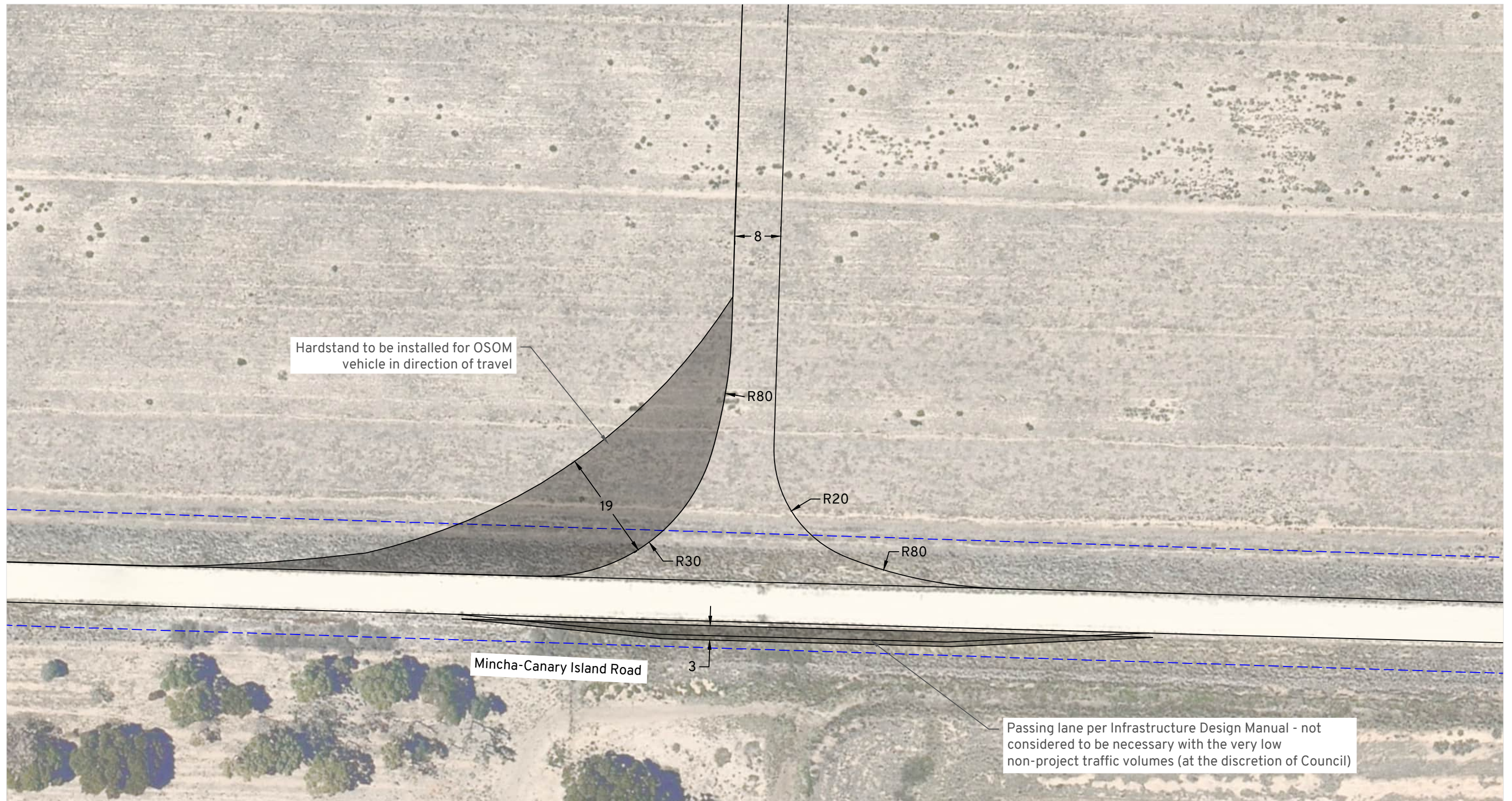


Appendix F

Standard Site Access Design





Design

Lot Boundary

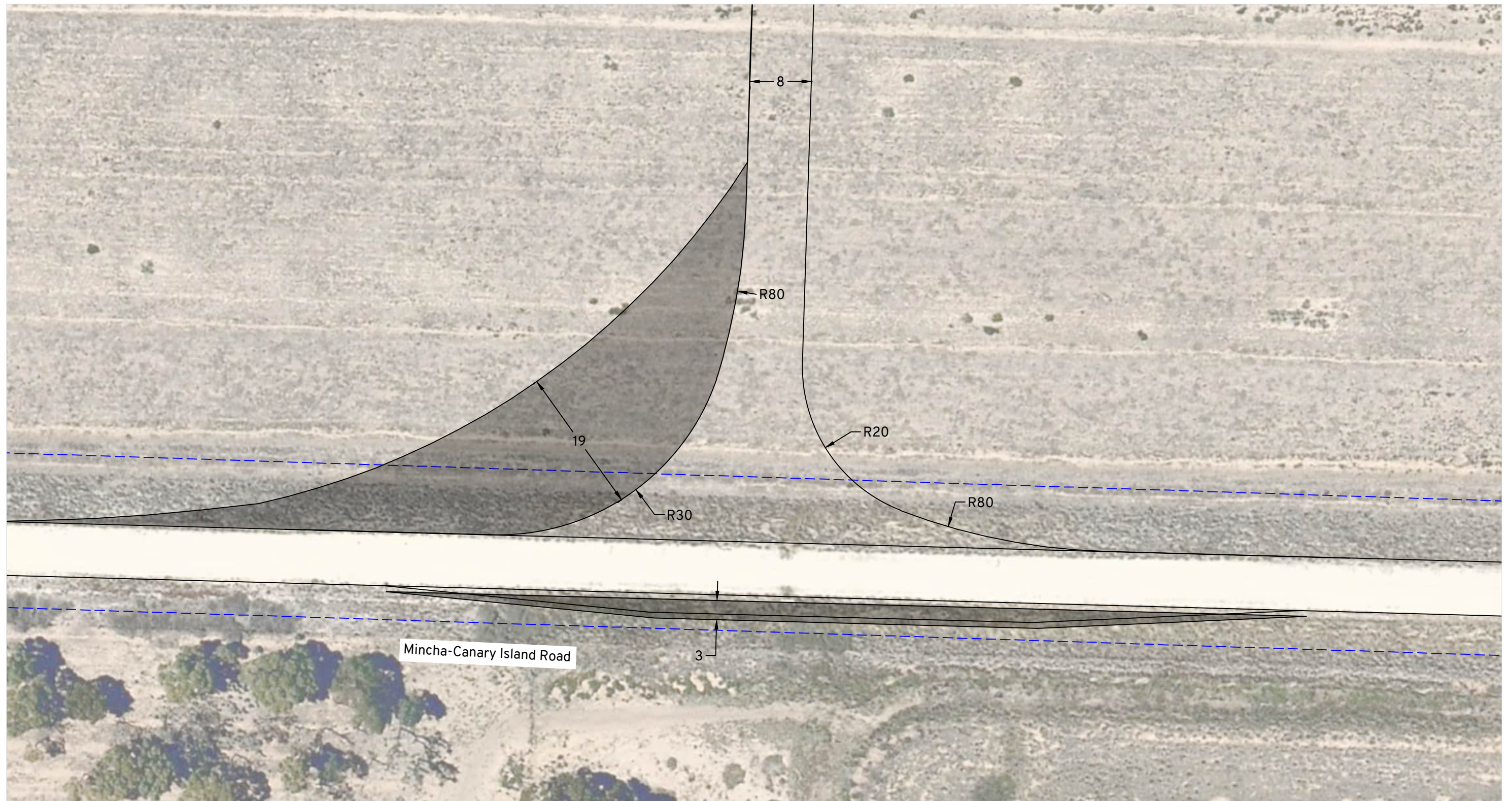
Fence



Macorna Wind Farm

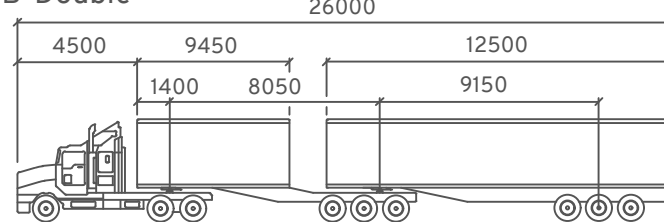
Typical Access Design - 90 degree
Swept Path Assessment

DRAWN: EY
DATE: 02/02/2026
DWG NO: 1306 S03A
SCALE at A3: 1:750m



Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double

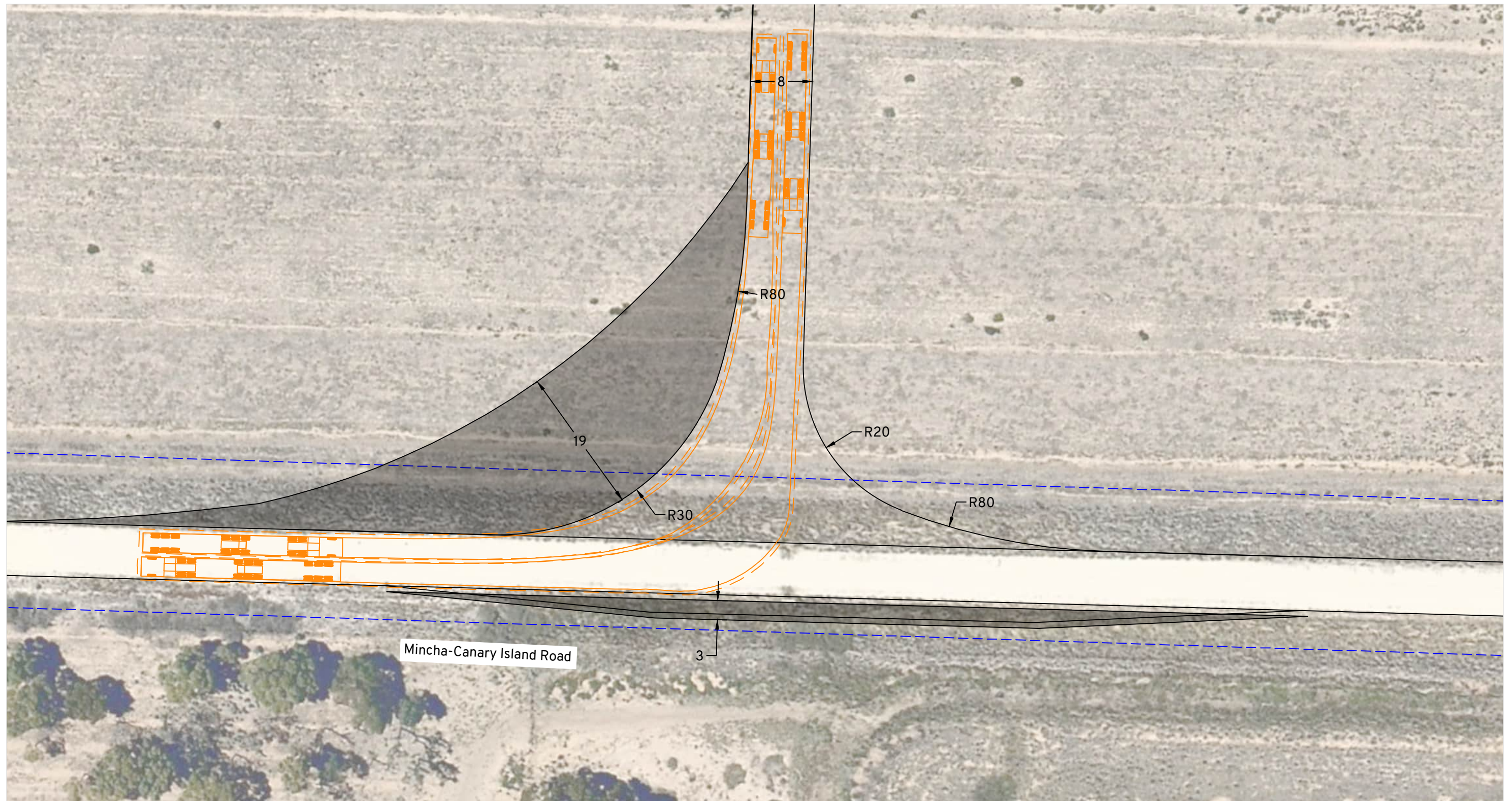


Tractor Width : 2500 mm
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle 70.0



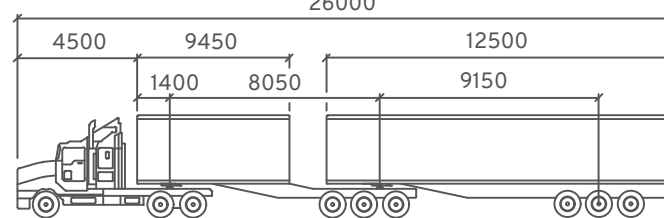
Macorna Wind Farm
 Typical Access Design - 90 degree
 Concept Design

DRAWN: EY
 DATE: 02/02/2026
 DWG NO: 1306 S03A
 SCALE at A3: 1:500m



Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h

26.0m B-Double
 26000



Tractor Width : 2500
 Trailer Width : 2500
 Tractor Track : 2500
 Trailer Track : 2500
 Lock to Lock : 6.0s
 Steering Angle : 22.2
 Articulating Angle : 70.0

