



May Patterson
Planning and Assessment – Team Leader
Department of Planning, Industry and Environment
4 Parramatta Square, 12 Darcy Street,
Parramatta
NSW 2150

01/09/2020

Dear May

Re: Request for Secretary Discretion – Wollar Solar Farm

Wollar Solar Development Pty Ltd (WSD) is seeking Secretary agreement, as allowed under CoC schedule 3 condition 8 of the Development Consent for SSD 9254, that the Basic Right (BAR) and Basic Left (BAL) turn treatments referred to in Appendix 4 are not required. This letter has been prepared with the aim of providing the following information to the Department of Planning Infrastructure and Environment (DPIE) in relation to this request, including:

- Justification for not requiring the treatments,
- Consultation with Road authorities and their acceptance of the proposed approach to not incorporate the treatments

WSD have the objective of commencing constructing of the northern access road (Stage 2) in September and TransGrid's works on the substation (part of Stage 3) in October, and as such your expedient consideration of this submission is requested.

If you have any queries in relation to this request please contact Robbie Williamson on 0499 770 768 or email robbie.williamson@bjceaustalia.com with bruce.howard@wollarsolarfarm.com CC'd.

Yours Sincerely,

Bruce Howard
Managing Director
Wollar Solar Development Pty Ltd
M: 0438 198 385
E: bruce.howard@wollarsolarfarm.com

1 Justification for the proposed changes

1.1 Overview

WSD requests Secretary agreement that the requirement to implement a Basic Right (BAR) turn and Basic Left (BAL) treatment described in Appendix 4 of the Development Consent Conditions does not need to be implemented for the satisfaction of Condition 8 of Schedule 3 (as highlighted in Table 1).

Condition 8 of Schedule 3 states that Secretary's discretion can be applied in relation to the road upgrades: *'Prior to commencing construction, the Applicant must implement the road upgrades identified in Appendix 4, unless the Secretary agrees otherwise in writing. These upgrades must be carried out to the satisfaction of the relevant roads authority.'*

Section 5.3 of the DPIE Assessment Report (link below) identifies that the upgrade of the intersection of Wollar Road and Barigan Road is required, **'unless a Road Safety Audit undertaken in consultation with RMS (now TfNSW) determines that this upgrade is not required'**.

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9254%2120200224T031120.609%20GMT>

A Road Safety Audit has been undertaken in consultation with TfNSW (Section 1.2.1). Consultation has been undertaken with both Transport for New South Wales (TfNSW) and Mid-Western Regional Council (MWRC) regarding the findings and risks identified in the Road Safety Audit. Both authorities agree that the widening and sealing of Barigan Road would be sufficient to address any safety concerns associated with development vehicles and traffic in the area. Both road authorities have agreed that a BAL and BAR treatment are not required for the Wollar Road and Barigan Road intersection. This consultation is summarised in Section 1.2.2 and records of correspondence are included in Appendix B and Appendix C..

Table 1 Development Consent Conditions, Appendix 4 road upgrade requirements

Road	Location ¹	Upgrade Requirements ¹	Timing
Wollar Road and Barigan Road	Intersection	Basic Right (BAR) turn and Basic Left (BAL) turn treatments for the largest vehicle accessing the site (excluding over-dimensional vehicles)	Prior to Construction
Barigan Road	Between Wollar Road and the northern site access point	Seal to a width of 7 m with 1 m unsealed shoulders (total carriageway 9 m), with the exception of locations 1 to 6 which require upgrading.	
	Between the northern site access point and southern site access point	Seal to a width of 7 m with 1 m unsealed shoulders (total carriageway 9 m, with the exception of locations 7 to 9 which require upgrading ²	
	Northern site access point ³	Rural Property Access Type	
Southern site access point			
Southern access option 2 (Maree Road road reserve)	From its intersection with Barigan Road, for a distance of approximately 1.2 km	Gravel (unsealed) to a width of 7 m ²	

¹ Refer to the figures in Appendix 4 for the location and further details of the road upgrades.

² These upgrades are only required if the alternate site access option detailed in condition 7 of Schedule 3 of this consent is used.

³ A rural property access treatment is only required if the preferred site access option detailed in conditions 5 and 6 of Schedule 3 of this consent is used

1.2 Justification for the discretion

During public exhibition of the Environmental Impact Statement (EIS) for Wollar Solar Farm (NGH Environmental Pty Ltd, 2019), Roads and Maritime Services (RMS) made a submission including the following request:

'An assessment including a road safety audit of existing Wollar Rd/Barigan Rd intersection. Particularly an assessment of the current geometry of the intersection, including the narrow single lane bridge in Wollar Rd on approach to the intersection and its ability to safely accommodate increased traffic volumes.'

The reference to a '*narrow single lane bridge*' appears to be an error. This bridge is called 'Fitzpatrick Bridge' and was widened to accommodate two lanes in circa 2017 (see photos in Appendix D). Prior to this time, this road was much narrower and the bridge was only wide enough for one car at a time, with no guardrails. The submission by RMS looks to have been based on the old bridge configuration and the author did not realise the bridge had been widened.

Following this submission the Traffic Impact Assessment (TIA) undertaken for WSD by Ontoit in June 2019 (Ontoit, 2019) was updated to commit that a Road Safety Audit (RSA) be undertaken in consultation with RMS on the Wollar Road and Barigan Road intersection prior to construction.

On 11th May 2020 an RSA was undertaken on the Wollar Road and Barigan Road intersection (including the adjacent 'Fitzpatrick Bridge' (further described in Section 1.3.1). Consultation has been undertaken with both MWRC and Transport for NSW (TfNSW), formerly RMS, in relation to the findings of the RSA and the requirement for a BAL/BAR treatment (Section 1.3.2). Both TfNSW and MWRC have confirmed that the BAL/BAR treatment is not required.

The construction of a BAL/BAR treatment would require widening of the recently constructed concrete bridge. This is a large engineering project and would result in significant inconvenience to the public and a long project delay.

The requirement for a BAR/BAL stated in Appendix 4 was not present in the draft conditions provided to WSD (24th December 2019) for review by DPIE. If the requirement had been included, WSD would have provided comment to the DPIE regarding the situation described above. None of the correspondence between DPIE and RMS available for review by WSD prior to approval of the development referred to the requirement for a BAL/BAR treatment.

1.2.1 Road Safety Audit

WSD commissioned ACOR Consultants Pty Ltd (ACOR) to undertake an RSA for the Wollar Road and Barigan Road intersection on the 11th May 2020. A copy of the RSA is included in Appendix A.

The RSA presented eight road safety findings with the risk levels allocated based on crash likelihood and consequence.

The RSA includes the observation that Fitzpatrick bridge has one travel lane in each direction (two lanes total) as opposed to the single lane bridge described by RMS and in the Ontoit TIA.

No findings were allocated "intolerable" rating and only finding #8 was allocated "high risk" rating. Finding #8 is that Barigan Road is an unsealed road, with narrow lane widths and no shoulder. The narrow carriageway poses a risk for drivers passing heavy vehicles and the unsealed pavement surface increases the risk of vehicles becoming errant.

No findings were raised in relation to the geometry of the Barigan Road Wollar Road intersection itself or the adjacent Fitzpatrick Bridge.

The RSA was shared with MWRC and TfNSW on 22 May 2020. Consultation regarding the findings of the RSA as well as the intention to not undertake the BAL and BAR treatment summarised in Section 1.3.2.

1.2.2 Consultation

The RSA was sent to Andrew McIntyre (Manager of Land Use Assessment) at TfNSW and David Webster (Manager Development Engineering) at MWRC on the 22 May 2020. A teleconference between Andrew McIntyre from TfNSW, David Webster and Andrew Kearins (Manager Works) from MWRC, and Peter Zhang, Robbie Williamson and Derek Powell on behalf of WSD was undertaken on the 26th May 2020. The teleconference covered the following key points:

- The previous submission by TfNSW to DPIE during the public exhibition of the development, raising safety concerns on the Wollar Road – Barigan Road intersection. It was acknowledged by TfNSW and MWRC that the Fitzpatrick bridge crossing is actually a 2-lane bridge rather than 1-lane and that the section of the road where the Wollar Road – Barigan Road intersection is in a 50km/h zone, not in the 100km/h zone.
- The findings of the RSA were discussed in turn. It was agreed that none of the risks raised by the RSA indicated warranted a BAL/BAR treatment.
- It was agreed by all parties that the “high risk” finding #8 would be suitably mitigated by the widening and sealing of Barigan Road (these works are currently in progress and are being performed by Council).
- It was agreed that other issues raised in the RSA (faded line marking, loose gravel, trees within clear zone of intersection, overhanging branches) would be further assessed by MWRC and addressed either during their performance of the Barigan Road upgrade works or as part of their ongoing maintenance regime

Following this teleconference, Andrew McIntyre from TfNSW provided an email (Appendix B) on the 26/05/2020 advising that TfNSW were satisfied with the risks identified within the RSA, and could be corrected as part of the Barigan Road widening and sealing works.

