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16 January 2013

Jonathan Upson
Senior Development & Government Affairs Manager
Infigen Energy
Level 23 HWT Tower, 40 City Road
Southbank, VIC 3006

Dear Jonathan

Preliminary review of potential road upgrades – Flyers Creek Wind Farm

This letter report provides further assessment on the Traffic and Transport section of the Flyers Creek Wind Farm Environmental Assessment (EA) report.

Aurecon has undertaken this desktop assessment to evaluate the key roads and intersections, as requested by Infigen Energy, to perform a preliminary feasibility, accessibility and functionality analysis for the proposed construction routes for the Flyers Creek Wind Farm. It is beneficial to identify locations along the preferred route, where roads and intersections may require upgrading, to assist with Restricted Access Vehicle (RAV) manoeuvring.

With reference to Figure 13.2 from the Environmental Assessment report, the following intersections and road sections of the proposed transport routes were assessed:

Intersections:

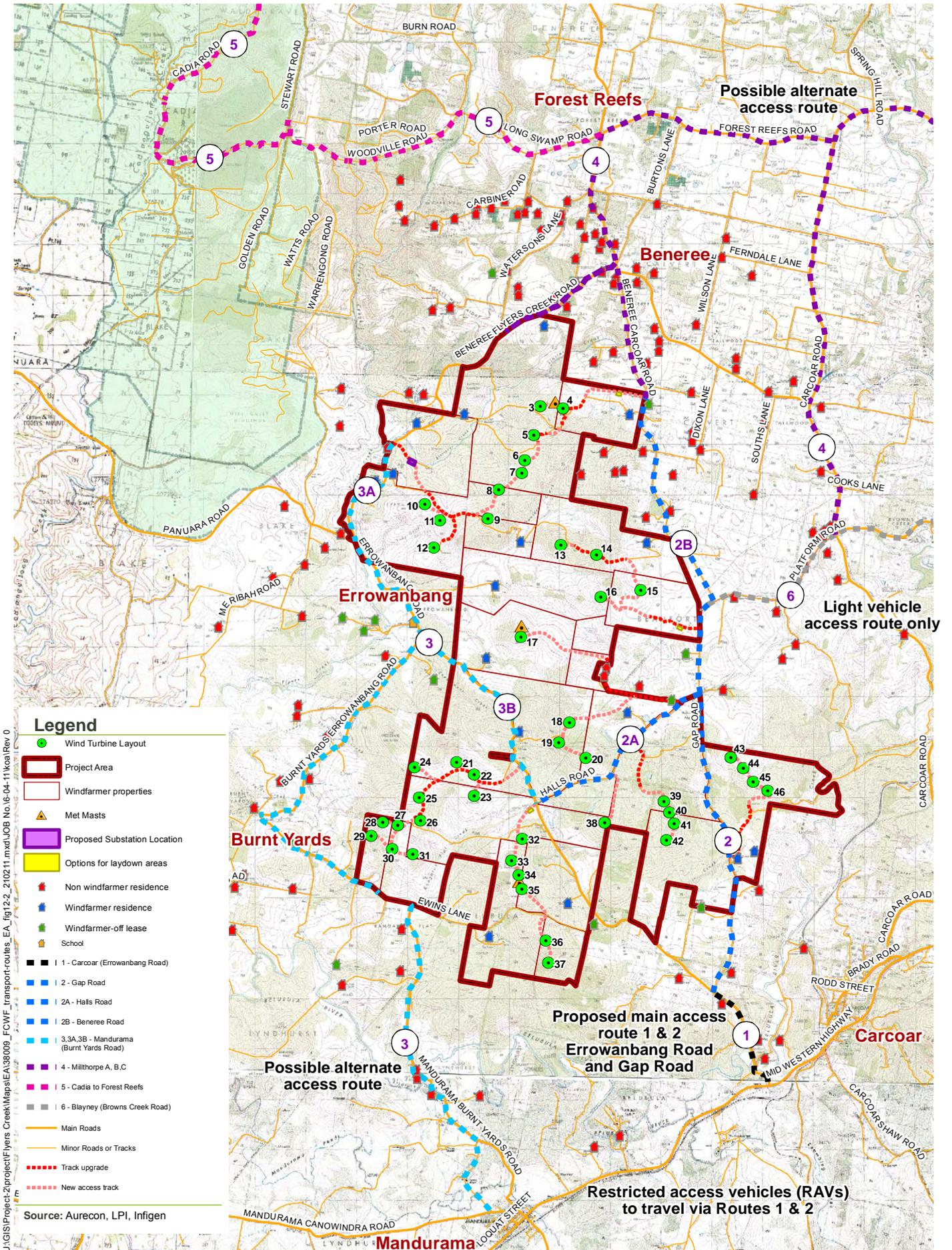
- Mid-Western Highway / Errowanbang Road
- Gap Road / Errowanbang Road
- Gap Road / Halls Road
- Halls Road / Errowanbang Road
- Gap Road / Beneree-Carcoar Road
- Errowanbang Road / access road to Wind Turbine Generator (WTG) 21-31 intersection
- Beneree-Carcoar Road / access road to WTG 4 intersection

Proposed transport routes:

- Route 1
- Route 2
- Route 2A
- Route 2B (between Gap Road and the access road for WTG 4)
- Route 3B (between Halls Road and the access road for WTG 21-31)

Figure 13.2 is provided overleaf which highlights the abovementioned intersections and routes as part of this desktop assessment.

It should be noted that this assessment focuses on the horizontal alignment of the subject roads and intersections and how the potential wind turbine transport vehicles might, indicatively, negotiate and manoeuvre with the existing layouts. No assessment has been performed for the vertical profiles of the terrain, for the roads and intersections, to determine height/body clearances in addition to the sealed/unsealed road conditions. A detailed route assessment in terms of horizontal and vertical alignments, as well as road condition, will be performed for the chosen transport vehicles as part of the overall Traffic Management Plan (TMP).



Overview

The vehicle templates adopted for this assessment are the smallest and largest, in terms of length, indicative wind turbine transport vehicles as illustrated in Figure 13.1 from the Environmental Assessment report. The transport vehicles are:

- B-double (25 m)
- Volvo FH16 8x4 + Nootboom Tower Trailer

Figure 1.1 below is an extract of Figure 13.1 which indicates the vehicles adopted for this assessment.

