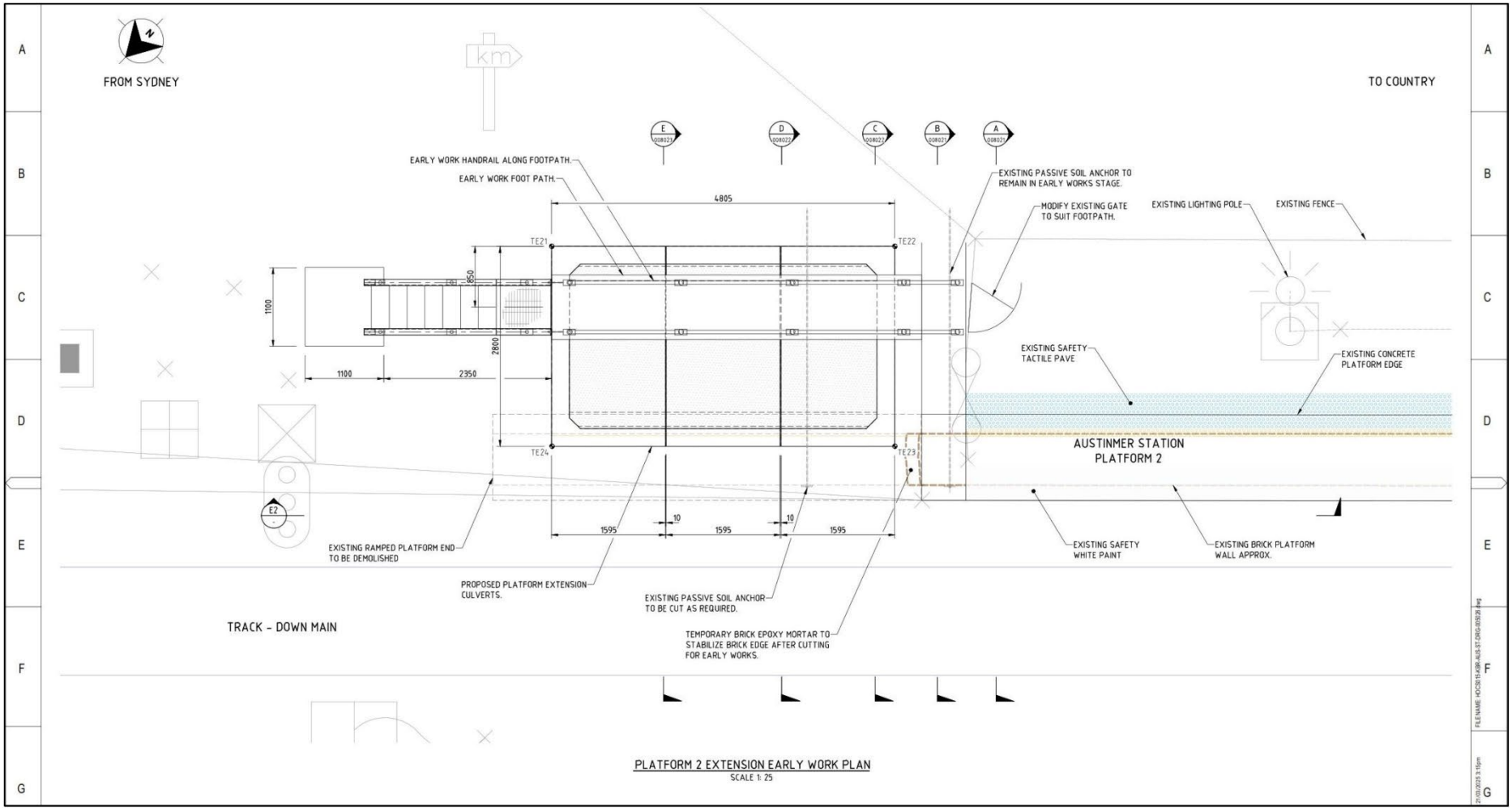


Figure 5: Plan of early platform 2 extension works (Source: Transport for Tomorrow)

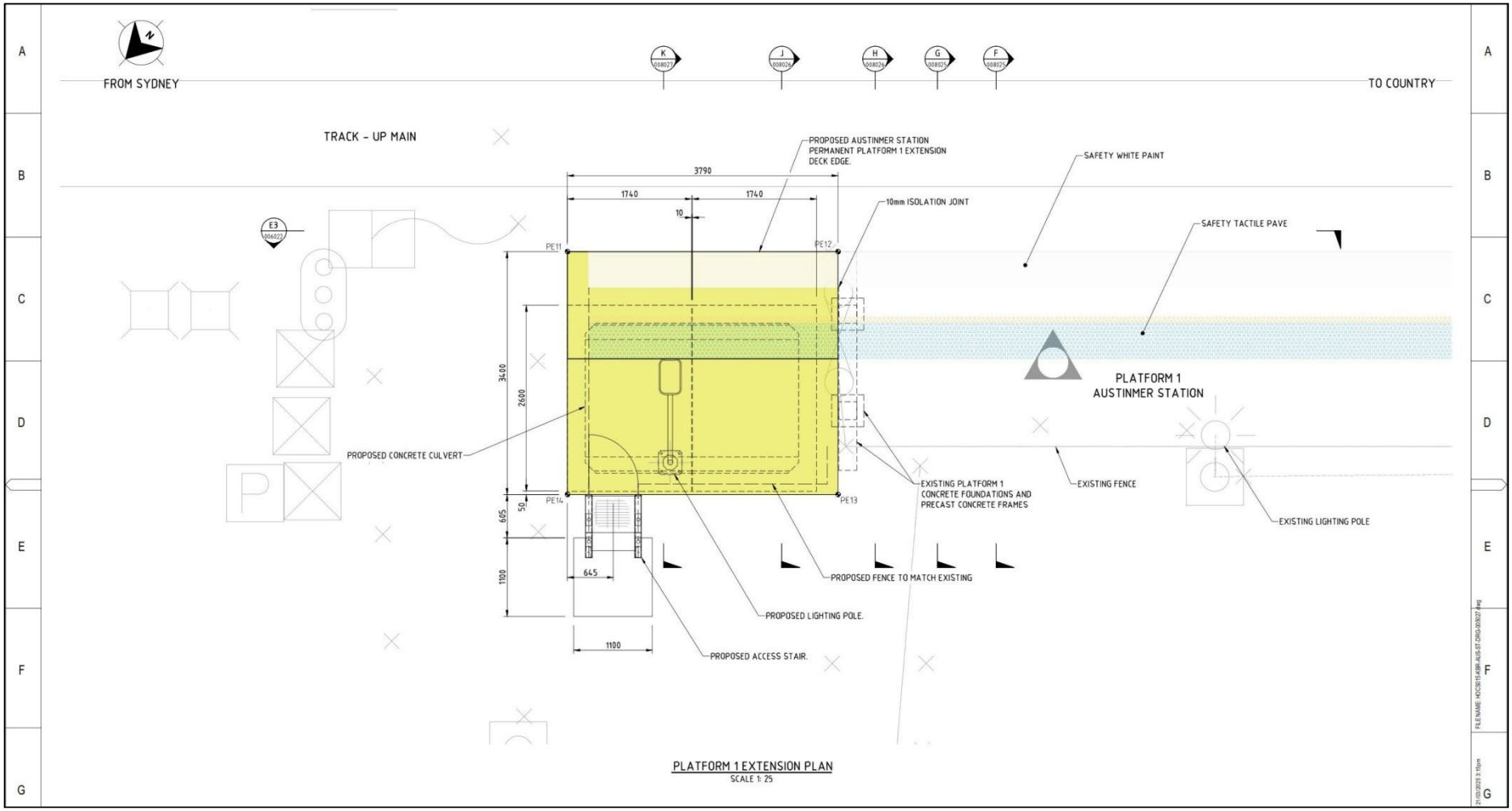


Figure 6: Plan of the platform 1 extension works at Austinmer Station (Source: Transport for Tomorrow, 2025)

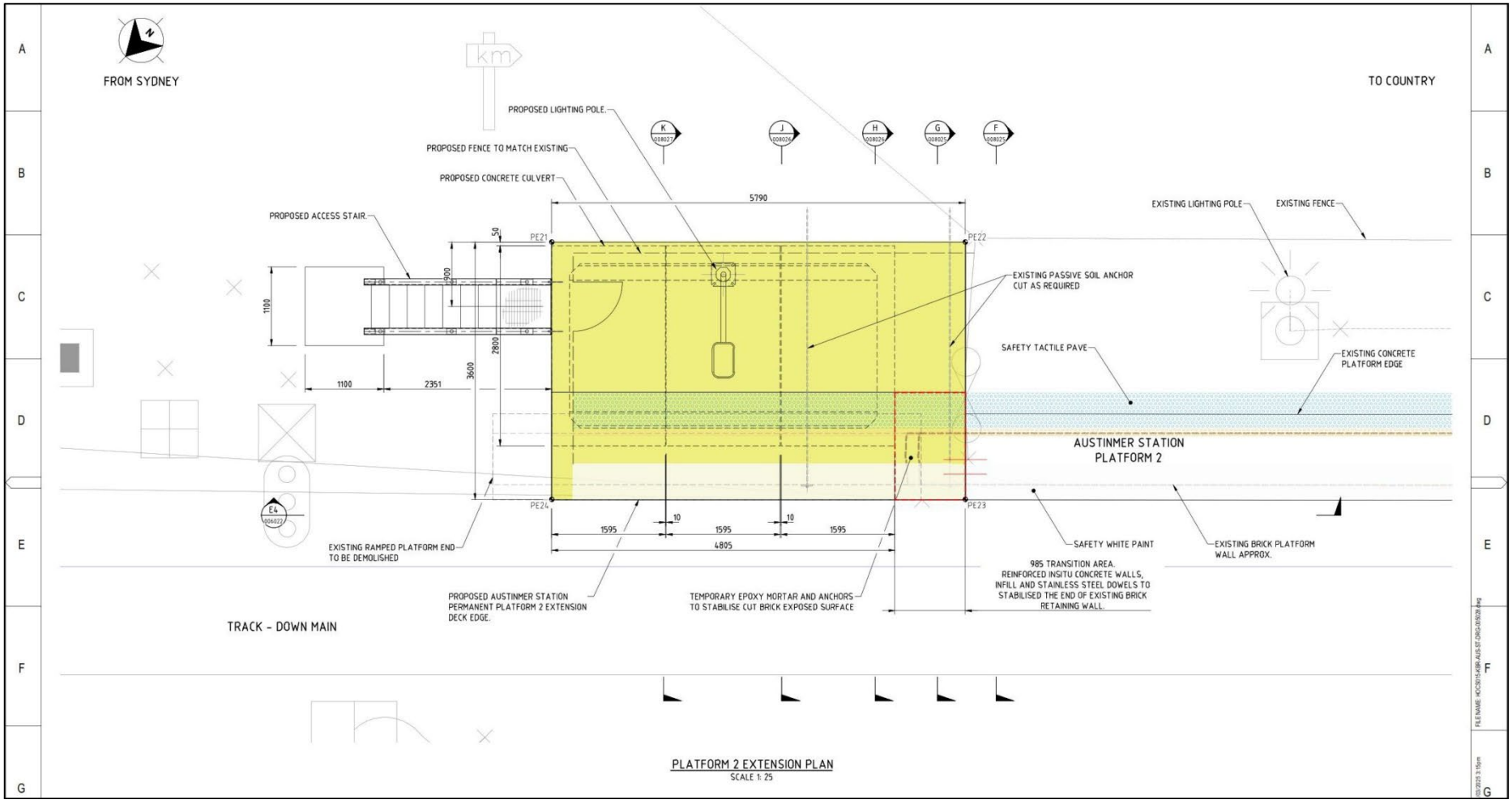


Figure 7: Plan of platform 2 extension works at Austinmer Station (Source: Transport for Tomorrow, 2025)