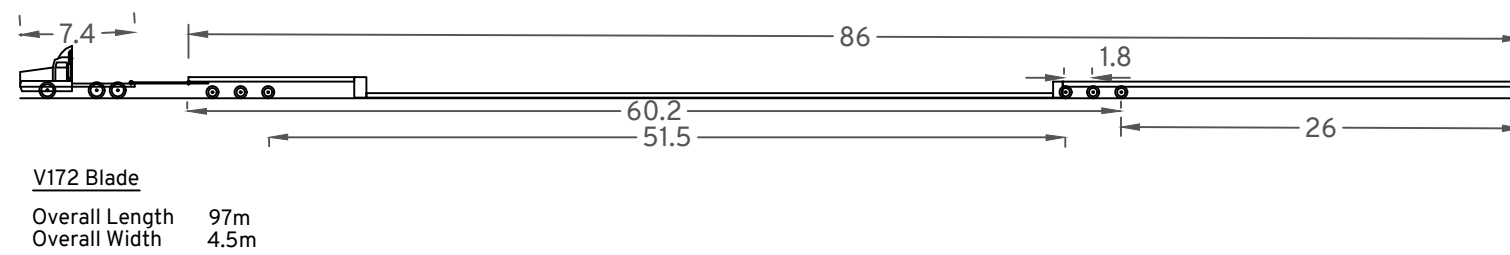


Macorna Wind Farm
 Typical Access Design - 90 degree
 Swept Path Assessment

DRAWN: EY
 DATE: 02/02/2026
 DWG NO: 1306 S03A
 SCALE at A3: 1:500m

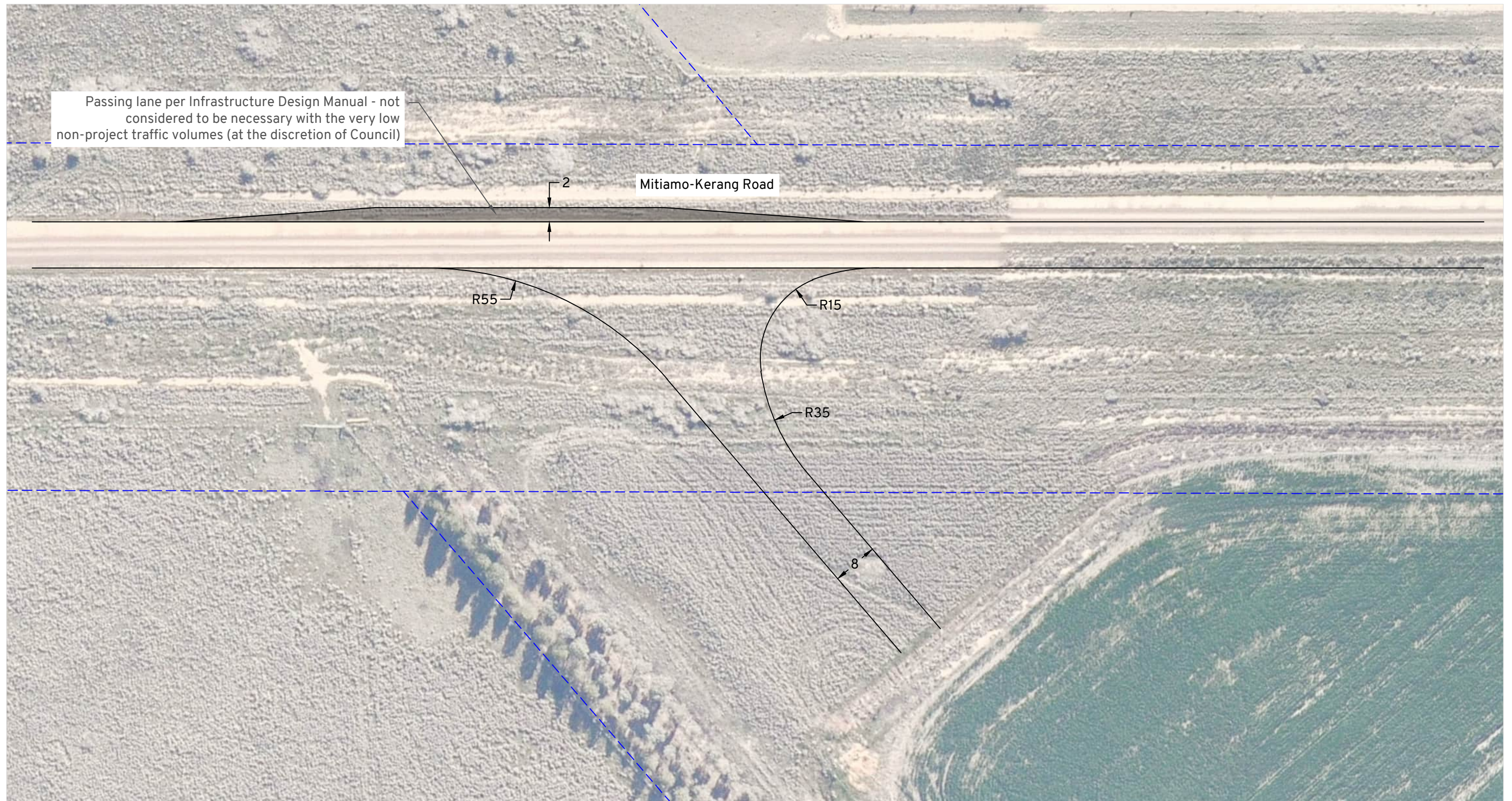


Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h



Macorna Wind Farm
 Typical Access Design - 90 degree
 Swept Path Assessment

DRAWN: EY
 DATE: 02/02/2026
 DWG NO: 1306 S03A
 SCALE at A3: 1:1



Design

Lot Boundary

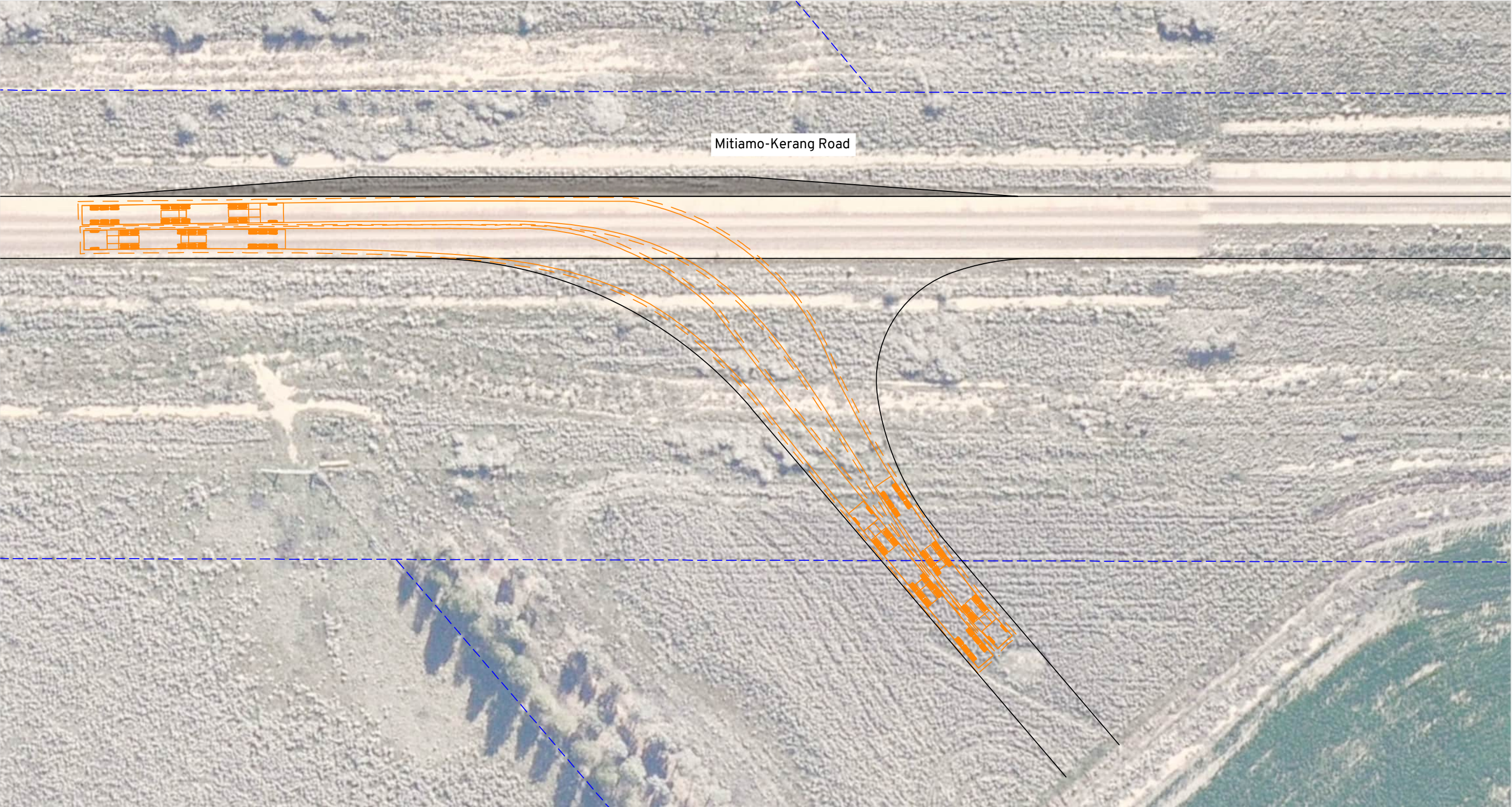
Fence



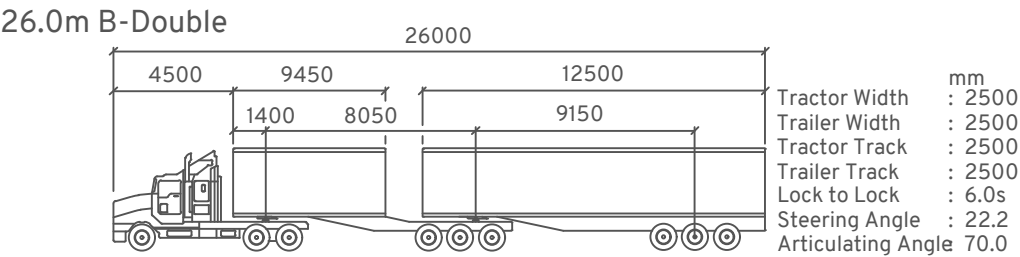
Macorna Wind Farm

Typical Access Design - 130 degree
Concept Design

DRAWN: EY
DATE: 02/02/2026
DWG NO: 1306 S03A
SCALE at A3: 1:750m

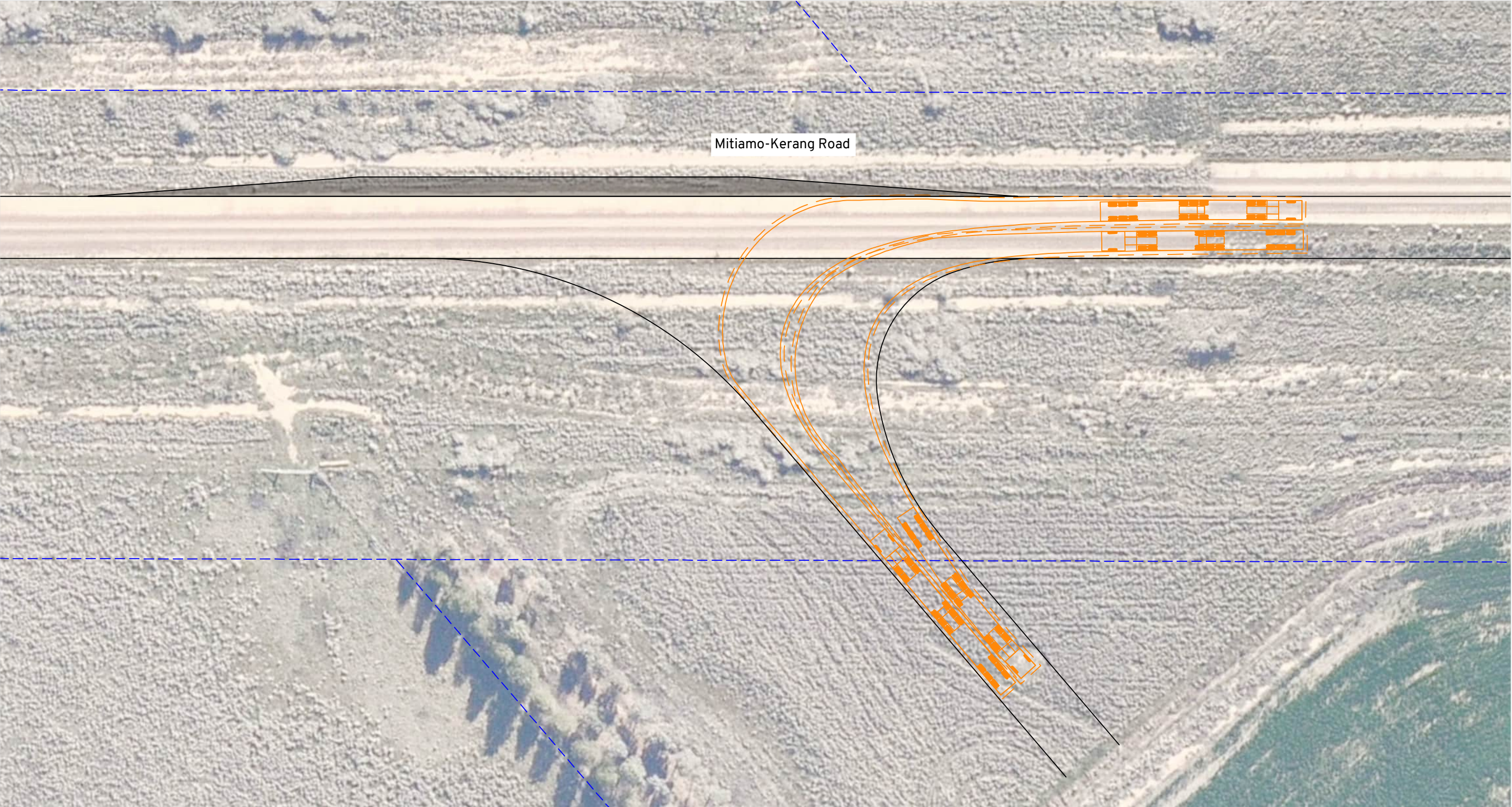


Vehicle Envelope
500mm Clearance
Reverse Manoeuvre
Min. Design Speed 5km/h



Macorna Wind Farm
Typical Access Design - 130 degree
Swept Path Assessment

DRAWN: EY
DATE: 02/02/2026
DWG NO: 1306 S03A
SCALE at A3: 1:500m



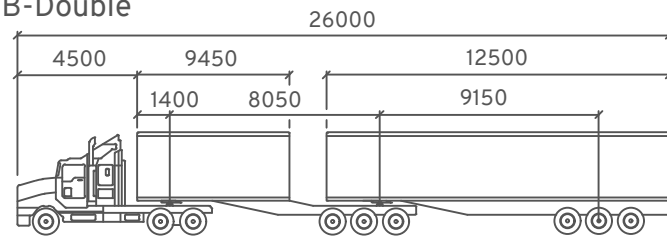
Vehicle Envelope

500mm Clearance

Reverse Manoeuvre

Min. Design Speed 5km/h

26.0m B-Double



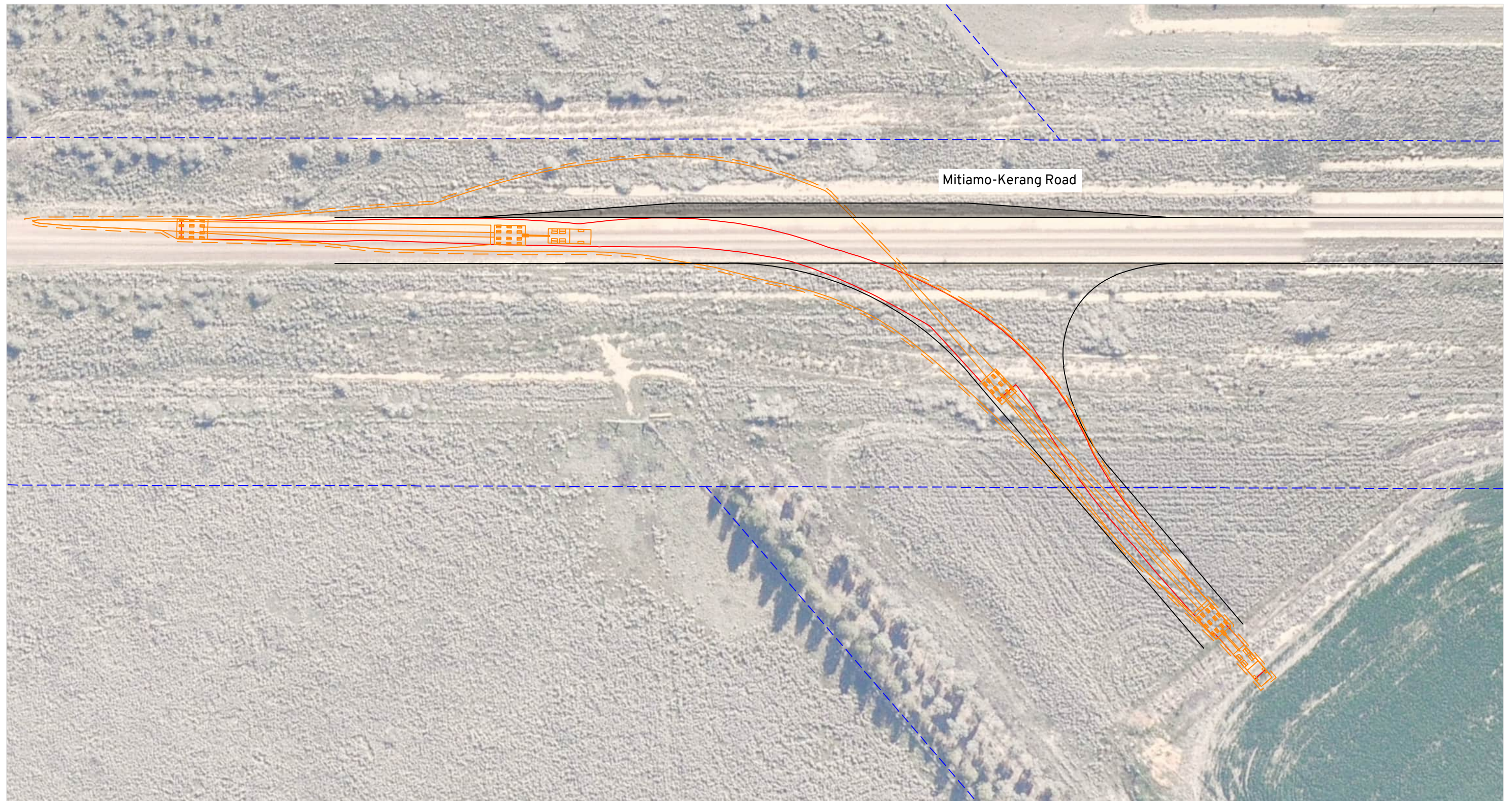
Tractor Width	: 2500
Trailer Width	: 2500
Tractor Track	: 2500
Trailer Track	: 2500
Lock to Lock	: 6.0s
Steering Angle	: 22.2
Articulating Angle	: 70.0

Macorna Wind Farm

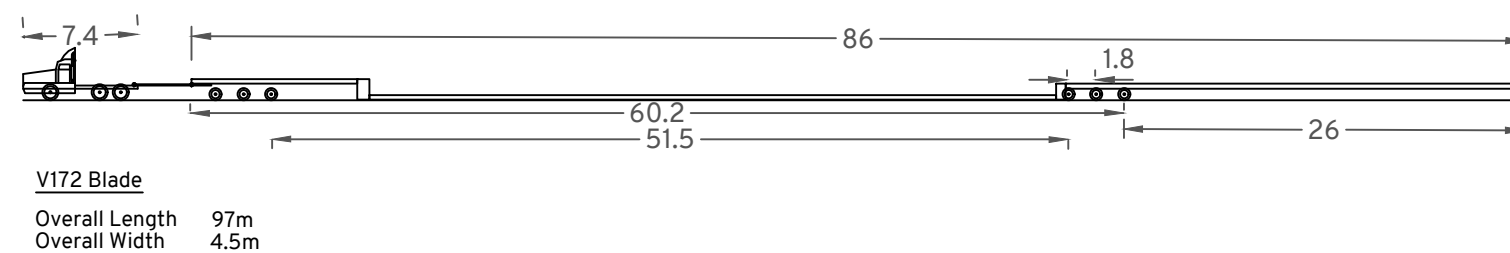
Typical Access Design - 130 degree

Swept Path Assessment

DRAWN: EY
DATE: 02/02/2026
DWG NO: 1306 S03A
SCALE at A3: 1:500m



Vehicle Envelope
 500mm Clearance
 Reverse Manoeuvre
 Min. Design Speed 5km/h



Macorna Wind Farm

Typical Access Design - 130 degree Swept Path Assessment

DRAWN: EY
 DATE: 02/02/2026
 DWG NO: 1306 S03A
 SCALE at A3: 1:750m

Appendix G

Rex J Andrews – OSOM Route Assessment





MACORNA WINDFARM V172

NOVEMBER 5, 2025

CLIENT: ATMOS RENEWABLES

PORT: GEELONG

REVISION: REV00

INDEX:

2.0	VERSION HISTORY	3
3.0	INTRODUCTION	4
4.0	PROJECT DATA	5
5.0	PORT OF IMPORT	6
6.0	SITE LOCATION.....	7
7.0	TRANSPORT SUMMARY	10
8.0	ROUTE 1 - STUDY	11
9.0	ROUTE 1 CONCLUSION	37
10.0	ROUTE 2 - STUDY	39
11.0	ROUTE 2 CONCLUSION	63
12.0	TRANSPORT SUMMARY – SITE ACCESS ROUTES	65
13.0	ROUTE A – SITE ACCESS.....	66
14.0	ROUTE B – SITE ACCESS.....	78
15.0	ROUTE C – SITE ACCESS.....	93
16.0	EVALUATION	98
17.0	REFERENCES	99
18.0	TRANSPORT COMBINATIONS	100
19.0	APPENDIX A – TRANSPORT DRAWINGS	101

2.0 Version History

Rev	Date	Change	Responsible	Approved
00	25/09/25	Report Compiled	E Novak	✓
00	30/09/25	Additional site access routes surveyed.	G Allen	✓
00	05/11/25	Report Completed	G Allen	✓

3.0 Introduction

Atmos Renewables are proposing to develop the Macorna Windfarm in Northwest Victoria. The project is located approximately 220 kilometres northwest of Melbourne in the Gannawarra and Loddon Shire area.

This document has been developed to provide a preliminary route assessment of proposed routes from the nominated port to the windfarm site.

The study considers operational factors and equipment capability and does not consider external factors such as regulatory, landholder, environmental, cultural or any other external factors beyond the knowledge or control of Rex J Andrews Engineered Transportation.

The study utilises the knowledge, experience and intellectual property of Rex J Andrews Engineered Transportation on purpose-built equipment and is not intended for use by other parties.

The study was conducted on 30-09-25

4.0 Project Data

Date of latest Route Assessment: 30/09/2025

Survey undertaken by: Rex J Andrews P/L

Project name: Macorna Windfarm

Location: Geelong (VIC) to Macorna (Vic)

Turbine type: V172 WTG with 150m HH

5.0 Port of Import

The wind turbine equipment is to be imported from various countries and arrive on ships into the Port of Geelong. Alternatively, the client may source local towers.

The ideal berth for these shipments is the Lascelles Wharf. This facility has a hardstand storage area of roughly 41,000 s/q meters, adjacent to the berth.

Additionally, there is an external storage area of 35,000 s/q metres at the Infrabuild site on Madden Avenue approx 400 metres west of the port.

If both storage areas were used for a wind turbine project than the storage areas would have the capacity for the following.

Towers: 25 sets of 6 section towers

Blades: 30 sets of 85 metre blades

Turbine motors components: 30 sets



Figure 1 - Geelong Port Lascelles 3 and Storage Areas

6.0 Site Location

The proposed Macorna Windfarm project is located approximately 220 kilometres northwest of Melbourne in the Gannawarra and Loddon Shire area.