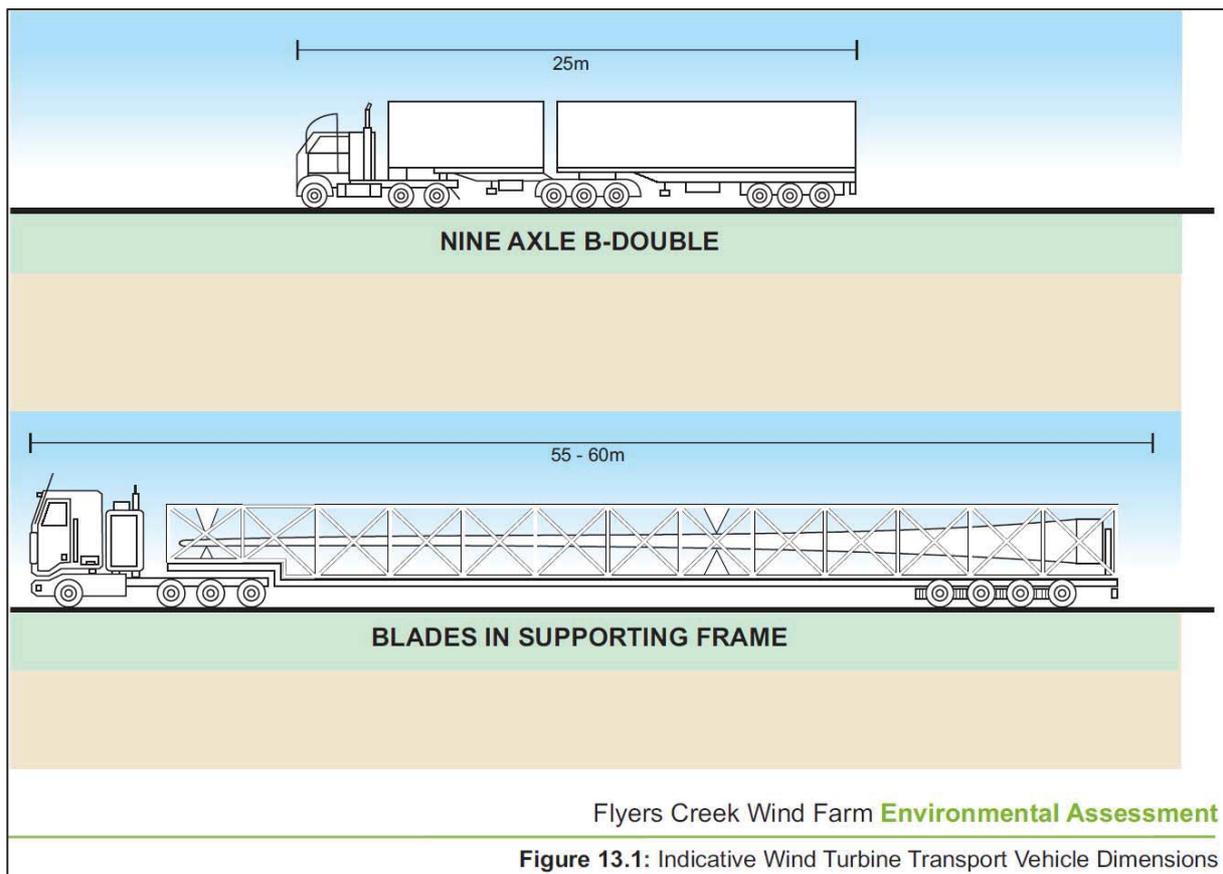


Figure 1.1 Indicative wind turbine transport vehicles for swept path assessment

The B-double transport vehicle is a standard Australian RAV design vehicle, in accordance with Austroads guidelines. However the wind turbine blade transport vehicle would be a potential truck and trailer combination that would be typically suited for transporting the turbine blades and is representative of the vehicle dimensions and constraints to that of the 'Blades in supporting frame' vehicle as illustrated in Figure 1.1. For the purposes of this assessment, it is assumed that the wind turbine components will be accommodated within the trailer of the transport vehicle, as depicted, where no overhang is present. This is a conservative assumption, as a modest overhang would suggest a reduced trailer length and therefore a somewhat smaller turning radius is likely, which would require further assessing. Attachment A contains the AutoTrack vehicle details and the swept path turning templates.

It should be noted that the wind turbine blade transport vehicle adopted to assess the swept path manoeuvres does not have a driver (separate to truck driver) controlled steering trailer. The AutoTrack software does not account for a driver controlling the rear trailer axles, enabling the rear axle to pivot. In reality, some trailers do include a remote controller for the rear axles, separate to the truck driver, which would be following in a trailing vehicle, manoeuvring the rear trailer axles according to road alignment and space allowance. Should the Flyers Creek Wind Farm project utilise trucks with this capability, then the wind turbine blade transport vehicles may be able to negotiate the horizontal alignments in the roads/intersections with increased manoeuvrability. This has the potential result in minimising the required road/intersection upgrades, than indicated in this report. The specifications of the trucks to be utilised, along with the exact length of the blades to be transported, would be determined prior to the detailed transport studies to be undertaken as part of the TMP.

From the swept path assessments, generally B-double vehicles manoeuvred comfortably throughout the subject roads and intersections. The sweep of the B-double turn path at the acute-angled intersections, such as Halls Road with Gap Road and Errowanbang Road, travels over the gravel/grass shoulders, requiring the use of the whole roadway/intersection width to complete the turning manoeuvre. However, the sweep of the wind turbine blade transport vehicle resulted in much larger turning manoeuvres which encroach on existing grass verges and potentially property boundaries, in particular the Halls Road/Errowanbang Road intersection.

1 Approval and permits

Details of the vehicle mass, dimension limits and the operating conditions are described in the following Roads and Maritime Services (RMS) publications:

- *Class 1 Special Purpose Vehicle Notice 2012*, RMS.
- *Class 1 Special Purpose Vehicle Notice 2012, Appendix 1*, RMS.
- *Oversize and Overmass Special Purpose Vehicles*, Frequently Asked Questions, June 2011.
- *Low Loader Mass & Spacing Limits*, Information Sheet, RMS Special Permits Unit, May 2009.
- *Operating Conditions: Specific permits for oversize and overmass vehicles and loads*, RMS Special Permits Unit, Version 2, August 2008.
- *Heavy Vehicle Mass, Loading and Access*, National Heavy Vehicle Reform Vehicle Operations, RMS, Pub. 01.029.
- *Construction Requirements for Low Loader Floats*, Vehicle Standards Information Sheet No. 45, September 2001.
- *Vehicle Dimension Limits*, Vehicle Standards Information Sheet No. 5, Revision 3, May 1998.

In summary, vehicles in excess of 2.5 m in width, 4.3 m in height and 19 m in length are considered “Restricted Access” vehicles and will require special permits. Prior to any construction transportation tasks proceeding, the appropriate oversize and/or overmass permits must be sought from RMS. Furthermore, the use of such oversize and/or overmass vehicles must adhere to restrictions outlined in the above documents such as, but not limited to:

- Appropriate markings and signs for Special Purpose Vehicles
- Travel restrictions in terms of visibility and minimum following distances
- The use of pilot and escort vehicles
- The use of warning lights and signs

2 Intersections

The following summarises the indicative outcomes from the swept path assessments at the identified intersections for the B-double and wind turbine blade transport vehicles. The relevant swept path figures are included in Attachment B.

Note the figures in Attachment B are not scalable, but have been assessed using AutoTrack in AutoCAD which the aerial photography is geographically inserted to approximate coordinates and is orthogonally correct.

2.1 Mid-Western Highway / Errowanbang Road intersection

Referring to Figures B.1 and B.2, the B-double manoeuvres the intersection comfortably with the existing layout, however the wind turbine blade transport vehicle encroaches the southbound shoulder with the right turn entry. The right and left turn entry movement runs over the corner splays for the Errowanbang Road approach where widening may be required.

2.1.1 Ashburton Bridge

Referring to Figure B.3, indicative measurements from available aerial photography approximates that the Ashburton Bridge along Errowanbang Road, north of Mid-Western Highway, is about 7 m wide. RAVs crossing this bridge would occupy both lanes when manoeuvring over the recently upgraded road bridge. At this stage, no information appears to be available to determine the bridge's load limit. Confirmation would be required to determine the maximum load for Ashburton Bridge.

The other concern would be in relation to the bridge width, where consideration should be exercised in the event that oversized wind turbine components are transported over Ashburton Bridge. A detailed swept path analysis would be required to be undertaken to take account of width overhang.

2.2 Gap Road / Errowanbang Road intersection

Referring to Figures B.4 and B.5, the B-double is able to manoeuvre through the existing unsealed intersection, however the wind turbine blade transport vehicle encroaches the grassed area of the north-eastern corner of the intersection. Therefore, the Gap Road approach to the intersection would likely require widening to accommodate the right and left turn movements of the wind turbine blade transport vehicle.

2.3 Gap Road / Halls Road intersection

Referring to Figures B.6 and B.7, the B-double is able to turn left and right, as illustrated, whilst occupying the full road width. The wind turbine blade transport vehicle requires additional road width, particularly the Halls Road approach and the south-western corner of the intersection to enable the left and right turn manoeuvres as illustrated in Figure B.7.