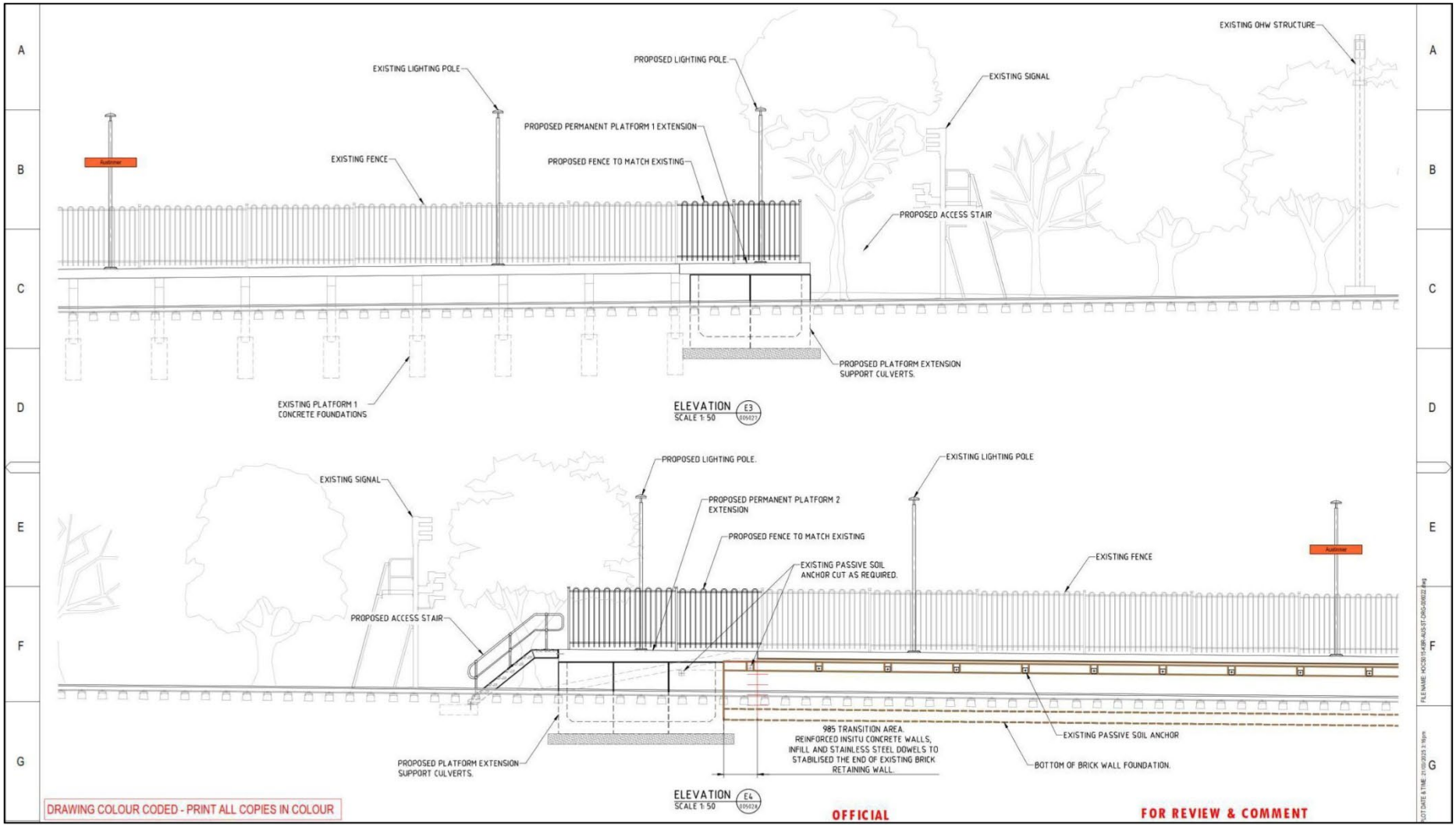


Figure 8: Elevations plan of proposed Austinmer Station platform extensions (Source: Transport for Tomorrow 2025)

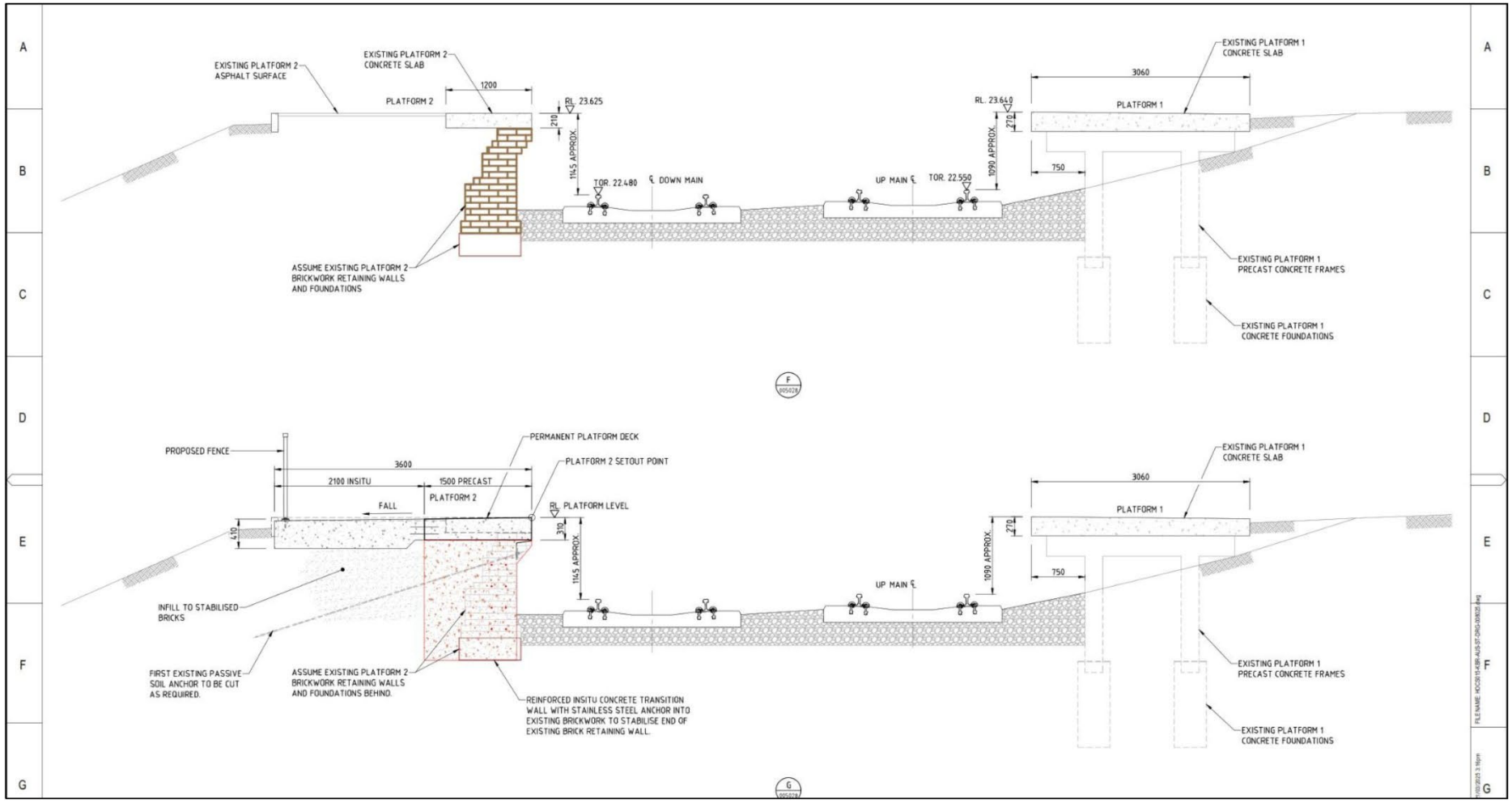


Figure 9: Section plan of proposed Austinmer Station platform extensions (Source: Transport for Tomorrow 2025)

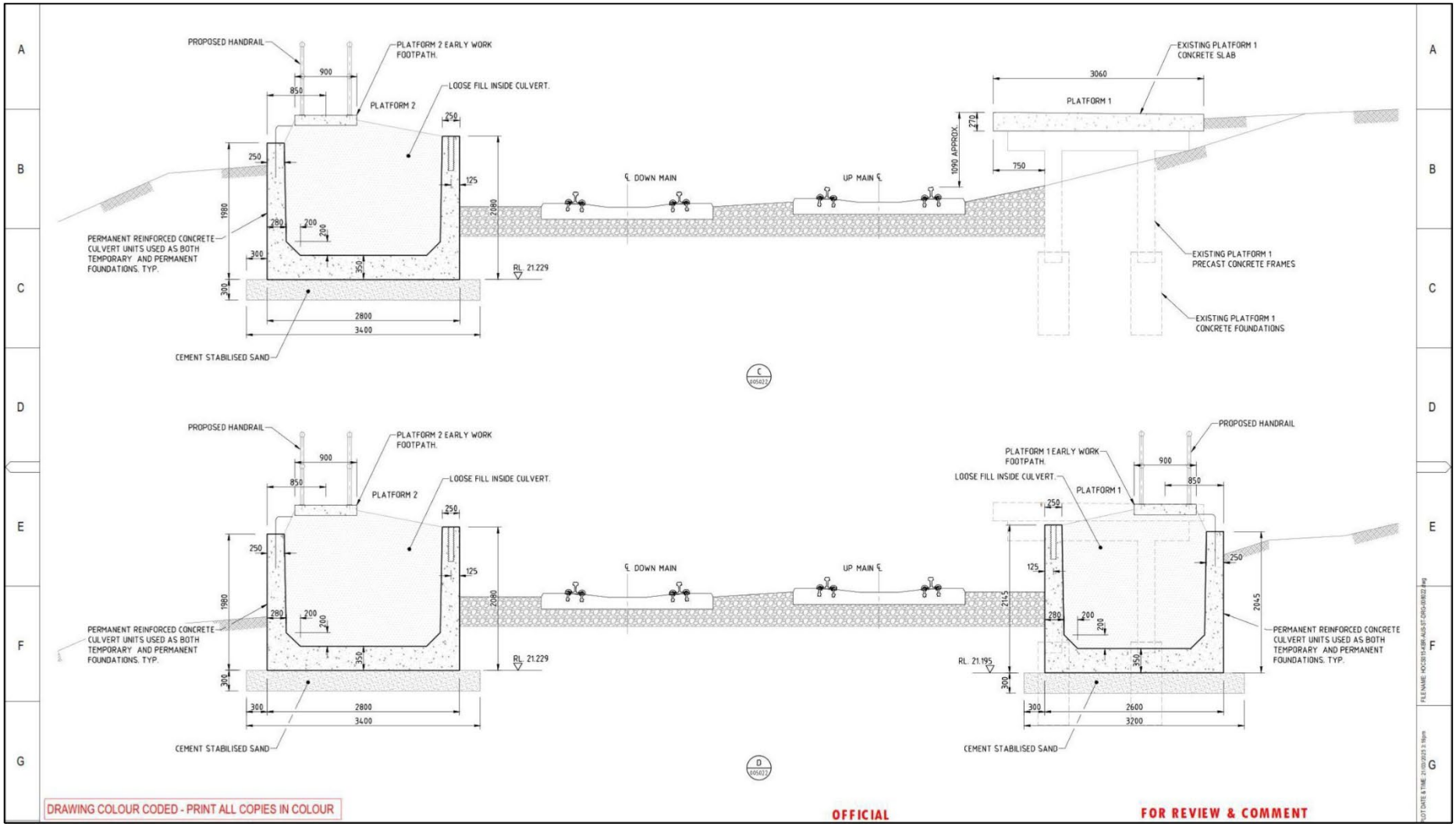


Figure 10: Section plan of the proposed Austinmer Station early works platform extensions (Source: Transport for Tomorrow 2025)

