

Appendix B

Revised Traffic and Transport Impact Assessment

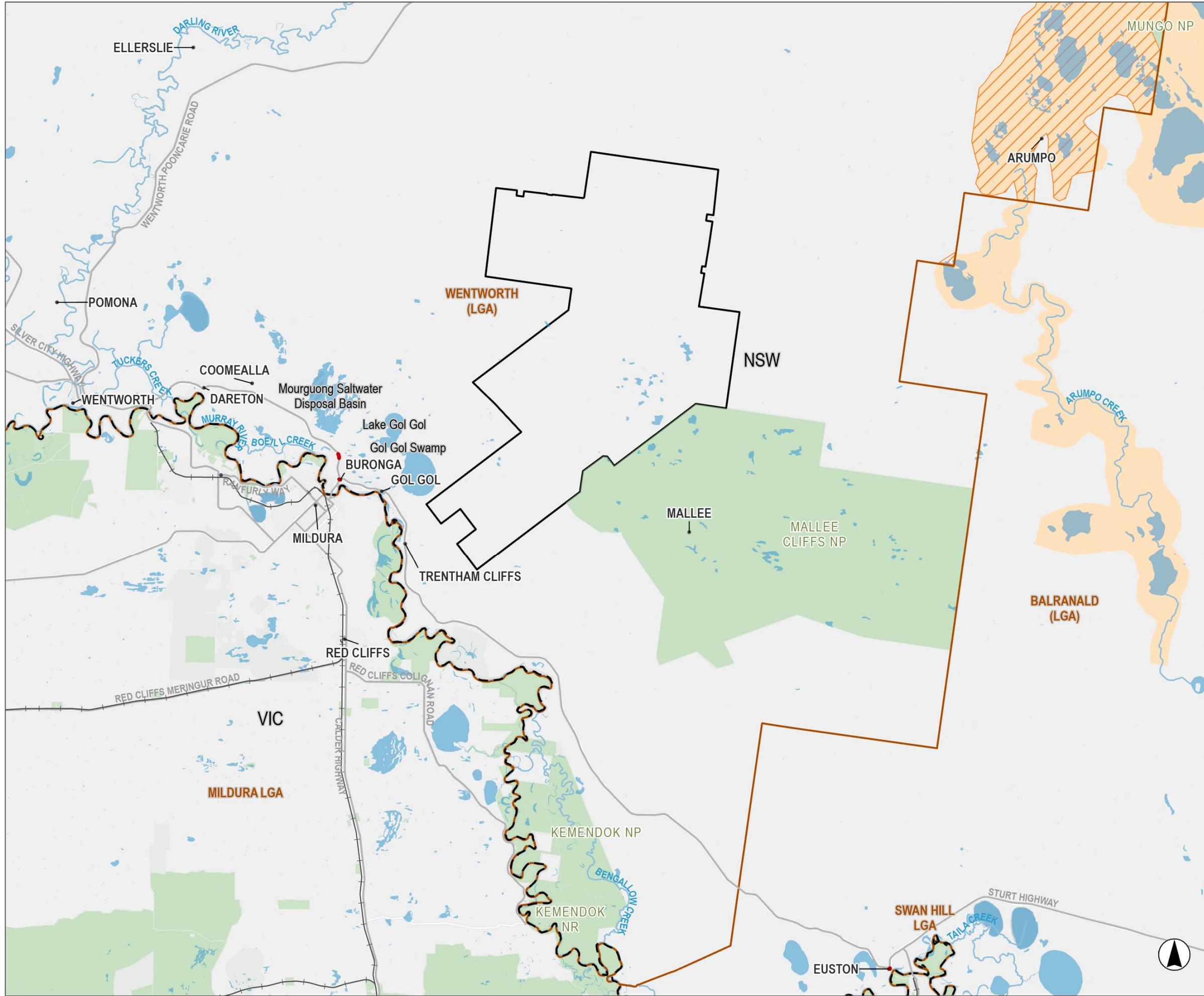
Part 4 (Revised TTIA, App. D to K)



Appendix D – Plan of Development

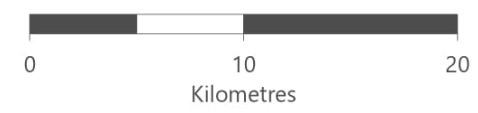
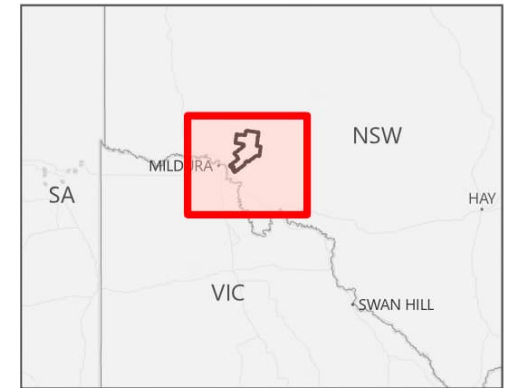
FIGURE 1.1
Regional Context

C:\USERS\CHM\Umwelt (AUSTRALIA) PTY LTD\22494 - 03 SSV02_PROJECTS\22494_RS6_ES_SECTION1_AND_2_V6.APRX - 22494_RS6_F0101_REGIONAL_CONTEXT



Legend

- Project Boundary
- Off-site Road Works
- Willandra Lakes Region / National Heritage Property
- Willandra Lakes World Heritage Area
- State Border
- Local Government Area (LGA)
- NPWS Estate
- Water Body
- Watercourse
- Road
- Railway



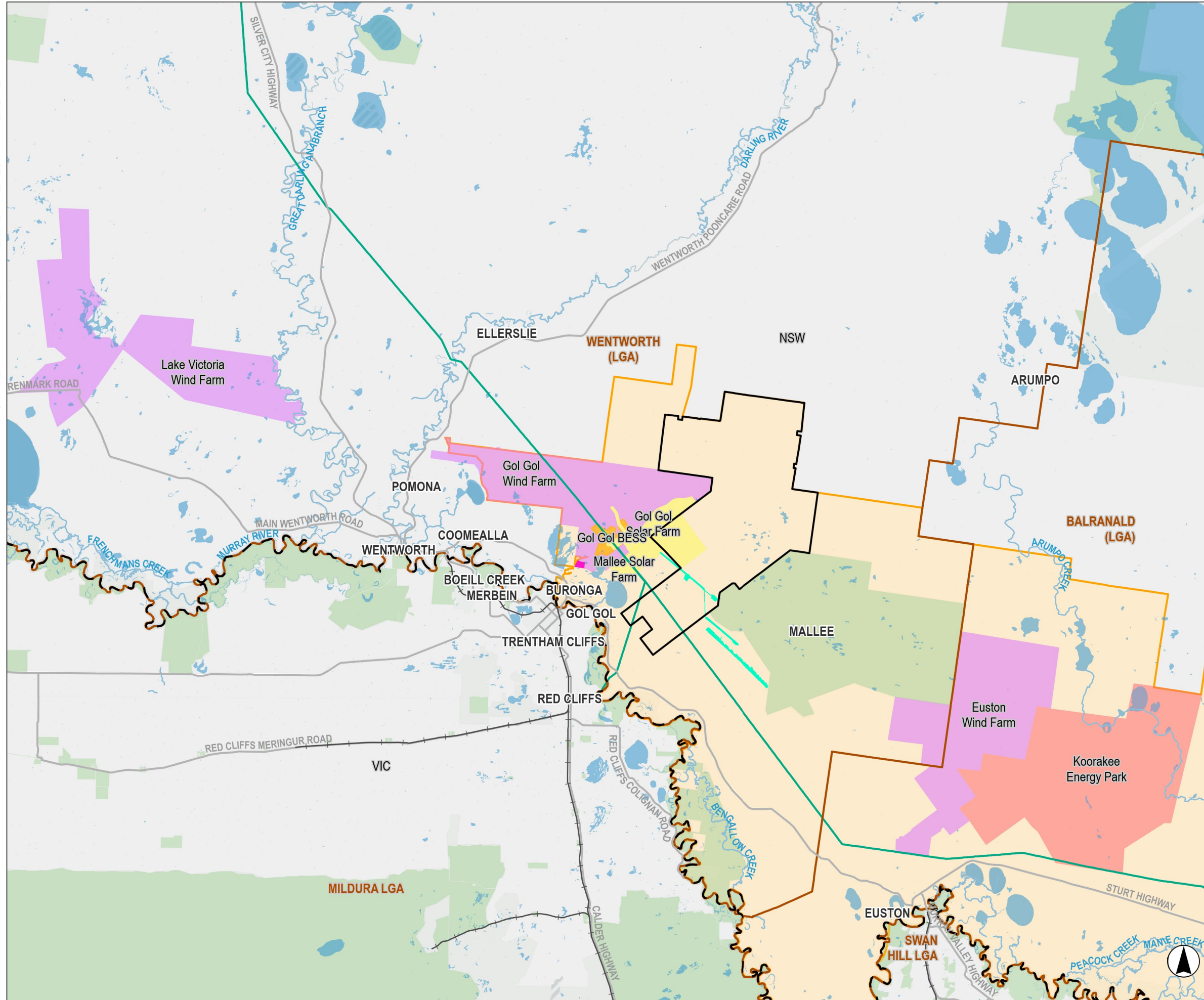
Scale 1:500,000 at A4
GDA2020 MGA Zone 54

This document and the information are subject to Terms and Conditions and Umwelt (Australia) Pty Ltd ("Umwelt") Copyright in the drawings, information and data recorded ("the information") is the property of Umwelt. This document and the information are solely for the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by Umwelt. Umwelt makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.
APPROVED FOR AND ON BEHALF OF Umwelt

FIGURE 2.9

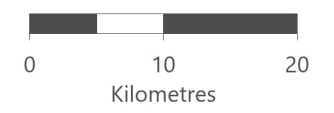
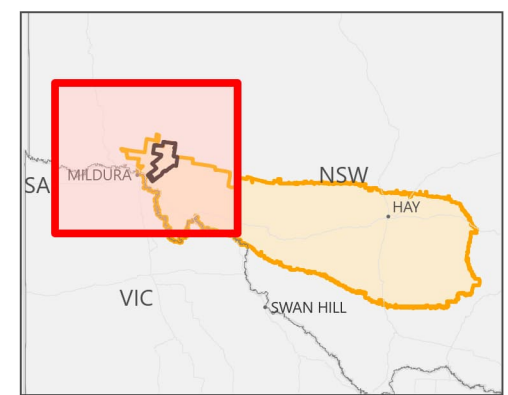
Major Approved and Proposed Development in the Vicinity of the Project

D:\UMWELT (AUSTRALIA) PTY. LTD\2024\03_S&V02_PROJECTS\22494_R06_EIS_SECTION1_AND_2_V6\APR24_22494_R06_F0209_DEVELOPMENT\VICINITY



Legend

- Project Boundary
- Hybrid Project
- Wind Farm Project
- Solar Farm Project
- Buronga Landfill Expansion
- Euston Mineral Sands Project
- South West Renewable Energy Zone
- State Border
- Local Government Area (LGA)
- NPWS Estate
- Water Body
- Watercourse
- Road
- Railway
- Existing HV Transmission Lines



Scale 1:800,000 at A4
GDA2020 MGA Zone 54

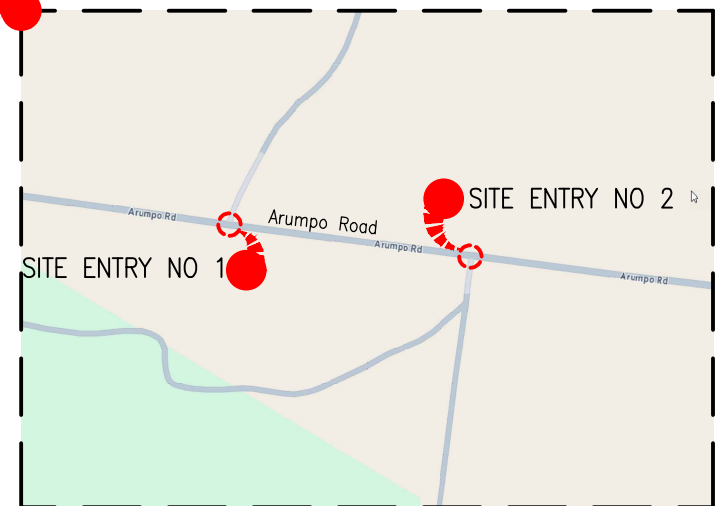
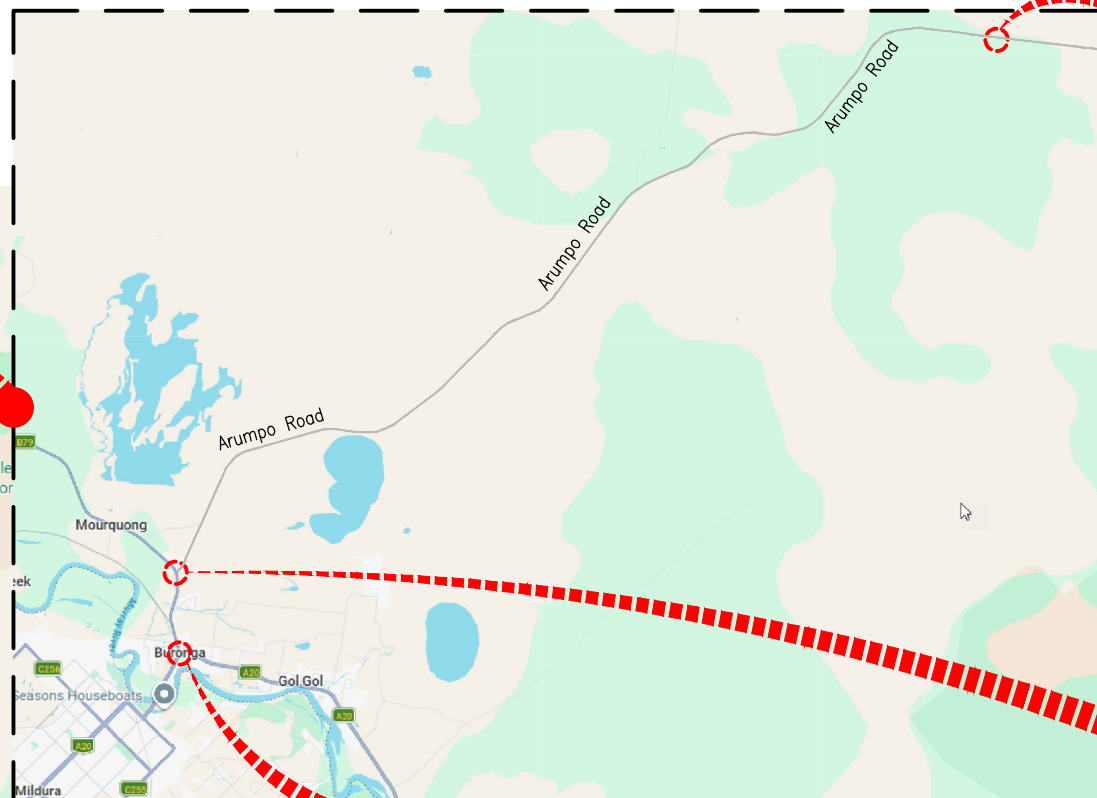
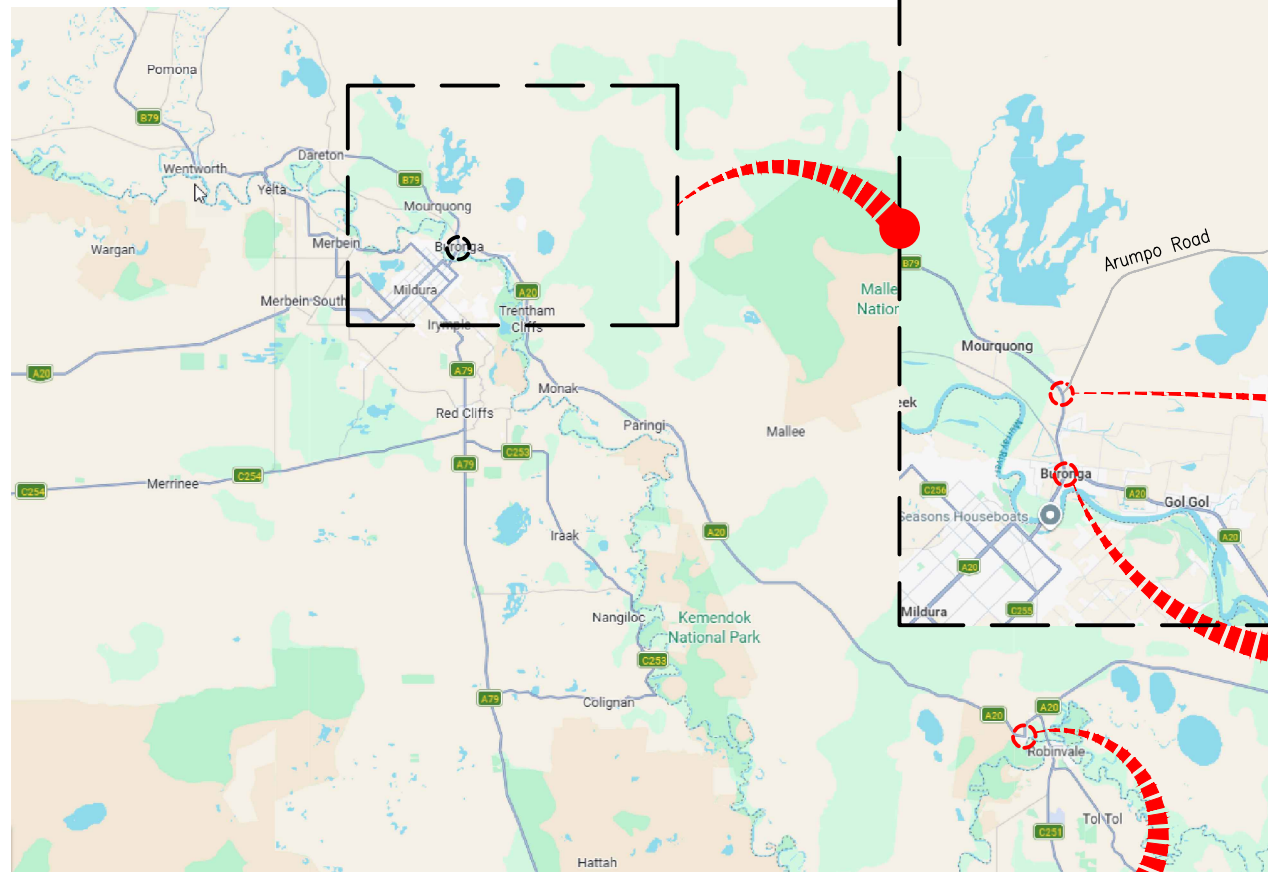
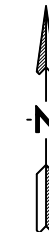
This document and the information are subject to Terms and Conditions and Umwelt (Australia) Pty Ltd ("Umwelt") Copyright in the drawings, information and data recorded ("the information") is the property of Umwelt. This document and the information are solely for the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by Umwelt. Umwelt makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.
APPROVED FOR AND ON BEHALF OF Umwelt



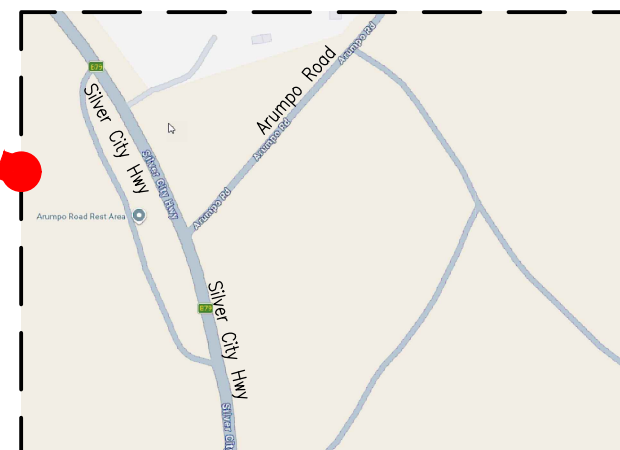
Appendix E – Revised Intersection and OSOM Route Upgrade Concept Designs

MALLEE WIND FARM

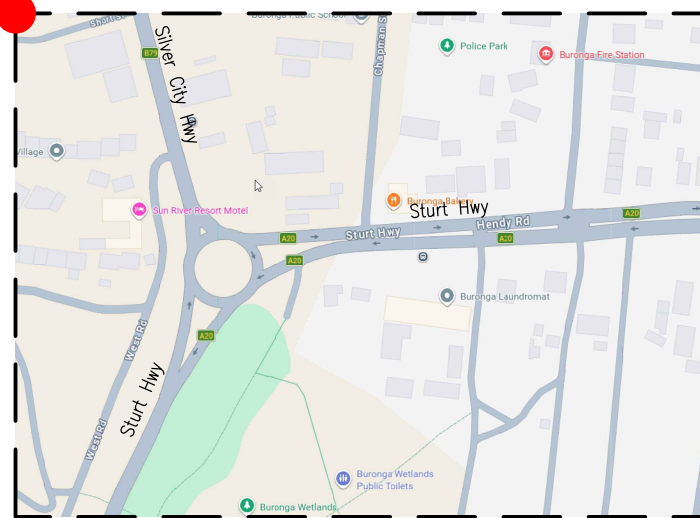
ARUMPO ROAD, NSW



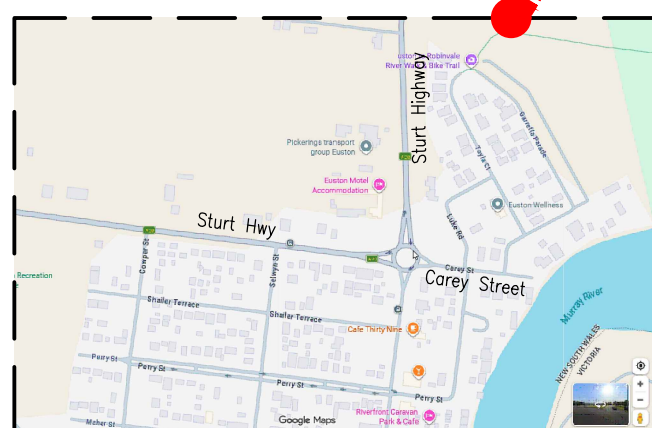
ARUMPO ROAD INTO SITE ENTRY NO 1 & 2



SILVER CITY HIGHWAY & ARUMPO ROAD



STURT HIGHWAY INTO SILVER CITY HIGHWAY



STURT HIGHWAY ROUNDABOUT AT CAREY STREET

Sheet List Table

Sheet Number	Drawing Description	Issue No
C-R0001	LOCALITY AND DRAWING INDEX	2
C-R0002	TYPE CROSS SECTIONS	2
C-R0003	VEHICLE CONFIGURATIONS	2
C-R0004	STURT HWY - CAREY ST BLADE VEHICLE PATH	2
C-R0005	STURT HWY - CAREY ST TOWER VEHICLE PATH	2
C-R0006	STURT HWY - SILVER CITY HWY BLADE VEHICLE PATH	2
C-R0007	STURT HWY - SILVER CITY HWY TOWER VEHICLE PATH	2
C-R0008	ARUMPO RD - SILVER CITY HWY BLADE VEHICLE PATH	2
C-R0009	SILVER CITY HWY - ARUMPO RD TOWER VEHICLE PATH	2
C-R0010	SILVER CITY HWY - ARUMPO RD DESIGN VEHICLE PATH	2
C-R0011	SILVERCITYHWY - ARUMPORD DESIGN 1	2
C-R0012	SILVERCITYHWY-ARUMPORD DESIGN 2	2
C-R0013	ARUMPO RD - SITE ACCESS 1 BLADE VEHICLE PATH	2
C-R0014	ARUMPO RD - SITE ACCESS 1 TOWER VEHICLE PATH	2
C-R0015	ARUMPO RD - SITE ACCESS 1 DIMENSIONS	2
C-R0016	ARUMPO RD - SITE ACCESS 2 BLADE VEHICLE PATH	2
C-R0017	ARUMPO RD - SITE ACCESS 2 TOWER VEHICLE PATH	2
C-R0018	ARUMPO RD - SITE ACCESS 2 DIMENSIONS	2

Dwg Ref: c:\1245\data\TWB-DM02\PT1288 - Mallee WF_40671.v.0 Drawings\1_1_Dwg\C-R0011\LOCALITY AND DRAWING INDEX.dwg Plot Date: 25/03/2026

PRELIMINARY ISSUE ONLY	
DATE	25/03/26
ISSUE	1 2

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

www.hig.com.au

CLIENT:

PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

TITLE:
LOCALITY AND DRAWING INDEX

Engineering Certification RPEQ:

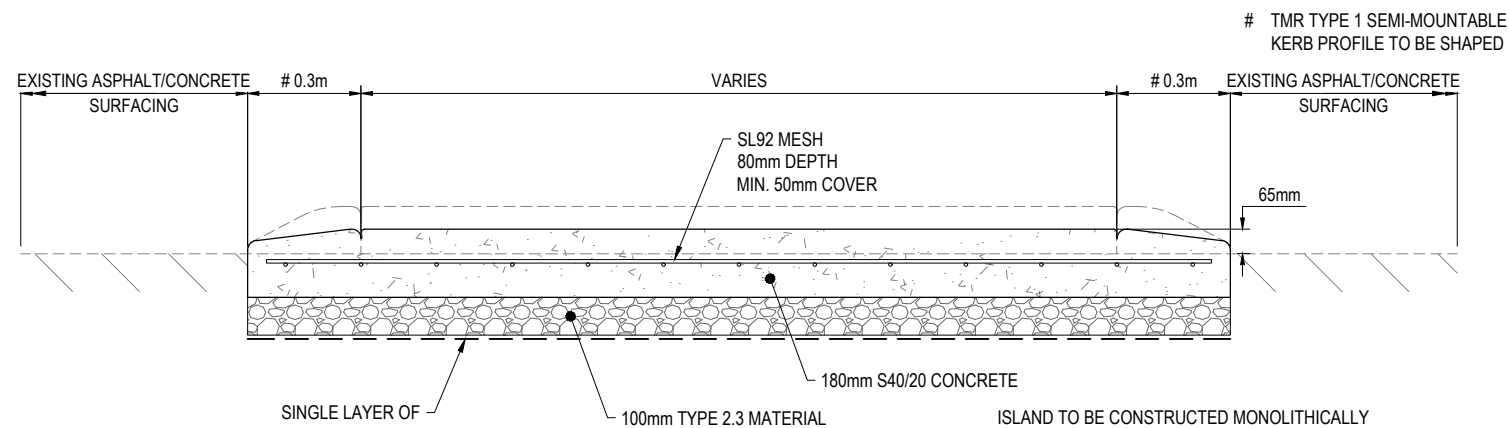
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
WB	CP	CP	

Project No. **P11288** Drawing No. **C-R0001**

Horizontal Datum MGA20 ZONE 54 Vertical Datum AHD DERIVED

Issue **2**



TYPE CROSS SECTION A - TRAFFICABLE CONCRETE ISLANDS

NTS

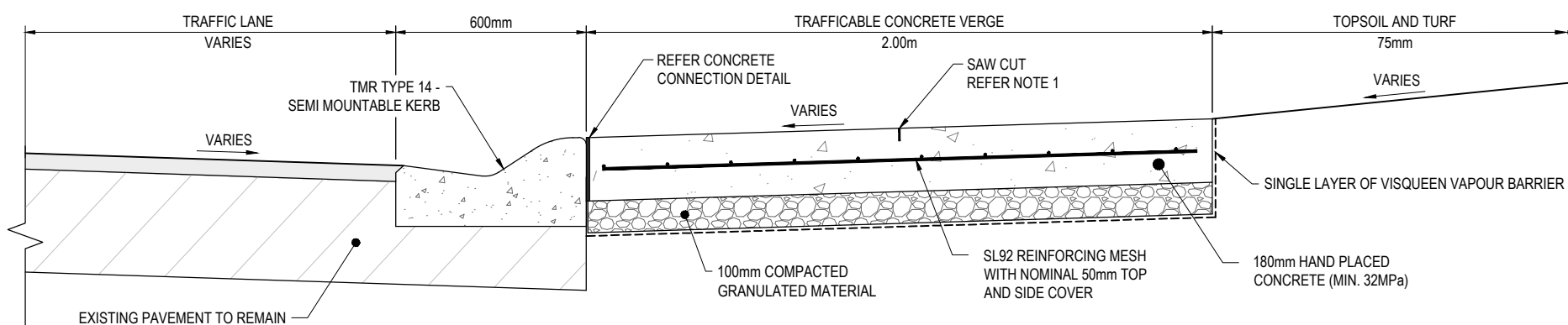
NOTES

NOTES

1. SAW CUTS SHALL BE INSTALLED AT REGULAR INTERVALS NOT EXCEEDING 5m LONGITUDINALLY AND 5m TRAVERSELY. SAW CUTS TO BE 3-6mm WIDE x 40mm DEEP. APPLY BEAD OF POLYSULPHIDE SEALANT TO BOND BREAKING TAPE.
2. CONCRETE SHALL BE GRADE S40/20.
3. REINFORCING MESH TO HAVE MINIMUM LAPS OF 210mm AND 50mm MIN. COVER TO TOP AND SIDES.
4. FINISH SHALL BE WOOD FLOAT OR STEEL FOLLOWED BY NYLON BROOM, OR OTHER APPROVED NON-SLIP SURFACE.
5. BEFORE YOU DIG AUSTRALIA (BYDA) SHALL BE UNDERTAKEN PRIOR TO PERFORMING WORKS ON SITE. ENSURE MINIMUM COVER IS MAINTAINED TO EXISTING PUBLIC UTILITIES.
6. COMPACTION OF GRANULAR MATERIAL TO BE 97% STANDARD IN ACCORDANCE WITH MRTS04.

