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**LEVEL CROSSING  
TREATMENT REPORT –  
SLADEN STREET (LX625)**

**A2I | Albury to Illabo**

CONTRACT NUMBER: 0052


PROJECT DOCUMENT NUMBER:

5-0052-210-CXR-G2-RP-0001

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## GLOSSARY

Specific terms and acronyms used throughout this plan are listed and described in Table 1 below.

**TABLE 1: DEFINITIONS**

TERM	DEFINITION
A2I	Albury to Illabo
AADT	Annual Average Daily Traffic
ADC	Assumptions, Dependencies and Constraints
ALCAM	Australian Level Crossing Assessment Model
ARTC	Australian Railway Track Corporation
CBA	Cost Benefit Analysis
CSSI	Critical State Significant Infrastructure
D&C	Design and Construct
DDR	Detailed Design Review (100% Design)
EIS	Environmental Impact Statement
FDR	Feasibility Design Review
IFC	Issued for Construction
GHSC	Greater Hume Shire Council
HV	Heavy Vehicle
IR	Inland Rail
JSC	Junee Shire Council
Km	Kilometres
LCTR	Level Crossing Treatment Report
LGA	Local Government Area
LSC	Lockhart Shire Council
LX	Level Crossing
O&M	Operations and Maintenance
ONRSR	Office of the National Rail Safety Regulator
MIRDA	Master Inland Rail Development Agreement
PDR	Preliminary Design Review (70% design)

TERM	DEFINITION
PHL	Project Hazard Log
RMS	Former Roads and Maritime Services. Now TfNSW
SDR	Systems Definition Review
SFAIRP	So Far as Is Reasonably Practical
TfNSW	Transport for New South Wales
WSP	WSP Australia
WWCC	Wagga Wagga City Council

# 1 INTRODUCTION

This Public Level Crossing Treatment Report (LCTR) has been prepared in consultation with Transport for NSW and the relevant council. In accordance with E152 and in order to minimise risks to the construction program, individual reports will be submitted for each individual crossing. As the project progresses opportunities to streamline the number of LCTR's will be reviewed. An indicative schedule of planned submission dates for the remaining LCTR's will be provided to DPHI in response to DPHI RFI PA 151 - LX Treatment Report Plunkett and Sladen Street.

This Public Level Crossing Treatment Report relates to Sladen Street (LX625), Henty, within Greater Hume Shire Council (GHSC). GHSC is the Road Manager. There is Minor Works Authorisation Deed (WAD) in place for the interface between Sladen Street and Olympic Highway.

Sydney Trains were consulted on the Henty Yard design due to the minor impacts within the Sydney Trains station boundary however they are not a key stakeholder in the design of the level crossing.

NSW Trains were consulted on the Henty Yard design due to the revised stopping locations proposed at the station platform however they are not a key stakeholder in the design of the level crossing.

Upgrade works at LX625 are scheduled to commence December 2025.

## 1.1 Inland Rail

The Inland Rail Project is a priority for the Commonwealth. Inland Rail is transforming Australia's freight future by delivering an efficient and reliable rail connection that is supporting economic growth and enhancing supply chain resilience. Inland Rail consists of approximately 1,000 kilometres of upgrades to existing rail infrastructure and 600 kilometres of new track construction. It is improving national freight rail efficiency and creating opportunities for regional communities and industries across Victoria, New South Wales and Queensland.

As a subsidiary of ARTC, IRPL is responsible for the planning and delivery of the project, ensuring that we fulfil IRPL's role as outlined in the Australian Government's Statement of Expectations (SoE)

Once completed, Inland Rail will support a double stacked service offering between the intermodal terminal at Beveridge in Victoria and the proposed terminal at Ebenezer in Queensland, with a single stacked service offering to Kagaru.

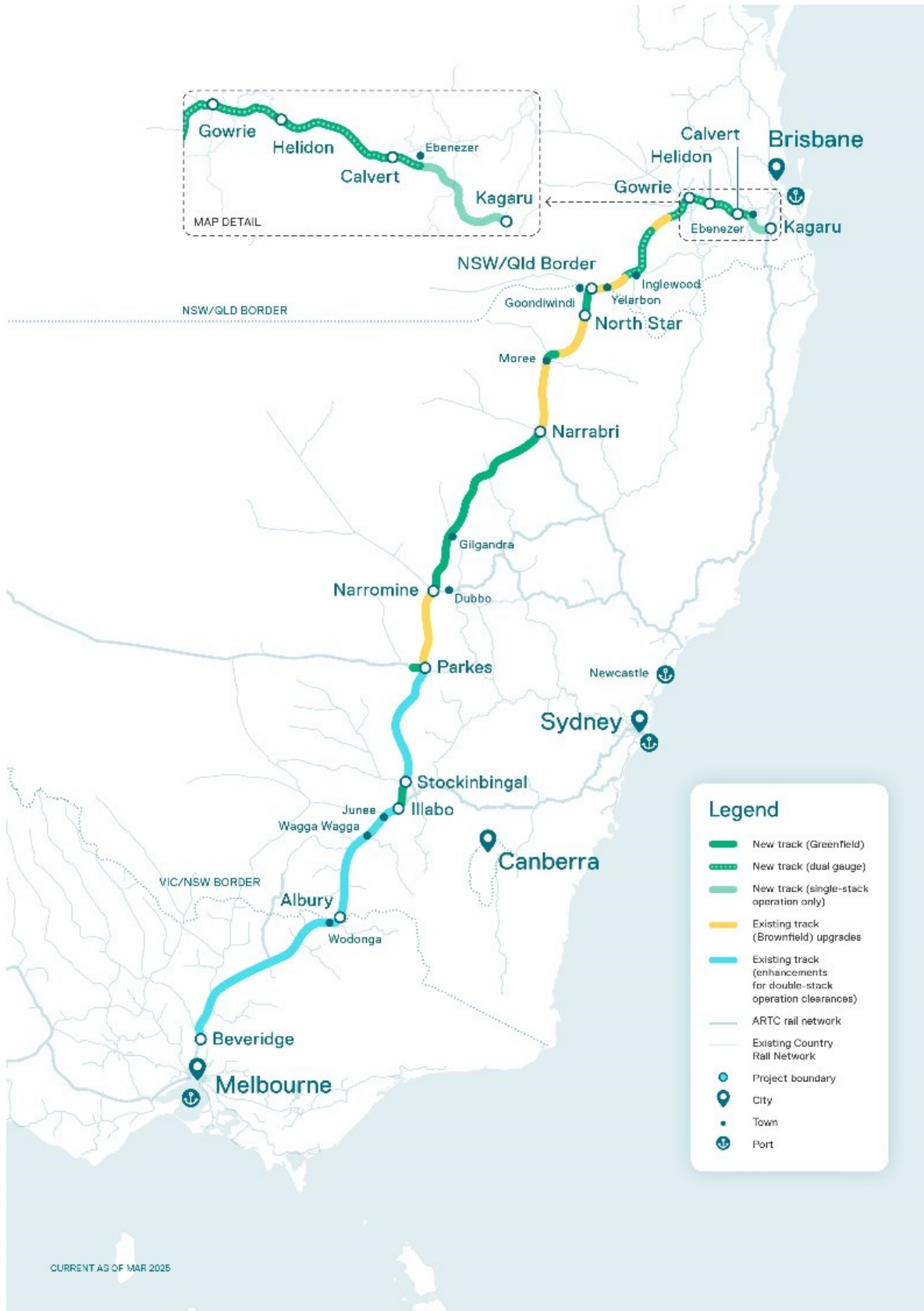


FIGURE 1: INLAND RAIL ALIGNMENT MAP

## 1.2 Albury to Illabo (A2I)

The Albury to Illabo (A2I) Project is an Enhancement Project within the Inland Rail Program. The scope includes enhancement works to structures and sections of track along 185 km of the existing operational standard-gauge railway.

Enhancements or modification works are required at discrete sites along the A2I alignment to provide the increased vertical and horizontal clearances required for double-stacked freight trains.

The Critical State Significant Infrastructure (CSSI) for the A2I project as described in Schedule 1 of the planning approval document includes ancillary works/adjustments to nine level crossings. Seven of these are public level crossings which were in operation before the Inland Rail Project, one is a public level crossing at Dampier Street in Bomen which was closed to road traffic prior to the Inland Rail Project and there is one private level crossing which will be detailed in the Private Level Crossing Treatment Report as per Condition E150 and 151.