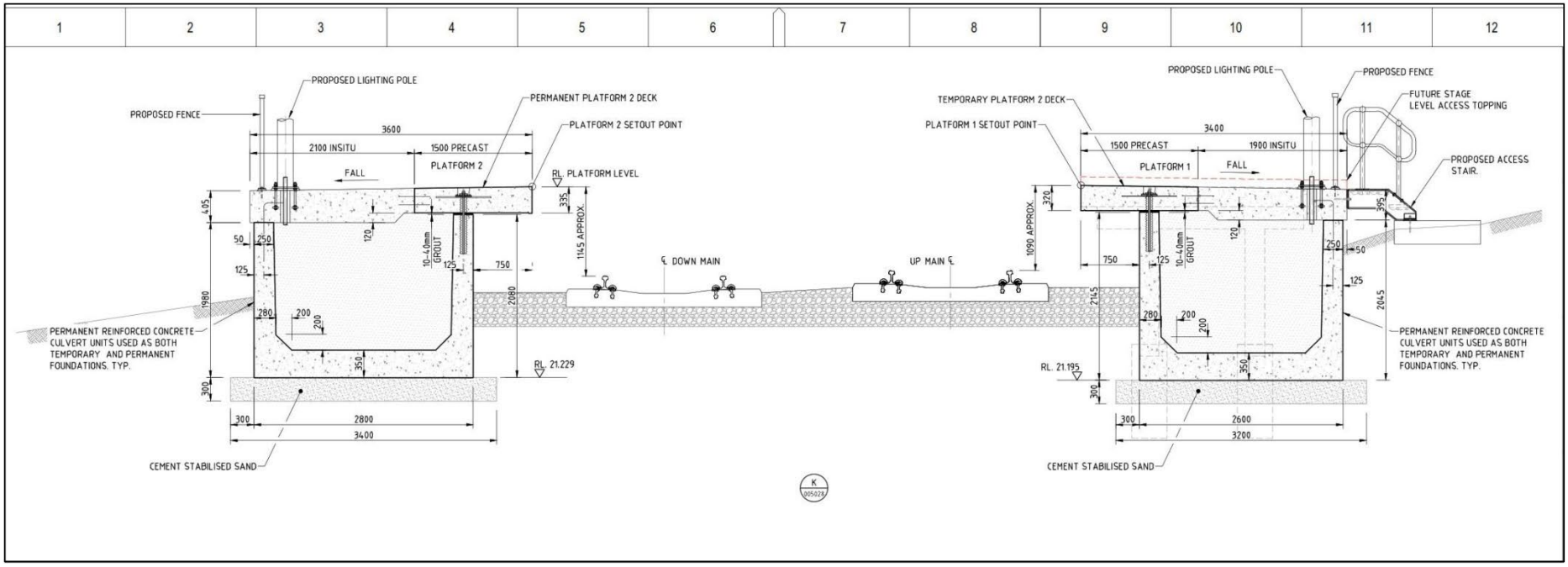


Figure 11: Section plan of the proposed Austinmer Station platform extensions (Source: Transport for Tomorrow 2025)

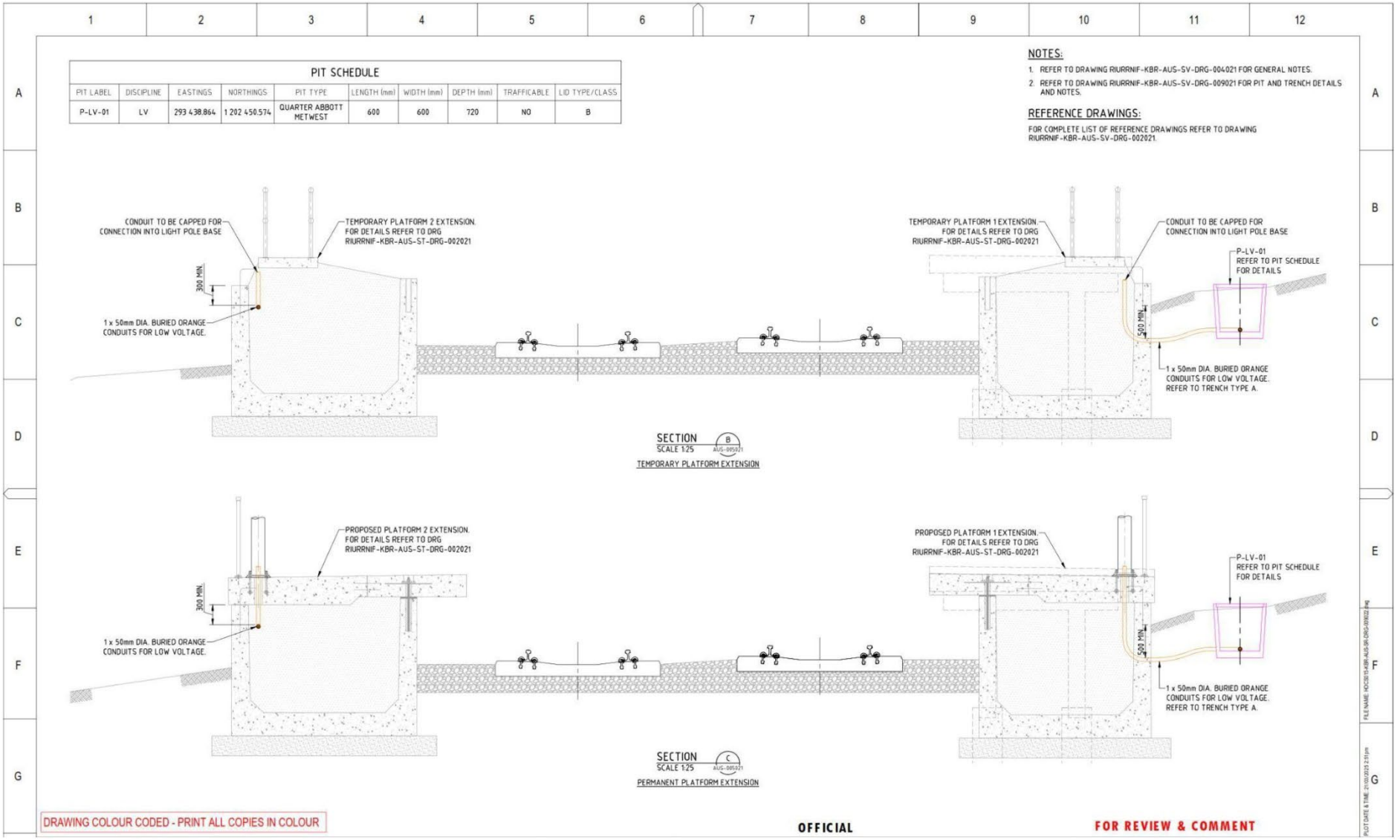


Figure 12: Section plan of the proposed Austinmer Station platform extension services routes (Source: Transport for Tomorrow 2025)

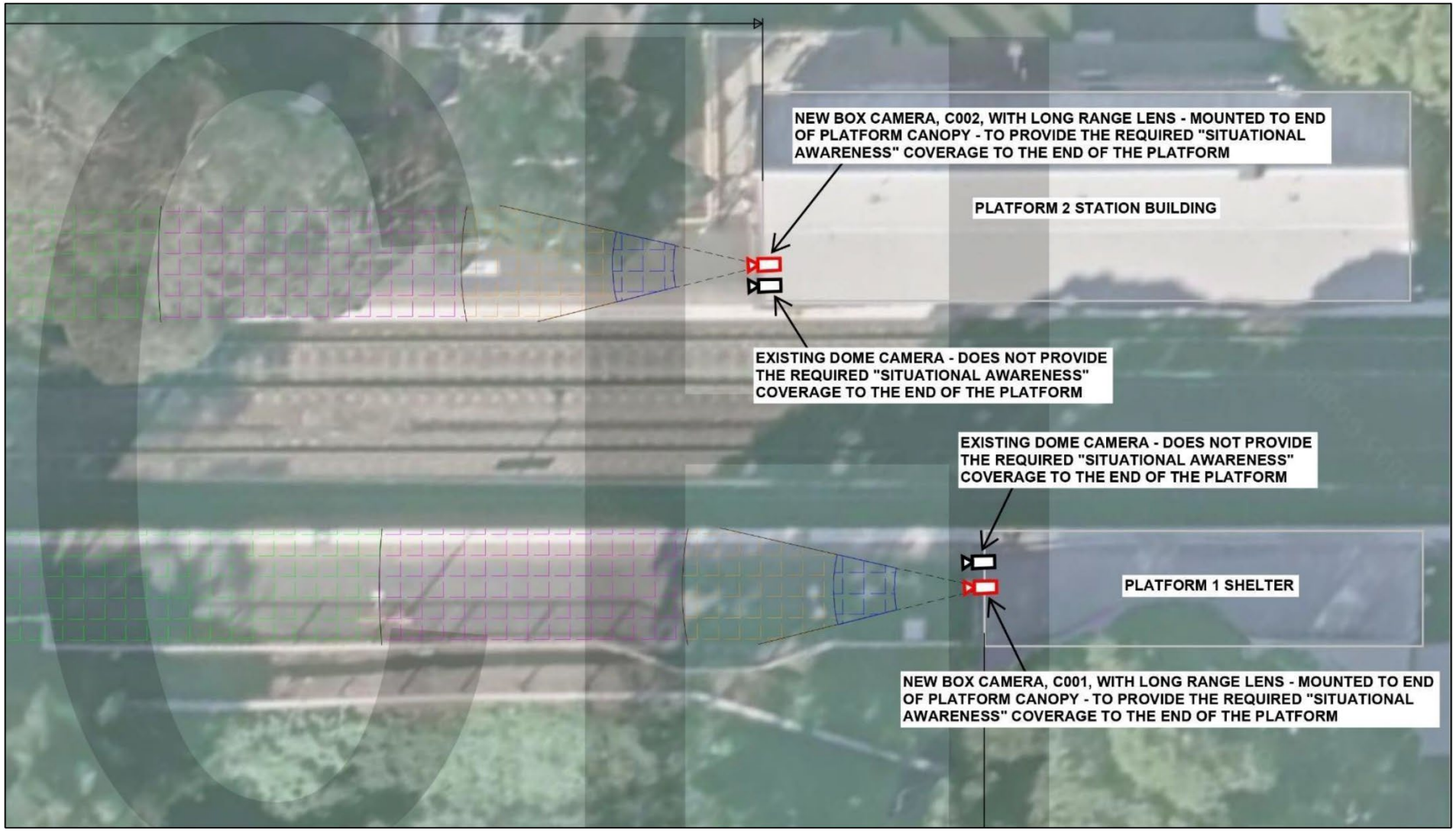


Figure 13: Proposed layout of new CCTV services at Austinmer Station (Source: Transport for Tomorrow, 2025)