As requested by DPIE following a review of a draft Traffic Management Plan for the Wollar Solar Farm (which included the proposal that the BAL/BAR was not required), correspondence was sent to MWRC and TfNSW requesting confirmation that neither authority required a BAL/BAR treatment to address findings and risk levels described in the RSA. An email was sent by WSD, specifically requesting MWRC and TfNSW confirm a BAL/BAR treatment was not required. MWRC responded to this email on 13/07/20 and TfNSW responded on 20/07/20. Both emails confirmed agreement that a BAL/BAR treatment was not required. This correspondence and the responses from TfNSW and MWRC are attached in Appendix C.

Appendix A Road Safety Audit



CONSULTANTS

THE ACOR GROUP

Road Safety Audit

Stage 7 – Existing Condition

Intersection of Wollar Road (MR208) and Barigan Road,
Wollar

Prepared for: Beijing Jiangmen Clean Energy (Australia)

Project No.: NSW200791

Document no: NSW200791-DOC-RSA-EC-Final_Rev_C

Revision: C

Issue Date: 4th June 2020

REVISIONS

Revision	Date	Purpose	Prepared By	Reviewed By	Approved By
A	18/05/2020	Draft Report	T Brown	G. Carter	T Brown
B	21/05/2020	Draft Report revised	T Brown	G. Carter	T Brown
C	04/06/2020	Final Report	T Brown	G. Carter	T Brown

This document is for adoption by all legal entities which are members of the ACOR Group and is developed for Internal Use Only.

ACOR Consultants Pty Ltd	(ACN) 079 306 246 (ABN) 40 079 306 246
ACOR Consultants (QLD) Pty Ltd	(ACN) 126 011 087 (ABN) 18 126 011 087
ACOR Consultants (CC) Pty Ltd ATF The ACOR CC Unit Trust	(ACN) 127 012 104 (ABN) 81 392 991 647
ACOR MCE Consultants Pty Ltd ATF The ACOR MCE Unit Trust	(ACN) 162 450 375 (ABN) 24 416 114 936
ACOR Group Services Pty Ltd	(ACN) 606 070 704 (ABN) 48 606 070 704
ACOR WSC Consultants Pty Ltd	(ACN) 605 970 241 (ABN) 38 605 970 241
ACOR Kersulting Pty Limited	(ACN) 617 134 586 (ABN) 53 617 134 586

COPYRIGHT

No part of this document (where "document" includes any plan, specification, detail, report or other document created by ACOR Consultants Pty Ltd or any of its related or associated entities) may be reproduced, adapted, transmitted or stored in a retrieval system in any form or by any means without written permission unless otherwise permitted under the Copyright Act, 1968. Enquiries should be addressed to ACOR Consultants Pty Limited.

© ACOR Consultants Pty Limited

All intellectual property and copyright reserved.

Table of Contents

1	Executive Summary.....	4
2	Introduction.....	5
	2.1 Background.....	5
	2.2 Site Location.....	5
	2.3 Client.....	7
3	The Audit Process.....	8
	3.1 Scope of this report.....	8
	3.2 Audit Team.....	9
	3.3 Audit methodology.....	9
	3.4 Commencement Meeting.....	9
	3.5 Closing Meeting.....	9
	3.6 Previous audits.....	9
	3.7 Exclusions.....	9
	3.8 Information Sources.....	9
4	Risk classification methodology.....	10
	4.1 Risk assessment system.....	10
	4.2 Crash likelihood.....	10
	4.3 Crash consequence.....	10
	4.4 Risk Level.....	11
	4.5 Suggested level of prioritisation based on risk rating.....	11
5	Audit Statement.....	13
6	Audit Findings.....	14

Appendices

Appendix A - Road Safety Audit Categories.....	30
Appendix B - Other Observations.....	32

1 Executive Summary

This report is for an Existing condition road safety audit at the Intersection of Wollar Road (MR208) and Barigan Road, Wollar (including Fitzpatrick Bridge over Wollar Creek, located 20m north of the intersection).

Wollar Road and Barigan Road form part of the approved access routes for heavy and over-dimension vehicles for the Wollar Solar Farm per the development consent for the proposal (SSD 9254). During the public exhibition of the development RMS requested that a road safety audit be performed in relation to the intersection (including the bridge on Wollar Road, located 20m north of the intersection) prior to construction of the Wollar solar farm. BJCE have therefore commissioned ACOR Consultants to undertake a Road Safety Audit in line with the request from RMS.

Positive aspects of the site have not been recorded. The purpose of this audit was to report on the defects and deficiencies of the existing road environment from a road user safety perspective only. The safety audit is not a design check, although some design issues may be raised during the audit process.

The audit is based on a site inspection, review of the supporting documentation supplied by Beijing Jingneng Clean Energy (Australia) to the audit team and Google Earth.

The comments listed under the heading "Appendix B - Other Observations" are observations noted whilst carrying out the audit and do not necessarily relate to safety issues. This list is not comprehensive, it is simply a record of some of the additional observations made by the auditors and has been provided purely as additional information for the client.

The risk ratings provided in this audit are the assessment of the auditors. Ultimately, it is the client and / or road authority's responsibility to determine the response to risk for each road safety deficiency identified.

The client response section with each audit finding has been provided for the purpose of recording the process of attending to the specific safety issue raised, whether it be the "do nothing", action or what action was taken to address the issue.

2 Introduction

2.1 Background

ACOR Consultants was commissioned by Beijing Jingneng Clean Energy (Australia) in May 2020 to undertake an Existing condition road safety audit for the intersection of Wollar Road (MR208) and Barigan Road, Wollar (including Fitzpatrick Bridge over Wollar Creek, located 20m north of the intersection).

Wollar Road and Barigan Road form part of the approved access routes for heavy and over-dimension vehicles for the Wollar Solar Farm per the development consent for the proposal (SSD 9254). During the public exhibition of the development RMS requested that a road safety audit be performed in relation to the intersection (including the bridge on Wollar Road, located 20m north of the intersection) prior to construction of the Wollar solar farm. BJCE have therefore commissioned ACOR Consultants to undertake a Road Safety Audit in line with the request from RMS.

This report presents the findings of the road safety audit.

2.2 Site Location

The intersection of Wollar Road (MR208) and Barigan Road, Wollar, and Fitzpatrick Bridge over Wollar Creek, located 20m north of the intersection, including approaches, at the subject location comprised the following key features:

- Wollar Road (MR208) is a sealed road with one through lane in each direction;
- Barigan Road is an unsealed road with one through lane in each direction;
- Fitzpatrick bridge contains one travel lane in each direction, with guard rail along the edge of the bridge deck.
 - Note – The RMS advice letter (refer supporting documents) mentioned the RSA is to include “An assessment, including a road safety audit, of the existing Wollar Road (MR208) and Barrigan Road intersection. Particularly, an assessment of the current geometry of the intersection, including the narrow single lane bridge in Wollar Road on approach to the intersection, and its ability to safely accommodate increased traffic volumes.”
 - During the site inspection, the auditors observed the Fitzpatrick bridge contained one travel lane in each direction (two lanes), in lieu of the single lane bridge described in the advice letter.
- A signposted speed limit of 50km/h on Wollar Road (MR208) between the town of Wollar (West of the intersection) to 190m East of the intersection with Barigan Road;
- A signposted speed limit of 100km/h on Wollar Road (MR208) from 190m East of the intersection with Barigan Road, continuing East;
- Barigan Road was not signposted with a speed limit within the vicinity of the intersection with Wollar Road (MR208) at the time of the site inspection;
- Surrounding town of Wollar, mining, rural and bushland areas

The scope of the audit undertaken included the following:

- All road users;
 - In particular, noting the future construction vehicle access route between:
 - Wollar Road (MR208) eastbound, right into Barigan Road southbound; and
 - Barigan Road northbound, left into Wollar Road (MR208) westbound
- The full width of the road corridor on Wollar Road (MR208), between 100m north of the intersection of Barigan Road (including Fitzpatrick Bridge over Wollar Creek), and 100m East of the intersection of Barigan Road. Refer Figure 2 for site location;
- The full width of the road corridor on Barigan Road, between 100m south of the intersection with Wollar Road (MR208) and Wollar Road (MR208). Refer Figure 2 for site location;
- The full width of Fitzpatrick bridge over Wollar Creek, located 20m north of the intersection of Wollar Road (MR208) and Barigan Road
- The intersection of Wollar Road (MR208) and Barigan Road. Refer Figure 2 for site location.