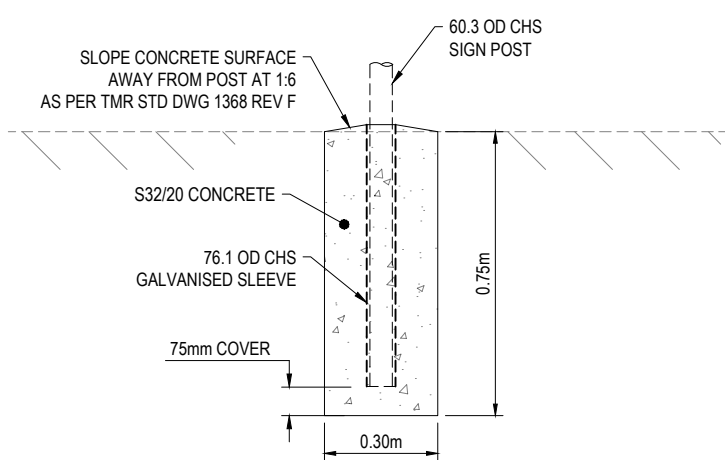
RELEVANT STANDARDS

- AS3600 CONCRETE STRUCTURES
- MRTS70 CONCRETE
- MRTS71 REINFORCING STEEL



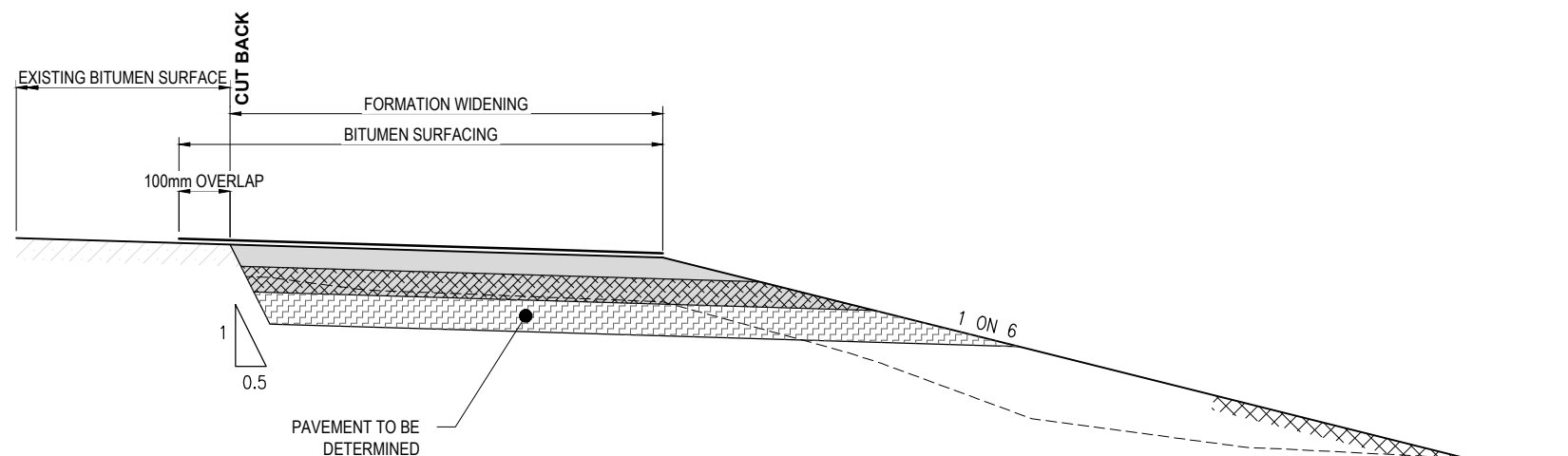
TYPE CROSS SECTION B - TRAFFICABLE CONCRETE VERGE

NTS



TYPICAL TRAFFIC SIGN SLEEVE INSTALLATION

NTS



FORMATION WIDENING

NTS

Dwg Ref: c:\245\dalia\TWB-DM02\PT1288 - Mallee WF_40671.v.0 Drawings\1_Dwg\C-R0012 TYPE CROSS SECTIONS.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY			
DATE	ISSUE	BY	REVISION
25/03/26	1		
	2		

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

www.hig.com.au

CLIENT:

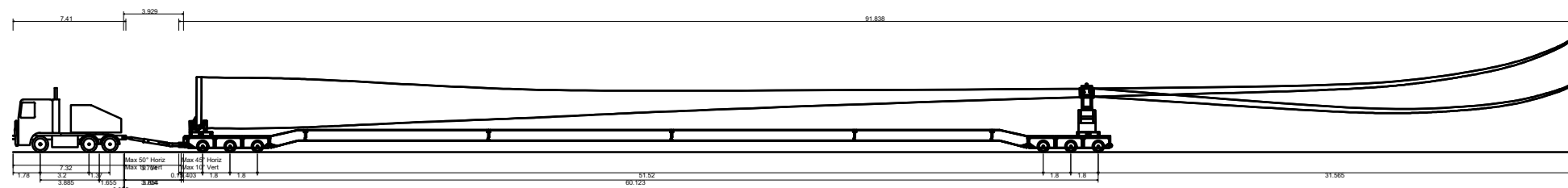
PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
TYPE CROSS SECTIONS

Engineering Certification
RPEQ:

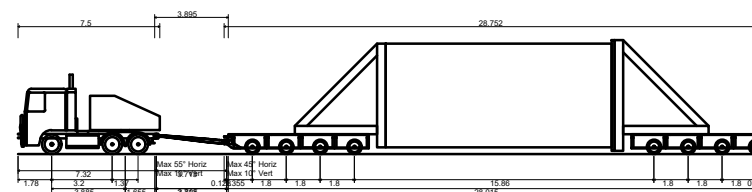
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
WB	CP	WB	
Project No. P11288		Drawing No. C-R002	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			



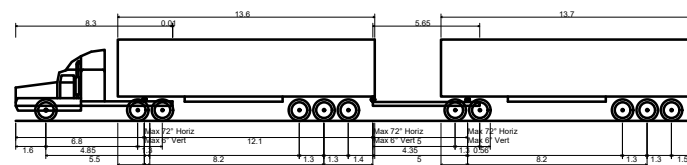
GW182_3x8_45m_3x8_90m@1050mm_600mm_Spacer
 Overall Length 102.712m
 Overall Width 4.963m
 Overall Body Height 7.853m
 Min Body Ground Clearance 0.270m
 Max Track Width 2.500m
 Lock-to-lock time 1.00s
 Curb to Curb Turning Radius 40.000m

BLADE VEHICLE PROFILE



X_MALLEE_BOOKEND_TOWER_V1.0
 Overall Length 39.657m
 Overall Width 5.850m
 Overall Body Height 6.030m
 Min Body Ground Clearance 0.180m
 Max Track Width 2.500m
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 15.000m

TOWER VEHICLE PROFILE

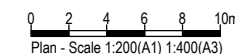


A-Double (36.2m)
 Overall Length 36.200m
 Overall Width 2.500m
 Overall Body Height 4.300m
 Min Body Ground Clearance 0.540m
 Track Width 2.500m
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 15.000m

A-DOUBLE VEHICLE PROFILE

VEHICLE CONFIGURATIONS

SCALE 1:200(A1) 1:400(A3)



Dwg Ref: c:\245\data\TWB-DM12\PT1288 - Mallee WF_40671.v0 Drawings\1_Dwg\C-R0003 VEHICLE CONFIGURATIONS.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY		
DATE	25/03/26	
ISSUE	1	2

NOTE:
 FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

www.hig.com.au

CLIENT:

PROJECT:
**ROUTE ASSESSEMENT
 MALLEE WIND FARM**

TITLE:
VEHICLE CONFIGURATIONS

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

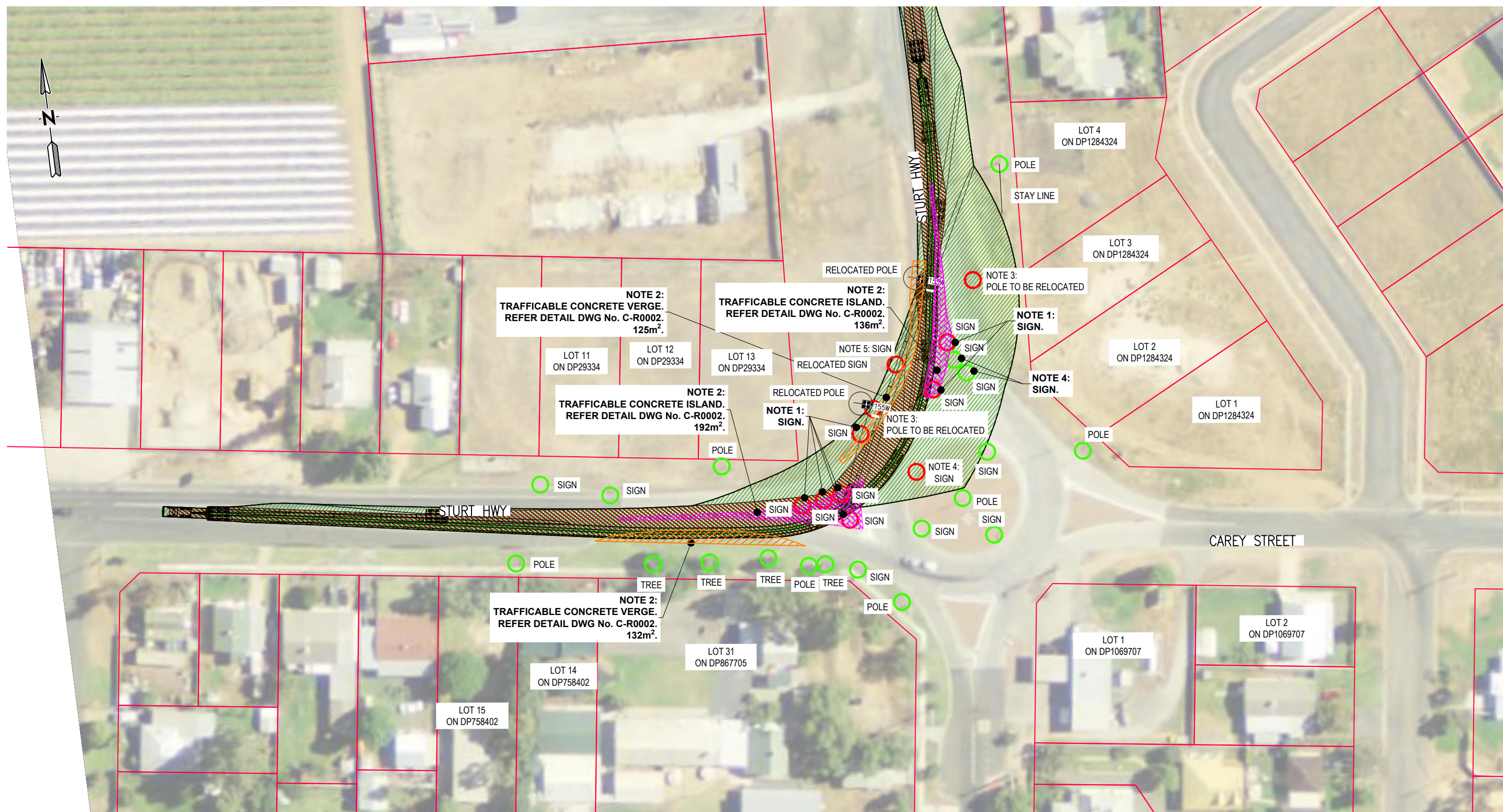
Drawn	Check	Design	Verified
AG	CP	AG	

Project No. **P11288** Drawing No. **C-R0003**

Horizontal Datum MGA20 ZONE 54
 Vertical Datum AHD DERIVED

Issue **2**

Original Size - A1



VEHICLE PATH – BLADE CONFIGURATION
SCALE 1:500

NOTES

1. SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.
2. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.
3. EXISTING STREET LIGHT TO BE RELOCATED.
4. SIGN POSITIONED LOW ENOUGH NOT TO CONFLICT WITH PASSING VEHICLE OR LOAD.
5. SIGN TO BE RELOCATED.

LEGEND

- TRAFFICABLE CONCRETE ISLAND
- TRAFFICABLE CONCRETE VERGE
- OBSTRUCTION - REQUIRES ACTION
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE

0 5 10 15 20 25m
Plan - Scale 1:500(A1) 1:1000(A3)

Dwg Ref: c:\245\dalia\TWB-DM02\PT1288 - Mallee WF_40671.v4.0 Drawings\A_1_Dwg\C-R0003 STURT HWY - CAREY ST.dwg Plot Date: 25/03/2026

PRELIMINARY ISSUE ONLY	
DATE	25/03/26
ISSUE	1 2

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

HIG
HARRISON
INFRASTRUCTURE
GROUP
www.hig.com.au

CLIENT:

ACCESS TRAFFIC
CONSULTING

PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

TITLE:
STURT HWY - CAREY ST ROUNDABOUT

Engineering Certification RPEQ:

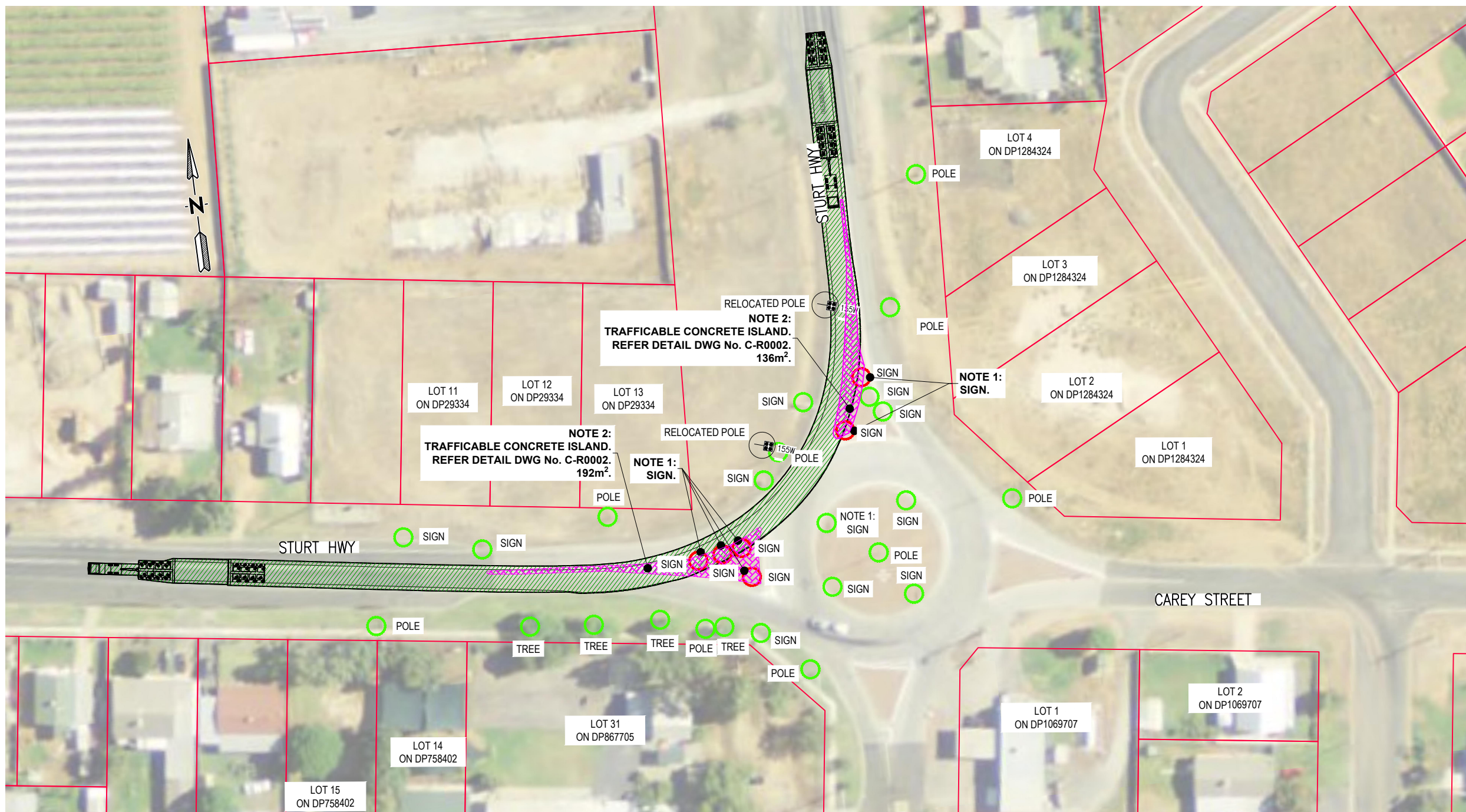
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
CT	CP	CP	

Project No. **P11288** Drawing No. **C-R0004**

Horizontal Datum MGA20 ZONE 54
Vertical Datum AHD DERIVED

Issue **2**



NOTES

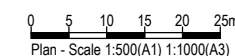
1. SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.
2. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.
3. EXISTING STREET LIGHT TO BE RELOCATED.

VEHICLE PATH – TOWER CONFIGURATION
SCALE 1:500(A1) 1:1000(A3)

LEGEND

- OBSTRUCTION - REQUIRES ACTION
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE

 TRAFFICABLE CONCRETE ISLAND



Dwg Ref: c:\245\dalia\TWB-DM02\PT1288 - Mallee WF_40671.v.0 Drawings\1_Dwg\C-R0016 STURT HWY - CAREY ST TOWER VEHICLE PATH.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY			
DATE	ISSUE	BY	DESCRIPTION
25/03/26	1		
	2		

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

HIG
HARRISON
INFRASTRUCTURE
GROUP
www.hig.com.au

CLIENT:

ACCESS TRAFFIC
CONSULTING

PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
STURT HWY - CAREY ST ROUNDABOUT

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

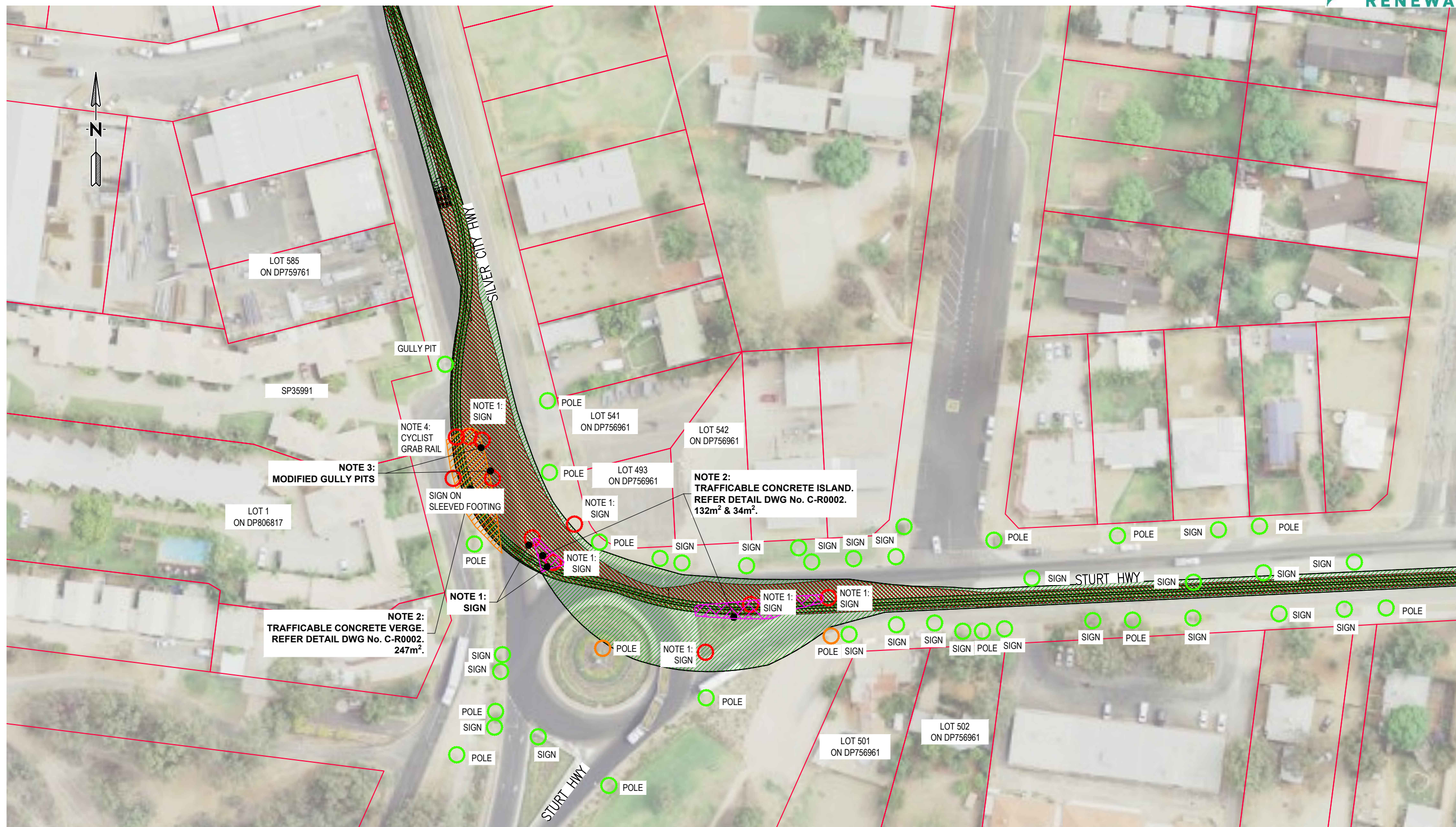
Drawn	Check	Design	Verified
AG	CP	CP	

Project No. **P11288** Drawing No. **C-R0005**

Horizontal Datum MGA20 ZONE 54
Vertical Datum AHD DERIVED

Issue **2**

Original Size - A1



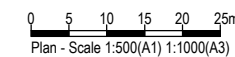
VEHICLE PATH – BLADE CONFIGURATION
SCALE 1:500

NOTES

1. SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.
2. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.
3. PROVIDE TYPE D GULLY PIT FOR VEHICLES TO TRAVERSE.
4. CYCLIST GRAB RAIL TO BE REPLACED WITH SLEEVED FOOTING. CYCLIST GRAB RAIL TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.

LEGEND

- TRAFFICABLE CONCRETE ISLAND
- TRAFFICABLE CONCRETE VERGE
- OBSTRUCTION - REQUIRES ACTION
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE



PRELIMINARY ISSUE ONLY	
DATE	25/03/26
ISSUE	1 2

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

CLIENT:

PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
STURT HWY - SILVER CITY HWY ROUNDABOUT

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

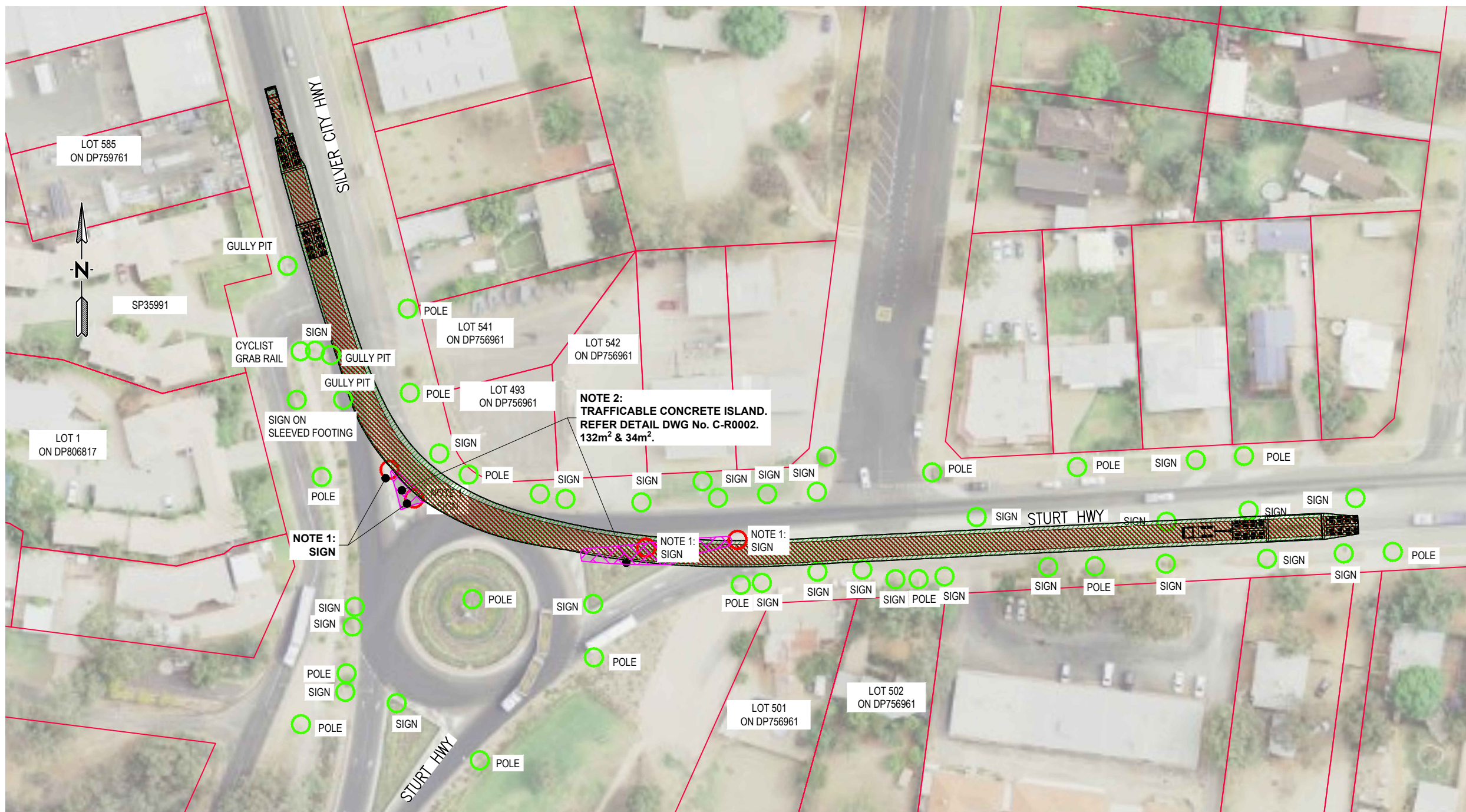
Drawn	Check	Design	Verified
CT	CP	CP	

Project No. **P11288** Drawing No. **C-R0006**

Horizontal Datum MGA20 ZONE 54
Vertical Datum AHD DERIVED

Issue **2**

Dwg Ref: c:\245\dalia\TWB-DM2\PT1288 - Mallee WF_40671.v.0 Drawings\4_1_Dwg\C-R0004_STURT HWY - SILVER CITY HWY.dwg Plot Date: 25/03/2026



VEHICLE PATH – TOWER CONFIGURATION
SCALE 1:500(A1) 1:1000(A3)

LEGEND

-  TRAFFICABLE CONCRETE ISLAND
-  OBSTRUCTION - REQUIRES ACTION
-  WARNING - REDUCED CLEARANCE / MINOR ACTION
-  OBJECT - 1m CLEARANCE

NOTES

1. SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.
2. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1



HIG
HARRISON
INFRASTRUCTURE
GROUP
www.hig.com.au

CLIENT:



ACCESS TRAFFIC
CONSULTING

PROJECT:

**ROUTE ASSESSEMENT
MALLEE WIND FARM**

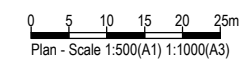
TITLE:

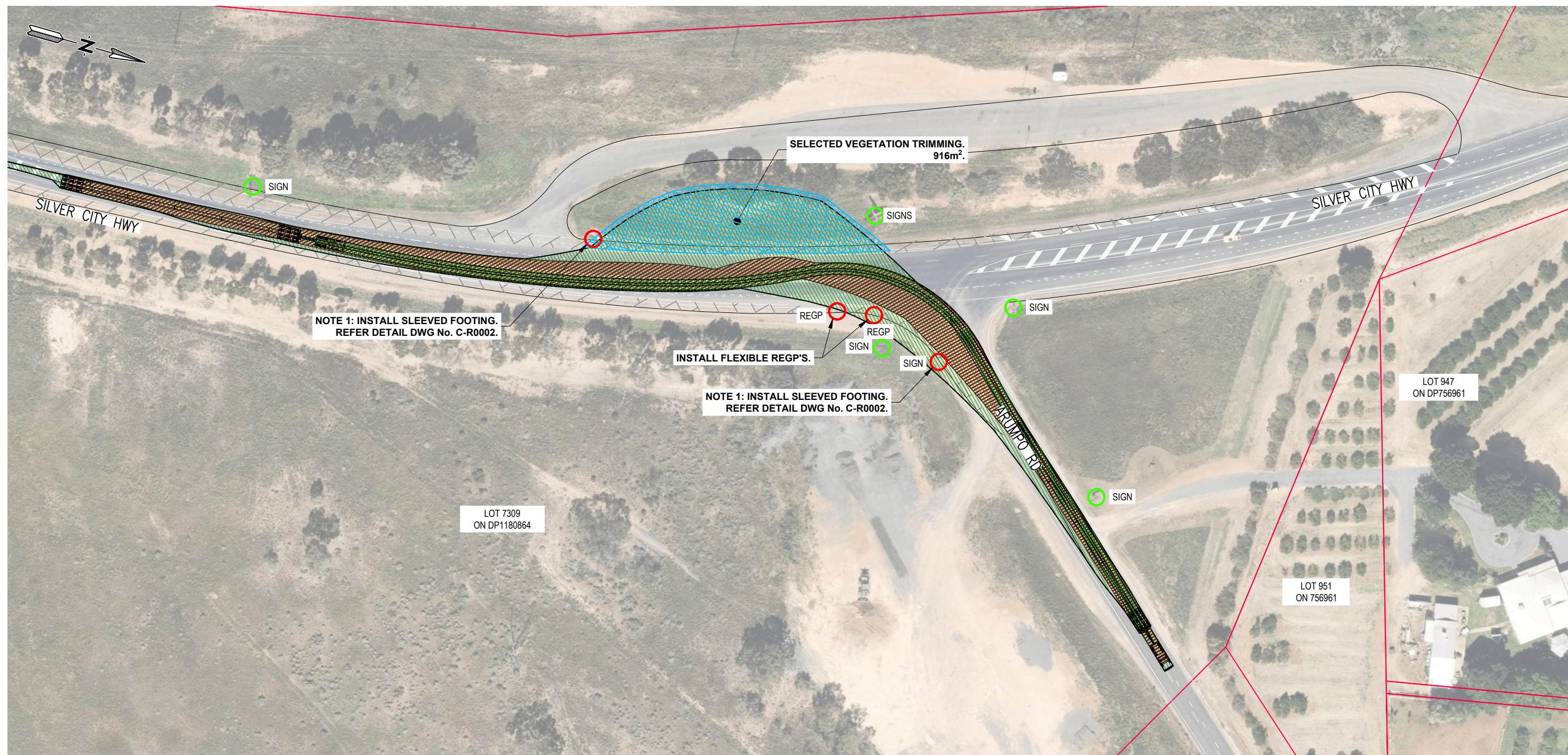
STURT HWY - SILVER CITY HWY ROUNDABOUT

Engineering Certification
RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	CP	
Project No. P11288		Drawing No. C-R0007	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			





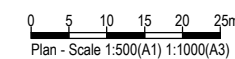
VEHICLE PATH – BLADE CONFIGURATION
SCALE 1:500

NOTES

- SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.