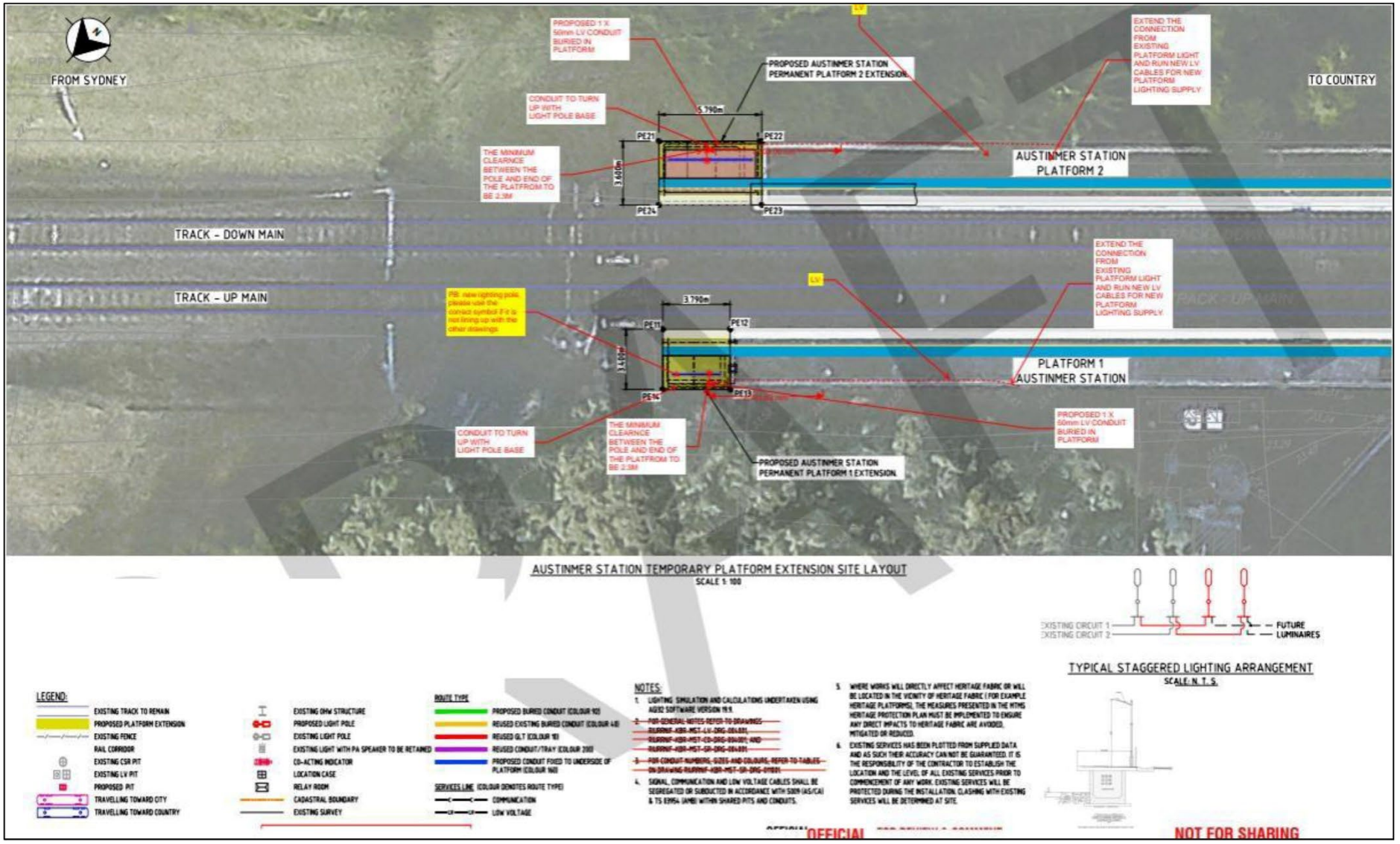


Figure 14: Proposed layout of lighting upgrades at Austinmer Station (Source: Transport for Tomorrow, 2025)

Limitations

This report has relied on a desktop assessment of the study area without a site visit being undertaken. However, site photos have been provided by TfT and acquired from Google Street View. As the works would primarily be limited to localised platform extensions, it is expected that there would be no adverse visual impacts outside of the station and therefore impacts to heritage items in the surrounding area are not considered. This report does not include an assessment of Aboriginal heritage.

Heritage listings

A search of relevant state and federal statutory heritage registers was undertaken on 19 March 2025. This included a search of the following:

- World Heritage List
- Commonwealth Heritage List
- National Heritage List
- SHR
- TAM s170 Register
- Wollongong LEP 2009
- NSW State Heritage Inventory (SHI) database.

A summary of the relevant heritage listings is provided in Table 1 and shown in Figure 15.

Table 1: Results of register searches relevant to the study area

Item name	Address	Listings	Item no.	Significance
Austinmer Railway Station Group	Lot 1 Railway Lands, Austinmer NSW	SHR	01077	State
		TAM s170	SHI 4801131	State
		Wollongong LEP 2009	6259	State
Austinmer-Moore Street and The Grove Heritage Conservation Area (HCA)	The Grove, Hennings Lane & Moore Street, Austinmer NSW	Wollongong LEP 2009	4N/A	Local

Figure 15: Heritage items within and near the study area

Historical overview

The following historical summary for Austinmer Station has been extracted from the SHR entry for the heritage item:

Wollongong / the Illawarra:

Before European settlement in the Illawarra, the region was home to the local Wodi Wodi Aboriginal people of the Dharawal nation (NPWS, 2005). This Aboriginal community had a well-developed and complex society, and physical and cultural evidence of this remains today in the forms of burials, middens and other sites. The Aboriginal history has also been preserved through traditional knowledge and dreaming stories which have been passed down through the generations (WCC, c2012). Traditional stories tell of their arrival at the mouth of Lake Illawarra in canoes when the Ancestors were animals. They brought the Dharawal or Cabbage tree palm (Livistona australis) with them and are named for this sacred tree (NPWS, 2005).

Aboriginal communities first encountered Europeans in 1796.

Red cedar (Toona ciliata) timber-getters operated in Illawarra escarpment (rain)forests as the first 'settler' industry in the area from the 1810s.

Dr Charles Throsby used the coastal Illawarra grasslands as cattle fodder in 1815 opening the area to European settlement. He focussed his herd behind the fresh water lagoon then situated at the junction of the current day Harbour and Smith Streets where he built a stockman's hut and cattle yards (DeTom Design, 2011, 17-18) and this was a meeting point for the first Illawarra land grantees in 1816 (WCC, c.2012).

The first settlement in the area now known as Wollongong was by Charles Throsby Smith, nephew of Throsby. He was one of the first to receive a land grant in the district and in 1822 was the first to settle on his 300 acre parcel. Smith's barn, located near Wollongong harbour, became the first school house in 1826 and then church building in 1828.

A military presence was established in the area now known as Port Kembla in 1826. They were relocated to the area now known as Wollongong in 1830. They were replaced by a local magistrate in 1833. This activity was focussed around the harbour. In 1833 the area's first school was established (ibid, 2011, 17-18).

In 1834 land owner Charles Throsby Smith (nephew of Dr. Charles Throsby)'s land was nominated as the site for the township to be known as Wollongong (ibid, 2011, 17-18).

In 1834 Surveyor General Major Thomas Mitchell surveyed the town with the centrepiece of land devoted to the Church of England. As there was no crown land, Thosby-Smith sold his land to the Government and it was transferred to the church. The surveyed town was bounded by streets to be known as Harbour, Keira, Smith and Crown Streets (ibid, 2011, 18). The original township was bounded by Crown, Keira, Smith and Harbour Streets which remain major streets in Wollongong today (WCC, c2012).

The Illawarra District Council was formed in 1843. In 1859, two municipal councils were formed: Municipality of Wollongong which was proclaimed on 22 February, and Central Illawarra Municipality which was formed on 19 August 1859 (this took in the area from Unanderra to Macquarie Rivulet). North Illawarra Municipality was formed on 26 October 1868 and included the area from Fairy Creek to Bellambi. In 1947 The City of Greater Wollongong was formed by the amalgamation of the City of Wollongong, the Shires of Bulli and Central Illawarra and the Municipality of North Illawarra, under the Local Government Act, 1919 in the NSW Government Gazette 104 of 12 September 1947.

1880s expansion and the Illawarra Railway Line:
Wollongong expanded in the 1880s and the railway which finally linked the area to Sydney, encouraged movement away from Mitchell's plan. The relative isolation of the Illawarra ended in 1888 when the railway was finally introduced to link the area to Sydney. The town was transformed from a focus on the wharves to one on the railway and began to expand away from St.Michael's central position. The rail allowed the area to ship milk, coal and coke to Sydney city, expanding Wollongong city's potential enormously. By the turn of the century a smelting works and number of coke oven batteries were opened and the town's population rose from 1635 in 1881 to 3545 in 1901 (an average growth rate of 3.9%)(McDonald, 1989, in Davies, 2003, 14).

Austinmer:

The name Austinmer came into official being in 1895. Originally this area was called Sidmouth. It was called Sidmouth after the name of the house built there by Robert Marsh Westmacott 1837. Sidmouth was the name of Robert Marsh Westmacott's hometown, in Devon, on the Channel coast of England. By the 1860's a small rural settlement had developed in the area and was called North Bulli. The name changed to Austermere with the opening of the North Illawarra Coal Company's mine. As Sir John Leckey's estate at Moss Vale was also known by this name, the spelling Austinmere was adopted by the local newspapers in 1887. The name is linked to Henry Austin, one of the three Directors of the Board of the Illawarra Mining Company. When the railway platform was built in September 1887 the name Austinmer was placed upon it, omitting the final 'e'.

The station opened as a single line waiting station with an unattended single platform on the isolated Scarborough (Clifton) to Wollongong line in 1887 due to the difficulty being experienced in linking up with the Sydney to Waterfall section of the line. The connection was finally achieved with the single line to Waterfall being opened on 3rd October 1888.

In November 1887, the year the station was built, the "Township of Austinmer" estate, a subdivision of a portion of the property of the North Illawarra Coal Coy., at North Bulli, Parish of Southend, County of Cumberland, was advertised for sale. Further subdivisions took place in 1906 (Kennedy's Estate, Austinmer), in 1913 The Very Cream of Austinmer 2nd subdivision advertised as "Fronting the ocean, close to the railway station"; and in 1914 Austinmer 3rd subdivision, was similarly advertised. Austinmer became known in the early 20th century as a fashionable holiday resort, the "Brighton of New South Wales".

The line was duplicated to Austinmer in 1915, resulting in the construction of the existing standard design timber buildings on each platform connected by a steel

framed overbridge. The works included the construction of the concrete arch overbridge for road traffic and the closure of the goods siding. In 1917, as part of the new Thirroul yard, the goods siding was transferred to the Nowra side of the overbridge that replaced the original level crossing at the Sydney end.

The line was electrified in 1988.

The following images show the development of Austinmer Station at various stages of its history. They illustrate how the built environment has changed over time; this assists in identifying which elements of the station are early or original, and therefore may be of heritage significance.

Figure 16: Undated early photo of Austinmer Station prior to the 1915 duplication of the Illawarra Station (Source: Wollongong City Libraries, image no. P13/P13709)

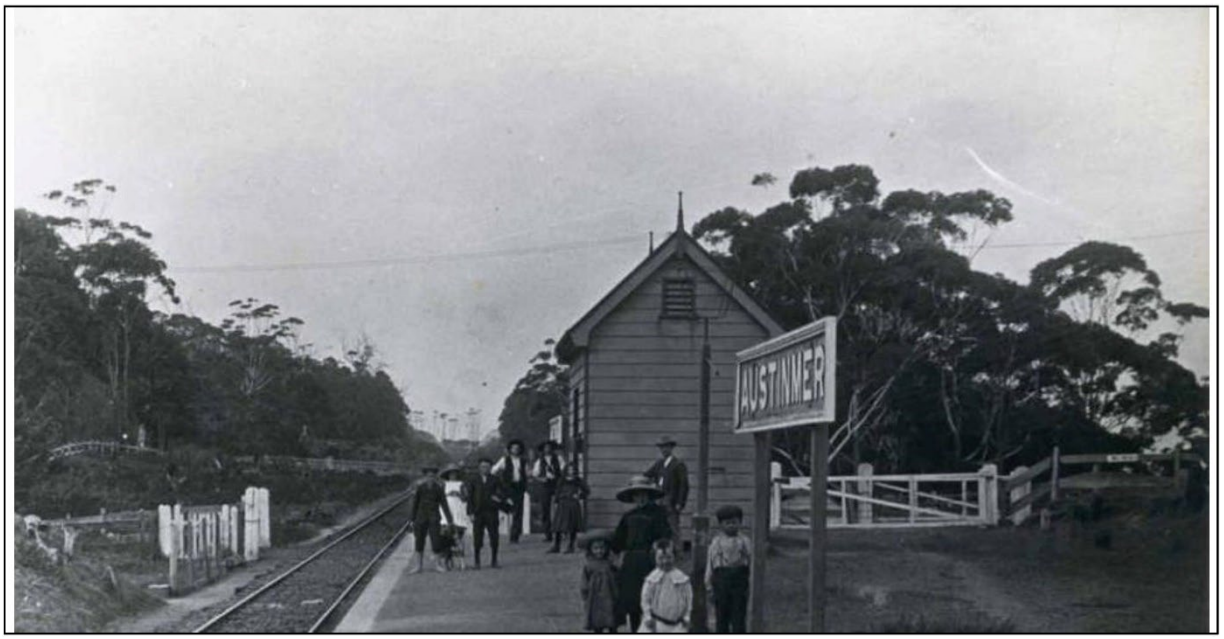


Figure 17: Early photo of platform 1 at Austinmer Station c. 1910, prior to the duplication of the Illawarra line in 1915, facing south (Source: Wollongong City Libraries, image no. P39153)

