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23 October 2025

Adrian Kilburn

Project Director

Legacy Property

Level 45, 25 Martin Place, Sydney NSW 2000

by email: akilburn@legacyproperty.com.au

Dear Adrian,

Re: Expert opinion on the potential impact on traffic safety at the Railway Crossing (LXM ID 349) located on Railway Street in Corrimal, NSW

In all likelihood and under foreseeable circumstances, the already approved Stage 1 development of 179 apartments, along with the proposed additional 207 apartments under Stage 2a (refer to Figure 1), are not expected to adversely impact traffic safety at the railway crossing, for the following reasons:

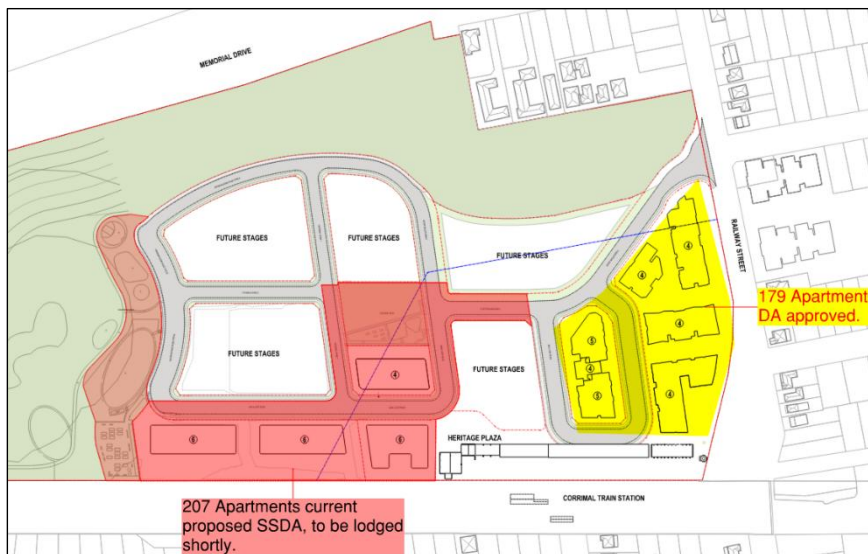


Figure 1

- The Railway Crossing is controlled by an RX-5 assembly and boom gates (refer to Photo 1), representing the highest level of control available for at-grade crossings under current standards.
- The pedestrian and cyclist crossing treatment includes active pedestrian controls on the western side of the crossing (refer to Photo 2), ensuring safe and regulated movement across the tracks.
- During the site inspections, it was observed that drivers, cyclists, and pedestrians were law-abiding, complying with the crossing controls and behaving predictably (refer to Photos 3 & 4).
- Regardless of the volume of vehicles, pedestrians, and cyclists approaching the crossing, it would be physically and visually implausible for a road user to overlook the need to stop. In other words, only those who intentionally disregard the controls could pose a risk, not due to design or visibility shortcomings.

This assessment is based on observed behaviour, control infrastructure, and the physical layout of the crossing, which collectively mitigate the potential for inadvertent non-compliance.



Photo 1

(Photo: Traffic Engineering Centre)



Photo 2
(Photo: Traffic Engineering Centre)



Photo 3
(Photo: Traffic Engineering Centre)



Photo 4

(Photo: Traffic Engineering Centre)

If you have any questions about the content of this letter, please do not hesitate to contact me.

Yours sincerely

Zoran Bakovic, MET (Traffic & Transportation), MEng (Traffic & Logistics), FAITPM, MIPWEA, MASPACI (AUS), MCAARS (USA), MATAI (UK), MATAI (USA)

Director / Traffic Engineering and Road Safety Expert & Traffic Accident Investigator and Collision Reconstruction Specialist, and Criminal Defence Expert

Traffic Engineering Centre Pty Ltd

Lead Level 3 Road Safety Auditor (NSW, ACT); Senior Road Safety Auditor (QLD, VIC, WA)

Past President, AITPM (NSW & ACT)

Member of Australasian and South Pacific Association of Collision Investigators (ASPACI) (Australia)

Member of the Institute of Traffic Accident Investigators (ATAI) (UK)

Member of the California Association of Accident Reconstruction Specialists (USA)

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Railway Crossing (LXM ID 349) located on Railway Street in Corrimal, NSW

Stage 5 (Existing road) Road Safety Audit

October 2025

Legacy Property



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Revision	Details	Date	Amended by