2.4 Halls Road / Errowanbang Road intersection

Referring to Figures B.8 and B.9, the B-double swept path appears to run over the verge on the Halls Road approach, as this section of road layout is unpaved and narrow, particularly Halls Road. The wind turbine blade transport vehicle, however, runs over the shoulders and may encroach on the property fence boundary of the north-eastern corner of the intersection. The Halls Road approach would also likely require widening to accommodate the swept path of the wind turbine blade transport vehicle.

2.5 Gap Road / Beneree-Carcoar Road intersection

Referring to Figures B.10 and B.11, the B-double swept path is able to manoeuvre through the existing intersection layout. The wind turbine blade transport vehicle runs over the grass verge beyond the unsealed shoulders; however it does not encroach over any property boundary fences. The Beneree-Carcoar Road approach would likely require widening.

2.6 Site access road intersections

2.6.1 Errowanbang Road / access road to WTG 21-31 intersection

The location for the site access road for WTG 21-31 is assumed at the location depicted in Figures B.12 and B.13. As this site access road will be new, the approaches from Errowanbang Road should be widened to allow the wind turbine blade transport vehicle to run over the grass verge as illustrated in Figure B.13.

2.6.2 Beneree-Carcoar Road / access road to WTG 4 intersection

The location for the site access road for WTG 4 is assumed at the location depicted in Figures B.14 and B.15. The new site access road intersection with Beneree-Carcoar Road would require some widening of the south-western grass corner to provide for the swept path of the wind turbine blade transport vehicle.

3 Routes

The following summarises the outcomes from the swept path assessments along the identified potential transport routes for the B-double and wind turbine blade transport vehicles.

3.1 Route 1

Route 1 consists of the road section of Errowanbang Road, between the intersections with Mid-Western Highway and Gap Road. Referring back to Section 2.1.1 Ashburton Bridge, RAVs should be cautious crossing this recently upgraded road bridge. Confirmation is required of the permissible load limit for the bridge structure.

At this stage, the horizontal alignment of Route 1 does not require any upgrades and/or widening to accommodate the RAVs based on the swept path assessments for the B-double and wind turbine blade transport vehicles.

3.2 Route 2

Route 2 consists of the road section of Gap Road, between the intersections with Errowanbang Road and Beneree-Carcoar Road.

At this stage, excluding the intersections with Gap Road and Beneree-Carcoar Road, the horizontal alignment of Route 2 does not require any upgrades and/or widening to accommodate the RAVs based on the swept path assessments for the B-double and wind turbine blade transport vehicles.

3.3 Route 2A

Route 2A consists of the road section of Halls Road, between the intersections with Gap Road and Errowanbang Road.

According to the swept path assessment along Halls Road, there may be as many as seven (7) horizontal alignment sections that require widening to accommodate the wind turbine blade transport vehicle. As mentioned previously, the use of wind turbine blade transport vehicles with “steerable” rear axles may potentially reduce the extent of widening required. Refer to Figure B.16 that circles the locations where widening might be required.

3.4 Route 2B

Route 2B consists of the road section of Beneree-Carcoar Road, between the intersections with Gap Road and the site access road to WTG 4.

At this stage, excluding the intersections with Gap Road and the site access road to WTG 4, the horizontal alignment of Route 2B does not appear to require any upgrades and/or widening to accommodate the RAVs based on the swept path assessments for the B-double and wind turbine blade transport vehicles.

3.5 Route 3B (between Halls Road and access road for WTG 21-31)

Route 3B consists of the road section of Errowanbang Road, between the intersections with Halls Road and the site access road to WTG 21-31.

At this stage, excluding the intersections with Halls Road and the site access road to WTG 21-31, the horizontal alignment of Route 3B does not require any upgrades and/or widening to accommodate the RAVs based on the swept path assessments for the B-double and wind turbine blade transport vehicles.

4 Conclusions

The following intersections may require upgrading and/or widening to some degree, based on this preliminary analysis, to enable the turning manoeuvres of RAVs, in particular for the wind turbine blade transport vehicle:

- Mid-Western Highway / Errowanbang Road intersection
 - Southbound lane shoulder
 - Errowanbang Road approach corner splays.
- Gap Road / Errowanbang Road intersection
 - North-east corner
 - Gap Road approach
- Gap Road / Halls Road intersection
 - Halls Road approach
 - South-western corner
- Halls Road / Errowanbang Road intersection
 - Halls Road approach
 - North-eastern corner
- Gap Road / Beneree-Carcoar Road intersection
 - Beneree-Carcoar Road approach
- Errowanbang Road / access road to WTG 21-31 intersection
 - Errowanbang Road southern approach
- Beneree-Carcoar Road / access road to WTG 4 intersection
 - Beneree-Carcoar Road southern approach
 - South-western corner

The following road sections are likely to require some widening on the basis of this preliminary analysis:

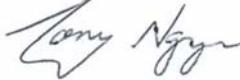
- Route 2A
 - Up to seven (7) horizontal alignment sections along Halls Road

Based on the preliminary swept path assessments undertaken for the proposed routes to transport components for the Flyers Creek Wind Farm, the above locations are likely to require upgrading, mostly by road and/or intersection widening to some degree, to provide the space required to manoeuvre Restricted Access Vehicles within the study area site.

This desktop assessment has focused only on the horizontal alignment of the subject roads and intersections. Further detailed assessment should be undertaken for the remainder of the study area that takes into account horizontal and vertical alignments, as well as the crossfall/superelevation, of the proposed routes.

These detailed assessments, utilising the actual blade lengths and characteristics of the transport vehicles (exact length, 'rear steering' capability, etc.), will need to be undertaken as part of the comprehensive studies prepared in conjunction with the Traffic Management Plan.

Regards,



Tony Nguyen

Transport Planner / Modeller

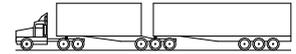
Transport Services, Aurecon

Attachment A

AutoTrack Vehicle Details

AutoTrack Vehicle Details

Ref: 100008



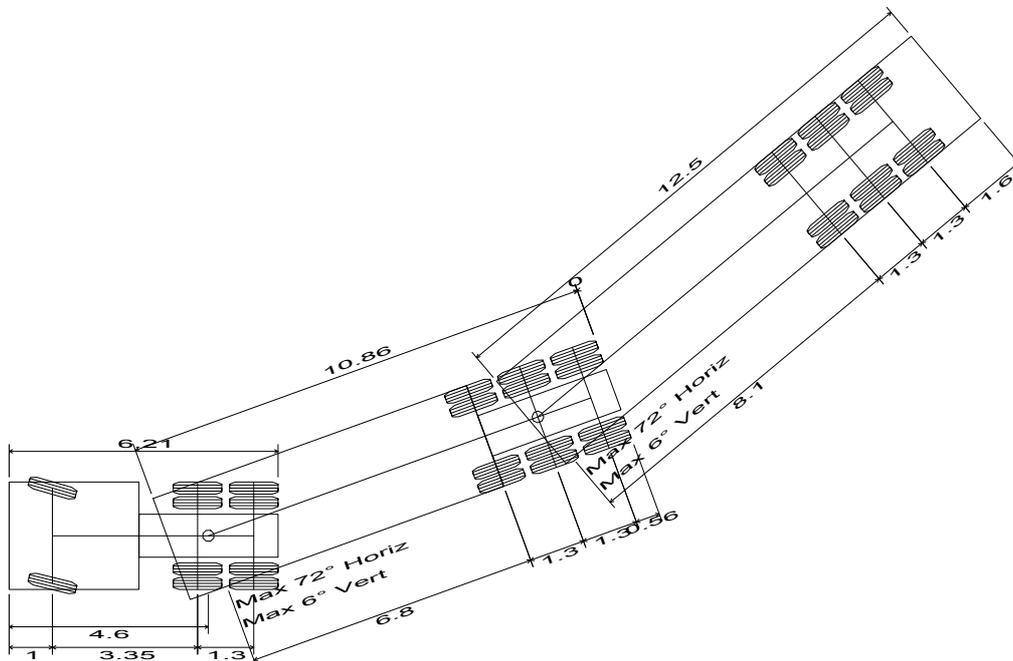
Vehicle Name: B-Double (25.0m)
Type: Road train
Category: Savoy
Classification: Savoy