A2I enhancement works include:

- Track realignment/track slews
- Lowering and/or modification within the existing rail corridor
- Modification, removal or replacement bridge structures (rail, road and/or pedestrian bridges)
- Raising or replacing of signal gantries
- Level crossing modifications
- And other associated works.

LX625 is required to be modified to accommodate double-stacked freight trains. At LX625 there are minor track slews of circa 280mm proposed through the level crossing.

The existing and proposed primary level crossing control at LX625 is primary flashing lights and boom barriers. As part of the modification of the crossing to facilitate double stacked trains, the following upgrades are proposed at LX625.

- Minor Main Line track slew of circa 280mm through the level crossing to accommodate double stacked trains.
- Existing asphalt panel to be removed from the Main Line and Loop Line track and replaced with rubber level crossing panels.
- Remove and reinstate the RX-5 assemblies (x3) to provide a compliant 3.5 m clearance to the new track alignment.
- Shift the stop bars on either side of the crossing to provide a 3.0m offset to the new RX-5 assembly locations.
- Install new pedestrian mazes on either side of the tracks to suit new track alignment.
- Add RX-9 level crossing width marker assemblies.
- Signage and line marking will be upgraded.

**TABLE 2: LX625 SUMMARY TABLE**

No #	Crossing Name and location	Design Package	Road Manager	Km	Primary Level Crossing Treatment (Existing and proposed)	Works Summary
LX625	Sladen Street, Henty	Henty Yard	GHSC	580.200	Active controls (Flashing lights and Boom Barriers)	Modify crossing for slew works and upgrade the passive pedestrian crossing to active controls with automatic gates.  LX panels, signage and line marking to be upgraded.



Figure 2: Location of LX625 – Sladen Street

## 1.3 Planning Approvals

The Albury to Illabo section of the Inland Rail Program (the proposal) is a Critical State Significant Infrastructure project being assessed under the Environmental Planning and Assessment Act 1979 (NSW).

An Environmental Impact Statement (EIS) for the proposal was placed on public exhibition in 2022 and submissions were invited from the community and key stakeholders. ARTC responded to the issues raised in these submissions in the EIS Response to Submissions Report in November 2023. Alongside this, ARTC also prepared a Preferred Infrastructure Report (PIR) in response to a request from DPHI for further assessment of traffic and transport, noise and vibration, and air quality impacts from the proposal. Additionally, the PIR also considered changes to the proposal since the EIS that had arisen as a consequence of the further assessments and related submissions. The PIR was placed on public exhibition from 15 November 2023 to 6 December 2023 and during this time, the community and key stakeholders were invited to make a submission. ARTC subsequently prepared a PIR Response to Submissions (PIR-RtS) report in February 2024 that responds to the issues raised in these submissions.

Following submission of the PIR-RtS, DPHI completed their assessment of the proposal in accordance with Government legislation, policies and guidelines. The DPHI provided their assessment report and recommended conditions of approval in September 2024 to the NSW Planning Minister to consider when deciding on the project approval.

Approval from the NSW Minister for Planning was granted on 8th October 2024.

**TABLE 3: CONDITIONS OF APPROVAL COMPLIANCE MATRIX**

Note where a COA relates to the CSSI, the information will be crossing specific as allowed under COA E152.

No.	Condition	Section Reference
E146	In order to maintain safe and efficient operation of the road network, the Proponent must prepare a Public Level Crossing Treatment Report in consultation with TfNSW and relevant councils. The report must:	This report. Refer Appendix A for consultation with TfNSW and Council.
	(a) illustrate the location of all public level crossings which traverse the CSSI;	Figure 2
	(b) list, and identify on a figure, any public level crossings that will be closed or upgraded, including the type of treatment proposed where a level crossing is to be upgraded;	Appendix B and Table 2
	(c) where no works are proposed at a public crossing, provide reason for the decision;	Appendix B <i>N/A Works are proposed at LX625</i>
	(d) include measures to avoid potential short-stacking at level crossings; and	Appendix C
	(e) provide justification for any proposed closures.	Section 5
E147	The assessment of level crossings must utilise the Australian Level Crossing Assessment Model (ALCAM). The process for determining the type of level crossing treatment must be consistent with the process outlined in the documents listed in Condition A1 and the Traffic Impact Assessment Appendix M of the EIS.	Appendix B Table 7
E148	The Public Level Crossing Treatment Report must also include an assessment of the road risks, consistent with the guideline Railway Crossing Safety Series 2011, Plan: Establishing a Railway Crossing Safety Management Plan (NSW Roads and Traffic Authority, 2011). The report is also to include an assessment of the crossing's compliance with AS /RISSB 7658-2020. Railway Infrastructure – Railway Level. Crossing and AS1742.7 2016 Manual of uniform traffic control devices and Section 10 Rail Crossings of AGRD Part 4.	Section 6 and Appendix D

No.	Condition	Section Reference
E149	The design of any level crossing on a public road must be endorsed by TfNSW or the relevant roads authority (where not TfNSW), prior to commencing construction of that crossing.	<p>Construction will not commence unless endorsement from the TfNSW or the Road Authority is received.</p> <p>Where design sign off letters have been received at the time this report is submitted, they have been included in Appendix E</p>
E152	The Public Level Crossing Treatment Report and Private Level Crossing Treatment Report must be submitted to the Planning Secretary for approval at least one (1) month prior to the closure or upgrade of a public or private level crossing, as relevant. Individual reports may be submitted for each crossing or address a group of crossings or the entire CSSI.	This Report is an individual report for LX625. This report is being submitted to the Planning Secretary at least (1) month prior to commencement of the works.

## 2 CONSULTATION

### 2.1 Overview

Inland Rail's values commit the organisation to active engagement with stakeholders and the community; therefore, a comprehensive consultation program has been undertaken throughout the planning and design phases of the A2I Inland Rail project.

Effective communication and stakeholder engagement are fundamental to reducing risk and minimising social and environmental impacts. Inland Rail believes that identifying, engaging, and effectively communicating with stakeholders is critical to the successful delivery of Inland Rail.

Inland Rail has conducted extensive consultation with key level crossing stakeholders including TfNSW and Greater Hume Shire Council during the planning and detailed design of LX625. All consultation, prior to the Contractors engagement, has been done in line with the Inland Rail A2I Communication Strategy Engagement Implementation Plan (EIP). Consultation by the Contractor has been in line with the Community Communication Strategy and Communication and Stakeholder Engagement Plan.

There are signed agreements in place between ARTC and all of the Councils across A2I. These are referred to as Master Inland Rail Development Agreements and were signed between 2021 and 2023. These are important in ensuring there is alignment on the key matters before any works are commenced. The council development agreement includes a list of council assets impacted by the project including level crossings, the scope of works at each location as well as the required design standards.

Information sharing agreements have been established to enable the prompt transfer of information between Council's and the project team. This information included inputs into the design process including road traffic counts, proposed changes in road usage and feedback on any future development plans.

Inland Rail and Martinus have adopted the following methods of engagement to discuss and seek feedback from key stakeholders on the level crossing designs:

- Monthly Monitoring Meetings
- Stage Gate Design Reviews where the stakeholder can provide feedback in a Comments Register on the following stages of design:
  - » SDR (30%)
  - » PDR (70% design)
  - » DDR (100% design)
- Stage Gate Briefing Workshops where Martinus presents the design package and provides attendees with the opportunity to ask questions.
- 70% Safety in Design Workshop
- Technical Working Groups

Inland Rail and Martinus will continue to consult and work closely with these key stakeholders during the construction and handover phase of the project.

Consultation activities specific to LX625 are detailed in appendix A.

### 3 PUBLIC LEVEL CROSSING ASSESSMENT

Level crossings have been assessed in accordance with the public level crossing treatment methodology detailed in Appendix A of the A2I EIS Technical Paper 1: Traffic and Transport “Public Level Crossing Treatment Methodology”.