The site location is shown in the Figure below:



Figure 1 – Site Location

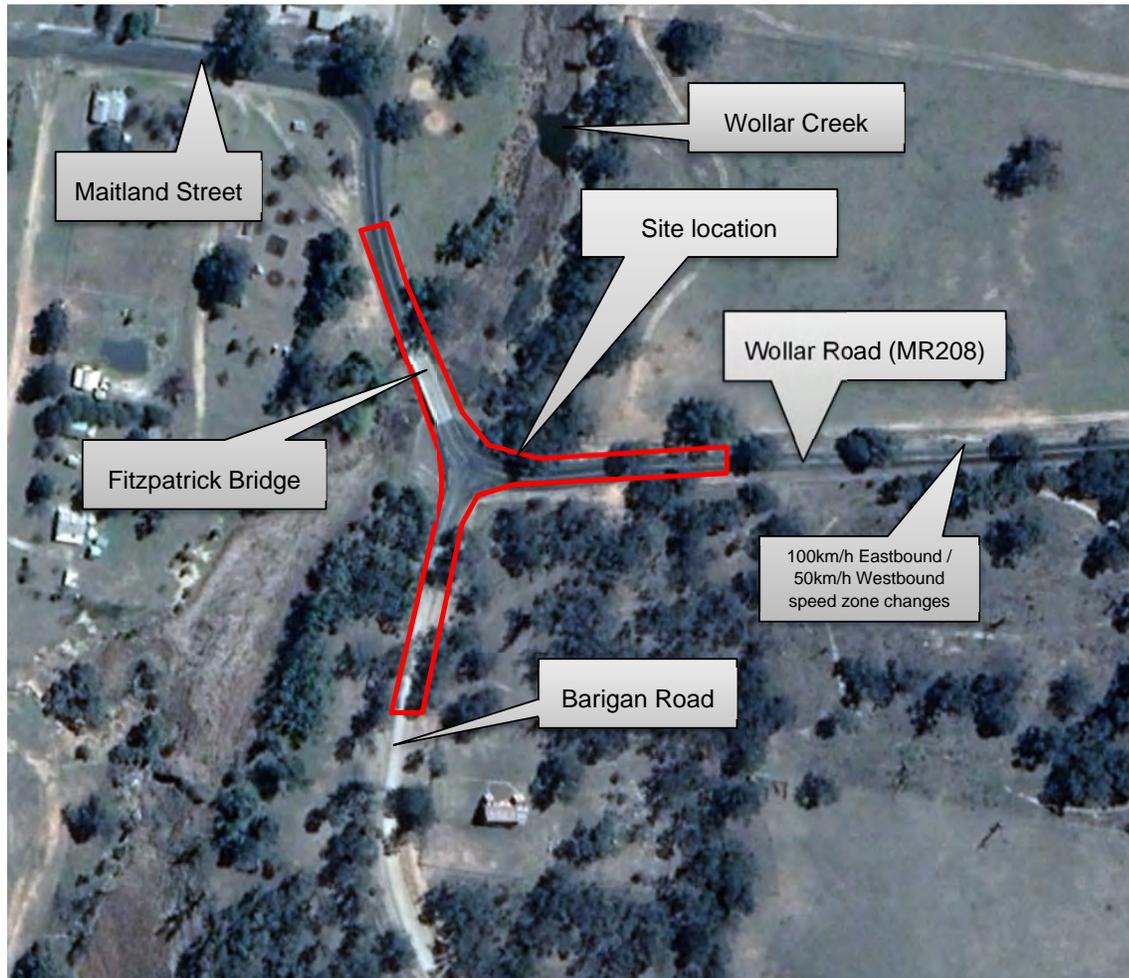


Figure 2 – Audit site extents

2.3 Client

The Project Sponsor for this Road Safety Audit is:

Name	Robbie Williamson
Company	Beijing Jingneng Clean Energy (Australia)
Position	Project Manager
Telephone	02 8066 6032 / 0499 770 768
Email	robbie.williamson@wollarsolarfarm.com
Address	Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

3 The Audit Process

3.1 Scope of this report

This audit comprises an Existing condition road safety audit. The audit was conducted to ascertain potential road safety issues for all road users. As an Existing condition audit, the audit is limited to consideration of elements identifiable from an appreciation of the site conditions only. Issues considered during the audit included

- Road alignment and typical cross-section;
- Auxiliary lanes;
- Intersections;
- Parking;
- Local and property access;
- Lighting;
- Pedestrians and cyclists;
- Utilities;
- Physical objects;
- Bridges and culverts;
- Drainage and floodway;
- Pavement;
- Roadside safety barriers and clear zones;
- Line marking and signage;
- Landscaping;
- Provision for heavy vehicles; and
- Animals.

The objective of the audit was to review the existing site conditions, with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes. The road safety audit team considered, for example:

- Have the permitted movements for all of the various road users been catered for in a safe way?;
- Are the appropriate operational and control mechanisms in place to promote safety?;
- Would the system operate to an acceptable level of safety in all situations, such as peak periods, poor weather and during darkness?; and
- Are there opportunities to reduce the occurrence or severity of crashes?

Although the audit reviewed and identified safety issues, the responsibility for assessing and implementing corrective action(s) lies with the client and / or road authority. It is not the role of the auditor to provide recommendations or solutions to the identified safety issues; however, identification of potential safety concerns may assist the client and / or road authority in reducing the incidence and severity of crashes.

3.2 Audit Team

Thomas Brown	Level 3 Auditor	RSA-02-1013	Accreditation Expiry: 30/04/2023
Gavin Carter	Level 2 Auditor	RSA-02-1423	Accreditation Expiry: 09/12/2022

3.3 Audit methodology

The audit team conducted a day time site inspection on the 11th May 2020, at approximately 3:45pm to 4:45pm, and a night inspection between 6:00pm and 6:15pm. The audit team captured photos and video of the site. During the inspection, the weather was mostly sunny.

3.4 Commencement Meeting

A commencement meeting was held at 12:00pm on 11th May 2020 via teleconference involving Thomas Brown (Audit Team Leader) and Robbie Williamson (Project Sponsor).

3.5 Closing Meeting

The Project sponsor did not provide client comments for inclusion as part of the Final report issue due to the Road Safety Audit Draft report being provided to TfNSW and Mid-Western Regional Council (MWRC) on 22/05/2020 for their comment and / or review. The Project Sponsor is to advise TfNSW and MWRC when final report is issued.

Authority was granted by the Project Sponsor, to issue the final road safety audit report on 4th June 2020.

3.6 Previous audits

There were no previous road safety audits provided to the auditors.

3.7 Exclusions

Exclusions are noted as followed;

- Existing underground utilities
- Drainage, including rain events;
- Flood data;
- Lighting – the closest lighting is within the township of Wollar, and located approximately 170m north of the intersection of Wollar Road (MR208) and Barigan Road.

This may lead to the Audit team not fully appreciating all site conditions for all road users along and on the approaches to the proposed road works at this location.

3.8 Information Sources

The following documents were provided to the auditors from the Project sponsor:

- Development Consent “*Wollar Solar Farm*”, dated 24th February 2020 - **16 DPIE Determination - Development Consent.pdf**;
- RMS letter titled “*SSD9254: Lots 22-25, 27, 30, 45, 49-51, 60-63, 69-80, 92, 105-107, 119 and 152-154 DP 755430, and Lot 1 DP 650653; Maree Road, Wollar; Wollar Solar Farm; Exhibition of Environmental Impact Statement*”, dated 6th May 2019 - **Wollar Solar - RMS Advice.pdf**
- Wollar Solar Farm Submissions Report - <https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-9254%2120200116T025822.134%20GMT>

The road safety audit was undertaken with reference to:

- Roads and Maritime Services, Guidelines for Road Safety Audit Practices, July 2011;
- Roads and Maritime Services, Technical direction 2003/RS03 Ver. 2 Aug 2005: Policy for road safety audits of construction and reconstruction projects;
- Roads and Maritime Services, Road Safety Audit Practices-L5 Road safety audit categories;
- Austroads, Guide to Road Safety Part 6: Managing Road Safety Audits; and
- Austroads, Guide to Road Safety Part 6a: Implementing Road Safety Audits.

The potential risk associated with the deficiencies identified has been based on a subjective assessment of the accident likelihood and crash consequence, as outlined in Section 4.

4 Risk classification methodology

4.1 Risk assessment system

The rating of each identified deficiency was based on the crash likelihood and consequence, in accordance with the methodology and risk matrix described in the following subsections. The crash likelihood and consequence are based on the auditor’s assessment and are necessarily subjective on this basis.