LEGEND

- PAVEMENT WIDENING
- VEGETATION TRIMMING
- OBSTRUCTION - REQUIRES ACTION
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE



PRELIMINARY ISSUE ONLY	
DATE	25/03/26
ISSUE	1 2

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

CLIENT:

PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
ARUMPO RD - SILVER CITY HWY

Engineering Certification
RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
CT	CP	CP	
Project No. P11288		Drawing No. C-R0008	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			

Dwg Ref: c:\245\data\TWB-DM02\PT1288 - Mallee WF_40671.v0 Drawings\1_1_Dwg\C-R0007 ARUMPO RD - SILVER CITY HWY - CHR.dwg Plot Date: 25.03.2026



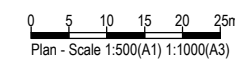
VEHICLE PATH – TOWER CONFIGURATION
SCALE 1:500(A1) 1:1000(A3)

NOTES

1. SIGN FOOTING TO BE REPLACED WITH SLEEVED FOOTING. SIGN TO BE REMOVED-REPLACED FOR VEHICLE MOVEMENT.
2. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.
3. EXISTING STREET LIGHT TO BE RELOCATED.

LEGEND

-  OBSTRUCTION - REQUIRES ACTION
-  WARNING - REDUCED CLEARANCE / MINOR ACTION
-  OBJECT - 1m CLEARANCE
-  PAVEMENT WIDENING



PRELIMINARY ISSUE ONLY			
DATE	:	25/03/26	
ISSUE	1	2	

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.



CLIENT:



PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

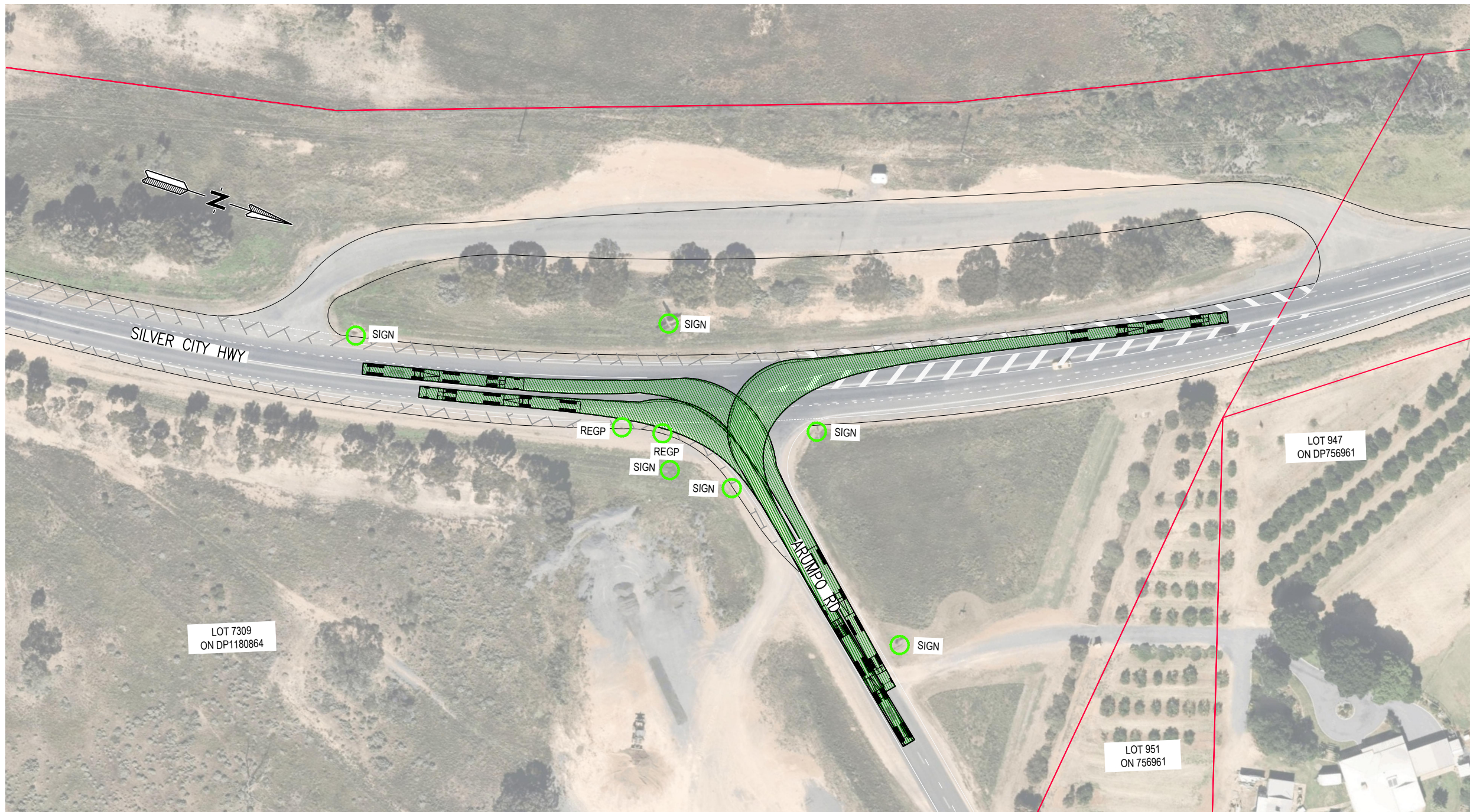
TITLE:
SILVER CITY HWY - ARUMPO RD

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	CP	
Project No. P11288		Drawing No. C-R009	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			

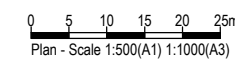
Dwg Ref: c:\245\data\TWB-DM02\PT1288 - Mallee WF_40671.v.0 Drawings\1_Dwg\C-R009 SILVER CITY HWY - ARUMPO RD TOWER VEHICLE PATH.dwg Plot Date: 25/03/2026



DESIGN VEHICLE PATHS
SCALE 1:500(A1) 1:1000(A3)



- LEGEND**
- OBSTRUCTION - REQUIRES ACTION
 - WARNING - REDUCED CLEARANCE / MINOR ACTION
 - OBJECT - 1m CLEARANCE



Dwg Ref: c:\245\data\TWB-DM02\PT1288 - Mallee WF_40671.v0 Drawings\1_Dwg\1-ROOT1 SILVER CITY HWY - ARUMPO RD DESIGN VEHICLE PATH.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY		
DATE	ISSUE	DESCRIPTION
25/03/26	1	
	2	

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

HIG
HARRISON
INFRASTRUCTURE
GROUP
www.hig.com.au

CLIENT:

AT ACCESS TRAFFIC
CONSULTING

PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
SILVER CITY HWY - ARUMPO RD

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	AG	

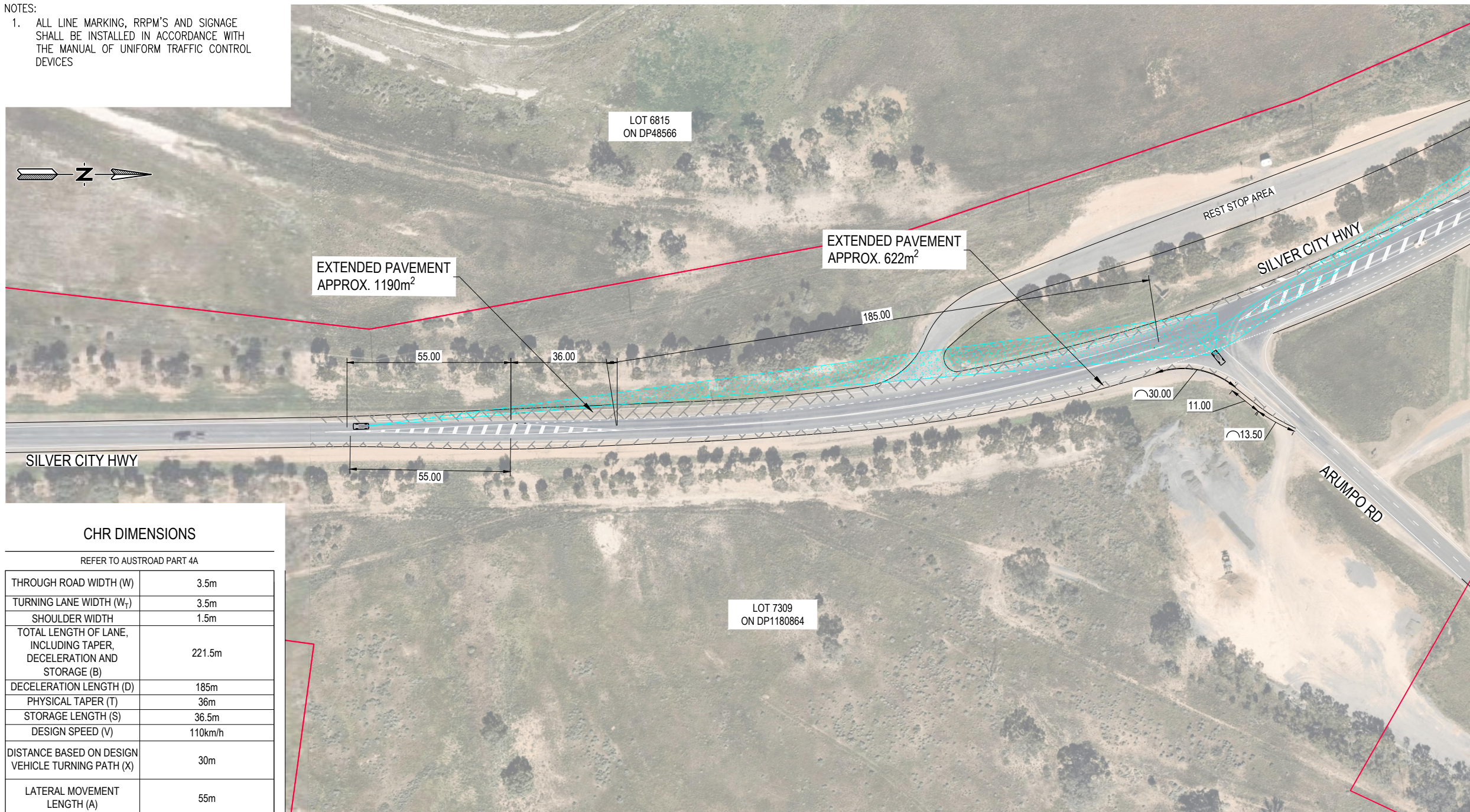
Project No. **P11288** Drawing No. **C-R0010**

Horizontal Datum MGA20 ZONE 54
Vertical Datum AHD DERIVED

Issue **2**

NOTES:

1. ALL LINE MARKING, RRPM'S AND SIGNAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES



CHR DIMENSIONS

REFER TO AUSTRROAD PART 4A

THROUGH ROAD WIDTH (W)	3.5m
TURNING LANE WIDTH (W _T)	3.5m
SHOULDER WIDTH	1.5m
TOTAL LENGTH OF LANE, INCLUDING TAPER, DECELERATION AND STORAGE (B)	221.5m
DECELERATION LENGTH (D)	185m
PHYSICAL TAPER (T)	36m
STORAGE LENGTH (S)	36.5m
DESIGN SPEED (V)	110km/h
DISTANCE BASED ON DESIGN VEHICLE TURNING PATH (X)	30m
LATERAL MOVEMENT LENGTH (A)	55m

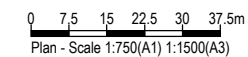
SIGHT DISTANCE CHECKS

DESIGN SPEED (CAR)	110km/h
DESIGN SPEED (TRUCK)	100km/h
REACTION TIME	2.0 SECONDS
GRADE	<2%
SISD	285m
SSD	224m
MGSD	199m

CHR DESIGN
SCALE 1:750(A1) 1:1500(A3)

LEGEND

	PAVEMENT WIDENING
	SISD



Dwg Ref: c:\245\dalia\TWB-0102\PT1288 - Mallee WF_40671.v.0 Drawings\1_1_Dwg\1-0000 SILVERCITY HWY - ARUMPO RD DESIGN.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY	
DATE	25/03/26
ISSUE	1 2

NOTE: FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

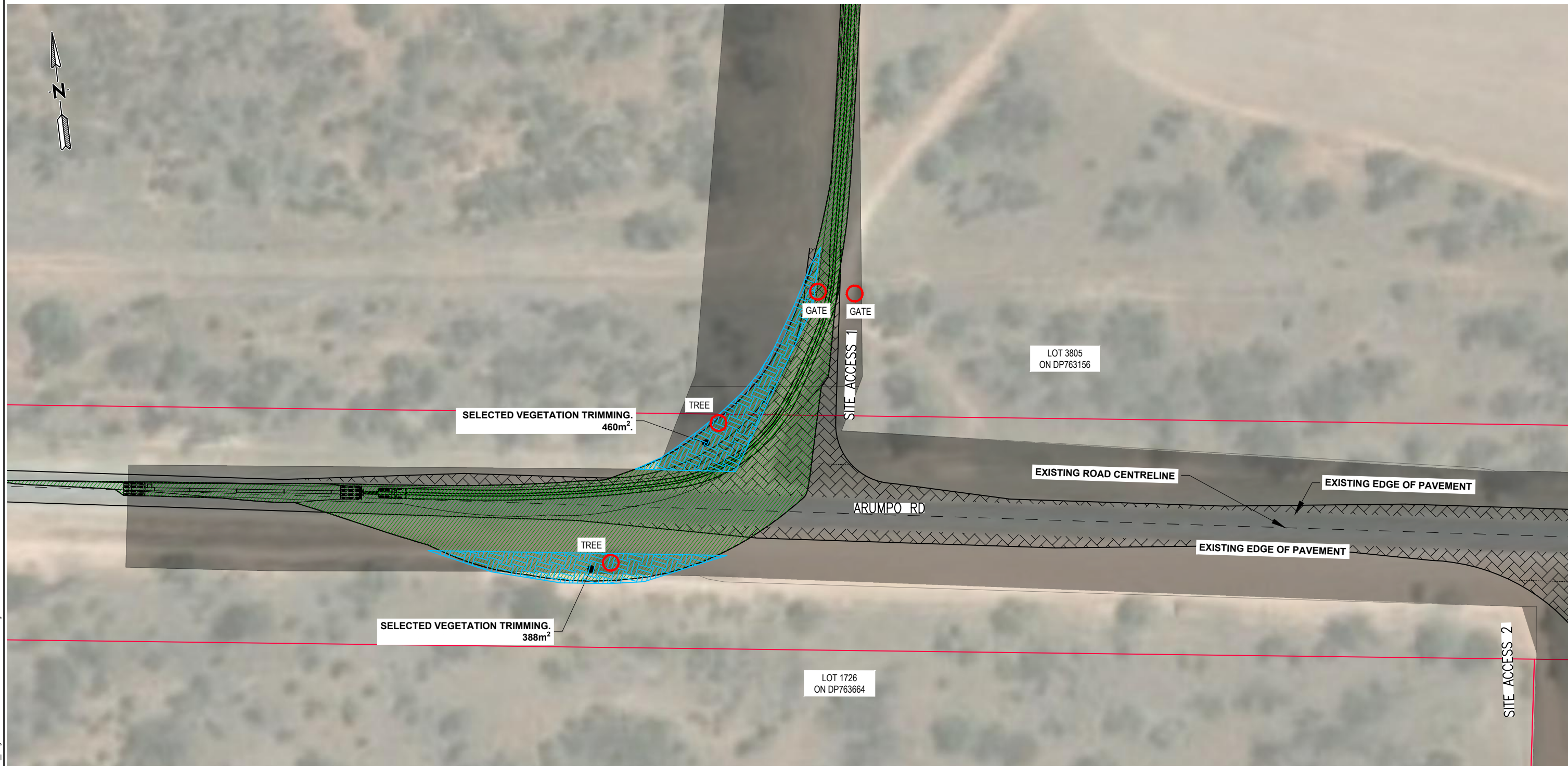
Original Size - A1

CLIENT:

PROJECT: **ROUTE ASSESMENT MALLEE WIND FARM**
TITLE: **SILVER CITY HWY - ARUMPO RD**

Engineering Certification RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	AG	
Project No. P11288		Drawing No. C-R0011	
Horizontal Datum MGA20 ZONE 54		Vertical Datum AHD DERIVED	
			Issue 2

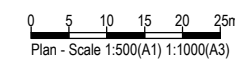


VEHICLE PATH – BLADE CONFIGURATION
SCALE 1:500

NOTES
1. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.

LEGEND

- PAVEMENT WIDENING
- VEGETATION TRIMMING
- OBSTRUCTION - REQUIRES ACTION
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE
- EIS DISTURBANCE FOOTPRINT



NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

PRELIMINARY ISSUE ONLY		
DATE	ISSUE	DESCRIPTION
25/03/26	1	
	2	

Original Size - A1

CLIENT:
 ACCESS TRAFFIC CONSULTING

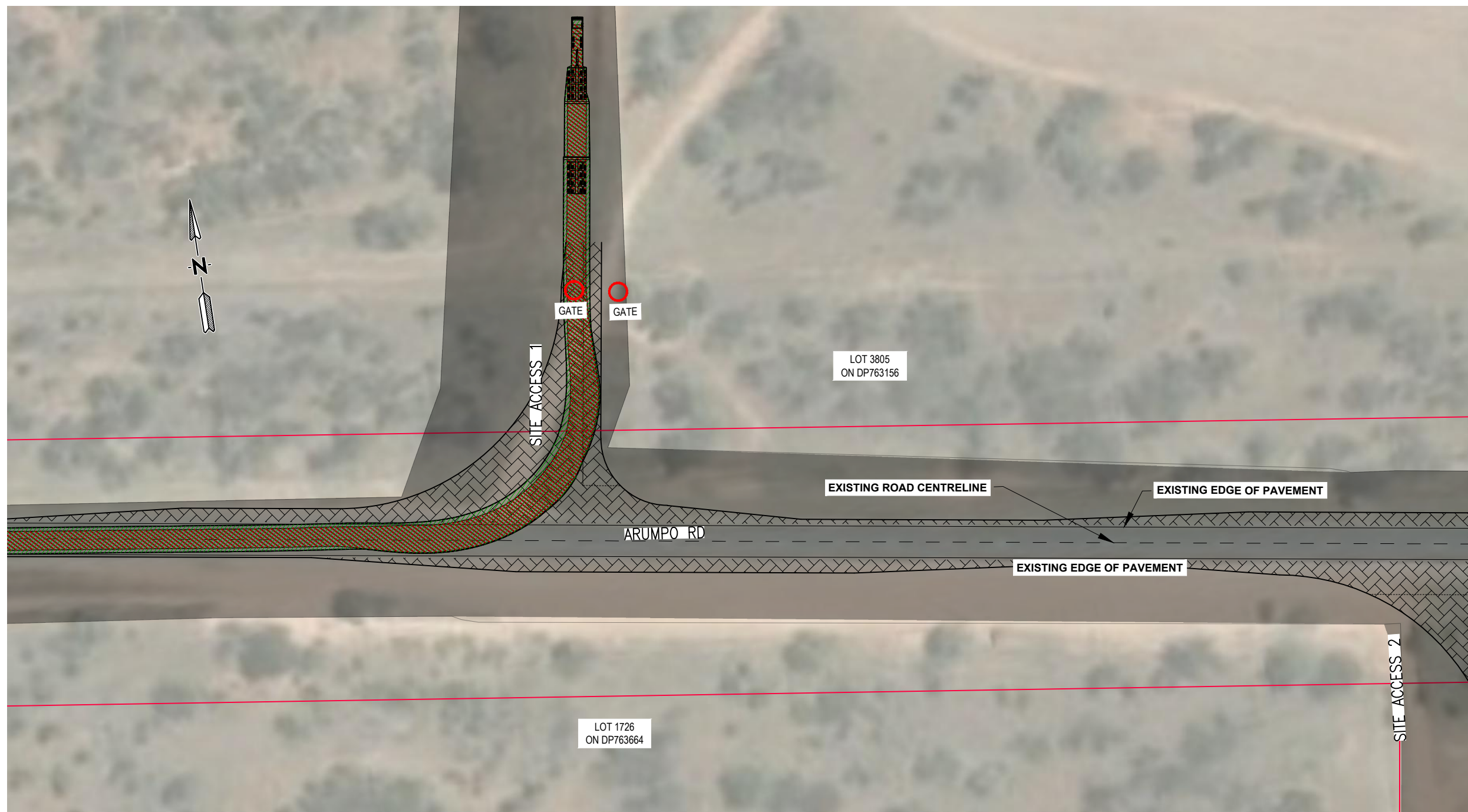
PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
SITE ACCESS 1

Engineering Certification RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
CT	CP	CP	
Project No. P11288		Drawing No. C-R0013	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			

Dwg Ref: c:\245\dalia\TWB-DM12\PT1288 - Mallee WF_40671.v0 Drawings\1_1_Dwg\1-R0005 ARUMPO RD - SITE ACCESS 1.dwg Plot Date: 25.03.2026



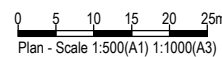
VEHICLE PATH – TOWER CONFIGURATION
SCALE 1:500(A1) 1:1000(A3)

LEGEND

-  PAVEMENT WIDENING
-  OBSTRUCTION - REQUIRES ACTION
-  EIS DISTURBANCE FOOTPRINT
-  WARNING - REDUCED CLEARANCE / MINOR ACTION
-  OBJECT - 1m CLEARANCE

NOTES

1. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.



NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1



CLIENT:

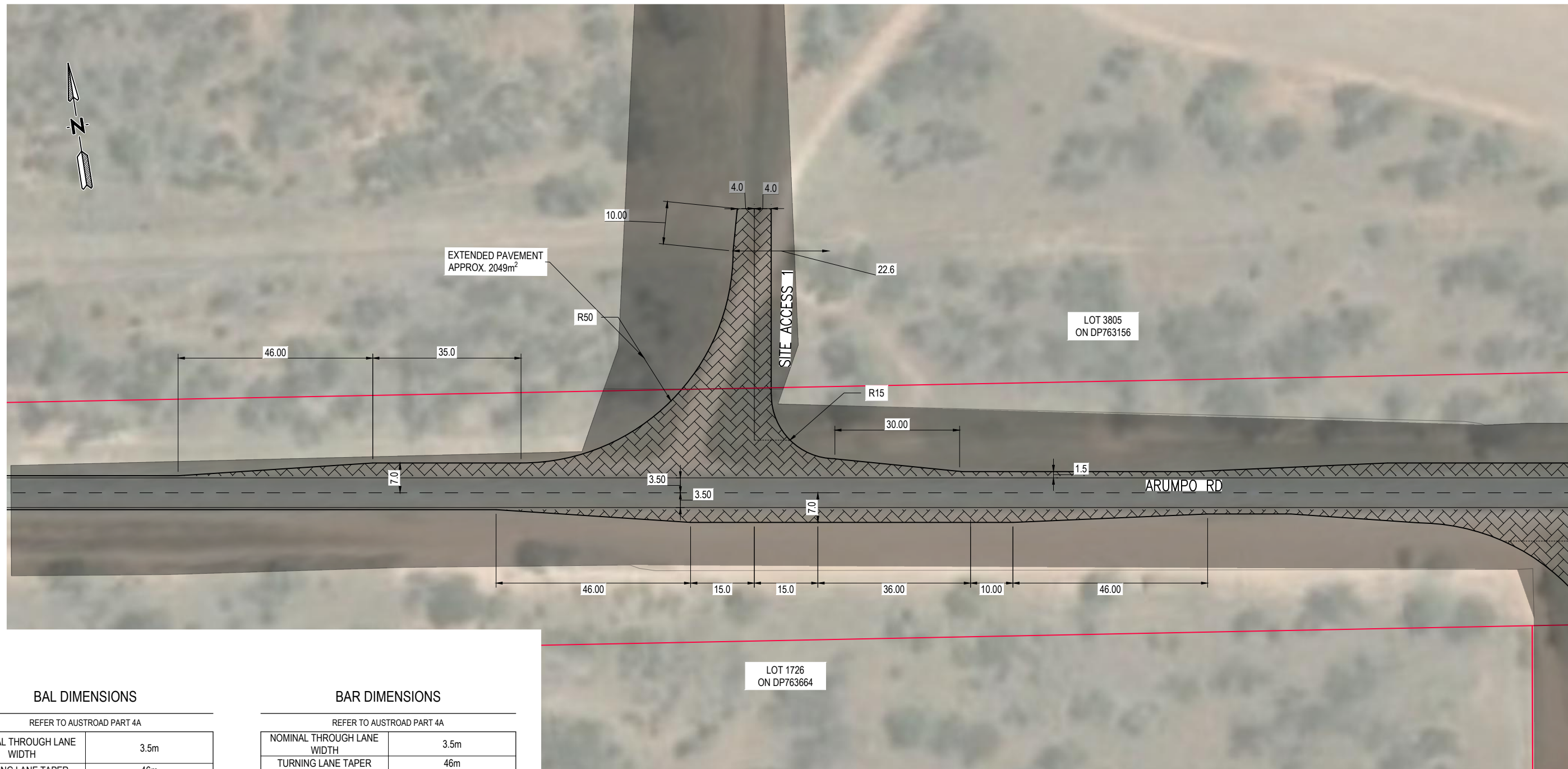


PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

TITLE:
SITE ACCESS 1

Engineering Certification
RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	CP	
Project No. P11288		Drawing No. C-R0014	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			



BAL DIMENSIONS

REFER TO AUSTRROAD PART 4A

NOMINAL THROUGH LANE WIDTH	3.5m
TURNING LANE TAPER	46m
SHOULDER WIDTH	1.5m
DESIGN SPEED OF MAJOR APPROACH ROAD	110km/h
FORMATION WIDENING	3m
MINIMUM LENGTH OF WIDENED PARALLEL SHOULDER	35m

BAR DIMENSIONS

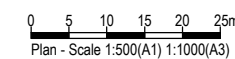
REFER TO AUSTRROAD PART 4A

NOMINAL THROUGH LANE WIDTH	3.5m
TURNING LANE TAPER	46m
SHOULDER WIDTH	1.5m
DESIGN SPEED OF MAJOR APPROACH ROAD	110km/h
FORMATION WIDENING	3m
STORAGE LENGTH TO CATER FOR ONE DESIGN TURNING VEHICLE	36m
DISTANCE BASED ON DESIGN VEHICLE TURNING PATH	15m

BAL/BAR DESIGN
SCALE 1:500(A1) 1:1000(A3)

LEGEND

- PAVEMENT WIDENING
- EIS DISTURBANCE FOOTPRINT



NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1



CLIENT:



PROJECT:

**ROUTE ASSESSEMENT
MALLEE WIND FARM**

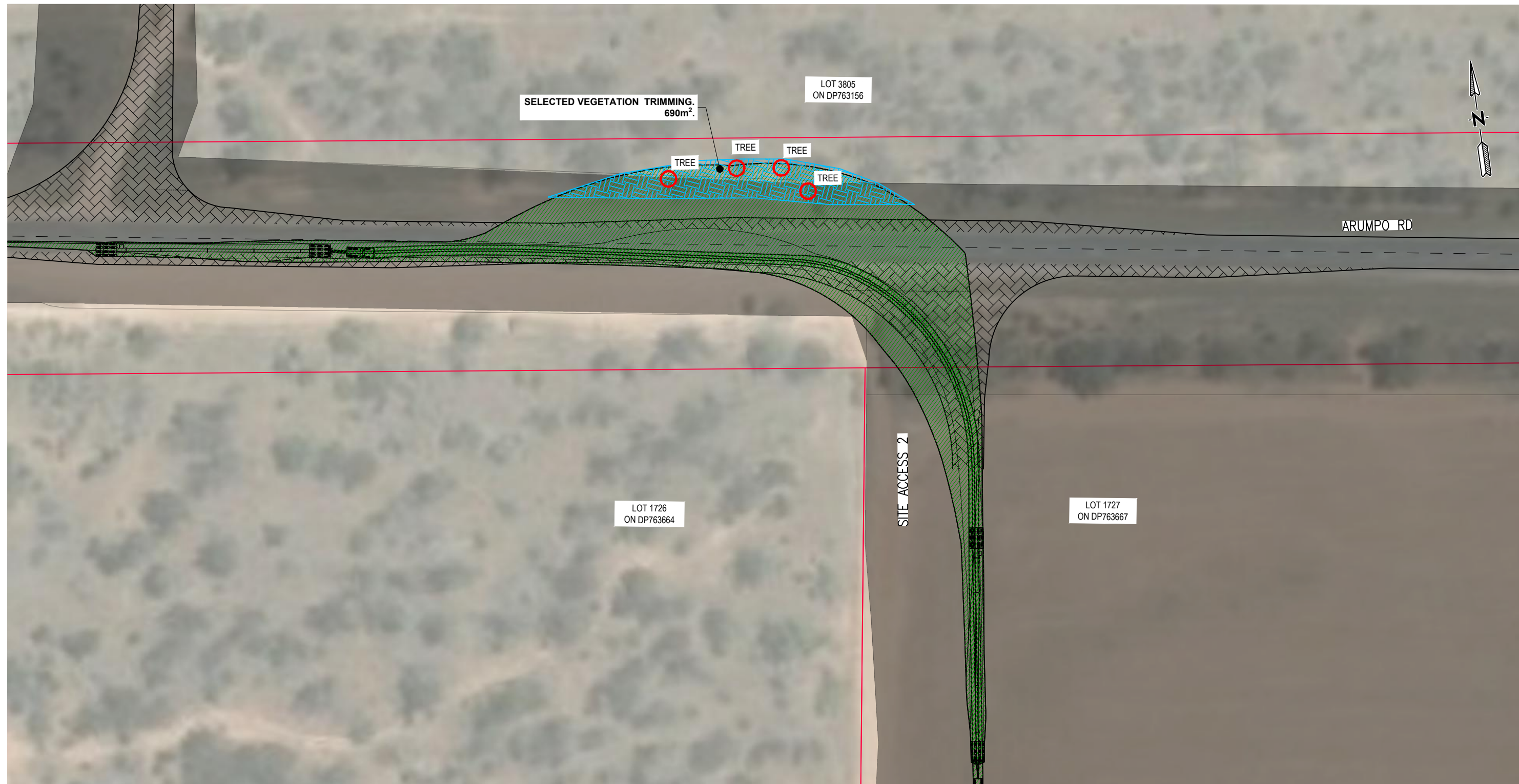
TITLE:

SITE ACCESS 1

Engineering Certification RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	AG	
Project No.		Drawing No.	
P11288		C-R0015	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			



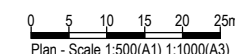
VEHICLE PATH – BLADE CONFIGURATION
SCALE 1:500

NOTES

1. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.