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Author: Zoran Bakovic

Reviewer: Snezana Bakovic

Approved by: Zoran Bakovic

Date: 22 October 2025

Distribution: Legacy Property; Traffic Engineering Centre (file)

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Appendices

Appendix A
 CARs

1. Summary

Audited project:	Railway Crossing (LXM ID 349) located on Railway Street in Corrimal, NSW
Audit for:	Legacy Property
Address:	Level 45, 25 Martin Place, Sydney NSW 2000
Email address:	akilburn@legacyproperty.com.au
Telephone:	02 9252 1111; 0427 346 120
Client's contact:	Adrian Kilburn
Auditors:	Zoran Bakovic (Lead Level 3 Road Safety Auditor - ID:471) Snezana Bakovic (Level 3 Road Safety Auditor - ID:470)
Audit type:	Stage 5 (Existing Road) Road Safety Audit
Commencement meeting:	8 October 2025
Site visit:	11 October 2025
Completion meeting:	To be advised by Legacy Property

This Stage 5 Road Safety Audit (existing road) reviewed the Railway Crossing (LXM ID 349) located on Railway Street, Corrimal, NSW.

The audit aimed to assess whether the safety features of the crossing and adjacent road sections are compatible with their intended function and whether these features are provided at an appropriate level of safety. Additionally, the audit sought to identify any elements that may, over time, evolve into safety concerns, thereby informing proactive risk mitigation and future design considerations.

This report documents the identified audit findings as of 11 October 2025.

The road safety audit identified 5 (five) safety issues, with risk attached to each issue classified as 'Medium', 'Low', and 'Negligible'.

2. Introduction

This report presents the findings of Stage 5 (existing road) Road Safety Audit of the Railway Crossing (LXM ID 349) located on Railway Street in Corrimal, NSW (refer to Figures 2.1 & 2.2).



Figure 2.1: Railway Crossing LXM ID 349 - Locality Map
(Source: nearmap)

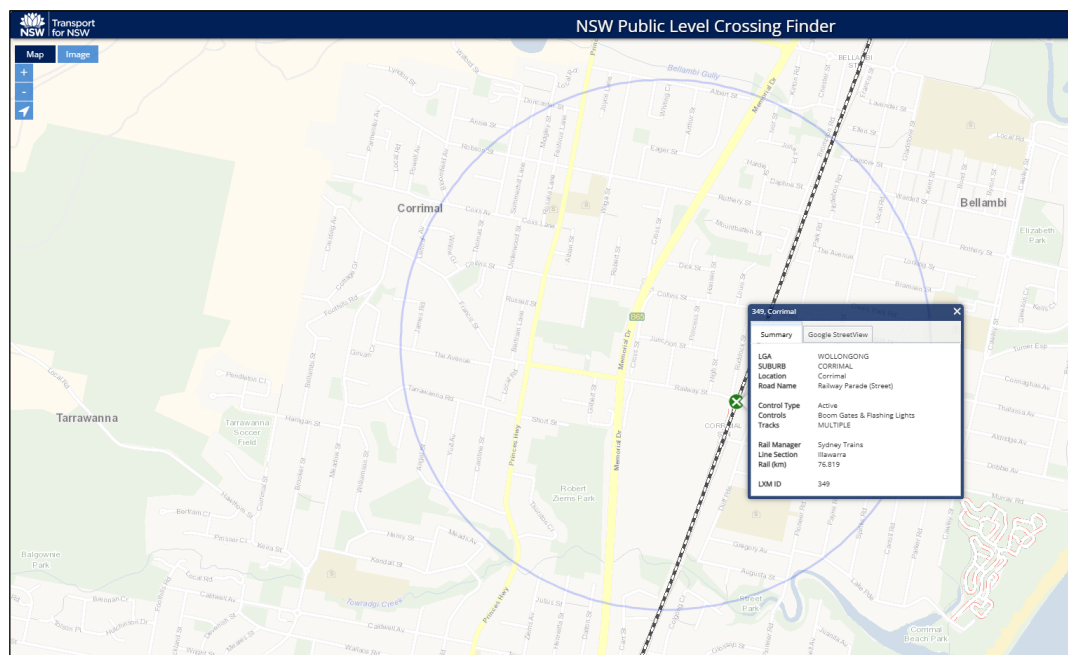


Figure 2.2: Railway Crossing LXM ID 349 - Locality Map
(Source: Transport for NSW)

2.1 Audit objectives

The main objective of this road safety audit was to assess whether the safety features of the Railway Crossing and adjacent road sections are compatible with the intended purpose and to assess whether the safety features are at an appropriate level. The audit also aimed to identify any feature that may develop over time into a safety concern.