Figure 18: Undated photo of the overbridge at Austinmer Station after the 1915 Illawarra line duplication, facing south (Source: Wollongong City Libraries, image no. P09/P09156)

Figure 19: Photo of Austinmer Station in 1916, the year after the Illawarra line duplication, facing north (Source: Wollongong City Libraries, image no. P16/P16419)

Figure 20: Undated photo of Austinmer Station after the 1915 duplication of the Illawarra line, facing south (Source: Wollongong City Libraries, image no. P09/09168)

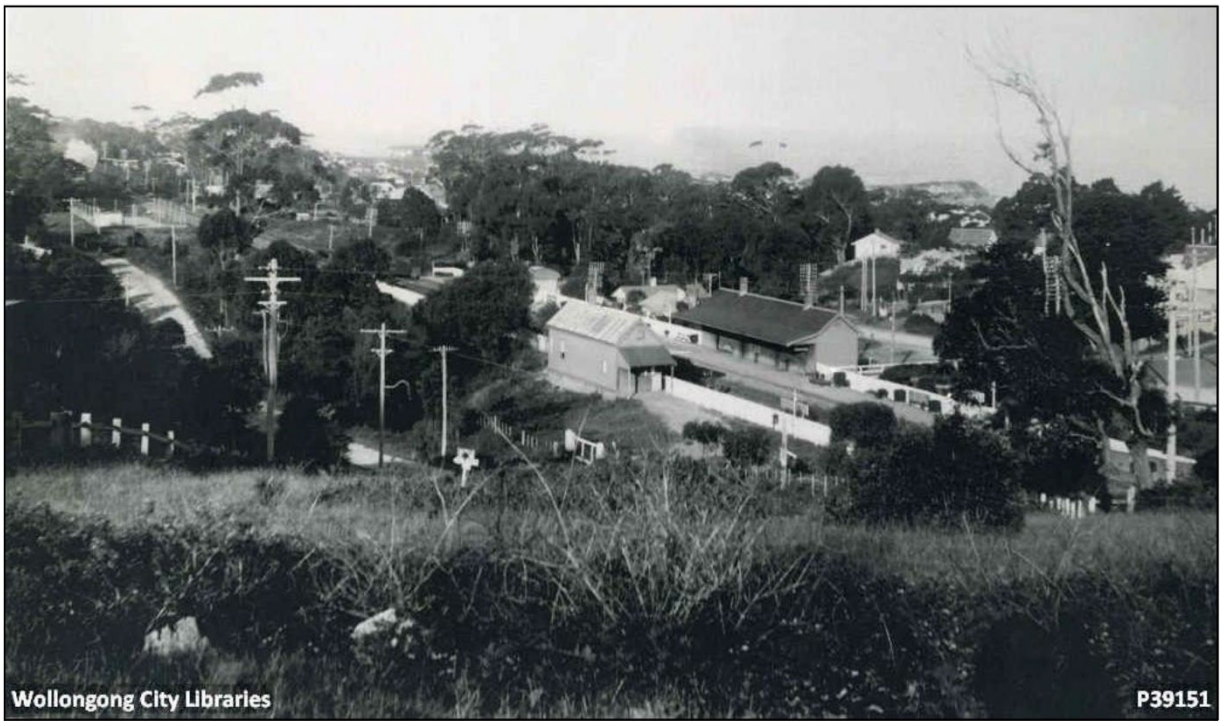


Figure 21: Early photo of Austinmer Station c. 1930, 15 years after the construction of platform 2 and second platform building, facing northeast (Source: Wollongong City Libraries, image no. P39151)

Figure 22: 1960 photo of Austinmer Station, prior to the raising of the platforms in 1985, facing south (Source: Wollongong City Libraries, image no. P09/09154)

Figure 23: 1994 photo of platform 2 and building of Austinmer Station, facing southwest (Source: Wollongong City Libraries, image no. P12/P12463)

Assessment of significance

Austinmer Station

The following statement of heritage significance for Austinmer Station has been extracted from the SHR entry for the heritage item:

> *Austinmer Railway Station - including its platforms and platform buildings - is of State heritage significance as a rare example of a station with weatherboard platform buildings. Austinmer Railway Station is of historical significance as an early station (1887) on the Illawarra line, as an intact group of railway structures dating from the 1915 duplication of the Illawarra line, for its role in the naming of Austinmer, and as a transport hub for the village of Austinmer since 1887. Austinmer Railway Station is also of historical significance for its role in the development of Austinmer as a tourist resort since the early 20th century.*
>
> *The 1915 platform buildings at Austinmer Railway Station are of aesthetic significance as rare examples of Federation period weatherboard standard railway design platform buildings, and as a grouping of perimeter platforms, platform buildings and road overbridge which form a cohesive railway precinct within a significant landscape setting. The 1915 Hill Street overbridge is of technical significance as a bridge structure of this period with innovative use of concrete.* [1]

[1] Heritage NSW, 2025. "Austinmer Railway Station Group". *SHR # 01077*. accessed online at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5011943.

From the above, the significance of Austinmer Station rests in part on platforms 1 and 2, which are of historic and aesthetic heritage significance to the station. Together with the platform buildings, which are also of historic and aesthetic significance, they are considered rare.

Austinmer-Moore Street and The Grove HCA

As the boundaries of the areas of proposed works include part of the Austinmer-Moore Street and The Grove HCA, the following assessment has been extracted from the SHI listing for the HCA:

> *Austinmer Conservation Area is part of Captain Westmacott's Estate from which he initiated the earliest colonial settlement in the village in 1837 and played a vital role in the community. Moore Street was one of the first formed streets in the early twentieth century with pre-war style allotments that helped to create a new identity for Austinmer from a coal town to a seaside resort. This street connected the railway station to the main tourist attraction, the beach and it became the main street of Austinmer during the 1930s. It demonstrates the long and varying history of this area from the establishment of the first Anglican Church in the town (c1904), Post Office (c1919) and Federation style dwellings to 1930s shop fronts and later developments such as the former R.S.L Club.*
>
> *The Grove represents the continuing growth of Austinmer. Of particular importance is the contour of the street which was surveyed prior to the 1913 subdivision, and is based on the original track along Hicks Creek. The presence of Palm trees and the mixture of tropical and native vegetation also demonstrate the importance that this street played in establishing the new identity of Austinmer as a seaside village during the 1920s and 1930s. The Grove has particular landscape significance for its remaining parcel of remnant bushland, which is rare east of the railway line.*
>
> *The Austinmer Railway Station buildings are of particular significance as surviving timber structures of a similar scale constructed during the time of the duplication of the south coast line. The brick and concrete curved arch road bridge is of particular significance as very few such bridges survive, particularly in connection with a station group.*[2]

Based on the above statement of significance, while the 1915 platform buildings and the Kirton Rd overbridge are of significance, platforms 1 and 2 of the station are not directly of significance to the HCA. Their heritage significance in the context of the HCA lies instead in their contribution to the heritage character of Austinmer Station as a whole.

Physical description

The physical description of relevant parts of Austinmer Station has been extracted from the SHR entry for the heritage item:

> *PRECINCT ELEMENTS*
> *Platform 1 building (1915) type 11*
> *Platform 2 building (1915) type 11*

[2] Heritage NSW, 2025. "Austinmer Heritage Conservation Area". Accessed online at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5067702.

Platforms (1915)
Hill Street overbridge (1915)

CONTEXT

Austinmer Railway Station is located northeast of the Hill Street overbridge, between Gilchrist Street (southeast) and Railway Avenue (northwest). There are small car parks on both sides of the station. There is no footbridge, and therefore access between the platforms is via the Balfour Road overbridge. The setting of the railway station is heavily vegetated, with many mature trees adjacent to the station, some overhanging the platforms. The Austinmer platform buildings have been recently repainted in a heritage colour scheme (2009). The perimeter of the railway station is fenced with modern powder-coated aluminium pool fencing

PLATFORM 1 BUILDING (1915)

Exterior: This is the smaller west platform building. This is a weatherboard single storey building with a gabled corrugated steel roof, cantilevered awning on the platform (east) side on steel brackets mounted on steel posts. The gable ends to north and south have rectangular timber louvred vents. To the south end of the building is a skillion roofed awning, and the south elevation features two ticket windows, one of which has a rare original timber ticket window frame (though a later aluminium ticket window has been installed within and partly overlapping the original frame). The building has timber framed double hung windows, and features timber 4-panel doors with multipaned fanlights with square coloured glass panes…

…PLATFORM 2 BUILDING (1915)

Exterior: This is the larger east platform building. This is a weatherboard single storey building with a corrugated steel gabled roof and a skillion roofed platform awning cantilevered on steel brackets mounted on decorative timber wall brackets. The gable ends to north and south have rectangular timber louvred vents. There is one brick chimney towards the southern end of the roof ridge. The building features large tongue & grooved timber sliding doors at the southern end, facing the platform, timber 4-panel doors with 6-paned fanlights with coloured glass panes. The building has exposed timber rafter ends. Windows are timber framed double hung with 9-paned top sashes with coloured glass panes…

…PLATFORMS (1915)

Two perimeter platforms with asphalt surfaces. The platforms have brick edges with concrete capping in the central sections, with modern concrete platform extensions to the north ends of both platforms. Access between the platforms is via the Balfour Road overbridge.

LANDSCAPE/NATURAL FEATURES

The station is sited within a leafy environment below the Illawarra escarpment. Large native trees provide an immediate backdrop to the station and the platform buildings. Views of the escarpment are available from the Hill Street overbridge and the station itself.[3]

[3] Heritage NSW, 2025. "Austinmer Railway Station Group". *SHR database no. 01077*.

Note that Transport for NSW have requested that the “awnings” included in the physical description above be referred to as “canopies”. They are referred to as such in the remainder of this report.

The current Platform 1 at Austinmer Station was constructed as part of the duplication of the Illawarra line in 1915, and retains a section of the 1915 brick coping and retaining wall directly in front of the platform building (Figure 31). Much of Platform 1, particularly the northern section, is of a more recent concrete-pier construction (Figure 27, Figure 32). These concrete piers may date to the platform upgrades which were implemented in 1985, however earlier photographs (Figure 16 through Figure 22) show the platform already extending beyond the ends of the extant brick retaining wall in front of the platform building. The entire length of the platform is paved in asphalt with a concrete coping edge, representing the height of the upgrade works completed in 1985.

Platform 2 and its building were originally constructed in 1915. This platform has a greater extent of early brick coping and retaining wall than Platform 1. Contrary to the description provided in the SHR listing (quoted above), the north (city) end of the platform does not have a simple concrete extension like Platform 1’s. Instead, Platform 2 terminates in a ramp constructed atop the 1915 brick retaining wall (Figure 26). The brick retaining wall is largely intact and is an element of high heritage significance. Like Platform 1, the entire length of Platform 2 is paved in asphalt with a concrete coping edge dating to the 1985 platform upgrades.

Both platforms feature modern infrastructure and services, including TGSIs, loop top fencing, signage, and painted indicators. Grass has partially overgrown the ramp at the city end of platform 2 (Figure 25).

The following photos, provided by Transport for Tomorrow, show the current condition of the Austinmer Station.