The key principles that guided the decision-making process for determining treatments at public level crossings are noted below:

- Utilising a risk-based decision-making process focused on minimising risk so far as is reasonably practicable (SFAIRP);
- Consistency in determining public level crossing treatments across the projects of the Inland Rail Programme;
- Consistent methodology used to determine whether the cost of potential treatment is grossly disproportionate to the level of risk to safety and the projected benefits; and
- Ensuring the feasibility of the Inland Rail Programme by proposing cost-effective solutions.

An overview of the process in assessing public level crossings and developing treatments is outlined in the following sections.

In summary all public level crossings within the A2I scope either:

- Have active controls (Flashing lights and Boom Barriers) which is the highest form of level crossing control under the Australian Standard
- Will be closed as part of the project

#### 3.1 Identification of all public level crossings within the project area

An important objective of public level crossing investigations was the clear and accurate identification of all level crossings within the project area and getting agreement on who the road manager is. The development of an initial level crossing list encompassed a review of existing level crossing datasets including the Australian Level Crossing Assessment Model (ALCAM) database, ARTC’s asset management database and any relevant property records.

The list of level crossings was then provided to the relevant road manager for review to ensure that all level crossings and associated Road Managers were correctly identified, and the data was updated to reflect any agreed changes. The road managers for all public crossings are documented in Table 2. This is also documented in the Council Development Agreements.

## 4 PUBLIC LEVEL CROSSING ASSESSMENT

### 4.1 Assessment of public level crossings for closure

In New South Wales, formal closure of a level crossing needs to be undertaken in accordance with the requirements of the Transport Administration Act 1998 and requires Ministerial approval. Closure of legal level crossings within A21 project will only be actioned following confirmation from the road manager (for public level crossings) of no objection to closure.

Initial consideration was given to the elimination of level crossing risks by assessing all level crossings for closure. This is in line with the Transport for New South Wales (TfNSW) Level Crossing Closures Policy, which notes that:

“in order to manage the risks to safety associated with road and rail interfaces, the closure of public and private level crossings in NSW is to be pursued, where it is practical and cost effective to do so”

Each was reviewed considering traffic volumes and alternative routes, along with land use, property ownership and any special user groups which may use the level crossing.

Crossings that could potentially be closed were identified where:

- Traffic volumes are (relatively) low;
- Alternative legal access is available or reasonably achievable; and
- The imposition on road users is not considered unreasonable, considering Rail Industry Safety and Standards Board (RISSB) level crossing consolidation guideline.

The assessment is summarised in Section 5.

### 4.2 Criteria for automatic grade separation

ARTC's policy as per Appendix L of the Submission Report is that rail-road interfaces will be automatically grade separated in the following instances:

- Rail-road crossings with four rail tracks (current)
- Rail-road crossings of freeways and highways of four or more lanes (current and committed plans).
- Where grade separation is the logical option for engineering or topographical reasons.

LX625 did not meet the above criteria.

All public level crossings which do not meet the automatic grade separation criteria are to be assessed using the Level Crossing Risk Tool, in order to determine the appropriate crossing treatment, which may still be that the crossing be grade separated. Further detail on the risk tool is included below.

### 4.3 Level crossing risk tool

Where closure is not feasible, a methodology was developed to identify risk treatments to be implemented at each individual level crossing. This methodology was formalised in the level crossing risk tool which identified risk treatments and assisted Inland Rail to demonstrate that risks to safety would be managed So Far As Is Reasonably Practicable (SFAIRP) for both brownfield and greenfield interfaces.

In accordance with the Office of the National Rail Safety Regulator's (ONRSR's) recommendation on the use of quantitative risk assessment techniques, a decision was made to develop a tool which moved away from a “warrant” approach (e.g. decisions around control types based on basic metrics such as road type or traffic volumes) to a cost benefit analysis (CBA) approach for safety risk management. The approach utilises ALCAM as one of the main inputs into the decision process for the recommended level of control at Inland Rail level crossings.

The Australian Transport Council in May 2003 agreed to adopt ALCAM as the only comprehensive level crossing assessment model in Australia. ALCAM is an assessment tool used to identify key potential risks at level crossings and assess the overall effects of proposed treatments.

Consideration of factors other than ALCAM that may influence the recommended level of control were also considered, where relevant on a case-by-case basis, including:

- Collision and near-collision history;
- Engineering experience (both rail and road);
- Traffic and transport impacts; and

- Local knowledge of driver and pedestrian behaviour.

Level crossing treatment (control) options which may be considered as part of the process included:

- Upgrade of RX-2 passive (stop sign) level crossings to RX-5 active (flashing lights and boom barrier) control;
- Upgrade of existing RX-5 flashing light-controlled level crossings to include boom barriers;
- Retain existing RX-2 passive controls and renew the level crossing infrastructure, including signage and road markings, to ensure that the crossing complies with the Australian Standard;
- Grade separation; and
- Other treatments identified based on-site specific risks.

Transport for New South Wales (TfNSW) Level Crossing policies have been considered in the development of the proposed treatments, including:

- the Level Crossing Closures Policy; and
- the Construction of New Level Crossings Policy.
- Speed Limit on Approach to Active Level crossings Policy.

In order to be consistent with the TfNSW Level Crossing Improvement Program (LCIP), Inland Rail have also adopted the position that all upgrades to active controls (RX-5) will include boom gate barriers in addition to the flashing lights and bells.

## 4.4 Cost benefit analysis (CBA)

Part of the test as to whether risks have been managed SFAIRP was to determine whether the cost of the additional control was grossly disproportionate to the benefit gained via a CBA. From a financial perspective, to do the CBA, three key inputs were required:

- The avoided cost if an additional risk control is implemented – ALCAM provided a quantitative measure of risk reduction generated by changing the controls at the level crossing. Risk reduction (benefits) could be calculated by comparing two risk scores for two scenarios – for example one proposal with stop signs and one with flashing lights and boom barriers. ALCAM is focused on safety risks and encompasses the costs of fatalities and injuries resulting from a road rail collision.
- The cost of implementing the additional risk control – This was a combination of the capital cost of the additional control and the annual maintenance and repair cost over the life of the additional control
- What would be considered grossly disproportionate – From a legal perspective the ONRSR Meaning of Duty to Ensure Safety So Far As Is Reasonably Practicable Guideline provided guidance on what would be considered grossly disproportionate through considering a Grossly Disproportionate Factor (GDF). The guideline suggested that the GDF may be dependent on the likelihood and consequence with low risks having a factor of 2 and high risk having a factor of 10.

All public level crossings within the A2I scope where closure is not being progressed will have active controls (with flashing lights and boom barriers). This is the highest form of level crossing control under the Australian Standard.

## 4.5 The use of ALCAM assessments in the determination of level crossing treatments

ALCAM assessments have been undertaken for public road level crossings in their existing configuration, thus providing a baseline risk score. The “proposal” functionality in the ALCAM system was used to model the ALCAM risk score assuming the project proceeds. This incorporates forecast changes to train speeds, volumes and train lengths. For the A2I project, this assessment assumed the maximum operational train speed and the forecasted road and train volumes. This aligns with the EIS timeframes.

Updated road traffic counts, including a breakdown between light and heavy vehicles, have also been collected for all public roads and included in this analysis. In parallel, Inland Rail reviewed the ONRSR incident data to determine road rail collisions at the respective level crossings.

The next level of control was applied at level crossings assessed as being non-compliant for the existing control. For example, where sufficient sighting distance for a stop sign crossing could not be achieved as a result of increased train speeds, as per Australian Standard 1742.7-2016 (Manual of uniform traffic control devices Part 7: Railway crossings) the minimum control would be flashing lights and boom barriers. Even for level crossings compliant for the current control, the next level of control was modelled in ALCAM and a cost-benefit/grossly disproportionate analysis undertaken. Additional levels of control were modelled and a cost-benefit/gross disproportionate analysis carried out for each until the risk factor was reduced and a cost-effective level of crossing protection established.

ALCAM assessments were undertaken on detailed designs. The assessment included an evaluation of compliance with AS1742.7 requirements for signage and sighting distance and risks highlighted in AS /RISSB 7658-2020. Railway Infrastructure – Railway Level ALCAM assessments include consideration of the specific risks considered in Section 10 Rail Crossings of AGRD Part 4.