The other objectives of this Stage 5 (existing road) Road Safety Audit were to:

- check the compatibility between the safety features and the functional classification of the road
- identify any feature that can, either now or with time, create a safety problem
- identify additional features at the Railway Crossing and adjacent road sections that pose a safety hazard or risk to any of the road users

2.2 Procedures and reference material

The procedures used are those in the Roads and Maritime Services' (2011) Guidelines for Road Safety Audit Practices and Austroads' (2022) *Guide to Road Safety – Part 6: Road Safety Audit*.

It should be noted that positive attributes of the audited Railway crossing, and adjacent road sections have not been discussed.

2.3 Audit team

The following team carried out this Stage 5 (existing road) Road Safety Audit:

- **Zoran Bakovic**, Traffic Engineering Centre, Principal Traffic Engineer – Level 3 Road Safety Auditor – Audit team leader (Auditor ID: 471)
- **Snezana Bakovic**, Traffic Engineering Centre, Senior Traffic Engineer – Level 3 Road Safety Auditor – Audit team member (Auditor ID:470)

2.4 Responding to the audit report

The responsibility for the safety at the railway crossing and the adjacent road sections rests with the client's project management team, not the auditors. The project manager is under no obligation to accept the audit findings. Also, it is not the role of the auditor to agree or approve the project manager's responses to the audit.

Rather, the audit provides the opportunity to highlight potential railway crossings and/or road safety problems and have them formally considered by the client's project manager in conjunction with all other project considerations.

3. Road safety program

3.1 Commencement meeting

A commencement meeting between Zoran Bakovic, Lead Level 3 Road Safety Auditor (Traffic Engineering Centre), and Adrian Kilburn (Legacy Property), was held over the phone on 8 October 2025, when the road safety auditing procedure and methodology were explained in detail.

3.2 Site inspection

The Railway Crossing and the adjacent road sections were inspected in dry weather and road conditions on 11 October 2025, both in daylight and night-time.

A drive-over and walk beside the audited road sections were undertaken to investigate the surrounding environment and the existing traffic movements.

Video footage and many photographs were taken (refer to Photos 3.1 to 3.4).



Photo 3.1: Railway Street, on the western approach to the Railway Crossing – in daylight
(Photo: Traffic Engineering Centre)



Photo 3.2: Railway Street, on the western approach to the Railway Crossing – at night
(Photo: Traffic Engineering Centre)



Photo 3.3: Railway Street, on the eastern approach to the Railway Crossing – in daylight
(Photo: Traffic Engineering Centre)



Photo 3.4: Railway Street, on the eastern approach to the Railway Crossing – at night
(Photo: Traffic Engineering Centre)

3.3 Completion meeting

Need for a completion meeting to be advised by Legacy Property.

3.4 Corrective action response

The road safety audit is a formal process. The road safety audit report is by no means the end of the audit process.

The audit report documents the audit team's identified concerns, which were made to improve the safety of the roads. The client must respond to this report with a written response to every audit finding.

3.5 Disclaimer

The findings and opinions in the report are based on the examination of the Railway Crossing and the adjacent road sections and might not address all concerns existing at the time of the audit. The auditors have endeavoured to identify features of the Railway Crossing and the adjacent road sections that could be modified or removed to improve safety, although it must

be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe. The problems identified have been noted in this report and should be considered for improving road safety. Where corrective actions are not taken, this should be reported in writing, providing the reason for the decision. Readers are urged to seek specific advice on particular matters and not to rely solely on this report. While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that everyone relying on it does so at their own risk without any liability to the Auditors.

4. Road Safety audit findings

4.1 Risk level

The rationale behind risk assessment is shown in Tables 4.1 to 4.3. Risk level (Table 4.3) is calculated as a product of Likelihood (Table 4.1) and Consequence (Table 4.2).

Table 4.1: Likelihood ratings

Likelihood rating	Description	Frequency of road user* crashes at, on approach and departure, or during the operation of a railway crossing
Extreme	The event is expected to occur in most instances.	One incident occurs at least once a month.
High	The event will probably occur in most instances.	One incident occurs between once a month and once in three months.
Medium	The event might occur at some time.	One incident occurs between once in four months and once in a year.
Low	The event could occur at some time.	One incident occurs between once a year and once in three years.
Negligible	The event may occur in exceptional circumstances.	One incident occurs less than once in three years.

* Road users include all categories of motor vehicles, pedestrians and cyclists. Assessment of motor vehicles should be undertaken separately from pedestrians and cyclists.