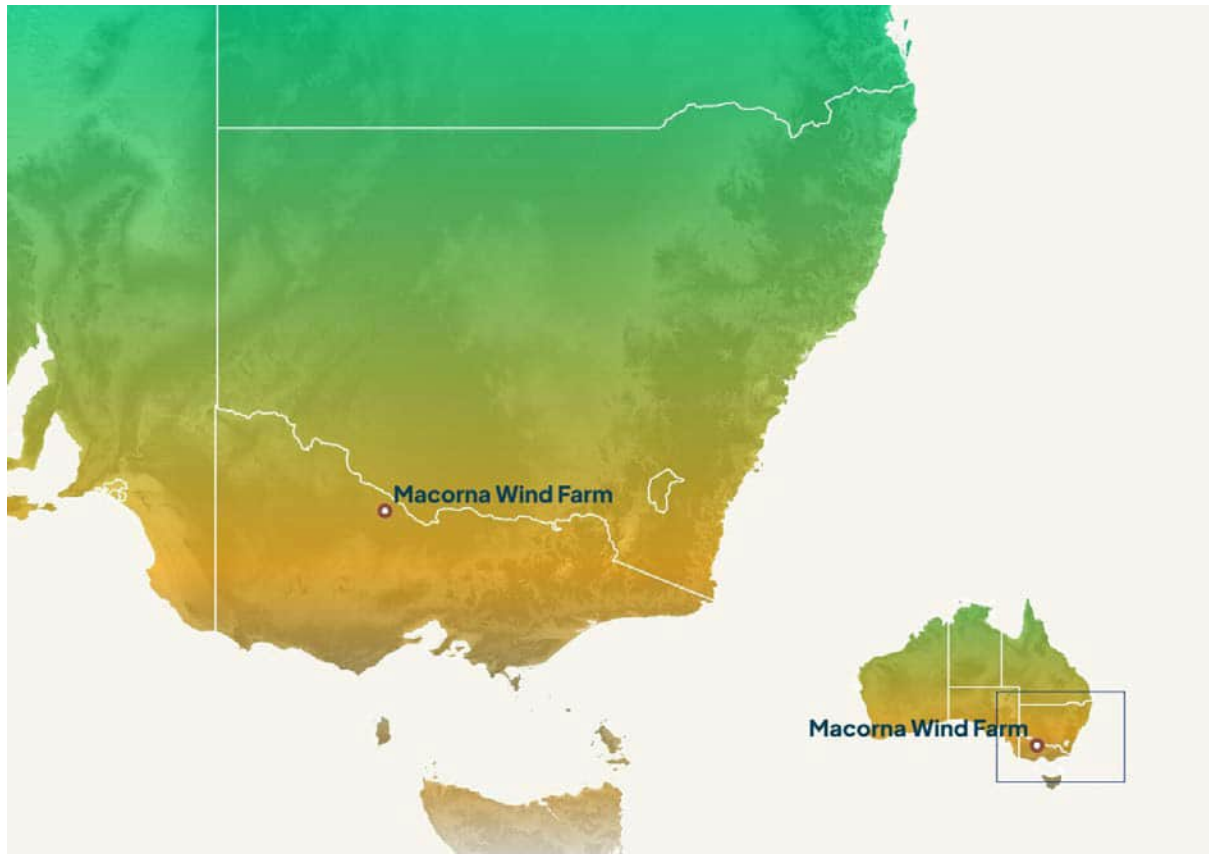


Figure 2 - Site Location

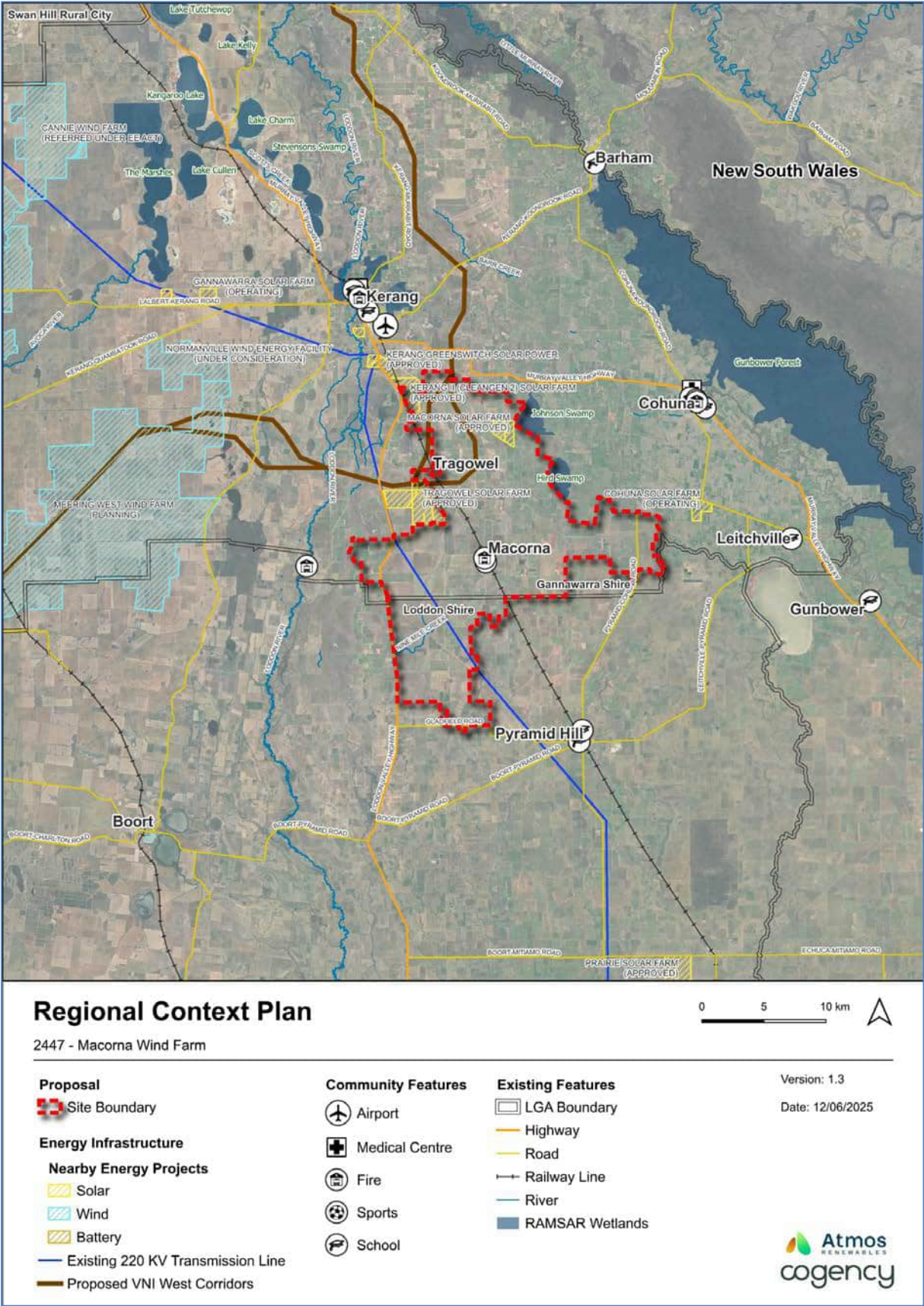


Figure 3 - Site Layout

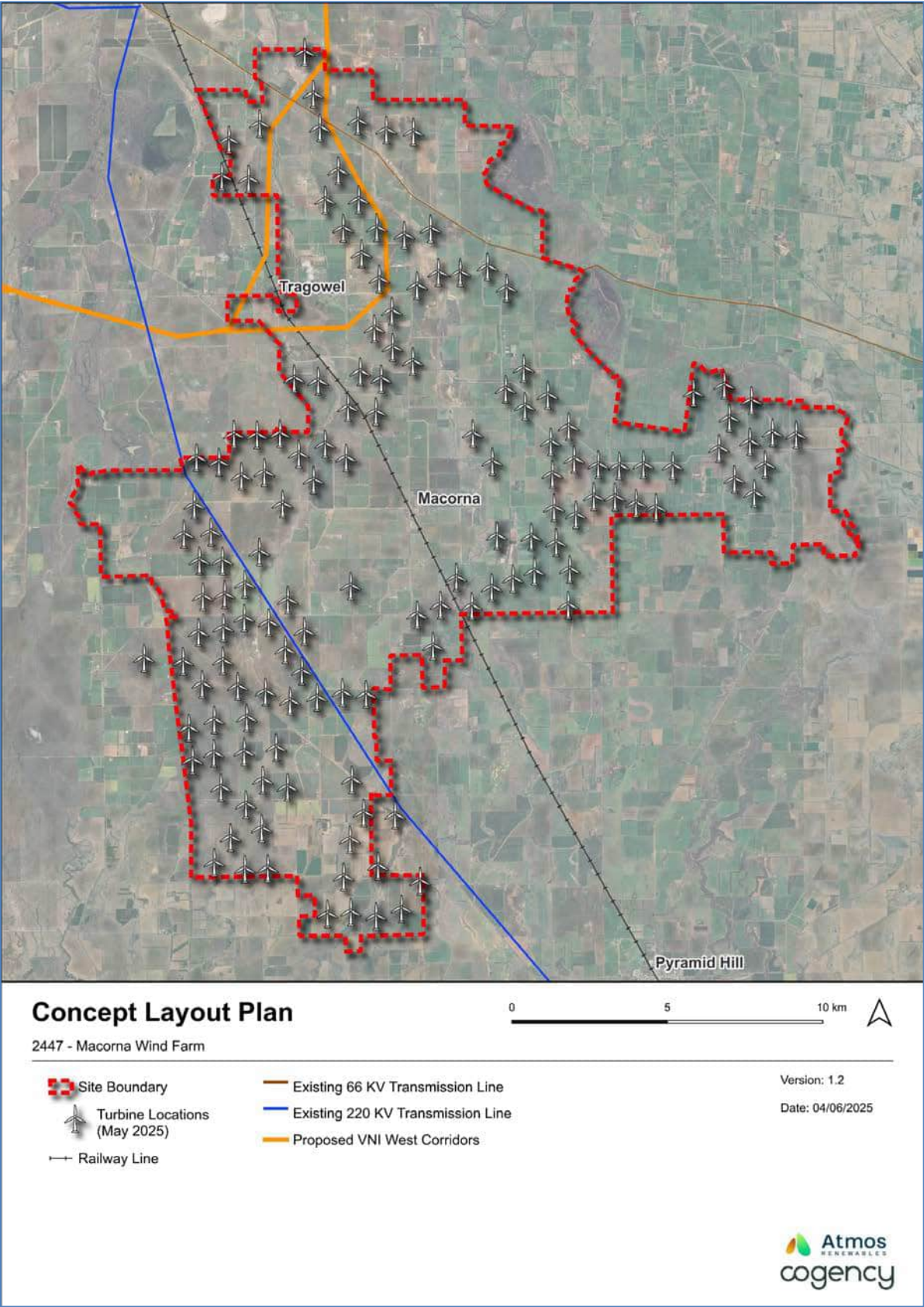


Figure 4 - Site Layout

7.0 Transport Summary

The study is based on the turbine components entering Australia via the Port of Geelong Lascelles Wharf. The components would then be transported to the proposed storage facility before being transported to the Macorna Windfarm via Route 1 and Route 2.

ROUTE 1: GEELONG PORT STORAGE AREA TO MACORNA WINDFARM

Components: Blades and lighter loads

From: Port of Geelong Storage Area

To: Macorna

Distance: 341 kilometres

Route: Geelong Port, The Esplanade, Sea Breeze Parade, Aberly Road, Corio Quay Road, Princess Highway, Geelong Ring Road, Princess Freeway, Western Ring Road, Keilor Park Drive, Calder Freeway, Calder Alternative Highway, Calder Highway, Bridgewater-Serpentine Road, Loddon Valley Highway.

GPS Link for route: <https://maps.app.goo.gl/7HkwMTq6AgReKYD58>

ROUTE 2: GEELONG PORT STORAGE AREA TO MACORNA WINDFARM

Components: Towers, motors, transformers and switch rooms.

From: Port of Geelong Storage Area

To: Macorna

Distance: 423.0 kilometres

Route: Geelong Port, Madden Ave, Seabeach Parade, St Georges Road, Cox Road, Anakie Road, Midland Highway, Princes Freeway, Hamilton Highway, Colac-Ballarat Road, Pitfield-Cressy Road, Rokewood-Skipton Road, Glenelg Highway, Beaufort Road, Skipton Road, Lawrence Street, Albert Street, Lexton Road, Beaufort-Lexton Road, Williamson Street, Sunraysia Highway, Wimmera Highway, Bridgewater-Dunolly Road, Arnold Road, Bridgewater-Serpentine Road, River Street, Loddon Valley Highway.

GPS Link for route: <https://maps.app.goo.gl/HXFD6AkS6JchPzvW9>

8.0 Route 1 - Study

ROUTE 1: GEELONG PORT STORAGE AREA TO MACORNA WINDFARM

Components: Blades and lighter loads

From: Port of Geelong Storage Area

To: Macorna

Distance: 341 kilometres

Route: Geelong Port, The Esplanade, Sea Breeze Parade, Aberly Road, Corio Quay Road, Princess Highway, Geelong Ring Road, Princess Freeway, Western Ring Road, Keilor Park Drive, Calder Freeway, Calder Alternative Highway, Calder Highway, Bridgewater-Serpentine Road, Loddon Valley Highway.

GPS Link for route: <https://maps.app.goo.gl/7HkwMTq6AgReKYD58>

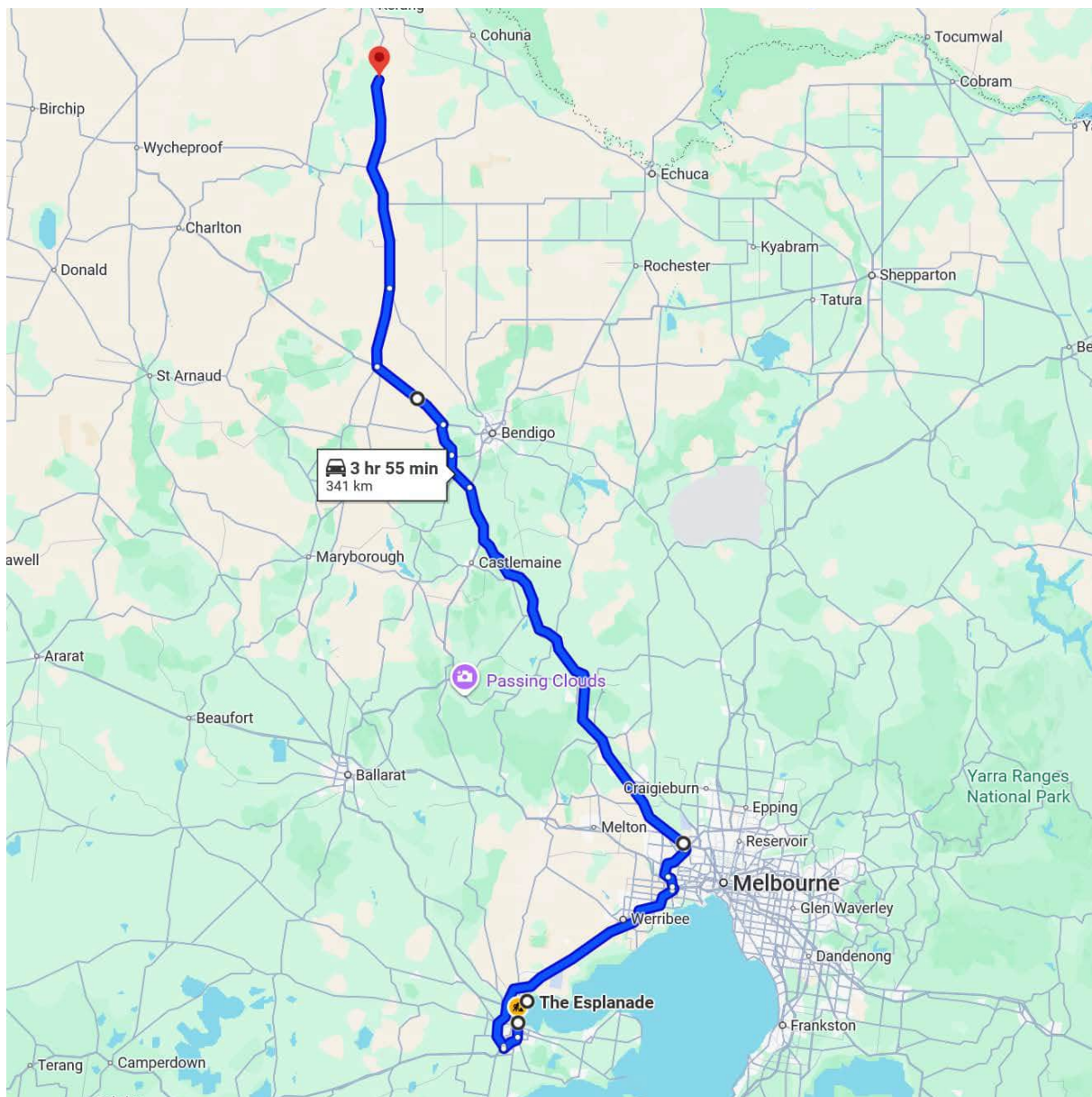


Figure 5 - Route 1

ROUTE INDEX

ROAD MODIFICATION	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Current clearance	Procedure	Notes
0.0	Infrabuild storage yard North Shore	Infrabuild storage yard onto Madden Avenue and onto The Esplanade GPS Link: https://maps.app.goo.gl/9UjDdZ2d2m11EgC9	Length: 79.0 metres Width: 7.0 Metres	Turn right out of Infrabuild and onto Madden Avenue	Hardstand to be installed on inside and outside of corner.
0.0	Lacelles Berth #3 North Shore	Lacelles berth 3 onto The Esplanade GPS Link: https://goo.gl/maps/wFxbmbVPS17vSE9	Length: 79.0 metres Width: 7.0 Metres	Reverse out of the wharf onto The Esplanade	Hardstand to be installed on inside and outside of corner.
1.2	North Shore	The Esplanade onto Sea Breeze Parade GPS Link: https://goo.gl/maps/5DL7grKvFuS8ZAu9	Length: 79.0 metres Width: 7.0 Metres	Right hand turn	Kerbs and barriers on entry to be removed and road made trafficable on entry. Signs to be removed.
1.9	North Shore	Sea Breeze Parade onto Aberly Road GPS Link: https://goo.gl/maps/1HwYfTb9dF7mD6a7	Length: 79.0 metres Width: 7.0 Metres	Left hand turn	Islands to be made trafficable/replaced with painted lines. Signs to be relocated or made removable with flush bases.
2.3	North Shore	Rail Crossing on Aberly Rd https://maps.app.goo.gl/jN6tNsuV16YQxXsE8	Width: 5.0 Metres	Travel directly ahead	Rail Manager approvals required
2.4	North Shore	Aberly Road onto Corio Quay Road GPS Link: https://goo.gl/maps/N6Dd1QCYVYVb32	Length: 79.0 metres Width: 7.0 Metres	Travel through the roundabout on the incorrect side	Several signs to be relocated or made removable.
2.8	North Shore	Corio Quay Road Righthand Bend GPS Link: https://goo.gl/maps/A2AuVzeLs8t	Length: 92.0 metres Width: 7.0 Metres	Right hand bend	Island to be made trafficable and signs relocated.
4.3	North Geelong	Corio Quay Road onto Princess Highway GPS Link: https://goo.gl/maps/f8vw9vbYTnD2	Length: 92.0 metres Width: 5.0 Metres	Slight merge onto The Princes Highway	No problem with this section of road.
5.6	North Geelong	Princess Hwy Margret St Overpass GPS Link: https://maps.app.goo.gl/eh2RoW9K4Si1YtV8	Height: 5.5 Metres	Travel directly ahead	No problem with this section of road.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
6.5	North Geelong	Princess Hwy Church St Overpass GPS Link: https://maps.app.goo.gl/YP3nGTfun33sRzgL6	Height: 5.5 Metres	Travel directly ahead	No problem with this section of road.
17.0	Highton	The Princes Highway onto the Geelong Ring Road GPS Link: https://goo.gl/maps/U66WCoU182R2	Length: 79.0 metres Width: 7.0 Metres	Right hand turn using bypass installed on inside of roadway	Hardstand to be installed, islands made trafficable, and signs relocated or made removable.
17.1	Waurin Ponds	Geelong Ring Road Princes Fwy Overpass GPS Link: https://maps.app.goo.gl/xyVhWa3RokqKAKSw5	Height: 5.2 Metres	Travel directly ahead	No problem with this section of road.
18.1	Highton	Geelong Ring Road Thornhill Rd Overpass GPS Link: https://maps.app.goo.gl/CRaaYM7Vu9mCnyCS7	Height: 7.6 Metres	Travel directly ahead	No problem with this section of road.
20.6	Wandana Heights	Geelong Ring Road Barrabool Rd Overpass GPS Link: https://maps.app.goo.gl/f93eGSWBtxcq4oG46	Height: 6.5 Metres	Travel directly ahead	No problem with this section of road.
29.3	Batesford	Geelong Ring Road Ballarat Rd Overpass GPS Link: https://maps.app.goo.gl/ZvDv4eRDvQivwTZ76	Height: 6.2 Metres	Travel directly ahead	No problem with this section of road.
30.2	Bell Post Hill	Geelong Ring Road Creamery Rd Overpass GPS Link: https://maps.app.goo.gl/h4PdkgSmeq5HKn8M9	Height: 6.0 Metres	Travel directly ahead	No problem with this section of road.
32.7	Lovely Banks	Geelong Ring Road Anakie Rd Overpass GPS Link: https://maps.app.goo.gl/3a3VApBPud1rrKvw9	Height: 5.9 Metres	Travel directly ahead	No problem with this section of road.
36.4	Corio	Geelong Ring Road onto the Princess Freeway at Baccus Marsh Rd GPS Link: https://maps.app.goo.gl/wxxo5UjBcZNRfSYh7	Height: 5.8 Metres	Travel directly ahead	No problem with this section of road.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
38.1	Corio	Geelong Ring Road Broderick Rd Overpass GPS Link: https://maps.app.goo.gl/5YVJVVszJLcdr4Ct7	Height: 5.8 Metres	Travel directly ahead	No problem with this section of road.
43.9	Lara	Princess Freeway Avalon Rd Overpass GPS Link: https://maps.app.goo.gl/3pn4dtuRBw8ApSSb8	Height: 5.5 Metres	Travel directly ahead	No problem with this section of road.
47.6	Lara	Princess Freeway Beach Rd Overpass GPS Link: https://maps.app.goo.gl/iCuJ4rAAWHV6Ce7J8	Height: 5.7 Metres	Travel directly ahead	No problem with this section of road.
54.6	Little River	Princess Freeway Point Wilson Rd Overpass GPS Link: https://maps.app.goo.gl/h2RxFXk4eA6eEP9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
57.4	Little River	Princess Freeway Little River Rd Overpass GPS Link: https://maps.app.goo.gl/zRCcgy4pfr6Yzvx6	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
65.6	Werribee	Princess Freeway Werribee Rd Overpass GPS Link: https://maps.app.goo.gl/1HUDbSdegTJKWjnJA	Height: 5.6 Metres	Travel directly ahead	No problem with this section of road.
66.8	Werribee	Princess Freeway Farm Rd Overpass GPS Link: https://maps.app.goo.gl/hKscd1bBZW9tp9cA	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
70.2	Werribee South	Princess Freeway Duncans Rd Overpass GPS Link: https://maps.app.goo.gl/cerW9EActDU3FF3RA	Height: 5.09 Metres	Travel directly ahead	No problem with this section of road.
72.9	Werribee South	Princess Freeway Sneydes Rd Overpass https://maps.app.goo.gl/ZzRsgpjxMGsdGbx6	Height: 9.91 Metres	Travel directly ahead	No problem with this section of road.
75.0	Point Cook	Princess Freeway Off Ramp Overpass GPS Link: https://maps.app.goo.gl/KAQhms3SYjcYSH2d9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
77.5	Point Cook	Princess Freeway Forsyth Rd Overpass GPS Link: https://maps.app.goo.gl/FUkL3m4KVGVEo9oK9	Height: 5.99 Metres	Travel directly ahead	No problem with this section of road.
78.5	Point Cook	Princess Freeway Footbridge GPS Link: https://maps.app.goo.gl/MxpkrriUGaLHYZv7	Height: 6.6 Metres	Travel directly ahead	No problem with this section of road.
78.6	Point Cook	Princess Freeway Palmers Rd Overpass GPS Link: https://maps.app.goo.gl/JQXFZqQaFTqiEEP7	Height: 6.2 Metres	Travel directly ahead	No problem with this section of road.
79.7	Altona Meadows	Princess Freeway Point Cook Rd Overpass GPS Link: https://maps.app.goo.gl/QE8WcQDWFZy2E5Tn7	Height: 6.12 Metres	Travel directly ahead	No problem with this section of road.

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15

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
110.0	Taylors Lakes	Calder Freeway Kings Road Overpass GPS Link: https://maps.app.goo.gl/8f4yBxiMZ5xeMeGRA	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
118.0	Diggers Rest	Calder Freeway Bulla-Diggers Rest Road Overpass GPS Link: https://maps.app.goo.gl/J2E3fiFoMRHaj16F9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
121.0	Diggers Rest	Calder Freeway Vinyard Road Overpass GPS Link: https://maps.app.goo.gl/NsBV6n6zFxsTk8k98	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
126.0	Diggers Rest	Calder Freeway Gap Road Overpass GPS Link: https://maps.app.goo.gl/2LSP5RM7KNUdDTtY9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
131.0	Gisborne South	Calder Freeway Mundy Road Overpass GPS Link: https://maps.app.goo.gl/LoZ2d5PWxamJT9eN8	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
137.0	Gisborne	Calder Freeway Melbourne Road Overpass GPS Link: https://maps.app.goo.gl/QRC7ISNEYwoqYHQG8	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
139.0	Gisborne	Calder Freeway Kilmore Road Overpass GPS Link: https://maps.app.goo.gl/JohcnWukQWkXxk4u7	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
148.0	Macedon	Calder Freeway Black Forest Drive Road Overpass GPS Link: https://maps.app.goo.gl/vL1UXh7y8BbdXsCN7	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
155.0	Woodend	Calder Freeway Mt Macedon Road Overpass GPS Link: https://maps.app.goo.gl/t3fh4ZeFqXJM4MeNA	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
156.0	Woodend	Calder Freeway Romsey Road Overpass GPS Link: https://maps.app.goo.gl/EeYUzHz8Z84Bvoh6	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
161.0	Woodend	Calder Freeway Ave of Honour Overpass GPS Link: https://maps.app.goo.gl/YHTJxUDFnwHw6DJ38	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
161.0	Carlsruhe	Calder Freeway Springvale Road Overpass GPS Link: https://maps.app.goo.gl/1fYnYs3ecMgh8q6q9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
169.0	Kyneton	Calder Freeway Trio Road Overpass GPS Link: https://maps.app.goo.gl/36H7LLNqtCWhEYF77	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
171.0	Kyneton	Calder Freeway Edgecombe Road Overpass GPS Link: https://maps.app.goo.gl/pxoY2DzGEqCxyR8j6	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
172.0	Kyneton	Calder Freeway Mollison Street Overpass GPS Link: https://maps.app.goo.gl/qz3hnjr78Fkm4zAP7	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
180.0	Malmsbury	Calder Freeway Malmsbury E Road Overpass GPS Link: https://maps.app.goo.gl/jcPfvks4h7CivNCA	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
194.0	Elphinstone	Calder Freeway Pyrenees Highway Overpass GPS Link: https://maps.app.goo.gl/3X4JDGHSxUCmYDwE9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
206.6	Harcourt	Calder Freeway Coolstore Road Overpass GPS Link: https://maps.app.goo.gl/PsfD5JbJ5zUs77Qq9	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
206.8	Harcourt	Calder Freeway Rail Overpass GPS Link: https://maps.app.goo.gl/xKWZMq8D2WBjGVwR6	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
207.3	Harcourt	Calder Freeway Midland Highway Overpass GPS Link: https://maps.app.goo.gl/CcCyt2yMduFFQN18	Height: 5.3 Metres	Travel directly ahead	No problem with this section of road.
220.8	Ravenswood	Calder Freeway Off Ramp GPS Link: https://maps.app.goo.gl/1ptsUTxfekKZqufr8	Width: 5.5 Metres	Veer Left	No problem with this section of road.
221.2	Ravenswood	Calder Freeway Off Ramp onto Calder Alternative Highway GPS Link: https://maps.app.goo.gl/0XHSLEBg1hzxqJFv6	Length: 45.0 metres Width: 4.5 Metres	Take first exit on roundabout	Light Poles and signs to be either removed or relocated out of swept path.
231.0	Lockwood	Roundabout on Calder Alternative Highway GPS Link: https://maps.app.goo.gl/bv49P3aAGOKLpDw7	Length: 60.0 metres Width: 4.5 Metres	Travel directly ahead through roundabout	Hardstand to be installed on inside and outside of roundabout. Signs to be made removeable or relocated.
241.2	Marong	Rail Crossing on Calder Alternative Highway GPS Link: https://maps.app.goo.gl/ngVcgY1D3jklS6QD8	Width: 7.5 Metres	Travel directly ahead	Rail Manager approvals required

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
241.3	Marong	Calder Alternative Highway onto Calder Highway GPS Link: https://maps.app.goo.gl/y23YGT-qgu-3dXDM7	Length: 75.0 metres Width: 6.0 Metres	Left hand turn	Power Pole to be relocated out of swept path. Signs to be made removable or relocated.
255.0	Derby	Rail Crossing on Calder Highway GPS Link: https://maps.app.goo.gl/zdtgfl3wreDA42eA	Width: 7.5 Metres	Travel directly ahead	Rail Manager approvals required
264.4	Bridgewater on Loddon	Calder Highway onto Bridgewater-Serpentine Road GPS Link: https://maps.app.goo.gl/ujqmG6DN6N1ogso7	Length: 30.0 metres Width: 5.5 Metres	Right hand turn	3 point turn procedure required. Traffic to be controlled from all sides of the intersection before completing the maneuver.
264.5	Bridgewater on Loddon	Rail Crossing on Bridgewater-Serpentine Road GPS Link: https://maps.app.goo.gl/u9WRCjehsrk5wskVW8	Width: 7.5 Metres	Travel directly ahead	Rail Manager approvals required
285.0	Serpentine	Bridgewater-Serpentine Road onto Loddon Valley Highway GPS Link: https://maps.app.goo.gl/4H5DA1ue2CXC7E3d08	Length: 70.0 metres Width: 7.0 Metres	Left hand turn	Island to be made trafficable. Signs to be made removeable or relocated.
341.0	Macorna	Loddon Valley Highway onto Macorna Road GPS Link: https://maps.app.goo.gl/3Q7e6W5b7up1Ae6	Length: 40.0 metres Width: 8.0 Metres	Right hand turn	Refer Site Access A
357.0	Macorna	Loddon Valley Highway onto Old Echuca Road GPS Link: https://maps.app.goo.gl/18nq5dK7n34K13m4P9	Length: 50.0 metres Width: 7.0 Metres	Right hand turn	Refer Site Access B
358.0	Macorna	Loddon Valley Highway onto Murray Valley Highway GPS Link: https://maps.app.goo.gl/2nH11o3to-qV1uk629	Length: 42.0 metres Width: 6.5 Metres	Right hand turn	Refer Site Access C
Site entries, gravel roads and all site roads to be constructed to appropriate standards in order to accommodate the height, weight, swept path and vertical curves of all proposed loads. Unsealed roads to be maintained for the duration of deliveries and may become un trafficable during periods of wet weather.					