Source: Austroads Publication AP-G34/06 (2006)

Description: Restricted access vehicle

Notes:

Unit 1 Name: B-Double Tractor for 25m
Unit 2 Name: B-Double Trailer 1 for 25m
Unit 3 Name: B-Double Trailer 2



B-Double (25.0m)	
Overall Length	25.000m
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

AutoTrack Vehicle Details

Ref: 100008

Unit Name:	B-Double Tractor for 25m
Type:	Tractor (with driver controlled steering)
Body style:	Articulated Vehicle Tractor (Large)
Classification	Savoy
Source:	AUSTROADS
Description:	Restricted access vehicle
Notes:	
Datum:	Front Primary Axle
Front Axle(s):	1 Ackerman (axles fixed, wheels turn)
Primary Front Axle Offset:	0.000m
Effective Front Axle Offset:	0.000m (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Status:	Active Non Self-Steered
Track Width:	2.500m
Total Wheels:	2 (positioned at the ends of the axle)
Tire Width:	0.280m
Tire Diameter:	1.120m
Rear Axle(s):	2 Fixed (All axles identical)
Primary Rear Axle Offset:	3.350m (Innermost Axle behind Front Primary Axle)
Effective Rear Axle Offset:	4.000m (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Rear Axle Spacing:	1.300m
Status:	Active Non Self-Steered
Track Width:	2.500m
Total Wheels:	4 (positioned at 0.340m centres)
Tire Width:	0.280m
Tire Diameter:	1.120m
Steering:	Front Axle(s):
Min. Curb / Curb Turning Radius:	15.000m (based upon all axles)
Calculated Maximum Wheel Angle:	18.300deg
Lock to Lock Time (Fwd/Rev):	6.0sec / 6.0sec
Driver / Pilot	
Driver Offset Longitudinally:	-0.500m (in front of Front Primary Axle)
Driver / Pilot Offset Laterally:	-0.600m (Right of Centerline)
Driver Height:	2.200m (Above ground level)
Front coupling:	None
Rear coupling:	Generic
Coupling Offset:	3.600m (behind Front Primary Axle)
Coupling Height:	1.120m (Auto Calculated - proportion of Tire Diameter)
Capability:	Can tow or be towed
Max. Horizontal Articulation Angle:	72.000deg
Max. Vertical Articulation Angle:	6.000deg
Body outline (plan):	
Outline Type:	Line
Offset (X,Y):	0.000m, 0.000m
Vertices...	
1	-1.000, 1.250
2	2.000, 1.250
3	2.000, -0.500
4	2.000, 0.500
5	5.210, 0.500

AutoTrack Vehicle Details
(continued...)

Ref: 100008

6	5.210, -0.500
7	2.000, -0.500
8	2.000, -1.250
9	-1.000, -1.250
10	-1.000, 1.250

AutoTrack Vehicle Details

Ref: 100008

Unit Name:	B-Double Trailer 1 for 25m
Type:	Trailer (no driver controlled steering)
Body style:	Articulated Vehicle Semi-Trailer
Classification	Savoy
Source:	AUSTROADS
Description:	Restricted access vehicle
Notes:	
Datum:	Front coupling
Maximum Articulation Angle:	72deg (to previous unit)
Front Axle(s):	None
Rear Axle(s):	3 Fixed (All axles identical)
Primary Rear Axle Offset:	6.800m (Innermost Axle behind Front coupling)
Effective Rear Axle Offset:	8.100m (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Rear Axle Spacing:	1.300m
Status:	Active Non Self-Steered
Track Width:	2.500m
Total Wheels:	4 (positioned at 0.340m centres)
Tire Width:	0.280m
Tire Diameter:	1.120m
Front coupling:	Generic
Coupling Offset:	0.000m (in front of Front coupling)
Coupling Height:	1.120m
Capability:	Can tow or be towed
Max. Horizontal Articulation Angle:	72.000deg
Max. Vertical Articulation Angle:	6.000deg
Rear coupling:	Generic
Coupling Offset:	8.100m (behind Front coupling)
Coupling Height:	1.120m (Auto Calculated - proportion of Tire Diameter)
Capability:	Can tow or be towed
Max. Horizontal Articulation Angle:	72.000deg
Max. Vertical Articulation Angle:	6.000deg
Body outline (plan):	
Outline Type:	Line
Offset (X,Y):	0.000m, 0.000m
Vertices...	
1	-0.900, 1.250
2	6.800, 1.250
3	6.800, -1.250
4	6.800, 0.500
5	9.960, 0.500
6	9.960, -0.500
7	6.800, -0.500
8	6.800, -1.250
9	-0.900, -1.250
10	-0.900, 1.250

AutoTrack Vehicle Details

Ref: 100008

Unit Name: **B-Double Trailer 2**
Type: Trailer (no driver controlled steering)
Body style: Articulated Vehicle Semi-Trailer
Classification: Savoy

Source: AUSTROADS

Description: Restricted access vehicle

Notes:

Datum: Front coupling

Maximum Articulation Angle: 72deg (to previous unit)
Front Axle(s): None

Rear Axle(s): 3 Fixed (All axles identical)
Primary Rear Axle Offset: 8.100m (Innermost Axle behind Front coupling)
Effective Rear Axle Offset: 9.400m (Auto Calculated)
Maximum Wheel Angle: Unlimited
Rear Axle Spacing: 1.300m
Status: Active Non Self-Steered
Track Width: 2.500m
Total Wheels: 4 (positioned at 0.340m centres)
Tire Width: 0.280m
Tire Diameter: 1.120m

Front coupling: Generic
Coupling Offset: 0.000m (in front of Front coupling)
Coupling Height: 1.120m
Capability: Can tow or be towed
Max. Horizontal Articulation Angle: 72.000deg
Max. Vertical Articulation Angle: 6.000deg

Rear coupling: None

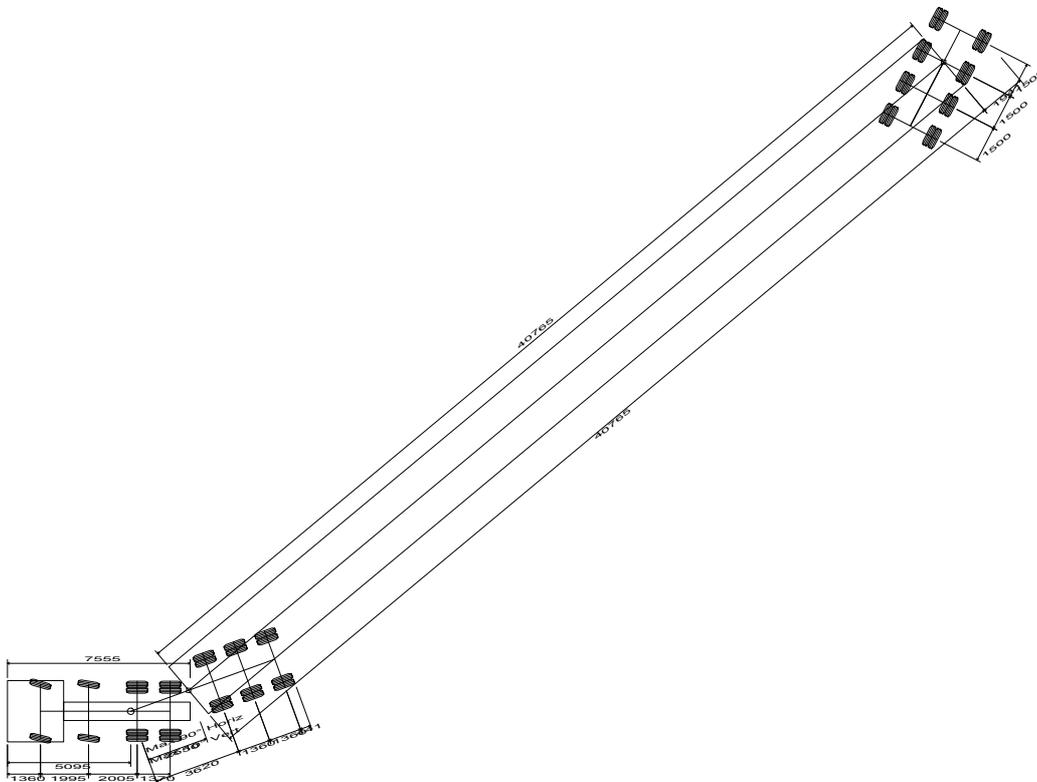
Body outline (plan):
Outline Type: Rectangle
Offset (X,Y): -0.200m, 0.000m
Length / Width: 12.500m / 2.500m