Figure 24: Photo of the city end of platform 1 of Austinmer Station facing northeast

Figure 25: Photo of the ramp at the city end of platform 2 of Austinmer Station facing north

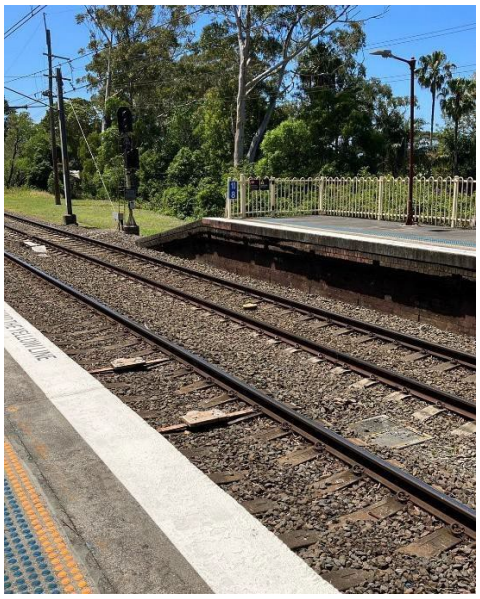


Figure 26: Photo of the city end of platform 2, taken from platform 1 facing east

Figure 27: Photo of the city end of platform 1, taken from platform 2 facing north

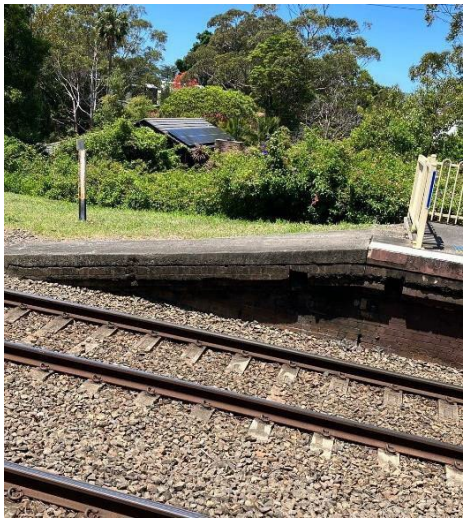


Figure 28: Photo of the brick retaining wall beneath the ramp of platform 2, facing east

Figure 29: Photo of the brick retaining wall of platform 2, taken from platform 1 facing northeast

Figure 30: Photo of the retaining wall of platform 2 and canopy camera of platform building 1, facing south

Figure 31: Photo of platform building 1 taken from platform 2, facing southwest

Figure 32: Photo of platform 1, showing the concrete supports of the platform, facing north

Grading of significant elements

Table 2 lists the relevant elements of Austinmer Station that would be directly modified by the proposed works and provides a significant grading for each. The gradings of significance have been informed by the historical overview, significance assessments and physical descriptions that have been prepared for Austinmer Station.

Table 2: Grading of significance for relevant elements at Austinmer Station

Component	Assessment	Grading
Platform 1 & 2	The platforms of Austinmer Railway Station are not original to the 1887 inception of the station. However, they are early structures associated with the duplication	*Integrity: Moderate*

Component	Assessment	Grading
	of the Illawarra line in 1915. In spite of modifications to their fabric, where the brick coping and retaining wall persists they are generally intact. Much of this early or original coping and retaining wall fabric has been removed or replaced, particularly in the northern section of platform 1 where the proposed works are anticipated to take place. The modern concrete pier construction in this section of the platform is of little significance to the heritage of the station in terms of its historicity or appearance. Platform 2, on the other hand, possesses far more of the coping and retaining wall fabric, including the portion of brick retaining wall beneath the ramp that is set to be entirely demolished. Although the platforms have been modified in the past (for instance during the 1985 upgrades), their alignment has remained unchanged since the 1915 duplication.	*High:* Early platform structures including brick coping and retaining wall *Little:* 1985 concrete platform structures; platform asphalt and concrete surface *Intrusive:* Modern infrastructure, tactile indicators, fencing, high-visibility markings, signs
Platform buildings	The platform buildings were constructed in 1915 during the duplication of the Illawarra line. Although the interiors of the buildings have been modified over time, the exteriors have a high degree of integrity. Modern services and lighting are attached to the buildings' exteriors, including cabling and dome cameras attached to the canopies. The buildings are single-storey weatherboard structures, with gabled, corrugate steel roofs and canopies. The weatherboard exterior of the buildings are likely early, while the fabric of the roofs and canopies is new material dating from reroofing undertaken in 2017, however they seem to closely match the early 1915 construction of the buildings. The platform buildings remain aesthetically significant to the heritage character of Austinmer Station regardless of the presence of modern, intrusive elements.	*Integrity: High* *High*: Weatherboard construction, buildings' exterior *Moderate:* Steel roofs and canopies, buildings' interior *Little: M*odern interior timber panelling *Intrusive:* Modern steel security doors, electronic elements (incl. security cameras)

Historical archaeological assessment

Previous assessments

This report provides a high-level assessment of historical archaeological potential for the study area. It is noted that there does not appear to be any readily available previous studies for Austinmer Station that include a discussion of potential archaeological remains. As a result, the potential for archaeological remains to be present has been informed by the information presented in the SHI sheets for the heritage item, additional historical research, and reviews of available historical plans and maps.

Assessment of archaeological potential

The proposed excavations associated with the platform extensions, CSR/conduit installations, and geotechnical investigations would primarily be limited to the platform footprint and rail corridor to the north of the platform buildings. There are no proposed excavations towards the south (country) ends of the platforms. The construction and modification of the station and platforms in the late nineteenth and twentieth centuries has likely removed any potential archaeological evidence of historical use prior

to the establishment of the station. As a result, if any archaeological resources would be present, it is expected that they would be limited to the historical development of the station.

Historical records that the original single line waiting station and island platform were built by 1887. The original station was then demolished by 1915 as the railway line was electrified, and the current station was built. Historical maps indicate that the original platform was largely located to the south of Moore Street and the current platform buildings (Figure 33). There is no indication that any historical structures associated with the original station extended to the north of the current platform buildings where the proposed excavations would be located. As a result, it is not expected that any potential archaeological remains associated with the original 1887 station would be present within the study area.

Historical records indicate that Platform 1 and 2 have both been resurfaced and raised at least once. As a result, evidence of former wearing surfaces may be present, although remains of the previous surfaces may also have been removed during subsequent resurfacing events. As any platform surfaces would date to the twentieth century, it is unlikely that truncated remains of former wearing surfaces would reach the threshold of local significance.

Platform 1 and 2 have both been extended over time, notably at the south ends end of the platforms. Because the platforms have been extended, there is potential for evidence of earlier brick coping walls within the current platform footprints at the station. On the north side of Platform 1 however, the twentieth century concrete extensions are clearly visible abutting the original brick platform (Figure 31), and there does not appear to have been any additional extensions that are no longer visible. As a result, it is unlikely that archaeological remains of former brick coping walls would be present within the city end of Platform 1. For Platform 2, while the platform has been clearly extended at the country end it is unclear if it was also extended at the city end. Platform 2 appears to have maintained its current length since at least the 1940s (Figure 34 to Figure 37), and there does not appear to be a clear separation in the brickwork as seen on Platform 1 (Figure 29). This suggests that there is relatively low potential for evidence of former brick coping walls to be present within the city end of Platform 2 that would reach the threshold of local significance. The platforms may also contain evidence of earlier service pits and/or utilities, however, former utilities from the twentieth century are unlikely to be significant.

Historical imagery indicates that there were former structures/infrastructure located towards the north end of the platforms (Figure 34 to Figure 36), in addition to possible short-lived tennis court adjacent to the rail corridor to the north of Platform 1. The former structures appear to have been located adjacent to or at the end of the platforms, and may have consisted of a water tank, service buildings, or service pits. As these features appear to have been installed towards the mid-twentieth century and were likely relatively minor in nature, it is unlikely that substantial archaeological remains would be present and potential remains would be unlikely to reach the threshold of local significance.

Other potential archaeological remains within the proposed excavation areas would likely be limited to evidence of former railway infrastructure such as earlier rail tracks, timber sleepers or associated elements. Evidence of former railway infrastructure is unlikely to reach the threshold of local significance unless substantial and intact remains are encountered.

Overall, it is assessed that there is low potential for archaeological remains of local significance to be present within the study area. It is expected that potential archaeological remains would be limited to infrastructure elements with little to no research potential, and no significant deposits of artefacts are expected to be present.

Figure 33: 1928 parish map showing what appears the original location of Austinmer's former, single line station before being rebuilt in 1915 (Source: Historical Land Records Viewer)

Figure 34: 1948 aerial imagery after the station had been rebuilt in 1915, noting former structures towards the north ends of the platforms and what appears to be a tennis court adjacent to the rail corridor (Source: Spatial Collaboration Portal)

Figure 35: 1966 aerial imagery showing former structures such as a tank at the ends of the platforms

Figure 36: 1969 aerial overlay of the station footprint, noting the former structures from 1966 on the down platform are no longer present

Figure 37: 1980 aerial overlay of the station footprint, noting no new former structures at the city end of the platforms since 1969

Assessment of heritage impact

This section assesses the potential heritage impacts which may arise at Austinmer Station as a result of the proposed works. These impacts are classified as physical, visual, archaeological, and cumulative impacts to clearly outline the ways in which the proposed works may affect the heritage significance of elements of the site, as well as the significance of the site overall.

As the station is listed as a contributory item to the Austinmer- Moore St and The Grove HCA, the heritage impacts discussed here also translate as impacts to the HCA, although to a lesser degree.

Physical impacts

Temporary laydown areas

The temporary laydown areas would be limited to cleared ground and would not abut or impact any significant structural elements. While some minor tree branch trimming may be required to allow plant access, no significant vegetation or trees would be cleared and it is not expected that the minor trimming would cause harm to the long-term health of any trees. As a result, the temporary work areas would likely cause **little to no** adverse physical impacts to the heritage significance of Austinmer Station.

Physical impacts: little to no adverse physical impacts

Demolition

The proposed works include the partial demolition of elements of the station which are of heritage significance, namely a portion of the northern (city) ends of Platforms 1 and 2. Though both platforms retain the early or original alignment of the railway following its duplication in 1915, only Platform 2 retains early or original brickwork in the area where demolition works are proposed. The northern (city) ends of Platform 1 presents only modern materials (concrete pier platform construction, loop top fencing) that are not of heritage significance, and whose loss would have **little to no** adverse physical heritage impact for the station.

The brick platform wall of Platform 2 is a highly significant element, and its partial loss from demolition and subsequent penetrations to insert stabilising steel anchors would constitute an adverse physical heritage impact for the station. However, the extent of brick platform wall that would be demolished is relatively small, and the bricks are intended to be salvaged from the project, which would somewhat mitigate the loss of fabric. Although the ramp of Platform 2 appears to be an early (1915) standard brick platform construction surfaced in later concrete and asphalt, there is no indication that the ramp itself is particularly important to the heritage significance of the station. Furthermore, the integrity of the ramp is reduced due to the addition of a more recent concrete coping, with the original brick coping removed previously. Therefore, the removal of the ramp would see a change to the original design intent but would not result in a detrimental impact to the overall platform's significance to the station.

Alternative designs were investigated that could mitigate risks of damage to the wall, however these were found to not be feasible solutions (see the Summary of heritage impact below for details). Overall, the proposed demolition works would result in a localised **minor** adverse physical impact to Platform 2, which would constitute a **minor** adverse physical heritage impact to the overall station heritage significance.

Physical impacts: minor adverse physical impacts

New platform works

The proposed works for Platforms 1 and 2 include temporary and permanent platform extensions, fence relocation, and new stair installations, as well as lighting upgrades on both platforms. Temporary sheet piling would be added to assist in retaining the fill of the platforms while the temporary extensions are in place; these would be removed when the permanent extensions are in place and would have no permanent impacts on the significance of the station. Following demolition and insertion of stabilising anchors, the construction of the Platform 2 extension would not require further impacts to the remaining platform brickwork, and on Platform 1 the extension would be separated by an isolation joint with no additional penetrations required. The proposed finishing works (including new TGSIs, car markers, wearing surfaces, fencing, and gates) would cause little to no adverse physical impacts, as the existing platform finishes are all of little significance or are intrusive and the new finishes would primarily be situated on the new extensions. This would include the installation of new stairways to both platforms that would maintain ongoing access to the rail corridor, and it is unlikely that any minor adjustments to finishes that could be required would cause additional impacts when limited to wearing surfaces.