Table 4.2: Consequence rating

Consequence rating	Road Safety ²
Negligible	No medical treatment required for road users.
Low	Medical treatment required for road users.
Medium	Serious injury occurs for road users.
High	Single fatality occurs for road users.
Extreme	Multiple fatalities occur for road users.

Table 4.3: Risk level matrix for Railway crossings

		RISK LEVELS				
		Consequence				
		Negligible	Low	Medium	High	Extreme
Likelihood	Extreme	M	H	E	E	E
	High	L	M	H	E	E
	Medium	N	L	M	H	E
	Low	N	N	L	M	H
	Negligible	N	N	N	L	M

4.2 Road safety audit findings

The audit findings have been documented in the deficiency log which provides (Table 4.4):

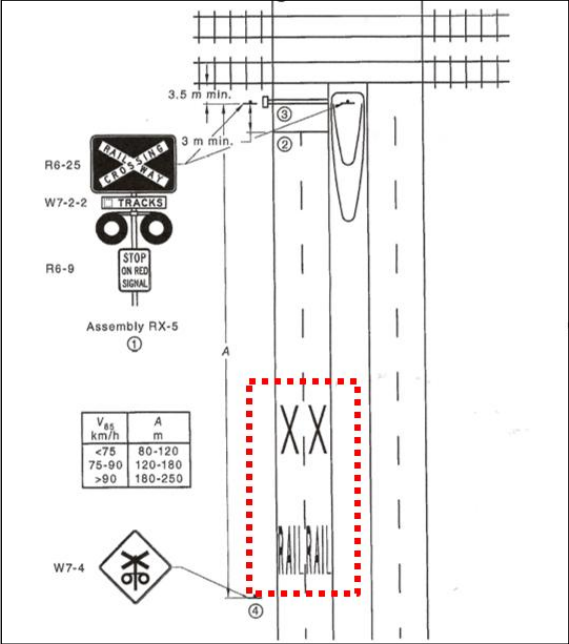
- specific details of each safety deficiency identified during the audit
- priority risk rating for each deficiency item

The log also includes proposed mitigation measures and a rating with the mitigation measure in place.

It should be noted that the positive attributes of the Railway Crossing and the adjacent road sections have not been discussed.

Table 4.4: Road safety audit findings

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
1	Railway Street, on the eastern approach to the Railway Crossing	Railway Crossing Pavement Markings 'RAIL X' is missing on Railway Street, on the eastern approach to the Railway Crossing (refer to Photo 4.1, and Figure 4.1). The 'RAIL X' markings are a critical visual cue for drivers regarding the presence and location of the railway crossing. The lack of these markings could increase the chance of a driver being less alert to the presence of the Railway Crossing, thus increasing the chance for an accident to occur. The absence of these markings may reduce driver alertness, potentially increasing the risk of a collision, particularly under low visibility or high-speed conditions. However, due to the presence of other visual and environmental cues, it is considered highly unlikely that a driver would entirely overlook the existence of the Railway Crossing, despite the missing 'RAIL X' markings.  Photo 4.1: 'RAIL X' markings are missing on Railway Street, on the eastern approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)	Medium (Negligible / Extreme)

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
1 Cont'd		 Figure 4.1 (Source: AS1742.7:2016) Recommended mitigation measure: The 'RAIL X' markings are to be painted on Railway Street, on the eastern approach to the Railway Crossing, in accordance with the AS1742.7:2016. This measure would eliminate the chance of an incident being caused by the lack of 'RAIL X' pavement marking.	

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
2	Raised medians on Railway Street, on both sides of the Railway Crossing	'KEEP LEFT' (R2-3) signs are missing from the noses of the raised median islands (refer to Photos 4.2 to 4.6), despite the fact that traffic can physically pass on either side. However, it is essential that all approaching traffic passes to the left of these islands in accordance with standard road rules and design intent. In the absence of these regulatory signs—and without the kerb faces painted white, drivers may overlook the presence of the islands, even during daylight hours, and particularly under adverse lighting conditions (refer to Photos 4.5 & 4.6). This increases the risk of a vehicle striking the island, potentially resulting in vehicle damage and injury to occupants.  Photo 4.2: 'KEEP LEFT' sign is missing on the raised median on approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)	Negligible (Medium / Negligible)

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
2 Cont'd		 Photo 4.3: 'KEEP LEFT' sign is missing on the raised median on the approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)  Photo 4.4: 'KEEP LEFT' sign is missing on the raised median on the approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)	