0.0 Km		Infrabuild Storage Yard onto Madden Avenue	
NORTH SHORE		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:	https://goo.gl/maps/iwFxJmbVPt17v5Er9		
PROCEDURE:	Turn right out of Infrabuild and onto Madden Avenue		
ROAD MODIFICATIONS:	Hardstand to be installed on inside and outside of corner.		
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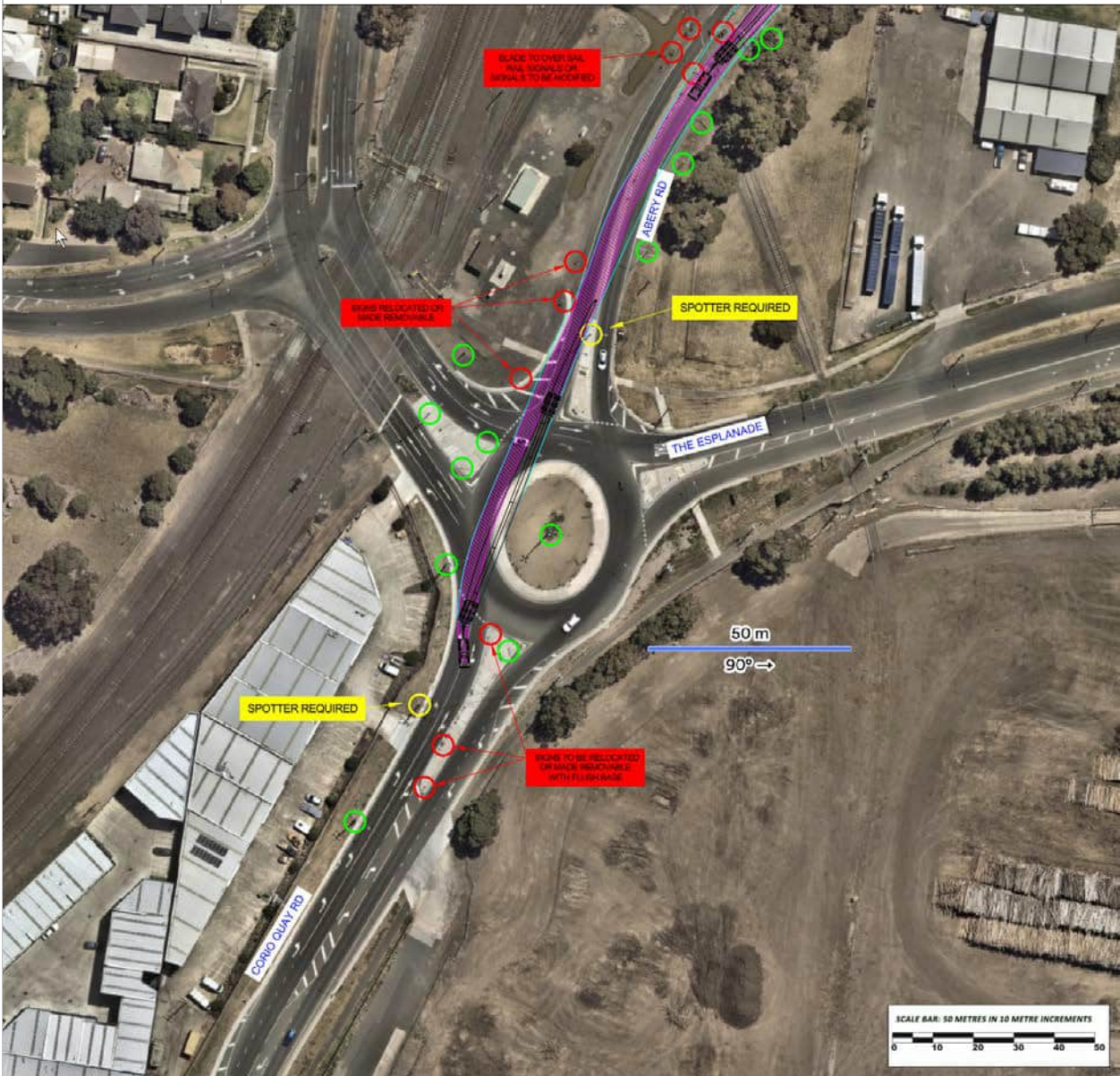
0.0 Km	Lacelles berth 3 onto The Esplanade		
PORT OF GEELONG		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:	https://goo.gl/maps/iwFxJmbVPt17v5Er9		
PROCEDURE:	Reverse out of the wharf onto The Esplanade		
ROAD MODIFICATIONS:	Hardstand to be installed on inside and outside of corner.		
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1.2 Km	The Esplanade onto Sea Breeze Parade		
NORTH SHORE			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://goo.gl/maps/5DL7grKJvFuSLZAs9		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Kerbs and barriers on entry to be removed and road made trafficable on entry. Signs to be removed.		
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1.9 Km Sea Breeze Parade onto Abery Road	
NORTH SHORE	
VIC	VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
GPS LINK:	https://goo.gl/maps/1Hkv2fYbSnF7mD6q7
PROCEDURE:	Left hand turn
ROAD MODIFICATIONS:	Islands to be made trafficable/replaced with painted lines. Signs to be relocated or made removable with flush bases.
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2.4 Km

Abery Road onto Corio Quay Road-Stage-1



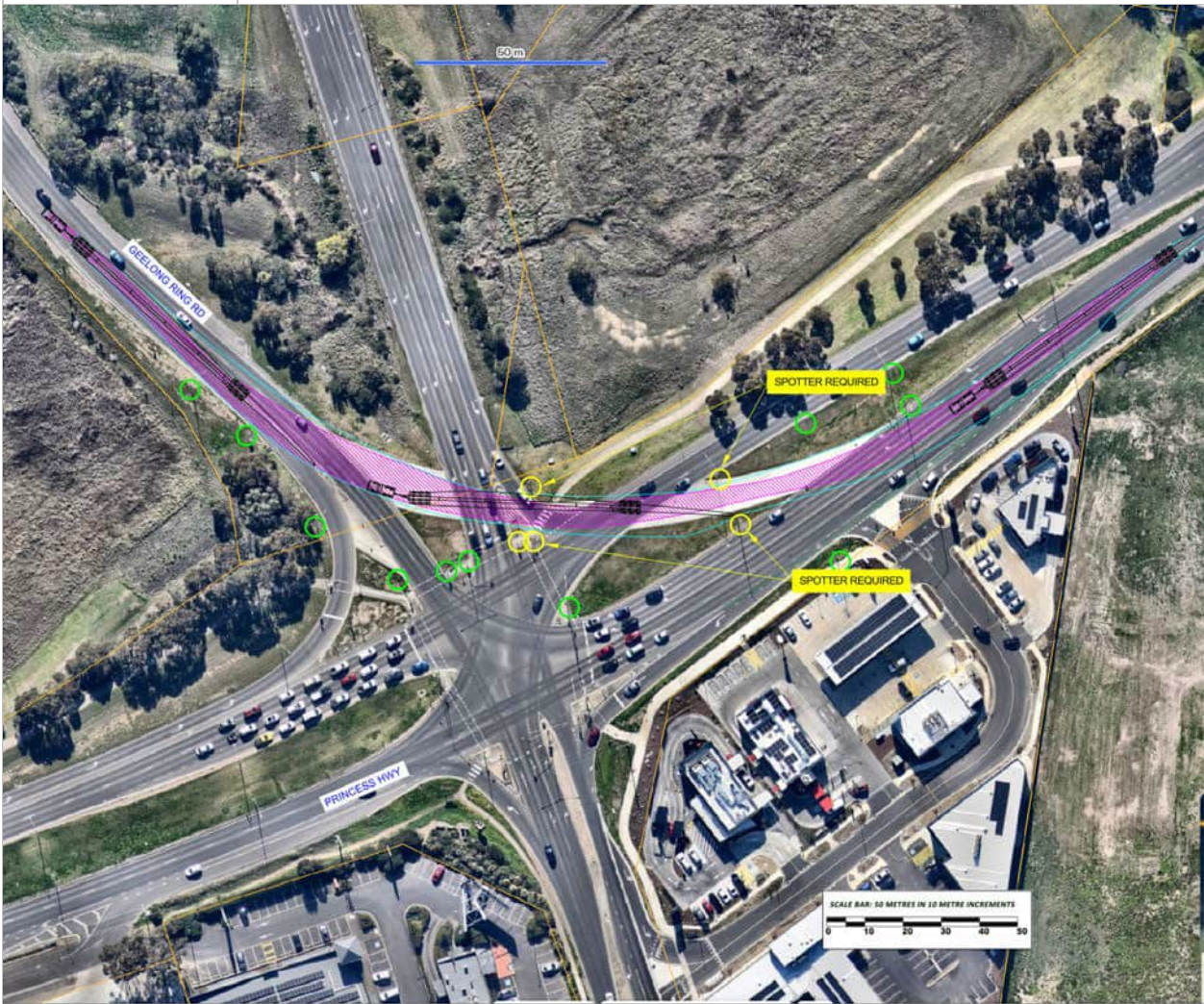
NORTH SHORE		VEHICLE/LOAD:  NO CONFLICT:  MODIFICATIONS REQUIRED:  CAUTION:  PROPERTY BOUNDARIES: 
VIC		
GPS LINK:	https://goo.gl/maps/N6DdQGYYVb32	
PROCEDURE:	Travel through the roundabout on the incorrect side	
ROAD MODIFICATIONS:	Several signs to be relocated or made removable.	
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2.4 Km		Abery Road onto Corio Quay Road-Stage-2	
NORTH SHORE			
VIC			
GPS LINK:		https://goo.gl/maps/N6DdQGVYVb32	
PROCEDURE:		Travel through the roundabout on the incorrect side	
ROAD MODIFICATIONS:		Several signs to be relocated or made removable.	
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2.8 Km		Corio Quay Road Right Hand Bend	
NORTH SHORE			
VIC		VEHICLE/LOAD: Overweight NO CONFLICT: ● MODIFICATIONS REQUIRED: ● CAUTION: ● PROPERTY BOUNDARIES: —	
GPS LINK:		https://goo.gl/maps/42AuVzwLs8r	
PROCEDURE:		Right hand bend	
ROAD MODIFICATIONS:		Island to be made trafficable and signs relocated.	
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17.0 Km

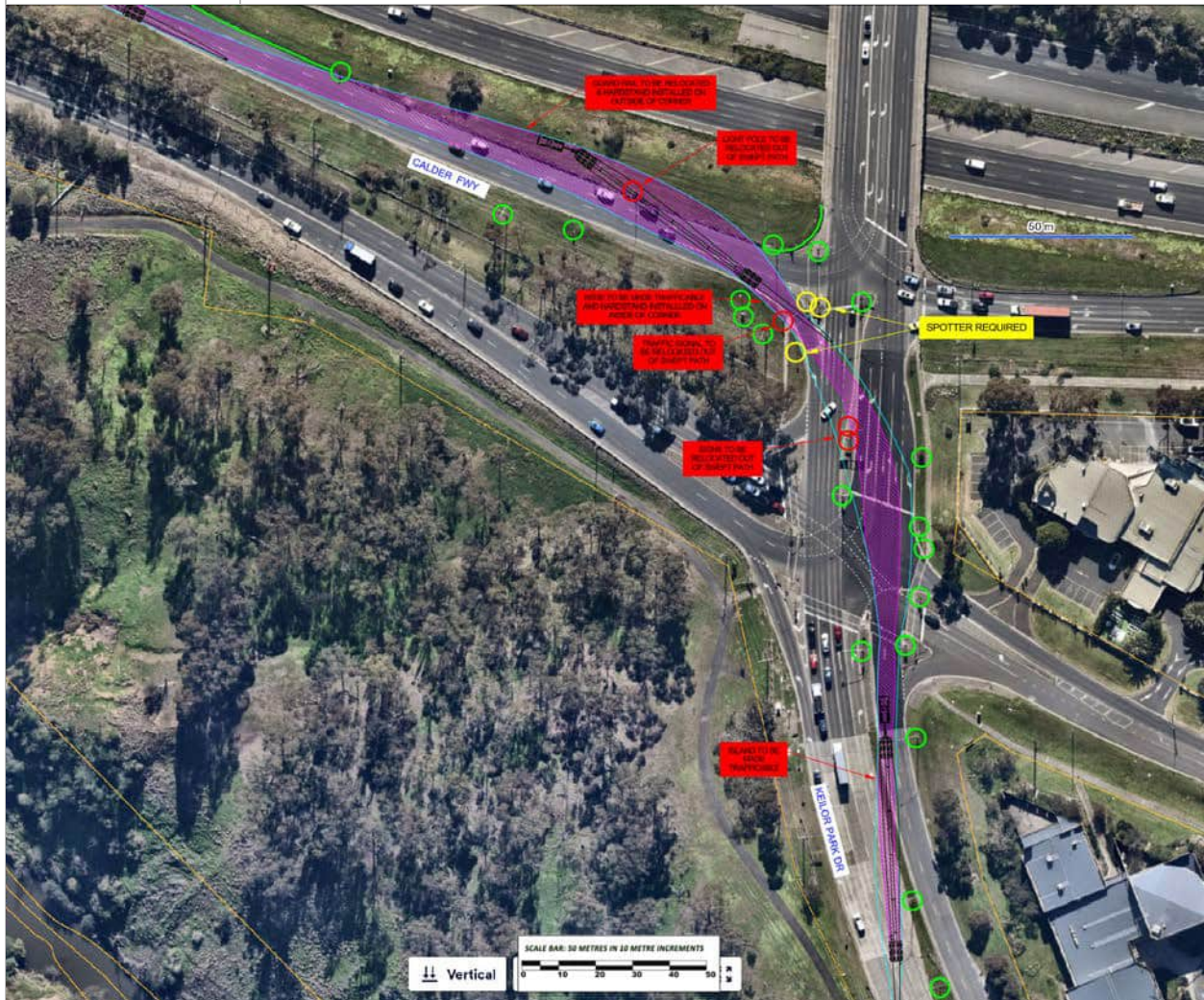
The Princes Highway onto the Geelong Ring Road



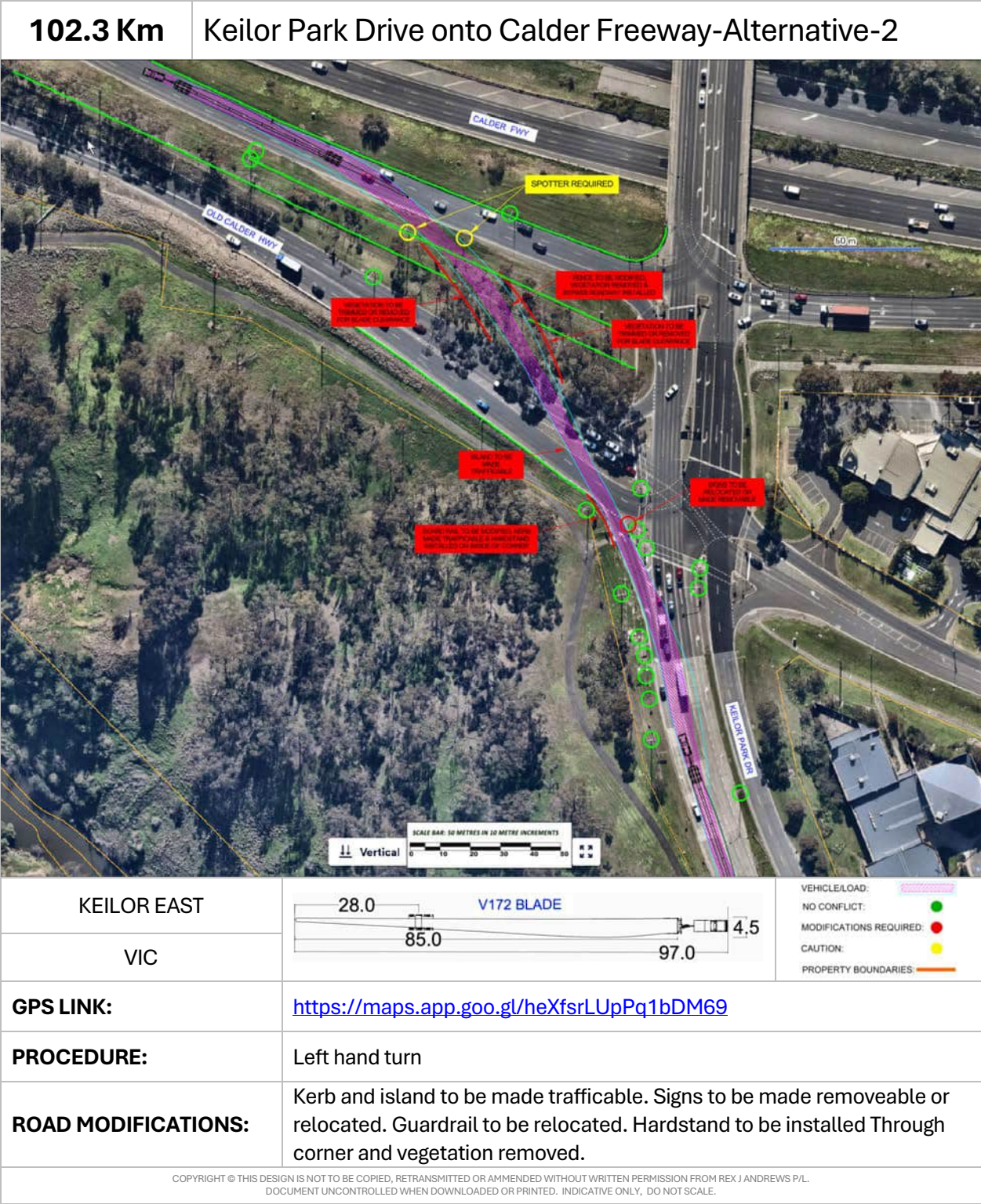
HIGHTON		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC		
GPS LINK:	https://goo.gl/maps/U56WCcU182B2	
PROCEDURE:	Right hand turn using bypass installed on inside of roadway	
ROAD MODIFICATIONS:	Hardstand to be installed, islands made trafficable, and signs relocated or made removable.	
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101.4 Km		Western Ring Road Off Ramp onto Keilor Park Drive	
KEILOR EAST			
VIC		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
GPS LINK:		https://maps.app.goo.gl/GzQqkC2FwHYS6Ye98	
PROCEDURE:		Left hand turn	
ROAD MODIFICATIONS:		Suitable bypass road to be constructed.	
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Keilor Park Drive onto Calder Freeway-Alternative-1