AutoTrack Vehicle Details

Ref:



Vehicle Name: Volvo FH16 8x4 + Nootboom Tower Trailer
Type: Articulated vehicle
Category: Savoy
Classification: Savoy
Source: Volvo & Nootboom
Description:
Notes:
Unit 1 Name: Volvo FH16 8x4 + Nootboom Tower Trailer Tractor
Unit 2 Name: Volvo FH16 8x4 + Nootboom Tower Trailer Trailer 1



Volvo FH16 8x4 + Nootboom Tower Trailer
 Overall Length 50351mm
 Overall Width 2550mm
 Overall Body Height 4900mm
 Min Body Ground Clearance 427mm
 Max Track Width 2520mm
 Lock to Lock Time 6.00 sec
 Wall to Wall Turning Radius 9800mm

AutoTrack Vehicle Details

Ref:

Unit Name:	Volvo FH16 8x4 + Nootboom Tower Trailer Tractor
Type:	Tractor (with driver controlled steering)
Body style:	Articulated Vehicle Tractor (Small)
Classification	Savoy
Source:	No data
Description:	No data
Notes:	No data
Datum:	Front Primary Axle
Front Axle(s):	2 Ackerman (axles fixed, wheels turn) (All axles identical)
Primary Front Axle Offset:	0mm
Effective Front Axle Offset:	-1995mm (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Front Axle Spacing:	1995mm
Status:	Active Non Self-Steered
Track Width:	2500mm
Total Wheels:	2 (positioned at the ends of the axle)
Tire Width:	250mm (Auto Calculated - proportion of Track Width)
Tire Diameter:	875mm (Auto Calculated - proportion of Track Width)
Rear Axle(s):	2 Fixed (All axles identical)
Primary Rear Axle Offset:	2005mm (Innermost Axle behind Front Primary Axle)
Effective Rear Axle Offset:	2690mm (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Rear Axle Spacing:	1370mm
Status:	Active Non Self-Steered
Track Width:	2500mm
Total Wheels:	4 (positioned at the ends of the axle)
Tire Width:	250mm (Auto Calculated - proportion of Track Width)
Tire Diameter:	875mm (Auto Calculated - proportion of Track Width)
Steering:	Front Axle(s):
Min. Wall / Wall Turning Radius:	9800mm (based upon body only)
Calculated Maximum Wheel Angle:	41.400deg
Lock to Lock Time (Fwd/Rev):	6.0sec / 6.0sec
Driver / Pilot	
Driver Offset Longitudinally:	2200mm (in front of Front Primary Axle)
Driver / Pilot Offset Laterally:	-600mm (Right of Centerline)
Driver Height:	2200mm (Above ground level)
Front coupling:	None
Rear coupling:	Generic
Coupling Offset:	1740mm (behind Front Primary Axle)
Coupling Height:	875mm (Auto Calculated - proportion of Tire Diameter)
Capability:	Can tow or be towed
Max. Horizontal Articulation Angle:	90.000deg
Max. Vertical Articulation Angle:	10.000deg
Body outline (plan):	
Outline Type:	Tractor body

AutoTrack Vehicle Details

Ref:

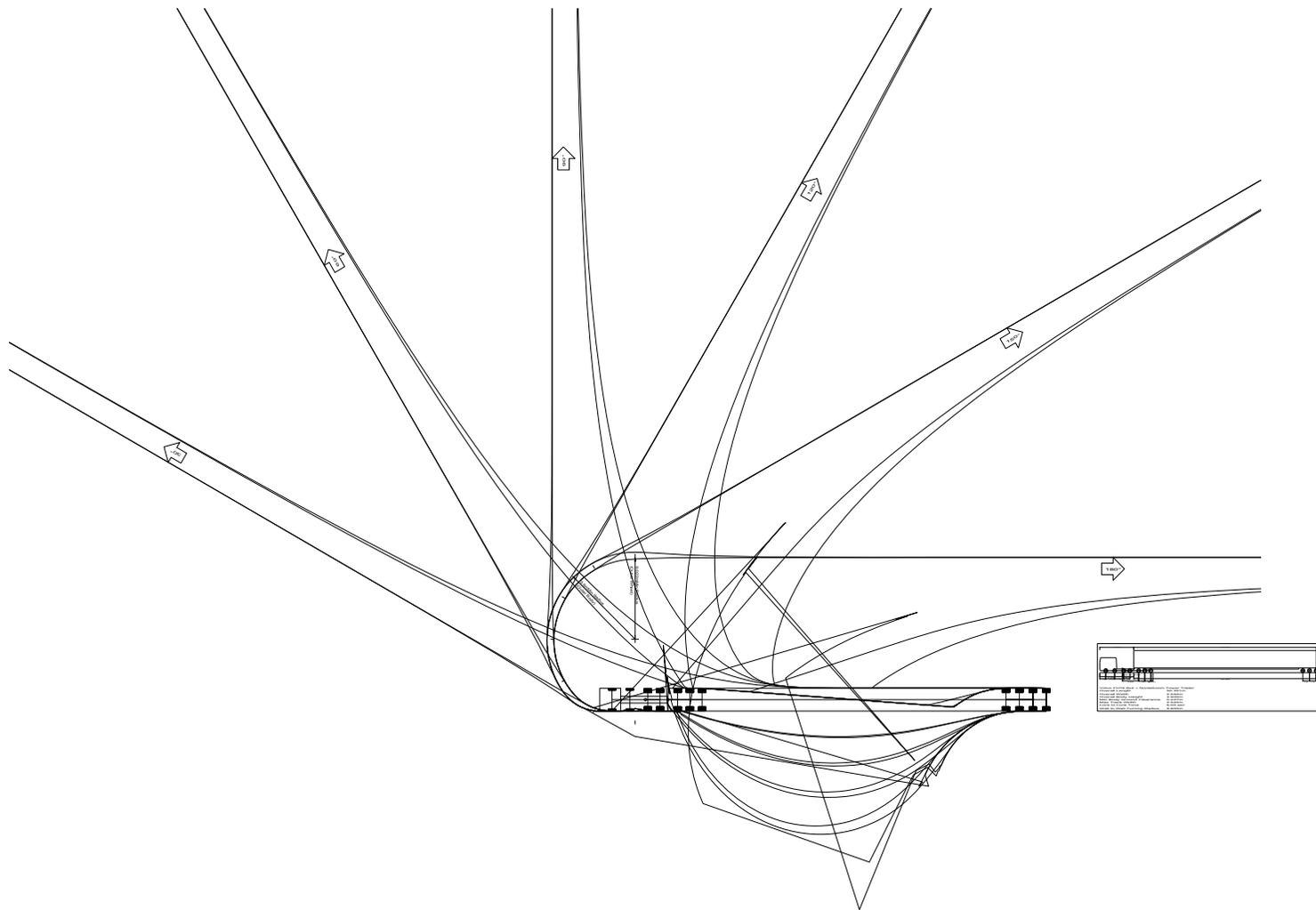
Unit Name:	Volvo FH16 8x4 + Nootboom Tower Trailer Trailer 1
Type:	Trailer (no driver controlled steering)
Body style:	Articulated Vehicle Semi-Trailer
Classification	Savoy
Source:	No data
Description:	No data
Notes:	No data
Datum:	Front coupling
Maximum Articulation Angle:	90deg (to previous unit)
Front Axle(s):	3 Drawbar (common axle pivot) (All axles identical)
Primary Front Axle Offset:	6340mm
Effective Front Axle Offset:	0mm (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Front Axle Spacing:	1360mm
Drawbar Length:	2550mm
Drawbar Articulation Angle:	180.000deg
Drawbar Pivot Offset:	-3790mm (in front of Primary Front Axle)
Status:	Active Non Self-Steered
Track Width:	2520mm
Total Wheels:	4 (positioned at the ends of the axle)
Tire Width:	252mm (Auto Calculated - proportion of Track Width)
Tire Diameter:	882mm (Auto Calculated - proportion of Track Width)
Rear Axle(s):	4 Bogie (common axle pivot) (All axles identical)
Primary Rear Axle Offset:	40315mm (Innermost Axle behind Front coupling)
Effective Rear Axle Offset:	4980mm (Auto Calculated)
Maximum Wheel Angle:	Unlimited
Rear Axle Spacing:	1500mm
Linkage:	Rear axles linked to front axles
Basis	Angle of rear wheels
Rule 1:	Forwards and reverse from 0.00deg, 100.00 based upon Tangents
Status:	Active Non Self-Steered
Track Width:	2520mm
Total Wheels:	4 (positioned at the ends of the axle)
Tire Width:	252mm (Auto Calculated - proportion of Track Width)
Tire Diameter:	882mm (Auto Calculated - proportion of Track Width)
Front coupling:	Generic
Coupling Offset:	0mm (in front of Front coupling)
Coupling Height:	441mm (Auto Calculated - proportion of Tire Diameter)
Capability:	Can tow or be towed
Max. Horizontal Articulation Angle:	90.000deg
Max. Vertical Articulation Angle:	10.000deg
Rear coupling:	None
Body outline (plan):	
Outline Type:	Rectangle
Offset (X,Y):	2550mm, 0mm
Length / Width:	40765mm / 2550mm
Load outline (plan):	
Outline Type:	Rectangle
Offset (X,Y):	7650mm, 0mm