LEGEND

- EIS DISTURBANCE FOOTPRINT
- PAVEMENT WIDENING
- OBSTRUCTION - REQUIRES ACTION
- VEGETATION TRIMMING
- WARNING - REDUCED CLEARANCE / MINOR ACTION
- OBJECT - 1m CLEARANCE



PRELIMINARY ISSUE ONLY			
DATE	ISSUE	1	2
25/03/26	1	2	

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

HIG
HARRISON
INFRASTRUCTURE
GROUP
www.hig.com.au

CLIENT:

ACCESS TRAFFIC
CONSULTING

PROJECT:
**ROUTE ASSESMENT
MALLEE WIND FARM**

TITLE:
SITE ACCESS 2

Engineering Certification
RPEQ:

This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
CT	CP	CP	CP
Project No. P11288		Drawing No. C-R0016	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			



VEHICLE PATH – TOWER CONFIGURATION

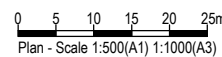
SCALE 1:500(A1) 1:1000(A3)

LEGEND

-  PAVEMENT WIDENING
-  EIS DISTURBANCE FOOTPRINT
-  OBSTRUCTION - REQUIRES ACTION
-  WARNING - REDUCED CLEARANCE / MINOR ACTION
-  OBJECT - 1m CLEARANCE

NOTES

1. PROVIDE HARDSTAND AREA FOR VEHICLES TO TRAVERSE.



NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1



CLIENT:



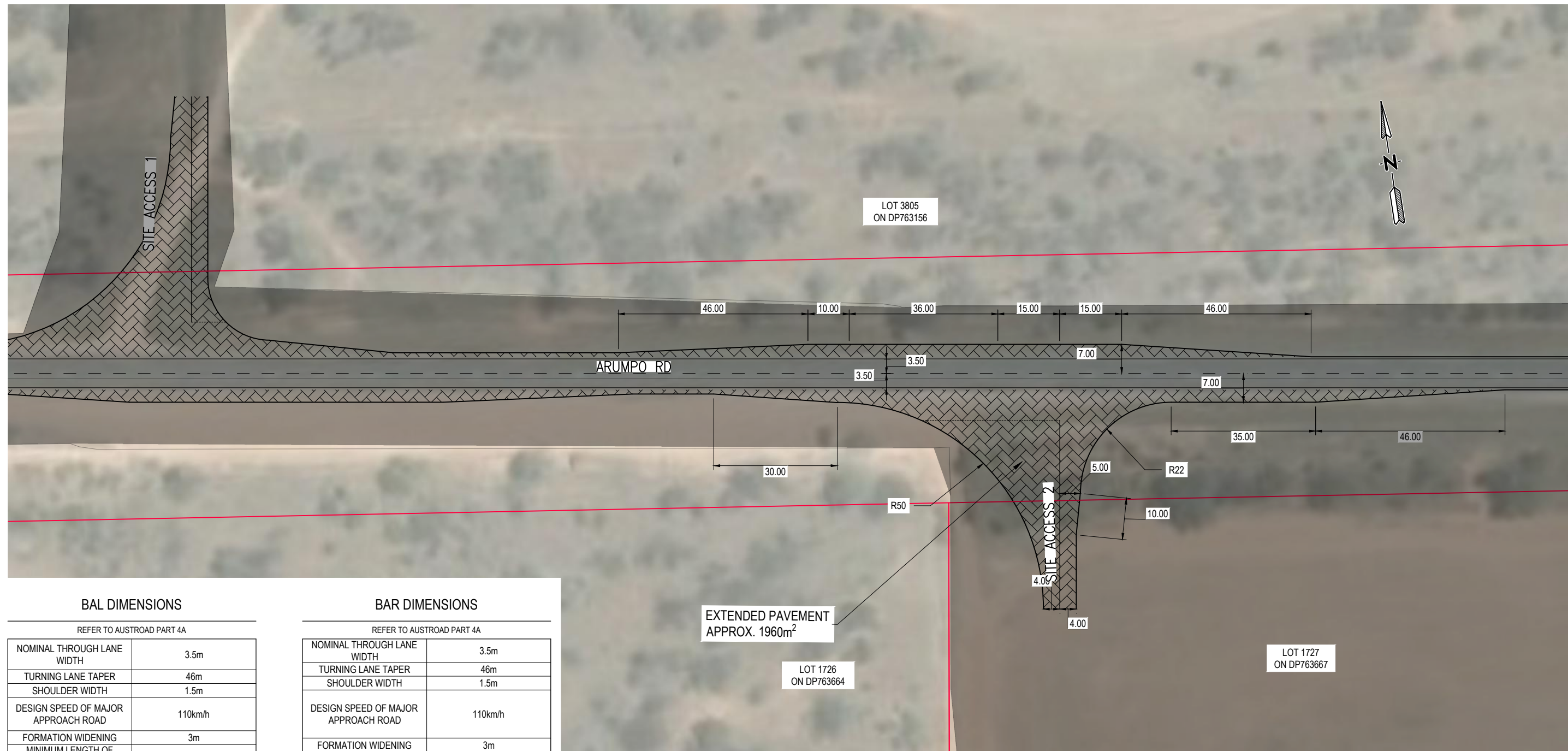
PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

TITLE:
SITE ACCESS 2

Engineering Certification RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn AG	Check CP	Design CP	Verified
Project No. P11288		Drawing No. C-R0017	
Horizontal Datum MGA20 ZONE 54			Issue 2
Vertical Datum AHD DERIVED			

Dwg Ref: c:\245\dalia\TWB-DM12\PT1288 - Mallee WF_40671.v.0 Drawings\1_Dwg\C-R0020 ARUMPO RD - SITE ACCESS 2 TOWER VEHICLE PATH.dwg Plot Date: 25.03.2026



BAL DIMENSIONS

REFER TO AUSTRROAD PART 4A

NOMINAL THROUGH LANE WIDTH	3.5m
TURNING LANE TAPER	46m
SHOULDER WIDTH	1.5m
DESIGN SPEED OF MAJOR APPROACH ROAD	110km/h
FORMATION WIDENING	3m
MINIMUM LENGTH OF WIDENED PARALLEL SHOULDER	35m

BAR DIMENSIONS

REFER TO AUSTRROAD PART 4A

NOMINAL THROUGH LANE WIDTH	3.5m
TURNING LANE TAPER	46m
SHOULDER WIDTH	1.5m
DESIGN SPEED OF MAJOR APPROACH ROAD	110km/h
FORMATION WIDENING	3m
STORAGE LENGTH TO CATER FOR ONE DESIGN TURNING VEHICLE	36m
DISTANCE BASED ON DESIGN VEHICLE TURNING PATH	15m

EXTENDED PAVEMENT
APPROX. 1960m²

LOT 1726
ON DP763664

LOT 1727
ON DP763667

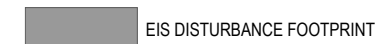
BAL/BAR DESIGN

SCALE 1:500(A1) 1:1000(A3)

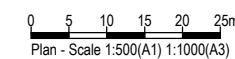
LEGEND



PAVEMENT WIDENING



EIS DISTURBANCE FOOTPRINT



Dwg Ref: c:\245\data\TWB-DM02\PT1288 - Mallee WF_40671.v4.0 Drawings\1_1_Dwg\1-0015 ARUMPO RD - SITE ACCESS 2 DIMENSIONS.dwg Plot Date: 25.03.2026

PRELIMINARY ISSUE ONLY

DATE	25/03/26						
ISSUE	1	2					

NOTE:
FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALED MEASUREMENTS. VERIFY ALL ON SITE DIMENSIONS & LEVELS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. COPYRIGHT OF THIS DRAWING IS VESTED WITH HARRISON INFRASTRUCTURE GROUP.

Original Size - A1

CLIENT:

PROJECT:
**ROUTE ASSESSEMENT
MALLEE WIND FARM**

TITLE:
SITE ACCESS 2

Engineering Certification
RPEQ:
This document is uncontrolled and is not to be used for construction until this note is removed and a digital signature is provided in its place

Drawn	Check	Design	Verified
AG	CP	AG	
Project No. P11288		Drawing No. C-R0018	
Horizontal Datum MGA20 ZONE 54		Vertical Datum AHD DERIVED	
			Issue 2



Appendix F – Project Traffic Calculations

UMW0122-004 | Mallee Wind Farm & BESS Project

Site Vehicle Movement Summary

Assumed Work Days per Month 24 days

PRE-CONSTRUCTION MINOR WORKS PHASE

PHASE A1 - EARLY SITE INVESTIGATIONS & PREPARATORY WORKS

Task Transport Duration (Site Mobilisation & Compound Establishment) 3 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Preliminary Site Investigations - Northern Site Area	72	3-Axle Bldg	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Preliminary Site Investigations - Southern Site Area	72	3-Axle Bldg	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Sturt Highway to Corbett Ave)	144	48	2
Silver City Highway (Corbett Ave to Arumpo Road)	144	48	2
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Sturt Highway (Mildura to River Drv)	144	48	2
Sturt Highway (River Drv to Silver City Highway)	144	48	2
Sturt Highway (Silver City Highway to Gol Gol)	0	0	0
Sturt Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	144	48	2
Arumpo Road (WTS Access to Quarry)	144	48	2
Arumpo Road (Quarry to Northern Access)	144	48	2
Arumpo Road (Northern Access to Southern Access)	72	24	1

PHASE A2 - LOCAL TRANSPORT ROUTE UPGRADES

Task Transport Duration (Site Mobilisation & Compound Establishment) 3 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Northern Site Access Intersection Arumpo Road Upgrade - Imported Fill Allowance	60	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Northern Site Access Intersection Arumpo Road Upgrade - Pavement Materials	60	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Northern Site Access Intersection Arumpo Road Upgrade - Miscellaneous Deliveries	20	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Southern Site Access Intersection Arumpo Road Upgrade - Imported Fill Allowance	60	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Southern Site Access Intersection Arumpo Road Upgrade - Pavement Materials	60	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Southern Site Access Intersection Arumpo Road Upgrade - Miscellaneous Deliveries	20	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Silver City Hwy / Arumpo Road Intersection Upgrade - Imported Fill Allowance	37	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road
Silver City Hwy / Arumpo Road Intersection Upgrade - Pavement Materials	37	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road
Silver City Hwy / Arumpo Road Intersection Upgrade - Miscellaneous Deliveries	30	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Sturt Highway to Corbett Ave)	384	129	6
Silver City Highway (Corbett Ave to Arumpo Road)	0	0	0
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Sturt Highway (Mildura to River Drv)	384	129	6
Sturt Highway (River Drv to Silver City Highway)	384	129	6
Sturt Highway (Silver City Highway to Gol Gol)	374	105	5
Sturt Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	281	94	4
Arumpo Road (WTS Access to Quarry)	281	94	4
Arumpo Road (Quarry to Northern Access)	281	94	4
Arumpo Road (Northern Access to Southern Access)	140	47	2

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE A3 - EARLY SITE ESTABLISHMENT

Task Transport Duration (Site Mobilisation & Compound Establishment) 6 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Main Construction Compound - Base Construction Aggregate	1,235	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Main Construction Compound - Miscellaneous Deliveries	1	Low Loader	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Main Construction Compound - Establishment	25	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Accommodation Camp - Base Construction Aggregate	480	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Accommodation Camp - Establishment	350	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Minor Construction Compound (North) - Base Construction Aggregate	549	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Minor Construction Compound (North) - Establishment	10	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Minor Construction Compound (South) - Base Construction Aggregate	549	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Minor Construction Compound (South) - Establishment	10	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Concrete Batch Plant - Base Construction Imported Material	138	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Concrete Batch Plant - Establishment	10	Semi Trailer	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Site Laydown Areas - Base Construction Imported Material	919	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Sturt Highway to Corbett Ave)	4,276	713	30
Silver City Highway (Corbett Ave to Arumpo Road)	4,276	713	30
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Sturt Highway (Mildura to River Drv)	4,276	713	30
Sturt Highway (River Drv to Silver City Highway)	4,276	713	30
Sturt Highway (Silver City Highway to Gol Gol)	3,870	645	27
Sturt Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	4,276	713	30
Arumpo Road (WTS Access to Quarry)	4,276	713	30
Arumpo Road (Quarry to Northern Access)	4,276	713	30
Arumpo Road (Northern Access to Southern Access)	4,276	713	30

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE A4 - OFF SITE ROAD WORKS

Task Transport Duration (Site Mobilisation & Compound Establishment) 3 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Sturt Hwy / Carey Street OSOM Route Upgrade - Imported Fill Allowance	4	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Euston
Sturt Hwy / Carey Street OSOM Route Upgrade - Pavement Materials	4	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Euston
Sturt Hwy / Carey Street OSOM Route Upgrade - Concrete Materials	10	Concrete Truck	100%	Mildura	Sturt Highway / Euston
Sturt Hwy / Carey Street OSOM Route Upgrade - Miscellaneous Deliveries	20	Semi Trailer	100%	Mildura	Sturt Highway / Euston
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Imported Fill Allowance	2	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Buronga
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Pavement Materials	2	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Buronga
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Concrete Materials	7	Concrete Truck	100%	Mildura	Sturt Highway / Buronga
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Miscellaneous Deliveries	20	Semi Trailer	100%	Mildura	Sturt Highway / Buronga

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Sturt Highway to Corbett Ave)	0	0	0
Silver City Highway (Corbett Ave to Arumpo Road)	0	0	0
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Sturt Highway (Mildura to River Drv)	69	12	1
Sturt Highway (River Drv to Silver City Highway)	69	12	1
Sturt Highway (Silver City Highway to Gol Gol)	42	7	1
Sturt Highway (Gol Gol to Euston)	37	7	1
Arumpo Road (Silver City Highway to WTS Access)	0	0	0
Arumpo Road (WTS Access to Quarry)	0	0	0
Arumpo Road (Quarry to Northern Access)	0	0	0
Arumpo Road (Northern Access to Southern Access)	0	0	0

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

CONSTRUCTION PHASE

PHASE B - INTERNAL ACCESS ROAD AND HARDSTAND CONSTRUCTION

Task Transport Duration (Internal Tracks / Hardstands) 12 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Machinery and Civil Equipment (North)	2	Low Loader	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Machinery and Civil Equipment (South)	18	Low Loader	100%	Mildura	Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Access Track Construction (North) - Imported Material (Fill)	675	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Access Track Construction (North) - Imported Material (Capping)	75	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Access Track Construction (North) - Water for Dust Suppression	313	Water Tanker	100%	Buronga - River Drive	River Drive / Sturt Highway / Silver City Highway / Arumpo Road / Northern Site Access
Access Track Construction (South) - Imported Material (Fill)	5,106	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Access Track Construction (South) - Imported Material (Capping)	568	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Access Track Construction (South) - Water for Dust Suppression	2,365	Water Tanker	100%	Buronga - River Drive	River Drive / Sturt Highway / Silver City Highway / Arumpo Road / Southern Site Access
Crane Hardstand Areas (North) - Imported Material (Fill)	237	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Crane Hardstand Areas (North) - Imported Material (Capping)	26	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Crane Hardstand Areas (South) - Imported Material (Fill)	2,015	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Crane Hardstand Areas (South) - Imported Material (Capping)	225	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Turbine Laydown Areas (North) - Imported Material (Fill)	198	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Turbine Laydown Areas (North) - Imported Material (Capping)	22	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Turbine Laydown Areas (South) - Imported Material (Fill)	1,679	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Turbine Laydown Areas (South) - Imported Material (Capping)	187	Truck and Dog Trailer	100%	Local Quarry	Sturt Highway** / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	13,711	1,143	48
Silver City Highway (Corbett Ave to Arumpo Road)	13,711	1,143	48
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Dv)	11,033	920	39
Start Highway (River Dv to Silver City Highway)	13,711	1,143	48
Start Highway (Silver City Highway to Gol Gol)	17,073	978	39
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	2,698	225	10
Arumpo Road (WTS Access to Quarry)	2,698	225	10
Arumpo Road (Quarry to Northern Access)	13,711	1,143	48
Arumpo Road (Northern Access to Southern Access)	12,163	1,014	43
River Drive	2,678	224	10

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE C - WIND TURBINE FOUNDATION CONSTRUCTION

Task Transport Duration (Wind Turbine Foundation Construction)

12 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
WTF Foundations (North) - Steel Anchors	16	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Steel Anchors	136	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
WTF Foundations (North) - Water (for concrete)	40	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Water (for concrete)	340	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (North) - Steel Reinforcement	77	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Steel Reinforcement	629	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
WTF Foundations (North) - Sand	99	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Sand	840	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
WTF Foundations (North) - Aggregate	148	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Aggregate	1,260	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
WTF Foundations (North) - Cement	46	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
WTF Foundations (South) - Cement	394	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	3,641	304	13
Silver City Highway (Corbett Ave to Arumpo Road)	4,021	336	14
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Dv)	3,641	304	13
Start Highway (River Dv to Silver City Highway)	3,641	304	13
Start Highway (Silver City Highway to Gol Gol)	2,347	196	9
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	4,021	336	14
Arumpo Road (WTS Access to Quarry)	4,021	336	14
Arumpo Road (Quarry to Northern Access)	4,021	336	14
Arumpo Road (Northern Access to Southern Access)	3,598	300	13
Modica Crescent / Corbett Avenue	380	32	2

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE D - WTG COMPONENT DELIVERY TO SITE

Task Transport Duration (WTG Component Delivery to Site)

14 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Blades - WTG Northern Site Area	24	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Blades - WTG Southern Site Area	204	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Hub - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Hub - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Nacelle - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Nacelle - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Power Train - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Power Train - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Cooler Top - WTG Northern Site Area	8	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Cooler Top - WTG Southern Site Area	68	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Base Tower - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Base Tower - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Section 2 Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Section 2 Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Section 3 Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Section 3 Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Section 4 Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Section 4 Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Section 5 Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Section 5 Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Section 6 Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Section 6 Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Top Towers - WTG Northern Site Area	8	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Top Towers - WTG Southern Site Area	68	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
WTG Containers - WTG Northern Site Area	68	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
WTG Containers - WTG Southern Site Area	68	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
OSOM Escort Vehicles	1,976	High Vehicles	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	3,116	223	10
Silver City Highway (Corbett Ave to Arumpo Road)	3,116	223	10
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Dv)	0	0	0
Start Highway (River Dv to Silver City Highway)	0	0	0
Start Highway (Silver City Highway to Gol Gol)	3,116	223	10
Start Highway (Gol Gol to Euston)	3,116	223	10
Arumpo Road (Silver City Highway to WTS Access)	3,116	223	10
Arumpo Road (WTS Access to Quarry)	3,116	223	10
Arumpo Road (Quarry to Northern Access)	3,116	223	10
Arumpo Road (Northern Access to Southern Access)	2,788	200	9

PHASE E - WTG INSTALLATION

Task Transport Duration (WTG Installation)

16 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
WTG Erection Cranes (North)	6	OSOM Special	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
WTG Erection Cranes (South)	6	OSOM Special	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	12	1	1
Silver City Highway (Corbett Ave to Arumpo Road)	12	1	1
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Dv)	12	1	1
Start Highway (River Dv to Silver City Highway)	12	1	1
Start Highway (Silver City Highway to Gol Gol)	0	0	0
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	12	1	1
Arumpo Road (WTS Access to Quarry)	12	1	1
Arumpo Road (Quarry to Northern Access)	12	1	1
Arumpo Road (Northern Access to Southern Access)	6	1	1

PHASE F - ELECTRICAL TRENCHING AND CABLING

Task Transport Duration (Electrical Trenching and Cabling)

16 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Electrical Cabling - HV Cable (South)	9	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Electrical Cabling - HV Towers (South)	89	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Electrical Cabling - LV Cable (North)	6	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Electrical Cabling - LV Cable (South)	39	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Electrical Cabling - LV Trench Sand (North)	239	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
Electrical Cabling - LV Trench Sand (South)	2,406	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Cable Trenching Equipment	13	Low Loader	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
HW Transmission Foundation (Water for Concrete)	7	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Southern Site Access
HW Transmission Foundation (Steel Reinforcement)	12	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
HW Transmission Foundation (Sand)	16	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
HW Transmission Foundation (Aggregate)	24	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
HW Transmission Foundation (Cement)	8	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	2,861	179	8
Silver City Highway (Corbett Ave to Arumpo Road)	2,868	180	8
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Dv)	2,861	179	8
Start Highway (River Dv to Silver City Highway)	2,861	179	8
Start Highway (Silver City Highway to Gol Gol)	2,685	168	7
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	2,868	180	8
Arumpo Road (WTS Access to Quarry)	2,868	180	8
Arumpo Road (Quarry to Northern Access)	2,868	180	8
Arumpo Road (Northern Access to Southern Access)	2,623	164	7
Modica Crescent / Corbett Avenue	7	1	1

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE G - WTS COMMISSIONING AND TESTING

Proposed Turbine Transport Rate

16 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
PMI Delivery (North)	2	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Water for Concrete) (North)	1	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Steel Reinforcement) (North)	1	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Sand) (North)	1	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Aggregate) (North)	1	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Cement) (North)	1	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (South)	4	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
PMI Foundation (Water for Concrete) (South)	1	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Southern Site Access
PMI Foundation (Steel Reinforcement) (South)	1	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
PMI Foundation (Sand) (South)	1	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
PMI Foundation (Aggregate) (South)	1	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
PMI Foundation (Cement) (South)	1	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	14	1	1
Silver City Highway (Corbett Ave to Arumpo Road)	16	1	1
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	8	1	1
Start Highway (River Drv to Silver City Highway)	8	1	1
Start Highway (Silver City Highway to Gol Gol)	70	7	7
Start Highway (Gol Gol to Euston)	6	1	1
Arumpo Road (Silver City Highway to WTS Access)	16	1	1
Arumpo Road (WTS Access to Quarry)	16	1	1
Arumpo Road (Quarry to Northern Access)	16	1	1
Arumpo Road (Northern Access to Southern Access)	9	1	1
Modica Crescent / Corbett Avenue	2	1	1

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE H - SUBSTATION AND ELECTRICAL CONNECTION CONSTRUCTION

Task Transport Duration (Substation and Electrical Connection Construction)

6 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Substation Civils - Imported Materials (Fill)	1,235	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Substation Civils - Imported Materials (Capping)	138	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Substation Electrical Components - Substation Equipment (Transformer)	6	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Substation Electrical Components - Substation Equipment (Switchgear)	6	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Substation Electrical Components - Substation Equipment (Cabling)	1	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Substation Electrical Components - Substation Equipment (Misc. Equipment)	1	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Collector Substations Civils - Imported Materials (Fill)	4,938	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Collector Substations Civils - Imported Materials (Capping)	549	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	6,874	1,146	48
Silver City Highway (Corbett Ave to Arumpo Road)	6,874	1,146	48
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	6,860	1,144	48
Start Highway (River Drv to Silver City Highway)	6,860	1,144	48
Start Highway (Silver City Highway to Gol Gol)	6,874	1,146	48
Start Highway (Gol Gol to Euston)	14	3	1
Arumpo Road (Silver City Highway to WTS Access)	6,874	1,146	48
Arumpo Road (WTS Access to Quarry)	6,874	1,146	48
Arumpo Road (Quarry to Northern Access)	6,874	1,146	48
Arumpo Road (Northern Access to Southern Access)	6,874	1,146	48

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE I - OPERATIONAL INFRASTRUCTURE

Task Transport Duration (Operational Infrastructure)

3 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Construction O&M Facility (Water for Concrete) (South)	7	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Southern Site Access
Construction O&M Facility (Steel Reinforcement) (South)	13	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Construction O&M Facility (Sand) (South)	17	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Construction O&M Facility (Aggregate) (South)	25	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
Construction O&M Facility (Cement) (South)	8	Truck and Dog Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Construction O&M Facility (Imported Fill) (South)	494	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	557	186	8
Silver City Highway (Corbett Ave to Arumpo Road)	564	188	8
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	557	186	8
Start Highway (River Drv to Silver City Highway)	557	186	8
Start Highway (Silver City Highway to Gol Gol)	558	179	8
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	564	188	8
Arumpo Road (WTS Access to Quarry)	564	188	8
Arumpo Road (Quarry to Northern Access)	564	188	8
Arumpo Road (Northern Access to Southern Access)	564	188	8
Modica Crescent / Corbett Avenue	7	3	1

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE J - BESS CONSTRUCTION

Task Transport Duration (Operational Infrastructure)

6 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
BESS Civils - Imported Materials (Fill)	772	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
BESS Civils - Imported Materials (Capping)	86	Truck and Dog Trailer	100%	Local Quarry	Start Highway** / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - Battery Segments & Collectors	220	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - Power Conversion Stations (PCS)	132	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - MV Skid Units	46	Semi Trailer	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - Power Transformers	2	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - High Voltage Switch Gear	2	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
BESS Components - Control Room	1	OSOM Special	100%	Portland	Portland / OSOM Route / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	1,261	211	9
Silver City Highway (Corbett Ave to Arumpo Road)	1,261	211	9
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	858	143	6
Start Highway (River Drv to Silver City Highway)	858	143	6
Start Highway (Silver City Highway to Gol Gol)	1,261	211	9
Start Highway (Gol Gol to Euston)	403	68	3
Arumpo Road (Silver City Highway to WTS Access)	1,261	211	9
Arumpo Road (WTS Access to Quarry)	1,261	211	9
Arumpo Road (Quarry to Northern Access)	1,261	211	9
Arumpo Road (Northern Access to Southern Access)	1,261	211	9

Volumes on this link are dependant on quarry materials being sourced from KW Earthmoving and Concreting

PHASE K - DECOMMISSION TEMPORARY STRUCTURES AND DEMOBILISATION

Task Transport Duration (Decommission and Demobilisation)

1 month

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Main Construction Compound Demobilisation (South)	25	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Accommodation Camp Demobilisation (North)	350	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Minor Construction Compound Demobilisation (North)	10	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Minor Construction Compound Demobilisation (South)	10	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Batch Plant Demobilisation (South)	10	Semi Trailer	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	405	405	17
Silver City Highway (Corbett Ave to Arumpo Road)	405	405	17
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	405	405	17
Start Highway (River Drv to Silver City Highway)	405	405	17
Start Highway (Silver City Highway to Gol Gol)	0	0	0
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	405	405	17
Arumpo Road (WTS Access to Quarry)	405	405	17
Arumpo Road (Quarry to Northern Access)	405	405	17
Arumpo Road (Northern Access to Southern Access)	45	45	2

GENERAL OPERATIONS - SITE WATER (RAW & POTABLE)

Task Duration (Site Water - Raw & Potable) 34 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Raw Water (General Operations) - Northern Site	111	Water Tanker	100%	Buronga - River Drive	River Drive / Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Raw Water (General Operations) - Southern Site	995	Water Tanker	100%	Buronga - River Drive	River Drive / Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
Potable Water (General Operations) - Northern Site	3,330	Water Tanker	100%	Buronga - Modica Crescent	Modica Crescent / Corbett Avenue / Silver City Highway / Arumpo Road / Northern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	1,112	33	2
Silver City Highway (Corbett Ave to Arumpo Road)	4,442	131	6
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	0	0	0
Start Highway (River Drv to Silver City Highway)	1,112	33	2
Start Highway (Silver City Highway to Gol Gol)	0	0	0
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	4,442	131	6
Arumpo Road (WTS Access to Quarry)	4,442	131	6
Arumpo Road (Quarry to Northern Access)	4,442	131	6
Arumpo Road (Northern Access to Southern Access)	995	30	2