Risk levels based on the criteria set out in Austroads Guide to Road Safety, Part 6: Road Safety Audit, 2009, has been assigned to each deficiency identified. The rationale behind the assignment of risk has been reproduced in Table 1, Table 2 and Table 3 from the Austroads document.

4.2 Crash likelihood

The probable frequency of crash occurrence, resulting from each safety issue identified in the audit is assessed from the options presented in Table 1 .

Table 1 Frequency

Frequency	Description
Frequent	Once or more per week
Probable	Once or more per year (but less than once a week)
Occasional	Once every five to ten years
Improbable	Less often than once every ten years

4.3 Crash consequence

The potential consequence of a crash resulting from the identified safety issue has been rated from the choices presented in Table 2.

Reference to related speed for low, medium and high speed crash types should be read in conjunction with Austroads Guide to Road Design – Part 3 (Geometric), Section 3.2.5 Vehicle speeds on roads. For road design purposes, the following definitions of high, intermediate (medium) and low vehicle speed limits apply for both urban and rural areas:

- High speed – 90km/h or greater;
- Medium speed – 70km/h to 89km/h; and
- Low speed – 69km/h or less.

Table 2

Severity	Description	Examples
Catastrophic	Likely multiple deaths	High-speed, multi-vehicle crash on freeway. Car runs into a crowded bus stop. Bus and petrol tanker collide. Collapse of a bridge or tunnel.
Serious	Likely death or serious injury	High or medium-speed vehicle/vehicle collision. High or medium-speed collision with a fixed roadside object. Pedestrian or cyclist struck by a car.
Minor	Likely minor injury	Some low-speed vehicle collisions. Cyclist falls from bicycle at low speed. Left-turn rear-end crash in a slip lane.
Limited	Likely trivial injury or property damage only	Some low speed vehicle collisions. Pedestrian walks into object (no head injury). Car reverses into post.

4.4 Risk Level

Deficiencies are rated for their importance according to a three-tiered system, based on the following matrix, summarised in Table 3.

Table 3

	Frequent	Probable	Occasional	Improbable
Catastrophic	Intolerable	Intolerable	Intolerable	High
Serious	Intolerable	Intolerable	High	Medium
Minor	Intolerable	High	Medium	Low
Limited	High	Medium	Low	Low

4.5 Suggested level of prioritisation based on risk rating

Possible suggested level of prioritisation for each road safety deficiency, are summarised in Table 4 below. As noted in the Executive Summary of this report, ultimately, it is the client and / or road authority's responsibility to determine the response and / or action to risk for each road safety deficiency identified.

Table 4

Risk Rating	Level of Prioritisation
Intolerable	Must be corrected immediately
High	Should be corrected in the very near future, even if costs are high. Temporary mitigation measures should be considered until final correction action taken.
Medium	Should be corrected in the very near future, even if costs are moderate. A delay until the routine maintenance should be justified. Temporary mitigation measures should be considered until final correction action taken.
Low	Should be corrected at a suitable time if cost is low.

It should be noted that from Table 4 above, the priority ratings are based on a combination of the Centre for Road Safety's Road Safety Audit Practices Information Sheet for Risk Assessment, and the criteria set out in Austroads Guide to Road Safety, Part 6A: Implementing Road Safety Audits, 2019. The client and / or road authority assigns a priority rating for each identified risk in road safety, which shows the importance of putting the treatment into action.

In terms of recommendations for suggested treatments for each identified risk to road safety, generally the audit team does not provide these, as this is not the responsibility of the auditors. This is in accordance with Roads and Maritime practices and guidelines. Rather it is the responsibility of the client and / or road authority to devise the appropriate corrective actions and implement them for the identified risks to road safety in the report.

For each client response addressing each audit finding, the client and / or road authority must respond to close-out each finding. Where it is decided not to respond to an audit finding, justification should be given for the determination that no action will follow.

It is not the responsibility of the auditors to approve the client and / or road authorities response actions or the client and / or road authority responses to the findings. The auditors are however able to provide input (not recommendations) to assist the client and / or road authority, and ultimately the project, in determining appropriate responses to reach a suitable outcome for possibly addressing in future design projects.

5 Audit Statement

We, the undersigned, have undertaken an Existing condition road safety audit for the intersection of Wollar Road (MR208) and Barigan Road, Wollar (including Fitzpatrick Bridge over Wollar Creek, located 20m north of the intersection). The audit was conducted in accordance with the Guidelines for Road Safety Audit Practice, (RMS, July 2011), for the purpose of identifying any features, that potentially impacts on road safety.

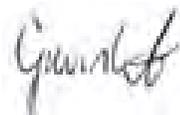
While every care and diligence has been taken to identify potential safety concerns, as detailed in this report, we do not warrant that every safety issue has been identified.

A handwritten signature in black ink that reads 'Thomas Brown'.

Thomas Brown

Lead Auditor - Auditor Level 3
Registered No: RSA-02-1013

Date: 04/06/2020

A handwritten signature in black ink that reads 'Gavin Carter'.

Gavin Carter

Auditor Level 2
Registered No: RSA-02-1423

Date: 04/06/2020

6 Audit Findings

The audit findings are presented in the following table. Where applicable, the findings are presented in order of road chainage and drawing number accordingly, and is not presented in order of relative importance to road safety.

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
1.	Intersection of Wollar Road (MR208) and Barigan Road Eastbound / Northbound Delineation And Road alignment and cross section	<p>The auditors observed during the site inspection at the intersection of Wollar Road (MR208) and Barigan Road, there is a combination of the line marking on the outside of horizontal curve that is faded and worn to delineate through vehicles on Wollar Road (MR208), and delineate the give way location for vehicles on Barigan Road.</p> <p>This may increase the likelihood of readability issues for drivers. This may increase the risk of an eastbound vehicle on Wollar Road striking a holding northbound vehicle on Barigan Road (i.e. eastbound vehicles on Wollar Road (MR208) taking a wide vehicle path around the horizontal curve, and holding vehicles on Barigan Road encroaching into the Wollar Road (MR208) through lane.</p>		Likeli-hood	
				Improbable	
				Consequence	
				Minor	
				Risk Level	
Low					

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
		<p>The likelihood of this risk may be increased for eastbound vehicles, during adverse weather conditions (i.e. rain / storm events), at night, during peak traffic periods and at times of the day due to sun glare.</p> <p>This may increase the risk of vehicle crashes and result in injury to occupants of a vehicle/s.</p>			

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
2.	<p>Intersection of Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound / Northbound</p> <p>Road pavement</p>	<p>During the site inspection, the auditors observed a combination of the outer edge of the westbound carriageway, particularly within the intersection at Barigan Road, contained a build-up of loose gravel within the road carriageway as well as a pothole within the westbound through lane on Wollar Road (MR208). This combination may reduce traction of the vehicle to the road surface and increase the risk of a vehicle becoming errant. This may be increased for westbound through vehicles and eastbound vehicles turning right from Wollar Road (MR208) into Barigan Road. The likelihood of this issue may increase during adverse weather conditions (i.e. rain). This may increase the risk of an errant vehicle to strike a vehicle holding at the intersection on Barigan Road (i.e. at the give way line), and / or objects within the clear zone. This may result in injury to occupants of a vehicle/s.</p>	 	<table border="1"> <tr> <td data-bbox="1440 440 1625 480">Likeli-hood</td> </tr> <tr> <td data-bbox="1440 480 1625 521">Occasional</td> </tr> <tr> <td data-bbox="1440 521 1625 561">Consequence</td> </tr> <tr> <td data-bbox="1440 561 1625 602">Minor</td> </tr> <tr> <td data-bbox="1440 602 1625 643">Risk Level</td> </tr> <tr> <td data-bbox="1440 643 1625 683">Medium</td> </tr> </table>	Likeli-hood	Occasional	Consequence	Minor	Risk Level	Medium	
Likeli-hood											
Occasional											
Consequence											
Minor											
Risk Level											
Medium											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
					

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
3.	<p data-bbox="233 443 411 597">Intersection of Wollar Road (MR208) and Barigan Road</p> <p data-bbox="233 686 411 743">Westbound / Northbound</p> <p data-bbox="233 833 411 889">Roadside hazard</p>	<p data-bbox="428 443 951 808">Within the westbound verge of the intersection of Wollar Road (MR208) and Barigan Road, there is a culvert headwall located within the clear zone. An errant westbound vehicle on Wollar Road (MR208) or an errant northbound vehicle on Barigan Road at this location may have a reduced ability to regain control of their vehicle and strike the culvert headwall. The likelihood of this issue may increase during adverse weather conditions (i.e. rain). This may lead to rapid deceleration of a vehicle result in injury to occupants of a vehicle/s.</p>		<table border="1"> <tr> <td data-bbox="1436 443 1625 475">Likeli-hood</td> </tr> <tr> <td data-bbox="1436 480 1625 521">Improbable</td> </tr> <tr> <td data-bbox="1436 526 1625 566">Consequence</td> </tr> <tr> <td data-bbox="1436 571 1625 612">Serious</td> </tr> <tr> <td data-bbox="1436 617 1625 657">Risk Level</td> </tr> <tr> <td data-bbox="1436 662 1625 703">Medium</td> </tr> </table>	Likeli-hood	Improbable	Consequence	Serious	Risk Level	Medium	
Likeli-hood											
Improbable											
Consequence											
Serious											
Risk Level											
Medium											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
			<p data-bbox="968 451 1421 509">Distance between edge of travel lane and culvert headwall (2.15m)</p>  		