AutoTrack Vehicle Details
(continued...)

Ref:

Length / Width:

30000mm / 4500mm



Notes:
 Turn(s) based upon a design speed of 5.00km/h. After transition, center of front axle follows smallest possible circular arc.

Title:
 Volvo FH16 8x4 +
 Nootboom Tower Trailer

Scale: 1:750

Date: 17/12/2012

Attachment B

AutoTrack Swept paths

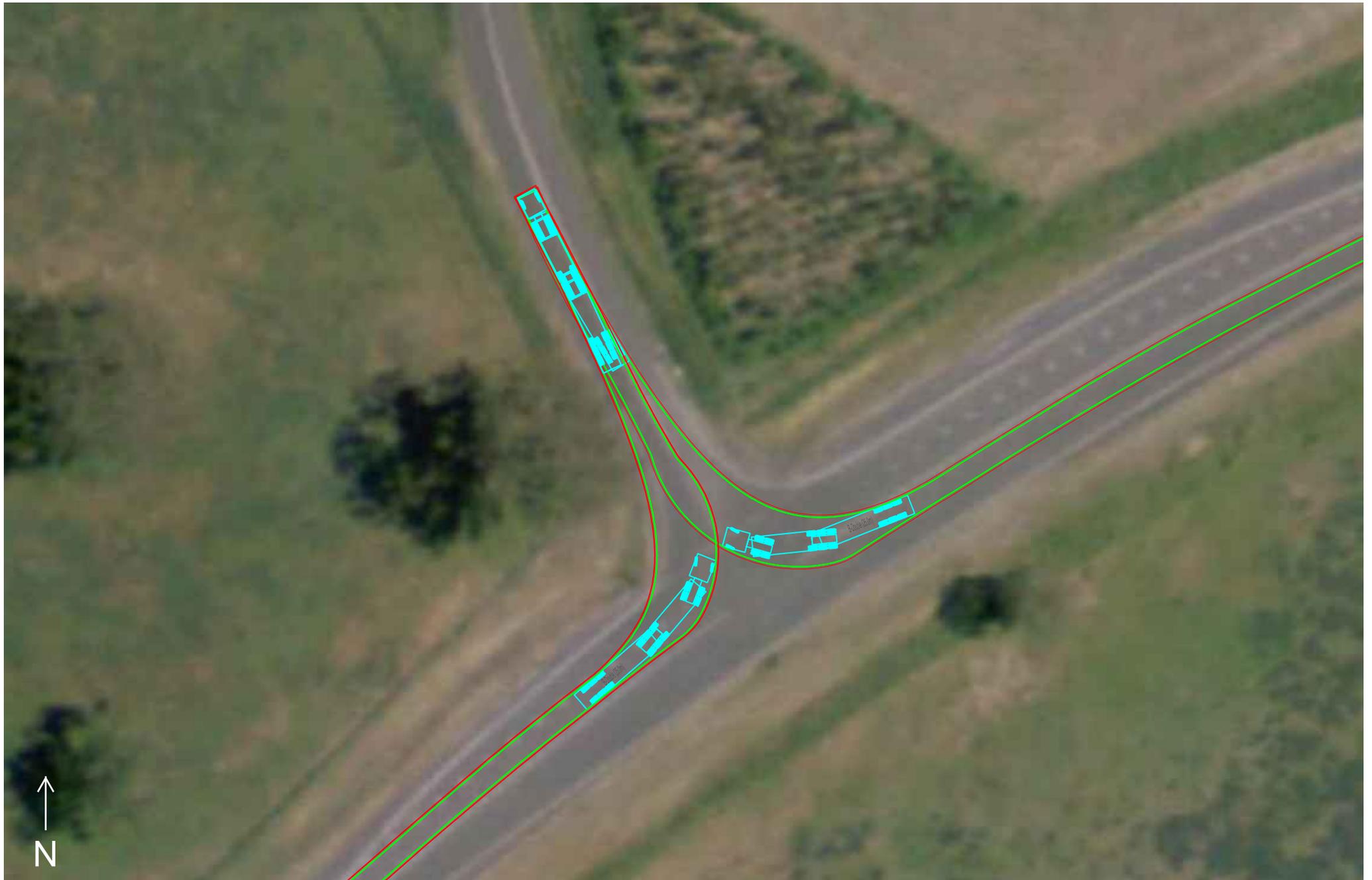


Figure B.1 - Mid-Western Highway / Errowanbang Road intersection B-double swept path



Figure B.2 - Mid-Western Highway / Errowanbang Road intersection blade transport vehicle swept path



Figure B.3 - Ashburton Bridge along Errowanbang Road blade transport vehicle swept path