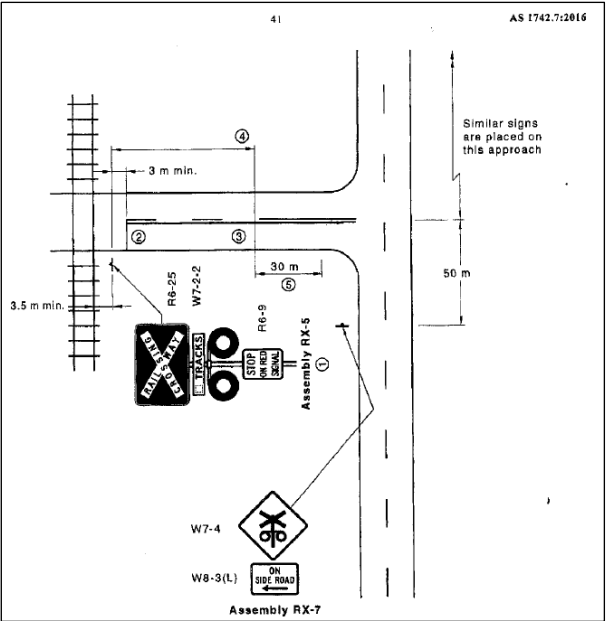
No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
2 Cont'd		 Photo 4.5: 'KEEP LEFT' sign is missing on the raised median on the approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)  Photo 4.6: 'KEEP LEFT' sign is missing on the raised median on the approach to the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd) Recommended mitigation measure: 'KEEP LEFT' (R2-3) signs to be installed on the raised medians' noses to minimise the risk of a vehicle striking the medians.	

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
3	Exit from the commuter car park at the intersection with Railway Street, some 20m to the west of the Railway Crossing	The 'Give Way' (R1-2) sign and associated holding line are missing at the exit from the commuter car park onto Railway Street, approximately 20m west of the Railway Crossing (refer to Photo 4.7). In the absence of these regulatory controls, motorists exiting the car park may be unaware of the appropriate stopping point and their obligation to give way to through traffic on Railway Street.  Photo 4.7: Exit from the car commuter park located off Railway Street, to the west of the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd) Furthermore, the intersection with Railway Street may not be clearly detectable to drivers on the final approach from within the car park. Due to its more prominent visual alignment, the driver's attention may be inadvertently drawn toward Ruddock Street, located beyond the intersection (refer to Photo 4.7). This could result in delayed decision-making or incorrect positioning, increasing the risk of conflict with vehicles on Railway Street.	Low (Low / Medium)

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
3 Cont'd		This phenomenon is consistent with the 'see-through' effect commonly observed on minor roads. The Austroads Guide to Traffic Engineering Practice Series, Part 4: Treatment of Crash Locations, identifies the 'see-through' effect and the lack of evident intersection presence (at certain times of day) as the third and fifth most common contributing factors to right-angle collisions. As a result, some drivers may position their vehicles too far forward, with the front-end protruding into the traffic stream on Railway Street, significantly increasing the likelihood of severe crossing or turning collisions at this location. Recommended mitigation measure: Install the 'Give Way' (R1-2) sign and paint the 'Give Way' line on the exit from the car park at the intersection with Railway Street.	

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
4	Ruddock Street; the access road to the commuter car park; & High Street, on their respective final approach to the intersection with Railway Street	The 'Railway crossing flashing signal ahead on side road' (RX-7) assembly (comprising W7-4 sign and W8-3(L) or (R) supplementary sign - refer to Photo 4.8) is missing on: 1.Ruddock Street; 2. access to the railway station, and 3.High Street (refer to photos 4.9 to 4.11).  Photo 4.8: 'Railway crossing flashing signal ahead on side road' (RX-7) assembly (Photo: Traffic Engineering Centre Pty Ltd)  Photo 4.9: Ruddock Street on approach to the intersection with Railway Street, to the west of the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)	Negligible (Negligible / Medium)

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
4 Cont'd		 Photo 4.10: Access road to the commuter car park on approach to the intersection with Railway Street, to the west of the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)  Photo 4.11: High Street on approach to the intersection with Railway Street, to the west of the Railway Crossing (Photo: Traffic Engineering Centre Pty Ltd)	

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
4 Cont'd		Without the RX-7 assembly in place, there is nothing to give advance warning on a through road of a crossing which is controlled by flashing signals and located on the side road (Railway Street) too close to the intersection to provide the appropriate distance required for the erection of the W7-4 sign on the side road. Consequently, this increases the chance of an incident occurring on Railway Street.  Figure 4.1 (Source: AS1742.7:2016) Recommended mitigation measure: Install the 'Railway crossing flashing signal ahead on side road' (RX-7) assembly on 1. Ruddock Street, 2. the access road to the commuter car park; and 3. High Street on their respective final approach to the intersection with Railway Street.	