New off-platform infrastructure would include a signal pit adjacent to the west side of the city end of Platform 1, and a concrete footpath that would be installed leading from the bottom of the new stairs to the signal box in the rail corridor. The new signal pit and concrete path, and any associated signal infrastructure installations, modifications or relocations, would not interfere with significant heritage fabric and would likely not cause any adverse physical impacts to the heritage significance of the station. Overall, the installation of the proposed platform extensions, associated finishes, and signal infrastructure modifications would result in **little to no** adverse physical heritage impacts to the station.

The proposed lighting upgrades would include the extension of the low-voltage (LV) cables from the existing light poles to the platform extensions, where a new light pole is proposed to be installed for each platform. The extension of the LV cabling would likely require conduiting to be installed beneath the surface of the platform, which would require minor excavation work prior to installing protective conduiting. As the surface of the platforms is a modern, wearing surface of little to no heritage significance, the installation of conduiting in the proposed location would have **little to no** adverse physical heritage impacts. If minor adjustments would be required to the LV routes it is not expected that this would cause any additional impacts as the works would still be limited to the wearing surfaces of the platform.

Physical impacts: little to no adverse physical impacts

CCTV upgrades

The preferred option for the proposed CCTV upgrades would involve the installation of new cameras alongside the existing dome cameras on the platform buildings' canopies, or the replacement of the existing cameras. Additionally, new CSRs may be needed to serve the upgraded CCTV which would require excavation of the platform surface, and new/existing surface conduits on the platform buildings may need to be installed/upgraded.

The new CCTV cameras would be attached to the existing camera mounting arms via new brackets. As the existing cameras and mounting arms are intrusive elements in the heritage context of the station, their replacement with similar, new devices (if required) or the attachment of new brackets would have **little to no** additional adverse physical impacts to the significance of the station. The platform surface is similarly of little to no heritage significance, meaning that trenching for CSRs would also have **little to no** adverse physical impact on the heritage values of Austinmer Station.

Where possible existing conduit routes, such as the one on Platform 1, are proposed to be reused to minimise modifications associated with the new camera installations. If it is found that the existing conduit routes are not suitable, then either the existing conduits would be upgraded or new conduits would be installed. The existing conduits are intrusive elements and therefore replacing them is acceptable, and any associated fixings would aim to either use existing penetration points or be fixed into the mortar between bricks if new penetration points are required. If this is not feasible and new penetrations are required into the brickwork of the platform buildings (high significance), it is expected that these would be few in number and any impact points would be small and localised. As a result, it is expected that this would cause **little to no** adverse physical impacts on the heritage values of Austinmer Station.

To minimise potential harm to significant fabric, these works should be undertaken as per advice regarding appropriate fixing methodologies for works on heritage buildings in Sydney Trains' *Heritage Technical Notes: Fixing Methods at Heritage Sites* (2019), and Transport for NSW's *Heritage Repair Works Specification: Railway Station Buildings, NSW* (2023). New penetrations for the conduiting would be kept to the absolute minimum needed for correct installation.

If the preferred option is not suitable, the alternative option would be to install new CCTV poles on the platforms. This would only impact the platform surface which is of little to no significance. This would cause **little to no** adverse physical heritage impacts.

Overall, it is assessed that both options would cause **little to no** physical heritage impacts to platform building elements and the significance of Austinmer Station.

Physical impact: little to no adverse physical impacts

Geotechnical investigations

The excavations for geotechnical or NDD investigations would be limited to the rail corridor and would not interfere with heritage fabric. They would therefore cause **little to no** adverse physical impacts to the heritage significance of Austinmer Station.

Physical impacts: little to no adverse physical impacts

Visual impacts

Temporary laydown areas

The proposed laydown areas would be returned to their original condition upon the completion of the works, and would most likely not impede the visibility or legibility of Austinmer Station's heritage character. Any temporary visual impacts would be resolved following their removal, no significant vegetation or native trees would be removed, and it is not expected that any minor branch trimming would harm the long-term health of the surrounding vegetation. The temporary laydown areas would therefore likely cause **little to no** adverse visual impacts on the heritage significance of Austinmer Station.

Visual impacts: little to no adverse visual impacts

Demolition

The proposed demolition of the northern (city) ends of Platforms 1 and 2 would involve the removal of the modern concrete and asphalt surfaces of both platforms, as well as the removal of early brick

retaining wall and the ramp at the end of Platform 2. While the removal of modern fabric of little significance (such as the concrete and asphalt surfaces of both platforms) is unlikely to result in adverse visual impacts to the heritage character of the station, the brick platform wall of Platform 2 is an element of high significance and the removal of the ramp would case a change in the original design intent of the platform. The partial demolition of the platform and the removal of the ramp would therefore result in a localised adverse visual impact, as this would entail the removal of historic fabric which contributes to the heritage character of the station.

However, due to the limited scale of the demolition and its location away from the more frequented parts of the station (particularly the station entrances to the south), the visual impacts to the station's overall heritage character would likely be **minor adverse**.

Visual impacts: minor adverse visual impacts

New platform works

The new platform extensions would be constructed of precast concrete culverts supporting the new platform surfaces, with a refuge overhang beneath the coping edge. These extensions would not correspond to the heritage character of the station, as the appearance of their materials and forms would be obviously modern, and substantially different to that of the earlier platforms structures. This contrast would be particularly pronounced when comparing the platform extensions to the 1915 brick platform, which at Platform 2 abuts the zone of works. Temporary sheet piling would also be installed as part of the temporary extension stage of the proposed works, to act as retaining walls for the temporary platform extensions. These would also contrast with the heritage character of the station; however, they would be removed when the permanent extensions are completed and would have no permanent adverse visual impacts on the significance of the station.

The modern forms and materials of the extensions would be clearly visible when viewed from the opposite platform. This introduction of further modern and contrasting structures would constitute localised **minor** adverse visual impacts to significant elements of the station's heritage character, particularly in the location of Platform 2, where the early brick coping and platform wall are still extant. However, overall, this visibility would be somewhat reduced by the distance of the platform ends from the entrances at the far southern end of the station, which are more frequented than the area of the platform extensions. Furthermore, while the platform finishes (including new TGSIs, car markers, wearing surfaces, fencing, and gates) would also introduce more modern fabric, these would be in keeping with the existing finishes present at the station. They would help to blend in the appearance of the new platforms when standing on them.

The proposed signal pit and concrete footpath within the rail corridor adjacent to Platform 1 would be additional new elements in the visual catchment of the station. However, these would not be incongruent in the setting of an active train station. These would have **little to no** adverse visual impacts on the historic significance of the station.

The proposed lighting upgrades would see the introduction of an additional light pole on each of the platform extensions. While there have not previously been light poles installed in precisely these locations at Austinmer Station, additional platform lighting would not cause an adverse visual impact on the heritage character of the station. Provided the lighting scope matches the existing platform lighting in design and intensity, the proposed lighting upgrades would likely cause **little to no** adverse visual impacts to the overall heritage significance of Austinmer Station.

Visual impacts: little to no adverse visual impacts

CCTV upgrades

New CCTV cameras are proposed to be installed at Austinmer Station. The preferred option is to collocate the cameras alongside existing dome cameras which are attached to the platform buildings' canopies, or to replace the existing cameras. These cameras are considered intrusive in the heritage context of the station. However, as the new cameras would be affixed in the same location as the extant cameras and would be similar in scale, they would be unlikely to cause further adverse visual impacts to the heritage character of the station compared to the extant cameras. The installation of the new cameras would therefore cause **little to no** further adverse visual impacts.

Where possible the cameras would connect to existing conduit routes which would cause no visual impacts. If the existing conduits would need to be upgraded or if new conduits are required to be installed, it is intended that either existing penetrations would be used or if new penetrations are required they would be limited to mortar. As the existing conduits are intrusive replacing them would be acceptable, and if new conduits or penetrations into mortar are needed these would be minor enough that there would be **little to no** further adverse visual impacts. If these are not feasible and new penetrations into the brickwork of the platform building is required, it is expected that these would be few in number and any impact points would be small and localised. As a result, it is expected that this would cause **little to no** adverse visual impacts on the heritage values of Austinmer Station.

To minimise visual adverse impact, these works would be undertaken as per advice regarding appropriate fixing methodologies for works on heritage buildings in Sydney Trains' *Heritage Technical Notes: Fixing Methods at Heritage Sites* (2019), Transport for NSW's *Heritage Repair Works Specification: Railway Station Buildings, NSW* (2023), as well as *Heritage Technical Notes: Installation of New Electrical and Data Services at Heritage Sites* (2019).

If the preferred option is not suitable, the alternative option would involve installing new CCTV poles on the platforms. While this would introduce additional modern infrastructure on the platforms, the poles would be consistent with similar infrastructure seen at railway stations, and the limited number of proposed poles would not notably alter or detract from the station setting. Therefore, this would cause **little to no** adverse visual impacts.

As the platform surface is of little to no aesthetic significance, the appearance of any trenching for CSRs or new pole installations within the platform would have **little to no** adverse visual impact on the heritage values of Austinmer Station.

Overall, it is assessed that both options would cause **little to no** visual heritage impacts to the significance of Austinmer Station.

Visual impacts: little to no adverse visual impacts

Geotechnical investigations

The geotechnical and NDD investigations would be limited to the rail corridor and would not modify or interfere with heritage fabric. The excavated areas would be returned to their original state following completion of the works. Overall, neither the appearance of the station, its platforms, nor its setting, would be permanently affected by the proposed geotechnical investigations. There would therefore be **little to no** permanent adverse visual impacts as a result of the proposed works.

Visual impacts: little to adverse visual impacts

Archaeological impacts

The proposed excavation locations in the rail corridor and platforms have low potential to contain archaeological remains of former platform and railway infrastructure, that primarily are unlikely to reach the threshold of local significance unless substantially intact. Based on the low potential for survival, it is assessed that there would be **little to no** impacts to significant archaeological remains. Potential impacts would be limited to infrastructure remains assessed to be archaeological 'works' with little to no research potential.

Cumulative impact assessment

Cumulative impacts refer to the combined, overlaid or added actions and interactions within a particular place associated with the past, present and the reasonably foreseeable future. As an active Transport for NSW asset, Austinmer Station has experienced a number of physical modifications over the course of its history. These modifications most notably include the 1985 upgrades which raised the height of the platforms to their current level, as well as subsequent installations of modern infrastructure, platform furniture, and services. Despite these modifications, the station has retained a high degree of integrity overall. Its character as an early twentieth century rural railway station is still legible in the fabric of its platform buildings, as well as the remaining brick coping and retaining walls of Platform 1 and 2.

Though the proposed works at the end of Platform 1 are unlikely to interfere with heritage significant fabric (most of the brick platform wall having been removed in this location, possibly during the 1985 upgrades), Platform 2's brick platform wall is largely intact in the zone of works. By removing the brick platform wall beneath the ramp at the end of Platform 2 and installing a modern concrete platform extension in its place, the proposed works would further alter the fabric and appearance of early and original elements of the station. This would result in **minor** adverse impacts heritage significance of the station.

The platform lighting and CCTV upgrades would also expand the presence of modern materials at the station, and therefore would contribute to the sum total of adverse heritage impacts caused the proposed works. However, as noted above, these upgrades would be unlikely to have more than **little to no** adverse impacts on the heritage significance of the station.

The proposed geotechnical investigations would not have considerable temporary or permanent impacts on the fabric and setting of Austinmer Station. Their cumulative impact on the heritage significance of the station would therefore likely not be discernible.

Taken together, the proposed works would therefore result in adverse cumulative impacts to the significance of the station. It should be noted however that these would present as incremental changes to the station's fabric and appearance, rather than considerable or drastic rapid changes.

Provided the proposed works remain aligned with the heritage management strategies and policies outlined in Sydney Trains' *Heritage Platforms Conservation Management Strategy* (2015), then impacts would be kept to a minimum. Specific strategies relevant to the proposal and future platform works include Strategies 1, 5, 7 and 11.