KEILOR EAST		VEHICLE/LOAD: NO CONFLICT NO CONFLICT: ● MODIFICATIONS REQUIRED: ● CAUTION: ● PROPERTY BOUNDARIES: —
VIC		
GPS LINK:	https://maps.app.goo.gl/heXfsrLUpPq1bDM69	
PROCEDURE:	Left hand turn	
ROAD MODIFICATIONS:	Kerb and island to be made trafficable. Signs to be made removeable or relocated. Guardrail and Light pole to be relocated. Hardstand to be installed on outside of corner.	
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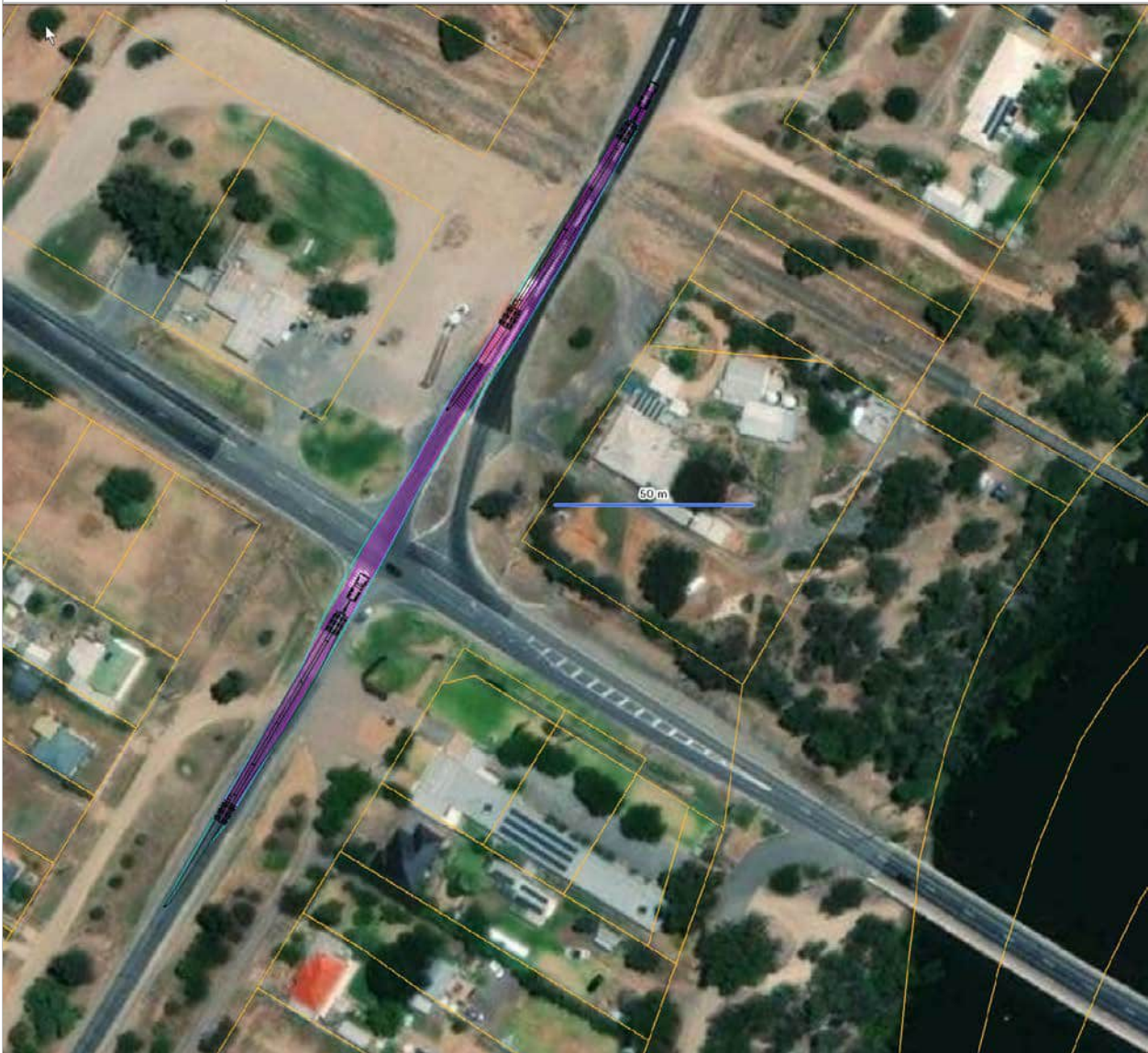
30

231.0 Km		Roundabout on Calder Alternative Highway	
LOCKWOOD		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:	https://maps.app.goo.gl/bj4fPVaAQCKLnT8w7		
PROCEDURE:	Travel directly ahead through roundabout		
ROAD MODIFICATIONS:	Hardstand to be installed on inside and outside of roundabout. Signs to be made removeable or relocated.		
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32

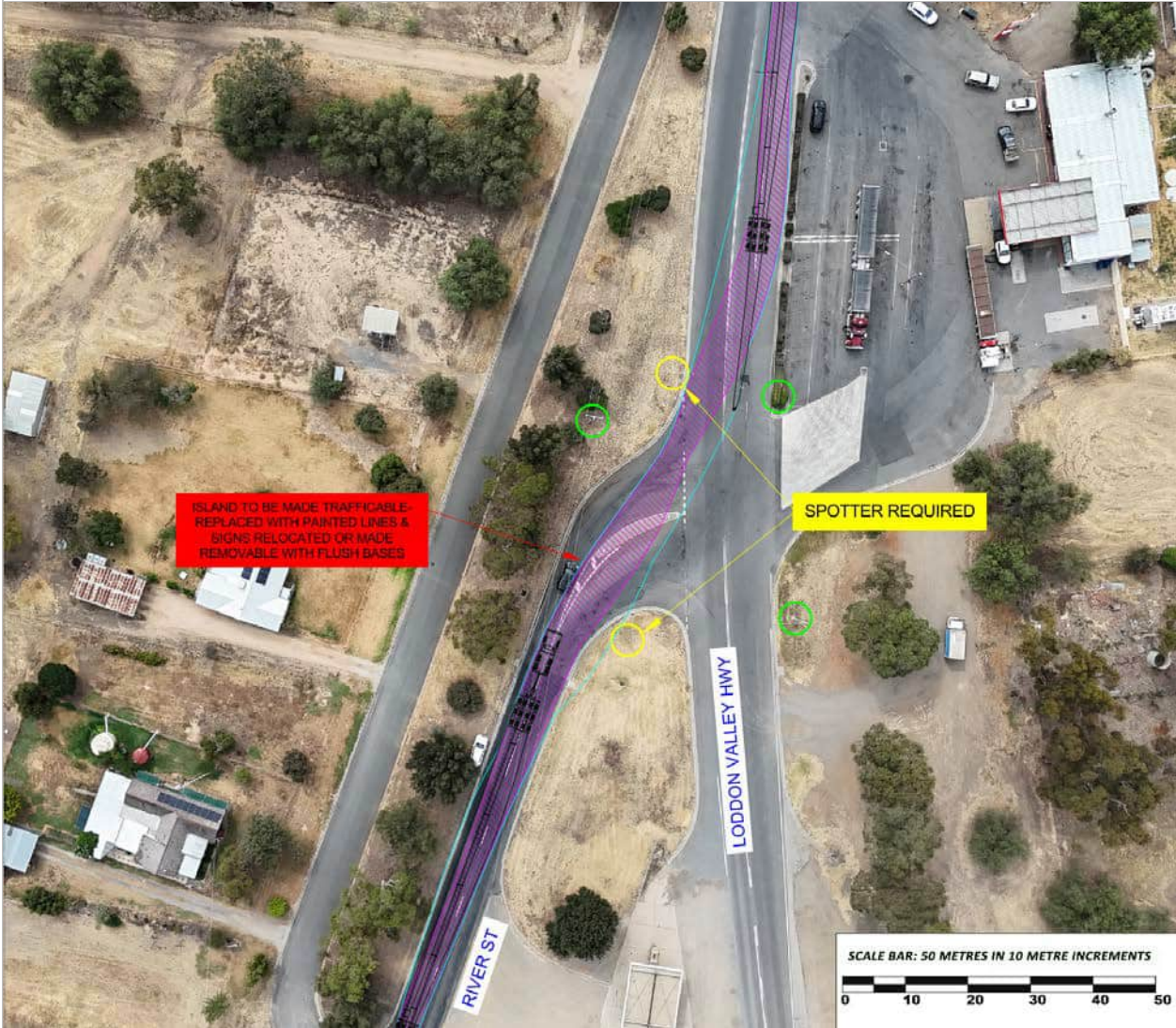
264.4 Km	Calder Highway onto Bridgewater-Serpentine Road Stage-1		
BRIDGEWATER ON LODDON			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://maps.app.goo.gl/ujqmG6DN6iN1ogso7		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Nil		
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264.4 Km		Calder Highway onto Bridgewater-Serpentine Road Stage-2	
BRIDGEWATER ON LODDON			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://maps.app.goo.gl/ujqmG6DN6iN1ogso7		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Nil		
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264.4 Km		Calder Highway onto Bridgewater-Serpentine Road Stage-3	
			
BRIDGEWATER ON LODDON			
VIC			
GPS LINK:		https://maps.app.goo.gl/ujqmG6DN6iN1ogso7	
PROCEDURE:		Right hand turn	
ROAD MODIFICATIONS:		Nil	
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285.0 Km

Bridgewater-Serpentine Road onto Loddon Valley Highway



SERPENTINE		VEHICLE/LOAD: 
VIC		NO CONFLICT:  MODIFICATIONS REQUIRED:  CAUTION:  PROPERTY BOUNDARIES: 
GPS LINK:	https://maps.app.goo.gl/HBDATnsVfCY3FXp59	
PROCEDURE:	Left hand turn	
ROAD MODIFICATIONS:	Island to be made trafficable. Signs to be made removeable or relocated.	
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9.0 Route 1 Conclusion

After studying all options and undertaking a route study, the route in its current condition will require a moderate to large number of upgrades before it could be deemed suitable for transporting the proposed components.

The following are the key points that need to be taken into consideration if the project moves forward with this route.

SWEPT PATH

- There are a number of pinch points on the route that will require work in order to accommodate the proposed blade size.
- The corners that have been identified in the report as requiring work should be investigated early in the planning stages to avoid delays or rejections.

BRIDGES

- A bridge structural assessment would need to be undertaken for suitability on the selected routes. There are a number of bridges across the site that will require assessment and upgrade.

OVERHEAD STRUCTURES

- The route has a clearance of 5.3 metres. This will need to be rechecked prior to deliveries in the case where new traffic signals or gantry signs are installed.

OVERHEAD UTILITIES

- An overhead utility survey is required.
Route 1 will need to be lifted to the appropriate vertical clearance at the time.

VEGETATION

- Sections of the route will require vegetation removal trimming for blade clearance.

FLOODWAYS

- The route will require onsite inspection to determine potential floodway conflicts.

VERTICAL CURVES

- The route will require onsite inspection to determine potential vertical curve conflicts.

RAIL CROSSINGS

- Approval required to cross all rail lines.

ROAD PAVEMENT

- Road pavement is of a highway standard up to Mount Fox Road.
- Macorna Road is unsealed and is to be upgraded to a suitable standard to accommodate all proposed loads.
- Unsealed roads may become un-trafficable during periods of wet weather.

ROADWORKS

- The project will need to start discussions with government authorities at least 18 months prior to turbine transport to understand if the project would conflict with any upcoming roadworks. Once a Transport Management Plan “TMP” has been approved for the transport of the turbines, then the exact movement dates need to be communicated with all relevant authorities to make all road stakeholders are aware of the scheduled movements for each day.
- The project will need to regularly check on any new upgrades not listed in the report. If upgrades have taken place on a section of route after this report has been completed, then a swept path study would need to be undertaken on that section of road to confirm that it can still be used.

SITE ENTRIES AND SITE ACCESS ROADS

- Macorna Road and all site access roads to be constructed to appropriate standards in order to accommodate the height, weight, vertical curves and swept path of all proposed roads.
- These roads are to be made all weather and maintained for the duration of deliveries.

10.0 Route 2 - Study

ROUTE 2: GEELONG PORT STORAGE AREA TO MACORNA WINDFARM

Components: Towers, motors, transformers and switch rooms.

From: Port of Geelong Storage Area

To: Macorna

Distance: 441.0 kilometres

Route: Geelong Port, Madden Ave, Seabeach Parade, St Georges Road, Cox Road, Anakie Road, Midland Highway, Princes Freeway, Hamilton Highway, Colac-Ballarat Road, Pitfield-Cressy Road, Rokewood-Skipton Road, Glenelg Highway, Beaufort Road, Skipton Road, Lawrence Street, Albert Street, Lexton Road, Beaufort-Lexton Road, Williamson Street, Sunraysia Highway, Wimmera Highway, Bridgewater-Dunolly Road, Arnold Road, Bridgewater-Serpentine Road, River Street, Loddon Valley Highway.

GPS Link for route: <https://maps.app.goo.gl/w9tE2pszNyGJe8V3A>

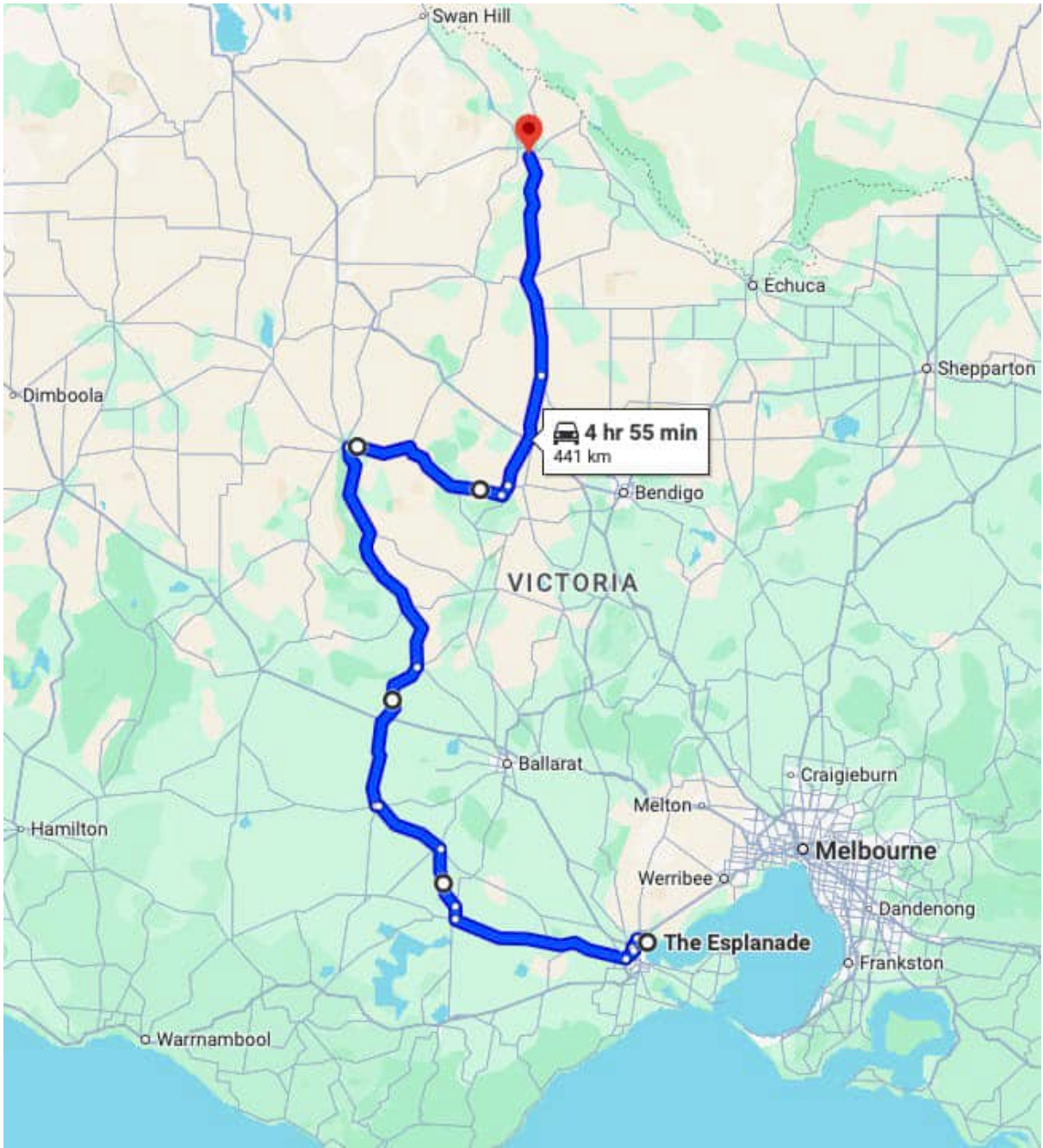


Figure 6 - Route 2

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

KM index	Location	Section of road	Current clearance	Procedure	Notes
0.2	North Shore	The Esplanade becomes Madden Rd GPS Link: https://maps.app.goo.gl/7FnASiWDFrzmK3qy9	Width: 6.5 Metres	Travel directly ahead	No problem with this section of road.
0.65	North Shore	Madden Rd onto Seabeach Pde GPS Link: https://maps.app.goo.gl/Mt4HM5VtUcJt6NDxv9	Length: 40 metres Width: 8.5 Metres	Right hand turn	Power pole and signs to be relocated out of swept path. Hardstand to be installed and kerbs made trafficable.
1.1	North Shore	Seabeach Pde onto St Georges Rd GPS Link: https://maps.app.goo.gl/PTzYt9FzIDneFosag	Length: 40 metres Width: 9.0 Metres	Left hand turn	Hardstand to be installed on outside of corner and kerbs made trafficable.
1.5	Corio	Roundabout on St Georges Rd GPS Link: https://maps.app.goo.gl/4DapabvCP8Bv7oqdt4	Length: 40 metres Width: 5.0 Metres	Travel directly ahead	Island on entry to be made trafficable/replaced with painted lines. Existing roundabout made trafficable for previous project.
2.5	Corio	St Georges Rd onto Cox Rd GPS Link: https://maps.app.goo.gl/T5JK1fFA6J5Vjt9	Width: 7.0 Metres	Travel directly ahead	No problem with this section of road.
4.4	Noriane	Cox Rd onto Anakie Rd GPS Link: https://maps.app.goo.gl/2u989BzUkY7cggc5B5	Length: 40 metres Width: 7.0 Metres	Left hand turn	Hardstand to be installed on island and roundabout and kerbs made trafficable.
5.7	Bell Post Hill	Rail Crossing on Anakie Rd GPS Link: https://maps.app.goo.gl/u4zZbsX1V4muEnhZ8	Width: 11.0 Metres	Travel directly ahead	Rail Manager approvals required.
6.3	Bell Park	Roundabout on Anakie Rd GPS Link: https://maps.app.goo.gl/f5vTtD3C8Fy7Agvdt48	Length: 30 metres Width: 4.5 Metres	Travel directly ahead on incorrect side of roundabout.	Roundabout to be made trafficable/concreted. Islands to be made trafficable/replaced with painted lines.
8.4	Bell Park	Anakie Rd onto Ballarat Road GPS Link: https://maps.app.goo.gl/4q8/7RydkvsnPpDf8	Length: 35 metres Width: 7.5 Metres	Right hand turn using slip lane on incorrect side of road.	Traffic islands to be made trafficable/replaced with painted lines. Vegetation to be trimmed for clearance.
9.7	Hamlyn Heights	Ballarat Rd onto Geelong Ring Rd GPS Link: https://maps.app.goo.gl/C25uq5MZZD9u3JMA	Length: 45 metres Width: 9.0 Metres	Left hand turn	Hardstand to be installed on outside of corner.
14.2	Fyansford	Princes Hwy Off Ramp GPS Link: https://maps.app.goo.gl/kjgvhDNYtbjFS1Z8	Width: 4.5 Metres	Veer Left	No problem with this section of road.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
14.7	Fyansford	Geelong Ring Rd onto Hamilton Hwy GPS Link: https://maps.app.goo.gl/5XU1U5ZP5C25W1CVA	Length: 30 metres Width: 5.0 Metres	Right hand turn	Hardstand to be installed on outside of corner on entry. Loads to use bypass installed for previous project.
14.8	Fyansford	Hamilton Hwy Under Princes Hwy x 2 GPS Link: https://maps.app.goo.gl/4NCDuJCandHq1180W	Height: 6.5 Metres	Travel directly ahead via bypass roadway	Discussions with asset owners/regulators required to secure use of bypass installed for current project.
32.8	Inverleigh	Rail Crossing on Hamilton Hwy GPS Link: https://maps.app.goo.gl/YcwKdPQPimaQHS3x8	Width: 6.0 Metres	Travel directly ahead	Rail Manager approvals required
75.1	Cressy	Hamilton Hwy onto Colac-Ballarat Rd GPS Link: https://maps.app.goo.gl/21mVFXQ8bawR75Uv6	Length: 40 metres Width: 6.0 Metres	Right hand turn	Hardstand to be installed on inside and outside of corner. Island to be made trafficable/replaced with painted lines.
79.6	Werneth	Colac-Ballarat Rd onto Pitfield-Cressy Rd GPS Link: https://maps.app.goo.gl/c3T474BN3mAvd37A	Length: 40 metres Width: 5.0 Metres	Left hand turn	Hardstand to be installed on inside and outside of corner.
101	Pitfield	Pitfield-Cressy Rd onto Rokewood-Skipton Rd GPS Link: https://maps.app.goo.gl/N6L7v2qpYDXr336ZA	Length: 75 metres Width: 7.0 Metres	Left hand turn	No problem with this section of road.
127	Skipton	Rokewood-Skipton Rd onto Glenelg Hwy GPS Link: https://maps.app.goo.gl/8Yc0d1C9H61774p05	Length: 40 metres Width: 10.0 Metres	Left hand turn	Hardstand to be installed on outside of corner. Island to be made trafficable/replaced with painted lines.
128	Skipton	Glenelg Hwy onto Beaufort Rd GPS Link: https://maps.app.goo.gl/3PHXvch3DhH62v6	Length: 40 metres Width: 8.0 Metres	Right hand turn	Hardstand to be installed on outside of corner.
129.8	Skipton	Beaufort Rd becomes Skipton Rd GPS Link: https://maps.app.goo.gl/eatWik3xUbXARh7A	Width: 8.0 Metres	Travel directly ahead	No problem with this section of road.
157.8	Beaufort	Skipton Rd becomes Lawrence St GPS Link: https://maps.app.goo.gl/CvqzTqiMN48hapEu9	Width: 9.0 Metres	Travel directly ahead	No problem with this section of road.
159.0	Beaufort	Rail crossing on Lawrence St GPS Link: https://maps.app.goo.gl/YI2NoY3uqFA38a9H7	Width: 8.0 Metres	Travel directly ahead	Rail Manager approvals required
159.1	Beaufort	Lawrence St becomes Albert St GPS Link: https://maps.app.goo.gl/cijBRPDbar5XMCfe6	Width: 8.0 Metres	Travel directly ahead	No problem with this section of road.
160.3	Beaufort	Albert St becomes Lexton-Beaufort Rd GPS Link: https://maps.app.goo.gl/CXUZQ9LayZNy4rgz6	Width: 8.0 Metres	Travel directly ahead	No problem with this section of road.
182.5	Lexton	Lexton-Beaufort Rd onto Williamson St GPS Link: https://maps.app.goo.gl/sFb4KDDK58f32eXo7	Length: 50 metres Width: 6.5 Metres	Right hand turn	No problem with this section of road.
183.0	Lexton	Williamson St onto Sunraysia Hwy GPS Link: https://maps.app.goo.gl/2o24Hed45A273ub8	Length: 45 metres Width: 10 Metres	Left hand turn	Traffic islands to be made trafficable/replaced with painted lines.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
205.0	Avoca	Rail Crossing on Sunraysia Hwy GPS Link: https://maps.app.goo.gl/1y8XkPBrhb1eAk6	Width: 7.0 Metres	Travel directly ahead	Rail Manager approvals required
266.5	St Arnaud	Rail Crossing on Sunraysia Hwy GPS Link: https://maps.app.goo.gl/PgNwW6iSW5uMXEVEA	Width: 6.0 Metres	Travel directly ahead	Rail Manager approvals required
267.0	St Arnaud	Sunraysia Hwy onto Wimmera Hwy GPS Link: https://maps.app.goo.gl/7PqH10Q02F01uJg7	Length: 30 metres Width: 6.0 Metres	Right hand turn	Islands to be made trafficable/replaced with painted lines. Signs relocated out of swept path.
326.0	Tarnagulla	Rail Crossing on Wimmera Hwy GPS Link: https://maps.app.goo.gl/goDqxGh2unmZeJnv9	Width: 6.0 Metres	Travel directly ahead	Rail Manager approvals required
327.0	Tarnagulla	Turn on Wimmera Hwy at Tarnagulla GPS Link: https://maps.app.goo.gl/5WqTt0wZAsGaCp62	Length: 40 metres Width: 6.0 Metres	Left hand turn	Island to be made trafficable/replaced with painted lines. Hardstand to be installed on outside of corner.
331.0	Llanelly	Wimmera Hwy onto Bridgewater-Dunolly Rd GPS Link: https://maps.app.goo.gl/2uB1c1wqH65M1J9	Length: 60 metres Width: 10.0 Metres	Left hand turn	Signs to be relocated or made removable.
331.1	Llanelly	Rail Crossing on Bridgewater-Dunolly Rd GPS Link: https://maps.app.goo.gl/YuXaHBoJYfGZnJm7	Width: 5.5 Metres	Travel directly ahead	Rail Manager approvals required
340.3	Arnold	Rail Crossing on Bridgewater-Dunolly Rd GPS Link: https://maps.app.goo.gl/GyJ7ydWAB6KvUlg7	Width: 5.5 Metres	Travel directly ahead	Rail Manager approvals required
347.1	Bridgewater on Loddon	Bridgewater-Dunolly Rd becomes Arnold Rd GPS Link: https://maps.app.goo.gl/1yGbh3s25gAEXXcA	Width: 6.0 Metres	Travel directly ahead	No problem with this section of road.
348.0	Bridgewater on Loddon	Arnold Rd onto Bridgewater-Serpentine Rd GPS Link: https://maps.app.goo.gl/cdJRBd69c6ihxYK9	Width: 7.0 Metres	Travel directly ahead	No problem with this section of road.
348.2	Bridgewater on Loddon	Rail Crossing on Bridgewater-Serpentine Rd GPS Link: https://maps.app.goo.gl/MqzAmP4vB6sUSNy7	Width: 5.5 Metres	Travel directly ahead	Rail Manager approvals required
369.6	Serpentine	Bridgewater-Serpentine Rd becomes River Rd GPS Link: https://maps.app.goo.gl/hmNhw13D9Lu7VHWC8	Width: 6.0 Metres	Travel directly ahead	No problem with this section of road.
370.0	Serpentine	River Rd onto Loddon Valley Hwy GPS Link: https://maps.app.goo.gl/Cx0q97Bx1D6x4A	Length: 40 metres Width: 7.5 Metres	Left hand turn	Island to be made trafficable/replaced with painted lines.