## 4.6 Preliminary design

Preliminary design was first undertaken to confirm that a level crossing with the proposed control, compliant with the relevant standards, could be constructed onsite. This design incorporated the appropriate road design standards as directed by the relevant road infrastructure manager.

The design has been completed such that all level crossings remaining as part of the final works will be upgraded/constructed to comply with AS/RISSB 7658:2012 “Railway Infrastructure – Railway Level Crossings”, AS1742.7 (2016) “Manual of Uniform Traffic Control Devices Railway Crossings” and other road authority standards, and to address SFAIRP any safety deficiencies identified through the design and risk assessment process.

Site specific level crossing treatments were then reviewed with the respective road infrastructure managers as the project progressed through detailed design.

## 4.7 Interface agreements

In accordance with National and State Rail Safety Law requirements, all current and proposed public road crossings will be subject to an Interface Agreement.

The Rail Road Interface Agreement within the Greater Hume Shire Council has been signed by all parties. ARTC have advised that as project works are nearing completion, ARTC as the RIM will review the RSNL Interface Agreement and update the document where required in consultation with the relevant road manager(s).

## 5 LEVEL CROSSING CLOSURE SUMMARY

TABLE 4: LEVEL CROSSING CLOSURE SUMMARY TABLE

LX	Crossing name and location	Road Manager	Proposed closure	Reasoning	Discussed with Road Manager	Conclusion
LX625	Sladen Street, Henty	Greater Hume Shire Council	No	This is the primary access between the eastern and western side of Henty township so closure is not feasible.	N/A	Closure not proposed

## 6 ASSESSMENT OF THE ROAD RISKS

An assessment of the road risks, consistent with the guidelines Railway Crossing Safety Series 2011 (NSW Roads and Traffic Authority, 2011) was undertaken. The assessment is included in Appendix D

The process follows the following steps:

- Identify the safety risks, hazards and hazardous events at each level crossing.
- Evaluate the mechanisms of crash causation at a level crossing, applying the railway crossing cause/consequence bow tie model. Select safety management measures that are appropriate for the risk and that will minimise that risk, so far as is reasonably practicable; and
- Assess the risk at each level crossing, applying risk tolerance and risk assessment processes.

The risk assessment was undertaken on the proposed configuration for each level crossing at the completion of the detailed design. The assessment shows that all risks are rated at no greater than low level, SFAIRP



# APPENDICES

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# APPENDIX A

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## Consultation with Key Stakeholders

**TABLE 5: CONSULTATION WITH KEY STAKEHOLDERS**

Date	Forum	Stakeholder	Location	LX	Design Stage	Design Discussion	Design Response	Status
28-Jan-25	Monthly Monitoring meetings	GHSC	Henty	LX625	PDR	<p>Martinus Landscape Architect presented the draft landscape plan to Greater Hume Shire Council. GHSC stated the planting is acceptable. Only question is – access to the historic gates. What is the need for accessing the gates? The vegetation should be continuous around the kerb to improve pedestrian safety.</p> <p>Martinus stated the remit under the project is to maintain existing access however will investigate with ARTC if closure is possible as there are a number of alternative access points available. Concern mainly around safety and vehicles stopping at the level crossing.</p>	landscape design includes continuous planter along footpath as requested by Council	Closed
28-Feb-25	Monthly Monitoring meetings	GHSC	Henty	LX625	PDR	<p>GHSC – Is there any upgrade to lighting?</p> <p>MR - No streetlighting in Martinus scope of works at this location</p>	Note	Closed
28-Mar-24	Monthly Monitoring meetings	GHSC	Henty	LX625	PDR	Henty Yard PDR Design Package (Includes LX625) Issued for review	No comments from Council	Closed
18-Jul-24	Monthly Monitoring meetings	GHSC	Henty	LX625	DDR	Henty Yard DDR Design Package (Includes LX625) Issued for review	No comments from Council	Closed
23-Jul-24	Monthly Monitoring meetings	GHSC	Henty	LX625	DDR	Road Authority Form issued to Council for acceptance for 100% design for LX625	Road Authority Approval of design received - 5-0000-210-PEN-G2-LT-0001	Closed
28-Mar-24	PDR Design Review	ARTC	Henty	LX625	PDR	Signage to comply with COP 11	Noted. Signage note to be amended to include COP 11 for DDR	Closed
28-Mar-24	PDR Design Review	ARTC	Henty	LX625	PDR	Have design and check vehicle been consulted/agreed with the asset owners? Clarification.	GHSC Approval of design letter received 23 July 2024 (5-0000-210-PEN-G2-LT-0001) which	Closed

							included the design and check vehicle.	
28-Mar-24	PDR Design Review	ARTC	Henty	LX625	PDR	<p>Level Crossing deliverables could not be found in the submission. Will they be submitted as a separate package?</p> <p>PSR Annex F has the following deliverables at 30% design:</p> <p>Road Rail Interface Register (0-0000-900-CXR-00-RG-0004)</p> <p>Area of Impact Assessment (0-0000-900-CXR-00-RG-0006)</p> <p>Level Crossing Survey Forms (0-9000-0000-CXR-TE-0001) (0-0000-900-CXR-00-TE-0002) (0-0000-900-CXR-00-TE-0003) (0-9000-0000-CXR-TE-0004)</p> <p>Level Crossing Compliance Assessment (0-0000-900-CXR-00-RG-0003)</p> <p>Level Crossing Consolidation Report (0-0000-900-CXR-00-RG-0005)</p>	<p>The registers and template-forms will be provided in the next submission.</p> <p>Because of the level of detail required to populate the forms, we propose to provide these in future submissions at the following stages:</p> <p>0-0000-900-CXR-00-RG-0003_ at PDR</p> <p>0-0000-900-CXR-00-RG-0005_0 at PDR</p> <p>0-0000-900-CXR-00-TE-0002_1_XLT at DDR</p> <p>0-0000-900-CXR-00-TE-0003_2 at DDR</p> <p>0-0000-900-CXR-00-TE-0003_XLT_4 at DDR</p> <p>0-9000-0000-CXR-TE-0001_4 at DDR</p> <p>0-9000-0000-CXR-TE-0004_0 at DDR</p>	Closed
28-Mar-24	PDR Design Review	ARTC	Henty	LX625	PDR	<p>There is short stacking issue here. This will need agreement/ verification with the road owners. The AS 1742.7 standard section 3.6 (and 5.3) referred in the last paragraph on page 61, relates to managing queuing at the tracks.</p> <p>Section 5.4 (see below) in the 1742.7 standard whereas focuses on specific measures for stacking, which may not exclude the use of</p>	<p>Regarding the yellow box linemarking, it has been implemented as the other options listed in Section 5.4 cannot be implemented as they fall outside the CIZ and dramatically changing the level crossing arrangement.</p>	Closed

						<p>yellow box marking but other treatment options are also discussed.</p> <p>Section 5.4 excerpt is below:</p> <ul style="list-style-type: none"> <li>a. Establishing a detour and regulatory sign posting for long vehicles.</li> <li>b. Providing appropriate emergency escape, refuge areas or slip lanes for long vehicles.</li> <li>c. Changing priority of road traffic movements.</li> <li>d. Realigning of roads to provide sufficient length to accommodate the design vehicle.</li> <li>e. Any other measures determined through risk assessment to be appropriate given the circumstances.</li> </ul> <p>NOTE: See also Austroads Guide to Traffic Management.</p> <p>Hence, the wording may need to be revised in the paragraph.</p> <p>The proposed layout needs to be agreed with the road asset owners.</p> <p>PSR Annex B also requires that “The Track System level crossings, where the rail corridor is parallel to a road corridor, shall have a minimum clearance between the outer rail to the edge of unmarked seal/edge of unsealed travelled way at the intersection of 31m.” Is this complied with, or a departure/waiver required here?</p>	<p>The existing level crossing achieves 29m (as per existing signage). This has not changed due to the works and therefore no waiver is required (i.e. the works are not making the situation worse, just maintaining existing length).</p>	
22-July-25	DDR Design Review	ARTC	Henty	LX625	PDR	Should be 2.5m between RX5 assembly and the edge of the sealed pavement or curbing/gutter as per ESC-03-01 sect 2.12.	No waiver is required as design is compliant. As per the Note to Figure 2 in Section 13.2 of ESC-03-01, "where the road	Closed