Summary of heritage impact

A statement of heritage impact has been prepared according to NSW Heritage guidelines in Table 3.

Table 3: Statement of heritage impact

Development	Discussion
What aspects of the Proposal respect or enhance the heritage significance of the study area?	Cumulatively the proposed works would cause localised **minor adverse** physical and visual impacts and a **minor** impact to the station overall. Though permanent, these alterations and impacts would not considerably obscure the station's heritage character. Furthermore, substantial physical impacts caused by the proposed works to significant heritage fabric would be confined to a limited area of Platform 2. The bricks from the City end ramp of Platform 2 would be salvaged for storage and potential reuse, for instance in repair work at Austinmer or possibly at other stations on the Illawarra line with similar brick work. This would assist in mitigating adverse physical impacts caused by the partial demolition of the 1915 brick retaining wall. Where new cameras and conduits are proposed to be affixed to the station buildings' canopies, the intent would be to use existing penetrations and cabling, reducing the risk of physical damage to highly significant elements of the station's heritage fabric.
What aspects of the Proposal could have a detrimental impact on the heritage significance of the study area?	The proposed works involve the partial demolition of significant heritage fabric dating to the 1915 duplication of the Illawarra line and install additional modern structures at the ends of the platforms. These new structures, though limited in size and at a certain distance from the entrances of the station, would be visible from the opposite platform, and would cause adverse physical and visual impacts. These impacts would contribute to the cumulative impacts which have in part detached the station from its historic and aesthetic heritage significance.
Have more sympathetic options been considered and discounted?	Part of the station's historic and aesthetic heritage significance lies in the fabric and appearance of the platforms' brick coping and retaining walls, making its retention an attractive option for the purposes of heritage conservation. The possibility of retaining the brick platform wall beneath the ramp of Platform 2 was investigated, including two alternative designs which involved piling and temporary support works. The piling alternative was discounted as it would have clashed with the brick work, and the temporary supports alternative was discounted as the risk of damaging the bricks would have been very high. The investigation for viable alternatives concluded that due to the concrete slab of the ramp (which is set to be demolished) being bonded to the bricks, it would be impossible to remove the top course of bricks without damaging them. The lower courses of brick work are proposed to be salvaged for storage and potential reuse.

Approval pathway

Currently a number of minor activities are exempt from approval under the *Heritage Act 1977* as standard or agency specific exemptions. The proposed works at Austinmer Station include the demolition of the ramp at the city end of Platform 2, and the installation of temporary and permanent platform extensions at the city ends of Platforms 1 and 2. Although it has been assessed that these works would result in **little to no** adverse impacts overall, the proposed type of works are not consistent with activities specified in the Railcorp Exemptions or Standard Exemptions under Section 57(1) of the *Heritage Act 1977*. As a result, the works are not considered to be exempt and therefore an application for approval must be made to Heritage NSW under Section 60 of the *Heritage Act 1977.*

As Austinmer Station is a State heritage-listed item, and impacts have been assessed as minor or less than minor, no consultation with Wollongong City Council regarding impacts to local heritage would be required in accordance with the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

Conclusions and recommendations

Conclusions

This SoHI has made the following conclusions:

- The proposed works are located within the curtilages of Austinmer Station (SHR 01077, SHI 4801131, LEP 6259) and would cause **minor** physical and visual impacts to the heritage item overall
- The proposed works are located within the curtilage of the Austinmer-Moore Street and The Grove HCA and would cause **little to no** physical and visual impacts to the heritage item
- The proposed works are not consistent with Rail Specific Exemptions or Standard Exemptions
- No consultation with Wollongong Council is required under the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

Recommendations

This SoHI makes the following recommendations:

- An application for approval must be made to Heritage NSW under Section 60 of the *Heritage Act 1977*
- Specific heritage conservation strategies contained in Sydney Trains' *Heritage Platforms Conservation Management Strategy* (2015) which should be used to guide the proposed works include:
    - Strategy 1: Manage and operate heritage platforms in a way that recognises the heritage values of each place. This includes the heritage value of each platform, its associated elements, and the overall heritage value of its station or place[4]
    - Strategy 5: Conserve and manage the fabric of heritage platforms in accordance with statutory requirements and heritage best practice[5]
    - Strategy 7: Retain and conserve original or other historic platform detailing and surface features where these contribute to the heritage significance of the platform and the station precinct[6]
    - Strategy 11: Heritage opportunities and constraints should be carefully considered throughout the options analysis and design process[7]
- A Photographic Archival Recording report should be prepared for the site prior to construction, to document significant fabric and heritage significant views and vistas that would be impacted. This report should be prepared in accordance with the following guideline:

[4] Sydney Trains, *Heritage Platforms Conservation Management Strategy,* 2015, p. 110.
[5] Sydney Trains, *Heritage Platforms Conservation Management Strategy,* 2015, p. 113.
[6] Sydney Trains, *Heritage Platforms Conservation Management Strategy,* 2015, p. 115.
[7] Sydney Trains, *Heritage Platforms Conservation Management Strategy,* 2015, p. 124.

  - *Photographic Recording of Heritage Items Using Film or Digital Capture* (NSW Heritage Office 2006)
- A copy of this report should be provided to Wollongong City Council for their records and to inform them that there would be little to no impacts to the LEP listing of Austinmer Station (LEP 6529)
- Assessment and monitoring of vibration impacts when using vibration intensive plant or tools within the safe working limits near heritage fabric should adhere to:
  - British Standard BS 7385: *Part 2: Evaluation and Measurement for Vibrations in Buildings – Part 2 Guide to Damage Levels from Ground-Borne Vibration*
  - German Standard DIN 4150, *Part 3: Structural Vibration in Buildings: Effects on Structures*
- The general requirements for the installation of new elements and required services from the following documents should be followed in order to minimise potential adverse heritage impacts:
  - *How to Carry out Work on Heritage Buildings & Sites* (NSW Heritage Office, 2002)
  - *Sydney Trains Heritage Technical Notes: Fixing Methods at Heritage Sites*
  - *Sydney Trains Heritage Technical Notes: Installation of New Electrical and Data Services at Heritage Sites* (Sydney Trains 2017)
  - *Heritage Repair Works Specification: Railway Station Buildings, NSW* (Transport, 2023) – specifically Sections 3 for masonry repairs and Section 10 for fixing external equipment
- If minor adjustments to the scope of works are required to respond to site constraints following approval of the Section 60 application, advice must be acquired from the engaged Heritage Specialist, in consultation with Transport for NSW Heritage Specialists, to confirm that the changes are consistent with the project approvals and are suitably mitigated in accordance with the project Construction Environmental Management Plan and Heritage Management Plan. Where adjustments may result in new impacts to fabric that is not intrusive or of little significance, a Section 65 application for modifications to the project approvals may be required.

References

Heritage NSW, 2025. “Austinmer Railway Station group”. *SHI database no. 01077*, accessed online at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5011943.

Heritage NSW, 2025. “Austinmer Railway Station Group”. *SHI database no. 4801131*, accessed online at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4801131.

Heritage NSW, 2025, “Austinmer Heritage Conservation Area”. *SHI database no. 5067702,* accessed online at: https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5067702.

Appendix D: Consideration of Section 171 Environmental Factors

The following environmental factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have been taken into account to assist in assessing the likely impacts of the Proposal on the environment. This consideration is required to comply with sections 5.5 and 5.7 of the EP&A Act.

Table D-1: Consideration of section 171 of the EP&A Regulation factors

ID	Factor	Comment	Impact
a	Any environmental impact on a community?	There would be some temporary impacts to the community during construction, particularly in relation to noise, traffic, access and visual amenity. Mitigation measures would be implemented to manage and minimise adverse impacts.	Minor, short term, negative
b	Any transformation of a locality?	During construction there would be some minor visual impacts associated with the presence of construction personnel and activities. Permanent changes to the platforms would not be considered a transformation as it is in-keeping with the rail environment.	Minor, short term, negative
c	Any environmental impact on the ecosystem of the locality?	The Proposal is within the rail corridor which is highly disturbed. The Proposal is not expected to involve vegetation removal and therefore no impact on the ecosystem is anticipated.	Nil
d	Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	The Proposal is located within the existing rail corridor. The Proposal has the potential to result in short-term negative impacts during the construction phase due to increased noise and dust from construction activities, construction traffic and visual impacts. Mitigation measures would be implemented to manage	Minor, short term, negative

ID	Factor	Comment	Impact
		and minimise adverse impacts.	
e	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?	The Proposal would not result in any substantial effect on listed values. A SoHI prepared for the Proposal assessed that there would be little to minor adverse impacts (physical and visual) on the heritage values of Austinmer Railway Station group. **(Appendix C)**	Minor, short term, negative
f	Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)?	The are no impacts to the habitat of protected fauna as all work is restricted to previously disturbed areas.	Nil
g	Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	The works are not expected to endanger any species of animal, plant or other form of life, noting works are restricted to previously disturbed areas.	Nil
h	Any long-term effects on the environment?	The Proposal is unlikely to have any long-term effects on the environment.	Nil
i	Any degradation of the quality of the environment?	The Proposal is unlikely to have any degradation of the quality of the environment. During construction, there would be minor impacts to the environment, primarily from noise and dust emissions and reduction in visual amenity.	Minor, short term, negative
j	Any risk to the safety of the environment?	The Proposal is unlikely to cause any pollution or safety risks to the environment provided the recommended mitigation measures are implemented. Construction of the Proposal would be managed in accordance with a CEMP to reduce any risks to the environment.	Minor, short term, negative

ID	Factor	Comment	Impact
k	Any reduction in the range of beneficial uses of the environment?	The Proposal is unlikely to have any reduction in the range of beneficial uses of the environment.	
l	Any pollution of the environment?	Construction of the Proposal could result in pollution of the environment (e.g. noise and dust emissions), however provided the recommended management and mitigation measures are implemented, this risk is expected to be minor. Operation of the Proposal is unlikely to result in pollution of the environment.	
m	Any environmental problems associated with the disposal of waste?	All waste requiring off-site disposal would be classified in accordance with the Waste Classification Guidelines (EPA 2014) prior to disposal at an appropriate waste facility licenced to accept waste of the relevant classification. Any spoil to be removed from site would be tested to confirm the presence of any contamination. Any contaminated spoil would be disposed of at an appropriately licensed facility.	Minor, short term, negative
n	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	The Proposal is unlikely to increase demands on resources that are, or are likely to become, in short supply.	Nil
o	Any cumulative environmental effect with other existing or likely future activities?	The Proposal is unlikely to have a cumulative environmental effect with other existing or likely future activities.	Nil
p	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	The Proposal would not impact on any coastal processes.	Nil

ID	Factor	Comment	Impact
q	Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1.	The Greater Sydney Region Plan includes strategies to transform land use and transport patterns to boost liveability, productivity and sustainability this plan has been prepared concurrently with Future Transport Strategy 2056. The Mariyung program implements some of the key initiatives of this Greater Sydney Region Plan to contribute to a modern and up to date rail system.	Nil
r	Other relevant environmental factors.	In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to Impact Assessment of this assessment.	Nil

Appendix E: Consideration of Commonwealth environmental factors

Table E-1: Matters of national environmental significance

Environmental factor	Comment	Impact
a) Any impact on a World Heritage property?	There are no World Heritage properties nearby the Proposal area.	Nil
b) Any impact on a National Heritage place?	There are no National Heritage places nearby the Proposal area.	Nil
c) Any impact on a wetland of international importance (often called 'Ramsar' wetlands)?	There are no wetlands of international importance nearby the Proposal area (within 1 km buffer).	Nil
d) Any impact on nationally threatened species, ecological communities or migratory species?	The Proposal would not result in impacts to a listed threatened species or community.	Nil
e) Any impact on a Commonwealth marine area?	There are no Commonwealth marine areas nearby the Proposal area.	Nil
f) Does the proposal involve a nuclear action (including uranium mining)?	The Proposal would not involve a nuclear action.	Nil
g) Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	There are no parcels of Commonwealth land nearby the Proposal area.	Nil

NSW GOVERNMENT