No.	Approximate location	Description of findings	Risk rating (likelihood / consequence)
5	Duff Parade	The 'W7-4' sign within the 'Railway Crossing Flashing Signal Ahead on Side Road' (RX-7) assembly (comprising the W7-4 sign and W8-3(L) supplementary sign), is incorrectly oriented. It is currently facing drivers travelling away from the Railway Crossing, rather than toward it as intended (refer to Photo 4.12).  Photo 4.12: Duff Parade looking toward the intersection with Railway Street (Photo: Traffic Engineering Centre Pty Ltd) This misalignment compromises the effectiveness of the warning assembly, as it fails to alert approaching drivers to the presence of the railway crossing and its associated flashing signals. Correct orientation is critical to ensure advanced driver awareness, particularly in environments where sight distance or approach geometry may limit early detection of the crossing. Recommended mitigation measure: Reorient the 'W7-4' sign within the 'Railway Crossing Flashing Signal Ahead on Side Road' (RX-7) assembly to face approaching traffic, ensuring it provides appropriate advance warning to drivers travelling toward the Railway Crossing.	Negligible (Negligible / Medium)

5. Formal statement

The findings and opinions in the report are based on the examination of the railway crossing and the adjacent road sections and might not address all concerns existing at the time of the audit. The Auditors have endeavoured to identify features of the railway crossing and the adjacent road sections that could be modified or removed in order to improve safety, although it must be recognised that safety cannot be guaranteed since no road can be regarded as absolutely safe. While every effort has been made to ensure the accuracy of this report, it is made available strictly on the basis that anyone relying on it does so at their own risk without any liability to the Auditors.



.....
Zoran Bakovic

Director / Traffic Engineering & Road
Safety Expert

Master of Engineering (Traffic &
Transportation) & Master of
Engineering (Traffic & Logistic)

Level 3 Road Safety Auditor
(Auditor ID: 471)

22 October 2025



.....
Snezana Bakovic

Associate / Principal Traffic Engineer

Bachelor of Engineering (Traffic)

Level 3 Road Safety Auditor
(Auditor ID: 470)

22 October 2025

Appendix A

CARs

ROAD SAFETY AUDIT	
CORRECTIVE ACTION REQUEST	
CAR No: 4	
PROJECT: Stage 5 (existing road) Road Safety Audit: Railway Crossing (LXM ID 349) located on Railway Street in Corrimal, NSW LGA: Wollongong City Council LGA, NSW	AUDIT STAGE: 5 AUDIT DATE (START): 11 October 2025 AUDIT DATE (FINISH): 11 October 2025
PROJECT MANAGER: N/A AUDITOR(S): Zoran Bakovic (Level 3); Snezana Bakovic (Level 3)	
ROAD SAFETY DEFICIENCY: Location: Ruddock Street; the access road to the commuter car park; & High Street, on their respective final approach to the intersection with Railway Street Deficiency: The 'Railway crossing flashing signal ahead on side road' (RX-7) assembly (comprising W7-4 sign and W8-3(L) or (R) supplementary sign) is missing on: Ruddock Street, access to the railway station, and High Street.	Preliminary Risk Assessment ☐ Extreme ☐ High ☐ Medium ☐ Low ☒ Negligible ☐ To note only
SIGNATURE (Lead Level 3 Road Safety Auditor)	 DATE: 23 October 2025
ACTION ON DEFICIENCY CORRECTIVE ACTION: REASON FOR NO ACTION: COMPLETION DATE FOR CORRECTIVE ACTION: Priority for action: ☐ Immediate ☐ Necessary ☐ Desirable SIGNATURE: DATE: (Project Manager) CLIENT REPRESENTATIVE CONCURRENCE: SIGNATURE DATE:	
ADMINISTRATION FOLLOW-UP AND CLOSEOUT REASON FOR NO ACTION ACCEPTED ☐ Yes ☐ No CORRECTIVE ACTION ACCEPTED ☐ NA ☐ Yes ☐ No PROPOSED FOLLOW-UP DATE: FOLLOW-UP ACTION CAR CLOSE OUT: SIGNATURE DATE:	