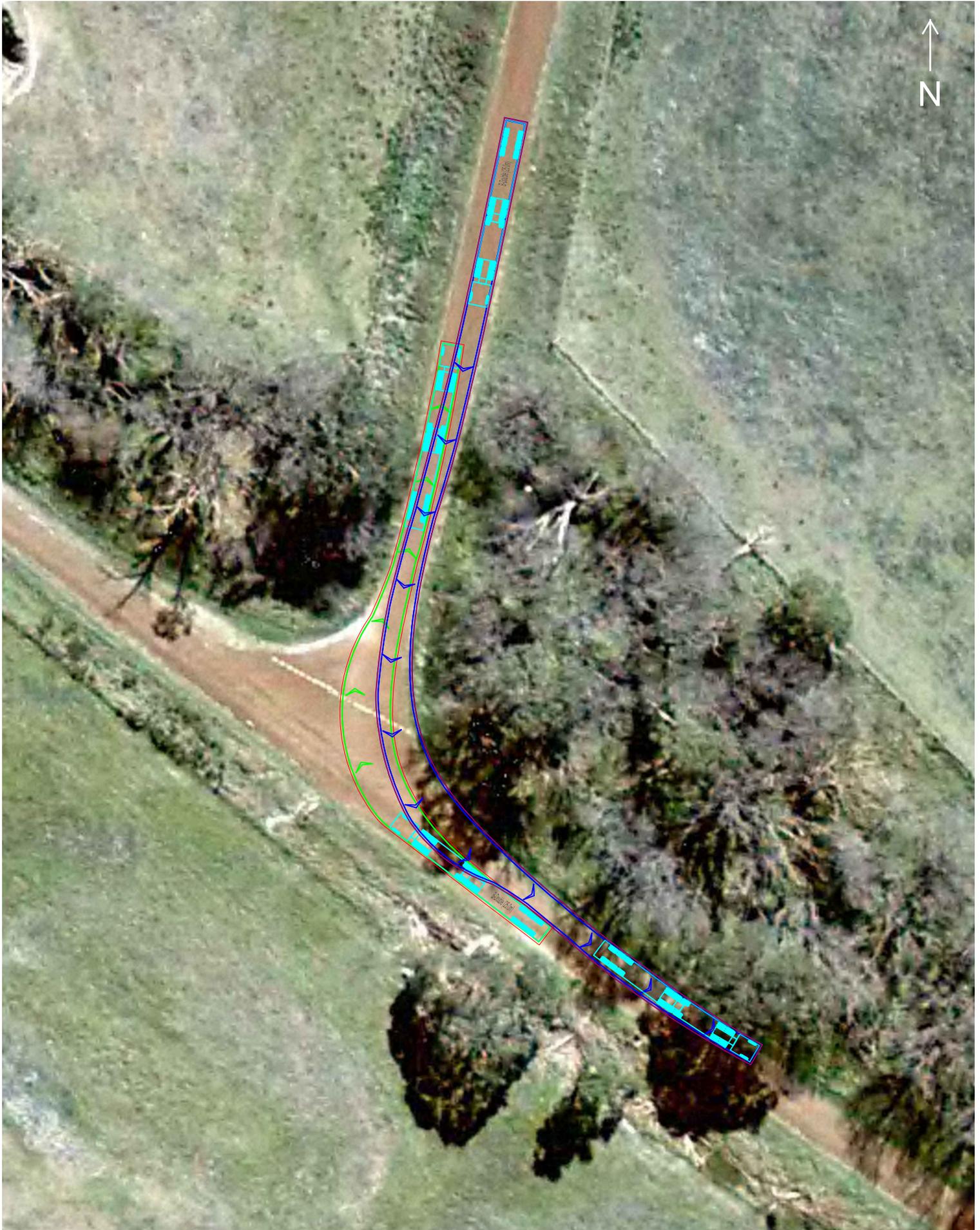


Figure B.4 - Gap Road / Errowanbang Road intersection B-double swept path

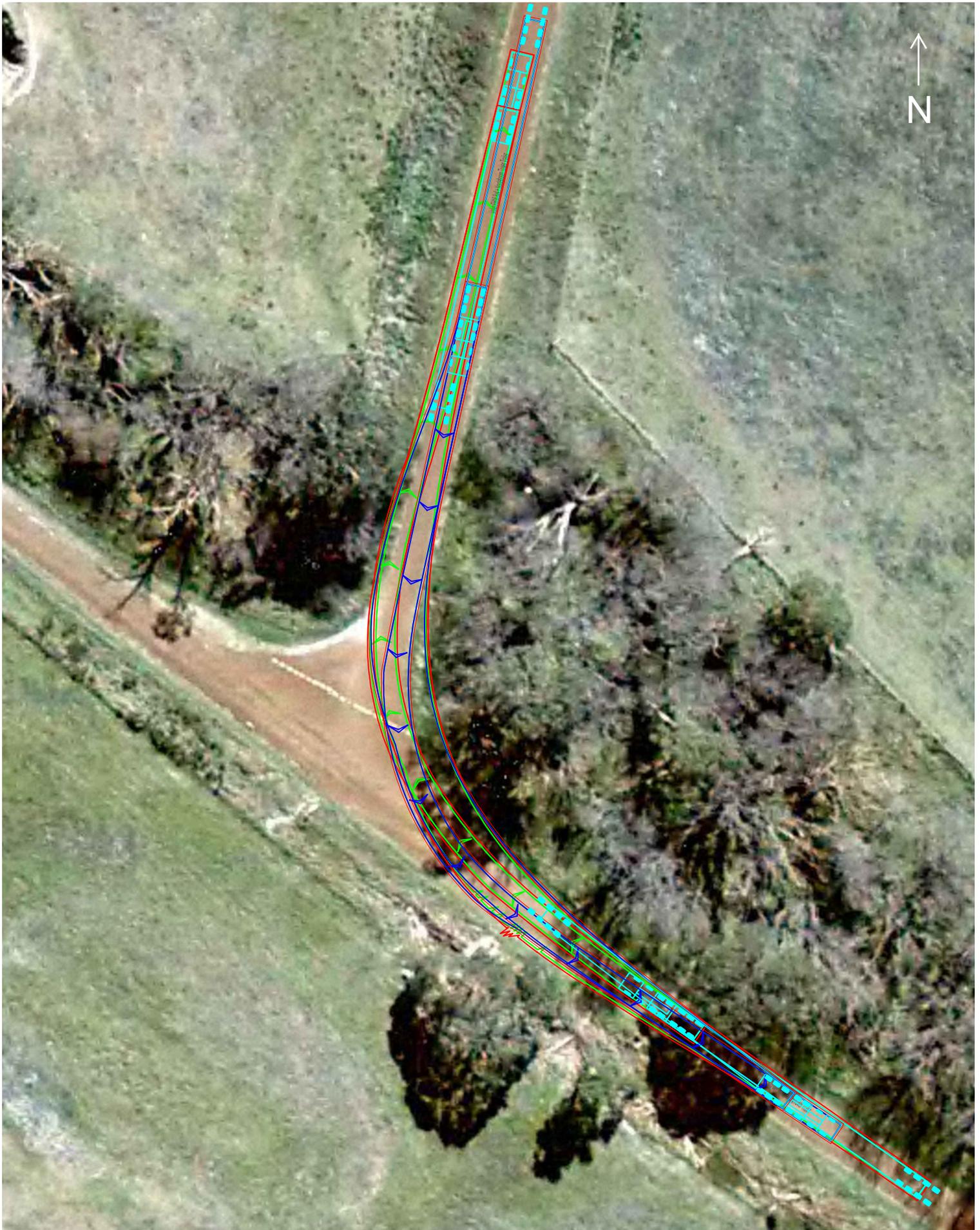


Figure B.5 - Gap Road / Errowanbang Road intersection blade transport vehicle swept path



Figure B.6 - Gap Road / Halls Road intersection B-double swept path



Figure B.7 - Gap Road / Halls Road intersection blade transport vehicle swept path