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
4.	<p>Wollar Road (MR208)</p> <p>50m East of Intersection of Wollar Road (MR208) and Barigan Road</p> <p>Westbound / Eastbound</p> <p>Roadside hazard</p>	<p>Within the eastbound and westbound verge, approximately 50m east of the intersection of Wollar Road (MR208) and Barigan Road, there are culvert headwalls located within the clear zone. An errant vehicle at this location may have a reduced ability to regain control of their vehicle and strike the culvert headwall. The likelihood of this issue may increase during adverse weather conditions (i.e. rain). This may lead to rapid deceleration of a vehicle result in injury to occupants of a vehicle/s.</p> <p>Note – These culvert headwalls are located along a straight length of road alignment.</p>	 	<table border="1"> <tr> <th data-bbox="1430 435 1619 475">Likeli-hood</th> </tr> <tr> <td data-bbox="1430 475 1619 524">Improbable</td> </tr> <tr> <th data-bbox="1430 524 1619 565">Consequence</th> </tr> <tr> <td data-bbox="1430 565 1619 613">Serious</td> </tr> <tr> <th data-bbox="1430 613 1619 654">Risk Level</th> </tr> <tr> <td data-bbox="1430 654 1619 1292">Medium</td> </tr> </table>	Likeli-hood	Improbable	Consequence	Serious	Risk Level	Medium	
Likeli-hood											
Improbable											
Consequence											
Serious											
Risk Level											
Medium											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
					

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
5.	<p data-bbox="237 440 401 532">Wollar Road (MR208) and Barigan Road</p> <p data-bbox="237 621 401 743">Eastbound / Westbound / Northbound / Southbound</p> <p data-bbox="237 833 401 889">Roadside hazards</p>	<p data-bbox="432 431 951 776">The auditors observed within the audit subject location on Wollar Road (MR208) and Barigan Road, several trees with trunks in excess of 100mm diameter, located within the clear zone. Errant vehicles at these locations may have a reduced ability to regain control of their vehicle and strike the large trees. The likelihood of this issue may increase during adverse weather conditions (i.e. rain) and / or night. This may lead to rapid deceleration of a vehicle result in injury to occupants of a vehicle/s.</p>	 	<table border="1"> <tr> <td data-bbox="1434 440 1619 472">Likeli-hood</td> </tr> <tr> <td data-bbox="1434 480 1619 513">Improbable</td> </tr> <tr> <td data-bbox="1434 521 1619 553">Consequence</td> </tr> <tr> <td data-bbox="1434 561 1619 594">Serious</td> </tr> <tr> <td data-bbox="1434 602 1619 634">Risk Level</td> </tr> <tr> <td data-bbox="1434 643 1619 675">Medium</td> </tr> </table>	Likeli-hood	Improbable	Consequence	Serious	Risk Level	Medium	
Likeli-hood											
Improbable											
Consequence											
Serious											
Risk Level											
Medium											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
					

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
6.	<p>Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound / Northbound / Southbound</p> <p>Roadside Hazard</p>	<p>The auditors observed on Wollar Road (MR208) and Barigan Road, several trees with overhanging branches.</p> <p>These overhanging branches may cause an obstruction, and be struck by oncoming oversize (high) vehicles.</p> <p>If work is undertaken in the future within the root zone of the trees (i.e. pavement work), this may impact within the roots of the trees. If the root zone of the tree is impacted, this may increase the risk of the tree to die back and/or drop branches. This may strike an oncoming vehicle and cause severe damage to a vehicle, and / or rapid deceleration of a vehicle. This may cause serious injury to occupants of a vehicle.</p>		<p>Likeli-hood</p> <p>Improbable</p> <p>Consequence</p> <p>Serious</p> <p>Risk Level</p> <p>Medium</p>	

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
					

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
7.	<p data-bbox="233 440 415 597">Intersection of Wollar Road (MR208) and Barigan Road</p> <p data-bbox="233 683 390 743">Eastbound / Westbound</p> <p data-bbox="233 829 365 954">Road alignment and cross section</p>	<p data-bbox="428 435 953 1068">On Wollar Road (MR208), the horizontal curve appears tight to suit the 50km/h sign posted speed limit. During the site inspection, the auditors observed that the westbound alignment approaching the bridge provides chevron alignment marker signs (CAMS) however, for the eastbound alignment, it was identified there are no CAMS present to provide sufficient delineation through this area, with only an intersection directional sign evident. This in combination with a lack of delineation (i.e. faded line marking, few guideposts and no RRPM's) may lead to an approaching eastbound vehicle not observing the change in direction of the road alignment. The likelihood of this risk may increase at night and / or during adverse weather conditions. This may lead to a vehicle becoming errant and striking objects within the clear zone, or striking an oncoming westbound vehicle. This may lead to serious injury to occupants of a vehicle/s.</p>	 <p data-bbox="968 808 1087 829">Eastbound</p>  	<table border="1"> <tr> <td data-bbox="1430 440 1619 483">Likeli-hood</td> </tr> <tr> <td data-bbox="1430 483 1619 527">Improbable</td> </tr> <tr> <td data-bbox="1430 527 1619 571">Consequence</td> </tr> <tr> <td data-bbox="1430 571 1619 615">Minor</td> </tr> <tr> <td data-bbox="1430 615 1619 659">Risk Level</td> </tr> <tr> <td data-bbox="1430 659 1619 703">Low</td> </tr> </table>	Likeli-hood	Improbable	Consequence	Minor	Risk Level	Low	
Likeli-hood											
Improbable											
Consequence											
Minor											
Risk Level											
Low											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
			<p>Westbound</p>  		

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response						
8.	Barigan Road Northbound / Southbound Road alignment and cross section And Road pavement	<p>Barigan Road is an unsealed road, with narrow lane widths and no shoulder. Additionally, the auditors did not observe a sign posted speed limit along Barigan Road within the vicinity of the intersection with Wollar Road (MR208) – Note 50km/h sign posted speed limit northbound approaching the intersection with Wollar Road (MR208). Narrow carriageway widths may create lane position issues for passing drivers, in particular heavy vehicles accessing Barigan Road. Vehicles may not have sufficient space to pull over into the verge to allow a passing heavy vehicle in some locations. Additionally, the unsealed pavement surface may increase the risk of vehicles becoming errant. The likelihood of these risks may increase during adverse weather conditions, at night, an during peak traffic periods. This may result in vehicle crashes and result in serious injury to occupants of a vehicle/s.</p> <p>Note – Barigan Road was not signposted with a speed limit within the vicinity of the</p>		<table border="1"> <tr> <td data-bbox="1434 438 1619 479">Likeli-hood</td> </tr> <tr> <td data-bbox="1434 479 1619 519">Occasional</td> </tr> <tr> <td data-bbox="1434 519 1619 560">Consequence</td> </tr> <tr> <td data-bbox="1434 560 1619 600">Serious</td> </tr> <tr> <td data-bbox="1434 600 1619 641">Risk Level</td> </tr> <tr> <td data-bbox="1434 641 1619 1299">High</td> </tr> </table>	Likeli-hood	Occasional	Consequence	Serious	Risk Level	High	
Likeli-hood											
Occasional											
Consequence											
Serious											
Risk Level											
High											

CAR No	Location Category	Description of Risk to Road Safety	Photographs/ Plans / Drawing No	Risk Assessment	Client Response
		<p>intersection with Wollar Road (MR208) at the time of the site inspection. The lack of signposted speed limit may increase the likelihood of drivers traveling at speeds in excess of the roads design speed, and increase the risk of a vehicle becoming errant.</p>			

Appendix A - Road Safety Audit Categories

Road safety audit practices



INFORMATION SHEET:

NO: L5

Road safety audit categories

Categories have been set up to assist in the management of corrective actions, and monitoring of trends in identified risks in road safety.