GENERAL OPERATIONS - SITE FUEL & GENERAL DELIVERIES

Task Duration (Site Fuel) 34 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Site Fuel (General Operations) - Northern Site	117	Fuel Tanker	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access
Site Fuel (General Operations) - Southern Site	995	Fuel Tanker	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Southern Site Access
General Operations (Temporary Workers Accommodation)	1,456	3-Axle Rigid	100%	Mildura	Start Highway / Silver City Highway / Arumpo Road / Northern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	2,568	76	4
Silver City Highway (Corbett Ave to Arumpo Road)	2,568	76	4
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	2,568	76	4
Start Highway (River Drv to Silver City Highway)	2,568	76	4
Start Highway (Silver City Highway to Gol Gol)	0	0	0
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	2,568	76	4
Arumpo Road (WTS Access to Quarry)	2,568	76	4
Arumpo Road (Quarry to Northern Access)	2,568	76	4
Arumpo Road (Northern Access to Southern Access)	995	30	2

GENERAL OPERATIONS - WASTE

Task Duration (Waste Collection) 34 months

Activity Description	Project Volume	Vehicle	Project Vol Distrib	Origin	Route
Site Waste (General Operations) - Northern Site	74	Semi	100%	Buronga Landfill	Buronga Landfill - Arumpo Road - Northern Site Access
Site Waste (General Operations) - Southern Site	147	Semi	100%	Buronga Landfill	Buronga Landfill - Arumpo Road - Southern Site Access
Site Waste - Temporary Workers Accommodation	243	Semi	100%	Buronga Landfill	Buronga Landfill - Arumpo Road - Northern Site Access

Road Section	Total Trips	Trips / Month	Max. Trips / Day
Silver City Highway (Start Highway to Corbett Ave)	0	0	0
Silver City Highway (Corbett Ave to Arumpo Road)	0	0	0
Silver City Highway (Arumpo Road to Wentworth)	0	0	0
Start Highway (Mildura to River Drv)	0	0	0
Start Highway (River Drv to Silver City Highway)	0	0	0
Start Highway (Silver City Highway to Gol Gol)	0	0	0
Start Highway (Gol Gol to Euston)	0	0	0
Arumpo Road (Silver City Highway to WTS Access)	0	0	0
Arumpo Road (WTS Access to Quarry)	464	14	1
Arumpo Road (Quarry to Northern Access)	464	14	1
Arumpo Road (Northern Access to Southern Access)	147	5	1

UMW0122-004 | Mallee Wind Farm & BESS Project

Project Staff Movements

Project Timeframe

Element	Qty	Unit
Hours per day	11	hrs
Working days per month	30	days
Expected project length	36	months

Construction Workforce

Element	Qty	Unit
Peak Workforce	400	staff
DIDO Workforce	25%	%
Site Camp Workforce	75%	%
	300	staff

Construction Workforce Distribution

Location	Distribution	Unit	Qty	Vehicle Type	% Vehicle	Staff No. per Vehicle Type	Average Vehicle Capacity	Movements Round Trip (per day)
DIDO Workforce								
Mildura	80%	%	80	LV	100%	80	1	80
Buronga	5%	%	5	LV	100%	5	1	5
Gol Gol	10%	%	10	LV	100%	10	1	10
Wentworth / Dareton	5%	%	5	LV	100%	5	1	5
Total								100

Peak @ Silver City Highway / Arumpo Road

Operations

Element	Qty	Unit
Hours per day	10	hrs
Working days per week	7	days
Peak Workforce	30	each

Location	Distribution	Unit	Qty	Vehicle Type	Vehicle Capacity	Movements 2-way (per day)
Mildura	100%	%	30	LV	1	30
Total						30

Peak @ Silver City Highway / Arumpo Road

UMW0122-004 | Mallee Wind Farm & BESS Project

Background Traffic Volume Forecast Calculations

Road ID	Road Description	AADT Segment	Base Data Year	Base Year AADT						Base Year HV						10 Yr GR%	2027			2028			2040			2060					
				Gaz		A-Gaz		Bi-Dir		Gaz		A-Gaz		A-Gaz			AADT			AADT			AADT			AADT					
				Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir		Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir			
B79	Silver City Highway (Start Highway to Corbett Ave)	98286	2010	2,893	2,940	5,833	11.75%	11.71%	340	333	2.0%	4,051	4,117	8,168	476	466	4,132	4,117	8,249	486	475	5,240	5,325	10,566	616	602	7,787	7,913	15,700	915	895
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	2024	1,838	1,771	3,609	14.04%	14.09%	258	285	2.0%	1,951	1,879	3,830	274	302	1,990	1,879	3,849	279	308	2,523	2,431	4,954	354	391	3,749	3,613	7,362	526	581
B79	Silver City Highway (Arumpo Road to Wentworth)	-	2024	1,211	1,208	2,419	12.14%	14.40%	147	174	2.0%	1,285	1,282	2,567	156	185	1,311	1,282	2,593	159	188	1,662	1,658	3,321	202	239	2,470	2,464	4,934	300	355
A20	Start Highway (Mildura to River Dv)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	9,035	8,775	17,809	976	981	11,458	11,351	22,809	1,238	1,244	17,027	16,867	33,893	1,839	1,848
A20	Start Highway (River Dv to Silver City Highway)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	9,035	8,775	17,809	976	981	11,458	11,351	22,809	1,238	1,244	17,027	16,867	33,893	1,839	1,848
A20	Start Highway (Silver City Highway to Gol Gol)	-	2010	2,730	2,730	5,460	10.80%	10.96%	644	647	2.0%	3,823	3,823	7,645	902	906	3,899	3,823	7,722	920	924	4,945	4,945	9,890	1,167	1,172	7,348	7,348	14,696	1,733	1,741
A20	Start Highway (Gol Gol to Euston)	98064	2007	1,011	1,028	2,039	27.00%	27.43%	273	282	2.0%	1,502	1,528	3,030	406	419	1,532	1,528	3,060	414	427	1,943	1,976	3,919	525	542	2,888	2,936	5,824	780	805
	Arumpo Road (Silver City Highway to WTS Access)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	683	1,450	157	157	972	884	1,856	199	199	1,444	1,314	2,758	296	296
	Arumpo Road (WTS Access to Quarry)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	683	1,450	157	157	972	884	1,856	199	199	1,444	1,314	2,758	296	296
	Arumpo Road (Quarry to PEC Camp)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	683	1,450	157	157	972	884	1,856	199	199	1,444	1,314	2,758	296	296
	Arumpo Road (PEC Camp to Northern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	273	253	526	75	87	346	328	674	95	111	514	487	1,001	140	165
	Arumpo Road (Northern Access to Southern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	273	253	526	75	87	346	328	674	95	111	514	487	1,001	140	165

Project Traffic Impact % Calculations

Road ID	Road Description	AADT Segment	MWF Pre Construction			MWF Peak Construction			MWF Operations			MWF Decommissioning		
			Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir
B79	Silver City Highway (Start Highway to Corbett Ave)	98286	139	139	278	229	229	458	31	31	62	160	160	321
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	143	143	286	234	234	468	31	31	62	164	164	328
B79	Silver City Highway (Arumpo Road to Wentworth)	-	5	5	10	5	5	10	0	0	0	4	4	7
A20	Start Highway (Mildura to River Dv)	98063	122	122	244	193	193	386	31	31	62	135	135	270
A20	Start Highway (River Dv to Silver City Highway)	98063	124	124	248	204	204	408	31	31	62	143	143	286
A20	Start Highway (Silver City Highway to Gol Gol)	-	42	42	84	123	123	246	0	0	0	86	86	172
A20	Start Highway (Gol Gol to Euston)	98064	0	0	0	11	11	22	0	0	0	8	8	16
	Arumpo Road (Silver City Highway to WTS Access)	-	146	146	292	201	201	402	31	31	62	141	141	283
	Arumpo Road (WTS Access to Quarry)	-	147	147	294	202	202	404	31	31	62	141	141	281
	Arumpo Road (Quarry to PEC Camp)	-	147	147	294	240	240	480	31	31	62	168	168	336
	Arumpo Road (PEC Camp to Northern Access)	98156	147	147	294	240	240	480	31	31	62	168	168	336
	Arumpo Road (Northern Access to Southern Access)	98156	138	138	276	256	256	512	31	31	62	179	179	358

MWF Pre Const %			MWF Pre Const Vols			MWF Peak Const %			MWF Peak Const Vols			MWF Operations %			MWF Operations Vols			MWF Decommissioning %			MWF Decommissioning Vols		
Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir
3.4%	3.4%	3.4%	4,190	4,256	8,446	5.5%	5.6%	5.6%	4,361	4,346	8,707	0.6%	0.6%	0.6%	5,271	5,356	10,628	2.1%	2.0%	2.0%	7,947	8,074	16,021
7.3%	7.6%	7.5%	2,094	2,022	4,116	11.8%	12.5%	12.1%	2,224	2,113	4,337	1.2%	1.3%	1.3%	2,554	2,462	5,016	4.4%	4.5%	4.4%	3,913	3,776	7,690
0.4%	0.4%	0.4%	1,290	1,287	2,577	0.4%	0.4%	0.4%	1,316	1,287	2,603	0.0%	0.0%	0.0%	1,662	1,658	3,321	0.1%	0.1%	0.1%	2,474	2,468	4,941
1.4%	1.4%	1.4%	8,980	8,897	17,876	2.1%	2.2%	2.2%	9,228	8,968	18,195	0.3%	0.3%	0.3%	11,489	11,382	22,871	0.8%	0.8%	0.8%	17,162	17,008	34,163
1.4%	1.4%	1.4%	8,982	8,899	17,880	2.3%	2.3%	2.3%	9,239	8,979	18,217	0.3%	0.3%	0.3%	11,489	11,382	22,871	0.8%	0.8%	0.8%	17,169	17,009	34,179
1.1%	1.1%	1.1%	3,865	3,865	7,729	3.2%	3.2%	3.2%	4,022	3,946	7,968	0.0%	0.0%	0.0%	4,945	4,945	9,890	1.2%	1.2%	1.2%	7,434	7,434	14,868
0.0%	0.0%	0.0%	1,502	1,528	3,030	0.7%	0.7%	0.7%	1,543	1,539	3,082	0.0%	0.0%	0.0%	1,943	1,976	3,919	0.3%	0.3%	0.3%	2,895	2,944	5,839
19.4%	21.4%	20.4%	897	829	1,727	26.2%	29.4%	27.7%	967	884	1,852	3.2%	3.5%	3.3%	1,003	915	1,918	9.7%	10.7%	10.2%	1,585	1,454	3,039
19.6%	21.5%	20.5%	898	830	1,729	26.4%	29.6%	27.9%	968	885	1,854	3.2%	3.5%	3.3%	1,003	915	1,918	9.8%	10.8%	10.3%	1,586	1,455	3,041
19.6%	21.5%	20.5%	898	830	1,729	31.3%	35.1%	33.1%	1,006	923	1,930	3.2%	3.5%	3.3%	1,003	915	1,918	11.6%	12.8%	12.2%	1,612	1,482	3,094
55.0%	58.0%	56.4%	414	400	815	88.0%	94.7%	91.2%	513	493	1,006	9.0%	9.5%	9.2%	377	359	736	32.7%	34.5%	33.6%	682	655	1,337
51.6%	54.4%	53.0%	405	391	797	93.8%	101.0%	97.3%	529	509	1,038	9.0%	9.5%	9.2%	377	359	736	34.9%	36.8%	35.8%	693	666	1,360

External Project Traffic Volume Calculations during Preliminary Construction Phase

Road ID	Road Description	AADT Segment	Euston Mineral Sands			Mallee Solar Farm			Gol Gol Solar Farm			Gol Gol BESS			Gol Gol Wind Farm			Euston Wind Farm			Koorakee Energy Park			Lake Victoria Wind Farm		
			Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir
B79	Silver City Highway (Start Highway to Corbett Ave)	98286	0	0	0	172	172	344	115	115	229	86	86	172	0	0	0	0	0	0	0	0	0	0	0	0
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	0	0	0	176	176	351	117	117	234	88	88	176	0	0	0	0	0	0	0	0	0	0	0	0
B79	Silver City Highway (Arumpo Road to Wentworth)	-	0	0	0	4	4	8	3	3	6	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0
A20	Start Highway (Mildura to River Dv)	98063	125	125	250	145	145	290	97	97	193	72	72	145	0	0	0	50	50	100	50	50	100	0	0	0
A20	Start Highway (River Dv to Silver City Highway)	98063	125	125	250	153	153	306	102	102	204	77	77	153	0	0	0	50	50	100	50	50	100	0	0	0
A20	Start Highway (Silver City Highway to Gol Gol)	-	125	125	250	92	92	185	62	62	123	46	46	92	0	0	0	50	50	100	50	50	100	0	0	0
A20	Start Highway (Gol Gol to Euston)	98064	125	125	250	8	8	17	6	6	11	4	4	8	0	0	0	50	50	100	50	50	100	0	0	0
	Arumpo Road (



Appendix G – Intersection Volume Forecast Calculations

UMW0122-004 | Mallee Wind Farm & BESS Project
Silver City Highway / Arumpo Road
Project Peak Hour Intersection Volume Forecasts
AM PEAK (6:00-7:00am)

GR %	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
YEAR	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
2024	120	12	50	8	16	9	5	2	1	4	56	3
2025	122	12	51	8	16	9	5	2	1	4	57	3
2026	125	12	52	8	17	9	5	2	1	4	58	3
2027	127	13	53	8	17	10	5	2	1	4	59	3
2028	130	13	54	9	17	10	5	2	1	4	61	3
2029	132	13	55	9	18	10	6	2	1	4	62	3
2030	135	14	56	9	18	10	6	2	1	5	63	3
2031	138	14	57	9	18	10	6	2	1	5	64	3
2032	141	14	59	9	19	11	6	2	1	5	66	4
2033	143	14	60	10	19	11	6	2	1	5	67	4
2034	146	15	61	10	20	11	6	2	1	5	68	4
2035	149	15	62	10	20	11	6	2	1	5	70	4
2036	152	15	63	10	20	11	6	3	1	5	71	4
2037	155	16	65	10	21	12	6	3	1	5	72	4
2038	158	16	66	11	21	12	7	3	1	5	74	4
2039	162	16	67	11	22	12	7	3	1	5	75	4
2040	165	16	69	11	22	12	7	3	1	5	77	4
2041	168	17	70	11	22	13	7	3	1	6	78	4
2042	171	17	71	11	23	13	7	3	1	6	80	4
2043	175	17	73	12	23	13	7	3	1	6	82	4
2044	178	18	74	12	24	13	7	3	1	6	83	4
2045	182	18	76	12	24	14	8	3	2	6	85	5
2046	186	19	77	12	25	14	8	3	2	6	87	5
2047	189	19	79	13	25	14	8	3	2	6	88	5
2048	193	19	80	13	26	14	8	3	2	6	90	5
2049	197	20	82	13	26	15	8	3	2	7	92	5
2050	201	20	84	13	27	15	8	3	2	7	94	5
2051	205	20	85	14	27	15	9	3	2	7	96	5
2052	209	21	87	14	28	16	9	3	2	7	97	5
2053	213	21	89	14	28	16	9	4	2	7	99	5
2054	217	22	91	14	29	16	9	4	2	7	101	5
2055	222	22	92	15	30	17	9	4	2	7	103	6
2056	226	23	94	15	30	17	9	4	2	8	106	6
2057	231	23	96	15	31	17	10	4	2	8	108	6
2058	235	24	98	16	31	18	10	4	2	8	110	6
2059	240	24	100	16	32	18	10	4	2	8	112	6
2060	245	24	102	16	33	18	10	4	2	8	114	6
PRE-CONSTRUCTION TRAFFIC	0	0	95	5	0	5	0	0	5	0	0	0
2027 PRE-CONSTRUCTION	127	13	148	13	17	15	5	2	6	4	59	3
PEAK CONST TRAFFIC	0	0	95	10	0	10	0	0	5	0	0	0
2028 PEAK CONSTRUCTION	130	13	149	19	17	20	5	2	6	4	61	3
PEAK OPERATIONS TRAFFIC	0	0	30	1	0	1	0	0	0	0	0	0
2040 PROJECT OPERATIONS	165	16	99	12	22	13	7	3	1	5	77	4
DECOMMISSIONING TRAFFIC	0	0	67	7	0	7	0	0	4	0	0	0
2060 PROJECT DECOMMISSIONING	245	24	168	23	33	25	10	4	6	8	114	6
EXTERNAL PROJECTS - PRE	0	0	154	16	0	16	0	0	8	0	0	0
EXTERNAL PROJECTS - PEAK	75	0	178	19	0	19	0	0	9	0	0	0
2027 PRE CONST CUMULATIVE	127	13	302	30	17	31	5	2	14	4	59	3
2028 PEAK CONST CUMULATIVE	205	13	327	37	17	38	5	2	15	4	61	3

UMW0122-004 | Mallee Wind Farm & BESS Project
Silver City Highway / Arumpo Road
Project Peak Hour Intersection Volume Forecasts
PM PEAK (6:00-7:00pm)

GR %	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
YEAR	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
2024	18	5	18	0	17	2	0	0	0	0	27	2
2025	18	5	18	0	17	2	0	0	0	0	28	2
2026	19	5	19	0	18	2	0	0	0	0	28	2
2027	19	5	19	0	18	2	0	0	0	0	29	2
2028	19	5	19	0	18	2	0	0	0	0	29	2
2029	20	6	20	0	19	2	0	0	0	0	30	2
2030	20	6	20	0	19	2	0	0	0	0	30	2
2031	21	6	21	0	20	2	0	0	0	0	31	2
2032	21	6	21	0	20	2	0	0	0	0	32	2
2033	22	6	22	0	20	2	0	0	0	0	32	2
2034	22	6	22	0	21	2	0	0	0	0	33	2
2035	22	6	22	0	21	2	0	0	0	0	34	2
2036	23	6	23	0	22	3	0	0	0	0	34	3
2037	23	6	23	0	22	3	0	0	0	0	35	3
2038	24	7	24	0	22	3	0	0	0	0	36	3
2039	24	7	24	0	23	3	0	0	0	0	36	3
2040	25	7	25	0	23	3	0	0	0	0	37	3
2041	25	7	25	0	24	3	0	0	0	0	38	3
2042	26	7	26	0	24	3	0	0	0	0	39	3
2043	26	7	26	0	25	3	0	0	0	0	39	3
2044	27	7	27	0	25	3	0	0	0	0	40	3
2045	27	8	27	0	26	3	0	0	0	0	41	3
2046	28	8	28	0	26	3	0	0	0	0	42	3
2047	28	8	28	0	27	3	0	0	0	0	43	3
2048	29	8	29	0	27	3	0	0	0	0	43	3
2049	30	8	30	0	28	3	0	0	0	0	44	3
2050	30	8	30	0	28	3	0	0	0	0	45	3
2051	31	9	31	0	29	3	0	0	0	0	46	3
2052	31	9	31	0	30	3	0	0	0	0	47	3
2053	32	9	32	0	30	4	0	0	0	0	48	4
2054	33	9	33	0	31	4	0	0	0	0	49	4
2055	33	9	33	0	31	4	0	0	0	0	50	4
2056	34	9	34	0	32	4	0	0	0	0	51	4
2057	35	10	35	0	33	4	0	0	0	0	52	4
2058	35	10	35	0	33	4	0	0	0	0	53	4
2059	36	10	36	0	34	4	0	0	0	0	54	4
2060	37	10	37	0	35	4	0	0	0	0	55	4
PRE-CONSTRUCTION TRAFFIC	0	0	0	5	95	5	5	0	0	0	0	0
2027 PRE-CONSTRUCTION	19	5	19	5	113	7	5	0	0	0	29	2
PEAK CONST TRAFFIC	0	0	0	10	95	10	5	0	0	0	0	0
2028 PEAK CONSTRUCTION	19	5	19	10	113	12	5	0	0	0	29	2
PEAK OPERATIONS TRAFFIC	0	0	0	1	30	1	0	0	0	0	0	0
2040 PROJECT OPERATIONS	25	7	25	1	53	4	0	0	0	0	37	3
DECOMMISSIONING TRAFFIC	0	0	0	7	67	7	4	0	0	0	0	0
2060 PROJECT DECOMMISSIONING	37	10	37	7	101	11	4	0	0	0	55	4
EXTERNAL PROJECTS - PRE	0	0	0	16	154	16	8	0	0	0	0	0
EXTERNAL PROJECTS - PEAK	0	0	0	19	178	19	9	0	0	0	75	0
2027 PRE CONST CUMULATIVE	19	5	19	21	267	23	13	0	0	0	29	2
2028 PEAK CONST CUMULATIVE	19	5	19	29	292	31	14	0	0	0	104	2

External Project Traffic Movements (AM Peak) - Pre-Construction Minor Works

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	71	8	0	8	0	0	4	0	0	0
Gol Gol Solar Farm	0	0	48	5	0	5	0	0	3	0	0	0
Gol Gol BESS	0	0	36	4	0	4	0	0	2	0	0	0
AM Peak Hour	0	0	154	16	0	16	0	0	8	0	0	0

External Project Traffic Movements (PM Peak) - Pre-Construction Minor Works

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	0	8	71	8	4	0	0	0	0	0
Gol Gol Solar Farm	0	0	0	5	48	5	3	0	0	0	0	0
Gol Gol BESS	0	0	0	4	36	4	2	0	0	0	0	0
PM Peak Hour	0	0	0	16	154	16	8	0	0	0	0	0

External Project Traffic Movements (AM Peak) - Peak Construction

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	71	8	0	8	0	0	4	0	0	0
Gol Gol Solar Farm	0	0	48	5	0	5	0	0	3	0	0	0
Gol Gol BESS	0	0	36	4	0	4	0	0	2	0	0	0
Gol Gol Wind Farm	0	0	24	3	0	3	0	0	1	0	0	0
Lake Victoria Wind Farm	75	0	0	0	0	0	0	0	0	0	0	0
AM Peak Hour	75	0	178	19	0	19	0	0	9	0	0	0

External Project Traffic Movements (PM Peak) - Peak Construction

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	0	8	71	8	4	0	0	0	0	0
Gol Gol Solar Farm	0	0	0	5	48	5	3	0	0	0	0	0
Gol Gol BESS	0	0	0	4	36	4	2	0	0	0	0	0
Gol Gol Wind Farm	0	0	0	3	24	3	1	0	0	0	0	0
Lake Victoria Wind Farm	0	0	0	0	0	0	0	0	0	0	75	0
PM Peak Hour	0	0	0	19	178	19	9	0	0	0	75	0

UMW0122-004 | Mallee Wind Farm & BESS Project
Silver City Highway / Arumpo Road
Network Peak Hour Intersection Volume Forecasts
AM PEAK (6:00-7:00am)

GR %	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
YEAR	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
2024	147	6	23	13	28	19	2	1	1	5	51	12
2025	150	6	23	13	29	19	2	1	1	5	52	12
2026	153	6	24	14	29	20	2	1	1	5	53	12
2027	156	6	24	14	30	20	2	1	1	5	54	13
2028	159	6	25	14	30	21	2	1	1	5	55	13
2029	162	7	25	14	31	21	2	1	1	6	56	13
2030	166	7	26	15	32	21	2	1	1	6	57	14
2031	169	7	26	15	32	22	2	1	1	6	59	14
2032	172	7	27	15	33	22	2	1	1	6	60	14
2033	176	7	27	16	33	23	2	1	1	6	61	14
2034	179	7	28	16	34	23	2	1	1	6	62	15
2035	183	7	29	16	35	24	2	1	1	6	63	15
2036	186	8	29	16	36	24	3	1	1	6	65	15
2037	190	8	30	17	36	25	3	1	1	6	66	16
2038	194	8	30	17	37	25	3	1	1	7	67	16
2039	198	8	31	17	38	26	3	1	1	7	69	16
2040	202	8	32	18	38	26	3	1	1	7	70	16
2041	206	8	32	18	39	27	3	1	1	7	71	17
2042	210	9	33	19	40	27	3	1	1	7	73	17
2043	214	9	34	19	41	28	3	1	1	7	74	17
2044	218	9	34	19	42	28	3	1	1	7	76	18
2045	223	9	35	20	42	29	3	2	2	8	77	18
2046	227	9	36	20	43	29	3	2	2	8	79	19
2047	232	9	36	20	44	30	3	2	2	8	80	19
2048	236	10	37	21	45	31	3	2	2	8	82	19
2049	241	10	38	21	46	31	3	2	2	8	84	20
2050	246	10	38	22	47	32	3	2	2	8	85	20
2051	251	10	39	22	48	32	3	2	2	9	87	20
2052	256	10	40	23	49	33	3	2	2	9	89	21
2053	261	11	41	23	50	34	4	2	2	9	91	21
2054	266	11	42	24	51	34	4	2	2	9	92	22
2055	272	11	42	24	52	35	4	2	2	9	94	22
2056	277	11	43	24	53	36	4	2	2	9	96	23
2057	283	12	44	25	54	37	4	2	2	10	98	23
2058	288	12	45	25	55	37	4	2	2	10	100	24
2059	294	12	46	26	56	38	4	2	2	10	102	24
2060	300	12	47	27	57	39	4	2	2	10	104	24
PRE-CONSTRUCTION TRAFFIC	0	0	5	5	5	5	0	0	0	0	0	0
2027 PRE-CONSTRUCTION	156	6	29	19	35	25	2	1	1	5	54	13
PEAK CONST TRAFFIC	0	0	5	10	5	10	0	0	0	0	0	0
2028 PEAK CONSTRUCTION	159	6	30	24	35	31	2	1	1	5	55	13
PEAK OPERATIONS TRAFFIC	0	0	5	1	5	1	0	0	0	0	0	0
2040 PROJECT OPERATIONS	202	8	37	19	43	27	3	1	1	7	70	16
DECOMMISSIONING TRAFFIC	0	0	4	7	4	7	0	0	0	0	0	0
2060 PROJECT DECOMMISSIONING	300	12	50	34	61	46	4	2	2	10	104	24
EXTERNAL PROJECTS - PRE	0	0	8	16	8	16	0	0	0	0	0	0
EXTERNAL PROJECTS - PEAK	5	0	13	26	13	26	0	0	0	0	5	0
2027 PRE CONST CUMULATIVE	156	6	38	35	43	41	2	1	1	5	54	13
2028 PEAK CONST CUMULATIVE	164	6	43	50	48	57	2	1	1	5	60	13

UMW0122-004 | Mallee Wind Farm & BESS Project
Silver City Highway / Arumpo Road
Network Peak Hour Intersection Volume Forecasts
PM PEAK (6:00-7:00pm)

GR %	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
YEAR	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
2024	64	3	27	11	93	9	4	3	3	0	133	8
2025	65	3	28	11	95	9	4	3	3	0	136	8
2026	67	3	28	11	97	9	4	3	3	0	138	8
2027	68	3	29	12	99	10	4	3	3	0	141	8
2028	69	3	29	12	101	10	4	3	3	0	144	9
2029	71	3	30	12	103	10	4	3	3	0	147	9
2030	72	3	30	12	105	10	5	3	3	0	150	9
2031	74	3	31	13	107	10	5	3	3	0	153	9
2032	75	4	32	13	109	11	5	4	4	0	156	9
2033	76	4	32	13	111	11	5	4	4	0	159	10
2034	78	4	33	13	113	11	5	4	4	0	162	10
2035	80	4	34	14	116	11	5	4	4	0	165	10
2036	81	4	34	14	118	11	5	4	4	0	169	10
2037	83	4	35	14	120	12	5	4	4	0	172	10
2038	84	4	36	15	123	12	5	4	4	0	175	11
2039	86	4	36	15	125	12	5	4	4	0	179	11
2040	88	4	37	15	128	12	5	4	4	0	183	11
2041	90	4	38	15	130	13	6	4	4	0	186	11
2042	91	4	39	16	133	13	6	4	4	0	190	11
2043	93	4	39	16	135	13	6	4	4	0	194	12
2044	95	4	40	16	138	13	6	4	4	0	198	12
2045	97	5	41	17	141	14	6	5	5	0	202	12
2046	99	5	42	17	144	14	6	5	5	0	206	12
2047	101	5	43	17	147	14	6	5	5	0	210	13
2048	103	5	43	18	150	14	6	5	5	0	214	13
2049	105	5	44	18	153	15	7	5	5	0	218	13
2050	107	5	45	18	156	15	7	5	5	0	223	13
2051	109	5	46	19	159	15	7	5	5	0	227	14
2052	111	5	47	19	162	16	7	5	5	0	232	14
2053	114	5	48	20	165	16	7	5	5	0	236	14
2054	116	5	49	20	168	16	7	5	5	0	241	14
2055	118	6	50	20	172	17	7	6	6	0	246	15
2056	121	6	51	21	175	17	8	6	6	0	251	15
2057	123	6	52	21	179	17	8	6	6	0	256	15
2058	125	6	53	22	182	18	8	6	6	0	261	16
2059	128	6	54	22	186	18	8	6	6	0	266	16
2060	131	6	55	22	190	18	8	6	6	0	271	16
PRE-CONSTRUCTION TRAFFIC	0	0	5	5	5	5	0	0	0	0	0	0
2027 PRE-CONSTRUCTION	68	3	34	17	104	15	4	3	3	0	141	8
PEAK CONST TRAFFIC	0	0	5	10	5	10	0	0	0	0	0	0
2028 PEAK CONSTRUCTION	69	3	34	22	106	20	4	3	3	0	144	9
PEAK OPERATIONS TRAFFIC	0	0	5	1	5	1	0	0	0	0	0	0
2040 PROJECT OPERATIONS	88	4	42	16	133	13	5	4	4	0	183	11
DECOMMISSIONING TRAFFIC	0	0	4	7	4	7	0	0	0	0	0	0
2060 PROJECT DECOMMISSIONING	131	6	59	29	193	25	8	6	6	0	271	16
EXTERNAL PROJECTS - PRE	0	0	8	16	8	16	0	0	0	0	0	0
EXTERNAL PROJECTS - PEAK	5	0	13	26	13	26	0	0	0	0	5	0
2027 PRE CONST CUMULATIVE	68	3	42	33	112	31	4	3	3	0	141	8
2028 PEAK CONST CUMULATIVE	74	3	47	48	119	46	4	3	3	0	149	9