Figure B.8 - Halls Road / Errowanbang Road intersection B-double swept path

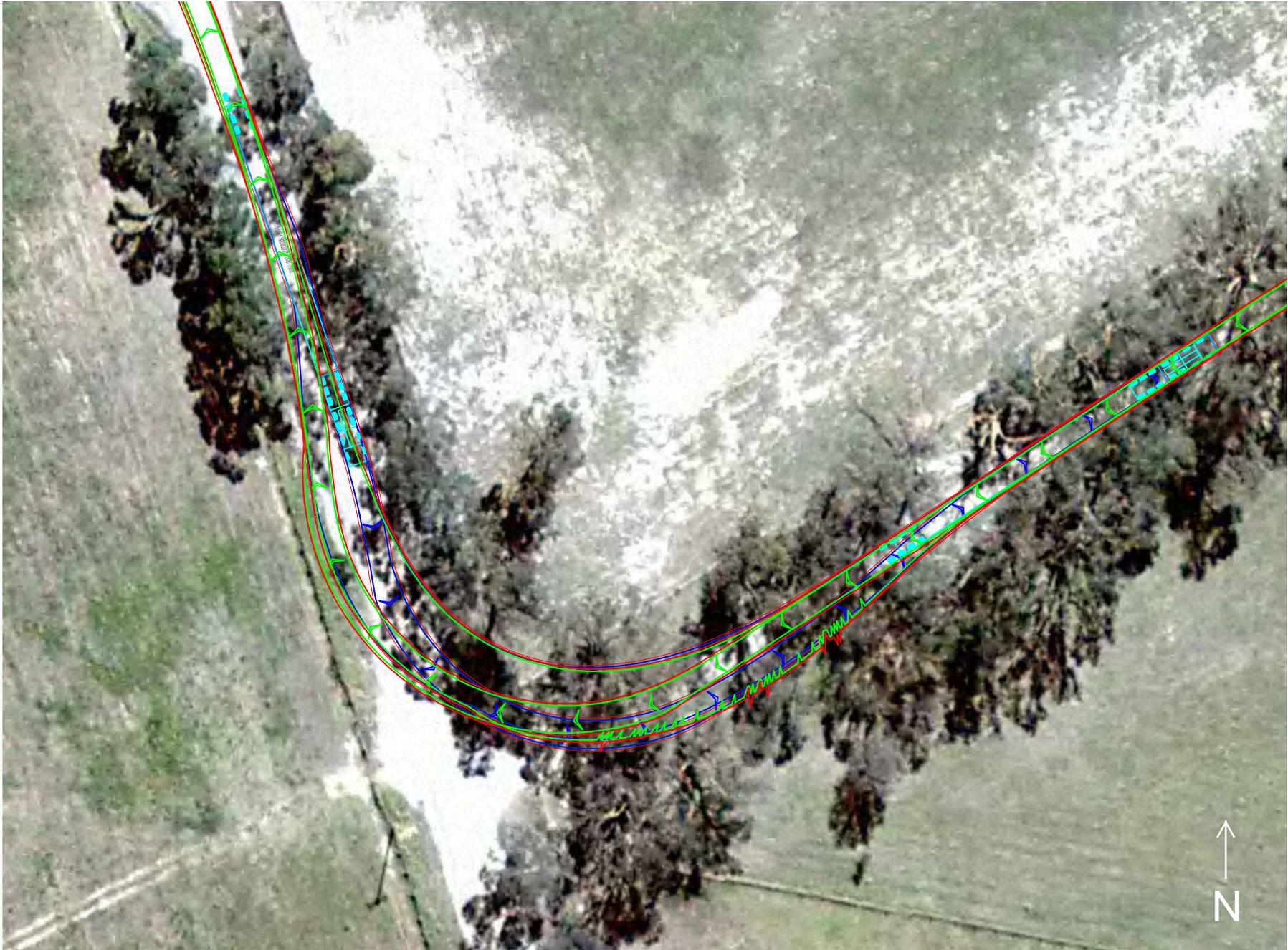


Figure B.9 - Halls Road / Errowanbang Road intersection blade transport vehicle swept path



Figure B.10 - Gap Road / Beneree-Carcoar Road intersection B-double swept path



Figure B.11 - Gap Road / Beneree-Carcoar Road intersection blade transport vehicle swept path



Figure B.12 - Errowanbang Road / access road to WTG 21-31 intersection B-double swept path

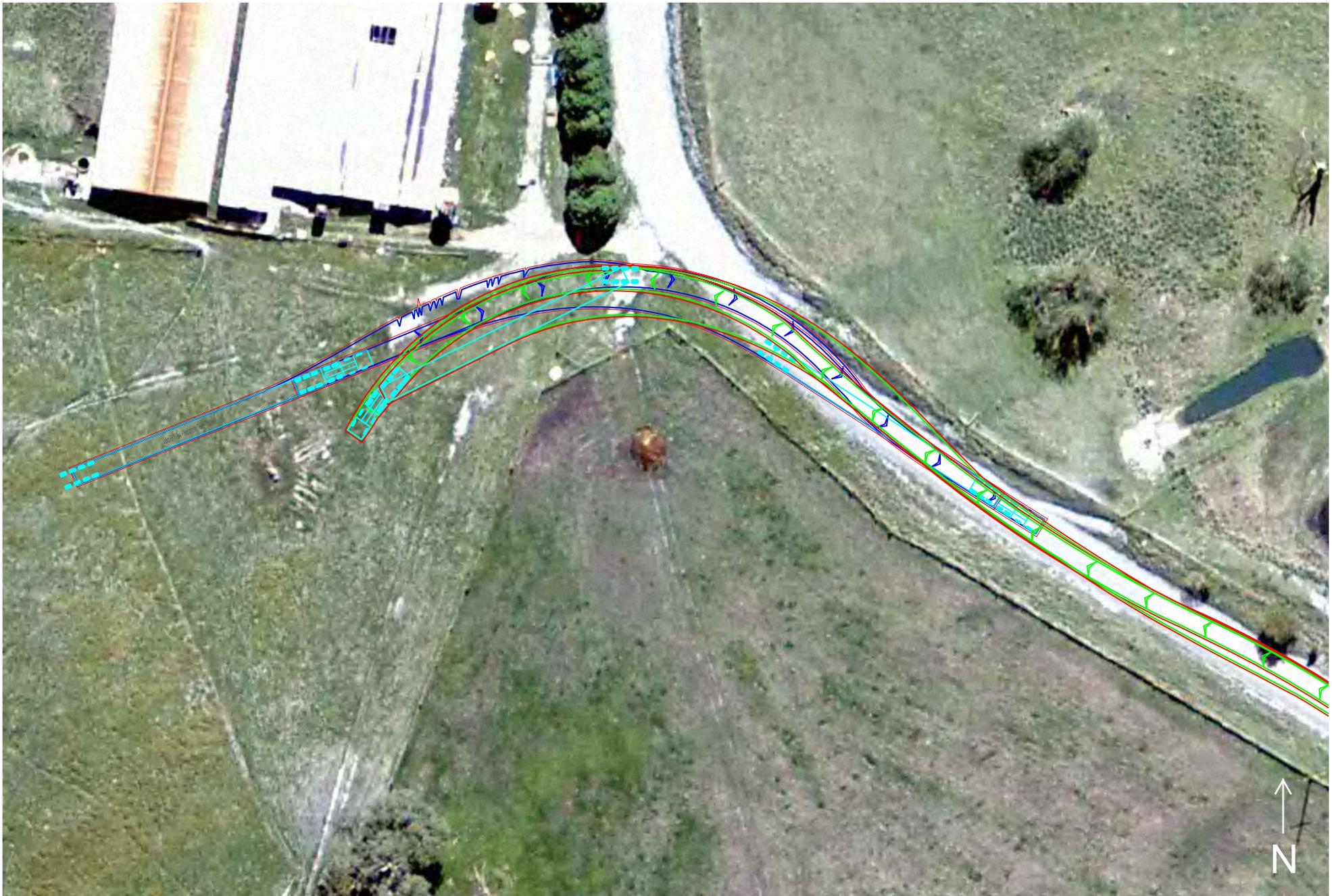


Figure B.13 - Errowanbang Road / access road to WTG 21-31 intersection blade transport vehicle swept path



Figure B.14 - Beneree-Carcoar Road / access road to WTG 4 intersection B-double swept path



Figure B.15 - Beneree-Carcoar Road / access road to WTG 4 intersection B-double swept path



Figure B.16 - Halls Road blade transport vehicle swept path