MACORNA WINDFARM

KM index	Location	Section of road	Current clearance	Procedure	Notes
423.0	Macorna	Loddon Valley Hwy into Macorna Road GPS Link: https://maps.app.goo.gl/9BL7CB3Umped33C6A	Length: 40.0 metres Width: 8.5 Metres	Right hand turn	Refer Site Access A
440.0	Macorna	Loddon Valley Highway onto Old Echuca Road GPS Link: https://maps.app.goo.gl/9ma5aKYuSAKL2m4P9	Length: 50.0 metres Width: 7.0 Metres	Right hand turn	Refer Site Access B
441.0	Macorna	Loddon Valley Highway onto Murray Valley Highway GPS Link: https://maps.app.goo.gl/2zFSD16Uw0VPS1E00	Length: 42.0 metres Width: 6.5 Metres	Right hand turn	Refer Site Access C
Site entries, gravel roads and all site roads to be constructed to appropriate standards in order to accommodate the height, weight, swept path and vertical curves of all proposed loads. Unsealed roads to be maintained for the duration of deliveries and may become un trafficable during periods of wet weather.					

0.65 Km		Madden Road onto Seabeach Parade	
NORTH SHORE		5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0 VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:		https://maps.app.goo.gl/MubM5YK8cJk6NDxX9	
PROCEDURE:		Right hand turn	
ROAD MODIFICATIONS:		Power pole and signs to be relocated out of swept path. Hardstand to be installed and kerbs made trafficable.	
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1.1 Km		Seabeach Parade onto St Georges Road	
NORTH SHORE			VEHICLE/LOAD: NO CONFLICT: ● MODIFICATIONS REQUIRED: ● CAUTION: ● PROPERTY BOUNDARIES: —
VIC			
GPS LINK:	https://maps.app.goo.gl/KEAY6PtU3DwPcpjq5		
PROCEDURE:	Left hand turn		
ROAD MODIFICATIONS:	Hardstand to be installed on outside of corner and kerbs made trafficable.		
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1.5 Km		Roundabout on St Georges Road	
CORIO			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://maps.app.goo.gl/uGarakxQR9kWvybb8		
PROCEDURE:	Travel directly ahead		
ROAD MODIFICATIONS:	Island on entry to be made trafficable/replaced with painted lines. Existing roundabout made trafficable for previous project.		
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4.4 Km		Cox Road onto Anakie Road	
NORIANE			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://maps.app.goo.gl/zoaW9BzDbY7cqmsB9		
PROCEDURE:	Left hand turn		
ROAD MODIFICATIONS:	Hardstand to be installed on island and roundabout and kerbs made trafficable.		
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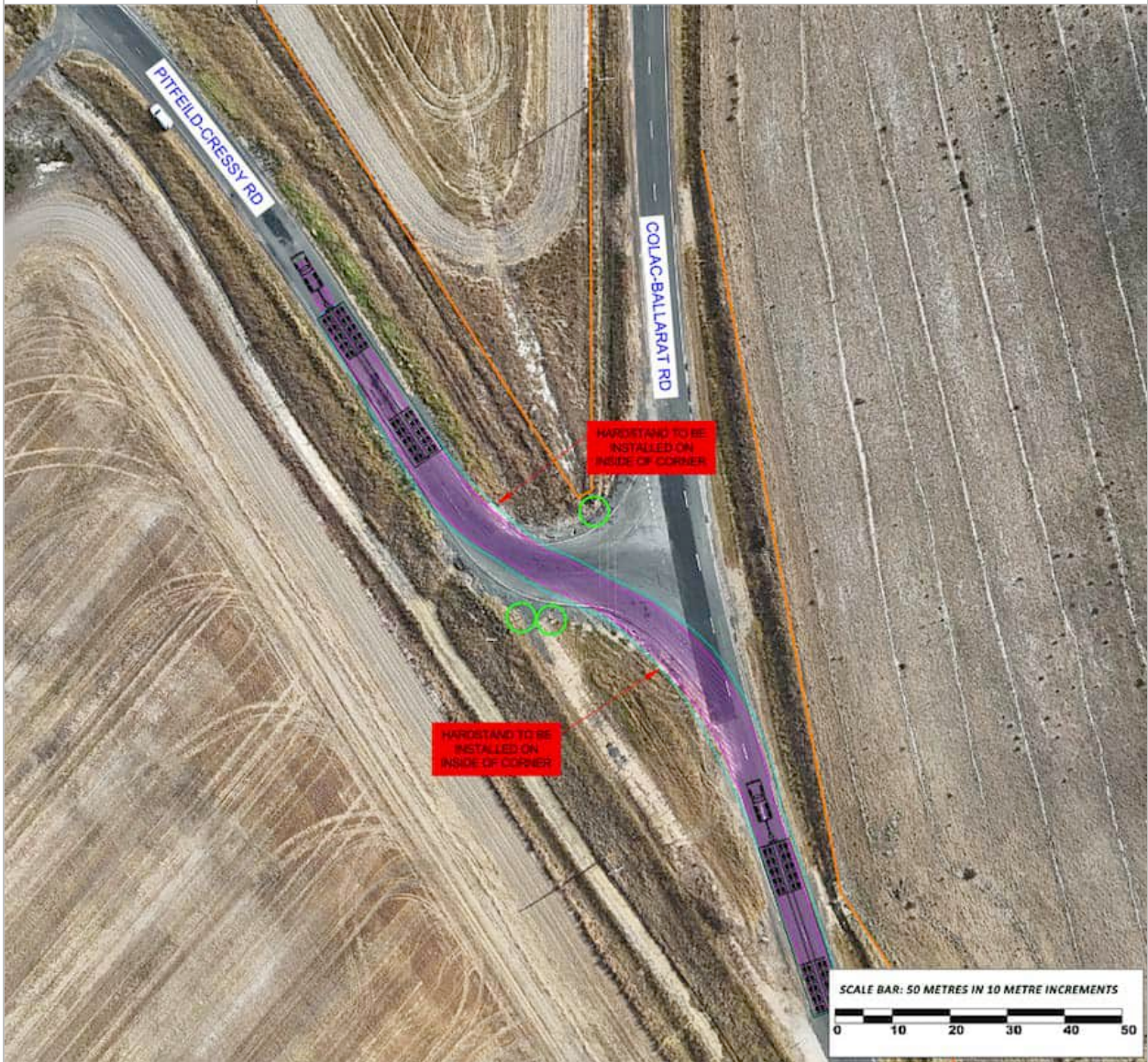
6.3 Km		Roundabout on Anakie Road	
BELL PARK		5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0	
VIC		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
GPS LINK:		https://maps.app.goo.gl/FGrTD5CdPv7Aphdp9	
PROCEDURE:		Travel directly ahead on incorrect side of roundabout.	
ROAD MODIFICATIONS:		Roundabout to be made trafficable/concreted. Islands to be made trafficable/replaced with painted lines.	
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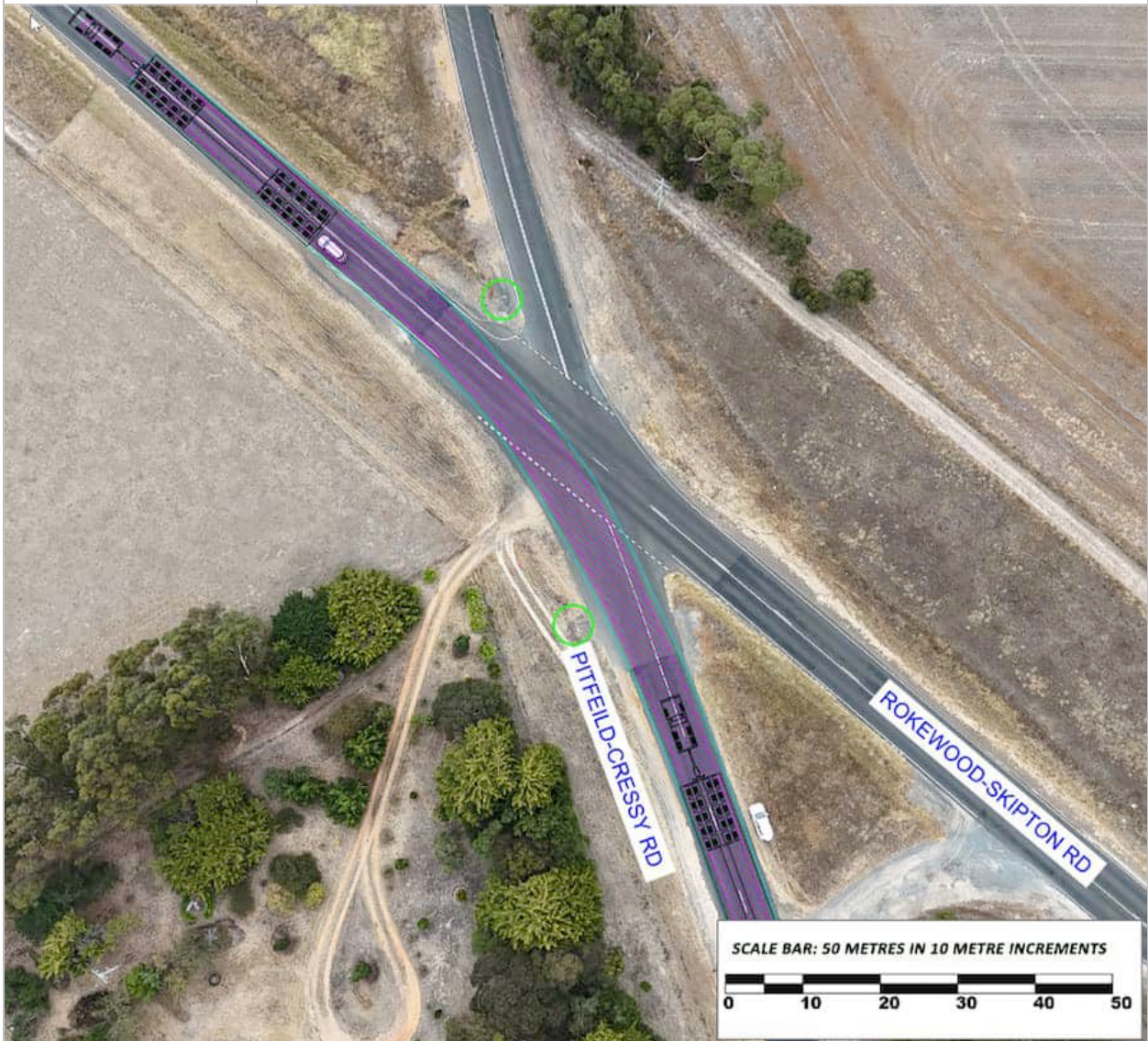
8.4 Km		Anakie Road onto Ballarat Road		
BELL PARK		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
VIC				
GPS LINK:	https://maps.app.goo.gl/qgr7RxoikysmPpDT8			
PROCEDURE:	Right hand turn using slip lane on incorrect side of road.			
ROAD MODIFICATIONS:	Traffic islands to be made trafficable/replaced with painted lines. Vegetation to be trimmed for clearance.			
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9.7 Km		Ballarat Road onto Geelong Ring Road	
HAMLYN HEIGHTS		5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0 VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:		https://maps.app.goo.gl/Q5egb54ZZtKkt2UMA	
PROCEDURE:		Left hand turn	
ROAD MODIFICATIONS:		Hardstand to be installed on outside of corner.	
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14.7 Km		Geelong Ring Road onto Hamilton Highway		
FYANSFORD		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
VIC				
GPS LINK:	https://maps.app.goo.gl/VKtUBZFPPFs25WzFVA			
PROCEDURE:	Right hand turn			
ROAD MODIFICATIONS:	Hardstand to be installed on outside of corner on entry. Loads to use bypass installed for previous project.			
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75.1 Km		Hamilton Highway onto Colac-Ballararat Road	
CRESSY	5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0 VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
VIC			
GPS LINK:	https://maps.app.goo.gl/21mVPYQKRosR7SVh6		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Hardstand to be installed on inside and outside of corner. Island to be made trafficable/replaced with painted lines.		
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79.6 Km		Colac-Ballararat Road onto Pitfield-Cressy Road	
			
WERNETH		5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0	
VIC			
GPS LINK:		https://maps.app.goo.gl/o27474J8X3mAyySYA	
PROCEDURE:		Left hand turn	
ROAD MODIFICATIONS:		Hardstand to be installed on inside and outside of corner.	
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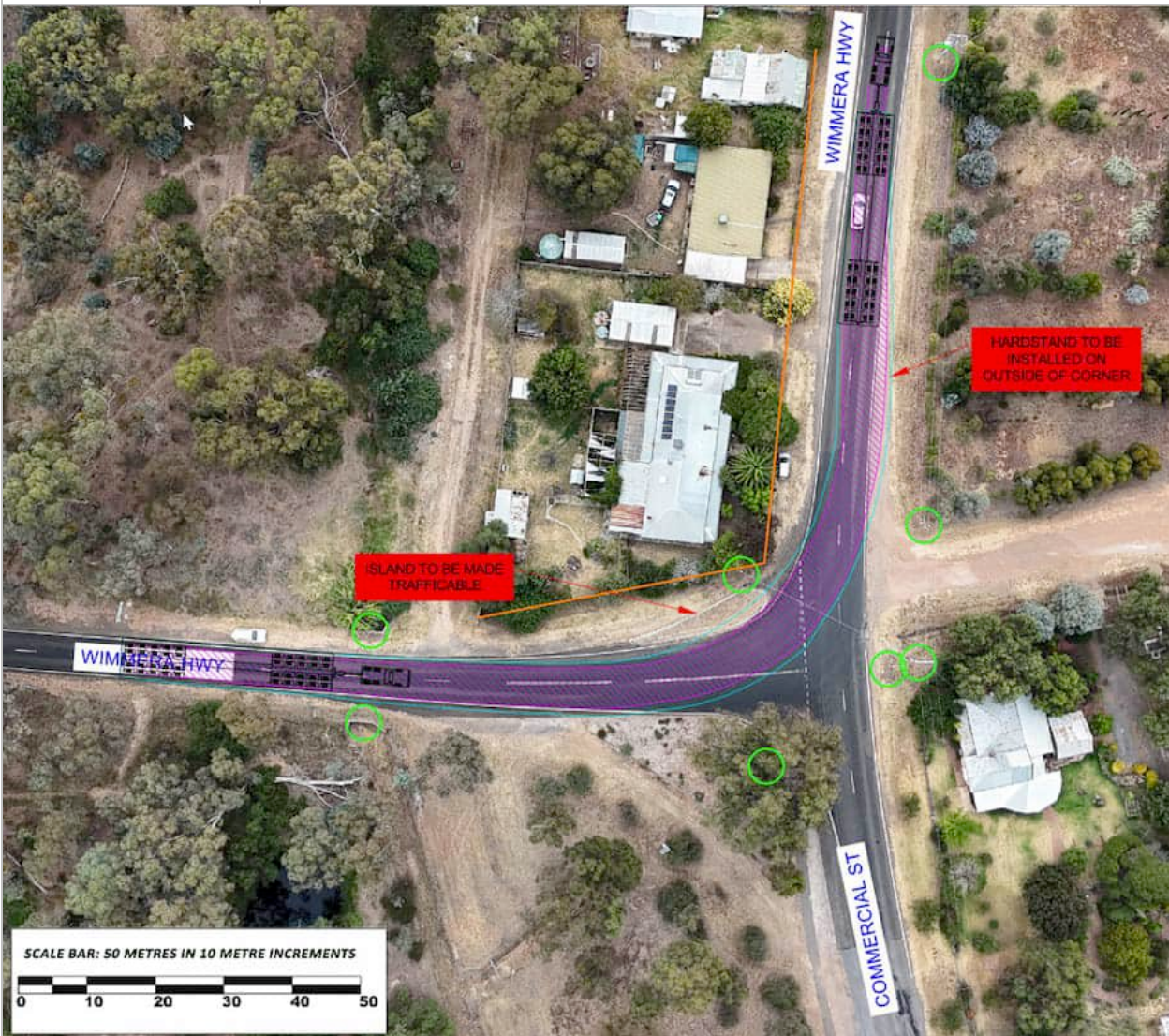
101.0 Km		Pitfield-Cressy Road onto Rokewood-Skipton Road		
				
PITFIELD		VEHICLE/LOAD:  NO CONFLICT:  MODIFICATIONS REQUIRED:  CAUTION:  PROPERTY BOUNDARIES: 		
VIC				
GPS LINK:	https://maps.app.goo.gl/N6L7v2qpYDXr336ZA			
PROCEDURE:	Left hand turn			
ROAD MODIFICATIONS:	No problem with this section of road.			
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127.0 Km		Rokewood-Skipton Road onto Glenelg Highway		
SKIPTON		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
VIC				
GPS LINK:	https://maps.app.goo.gl/REoS4HQ9M4i774gWA			
PROCEDURE:	Left hand turn			
ROAD MODIFICATIONS:	Hardstand to be installed on outside of corner. Island to be made trafficable/replaced with painted lines.			
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128.0 Km		Glenelg Highway onto Beaufort Road	
SKIPTON		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:	https://maps.app.goo.gl/yJMrXzxNcSMfJBZt5		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Hardstand to be installed on outside of corner.		
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183.0 Km		Williamson Street onto Sunraysia Highway		
LEXTON	VIC		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
GPS LINK:	https://maps.app.goo.gl/zwZAHjxEdnAz73o56			
PROCEDURE:	Left hand turn			
ROAD MODIFICATIONS:	Traffic islands to be made trafficable/replaced with painted lines.			
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267.0 Km		Sunraysia Highway onto Wimmera Highway	
ST ARNAUD		5X8-5X8 PLATFORM TRAILER 48.0 6.25 35.0	
VIC		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
GPS LINK:		https://maps.app.goo.gl/PujrA8GQ2R91cjJqZ	
PROCEDURE:		Right hand turn	
ROAD MODIFICATIONS:		Islands to be made trafficable/replaced with painted lines. Signs relocated out of swept path.	
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327.0 Km		Turn on Wimmera Highway at Tarnagulla		
				
TARNAGULLA			VEHICLE/LOAD:  NO CONFLICT:  MODIFICATIONS REQUIRED:  CAUTION:  PROPERTY BOUNDARIES: 	
VIC				
GPS LINK:		https://maps.app.goo.gl/6ipjTKdwZApGzCg67		
PROCEDURE:		Left hand turn		
ROAD MODIFICATIONS:		Island to be made trafficable/replaced with painted lines. Hardstand to be installed on outside of corner.		
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331.0 Km		Wimmera Highway onto Bridgewater-Dunolly Road		
LLANELLY			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC				
GPS LINK:		https://maps.app.goo.gl/ZkjRc1fqj8M65MU9		
PROCEDURE:		Left hand turn		
ROAD MODIFICATIONS:		Signs to be relocated or made removable.		
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370.0 Km		River Road onto Loddon Valley Highway	
SERPENTINE			
VIC	VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
GPS LINK:	https://maps.app.goo.gl/CpqqgW7i8g1Sbuf4A		
PROCEDURE:	Left hand turn		
ROAD MODIFICATIONS:	Island to be made trafficable/replaced with painted lines.		
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11.0 Route 2 Conclusion

After studying all options and undertaking a route study, the route in its current condition will require a moderate to large number of upgrades before it could be deemed suitable for transporting the proposed components.