External Project Traffic Movements (AM Peak) - Pre-Construction Minor Works

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	4	8	4	8	0	0	0	0	0	0
Gol Gol Solar Farm	0	0	3	5	3	5	0	0	0	0	0	0
Gol Gol BESS	0	0	2	4	2	4	0	0	0	0	0	0
AM Peak Hour	0	0	8	16	8	16	0	0	0	0	0	0

External Project Traffic Movements (PM Peak) - Pre-Construction Minor Works

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	4	8	4	8	0	0	0	0	0	0
Gol Gol Solar Farm	0	0	3	5	3	5	0	0	0	0	0	0
Gol Gol BESS	0	0	2	4	2	4	0	0	0	0	0	0
PM Peak Hour	0	0	8	16	8	16	0	0	0	0	0	0

External Project Traffic Movements (AM Peak) - Peak Construction

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	4	8	4	8	0	0	0	0	0	0
Gol Gol Solar Farm	0	0	3	5	3	5	0	0	0	0	0	0
Gol Gol BESS	0	0	2	4	2	4	0	0	0	0	0	0
Gol Gol Wind Farm	0	0	5	10	5	10	0	0	0	0	0	0
Lake Victoria Wind Farm	5	0	0	0	0	0	0	0	0	0	5	0
AM Peak Hour	5	0	13	26	13	26	0	0	0	0	5	0

External Project Traffic Movements (PM Peak) - Peak Construction

Task	Silver City Highway (SE)				Arumpo Road (NE)				Silver City Highway (NW)			
	T		R		L		R		L		T	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
Mallee Solar Farm	0	0	4	8	4	8	0	0	0	0	0	0
Gol Gol Solar Farm	0	0	3	5	3	5	0	0	0	0	0	0
Gol Gol BESS	0	0	2	4	2	4	0	0	0	0	0	0
Gol Gol Wind Farm	0	0	5	10	5	10	0	0	0	0	0	0
Lake Victoria Wind Farm	5	0	0	0	0	0	0	0	0	0	5	0
PM Peak Hour	5	0	13	26	13	26	0	0	0	0	5	0



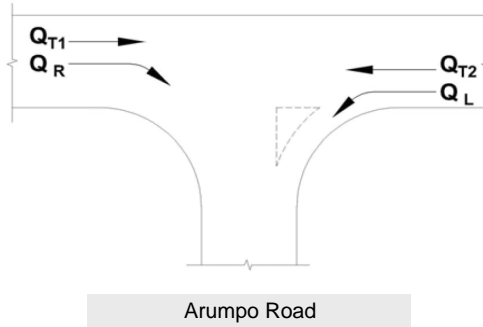
Appendix H – Turn Warrant Assessment – Silver City Highway / Arumpo Road

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2027 AM & PM Project Peak** Scenario: **Pre-Construction Minor Works**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	140	24
Q_R	160	24

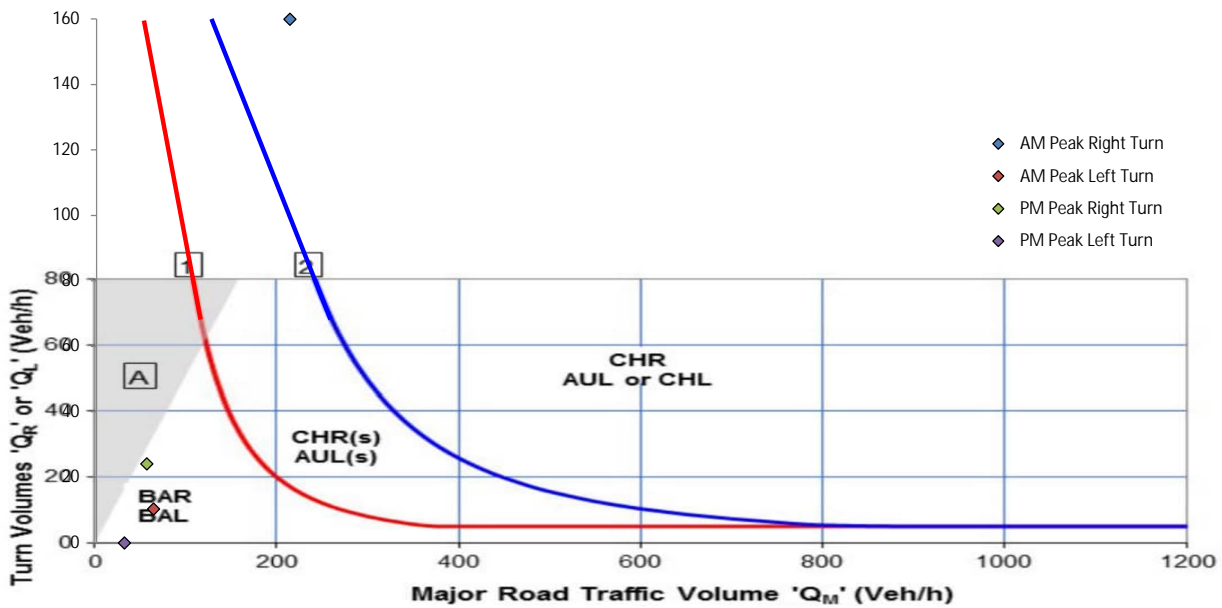


	AM Peak	PM Peak
Q_{T2}	63	31
Q_L	10	0

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	213	160
Left	63	10
PM Peak		
Right	55	24
Left	31	0



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

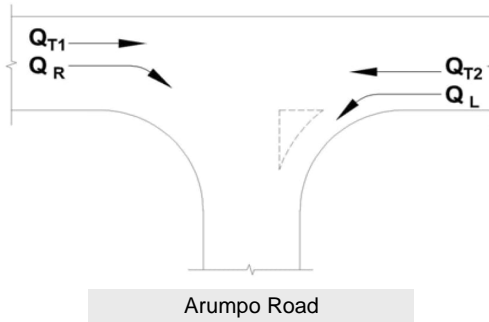
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2027 AM & PM Project Peak** Scenario: **Cumulative Assessment (Pre-Const)**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	140	24
Q_R	332	40

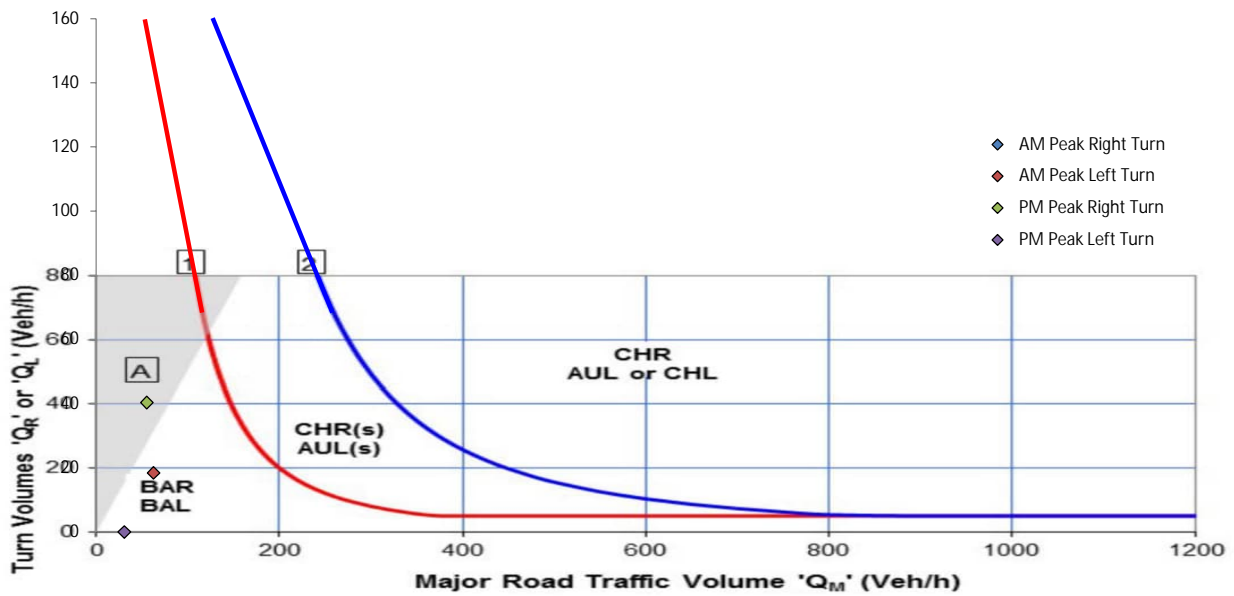


	AM Peak	PM Peak
Q_{T2}	63	31
Q_L	18	0

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	221	332
Left	63	18
PM Peak		
Right	55	40
Left	31	0



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

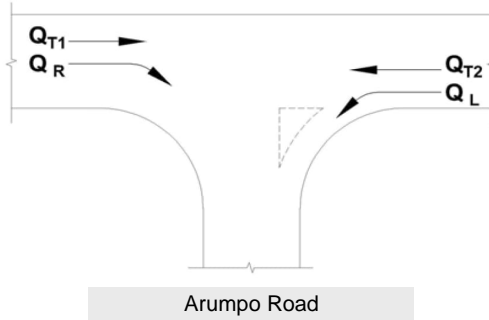
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2028 AM & PM Project Peak** Scenario: **Peak Construction**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	143	25
Q_R	160	29

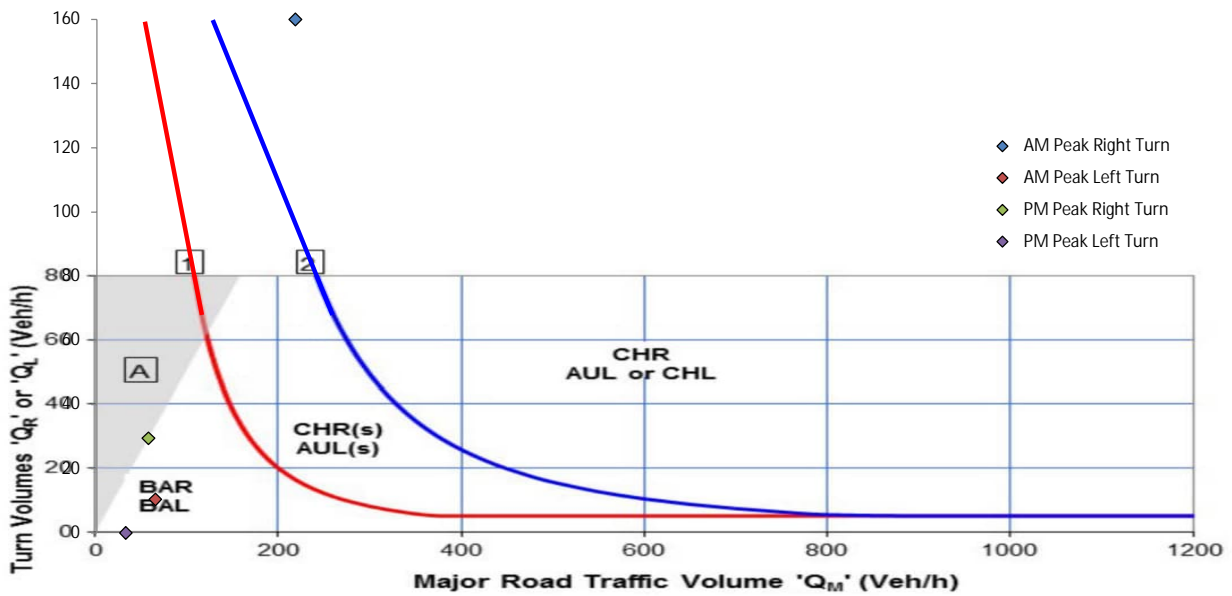


	AM Peak	PM Peak
Q_{T2}	64	31
Q_L	10	0

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	217	160
Left	64	10
PM Peak		
Right	56	29
Left	31	0



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend			
BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

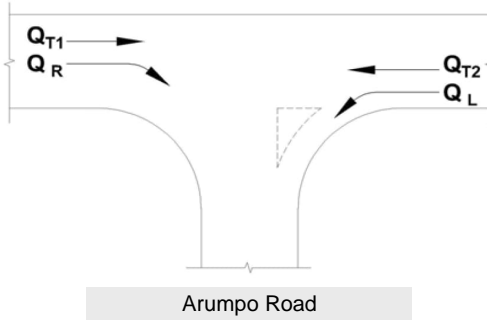
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2028 AM & PM Project Peak** Scenario: **Cumulative Assessment (Peak)**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	218	25
Q_R	365	48

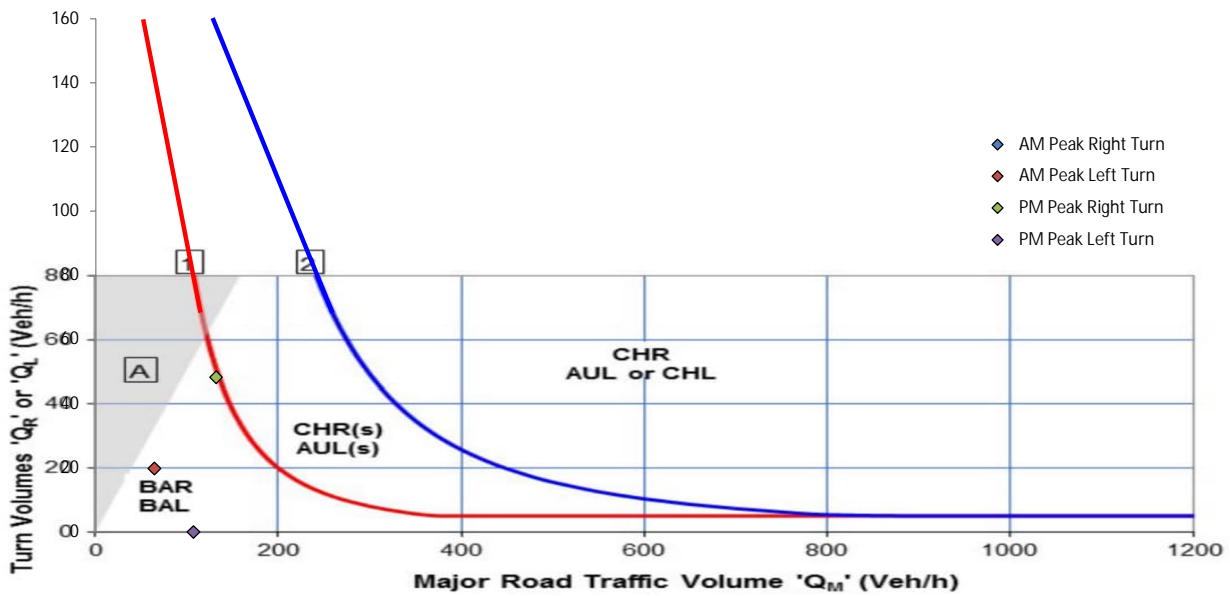


	AM Peak	PM Peak
Q_{T2}	64	106
Q_L	20	0

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	302	365
Left	64	20
PM Peak		
Right	131	48
Left	106	0



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

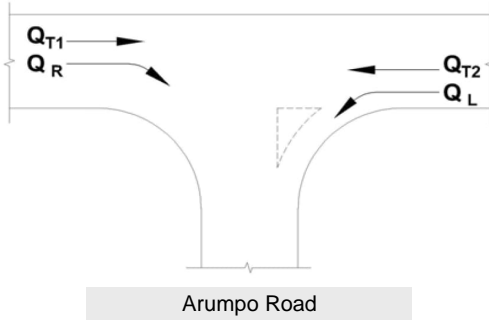
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2040 AM & PM Project Peak** Scenario: **Operations**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	181	32
Q_R	111	26

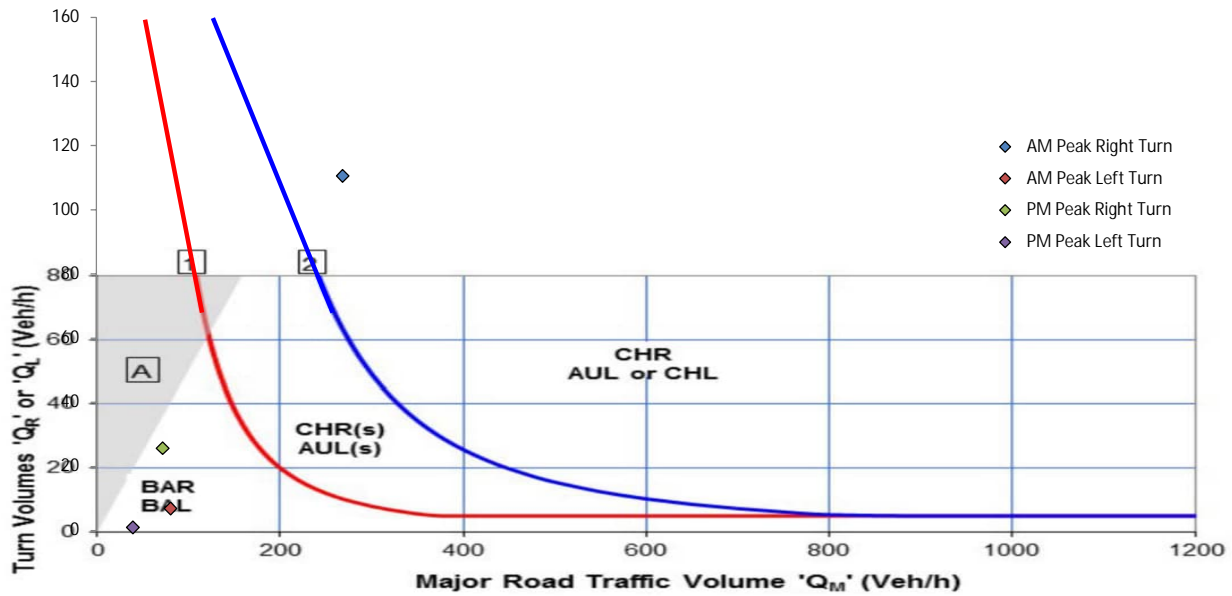


	AM Peak	PM Peak
Q_{T2}	81	40
Q_L	7	1

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	269	111
Left	81	7
PM Peak		
Right	72	26
Left	40	1



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

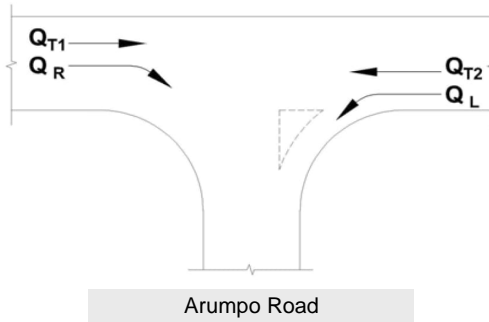
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2060 AM & PM Project Peak** Scenario: **Decommissioning**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	269	47
Q_R	160	44

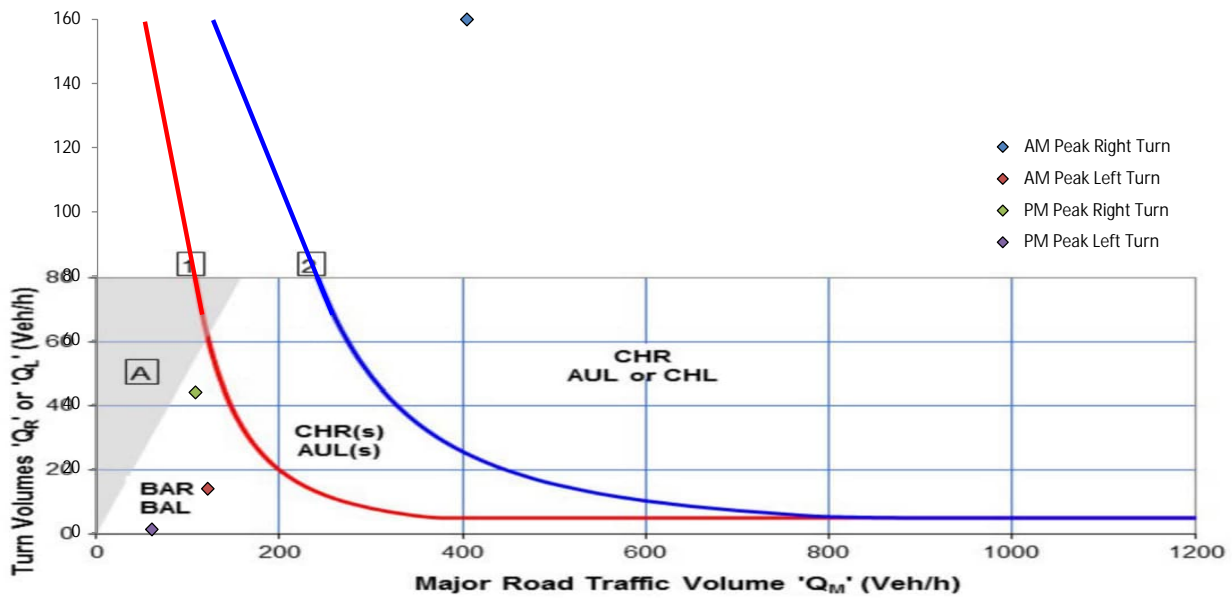


	AM Peak	PM Peak
Q_{T2}	120	59
Q_L	14	1

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	403	160
Left	120	14
PM Peak		
Right	107	44
Left	59	1



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

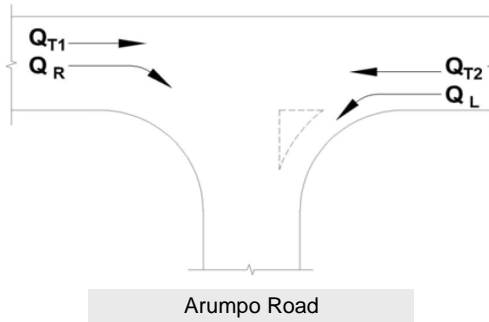
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2027 AM & PM Network Peak** Scenario: **Pre-Construction Minor Works**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	162	71
Q_R	48	50

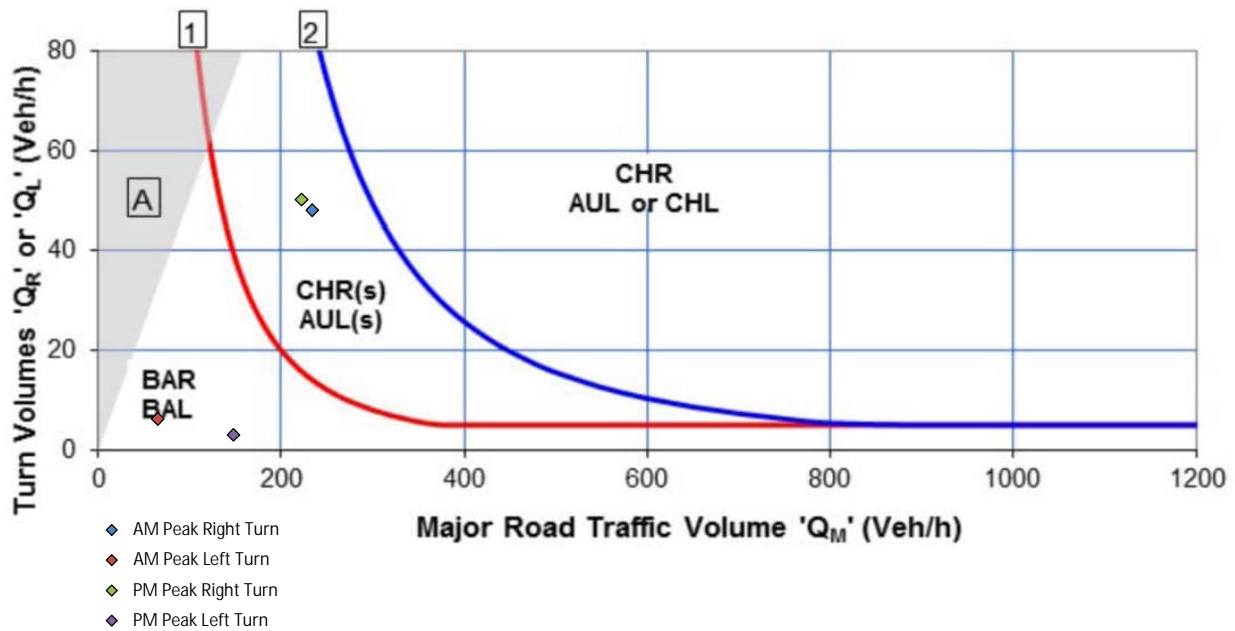


	AM Peak	PM Peak
Q_{T2}	67	150
Q_L	6	3

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	236	48
Left	67	6
PM Peak		
Right	224	50
Left	150	3



Recommended treatments:

Right Turn	CHR(s)
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

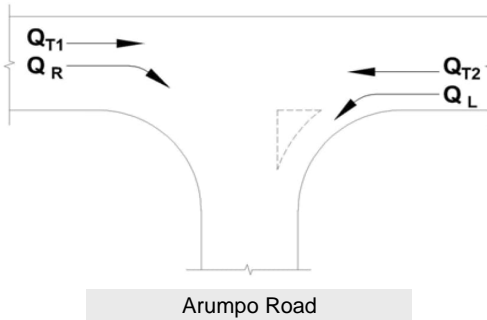
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2027 AM & PM Network Peak** Scenario: **Cumulative Assessment (Pre-Const)**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	162	71
Q_R	73	75

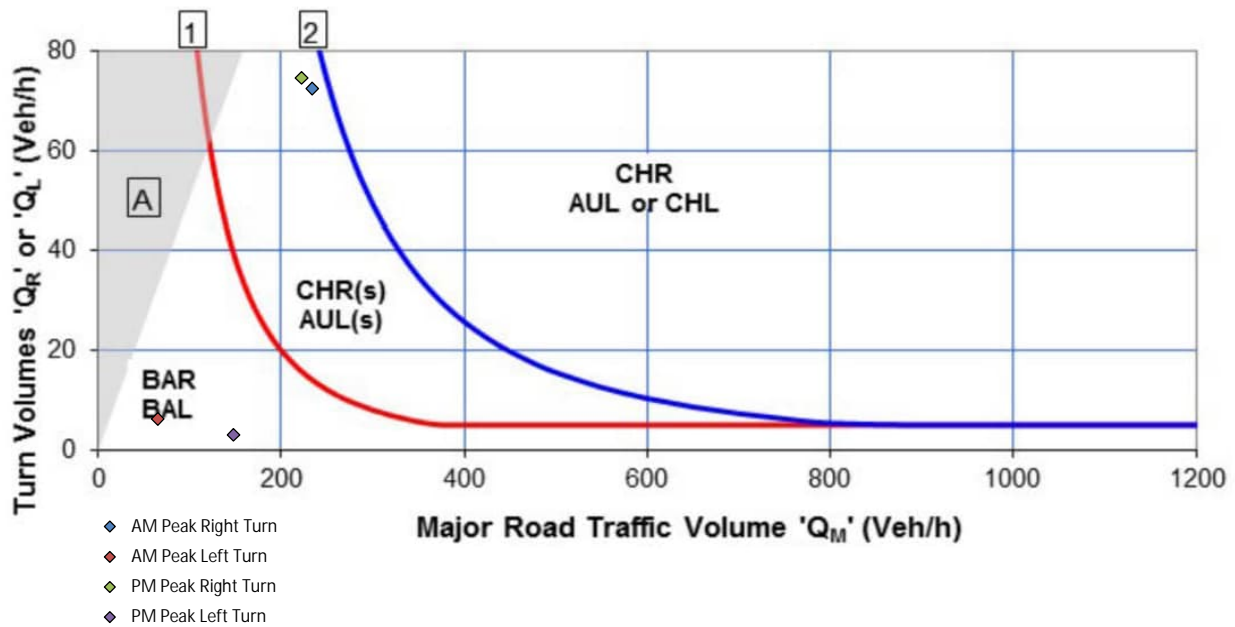


	AM Peak	PM Peak
Q_{T2}	67	150
Q_L	6	3

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	236	73
Left	67	6
PM Peak		
Right	224	75
Left	150	3



Recommended treatments:

Right Turn	CHR(s)
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

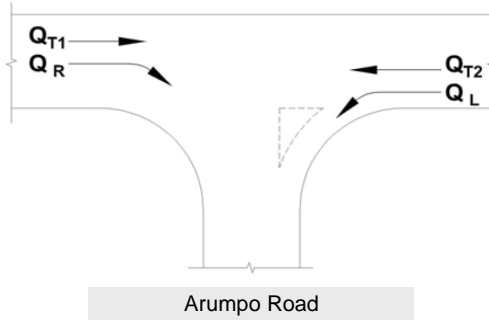
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2028 AM & PM Network Peak** Scenario: **Peak Construction**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	166	73
Q_R	54	56