							speed is less than 60kph, the distance between the centreline of post and the road edge should be 2000mm". The road design speed at Henty is 50kph which is less than 60kph, so Note 2 to Figure 2 applies. We have 1.5m to the kerb and a further 650mm from kerb to road edge (edge line). As such, the minimum 2.0m from RX centre to road edge is achieved.	
22-July-25	DDR Design Review	ARTC	Henty	LX625	PDR	Should be 2.0m flat area at rear of RX5 assembly for maintenance workers	2.0m width has been provided behind RX-5 (between RX-5 and Ped Maze).	Closed
						There is an existing short stacking issue here and the intersection geometry is likely non-compliant for the design vehicle.  EIS submission- Traffic and Transport states that "ARTC is continuing to consult with TfNSW to determine a suitable solution to the short stacking issue, which will be confirmed during the detailed design stage."	Agree this will be documented within a formal correspondence (e.g. letter) to the Council (road managing authority) confirming they have been consulted and accepts the LX interface elements.	Closed
						AS 1742.7 standard section 3.6 referred in the first paragraph on page 75, relates to managing queuing at the tracks. The SSA discussed in this section and provided in the appendices also discuss yellow box marking in the context of queuing across the intersection. Please update wording as yellow box does not resolve stacking.  Section 5.4 (see below) in the 1742.7 standard whereas focuses on specific measures for stacking.  Section 5.4 excerpt is below:	Wording in Section 4.3.9.3.1 has been updated from 'ease the short stacking issue' to 'manage short stacking issue'  A new table (Table 4-26) has been added in Section 4.3.9.3.1 to explain why short stacking elimination methods cannot be performed at LX625 due to site constraints as per AS1742.7 Section 5.4.  A new table (Table 4-27) has been added in Section 4.3.9.3.1	Closed

						<p>a. Establishing a detour and regulatory sign posting for long vehicles.</p> <p>b. Providing appropriate emergency escape, refuge areas or slip lanes for long vehicles.</p> <p>c. Changing priority of road traffic movements.</p> <p>d. Realigning of roads to provide sufficient length to accommodate the design vehicle.</p> <p>e. Any other measures determined through risk assessment to be appropriate given the circumstances.</p>	to explain why certain management measures can and cannot be adopted due to site constraints as per AS1742.7 Section 5.3.	
20-May-24	PowerPoint presentation	Sydney Trains	Henty	LX625	DDR	<p>MR presented the Henty Yard DDR design to Sydney Trains with a focus on the impacts within the Sydney Trains boundary. Comments associated with the level crossing were as follows;</p> <ul style="list-style-type: none"> <li>▪ Need to determine maintenance obligations for the new Pedestrian Level Crossing including fencing and retaining wall.</li> <li>▪ Will there be any temporary outage or altered power arrangements</li> </ul>	<p>The Interface Agreement between ARTC and Sydney Trains will be amended by ARTC to include the maintenance responsibilities at the end of the project.</p> <p>No there will be no temporary or altered power arrangements</p>	Closed
20-May-24	PowerPoint presentation	Sydney Trains	Henty	LX625	DDR	Sydney Trains provided review in a comment sheet 5-0052-210-PEN-G2-CS-0002-ST	As the ST boundary is outside of the level crossing there were no comments on the LX treatment	Closed
6-June-25	Executed WAD	TfNSW	Henty	LX625	N/A	MR received Executed Minor WADs for LX625 from TfNSW (via IR)	The WAD sets out deliverables to be issued for WAD submission.	Open
29-Aug-25	DDR2 review	TfNSW	Henty	LX625	DDR2	TfNSW provided comments on the DDR2 design drawings (5-0001-210-PEN-G2-RG-0001). All comments received were on pavement design and not the level crossing treatment	DDD2 is being updated to IFC to address TfNSW pavement comments.	Closed

24-Dec-25	LCTR	TfNSW	Henty	LX625	N/A	Comment sheet returned closed with letter acknowledging all comments have been addressed.	Refer Appendix G for TfNSW letter.	Closed
07-Jan-26	LCTR	GHSC	Henty	LX625	N/A	Greater Hume Shire Council was issued the LCTR Rev F for information	No comments received.	Closed



# APPENDIX B

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## Level Crossing Treatment Summary



**LOCATION PLAN**  
NTS

TABLE 6: LEVEL CROSSING SCOPE AND LOCATION

Crossing Number	Crossing Name	Existing Control	Proposed Control	Road Manager	Scope	Crossing Location	Existing Chainage	GIS Latitude	GIS Longitude
LX625	Sladen Street	Active – Flashing lights and Boom Barriers	Active – Flashing lights and boom Barriers  Pedestrian Crossing upgraded to Automatic gates	Greater Hume Shire Council	<p>Minor Main Line track slew of circa 280mm through the level crossing to accommodate double stacked trains.</p> <p>Existing asphalt panel to be removed from the Main Line and Loop Line track and replaced with rubber level crossing panels.</p> <p>Remove and reinstate the RX-5 assemblies (x3) to provide a compliant 3.5 m clearance to the new track alignment (addressing PHL_106, 108*).</p> <p>Shift the stop bars on either side of the crossing to provide a 3.0m offset to the new RX-5 assembly locations (addressing PHL_106, 107*).</p> <p>Install new pedestrian mazes on either side of the tracks to suit new track alignment (addressing PHL_112)</p> <p>Add RX-9 level crossing width marker assemblies (addressing PHL_106, 108*).</p> <p>Signage and line marking will be upgraded (addressing PHL_106, 107*).</p>	Henty	565.242	35.517137	147.035239

TABLE 7: LEVEL CROSSING TREATMENT SUMMARY

Crossing Number	Road Name	Assessed for Closure	AADT (Baseline)	%HV	Assumed Growth Rate %	AADT (2040)	ALCAM Assessments Undertaken	Non ALCAM factors considered	Incident Data (ONRSR) 01/07/2014 to 11/09/2024	LX is compliant - existing control	CBA undertaken	Proposed control complies with AS1742.7	Required S3 greater than 750m
LX 625	Sladen Street	Y	1144	14.6	1	1439	Y	Y	0 reported near misses or collisions between and train and a road vehicle	Active Controls N- Has existing stacking Issues due to the proximity of Olympic Highway from the tracks. Stacking distance is improved from the existing situation to allow for a B double 26m vehicle to be stored in between the Olympic Highway and the tracks. The proposed design provides 27.2m of storage between the Olympic Highway give-way line and the tracks, compared to 20.9m of storage in the existing scenario.	Y	Y	NA (Active controls)



# APPENDIX C

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## Short Stacking Review

TABLE 8: SHORT STACKING REVIEW

LX	Crossing name and location	Road Manager	Design Vehicle	Short stacking issue	Mitigation Measures
LX625	Sladen St, Henty	Greater Hume Shire Council	B Double 26m	The existing level crossing has short stacking issues due to the proximity of the level crossing to Olympic Highway / Sladen Street intersection. The required distance is 31m to the give-way line and the available distance is 27.2m.	<p>Two short stacking measures have been incorporated in design:</p> <ol style="list-style-type: none"> <li>1. The give-way line on Sladen Street eastbound, has been moved further east by 7 metres to be closer to Olympic Highway. The shifting of the give-way line enables a heavy vehicle (B-Double) to wait at the give-way line and not queue over the existing tracks.</li> <li>2. The proposed design incorporates yellow box line marking on the eastbound carriageway as per AS1742.7 due to the short stacking issue being on the eastbound carriageway only and level crossing not achieving the required 31 metre distance.</li> </ol>



# APPENDIX D

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## Risk Assessment Evidence

## Introduction

An assessment of the road risks, consistent with the guidelines Railway Crossing Safety Series 2011 (NSW Roads and Traffic Authority, 2011) was undertaken. Key documents evidencing the risk assessment process are listed below and have been provided to GHSC and ARTC. These are the road and rail managers for the level crossings which are the subject of this report.