Category	Examples
Access impacts	Property, developments, traffic generators, rest areas, emergency vehicles, service vehicles, maintenance, vehicle breakdowns, etc.
Auxiliary lanes	Overtaking lanes, passing lanes, tapers, merges, etc.
Bridge structures	Road bridge, pedestrian bridge, rail bridge, etc.
Bus infrastructure	Bus lanes, bus facilities, bus stops, etc.
Cyclist infrastructure	Cycleways, on-road facilities, off-road cycle facilities, cycle routes, etc.
Delineation	Guide posts, pavement markings, reflectors, warning signs, etc.
Drainage	Ponding, aquaplaning, etc.
Heavy vehicle infrastructure	Inspection bays, facilities, provisions, routes, etc.
Intersections	Roundabouts, cross intersections, T-junctions, etc.
Landscaping	Shrubs, trees, etc.
Lighting	Street lighting, tunnel lighting, etc.
Miscellaneous	Matters not covered by categories listed.
Network effects	Road function, traffic composition, traffic volume, traffic characteristics, route choice, impact of continuity with the existing network, etc.
Special road users infrastructure	Trains, ferries, trams, equestrian, stock, etc.

Category	Examples
Pedestrian infrastructure	Pathways, pedestrian crossings, pedestrian fencing, etc.
Road alignment and cross section	Sight distance, visibility, readability by drivers, glare, widths, shoulders, crossfalls, batter slopes, drains, etc.
Road pavement	Pavement defects, skid resistance, ponding, loose stones/material, etc.
Road users	Behaviour, practices, travel patterns, interaction between different road users, etc.
Roadside activities	Roadside advertising, roadside designs, vending, etc.
Roadside hazards	Clear zones, utility poles, culverts, bridge structures, trees, etc.
Safety barriers	Concrete, guardrail, wire rope safety barriers, crash cushions, etc.
Speed zoning	Speed limits, speed zones, design speed, school zones, etc.
Traffic management and operations	Staging of works, temporary traffic control, detours, peak tidal flows, clearways, parking, etc.
Traffic management devices	Threshold treatments, road humps, kerb extensions, slow points, etc.
Traffic signals	Signal phasing, bus signals, bicycle signals, pedestrian signals, etc.
Traffic signs	Regulatory signs, warning signs, guide signs, etc.
Tunnel structures	Road tunnels, pedestrian tunnels, cycle tunnels, etc.

Appendix B - Other Observations

Below are general auditor team observations of potential road safety audit items that may be outside the scope of works, excluded from the audit findings (refer Section 2.3 Exclusions) or may require additional information linked to the observations below to determine if a road safety issue should be raised by the audit team.

These observations are not linked to the audit findings within the RSA report.

Item	Location Category	Description of Observation	Photographs/ Plans / Drawing No	Client Response
1.	<p>Barigan Road, approaching the intersection of Wollar Road (MR208)</p> <p>Northbound</p> <p>Traffic signs</p>	<p>The auditors observed the Give Way sign on Barigan Road, approaching the intersection with Wollar Road (MR208) appears low.</p> <p>Refer AS1742.2, C2.3.4 Height rural – notes “the height of the sign should not normally be installed less than 1.5m above the nearest edge of the travelled way”.</p> <p>The auditors observed the sign has been placed 1m above the nearest edge of the road carriageway.</p>	 	

<p>2.</p>	<p>Intersection of Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound</p> <p>Road alignment and cross section</p> <p>And Cyclist infrastructure</p>	<p>Along Wollar Road (MR208) between the western site extents (north of the bridge) and 65m east of the intersection with Barigan Road, the auditors observed a narrow shoulder (0.5m). Along Wollar Road (MR208) between 65m east of the intersection with Barigan Road and east to the site extents, the auditors observed a no shoulder along the edge of the travel lane. This narrow shoulder width does not provide sufficient room for an on-road cyclist to be passed by a vehicle in the same travel direction.</p> <p>Note – The auditors observed the site is a semi-rural environment, on the edge of the town of Wollar, with a low AADT at the site location, and low signposted speed limit (50km/h). This may result in a very low potential demand for on-road cyclists. The auditors did not observe cyclists within the vicinity during the site inspection.</p>		
-----------	--	---	---	--

			 A photograph showing a road intersection. A red oval highlights a specific area on the road surface, possibly a crack or a specific marking. In the background, there are trees and a yellow sign.	
--	--	--	---	--

<p>3.</p>	<p>Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound</p> <p>Road users</p>	<p>On Wollar Road (MR208) and Barigan Road, the auditors observed during the site inspection that there is no existing available space within the road shoulder or verge suitable for a bus to pick up and drop off passengers. This includes storage and access for passengers.</p> <p>Note – The auditors observed the “School bus route” sign located within the eastbound carriageway, approximately 70m east of the intersection of Wollar Road (MR208) and Barigan Road.</p> <p>Note – There are no existing signposted bus stop locations within the audit subject location.</p>		
-----------	---	---	--	--

<p>4.</p>	<p>Intersection of Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound</p> <p>Road alignment and cross section</p> <p>And</p> <p>Road users</p>	<p>The auditors observed during the site inspection the sight lines of drivers on Wollar Road (MR208) in both directions approaching the intersection with Barigan Road, are obscured due to the existing trees on the inside of the horizontal curve. Overside vehicles may approaching the bridge, north of the intersection, may be obscured to the view of oncoming vehicles in both directions. This may lead to approaching vehicles not being able to pass an oversized vehicle on the bridge and / or pull over into a safe location off the road carriageway to allow the oversized vehicle to pass. This may cause driver frustration and / or lead to vehicle damage.</p>	<p>Westbound</p>  <p>Eastbound</p>  	
-----------	--	--	---	--

<p>5.</p>	<p>Wollar Road (MR208) and Barigan Road</p> <p>Eastbound / Westbound</p> <p>Delineation</p>	<p>The auditors observed a lack of delineators on the road pavement within the auditable site location (i.e. RRPM's), along with a lack of delineators on top of the bridge safety barriers. This may create readability issues for drivers, particularly approaching the horizontal curve near the intersection of Wollar Road (MR208) and Barigan Road.</p> <p>The auditors observed the location has a combination of a low signposted speed limit (50km/h), is located within the vicinity of the town of Wollar, contains a low AADT, a limited amount of traffic during the audit site inspection.</p>	 	
-----------	--	--	---	--

<p>6.</p>	<p>Wollar Road (MR208) at Fitzpatrick Bridge</p> <p>Eastbound / Westbound</p>	<p>Fitzpatrick bridge contains one travel lane in each direction, with guard rail along the edge of the bridge deck.</p> <p>Note – The RMS advice letter (refer supporting documents) mentioned the RSA is to include “An assessment, including a road safety audit, of the existing Wollar Road (MR208) and Barrigan Road intersection. Particularly, an assessment of the current geometry of the intersection, including the narrow single lane bridge in Wollar Road on approach to the intersection, and its ability to safely accommodate increased traffic volumes.”</p> <p>During the site inspection, the auditors observed the Fitzpatrick bridge contained one travel lane in each direction (two lanes), in lieu of the single lane bridge described in the advice letter.</p>		
-----------	---	--	---	--

				
--	--	--	--	--

Appendix B MWRC and TfNSW Road Safety Audit correspondence

Email to MWRC and TfNSW

From: [Robbie Williamson](#)
To: andrew.mcintyre@transport.nsw.gov.au; David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; [Derek Powell](#); [Peter Zhang](#)
Subject: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA
Date: Friday, 22 May 2020 9:32:00 AM
Attachments: [NSW200791-DOC-RSA-EC-Draft_Rev_B.pdf](#)

Hi Andrew and David

Please find attached the draft report from the Road Safety Audit that was undertaken by ACOR on the Wollar Road / Barigan Road intersection and adjacent bridge crossing (as requested by RMS during the public exhibition phase of the project).

I've included both RMS and Mid-Western Regional Council in this email as I understand Wollar Road is an RMS regional road that council have responsibility for and Barigan Road is a council road (so there will need to be some input from both parties on the findings).

I'll set up a teleconference invitation for next week to discuss this further.

Best regards
Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

Correspondence from TfNSW

From: [Andrew McIntyre](#)
To: [Robbie Williamson](#); David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; [Derek Powell](#); [Peter Zhang](#); [Development Western](#); [Angela Stewart](#)
Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA
Date: Tuesday, 26 May 2020 9:44:49 PM
Attachments: [NSW200791-DOC-RSA-EC-Draft_Rev_B.PDF](#)

Dear Robbie

Thanks for your time this afternoon.

As discussed, TfNSW notes Barigan Road, for the length the haulage route to the Solar Farm, will be upgraded to a 7m sealed formation. TfNSW further notes the other risks identified are able to be rectified as part of the Barigan Road upgrade suite of works.

TfNSW is satisfied that the risks identified in the Road Safety Audit can be ameliorated as part of the Barigan Road upgrade.