The following are the key points that need to be taken into consideration if the project moves forward with this route.

SWEPT PATH ASSESMENTS

- This route would require a number of upgrades as shown above.

BRIDGES

- A bridge structural assessment would need to be undertaken for suitability on the selected routes. There are a number of bridges across the site that will require assessment and upgrade.

OVERHEAD STRUCTURES

- The route has a clearance of 6.5 metres. This will need to be rechecked prior to deliveries in the case where new traffic signals or gantry signs are installed.

OVERHEAD UTILITIES

- An overhead utility survey is required.
- Route 2 will need to be lifted to an appropriate vertical clearance at the time of deliveries.

VEGETATION

- Sections of all routes will require vegetation removal or trimming.

FLOODWAYS

- The route will require onsite inspection to determine potential floodway conflicts.

VERTICAL CURVES

- The route will require onsite inspection to determine potential vertical curve conflicts.

RAIL CROSSINGS

- Rail Manager approvals required to cross rail lines.

ROAD PAVEMENT

- Road pavement is of a highway standard up to Site Access Roads.
- Macorna Road is unsealed and is to be upgraded to a suitable standard to accommodate all proposed loads.

ROADWORKS

- The project will need to start discussions with government authorities at least 18 months prior to turbine transport to understand if the project would conflict with any

upcoming roadworks. Once a Transport Management Plan “TMP” has been approved for the transport of the turbines, then the exact movement dates need to be communicated with all relevant authorities to make all road stakeholders are aware of the scheduled movements for each day.

- The project will need to regularly check on any new upgrades not listed in the report. If upgrades have taken place on a section of route after this report has been completed, then a swept path study would need to be undertaken on that section of road to confirm that it can still be used.

SITE ENTRIES AND SITE ACCESS ROADS

- Macorna Road and all site access roads to be constructed to appropriate standards in order to accommodate the height, weight, vertical curves and swept path of all proposed roads.
- These roads are to be made all weather and maintained for the duration of deliveries.

12.0 Transport Summary – Site Access Routes

ROUTE A SITE ACCESS: Southerly Access – Macorna Road

COMPONENTS: All Components

DISTANCE: 14.2 kilometres

GPS LINK: <https://maps.app.goo.gl/veVxzCe9pYCADosN9>

ROUTE B SITE ACCESS: Central Access – Old Echuca Road

COMPONENTS: All Components

DISTANCE: 20.8 kilometres

GPS LINK: <https://maps.app.goo.gl/zWwhQqPRoTEyFBuL6>

ROUTE C SITE ACCESS: Northerly Access – Murray Valley Highway

COMPONENTS: All Components

DISTANCE: 13.0 kilometres

GPS LINK: <https://maps.app.goo.gl/ubjiSKgTAKH4vmKD9>

SITE ENTRIES, ACCESS ROADS AND UNSEALED ROADS TO BE UPGRADED, WIDENED & VEGETATION TRIMMED TO ACCOMMODATE THE HEIGHT, WEIGHT, VERTICAL CURVE AND SWEEPED PATH REQUIREMENTS OF ALL PROPOSED LOADS. ALL CATTLE GRIDS, ROADWAYS & BRIDGES OVER DRAINS / CANALS TO BE EITHER REMOVED OR WIDENED / STRENGTHENED TO ACCOMMODATE THE WEIGHT, LENGTH AND WIDTH OF THE COMPONENTS.

UNSEALED ROADS TO BE MAINTAINED FOR THE DURATION OF DELIVERIES AND MAY BECOME UNTRAFFICABLE DURING PERIODS OF WET WEATHER

13.0 Route A – Site Access

ROUTE A SITE ACCESS: Southerly Access – Macorna Road

COMPONENTS: All Components

DISTANCE: 14.2 kilometres

GPS LINK: <https://maps.app.goo.gl/veVxzCe9pYCADosN9>

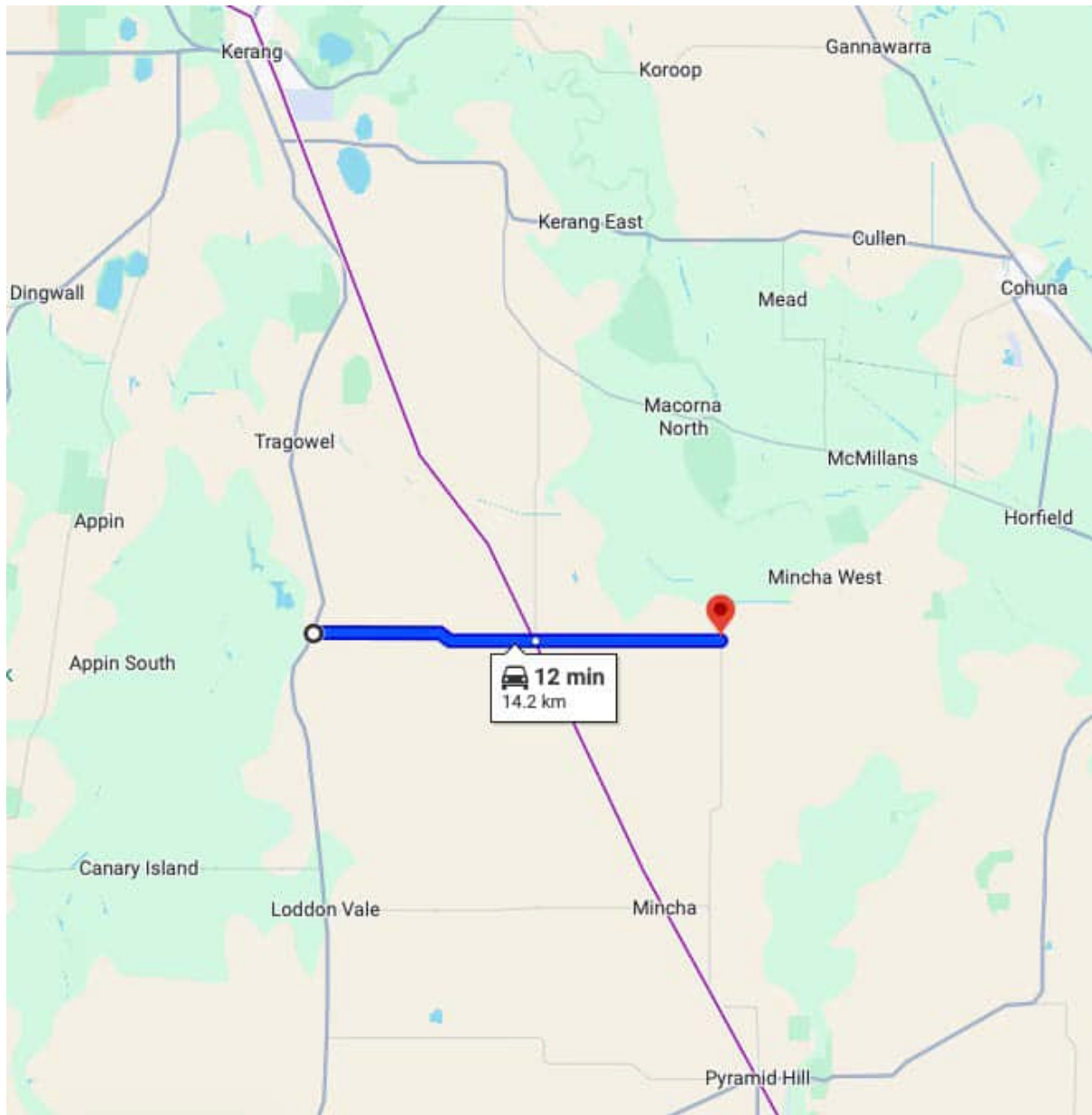


Figure 7- Route A

KEY

CRITICAL

CAUTION

EMERGENCY PARKING

0.0	Macorna	Loddon Valley Highway onto Macorna Road: Access Route A - Southerly Access Route GPS Link: https://maps.app.goo.gl/MzKawtMTRD5ygnhGA	Length: 40.0m Width: 8.0m	Right Hand Turn	Hardstand to be placed on inside and outside of corner. Landholder permission required..
0.25	Macorna	Macorna Road over Channel no. 12 GPS Link: https://maps.app.goo.gl/pyC3ptAgu7bQ2Fr5	Width: 4.5m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
2.7	Macorna	Macorna Road over Channel no. 4 / 12 GPS Link: https://maps.app.goo.gl/mUvTsnNU8d1m6RUY9	Width: 6.5m	Travel directly ahead	No problems with this section of Road. Channel no longer in use
4.2	Macorna	Macorna Road Bridge over Nine Mile Creek GPS Link: https://maps.app.goo.gl/qJZ8CpX5DEmW3g9	Width: 6.0m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
4.4	Macorna	Macorna Road Dog Leg bend GPS Link: https://maps.app.goo.gl/iX3LcdgkAjv6Sywn9	Width: 7.5m	Right then Left Bend	No problems with this section of Road
5.4	Macorna	Macorna Road over Channel no. 10 / 1 GPS Link: https://maps.app.goo.gl/n8s7EAPvV4t1OU9SA	Width: 4.0m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
7.8	Macorna	Macorna Road Railway Line GPS Link: https://maps.app.goo.gl/ybvZKi4zG1VWtjC46	Width: 8.0m	Travel directly ahead	Rail Manager Approvals required
8.0	Macorna	Macorna – Pyramid Road at Macorna channel GPS Link: https://maps.app.goo.gl/nlP4cMnBdEpP5w68	Width 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
10.1	Macorna	Macorna – Pyramid Road over Calivil Creek GPS Link: https://maps.app.goo.gl/6S4utb/ALuRyKEAA	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
13.1	Mincha West	Macorna – Pyramid Road Channel GPS Link: https://maps.app.goo.gl/FpsNonpxudVc-zb7	Width 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
13.2	Mincha West	Macorna – Pyramid Road Channel GPS Link: https://maps.app.goo.gl/Fbc1XJHbU1S4hwu7	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
14.2	Mincha West	Macorna – Pyramid Road onto Mincha West – Cohuna Road GPS Link: https://maps.app.goo.gl/F5M7UkjuKndWCkp6	Length: 45.0m Width: 5.5m	Left Hand Turn	Hardstand to be placed on inside of corner

0.0 Km		Loddon Valley Highway onto Macorna Road	
MACORNA			
VIC			
GPS LINK:	https://maps.app.goo.gl/QJTs6N5t5yTcq1Aw6		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Hardstand to be placed on inside and outside of corner. Landholder permission required.		
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Figure 8- Site Access A looking East Along Macorna Road



Figure 9- Site Access A looking South from Macorna Road



Figure 10- Macorna Road over Channel no. 12



Figure 11- Macorna Road Bridge over Nine Mile Creek



Figure 12- Macorna Road “Dog Leg” Bend



Figure 13- Macorna Road Bridge over Channel 10 / 1



Figure 14- Looking East from Macorna across Railway line & Macorna Channel



Figure 15- Calivil Creek Bridge on Macorna – Pyramid Road at Macorna

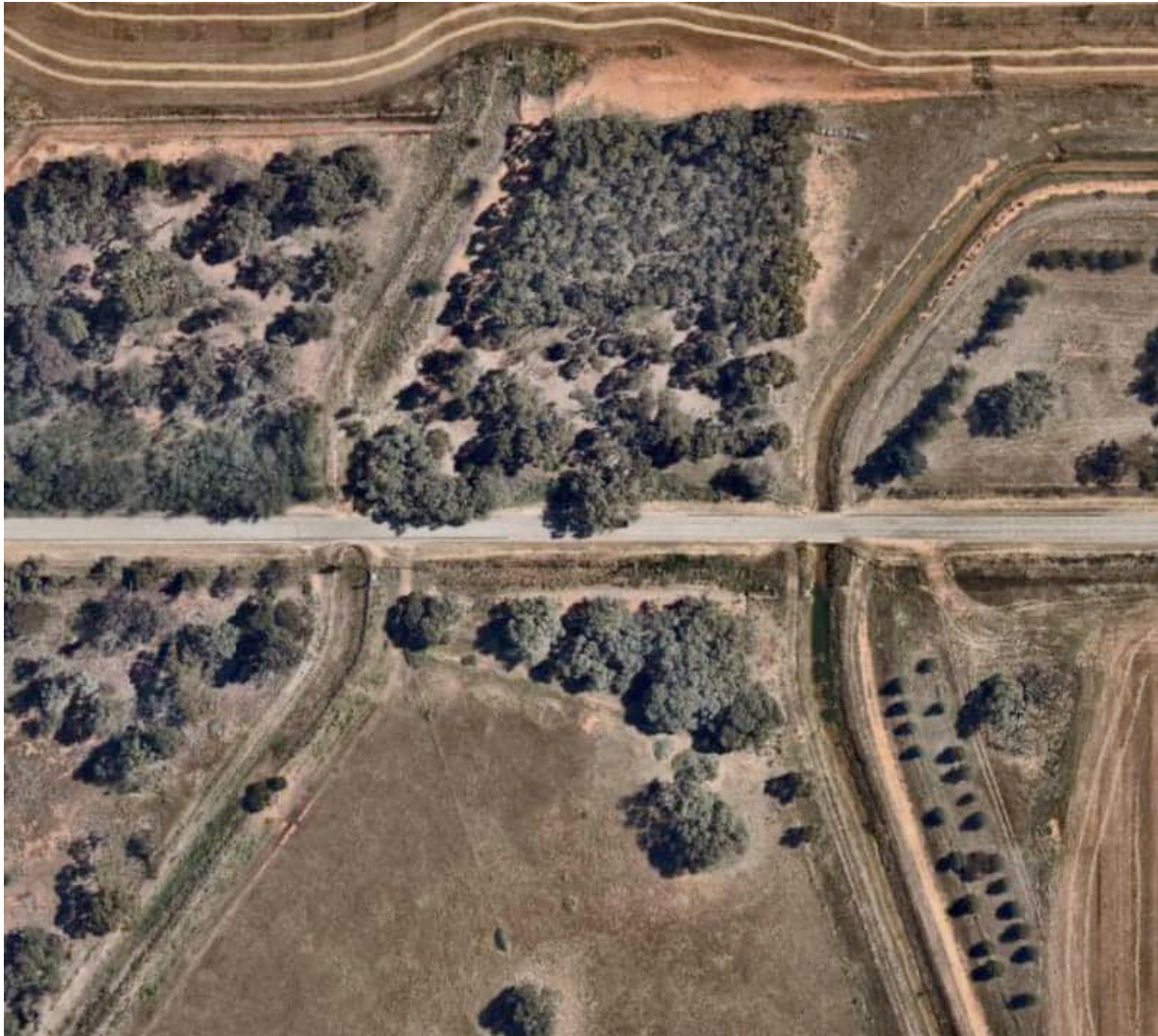


Figure 16- Channel Bridges on Macorna – Pyramid Road at Mincha West

14.0 Route B – Site Access

ROUTE B SITE ACCESS: Central Access – Old Echuca Road

COMPONENTS: All Components

DISTANCE: 20.8 kilometres

GPS LINK: <https://maps.app.goo.gl/zWwhQgPRoTEyFBuL6>

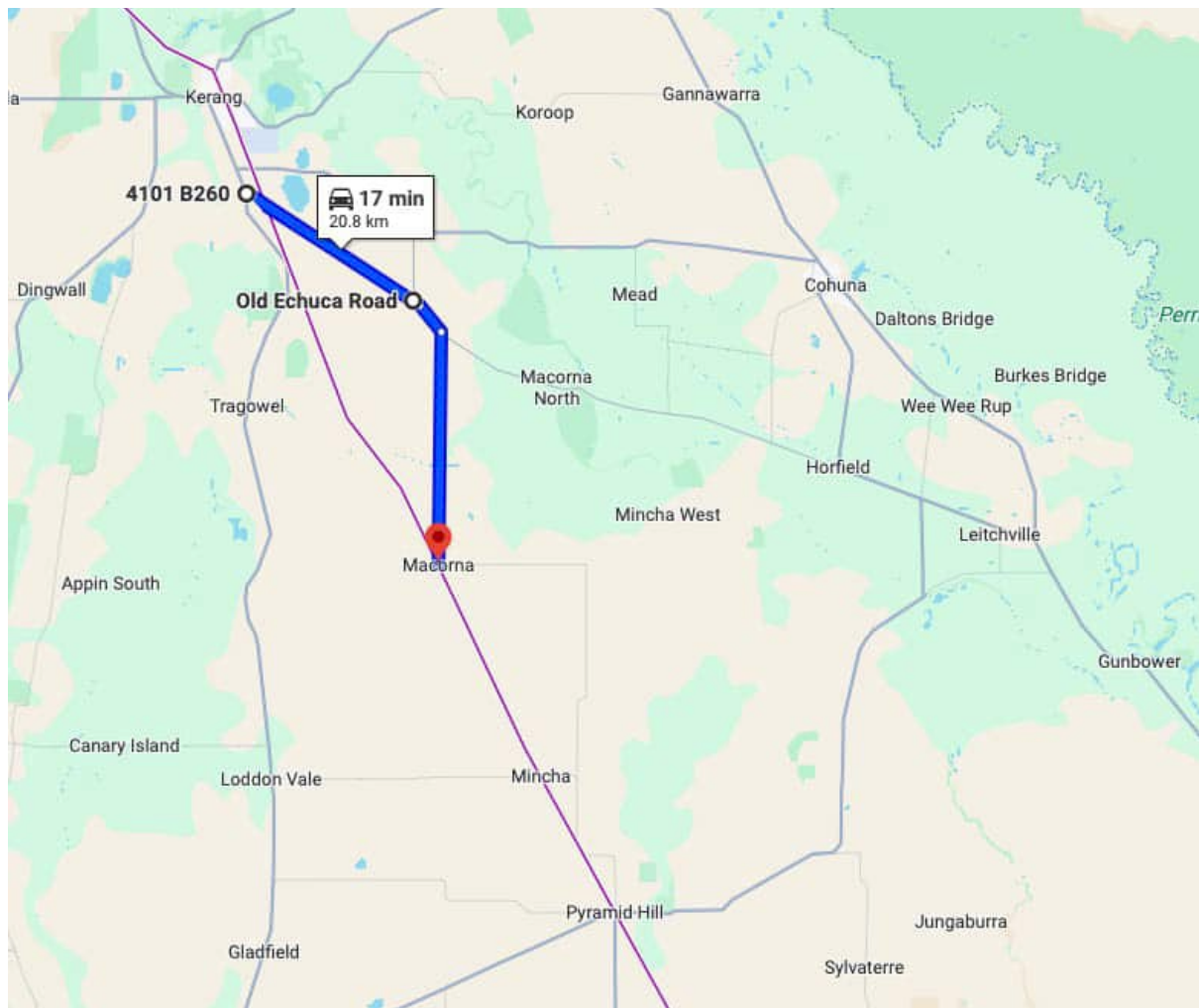


Figure 17- Route B

KEY					
CRITICAL					
CAUTION					
EMERGENCY PARKING					
0.0	Kerang	Loddon Valley Highway onto Old Echuca Road: Access Route B - Central Access Route GPS Link: https://maps.app.goo.gl/WdaPKGu4NcsmdHkn8	Length: 50.0m Width: 7.5m	Right Hand Turn	Hardstand is required on the outside of the corner.
1.1	Kerang	Old Echuca Road Railway Line GPS Link: https://maps.app.goo.gl/XBqpQ2qtxdHp9ABX9	Width: 7.0m	Travel directly ahead	Rail Manager Approvals required. Road will require widening.
4.3	Kerang East	Old Echuca Road Channel GPS Link: https://maps.app.goo.gl/AP5TWf3KrkzkGQuE6	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
4.8	Kerang East	Old Echuca Road Main Drain GPS Link: https://maps.app.goo.gl/okmDmX5XCMYwANgZ7	Width: 6.3m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
8.8	Tragowel	Old Echuca Road Calivil Creek GPS Link: https://maps.app.goo.gl/VC33NcwcKjMlwTU6	Width: 4.3m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
9.1	Tragowel	Old Echuca Road onto Leitchville-Kerang Road GPS Link: https://maps.app.goo.gl/he2DLRySHAwJWxv9	Length: 95.0m Width 6.0	Right Hand Turn	No problems with this section of Road
10.5	Tragowel	Leitchville-Kerang Road Channel GPS Link: https://maps.app.goo.gl/ab6JUL85ana3YKMw9	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
10.6	Tragowel	Leitchville-Kerang Road onto Macorna – Kerang Road GPS Link: https://maps.app.goo.gl/7THebu3Uyqa9sTeg9	Length: 75.0m Width: 6.0m	Right Hand Turn	Hardstand is required on the outside of the corner.
11.0	Tragowel	Macorna – Kerang Road Drain GPS Link: https://maps.app.goo.gl/MMp944WC3nKgdhAC8	Width: 5.8m	Travel directly ahead	No problems with this section of Road. Drain has minimal or no usage
11.4	Tragowel	Macorna – Kerang Road drain/ channel GPS Link: https://maps.app.goo.gl/5u7E3UdQaAPfwf6F7	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
11.9	Macorna	Macorna Channel, Macorna – Kerang Road GPS Link: https://maps.app.goo.gl/AyTp36YVwvwhEzD6	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required
16.4	Macorna	Macorna – Kerang Road drain/ channel GPS Link: https://maps.app.goo.gl/bhgPwKJcy4U8dv2v8	Width: 5.8m	Travel directly ahead	Bridge Assessment and associated road /bridge upgrades required