## Design Packages

- 2100\_G2 - Henty Yard (includes LX625)

## Design Review - ARTC

- Henty Yard PDR, DDR designs issued. Refer 5-0052-210-PEN-G2-CS-0001 for comment sheet.
- Henty Yard DDR Design Report (5-0052-210-PEN-G2-RP-0001) – Appendix H, includes ARTC comments

## Design Review - Council

- Henty Yard PDR, DDR designs issued. No formal comments were received. GHSC confirmed informally they would not be providing comments as they accepted the design as is.
- In accordance with the MIRDA if GHSC does not provide any comments within 15 business days the Asset Owner will be deemed to have approved the Design Documentation.
- GHSC Approval of design letter received 23 July 2024 5-0000-210-PEN-G2-LT-0001

## Design Review - TfNSW

- PDR Design issued to TfNSW via email from Inland Rail 19<sup>th</sup> July 2024. The purpose of this submission was to enable TfNSW to confirm if this discrete project site requires Section 138 approval in accordance with the Roads Act or a Minor WAD.
- Executed WAD for Henty Yard issued to Martinus 24<sup>th</sup> July 2025 (5-0001-210-PCM-G2-DP-0001)
- WAD submission (DDR Design) issue to TfNSW for review. Refer 5-0001-210-PEN-G2-RG-0001 for comment sheet

## Safety in Design

- ARTC 30% SiD for level crossings (incl. LX616, LX613) completed 11/12/2023 – refer meeting minutes 5-0052-214-PAS-00-MM-0002
- ARTC Post 70% SiD for track works (incl. LX616, LX613) completed 03/09/24 - refer meeting minutes 5-0052-214-PAS-00-MM-0006
- Henty Post 70% SiD. Refer meeting minutes 5-0052-210-PAS-W0-MM-0001
- Refer Henty Yard DDR Design Report (5-0052-210-PEN-G2-RP-0001) for:
  - Appendix B1 and B2 for Technical and Safety VCRM in Appendix B1 and B2
  - Appendix C1, C2 and C3 for design hazard log, hazard mapping and master hazard log
  - Section 2.9 and Appendix Q for human factors considerations

## Construction and O&M risk transfer

- ARTC JOSR for Henty Yard will be scheduled prior to IFC
- Council endorsement for LX625 received 5-0000-210-PEN-G2-LT-0001
- Refer Appendix M of Henty Yard DDR Design Report 5-0052-210-PEN-G2-RP-0001 for ADC Transfer Forms.

## Road Safety Audit (RSA)

- Refer Road Safety Audit - Henty Yard 5-0052-210-PEN-W1-RP-0002.



# APPENDIX E

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## Risk Assessment Summary

A2P Hazard ID	HAZARD	Causes	Consequence	EXISTING Controls	Risk Assessment Identified Controls	Post Risk Assessment LIKELIHOOD	Post Risk Assessment CONSEQUENCE	Post Risk Assessment RISK
PHL_097	Maintenance worker slips, trips and falls	CA3. Existing failed patches, shape losses, and potholes in the asphalt pavement at A2P level crossings CA7. Different surfaces (rubber / asphalt) cause uneven surface at interfaces	CO1. Lost Time Injury (LTI) Results OR Medical Treatment Required - Minor	EC1/O. RIW worker to follow ARTC Safeworking procedures for works within ARTC corridor EC2/M. Slips trips and falls SWMS EC3/M. Regular inspection of formation shoulder and ballast by following ARTC (TMP) Technical Maintenance plans, Track services schedules, Track Engineering manuals	D1. Design to replace poor quality level crossing asphalt surface with rubber or concrete pads in accordance with STD-T0001 D2. Design to provide ballast infill between the existing building slab and the edge of formation to provide a 1:2 maintenance access to the tracks. D3. Design to retain existing building slab (1m slab) to allow maintenance access to the tracks.  C1. At handback, Construction contractor shall provide O&M Manual for the supplied product at level crossing rubber/asphalt interface C2. Construction quality checks of the installed surface prior to opening  M1. ARTC to carry out inspection and maintenance of the level crossing rubber/asphalt interface in accordance with the supplied O&M Manual	Unlikely	Minor	LOW: 4 (2D)
PHL_106	Road vehicle failing to stop in time and colliding with a passing train at a level crossing	CA1. Sun glare reduces LX visibility CA2. Insufficient lighting during night time CA4. Existing non-compliant/insufficient separation between warning signages and the train tracks at LX CA5. Faulty boom gates or signal lights	CO1. Multiple fatalities - Extreme	EC1/D. Existing signage and signal lights on both approaches of level crossing EC2/D. Existing boom gates on both approaches of level crossing EC3/M. Regular inspection and maintenance of LX infrastructure including line marking, signage, signal and boom gate EC4/D. Design and Pre-commissioning ALCAM EC5/D. Signal Sighting to be carried out	D1. Design to provide backing boards in accordance with AS1742 to reduce glare D2. Design to provide flashing lights in accordance with AS1742 to warn road users of the upcoming level crossing D3. Design to replace existing signage in accordance with AS1742 . D4. Design to move level crossing infrastructure to provide compliant offsets from track (line markings, boom gate, signages) D5. Design to complete a level crossing sightline check in accordance with AGRD and AS 1742.7 for the designed vehicle D6. Road design in accordance with AGRD and AS 1742.7 to allow safe turning and stopping of the design vehicle at level crossing D7. ALCAM assessment to be carried out for the detailed design D8. Road Safety Audits to be undertaken  C1. ALCAM assessment to be carried out for the as-built assets	Rare	Extreme	MEDIUM: 16 (5E)
PHL_107	Errant vehicle drives off level crossing carriageway and crash into nearby signalling assets	CA2. Existing signalling assets located near level crossing on Sladen street	CO1. Serious injuries - Moderate	None identified. Refer to Risk Assessment Identified Controls	D1. Design to provide guideposts to delineate carriageway edge in accordance with AS 1742	Unlikely	Moderate	MEDIUM: 11 (3D)
PHL_108	Road vehicle collides with the boom gate at level crossing	CA1. Existing non-compliant/insufficient separation between boom gate and stop line CA2. Driver rushes to cross the level crossing	CO1. Lost Time Injury (LTI) Results OR Medical Treatment Required - Minor	EC1/D. Existing signage and signal lights on both level crossing approaches  EC1/M. Regular inspection and maintenance of LX infrastructure including line marking, signage, signal and boom gate  EC/D. Design and Pre-commissioning ALCAM	D1. Design to space the stop line away from boom gate in accordance with AS1742	Unlikely	Minor	LOW: 4 (2D)
PHL_109	Collision between the road vehicles and pedestrians using pedestrian crossing	CA1. Existing non-compliant/insufficient separation between the pedestrian crossing and road vehicle travel lane	CO1. Serious injuries - Moderate	None identified. Refer to Risk Assessment Identified Controls	D1. Design to relocate the pedestrian crossing to provide separation with road traffic in accordance with AS1742 O1. ARTC to follow rail and road interface agreement.	Unlikely	Moderate	MEDIUM: 11 (3D)
PHL_127	Trespasser accesses the rail corridor through level crossing and subsequently hit by the train	CA1. Insufficient rail corridor fencing at level crossing	CO1. Single fatality - Extreme	EC1/C. Site access management plan EC2/O. RIW worker to follow ARTC Safeworking procedures for works within ARTC corridor	D1. Design to provide warning signs around LX in accordance with ARTC Standard ESM-0304 D2. Design to provide a pedestrian maze on the south east end of the mainline track in accordance with ARTC standard ESC-0301 Level Crossing Construction. D3. Design to reinstate the fence on the south side of the mainline track as per ARTC Standard drawing STD-T019 and complies with the Program Wide Fencing Strategy (0-0000-900-PEN-00-PO-1000). C1. Temporary fencing at the LX site during construction	Rare	Extreme	MEDIUM: 16 (5E)



# APPENDIX F

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## Road Manager Design Acceptance Letter

5-0000-210-PEN-G2-LT-0001

7 November 2024

Greg Blackie  
General Manager  
Greater Hume Shire Council  
40 Balfour St, Culcairn NSW  
Email: GBlackie@greaterhume.nsw.gov.au

### Inland Rail Albury to Illabo (A2I) – Level Crossing IFC Design Acceptance

It is acknowledged by IRPL that, Council have provided feedback regarding the DDR design as part of the consultation and approval process and at the most recent Council meeting, Greg Blackie acknowledged there were no forthcoming comments for the Henty Design. IRPL seeks acceptance to the below referenced designs and any other associated drawings (previously provided to Council via Aconex IR2140-TRANSMIT-001880).