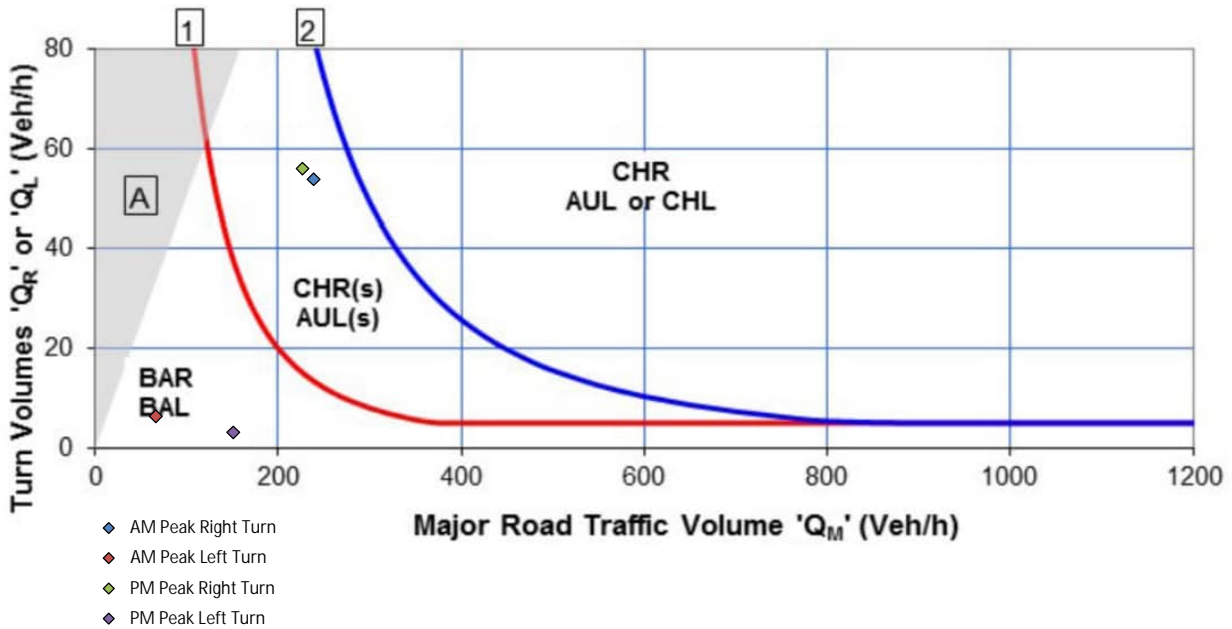


	AM Peak	PM Peak
Q_{T2}	68	153
Q_L	6	3

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	240	54
Left	68	6
PM Peak		
Right	228	56
Left	153	3



Recommended treatments:

Right Turn	CHR(s)
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

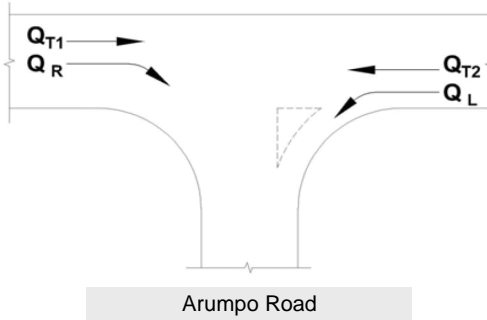
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2028 AM & PM Network Peak** Scenario: **Cumulative Assessment (Peak)**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	171	78
Q_R	93	96

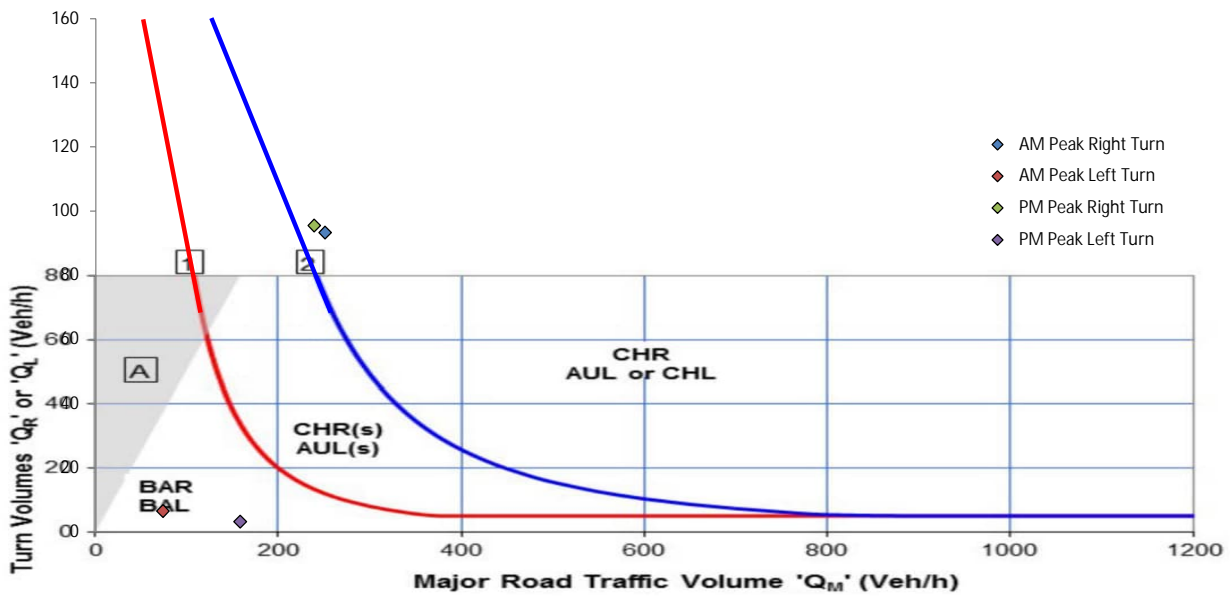


	AM Peak	PM Peak
Q_{T2}	73	158
Q_L	6	3

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	250	93
Left	73	6
PM Peak		
Right	238	96
Left	158	3



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

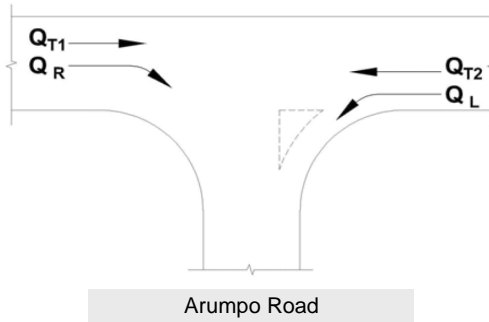
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2040 AM & PM Network Peak** Scenario: **Operations**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	210	92
Q_R	55	58

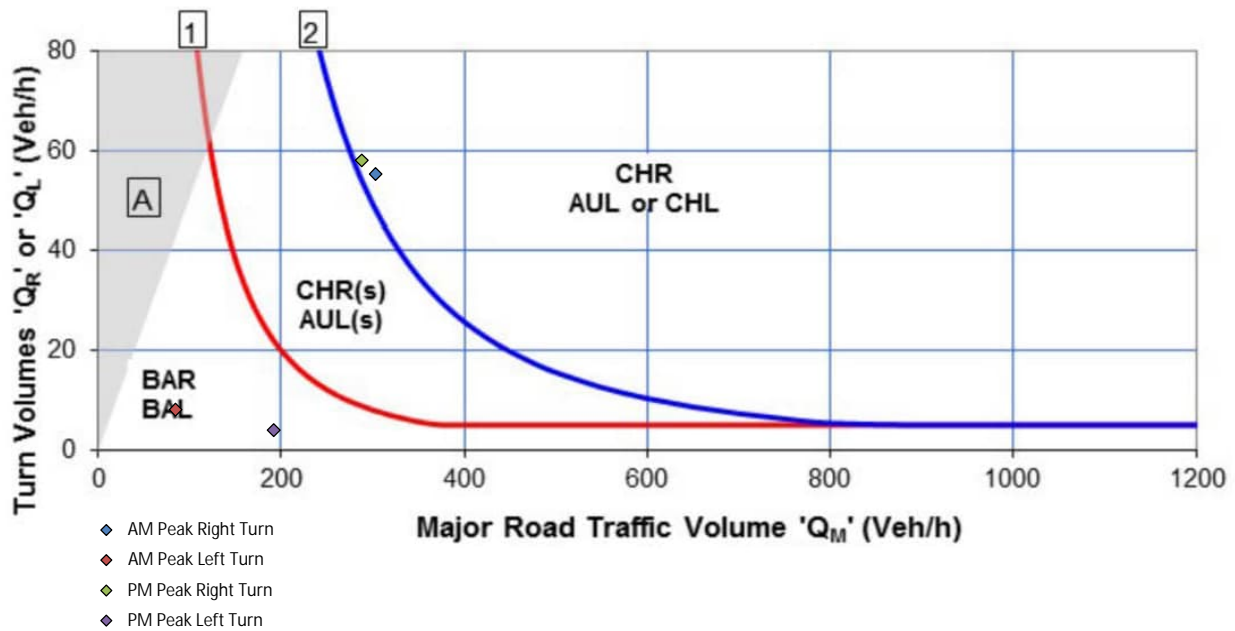


	AM Peak	PM Peak
Q_{T2}	86	194
Q_L	8	4

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	305	55
Left	86	8
PM Peak		
Right	290	58
Left	194	4



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend			
BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

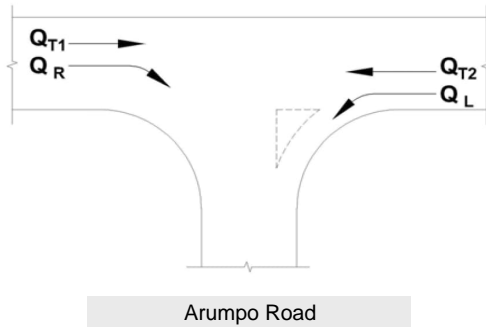
Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026

Turn Warrant Assessment

Intersection: **Silver City Highway / Arumpo Road**
 Year / Peak: **2060 AM & PM Network Peak** Scenario: **Decommissioning**

Assessment based on Austroads Guide to Traffic Management Part 6. This warrant assessment applies only to turning movements from the major road only.

	AM Peak	PM Peak
Q_{T1}	312	137
Q_R	84	88

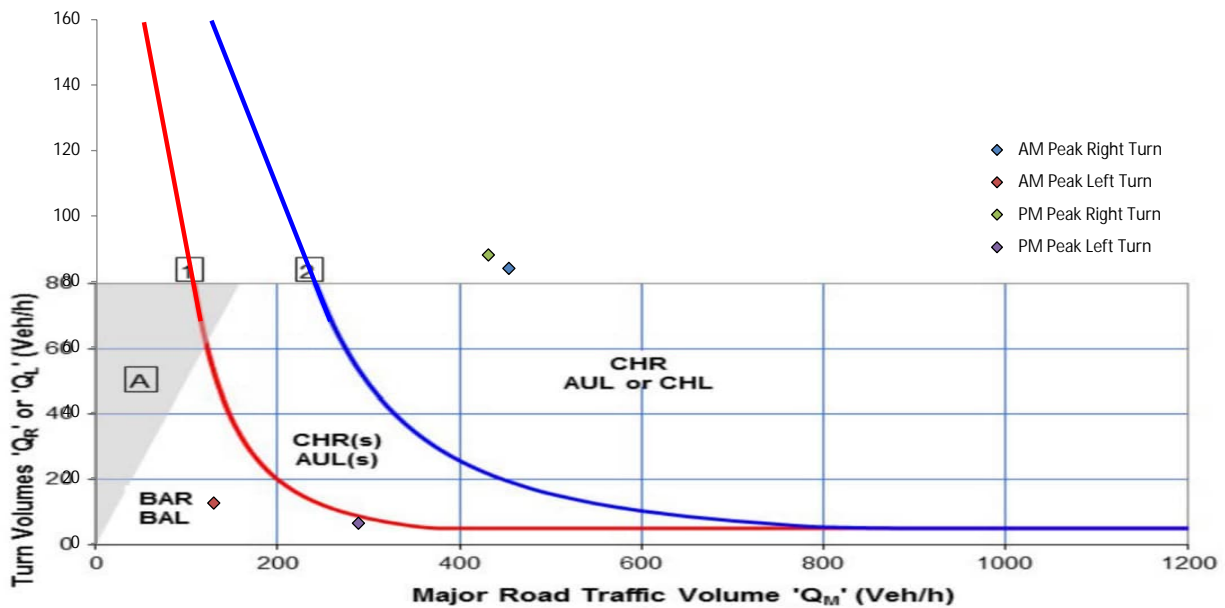


	AM Peak	PM Peak
Q_{T2}	129	288
Q_L	12	6

Splitter Island?

Design speed (km/h)

Graph	Q_M	Q_R/Q_L
AM Peak		
Right	453	84
Left	129	12
PM Peak		
Right	430	88
Left	288	6



Recommended treatments:

Right Turn	CHR
Left Turn	BAL

Legend

BAR	Basic Right Turn	BAL	Basic Left Turn
CHR(S)	Channelised Right Turn (short)	AUL(S)	Auxiliary Left Turn (short)
CHR	Channelised Right Turn	AUL	Auxiliary Left Turn
		CHL	Channelised Left Turn

Comments:

Prepared by:	A.Barrie
Reviewed by:	A.Barrie
Date:	20/02/2026



Appendix I – Project Traffic Impact Calculations

UMW0122-004 | Mallee Wind Farm & BESS Project

Project Traffic Impact % Calculations

Road ID	Road Description	Road Segment	Base Data Year	Base Year AADT			Base Year HV%			Base Year HV			10 Yr GR%	2027			2028			2029					
				Gaz	A-Gaz	BI-Dir	Gaz	A-Gaz	Gaz	A-Gaz	Gaz	A-Gaz		Gaz	A-Gaz	BI-Dir	Gaz	A-Gaz	BI-Dir	Gaz	A-Gaz	BI-Dir	Gaz	A-Gaz	BI-Dir
				B79	Silver City Highway (Sturt Highway to Corbett Ave)	98286	2010	2,893	2,940	5,833	11.75%	11.31%		340	333	2.0%	4,051	4,117	8,168	476	466	4,132	4,199	8,331	486
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	2024	1,838	1,771	3,609	14.04%	16.09%	258	285	2.0%	1,951	1,879	3,830	274	302	1,990	1,917	3,906	279	308				
B79	Silver City Highway (Arumpo Road to Wentworth)	-	2024	1,211	1,208	2,419	12.14%	14.40%	147	174	2.0%	1,285	1,282	2,567	156	185	1,311	1,308	2,618	159	188				
A20	Sturt Highway (Midura to River Drv)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	9,035	8,950	17,985	976	981				
A20	Sturt Highway (River Drv to Silver City Highway)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	9,035	8,950	17,985	976	981				
A20	Sturt Highway (Silver City Highway to Gol Gol)	-	2010	2,730	2,730	5,460	10.80%	10.96%	644	647	2.0%	3,823	3,823	7,645	902	906	3,899	3,899	7,798	920	924				
A20	Sturt Highway (Gol Gol to Euston)	98064	2007	1,011	1,028	2,039	27.00%	27.43%	273	282	2.0%	1,502	1,528	3,030	406	419	1,532	1,558	3,090	414	427				
431	Arumpo Road (Silver City Highway to WTS Access)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	697	1,463	157	157				
431	Arumpo Road (WTS Access to Quarry)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	697	1,463	157	157				
431	Arumpo Road (Quarry to PEC Camp)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	766	697	1,463	157	157				
431	Arumpo Road (PEC Camp to Northern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	273	259	531	75	87				
431	Arumpo Road (Northern Access to Southern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	273	259	531	75	87				

** HV% from adjacent site 98038

** Based on 2010 Eastbound Volume TRNSW - Assumed Westbound volume the same / HV% from Site 98063

** Based on 2010 count from Site 98156 prior to PEC project / HV% from 2006 count at Site 98156

** Based on 2010 count from Site 98156 prior to PEC project / HV% from 2006 count at Site 98157

Pre Const % Impact		
Gaz %	A-Gaz %	BI-Dir %
3.43%	3.38%	3.40%
7.33%	7.61%	7.47%
0.39%	0.39%	0.39%
1.38%	1.39%	1.38%
1.40%	1.41%	1.41%
1.10%	1.10%	1.10%
0.00%	0.00%	0.00%
19.43%	21.36%	20.35%
19.57%	21.51%	20.49%
19.57%	21.51%	20.49%
54.96%	58.00%	56.44%
51.60%	54.45%	52.99%

Pre-Construction Volumes		
Gaz	A-Gaz	BI-Dir
4,190	4,256	8,446
2,094	2,022	4,116
1,290	1,287	2,577
8,980	8,897	17,876
8,982	8,899	17,880
3,865	3,865	7,729
1,502	1,528	3,030
897	829	1,727
898	830	1,729
898	830	1,729
414	400	815
405	391	797

Peak Const % Impact		
Gaz %	A-Gaz %	BI-Dir %
5.54%	5.45%	5.50%
11.76%	12.21%	11.98%
0.38%	0.38%	0.38%
2.14%	2.16%	2.15%
2.26%	2.28%	2.27%
3.15%	3.15%	3.15%
0.72%	0.71%	0.71%
26.23%	28.83%	27.47%
26.36%	28.98%	27.61%
31.32%	34.43%	32.80%
87.98%	92.84%	90.34%
93.84%	99.03%	96.37%

Peak Construction Volumes		
Gaz	A-Gaz	BI-Dir
4,361	4,428	8,789
2,224	2,151	4,374
1,316	1,313	2,628
9,228	9,143	18,371
9,239	9,154	18,393
4,022	4,022	8,044
1,543	1,569	3,112
967	898	1,865
968	899	1,867
1,006	937	1,943
513	499	1,011
529	515	1,043

Road ID	Road Description	Road Segment	Project Traffic (Daily) - Construction																																											
			Gazettal														A-Gazettal														BI-Dir															
			A1	A2	A3	A4	B	C	D	E	F	G	H	I	J	K	Water	Fuel	Waste	Pre Const Staff	Peak Const Staff	Pre Const Max	Peak Const Max	A1	A2	A3	A4	B	C	D	E	F	G	H	I	J	K	Water	Fuel	Waste	Pre Const Staff	Peak Const Staff	Pre Const Max	Peak Const Max	Pre Const Total	Peak Const Total
B79	Silver City Highway (Sturt Highway to Corbett Ave)	98286	2	6	30	0	48	13	10	1	8	1	48	8	9	17	2	4	0	95	95	139	229	2	6	30	0	48	13	10	1	8	1	48	8	9	17	2	4	0	95	95	139	229	278	468
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	2	6	30	0	48	14	10	1	8	1	48	8	9	17	6	4	0	95	95	143	234	2	6	30	0	48	14	10	1	8	1	48	8	9	17	6	4	0	95	95	143	234	286	468
B79	Silver City Highway (Arumpo Road to Wentworth)	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	10	10		
A20	Sturt Highway (Midura to River Drv)	98063	2	6	30	1	39	13	0	1	8	1	48	8	6	17	0	4	0	80	80	122	193	2	6	30	1	39	13	0	1	8	1	48	8	6	17	0	4	0	80	80	122	193	244	386
A20	Sturt Highway (River Drv to Silver City Highway)	98063	2	6	30	1	48	13	0	1	8	1	48	8	6	17	2	4	0	80	80	124	204	2	6	30	1	48	13	0	1	8	1	48	8	6	17	2	4	0	80	80	124	204	248	408
A20	Sturt Highway (Silver City Highway to Gol Gol)	-	0	5	27	1	39	9	10	0	7	1	48	8	9	0	0	0	10	10	42	123	0	5	27	1	39	9	10	0	7	1	48	8	9	0	0	0	10	10	42	123	84	246		
A20	Sturt Highway (Gol Gol to Euston)	98064	0	0	0	1	0	0	10	0	0	1	1	0	3	0	0	0	0	0	0	11	0	0	0	1	0	0	10	0	0	1	1	0	3	0	0	0	0	0	0	11	0	22		
431	Arumpo Road (Silver City Highway to WTS Access)	-	2	4	30	0	10	14	10	1	8	1	48	8	9	17	6	4	0	100	100	146	201	2	4	30	0	10	14	10	1	8	1	48	8	9	17	6	4	0	100	100	146	201	292	402
431	Arumpo Road (WTS Access to Quarry)	-	2	4	30	0	10	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	202	2	4	30	0	10	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	202	294	404
431	Arumpo Road (Quarry to PEC Camp)	-	2	4	30	0	48	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	240	2	4	30	0	48	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	240	294	480
431	Arumpo Road (PEC Camp to Northern Access)	98156	2	4	30	0	48	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	240	2	4	30	0	48	14	10	1	8	1	48	8	9	17	6	4	1	100	100	147	240	294	480
431	Arumpo Road (Northern Access to Southern Access)	98156	1	2	30	0	43	13	9	1	7	1	48	8	9	2	2	2	1	100	130	138	256	1	2	30	0	43	13	9	1	7	1	48	8	9	2	2	2	1	100	130	138	256	276	512
WSC	River Drive (Sturt Highway to Raw Water Supply)	-	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	12	4	24					
WSC	Corbett Avenue (Silver City Hwy to Modica Crs E)	-	0	0	0	0	0	2	0	0	1	1	0	1	0	0	0	0	0	4	7	0	0	0	0	0	2	0	0	1	1	0	1	0	0	0	0	4	7	8	14					
WSC	Modica Crescent (Corbett Ave W to Corbett Ave E)	-	0	0	0	0	0	2	0	0	1	1	0	1	0	0	0	0	0	4	7	0	0	0	0	0	2	0	0	1	1	0	1	0	0	0	0	4	7	8	14					



Appendix J – Project Pavement Loading Calculations

UMW0122-004 | Mallee Wind Farm & BESS Project

Project Pavement Loadings

PRE-CONSTRUCTION MINOR WORKS PHASE

PHASE A1 - EARLY SITE INVESTIGATIONS & PREPARATORY WORKS

Activity Description	Project Volume	Vehicle	Origin
Preliminary Site Investigations - Northern Site Area	72	3-Axle Rigid	Mildura
Preliminary Site Investigations - Southern Site Area	72	3-Axle Rigid	Mildura

3-Axle Rigid Truck Unloaded (0%)	0.51	ESAs
3-Axle Rigid Truck Loaded (100%)	3.58	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	516	73
Silver City Highway (Corbett Ave to Arumpo Road)	516	73
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	516	73
Sturt Highway (River Drv to Silver City Highway)	516	73
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	516	73
Arumpo Road (WTS Access to Quarry)	516	73
Arumpo Road (Quarry to Northern Access)	516	73
Arumpo Road (Northern Access to Southern Access)	258	37

PHASE A2 - LOCAL TRANSPORT ROUTE UPGRADES

Activity Description	Project Volume	Vehicle	Origin
Northern Site Access Intersection Arumpo Road Upgrade - Imported Fill Allowance	60	Truck and Dog Trailer	Local Quarry
Northern Site Access Intersection Arumpo Road Upgrade - Pavement Materials	60	Truck and Dog Trailer	Local Quarry
Northern Site Access Intersection Arumpo Road Upgrade - Miscellaneous Deliveries	20	Semi Trailer	Mildura
Southern Site Access Intersection Arumpo Road Upgrade - Imported Fill Allowance	60	Truck and Dog Trailer	Local Quarry
Southern Site Access Intersection Arumpo Road Upgrade - Pavement Materials	60	Truck and Dog Trailer	Local Quarry
Southern Site Access Intersection Arumpo Road Upgrade - Miscellaneous Deliveries	20	Semi Trailer	Mildura
Silver City Hwy / Arumpo Road Intersection Upgrade - Imported Fill Allowance	37	Truck and Dog Trailer	Local Quarry
Silver City Hwy / Arumpo Road Intersection Upgrade - Pavement Materials	37	Truck and Dog Trailer	Local Quarry
Silver City Hwy / Arumpo Road Intersection Upgrade - Miscellaneous Deliveries	30	Semi Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	2,277	551
Silver City Highway (Corbett Ave to Arumpo Road)	2,277	551
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	2,277	551
Sturt Highway (River Drv to Silver City Highway)	2,277	551
Sturt Highway (Silver City Highway to Gol Gol)	515	1,932
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	1,677	415
Arumpo Road (WTS Access to Quarry)	1,677	415
Arumpo Road (Quarry to Northern Access)	1,677	415
Arumpo Road (Northern Access to Southern Access)	838	207

PHASE A3 - EARLY SITE ESTABLISHMENT

Activity Description	Project Volume	Vehicle	Origin
Main Construction Compound - Base Construction Aggregate	1,235	Truck and Dog Trailer	Local Quarry
Main Construction Compound - Miscellaneous Deliveries	1	Low Loader	Mildura
Main Construction Compound - Establishment	25	Semi Trailer	Mildura
Accommodation Camp - Base Construction Aggregate	480	Truck and Dog Trailer	Local Quarry
Accommodation Camp - Establishment	350	Semi Trailer	Mildura
Minor Construction Compound (North) - Base Construction Aggregate	549	Truck and Dog Trailer	Local Quarry
Minor Construction Compound (North) - Establishment	10	Semi Trailer	Mildura
Minor Construction Compound (South) - Base Construction Aggregate	549	Truck and Dog Trailer	Local Quarry
Minor Construction Compound (South) - Establishment	10	Semi Trailer	Mildura
Concrete Batch Plant - Base Construction Imported Material	138	Truck and Dog Trailer	Local Quarry
Concrete Batch Plant - Establishment	10	Semi Trailer	Mildura
Site Laydown Areas - Base Construction Imported Material	919	Truck and Dog Trailer	Local Quarry

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	25,802	6,554
Silver City Highway (Corbett Ave to Arumpo Road)	25,802	6,554
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	25,802	6,554
Sturt Highway (River Drv to Silver City Highway)	25,802	6,554
Sturt Highway (Silver City Highway to Gol Gol)	6,347	23,801
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	25,802	6,554
Arumpo Road (WTS Access to Quarry)	25,802	6,554
Arumpo Road (Quarry to Northern Access)	25,802	6,554
Arumpo Road (Northern Access to Southern Access)	17,699	4,683

PHASE A4 - OFF SITE ROAD WORKS

Activity Description	Project Volume	Vehicle	Origin
Sturt Hwy / Carey Street OSOM Route Upgrade - Imported Fill Allowance	4	Truck and Dog Trailer	Local Quarry
Sturt Hwy / Carey Street OSOM Route Upgrade - Pavement Materials	4	Truck and Dog Trailer	Local Quarry
Sturt Hwy / Carey Street OSOM Route Upgrade - Concrete Materials	10	Concrete Truck	Mildura
Sturt Hwy / Carey Street OSOM Route Upgrade - Miscellaneous Deliveries	20	Semi Trailer	Mildura
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Imported Fill Allowance	2	Truck and Dog Trailer	Local Quarry
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Pavement Materials	2	Truck and Dog Trailer	Local Quarry
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Concrete Materials	7	Concrete Truck	Mildura
Sturt Hwy / Silver City Hwy OSOM Route Upgrade - Miscellaneous Deliveries	20	Semi Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs
Concrete Truck (4 Axle Rigid) Unloaded (0%)	0.36	ESAs
Concrete Truck (4 Axle Rigid) Loaded (100%)	4.13	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	0	0
Silver City Highway (Corbett Ave to Arumpo Road)	0	0
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	340	46
Sturt Highway (River Drv to Silver City Highway)	340	46
Sturt Highway (Silver City Highway to Gol Gol)	213	33
Sturt Highway (Gol Gol to Euston)	182	25
Arumpo Road (Silver City Highway to WTS Access)	0	0
Arumpo Road (WTS Access to Quarry)	0	0
Arumpo Road (Quarry to Northern Access)	0	0
Arumpo Road (Northern Access to Southern Access)	0	0

CONSTRUCTION PHASE

PHASE B - INTERNAL ACCESS ROAD AND HARDSTAND CONSTRUCTION

Activity Description	Project Volume	Vehicle	Origin
Machinery and Civil Equipment (North)	2	Low Loader	Mildura
Machinery and Civil Equipment (South)	18	Low Loader	Mildura
Access Track Construction (North) - Imported Material (Fill)	675	Truck and Dog Trailer	Local Quarry
Access Track Construction (North) - Imported Material (Capping)	75	Truck and Dog Trailer	Local Quarry
Access Track Construction (North) - Water for Dust Suppression	313	Water Tanker	Buronga - River Drive
Access Track Construction (South) - Imported Material (Fill)	5,106	Truck and Dog Trailer	Local Quarry
Access Track Construction (South) - Imported Material (Capping)	568	Truck and Dog Trailer	Local Quarry
Access Track Construction (South) - Water for Dust Suppression	2,365	Water Tanker	Buronga - River Drive
Crane Hardstand Areas (North) - Imported Material (Fill)	237	Truck and Dog Trailer	Local Quarry
Crane Hardstand Areas (North) - Imported Material (Capping)	26	Truck and Dog Trailer	Local Quarry
Crane Hardstand Areas (South) - Imported Material (Fill)	2,015	Truck and Dog Trailer	Local Quarry
Crane Hardstand Areas (South) - Imported Material (Capping)	225	Truck and Dog Trailer	Local Quarry
Turbine Laydown Areas (North) - Imported Material (Fill)	198	Truck and Dog Trailer	Local Quarry
Turbine Laydown Areas (North) - Imported Material (Capping)	22	Truck and Dog Trailer	Local Quarry
Turbine Laydown Areas (South) - Imported Material (Fill)	1,679	Truck and Dog Trailer	Local Quarry
Turbine Laydown Areas (South) - Imported Material (Capping)	187	Truck and Dog Trailer	Local Quarry

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	67,829	18,072
Silver City Highway (Corbett Ave to Arumpo Road)	81,031	19,437
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	67,829	18,072
Sturt Highway (River Drv to Silver City Highway)	67,829	18,072
Sturt Highway (Silver City Highway to Gol Gol)	18,061	67,730
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	81,031	19,437
Arumpo Road (WTS Access to Quarry)	81,031	19,437
Arumpo Road (Quarry to Northern Access)	81,031	19,437
Arumpo Road (Northern Access to Southern Access)	71,894	17,254