0.0 Km		Loddon Valley Highway onto Old Echuca Road	
MACORNA			VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:
VIC			
GPS LINK:	https://maps.app.goo.gl/WdqPKGu4NcsmdHkn8		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Hardstand to be installed on outside corner.		
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Figure 18- Looking along Old Echuca Road from Loddon Valley Highway



Figure 19- Railway Line on Old Echuca Road



Figure 20- Old Echuca Road Channel



Figure 21- Old Echuca Road Main Drain



Figure 22- Old Echuca Road Calivil Creek



Figure 23- Looking South from Old Echuca & Leitchville -Macorna Road intersection



Figure 24- Leitchville -Macorna Road channel & Macorna- Kerang Road intersection

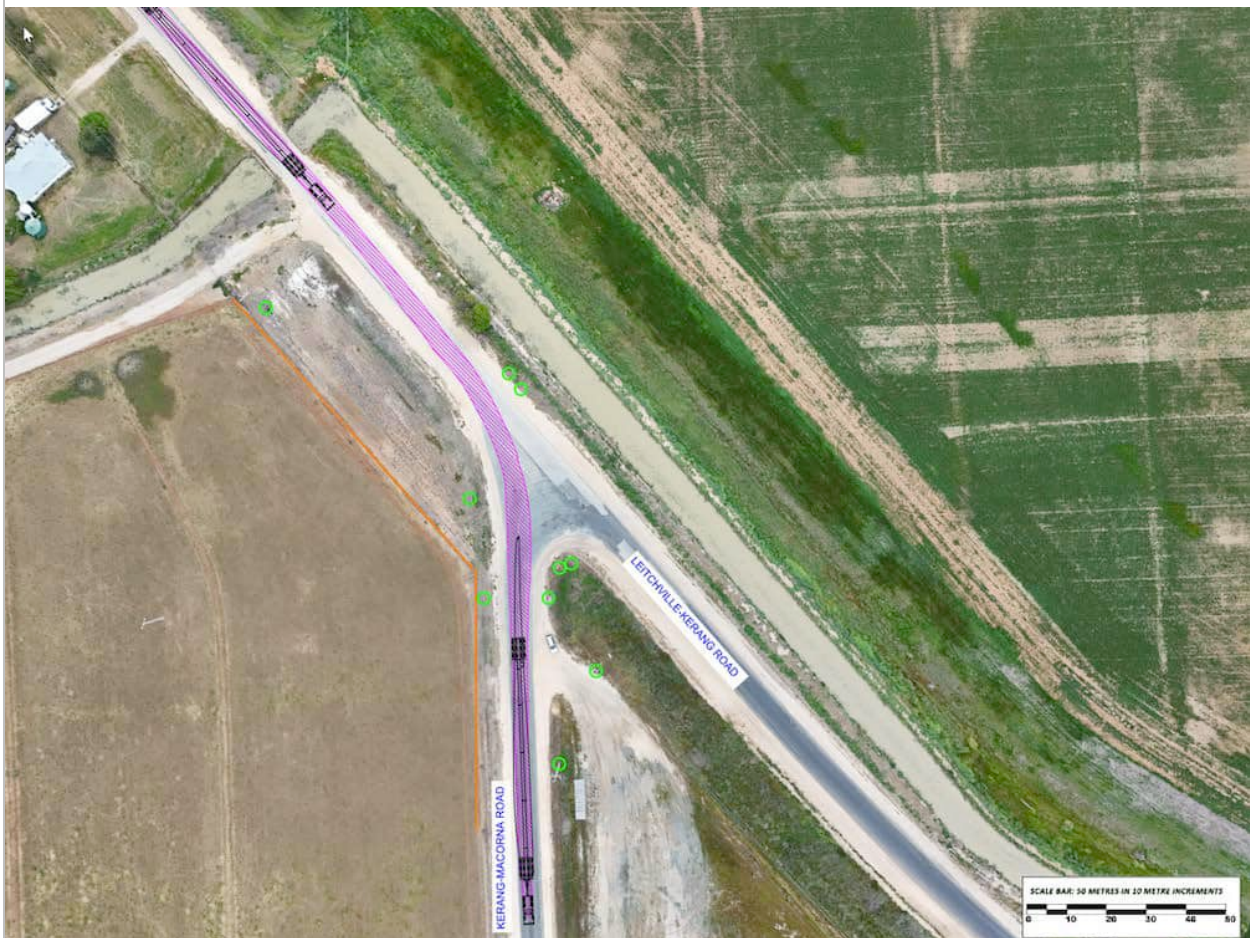
10.6 Km	Leitchville-Kerang Road onto Macorna – Kerang Road			
				
MARCORNA		VEHICLE/LOAD:  NO CONFLICT:  MODIFICATIONS REQUIRED:  CAUTION:  PROPERTY BOUNDARIES: 		
VIC				
GPS LINK:	https://maps.app.goo.gl/7THebu3Uyeq9sTeg9			
PROCEDURE:	Right hand turn			
ROAD MODIFICATIONS:	Hardstand required on the outside of the corner.			
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Figure 25- Looking South along Macorna-Kerang Road intersection



Figure 26- Macorna-Kerang Road drain/channel, Tragowel



Figure 27- Macorna Channel, Macorna – Kerang Road



Figure 28- Macorna-Kerang Road drain/channel, Macorna

15.0 Route C – Site Access

ROUTE C SITE ACCESS: Northerly Access – Murray Valley Highway

COMPONENTS: All Components

DISTANCE: 13.0 kilometres

GPS LINK: <https://maps.app.goo.gl/ubjiSKgTAKH4vmKD9>

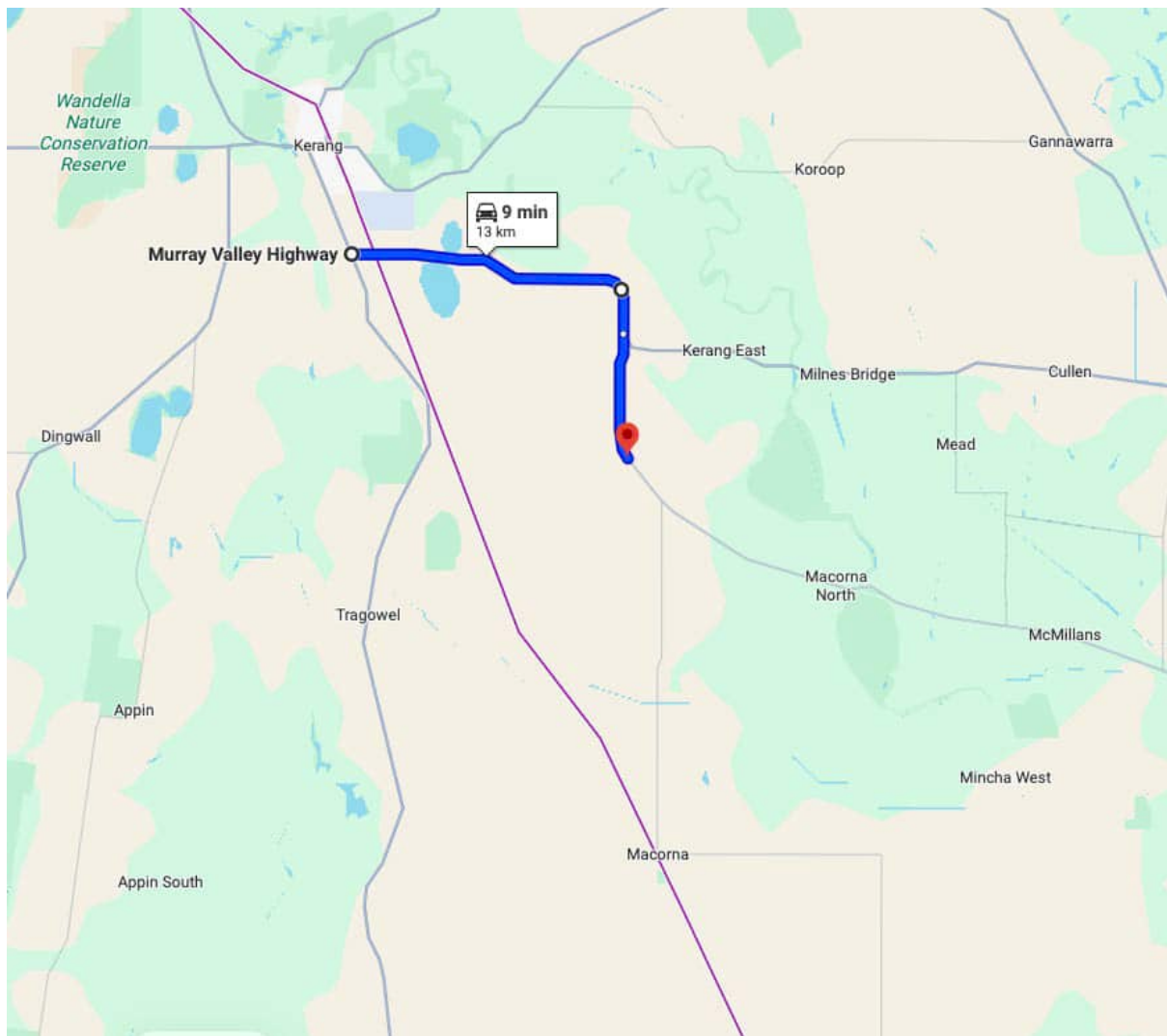


Figure 29- Route C

KEY	
CRITICAL	
CAUTION	
EMERGENCY PARKING	

0.0	Kerang	Loddon Valley Highway onto Murray Valley Highway: Access Route C - Northerly Access Route GPS Link: https://maps.app.goo.gl/bxbt7S7Fb0bPM3L6	Length: 40.0m Width: 3.5m	Right Hand Turn	The centre island will need to be made trafficable and replaced with painted lines. Several signs will need to be relocated or be made removeable. Hardstand on the outside of the corner is required.
0.65	Kerang	Murray Valley Highway Railway Line GPS Link: https://maps.app.goo.gl/whwVpUur5BC2Md5E8	Width: 7.0m	Travel directly ahead	Rail Manager Approvals required. Road will require widening.
3.6	Kerang	Murray Valley Highway Channel GPS Link: https://maps.app.goo.gl/T6fRicQ1v19AxYCsZ	Width: 7.0	Travel directly ahead	No problems with this section of Road. Drain has minimal usage
6.4	Kerang East	Murray Valley Highway Channel / Drain GPS Link: https://maps.app.goo.gl/JXhWdreb2TBuGVp4A	Width: 6.5	Travel directly ahead	No problems with this section of Road. Drain has minimal usage
9.4	Kerang East	Murray Valley Highway onto Macorna – Kerang Road GPS Link: https://maps.app.goo.gl/2xKwUGjfnFna9np7	Length: 130.0m Width: 6.0m	Veer slightly Right	No problems with this section of road
11.8	Tragowel	Macorna – Kerang Road Drain GPS Link: https://maps.app.goo.gl/QM9kjQog76yRENDz8	Width: 5.8m	Travel directly ahead	No problems with this section of Road. Drain has minimal usage

0.0 Km	Loddon Valley Highway onto Murray Valley Highway		
MARCORNA		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:	
VIC			
GPS LINK:	https://maps.app.goo.gl/bxibt7SfFbfbkbPM3L6		
PROCEDURE:	Right hand turn		
ROAD MODIFICATIONS:	Hardstand required on the outside of the corner. Signs to be made removeable or relocated. Island to be made trafficable and replaced with painted lines.		
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Figure 30- Railway Line on Murray Valley Highway

9.4 Km	Murray Valley Highway onto Kerang-Macorna Road			
MARCORNA		VEHICLE/LOAD: NO CONFLICT: MODIFICATIONS REQUIRED: CAUTION: PROPERTY BOUNDARIES:		
VIC				
GPS LINK:	https://maps.app.goo.gl/2xKwUGjtfnFna9np7			
PROCEDURE:	Slightly veer right			
ROAD MODIFICATIONS:	Nil.			
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16.0 Evaluation

Assessment of the proposed routes was conducted by Rex J Andrews Engineered Transportation based on onsite route surveys as well as previous experience on sections of the identified routes and transporting turbine equipment similar to the proposed turbine that is used on various other projects. The assessment was conducted utilising the knowledge, experience and intellectual property of Rex J Andrews Engineered Transportation on purpose-built equipment and is not intended for use by other parties.

The assessment considered the key constraints encountered on the routes and an estimation of the amount of work required to make the route viable based on previous experience. Table 1 shows the evaluation of each route and provides an overall ranking to give guidance on the most suitable route for the development from a transport perspective. The assessment was based on operational factors and equipment capability and does not consider external factors such as regulatory, landholder, environmental, cultural or any other external factors beyond the knowledge or control of Rex J Andrews Engineered Transportation.

1	No Cost									
2	Some Work									
3	Moderate Amount of Work									
4	Large Amount of Work									
		Harbour	Road Modification	Road Furnishings	Vegetation	Site Access Roads	Bridge Calculations	Overhead utilities	Overall Work Required	
Route 1	Blades	3	4	4	3	4	3	3	3.5	
Route 2	Towers & Motors	4	3	3	3	4	4	4	4	

Table 1 - Route Evaluation

17.0 References

Rex J Andrews Pty. Ltd.
Rex J Andrews Pty. Ltd. Drawings
Rex J Andrews Pty. Ltd. Route Study No. 543
Atmos Renewables
Google Earth/Maps
Nearmaps
NHVR
NHVAS Maintenance Management (NHVAS21193)
NHVAS Basic Fatigue Management (NHVAS21193)

Disclaimer: This route study including any appendixes are provided on the basis of information only purposes and is to be used strictly as a guide only, Government approvals would be required before these routes could be deemed suitable for transporting the components over the listed routes.

Any, and all parties using information contained this submission do so at own risk.
RJA accept no responsibility for the use of all information contained within this report.

Actual approved routes may differ from those surveyed.
Proposed routes may change subject to approvals from authorities.

This study including any appendixes have been undertaken using data supplied by Rex J Andrews P/L. Equipment and swept paths might vary if using transport methodology other than the data supplied by Rex J Andrews. The study uses known data about the proposed turbine type at the time of conducting the study and is subject to change.

18.0 Transport Combinations

172 TURBINE:

Blades (85.0l x 4.4w x 3.2h x 32T)

Configuration. Prime mover with 3x8-3x8 Blade trailer

Overall dimensions: 97.0l x 4.5w x 5.2h x 95.5T

Nacelles (12.7l x 4.0 w x 3.75h x 54.0T)

Configuration. Prime mover with 5x8 Low loader

Overall dimensions: 26.0l x 4.3w x 4.9h x 99.5T

Nacelle side ship container (12.2l x 2.5 w x 2.9h x 23.2T)

Configuration. Prime mover with 3x4 Semi

Overall dimensions: 19.0l x 2.5w x 4.6h x 42.5T

Power Trains (8.1l x 3.1w x 3.5h x 105.2T)

Configuration. Prime mover with 10x8 Platform with block truck

Overall dimensions with block truck: 39.9l x 4.3w x 4.9h x 190.5T

Hubs (4.8l x 4.35w x 4.05h x 64.9T)

Configuration. Prime mover with 2x8 5x8 dolly low loader

Overall dimensions: 29.9l x 4.5w x 5.2 x 100.5

150 METRE TOWER

Base Towers (15.7l x 5.90 x 5.50 x 89T)

Configuration. Prime mover with 5x8-5x8 Bookend.

Overall dimension: 47.0l x 6.0w x 6.5h x 167.5T

Section 2 Towers (20.0l x 5.50 x 5.50 x 89T)

Configuration. Prime mover with 4x8-5x8 Extending platform trailer.

Overall dimension: 32.0l x 5.5w x 6.6h x 144.5T

Section 3 Towers (24.5l x 5.50 x 5.50 x 91T)

Configuration. Prime mover with 4x8-5x8 Extending platform trailer.

Overall dimension: 36.0l x 5.5w x 6.6h x 146.5T

Section 4 Towers (25.0l x 5.50 x 4.65 x 81T)

Configuration. Prime mover with 4x8-4x8 Extending platform trailer.

Overall dimension: 36.0l x 5.5w x 6.6h x 133.5T

Section 5 Towers (31.0l x 4.65 x 4.15 x 89.2T)

Configuration. Prime mover with 4x8-5x8 Extending platform trailer.

Overall dimension: 40.0l x 4.7w x 5.9h x 144.5T

Top Towers (31.0l x 4.15w x 3.6h x 80.3T)

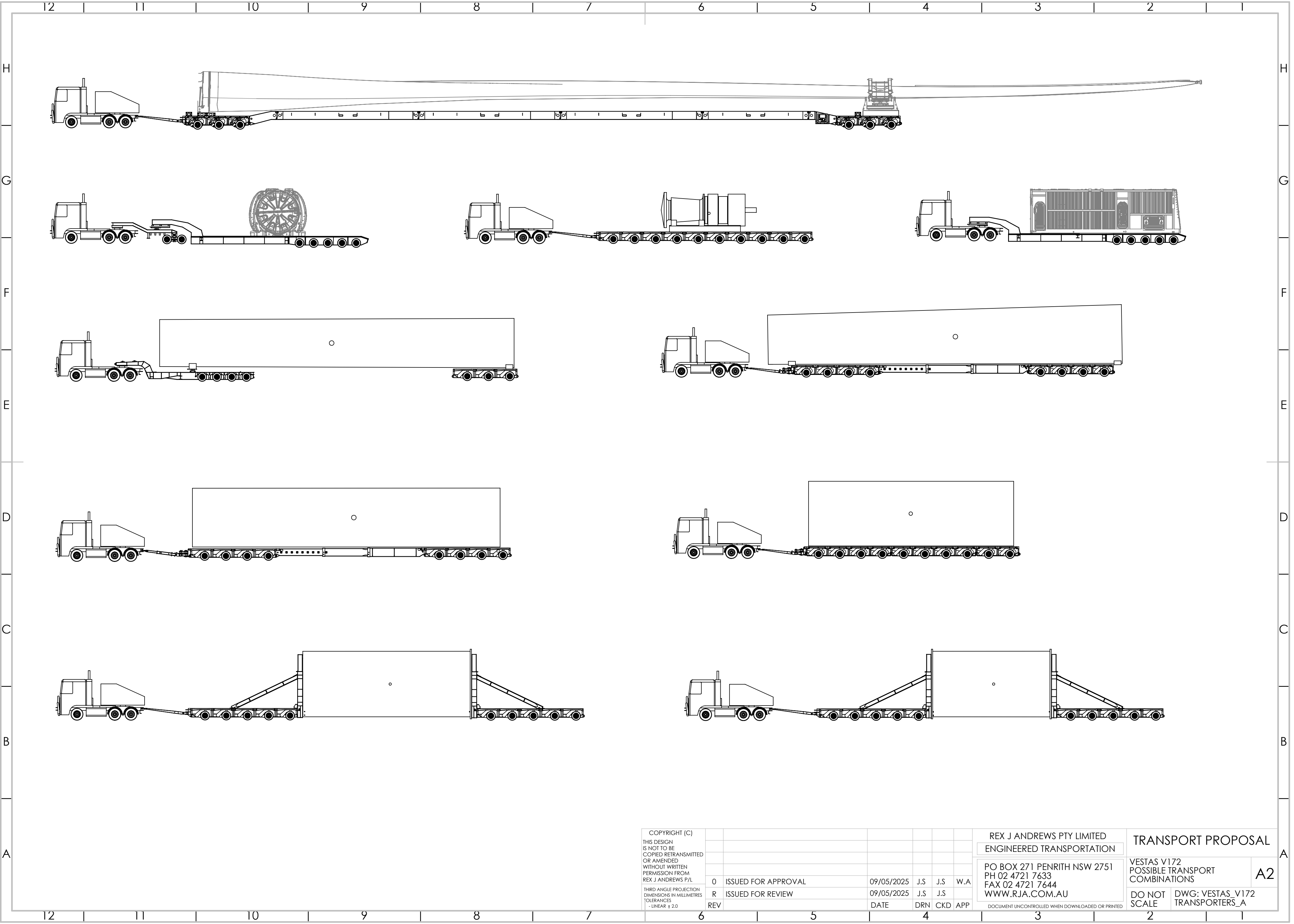
Configuration. Prime mover with 4x8-4x8 Extending platform trailer.

Overall dimension: 40.0l x 4.3w x 5.5h x 133.5T

19.0 Appendix A – Transport Drawings

- Refer to attached document: Appendix A Transport drawings

C:\Users\John\Desktop\EnergyCo\VESTAS_V172_TRANSPORTERS_COMBINED_A



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THIRD ANGLE PROJECTION DIMENSIONS IN MILLIMETRES TOLERANCES - LINEAR ± 2.0							PO BOX 271 PENRITH NSW 2751 PH 02 4721 7633 FAX 02 4721 7644 WWW.RJA.COM.AU			VESTAS V172 POSSIBLE TRANSPORT COMBINATIONS	A2
REV							DATE	DRN	CKD	APP	DO NOT SCALE
							09/05/2025	J.S	J.S	W.A	DWG: VESTAS_V172 TRANSPORTERS_A
							09/05/2025	J.S	J.S		
							DOCUMENT UNCONTROLLED WHEN DOWNLOADED OR PRINTED				