Level Crossing	Crossing Name	Drawing References
LX 625	Sladen Street	5-0052-210-CXR-G2-DR-0101_B (General Arrangement) 5-0052-210-CXR-G2-DR-0111_B (Signage and linemarking Plan) 5-0052-210-CXR-G2-DR-0115_B (Detail Plan) 5-0052-210-CXR-G2-DR-0401_B (Typical details) 5-0052-210-PEN-G2-RP-0001_B (Design Report)

IRPL invites Greater Hume Council to provide any feedback on the design submission(s) by 11<sup>th</sup> November 2024. Alternatively, should the Council be satisfied with the above drawings, please sign this letter and return to us or on the above-mentioned date, such that the designer can proceed to submission of IFC (Issued for Construction) documentation.

We look forward to working further with Greater Hume Council and should you have any queries please do not hesitate to contact the undersigned.

Yours sincerely,



Gary Newbold  
Engineering Manager - Inland Rail P/L

NO ISSUES  


#### Inland Rail

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# APPENDIX G

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## TfNSW Consultation

23 December 2025

WST24/00003/146 | SF2024/002449

Ms Cassandra Hodges  
Senior Project Manager – Interfaces  
Inland Rail Pty Ltd  
290 Clarinda Street  
PARKES NSW 2870

Dear Ms Hodges,

**SSI-10055; Albury to Illabo Inland Rail Project; Level Crossing Treatment Report for Sladen Street LX625 Rev D**

Transport for NSW (TfNSW) provided comment on Rev C of the Level Crossing Treatment Report for Sladen Street LX625 ('the Report') on 19 October 2025. TfNSW received Rev D of the from Inland Rail Pty Ltd (IRPL) on 10 December 2025 for review via Aconex (IR2140-TRANSMIT-004467).

TfNSW notes that Greater Hume Shire Council is the roads authority and road manager for Sladen Street at LX625, however TfNSW has provided comment in accordance with the consultation requirements of CoA E146.

TfNSW also notes the Rail Infrastructure Manager (RIM) for this rail line is Australian Rail Track Corporation (ARTC) who is responsible for the safe, efficient and effective operation of the national rail network. IRPL must comply with Rail National Safety Law and any modifications to the ARTC managed rail line and level crossing treatment must be authorised by the RIM, ARTC.

TfNSW confirms that the outstanding items in the Report are closed. The comments register is provided in **Attachment 1**.

Should you require further information in relation to this matter, please contact the undersigned via: [development.inlandrail@transport.nsw.gov.au](mailto:development.inlandrail@transport.nsw.gov.au) or on 0417 125 741.

Yours sincerely,



Howard Orr  
Manager Development Services – Inland Rail  
Planning, Integration and Passenger  
Transport for NSW

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OFFICIAL



Document Control Information			
Transmittal / Package Transmittal No.:	ICU140_TRANSPORT_004467	Transmittal / Package Transmittal Title:	2100 A21 Level Crossing Treatment Report - Sladen Street (LK625)
Project:	A21 LK625 Sladen Street Heavy Treatment Report	Date Submitted/Received:	10/12/2025
Comment Sheet Number, Revision:	0_0020_2100_C012_03_2025_T0_0	Documents related in Access by (RDC):	Yes
Revision Date:	23/12/2025		

#	Section # / Page #	Comment	TNSW Review				Responses (Document Owner)		TNSW Close-Out		Responses (Document Owner)		TNSW Close-Out	
			Comment Type	Compliance Reference Document	Discipline	Date	Date	Response	Comment Status OPEN/CLOSED/ NEXT PHASE	Close-out comment	Response	Date	Comment Status OPEN/CLOSED/ NEXT PHASE	Close-out comment
1	Report	TNSW notes that this Public LX Treatment Report is intended to apply to the Greater Hume LGA, which is allowed in accordance with Condition E152. However: Condition E146(a) states that the LX Treatment report must illustrate the location of ALL public LX that traverse the CSSL. Condition E146(c) states that the LX Treatment report must provide justification where no works are proposed at a public level crossing. CoA E146 requires all public crossings in the CSSL (or LGA in this case) to be assessed, and where no works are proposed, the reasons to be provided. This report only considers the one crossing where works are proposed, and therefore does not satisfy this condition.	Non-compliance	Conditions of Approval E146	Development Services	25/07/2025	12/09/2025	Schedule 1 of the Infrastructure approval Section 5.19 of the Environmental Planning & Assessment Act 1979 describes the scope of the CSSL, specifically "ancillary works to nine level crossings, modifications to drainage and road infrastructure, signalling infrastructure, fencing, signage, and services and utilities"  The IR approved scope in these sections is limited to these specific sites and is not contiguous along the entire line sections. It relates to where works are required to achieve clearances for double stacked trains.  TNSW understand the scope which has been addressed as part of the RTS and has been communicated to both the Dep Secretary TNSW and the NSW PCG  IR note that all level crossings within the WWCC on the Albury to Ilaboa section has flashing lights and boom barriers.	CLOSED	IRP's updated response to LCTRs for LK622 and LK613 & LK616 indicated that IRP is working with DPW regarding any next steps at level crossings where no works are planned as part of the approved IR scope. TNSW expects Section 1.2 to be updated similar to LCTRs for LK622 and LK613 & LK616 to reflect this.  TNSW considers this comment closed in relation to this individual report for LK625.				
2	Report	A detailed sketch of the level crossing including all road marking, signs, level crossing equipment and approximate distances should be included in the report. This would assist in understanding the scope of the works and the risk assessment conclusions. It would also allow confirmation that the proposal matches other design and approval processes such as s138 approvals. This could be included in the body of the report or in Appendix B.	Opportunity	N/A	Rail Programs	25/07/2025	12/09/2025	Detailed sketches are not required as part of the Conditions of Approval E146 to E149B. The detailed design and design reports includes these details. These are reviewed by the road and rail managers as part of the design review process. This level of detail is not required as part of the LCTR.  The design sign off letters for LK625 will be attached to the LX Treatment report/provided to the Planning Secretary at least 1 month prior to commencement of construction works.	CLOSED	Noted. TNSW notes the WAD relates only to the level work associated with changes to the intersection with the Olympic Highway and does not have any relationship to the level crossing design or authorisation.  TNSW notes it has not reviewed the Henty Yard clearances package and reserves the ability to provide further comment on its review.				
3	Report	AS 7658:2020 Clause 3.1.3 requires the human factors risks be identified and mitigated. There is no reference to human factors assessment in the report or evidence provided that these were included to support requirements of the standard.	Non-compliance	AS 7658:2020	Rail Programs	25/07/2025	13/09/2025	Human Factors risks have been identified and Human Factors specialist attended SID workshops. The SID workshops identified risks linked to the interactions between level crossing users and elements of the crossings (Human Factors Risks) and controls to address those as applicable SFAIRP.  A section in the report will be added to provide an overview of the risk assessment process that was followed.	CLOSED	Noted.				
4	s1.3 - Table 3	TNSW notes the commitment to Interface Agreements in s4.7 Clause 4.4 of the Rail Road Interface Agreement (RRIA) for Greater Hume Shire Council requires an Interface Safety Management Plan (ISMP) for each interface. To satisfy this clause and Condition of Approval E148 TNSW requests a ISMP be prepared in accordance with the Guideline.	Non-compliance	Conditions of Approval E148, RRIA	Road Asset Planning, Developer Works	25/07/2025	14/09/2025	The design process is consistent with guideline Railway Crossing Safety Series 2011, Plan: Establishing a Railway Crossing Safety Management Plan (NSW Roads and Traffic Authority, 2011).  A section in the report will be added to provide an overview of the risk assessment process that was followed - Refer Section 6.	CLOSED	Noted.				
5	s2.1	AS 7658:2020 from Clause 2.2 and 2.6, etc. continuously refers to the Rail Infrastructure Manager (RIM) (ARTC) driving many actions; however, there is no reference to ARTC as the RIM in this report, and ARTC does not seem to have been included in any stakeholder consultation or risk workshop. There may be risks expected to be accepted by the RIM, but that evidence is not in the report. Interface Agreement document may also be useful to demonstrate RIMS agreement for any risks handed over.	Non-compliance	AS 7658:2020	Rail Programs	25/07/2025	15/09/2025	ARTC were consulted throughout the design process design and attended risk workshops. Their involvement has been documented in Appendix A and Appendix D and summarised in Section XXX	CLOSED	Noted.				
6	s2.1	Health and Safety in Design (HSD) consideration is a mandatory requirement of the Work Health and Safety Act 2011 and Regulation 2017 (cl 22.23) in NSW for all infrastructure projects. Safety in Design was mentioned in the report but there is no evidence of a workshop. If a workshop has been conducted, please include records of the workshop in the report to assist with understanding the results of the Level Crossing Risk Assessment in Appendix D.	Opportunity	AS 7658:2020	Developer Works	25/07/2025	18/09/2025	HSD workshops have been undertaken. Dates of key workshops have been included in Appendix A. Minutes of all workshops are provided to the attendees e.g. GRSC and ARTC.  Meeting Minute document numbers have been provided in Appendix D	OPEN	See TNSW response to Item 12.	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.
7	s3	Section 3 refers to so far as is reasonably practical (SFAIRP) principles being implemented in the assessment. However, this report does not provide any evidence of the Risk Assessment process, relevant attendees and stakeholders who participated, and agreements undertaken.	Insufficient information to determine compliance		Rail Programs	25/07/2025	17/09/2025	Safety Claims are provided within the Project Hazard Log for each hazard. The Project Hazard Log is presented both within the Design Report for review and is also presented as part of the HSD and residual risk endorsement and acceptance. Both ARTC and GRSC partake in this process. In addition the Safety Assurance Reports provide the SFAIRP claim for the projects. These are included in the design reports.	OPEN	See TNSW response to Item 12.	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.
8	s3	The Risk Assessment process is defined in AS 7658 as the process that must be attended by all relevant stakeholders; this evidence/information is missing in the context of the Report.	Non-compliance	AS 7658:2020	Rail Programs	25/07/2025	18/09/2025	The risk assessment process has been followed in accordance with AS 7658. Evidence of this process is captured in Appendix D.	OPEN	See TNSW response to Item 12.	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.
9	s4.3	Include reference to the Level Crossing Road Speed Limit policy as this policy applies to all actively controlled level crossings on high speed roads in NSW: <a href="https://www.transport.nsw.gov.au/system/files/media/document/2021/Level-Crossing-Road-Speed-Policy.pdf">https://www.transport.nsw.gov.au/system/files/media/document/2021/Level-Crossing-Road-Speed-Policy.pdf</a> .	Non-compliance	TNSW Level Crossing Road Speed Policy	Level Crossing Policy & Programs	25/07/2025	18/09/2025	The LCTR will be updated to include a reference to the TNSW Speed Limit on Approach to Active Level Policy Crossings Policy.  The Design Speed for LK625 is 50km	OPEN	TNSW will confirm this amendment in the next revision of this LCTR.	9/12/25 ND - Section 4.3 has been updated to include "Transport for New South Wales (TNSW) Level Crossing policies have been considered in the development of the proposed treatments, including Speed Limit on Approach to Active Level crossings Policy"	23/12/2025	CLOSED	Noted.