Regards

Andrew McIntyre
Manager Land Use Assessment
Community and Place
Regional and Outer Metropolitan Division
Transport for NSW
T 02 6861 1453 | F 02 6861 1414 | M 0417 431 982
Level 1 51-55 Currajong Street Parkes NSW 2870

Every journey matters



**Transport
for NSW**

From: Robbie Williamson [mailto:robbie.williamson@bjceaustalia.com]
Sent: Friday, 22 May 2020 9:34 AM
To: Andrew McIntyre <Andrew.McIntyre@transport.nsw.gov.au>;
David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; [Derek Powell](mailto:Derek.Powell@bjceaustalia.com) <derek.powell@bjceaustalia.com>;
[Peter Zhang](mailto:Peter.Zhang@bjceaustalia.com) <peter.zhang@bjceaustalia.com>
Subject: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Hi Andrew and David

Please find attached the draft report from the Road Safety Audit that was undertaken by ACOR on the Wollar Road / Barigan Road intersection and adjacent bridge crossing (as requested by

RMS during the public exhibition phase of the project).

I've included both RMS and Mid-Western Regional Council in this email as I understand Wollar Road is an RMS regional road that council have responsibility for and Barigan Road is a council road (so there will need to be some input from both parties on the findings).

I'll set up a teleconference invitation for next week to discuss this further.

Best regards

Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

Roads and Maritime Services



Before printing, please consider the environment

IMPORTANT NOTICE: This email and any attachment to it are intended only to be read or used by the named addressee. It is confidential and may contain legally privileged information. No confidentiality or privilege is waived or lost by any mistaken transmission to you. Roads and Maritime Services is not responsible for any unauthorised alterations to this email or attachment to it. Views expressed in this message are those of the individual sender, and are not necessarily the views of Roads and Maritime Services. If you receive this email in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or use any part of this email if you are not the intended recipient.

Appendix C Confirmation from MWRC and TfNSW on BAL/BAR

TfNSW

From: [Andrew McIntyre](#)
To: [Andrew Kearins](#); [Robbie Williamson](#); [David Webster](#)
Cc: [Derek Powell](#); [Development Western](#)
Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA
Date: Monday, 20 July 2020 11:24:01 AM

Dear Robbie

I write to advise that TfNSW will concur with Mid-Western Regional Council's position as outlined in Andrew Kearin's email below.

Regards

Andrew McIntyre
Manager Land Use Assessment
Community and Place
Regional and Outer Metropolitan Division
Transport for NSW
T 02 6861 1453 | F 02 6861 1414 | M 0417 431 982
Level 1 51-55 Currajong Street Parkes NSW 2870

Every journey matters



From: Andrew Kearins [mailto:Andrew.Kearins@midwestern.nsw.gov.au]
Sent: Monday, 13 July 2020 5:21 PM
To: Robbie Williamson <robbie.williamson@bjceaustralia.com>; David Webster <David.Webster@midwestern.nsw.gov.au>
Cc: Derek Powell <derek.powell@bjceaustralia.com>; Development Western <development.western@rms.nsw.gov.au>
Subject: Re: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Robbie

I can confirm MWRC is satisfied with the intersection as is given that it is in a 50km/hr zone and trucks are approaching from Wollar.

Thanks
Andrew Kearins

Manager Works MWRC

Get [Outlook for iOS](#)

From: Robbie Williamson <robbie.williamson@bjceaustralia.com>
Sent: Friday, July 10, 2020 6:10:54 PM
To: Andrew Kearins <Andrew.Kearins@midwestern.nsw.gov.au>; David Webster <David.Webster@midwestern.nsw.gov.au>

Cc: Derek Powell <derek.powell@bjceaustralia.com>; Development Western <development.western@rms.nsw.gov.au>

Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Caution: This email originated from outside the organisation.

Hi Andrew and David

DPIE have provided now feedback on the TMP and we are working on addressing their comments.

The TMP states that no BAL/BAR treatment is required on the Wollar Road / Barigan Road, given that:

- The bridge is two lanes rather than one lane
- The bridge is within a 50km/h zone
- The findings and risk levels described in the RSA do not require a BAL/BAR treatment to address them

I've included the email chain relating to previous discussions on this below.

Can you confirm with that MWRC do not require a BAL/BAR treatment on the Wollar Road / Barigan Road intersection?

A quick response on this would be much appreciated in order to close out this point with the Department as soon as possible.

Best regards

Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

From: Andrew McIntyre <Andrew.McIntyre@transport.nsw.gov.au>

Sent: Tuesday, 26 May 2020 9:44 PM

To: Robbie Williamson <robbie.williamson@bjceaustralia.com>;
David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; Derek Powell <derek.powell@bjceaustralia.com>;
Peter Zhang <peter.zhang@bjceaustralia.com>; Development Western
<development.western@rms.nsw.gov.au>; Angela Stewart
<Angela.STEWART@transport.nsw.gov.au>
Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Dear Robbie

Thanks for your time this afternoon.

As discussed, TfNSW notes Barigan Road, for the length the haulage route to the Solar Farm, will be upgraded to a 7m sealed formation. TfNSW further notes the other risks identified are able to be rectified as part of the Barigan Road upgrade suite of works.

TfNSW is satisfied that the risks identified in the Road Safety Audit can be ameliorated as part of the Barigan Road upgrade.

Regards

Andrew McIntyre
Manager Land Use Assessment
Community and Place
Regional and Outer Metropolitan Division
Transport for NSW
T 02 6861 1453 | F 02 6861 1414 | M 0417 431 982
Level 1 51-55 Currajong Street Parkes NSW 2870

Every journey matters



From: Robbie Williamson [<mailto:robbie.williamson@bjceaustralia.com>]
Sent: Friday, 22 May 2020 9:34 AM
To: Andrew McIntyre <Andrew.McIntyre@transport.nsw.gov.au>;
David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; Derek Powell <derek.powell@bjceaustralia.com>;
Peter Zhang <peter.zhang@bjceaustralia.com>
Subject: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Hi Andrew and David

Please find attached the draft report from the Road Safety Audit that was undertaken by ACOR on the Wollar Road / Barigan Road intersection and adjacent bridge crossing (as requested by RMS during the public exhibition phase of the project).

I've included both RMS and Mid-Western Regional Council in this email as I understand Wollar Road is an RMS regional road that council have responsibility for and Barigan Road is a council road (so there will need to be some input from both parties on the findings).

I'll set up a teleconference invitation for next week to discuss this further.

Best regards
Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

Roads and Maritime Services



Before printing, please consider the environment

IMPORTANT NOTICE: This email and any attachment to it are intended only to be read or used by the named addressee. It is confidential and may contain legally privileged information. No confidentiality or privilege is waived or lost by any mistaken transmission to you. Roads and Maritime Services is not responsible for any unauthorised alterations to this email or attachment to it. Views expressed in this message are those of the individual sender, and are not necessarily the views of Roads and Maritime Services. If you receive this email in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or use any part of this email if you are not the intended recipient.

PRIVATE AND CONFIDENTIAL – MIDWESTERN REGIONAL COUNCIL

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended recipient you are hereby notified that any dissemination, distribution or copying of this email is strictly prohibited. If you have received this email in error please disregard the contents of the email, delete the email and notify the author immediately. Thank you.

Roads and Maritime Services



Before printing, please consider the environment

IMPORTANT NOTICE: This email and any attachment to it are intended only to be read or used by the named addressee. It is confidential and may contain legally privileged information. No confidentiality or privilege is waived or lost by any mistaken transmission to you. Roads and Maritime Services is not responsible for any unauthorised alterations to this email or attachment to it. Views expressed in this message are those of the individual sender, and are not necessarily the views of Roads and Maritime Services. If you receive this email in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or use any part of this email if you are not the intended recipient.

Council

From: [Andrew Kearins](#)
To: [Robbie Williamson](#); [David Webster](#)
Cc: [Derek Powell](#); [Development Western](#)
Subject: Re: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA
Date: Monday, 13 July 2020 5:20:39 PM

Robbie

I can confirm MWRC is satisfied with the intersection as is given that it is in a 50km/hr zone and trucks are approaching from Wollar.

Thanks
Andrew Kearins

Manager Works MWRC

Get [Outlook for iOS](#)

From: Robbie Williamson <robbie.williamson@bjceaustralia.com>
Sent: Friday, July 10, 2020 6:10:54 PM
To: Andrew Kearins <Andrew.Kearins@midwestern.nsw.gov.au>; David Webster <David.Webster@midwestern.nsw.gov.au>
Cc: Derek Powell <derek.powell@bjceaustralia.com>; Development Western <development.western@rms.nsw.gov.au>
Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Caution: This email originated from outside the organisation.