PHASE C - WIND TURBINE FOUNDATION CONSTRUCTION

Activity Description	Project Volume	Vehicle	Origin
WTG Foundations (North) - Steel Anchors	16	Low Loader	Mildura
WTG Foundations (South) - Steel Anchors	136	Low Loader	Mildura
WTG Foundations (North) - Water (for concrete)	40	Water Tanker	Buronga - Modica Crescent
WTG Foundations (South) - Water (for concrete)	340	Water Tanker	Buronga - Modica Crescent
WTG Foundations (North) - Steel Reinforcement	74	Truck and Dog Trailer	Mildura
WTG Foundations (South) - Steel Reinforcement	628	Truck and Dog Trailer	Mildura
WTG Foundations (North) - Sand	99	Truck and Dog Trailer	Local Quarry
WTG Foundations (South) - Sand	840	Truck and Dog Trailer	Local Quarry
WTG Foundations (North) - Aggregate	148	Truck and Dog Trailer	Local Quarry
WTG Foundations (South) - Aggregate	1260	Truck and Dog Trailer	Local Quarry
WTG Foundations (North) - Cement	46	Truck and Dog Trailer	Mildura
WTG Foundations (South) - Cement	394	Truck and Dog Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	22,207	5,799
Silver City Highway (Corbett Ave to Arumpo Road)	25,954	6,187
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	22,207	5,799
Sturt Highway (River Drv to Silver City Highway)	22,207	5,799
Sturt Highway (Silver City Highway to Gol Gol)	3,849	14,434
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	25,954	6,187
Arumpo Road (WTS Access to Quarry)	25,954	6,187
Arumpo Road (Quarry to Northern Access)	25,954	6,187
Arumpo Road (Northern Access to Southern Access)	21,545	5,362

PHASE D - WTG COMPONENT DELIVERY TO SITE

Activity Description	Project Volume	Vehicle	Origin
Blades - WTG Northern Site Area	24	OSOM Special	Portland
Blades - WTG Southern Site Area	204	OSOM Special	Portland
Hub - WTG Northern Site Area	8	OSOM Special	Portland
Hub - WTG Southern Site Area	68	OSOM Special	Portland
Nacelle - WTG Northern Site Area	8	OSOM Special	Portland
Nacelle - WTG Southern Site Area	68	OSOM Special	Portland
Power Train - WTG Northern Site Area	8	OSOM Special	Portland
Power Train - WTG Southern Site Area	68	OSOM Special	Portland
Cooler Top - WTG Northern Site Area	8	Semi Trailer	Portland
Cooler Top - WTG Southern Site Area	68	Semi Trailer	Portland
Base Tower - WTG Northern Site Area	8	OSOM Special	Portland
Base Tower - WTG Southern Site Area	68	OSOM Special	Portland
Section 2 Towers - WTG Northern Site Area	8	OSOM Special	Portland
Section 2 Towers - WTG Southern Site Area	68	OSOM Special	Portland
Section 3 Towers - WTG Northern Site Area	8	OSOM Special	Portland
Section 3 Towers - WTG Southern Site Area	68	OSOM Special	Portland
Section 4 Towers - WTG Northern Site Area	8	OSOM Special	Portland
Section 4 Towers - WTG Southern Site Area	68	OSOM Special	Portland
Section 5 Towers - WTG Northern Site Area	8	OSOM Special	Portland
Section 5 Towers - WTG Southern Site Area	68	OSOM Special	Portland
Section 6 Towers - WTG Northern Site Area	8	OSOM Special	Portland
Section 6 Towers - WTG Southern Site Area	68	OSOM Special	Portland
Top Towers - WTG Northern Site Area	8	OSOM Special	Portland
Top Towers - WTG Southern Site Area	68	OSOM Special	Portland
WTG Container - WTG Northern Site Area	8	Semi Trailer	Portland
WTG Container - WTG Southern Site Area	68	Semi Trailer	Portland

Turbine Blade Transport Unloaded (0%)	7.95	ESAs
Turbine Blade Transport Loaded (100%)	11.47	ESAs
Turbine Nacelle Transport Unloaded (0%)	4.88	ESAs
Turbine Nacelle Transport Loaded (100%)	24.41	ESAs
Turbine Drive Train Transport Unloaded (0%)	4.98	ESAs
Turbine Drive Train Transport Loaded (100%)	22.78	ESAs
Turbine Hub Transport Unloaded (0%)	4.77	ESAs
Turbine Hub Transport Loaded (100%)	12.38	ESAs
Turbine Tower Section (6 & Top) Transport Unloaded (Average) (0%)	2.59	ESAs
Turbine Tower Section (6 & Top) Transport Loaded (Average) (100%)	14.86	ESAs
Turbine Tower Section (Base & 2-5) Transport Unloaded (Average) (0%)	2.73	ESAs
Turbine Tower Section (Base & 2-5) Transport Loaded (Average) (100%)	22.87	ESAs
Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	18,841	4,433
Silver City Highway (Corbett Ave to Arumpo Road)	18,841	4,433
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	0	0
Sturt Highway (River Drv to Silver City Highway)	0	0
Sturt Highway (Silver City Highway to Gol Gol)	18,841	4,433
Sturt Highway (Gol Gol to Euston)	18,841	4,433
OSOM Transport route south of Euston	4,433	18,841
Arumpo Road (Silver City Highway to WTS Access)	18,841	4,433
Arumpo Road (WTS Access to Quarry)	18,841	4,433
Arumpo Road (Quarry to Northern Access)	18,841	4,433
Arumpo Road (Northern Access to Southern Access)	16,858	3,966

PHASE E - WTG INSTALLATION

Activity Description	Project Volume	Vehicle	Origin
WTG Erection Cranes (North)	6	OSOM Special	Mildura
WTG Erection Cranes (South)	6	OSOM Special	Mildura

Special Crane (Assume B-Double) Unloaded (0%)	1.69	ESAs
Special Crane (Assume B-Double) Loaded (100%)	6.91	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	83	20
Silver City Highway (Corbett Ave to Arumpo Road)	83	20
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	83	20
Sturt Highway (River Drv to Silver City Highway)	83	20
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	83	20
Arumpo Road (WTS Access to Quarry)	83	20
Arumpo Road (Quarry to Northern Access)	83	20
Arumpo Road (Northern Access to Southern Access)	41	10

PHASE F - ELECTRICAL TRENCHING AND CABLING

Activity Description	Project Volume	Vehicle	Origin
Electrical Cabling - HV Cable (South)	9	Low Loader	Mildura
Electrical Cabling - HV Towers (South)	89	Semi Trailer	Mildura
Electrical Cabling - LV Cable (North)	6	Low Loader	Mildura
Electrical Cabling - LV Cable (South)	39	Low Loader	Mildura
Electrical Cabling - LV Trench Sand (North)	239	Truck and Dog Trailer	Local Quarry
Electrical Cabling - LV Trench Sand (South)	2,406	Truck and Dog Trailer	Local Quarry
Cable Trenching Equipment	13	Low Loader	Mildura
HV Transmission Foundation (Water for Concrete)	7	Water Tanker	Buronga - Modica Crescent
HV Transmission Foundation (Steel Reinforcement)	12	Truck and Dog Trailer	Mildura
HV Transmission Foundation (Sand)	16	Truck and Dog Trailer	Local Quarry
HV Transmission Foundation (Aggregate)	24	Truck and Dog Trailer	Local Quarry
HV Transmission Foundation (Cement)	8	Truck and Dog Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	17,405	4,516
Silver City Highway (Corbett Ave to Arumpo Road)	17,439	4,519
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	17,405	4,516
Sturt Highway (River Drv to Silver City Highway)	17,405	4,516
Sturt Highway (Silver City Highway to Gol Gol)	4,403	16,513
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	17,439	4,519
Arumpo Road (WTS Access to Quarry)	17,439	4,519
Arumpo Road (Quarry to Northern Access)	17,439	4,519
Arumpo Road (Northern Access to Southern Access)	15,940	4,124

PHASE G - WTG COMMISSIONING AND TESTING

Activity Description	Project Volume	Vehicle	Origin
PMM Delivery (North)	2	Semi Trailer	Portland
PMM Foundation (Water for Concrete) (North)	1	Water Tanker	Buronga - Modica Crescent
PMM Foundation (Steel Reinforcement) (North)	1	Truck and Dog Trailer	Mildura
PMM Foundation (Sand) (North)	1	Truck and Dog Trailer	Local Quarry
PMM Foundation (Aggregate) (North)	1	Truck and Dog Trailer	Local Quarry
PMM Foundation (Cement) (North)	1	Truck and Dog Trailer	Mildura
PMM Delivery (South)	4	Semi Trailer	Portland
PMM Foundation (Water for Concrete) (South)	1	Water Tanker	Buronga - Modica Crescent
PMM Foundation (Steel Reinforcement) (South)	1	Truck and Dog Trailer	Mildura
PMM Foundation (Sand) (South)	1	Truck and Dog Trailer	Local Quarry
PMM Foundation (Aggregate) (South)	1	Truck and Dog Trailer	Local Quarry
PMM Foundation (Cement) (South)	1	Truck and Dog Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	79	16
Silver City Highway (Corbett Ave to Arumpo Road)	89	17
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	49	13
Sturt Highway (River Drv to Silver City Highway)	49	13
Sturt Highway (Silver City Highway to Gol Gol)	3	30
Sturt Highway (Gol Gol to Euston)	3	30
OSOM Transport route south of Euston	3	30
Arumpo Road (Silver City Highway to WTS Access)	89	17
Arumpo Road (WTS Access to Quarry)	89	17
Arumpo Road (Quarry to Northern Access)	89	17
Arumpo Road (Northern Access to Southern Access)	49	9

PHASE H - SUBSTATION AND ELECTRICAL CONNECTION CONSTRUCTION

Activity Description	Project Volume	Vehicle	Origin
Substation Civils - Imported Materials (Fill)	1,235	Truck and Dog Trailer	Local Quarry
Substation Civils - Imported Materials (Capping)	138	Truck and Dog Trailer	Local Quarry
Substation Electrical Components - Substation Equipment (Transformer)	6	OSOM Special	Portland
Substation Electrical Components - Substation Equipment (Switchgear)	6	OSOM Special	Portland
Substation Electrical Components - Substation Equipment (Cabling)	1	Semi Trailer	Portland
Substation Electrical Components - Substation Equipment (Misc. Equipment)	1	Semi Trailer	Portland
Collector Substations Civils - Imported Materials (Fill)	4,938	Truck and Dog Trailer	Local Quarry
Collector Substations Civils - Imported Materials (Capping)	549	Truck and Dog Trailer	Local Quarry

Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs
Large Electrical Components Unloaded (0%)	37.77	ESAs
Large Electrical Components Loaded (100%)	89.31	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	43,439	11,779
Silver City Highway (Corbett Ave to Arumpo Road)	43,439	11,779
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	42,189	11,250
Sturt Highway (River Drv to Silver City Highway)	42,189	11,250
Sturt Highway (Silver City Highway to Gol Gol)	11,779	43,439
Sturt Highway (Gol Gol to Euston)	529	1,250
OSOM Transport route south of Euston	529	1,250
Arumpo Road (Silver City Highway to WTS Access)	43,439	11,779
Arumpo Road (WTS Access to Quarry)	43,439	11,779
Arumpo Road (Quarry to Northern Access)	43,439	11,779
Arumpo Road (Northern Access to Southern Access)	43,439	11,779

PHASE I - OPERATIONAL INFRASTRUCTURE

Activity Description	Project Volume	Vehicle	Origin
Construction O&M Facility (Water for Concrete) (South)	7	Water Tanker	Buronga - Modica Crescent
Construction O&M Facility (Steel Reinforcement) (South)	13	Truck and Dog Trailer	Mildura
Construction O&M Facility (Sand) (South)	17	Truck and Dog Trailer	Local Quarry
Construction O&M Facility (Aggregate) (South)	25	Truck and Dog Trailer	Local Quarry
Construction O&M Facility (Cement) (South)	8	Truck and Dog Trailer	Mildura
Construction O&M Facility (Imported Fill) (South)	494	Truck and Dog Trailer	Local Quarry

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	3,426	913
Silver City Highway (Corbett Ave to Arumpo Road)	164	38
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	3,426	913
Sturt Highway (River Drv to Silver City Highway)	3,426	913
Sturt Highway (Silver City Highway to Gol Gol)	879	3,296
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	164	38
Arumpo Road (WTS Access to Quarry)	164	38
Arumpo Road (Quarry to Northern Access)	3,460	917
Arumpo Road (Northern Access to Southern Access)	3,460	917

PHASE J - BESS CONSTRUCTION

Activity Description	Project Volume	Vehicle	Origin
BESS Civils - Imported Materials (Fill)	772	Truck and Dog Trailer	Local Quarry
BESS Civils - Imported Materials (Capping)	86	Truck and Dog Trailer	Local Quarry
BESS Components - Battery Segments & Collectors	220	Semi Trailer	Portland
BESS Components - Power Conversion Stations (PCS)	132	Semi Trailer	Portland
BESS Components - MV Skid Units	46	Semi Trailer	Portland
BESS Components - Power Transformers	2	OSOM Special	Portland
BESS Components - High Voltage Switch Gear	2	OSOM Special	Portland
BESS Components - Control Room	1	OSOM Special	Portland

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
Truck & 4 Axle Dog Unloaded (0%)	1.64	ESAs
Truck & 4 Axle Dog Loaded (100%)	6.15	ESAs
Large Electrical Components Unloaded (0%)	37.77	ESAs
Large Electrical Components Loaded (100%)	89.31	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	7,685	1,799
Silver City Highway (Corbett Ave to Arumpo Road)	7,685	1,799
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	5,277	1,407
Sturt Highway (River Drv to Silver City Highway)	5,277	1,407
Sturt Highway (Silver City Highway to Gol Gol)	1,799	7,685
Sturt Highway (Gol Gol to Euston)	392	2,409
OSOM Transport route south of Euston	392	2,409
Arumpo Road (Silver City Highway to WTS Access)	7,685	1,799
Arumpo Road (WTS Access to Quarry)	7,685	1,799
Arumpo Road (Quarry to Northern Access)	7,685	1,799
Arumpo Road (Northern Access to Southern Access)	7,685	1,799

PHASE K - DECOMMISSION TEMPORARY STRUCTURES AND DEMOBILISATION

Activity Description	Project Volume	Vehicle	Origin
Main Construction Compound Demobilisation (South)	25	Semi Trailer	Mildura
Accommodation Camp Demobilisation (North)	350	Semi Trailer	Mildura
Minor Construction Compound Demobilisation (North)	10	Semi Trailer	Mildura
Minor Construction Compound Demobilisation (South)	10	Semi Trailer	Mildura
Batch Plant Demobilisation (South)	10	Semi Trailer	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	207	1,997
Silver City Highway (Corbett Ave to Arumpo Road)	207	1,997
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	207	1,997
Sturt Highway (River Drv to Silver City Highway)	207	1,997
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	207	1,997
Arumpo Road (WTS Access to Quarry)	207	1,997
Arumpo Road (Quarry to Northern Access)	207	1,997
Arumpo Road (Northern Access to Southern Access)	23	222

GENERAL OPERATIONS - SITE WATER (RAW & POTABLE)

Activity Description	Project Volume	Vehicle	Origin
Raw Water (General Operations) - Northern Site	117	Water Tanker	Buronga - River Drive
Raw Water (General Operations) - Southern Site	995	Water Tanker	Buronga - River Drive
Potable Water (General Operations) - Northern Site	3,330	Water Tanker	Buronga - Modica Crescent

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	5,482	567
Silver City Highway (Corbett Ave to Arumpo Road)	21,899	2,265
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	0	0
Sturt Highway (River Drv to Silver City Highway)	5,482	567
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	21,899	2,265
Arumpo Road (WTS Access to Quarry)	21,899	2,265
Arumpo Road (Quarry to Northern Access)	21,899	2,265
Arumpo Road (Northern Access to Southern Access)	4,905	507

GENERAL OPERATIONS - SITE FUEL & GENERAL DELIVERIES

Activity Description	Project Volume	Vehicle	Origin
Site Fuel (General Operations) - Northern Site	117	Fuel Tanker	Mildura
Site Fuel (General Operations) - Southern Site	995	Fuel Tanker	Mildura
General Operations (Temporary Workers Accommodation)	1,456	3-Axle Rigid	Mildura

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs
3-Axle Rigid Truck Unloaded (0%)	0.51	ESAs
3-Axle Rigid Truck Loaded (100%)	3.58	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	10,695	1,310
Silver City Highway (Corbett Ave to Arumpo Road)	10,695	1,310
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	10,695	1,310
Sturt Highway (River Drv to Silver City Highway)	10,695	1,310
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	10,695	1,310
Arumpo Road (WTS Access to Quarry)	10,695	1,310
Arumpo Road (Quarry to Northern Access)	10,695	1,310
Arumpo Road (Northern Access to Southern Access)	4,905	507

GENERAL OPERATIONS - WASTE

Activity Description	Project Volume	Vehicle	Origin
Site Waste (General Operations) - Northern Site	74	Semi	Buronga Landfill
Site Waste (General Operations) - Southern Site	147	Semi	Buronga Landfill
Site Waste - Temporary Workers Accommodation	243	Semi	Buronga Landfill

Semi Unloaded (0%)	0.51	ESAs
Semi Loaded (100%)	4.93	ESAs

Route Summary	Gaz	A-Gaz
Silver City Highway (Sturt Highway to Corbett Ave)	0	0
Silver City Highway (Corbett Ave to Arumpo Road)	0	0
Silver City Highway (Arumpo Road to Wentworth)	0	0
Sturt Highway (Mildura to River Drv)	0	0
Sturt Highway (River Drv to Silver City Highway)	0	0
Sturt Highway (Silver City Highway to Gol Gol)	0	0
Sturt Highway (Gol Gol to Euston)	0	0
Arumpo Road (Silver City Highway to WTS Access)	0	0
Arumpo Road (WTS Access to Quarry)	236	2,286
Arumpo Road (Quarry to Northern Access)	236	2,286
Arumpo Road (Northern Access to Southern Access)	75	726

UMW0122-004 | Mallee Wind Farm & BESS Project

Construction Pavement Impact % Calculations

Road ID	Road Description	AADT Segment	Base Data Year	Base Year AADT			Base Year HV%		Base Year HV		10 Yr GR%	2027			AADT		2027		HV	ESAs / HV	Duration (Days)	Background Pavement Loading (ESAs)		
				Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Gaz	A-Gaz		Gaz	A-Gaz	Bi-Dir	Gaz	A-Gaz	Bi-Dir	Gaz				A-Gaz	Bi-Dir	
				B79	Silver City Highway (Sturt Highway to Corbett Ave)	98286	2010	2,893	2,940	5,833		11.75%	11.31%	340	333	2.0%	4,051	4,117				8,168	476	466
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	2024	1,838	1,771	3,609	14.04%	16.09%	258	285	2.0%	1,951	1,879	3,830	274	302	3.19	1,095	956,573	1,056,282	2,012,855			
B79	Silver City Highway (Arumpo Road to Wentworth)	-	2024	1,211	1,208	2,419	12.14%	14.40%	147	174	2.0%	1,285	1,282	2,567	156	185	3.19	1,095	544,964	644,814	1,189,779			
A20	Sturt Highway (Mildura to River Drv)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	3.19	1,095	3,342,675	3,358,246	6,700,921			
A20	Sturt Highway (River Drv to Silver City Highway)	98063	2007	5,961	5,905	11,866	10.80%	10.96%	644	647	2.0%	8,858	8,775	17,632	957	961	3.19	1,095	3,342,675	3,358,246	6,700,921			
A20	Sturt Highway (Silver City Highway to Gol Gol)	-	2010	2,730	2,730	5,460	10.80%	10.96%	644	647	2.0%	3,823	3,823	7,645	902	906	3.19	1,095	3,149,877	3,164,550	6,314,427			
A20	Sturt Highway (Gol Gol to Euston)	98064	2007	1,011	1,028	2,039	27.00%	27.43%	273	282	2.0%	1,502	1,528	3,030	406	419	3.19	1,095	1,417,003	1,463,718	2,880,721			
	Arumpo Road (Silver City Highway to WTS Access)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	3.19	1,095	537,488	537,600	1,075,088			
	Arumpo Road (WTS Access to Quarry)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	3.19	1,095	537,488	537,600	1,075,088			
	Arumpo Road (Quarry to PEC Camp)	-	2024	708	644	1,352	20.48%	22.52%	145	145	2.0%	751	683	1,435	154	154	3.19	1,095	537,488	537,600	1,075,088			
	Arumpo Road (PEC Camp to Northern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	3.19	1,095	255,224	299,406	554,630			
	Arumpo Road (Northern Access to Southern Access)	98156	2010	191	181	372	27.32%	33.82%	52	61	2.0%	267	253	521	73	86	3.19	1,095	255,224	299,406	554,630			

Road ID	Road Description	AADT Segment	Project Pavement Loading - Construction																														% Increase									
			Gazettal															A-Gazettal															Bi-Dir	Total	Total	Gaz	A-Gaz	Bi-Dir				
			A1	A2	A3	A4	B	C	D	E	F	G	H	I	J	K	Water	Fuel	Waste	Total	A1	A2	A3	A4	B	C	D	E	F	G	H	I							J	K	Water	Fuel
B79	Silver City Highway (Sturt Highway to Corbett Ave)	98286	516	2,277	25,802	0	67,829	22,207	18,841	83	17,405	79	43,439	3,426	7,685	207	5,482	10,695	0	225,971	73	551	6,554	0	18,072	5,799	4,433	20	4,516	16	11,779	913	1,799	1,997	567	1,310	0	68,399	284,370	13.59%	3.59%	8.65%
B79	Silver City Highway (Corbett Ave to Arumpo Road)	-	516	2,277	25,802	0	81,031	25,954	18,841	83	17,439	89	43,439	164	7,685	207	21,899	10,695	0	266,120	73	551	6,554	0	19,437	6,187	4,433	20	4,519	17	11,779	38	1,799	1,997	2,265	1,310	0	60,980	317,100	26.77%	5.77%	15.75%
B79	Silver City Highway (Arumpo Road to Wentworth)	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%	0.00%	0.00%	
A20	Sturt Highway (Mildura to River Drv)	98063	516	2,277	25,802	340	67,829	22,207	0	83	17,405	49	42,189	3,426	5,277	207	0	10,695	0	198,299	73	551	6,554	46	18,072	5,799	0	20	4,516	13	11,250	913	1,407	1,997	0	1,310	0	62,622	250,920	5.93%	1.56%	3.74%
A20	Sturt Highway (River Drv to Silver City Highway)	98063	516	2,277	25,802	340	67,829	22,207	0	83	17,405	49	42,189	3,426	5,277	207	5,482	10,695	0	203,781	73	551	6,554	46	18,072	5,799	0	20	4,516	13	11,250	913	1,407	1,997	567	1,310	0	63,089	256,870	6.10%	1.58%	3.83%
A20	Sturt Highway (Silver City Highway to Gol Gol)	-	0	515	6,347	213	18,061	3,849	18,841	0	4,403	3	11,779	879	1,799	0	0	0	0	66,690	0	1,932	23,801	33	67,730	14,434	4,433	0	16,513	30	43,439	3,296	7,685	0	0	0	183,326	260,016	2.12%	5.79%	3.96%	
A20	Sturt Highway (Gol Gol to Euston)	98064	0	0	0	182	0	0	18,841	0	0	3	529	0	392	0	0	0	0	19,947	0	0	0	25	0	0	4,433	0	0	30	1,250	0	2,409	0	0	0	8,147	28,094	1.41%	0.56%	0.98%	
	Arumpo Road (Silver City Highway to WTS Access)	-	516	1,677	25,802	0	81,031	25,954	18,841	83	17,439	89	43,439	164	7,685	207	21,899	10,695	0	265,519	73	415	6,554	0	19,437	6,187	4,433	20	4,519	17	11,779	38	1,799	1,997	2,265	1,310	0	60,844	316,364	47.54%	11.32%	29.43%
	Arumpo Road (WTS Access to Quarry)	-	516	1,677	25,802	0	81,031	25,954	18,841	83	17,439	89	43,439	164	7,685	207	21,899	10,695	236	265,756	73	415	6,554	0	19,437	6,187	4,433	20	4,519	17	11,779	38	1,799	1,997	2,265	1,310	2,286	63,130	318,886	47.58%	11.74%	29.66%
	Arumpo Road (Quarry to PEC Camp)	-	516	1,677	25,802	0	81,031	25,954	18,841	83	17,439	89	43,439	3,460	7,685	207	21,899	10,695	236	269,052	73	415	6,554	0	19,437	6,187	4,433	20	4,519	17	11,779	917	1,799	1,997	2,265	1,310	2,286	64,009	323,062	48.20%	11.91%	30.05%
	Arumpo Road (PEC Camp to Northern Access)	98156	516	1,677	25,802	0	81,031	25,954	18,841	83	17,439	89	43,439	3,460	7,685	207	21,899	10,695	236	269,052	73	415	6,554	0	19,437	6,187	4,433	20	4,519	17	11,779	917	1,799	1,997	2,265	1,310	2,286	64,009	323,062	101.50%	21.38%	58.25%
	Arumpo Road (Northern Access to Southern Access)	98156	258	838	17,699	0	71,894	21,545	16,858	41	15,940	49	43,439	3,460	7,685	23	4,905	4,905	75	209,616	37	207	4,683	0	17,254	5,362	3,966	10	4,124	9	11,779	917	1,799	222	507	507	82,112	261,728	82.13%	17.41%	47.19%	



Appendix K – Sample Driver Code of Conduct

Driver Code of Conduct

This document sets out the requirements for all employees and contractors working at the site.

General Requirements

The Driver Code of Conduct would be distributed to all sub-contractors with fleet accessing the site prior to the commencement of works. The Code would be provided to each driver to read and sign to confirm they have understood and pledge to follow the haulage instructions. Once completed, a copy of the signed Code would be supplied to the contractor for record keeping.

Heavy vehicle drivers hauling to and from the subject site must:

- Have read and signed the Driver Code of Conduct (this document) prior to entry to the site;
- Hold a valid driver's license for the class of vehicle that it being operated;
- Operate the vehicle in a safe manner while on site and public road network;
- Comply with the direction of authorised site personnel when onsite;
- All drivers are to use seat belts when driving; and
- All drivers are to drive to the sign posted speed limit, both on public roads and within the site.

Site Access

All access to the construction site is to be via Arumpo Road only.

Heavy Vehicle Haul Routes

All heavy vehicle drivers must adhere to the designated truck routes to/from the site (to be confirmed).

Heavy Vehicle Speed

Truck drivers must comply with the Australian Road Rules with travelling along public roads. Drivers are to observe the posted speed limits, and adjust speed appropriately to suit the road and weather conditions at the time.

The maximum speed that a vehicle must travel is the signposted speed. Warning signs indicating a reduction in speed ahead must also be obeyed.

Upon reaching the site, drivers will be instructed by traffic controllers on when and how to enter the site.

Heavy Vehicles Driver Fatigue

The heavy vehicle driver fatigues law commenced in NSW in 2008 and applies to trucks and truck combinations over 12 tonnes GVM (however, Ministerial Exemption Notices may apply).

Under the law, industry has the choice of operating under three fatigue management schemes, namely:

1. Standard Hours of Operation
2. Basic Fatigue Management (BFM)
3. Advanced Fatigue management (AFM).

All heavy vehicle drivers associated with the construction works at the subject site must be aware of their adopted fatigue management scheme and operate within its requirements.

Heavy Vehicle Compression Braking

Compression braking/ engine braking is not permitted within the vicinity of the site, that includes, internal to and surrounding the subject site.

Heavy Vehicle Noise

Permitted times of construction works at the site are as follows:

- Construction works shall be carried out on:
 - Monday to Friday 7:00am – 6:00pm
 - Saturday 8:00am – 1:00pm
 - No work is to be undertaken on Sundays or public holidays

Any works outside these times will only occur with approval from the relevant authorities prior to the commencement of any works.

Load Covering

All loaded trucks arriving at and departing from the construction site are required to have an effective cover over their load for the duration of the journey. The load cover may be removed only upon arrival at the destination (ie. at the site).

Care must be taken to ensure that all loose debris from vehicles and wheels is removed prior to exiting the site.

Site management is to monitor loose material on the side of the haul route and take appropriate action regularly.

Other Safety Considerations Along the Haul Route

Heavy vehicle drivers should be aware of the following:

- Concealed driveways – drivers are to drive with caution around any signed concealed driveways.
- Wet weather safety – drivers should adjust their driving speed to suit weather condition at the time.
- Other motorists – drivers should stay alert to other drivers, motorcyclists and cyclists on whilst driving to/ from the site.

Declaration

I, the undersigned, hereby agree to abide by the Driver Code of Conduct for the transportation of construction materials to/ from the site in a safe manner.

I have read and understand the requirements outlined in the Code and will, to the best of my ability, comply and assist with their implementation, requirements and ongoing administration.

Driver

Full Name: _____

Organisation: _____

Signature: _____

Date: _____



ACCESS TRAFFIC
CONSULTING

TRAFFIC IMPACT ASSESSMENTS | SITE FEASIBILITY STUDIES | INTERSECTION ANALYSIS
ROAD SAFETY AUDITS | ROAD SAFETY INVESTIGATIONS | PAVEMENT IMPACT ASSESSMENTS
TRANSPORT ROUTE ASSESSMENTS | TRANSPORT PLANNING | ACCESS MANAGEMENT STRATEGIES
PEER REVIEWS | PARKING FACILITY DESIGN | SERVICE FACILITY DESIGN



P 1300 793 267 **E** info@umwelt.com.au **W** umwelt.com.au
NSW | ACT | WA | QLD | VIC | SA **ABN** 18 059 519 041