#	Section # /Page #	Comment	TNSW Review				Responses (Document Owner)			TNSW Close-Out		Responses (Document Owner)			TNSW Close-Out	
			Comment Type	Compliance Reference Document	Discipline	Date	Date	Response	Comment Status OPEN/CLOSED/ NEXT PHASE	Close-out comment	Response	Date	Comment Status OPEN/CLOSED/ NEXT PHASE	Close-out comment		
10	s4.7	<p>S4.7 does not provide any status of the Agreement. The existing RRIA for Greater Hume LGA was executed in 2015. As such, it does not reflect any new risks identified during any recent Risk Assessment workshop, nor does it incorporate any standards or guidelines developed over the past decade.</p> <p>There is a link between Risk Assessment, identified risks, proposed mitigations, and adoption of those mitigations by the RIM and Road Authorities; the Interface Agreement finalizes handover of the residual risks that has to be managed through the operation - so this document and its status is important for evidence of completion of this process and relevant agreements.</p> <p>Are any changes proposed to the existing RRIA as a result of the recent Risk Assessment and associated risk mitigation measures? TNSW requests:</p> <ol style="list-style-type: none"> <li>Confirmation of any required updates (eg. addends or a revised RRIA document); and</li> <li>Supporting evidence or documentation for those updates.</li> </ol>	Insufficient information to determine compliance	AS 7658-2020	Road Asset Planning	25/07/2025	20/09/2025	<p>The GHSC Interface agreement has been signed by all parties. S4.7 of the Level Crossing Treatment Report will be updated to reflect this.</p> <p>While ARTC's management of IA's is outside the scope of the IR project, ARTC have advised that as project works are nearing completion, ARTC will review the RSNL IA and update the document where required in consultation with the relevant road manager(s).</p>	CLOSED	Noted.						
11	s5 - Table 4	There is an error in the final row, which refers to LX625 in Henty being a primary access for Yerong Creek.	Editorial		Development Services	25/07/2025	21/09/2025	Noted. Yerong Creek will be replaced with Henty in the next submission of the report	OPEN	TNSW will confirm this amendment in the next revision of this LCTR.	23/12/2025	CLOSED	Noted.			
12	s6	It is not clear if the risk assessment undertaken was done separately for road, which may not be in line with requirements of AS 7658-2020, requesting all relevant stakeholders to be present in the Risk Assessment workshop.	Insufficient information to determine compliance	AS 7658-2020 Condition of Approval E148	Rail Programs	25/07/2025	22/09/2025	Appendix D has been replaced with a list of documents that evidence the risk assessment process.	OPEN	<p>TNSW notes from Rev B, the risk assessment has been removed in its entirety from Revision C.</p> <p>TNSW notes Condition of Approval E148 states "The Public Level Crossing Treatment Report must also include an assessment of the road risks."</p> <p>TNSW expects that the LCTR includes the assessment of road risks required by the CoA.</p>	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.		
13	Appendix C	How were the mitigation measures proposed determined? App A does not include any reference to determination of these measures in the consultation with Council. Short stacking is a significant road safety issue that should also involve TNSW in the consultation, as the intersection is with the Olympic Highway.	Insufficient information to determine compliance	Conditions of Approval E144, E146	Development Services	25/07/2025	23/09/2025	<p>Short stacking mitigations were proposed by the design team in consultation with TNSW - refer meeting with TNSW (R) MR held 8/11/24 (S-0052-214-PEN-00-MM-2006). There were no issues raised by TNSW in this meeting. Also as part of the Minor WAD TNSW have reviewed the 100% design and raised no comments/issue on short stacking. Refer Comment sheet (S-0001-210-PEN-G2-RG-0001)</p>	CLOSED	<p>Noted.</p> <p>TNSW also notes that meetings held regarding TNSW WAD items related only to the scope of the WAD, i.e. the design of the road works associated with the change to the intersection of Sladden Street with the Olympic Highway.</p> <p>TNSW longstanding position in relation to the Inland Rail project has been that in all circumstances along the Inland Rail alignment short stacking deficiencies should be rectified by the project.</p> <p>The comments attributed to the Strategic Design comments close out meeting do not reflect the position of TNSW and are used here out of context.</p>						
14	Appendix D	It is unclear how some results of the Level Crossing Risk Assessment in Appendix D were reached. A full list of attendees to the workshop, records of the discussion and agreements, commitments to taking ownership of some residual risks is required to justify the conclusions.	Non-compliance	AS 7658-2020	Rail Programs	25/07/2025	24/09/2025	Appendix D has been replaced with a list of documents that evidence the risk assessment process. These documents can be provided at TNSW request through DPML.	OPEN	See TNSW response to Item 12.	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.		
15	Appendix D	There is no explanation of the consequence categories in the risk assessment. This is required to understand the categories and support the conclusions of risk.	Opportunity		Development Services	25/07/2025	25/09/2025	Appendix D has been replaced with a list of documents that evidence the risk assessment process.	OPEN	See TNSW response to Item 12.	9/12/25 ND - The Project Hazard Log describing the road risks has been added to Appendix E and the hazard ID have been added against the scope elements in Appendix B.	23/12/2025	CLOSED	Noted.		