Hi Andrew and David

DPIE have provided now feedback on the TMP and we are working on addressing their comments.

The TMP states that no BAL/BAR treatment is required on the Wollar Road / Barigan Road, given that:

- The bridge is two lanes rather than one lane
- The bridge is within a 50km/h zone
- The findings and risk levels described in the RSA do not require a BAL/BAR treatment to address them

I've included the email chain relating to previous discussions on this below.

Can you confirm with that MWRC do not require a BAL/BAR treatment on the Wollar Road / Barigan Road intersection?

A quick response on this would be much appreciated in order to close out this point with the Department as soon as possible.

Best regards

Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

From: Andrew McIntyre <Andrew.McIntyre@transport.nsw.gov.au>

Sent: Tuesday, 26 May 2020 9:44 PM

To: Robbie Williamson <robbie.williamson@bjceaustralia.com>;

David.Webster@midwestern.nsw.gov.au

Cc: Andrew.Kearins@midwestern.nsw.gov.au; Derek Powell <derek.powell@bjceaustralia.com>;

Peter Zhang <peter.zhang@bjceaustralia.com>; Development Western

<development.western@rms.nsw.gov.au>; Angela Stewart

<Angela.STEWART@transport.nsw.gov.au>

Subject: RE: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Dear Robbie

Thanks for your time this afternoon.

As discussed, TfNSW notes Barigan Road, for the length the haulage route to the Solar Farm, will be upgraded to a 7m sealed formation. TfNSW further notes the other risks identified are able to be rectified as part of the Barigan Road upgrade suite of works.

TfNSW is satisfied that the risks identified in the Road Safety Audit can be ameliorated as part of the Barigan Road upgrade.

Regards

Andrew McIntyre

Manager Land Use Assessment

Community and Place

Regional and Outer Metropolitan Division

Transport for NSW

T 02 6861 1453 | F 02 6861 1414 | M 0417 431 982

Level 1 51-55 Currajong Street Parkes NSW 2870

Every journey matters



Transport
for NSW

From: Robbie Williamson [<mailto:robbie.williamson@bjceaustralia.com>]
Sent: Friday, 22 May 2020 9:34 AM
To: Andrew McIntyre <Andrew.McIntyre@transport.nsw.gov.au>;
David.Webster@midwestern.nsw.gov.au
Cc: Andrew.Kearins@midwestern.nsw.gov.au; Derek Powell <derek.powell@bjceaustralia.com>;
Peter Zhang <peter.zhang@bjceaustralia.com>
Subject: Wollar Solar Farm - Wollar Rd / Barigan Rd intersection RSA

Hi Andrew and David

Please find attached the draft report from the Road Safety Audit that was undertaken by ACOR on the Wollar Road / Barigan Road intersection and adjacent bridge crossing (as requested by RMS during the public exhibition phase of the project).

I've included both RMS and Mid-Western Regional Council in this email as I understand Wollar Road is an RMS regional road that council have responsibility for and Barigan Road is a council road (so there will need to be some input from both parties on the findings).

I'll set up a teleconference invitation for next week to discuss this further.

Best regards
Robbie

Project Manager



Beijing Jingneng Clean Energy (Australia)

Suite 3, Level 21, 1 York Street, Sydney NSW 2000 Australia

Phone: 02 8066 6032

Mobile: 0499 770 768

Email: robbie.williamson@bjceaustralia.com

www.bjceaustralia.com

This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.

Roads and Maritime Services



Before printing, please consider the environment

IMPORTANT NOTICE: This email and any attachment to it are intended only to be read or used by the named addressee. It is confidential and may contain legally privileged information. No confidentiality or privilege is waived or lost by any mistaken transmission to you. Roads and Maritime Services is not responsible for any unauthorised alterations to this email or attachment to it. Views expressed in this message are those of the individual sender, and are not necessarily the views of Roads and Maritime Services. If you receive this email in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or use any part of this email if you are not the intended recipient.

PRIVATE AND CONFIDENTIAL - MIDWESTERN REGIONAL COUNCIL

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended recipient you are hereby notified that any dissemination, distribution or copying of this email is strictly prohibited. If you have received this email in error please disregard the contents of the email, delete the email and notify the author immediately. Thank you.

Appendix D Photos of Bridge Before and After Upgrade

Wollar Road from 2010 Google Streetview imagery

Travelling east on Wollar Road, away from Wollar village, intersection with Barigan Road visible on other side of bridge

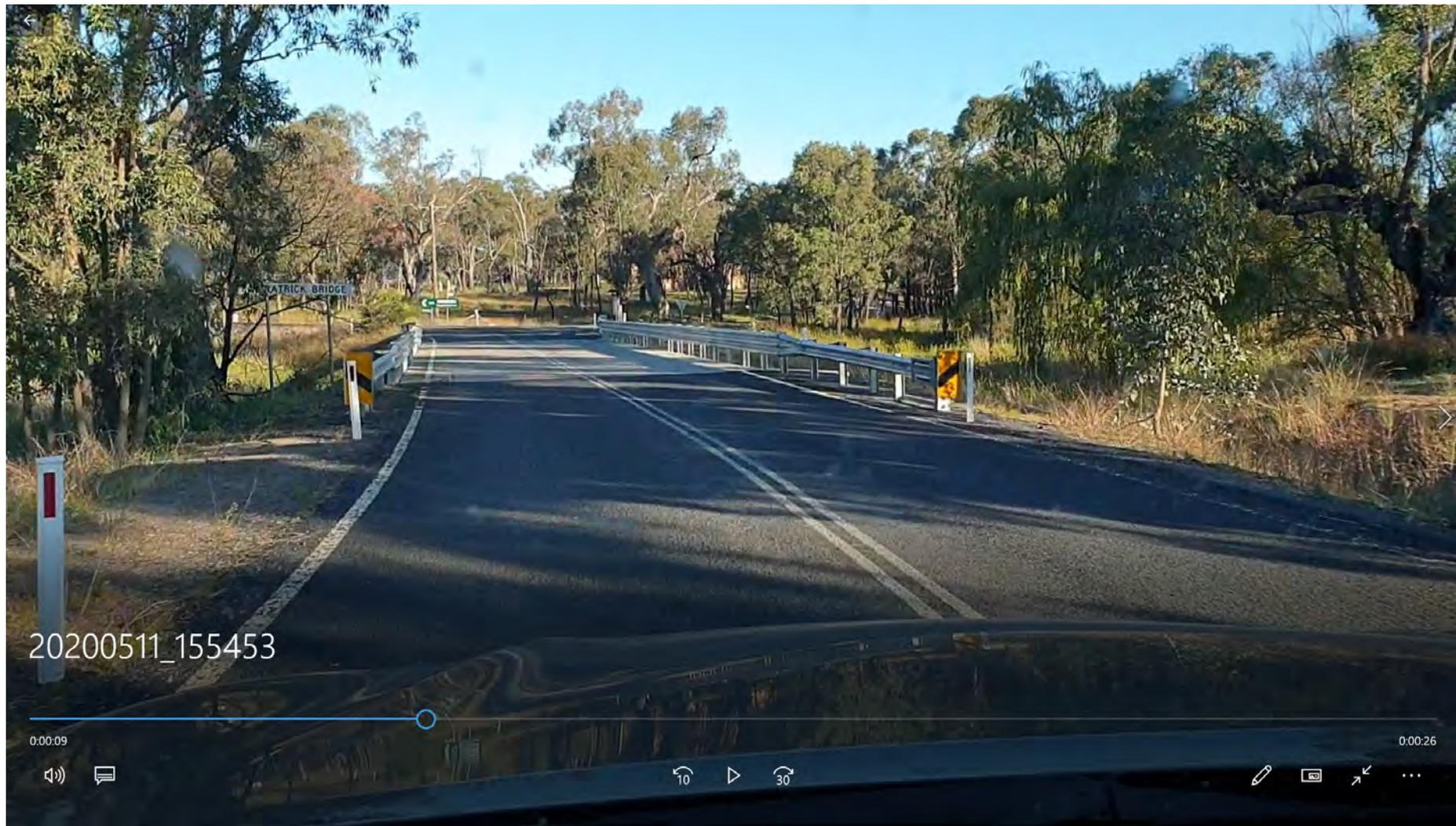


Travelling east on Wollar Rd, away from Wollar village, arriving at Barrigan Road intersection (Barrigan Road is road on the right of photo)



Wollar Road from Road Safety Auditor's photos (May 2020)

Same aspect as previous photo. Note bridge widened to two lanes with guardrails. Road also much wider with full lane markings. Work completed circa 2017.



Travelling east on Wollar Rd, away from Wollar village, arriving at Barigan Road intersection (Barigan Road is road on the right of photo). Note substantial difference in condition of intersection

