Crookwell 3 Wind Farm

Traffic Management Plan

Prepared by: Stantec Australia Pty Ltd for Crookwell 3 Development Pty Ltd
on 08/09/2021
Reference: N122393
Issue #: C

GTAconsultants now Stantec

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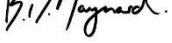
Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	19/04/2021	Final	Raymond Zhang	Ashish Modessa	Brett Maynard	Brett Maynard
B	12/08/2021	Updated report addressing authority feedback	Raymond Zhang	Ashish Modessa	Brett Maynard	Brett Maynard
C	08/09/2021	Updated report addressing further authority feedback	Raymond Zhang	Ashish Modessa	Brett Maynard	

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1. INTRODUCTION

1.1. Overview

A State Significant Development Application (SSDA 6695) has been approved for the proposed Crookwell 3 Wind Farm (C3WF). The proposed C3WF is located approximately 25 kilometres northwest of Goulburn. The project area is 1,100 hectares in size and will accommodate a total of 16 wind turbine generators. The supply and installation of wind turbines and associated equipment will require the use of Oversize and Overmass (OSOM) vehicles for transportation.

Crookwell 3 Development Pty Ltd (Crookwell Development) commissioned GTA, now Stantec to prepare a Transport Management Plan (TMP) to address relevant conditions in the Development Consent. The TMP addresses all general construction vehicle activity, as well as the transport implications associated with the OSOM transportation of the 16 wind turbines and associated power control systems from Port Kembla to the C3WF site.

This TMP has been prepared by engineers who hold the Transport for NSW (TfNSW) Prepare a Work Zone Traffic Management Plan certification. Details of the accredited engineers are provided below:

- Ashish Modessa - Certification No. 0052374421, exp. 21 May 2023
- Brett Maynard - Certification No. 0052374425, exp. 21 May 2023.

1.2. Authority Requirements

This TMP addresses the construction phase transport related requirements set out in the Development Consent for SSDA 6695 issued by the Land and Environment Court of NSW. The relevant consent conditions relating to traffic and transport are reproduced in Table 1.1.

Table 1.1: Relevant Conditions of Consent - SSDA 6695

Consent No.	Consent description	Relevant sections of this report
30 Designated Heavy and Over-Dimensional Vehicle Routes	The Applicant must ensure that all over-dimensional and heavy vehicle access to and from the site is via Picton Road (Main Road 88), Hume Highway, Cowper Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road and Woodhouselee Road, as identified in the figures in Appendix 4, unless the Secretary agrees otherwise.	Section 2.6
31 Road Upgrades	Prior to the commencement of construction, the Applicant must prepare a report to identify the required road upgrades for the designated and over-dimensional vehicle routes and site access, to the satisfaction of the relevant roads authority and submit it to the Secretary. If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Secretary for resolution.	Sections 4.7.6 and 4.7.7
32 Road Upgrades	Prior to the commencement of construction, the Applicant must implement the road upgrades identified in condition 32 of Schedule 3, to the satisfactory of the relevant roads authority.	Sections 4.7.6 and 4.7.7

Consent No.	Consent description	Relevant sections of this report
33 Road Maintenance	The applicant must: (a) prepare a dilapidation survey of Hume Street, Cowper Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road and Woodhouselee Road in accordance with guidelines and standards established by Austroads of the designated vehicle route, as identified in the figures in Appendix 4: • prior to the commencement of any construction and/ or decommissioning works, other than pre-construction minor works; • within 1 month of the completion of any construction and/ or decommissioning works, other than pre-construction minor works;	Section 3
	(b) rehabilitate and/ or make good any development-related damage: • identified during the carrying out of the relevant construction and/ or decommissioning works if it could endanger road safety, as soon as possible after the damage is identified, but within 7 days at the latest; and • identified during any dilapidation survey carried out following the completion of the relevant construction and/ or decommissioning works within 2 months of the completion of the survey, unless the relevant roads authority agrees otherwise, to the satisfaction of the relevant roads authority. If the construction and/ or decommissioning of the development is to be staged, the obligations in this condition apply to each stage of construction and/ or decommissioning. If there is a dispute about the scope of any remedial works or the implementation of these works, then either party may refer the matter to the Secretary for resolution.	Section 4.7.8
35 Traffic Management Plan	Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with the relevant roads authority, and to the satisfaction of the Secretary. This plan must include: (a) details of the transport route to be used for all development-related traffic;	Section 2.6
	(b) details of the road upgrade works required by condition 32 of Schedule 3 of this consent;	Sections 4.7.6, 4.7.7 and 4.7.8
	(c) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works, including: • details of the dilapidation surveys required by condition 34 of Schedule 3 of this consent; • temporary traffic controls, including detours and signage; • notifying the local community about development-related traffic impacts; • notifying the relevant Council prior to oversize heavy vehicle movements through the respective local government area; • procedures for receiving and addressing complaints from the community about development-related traffic; • minimising potential cumulative traffic impacts with other State significant development projects in the area; • minimising potential for conflict with school buses and other road users as far as practicable, including preventing queuing on the public road network; • minimising dirt tracked onto the public road network from development-related traffic; • details of the employee shuttle bus service, including pick-up and drop-off points and associated parking arrangements for construction workers, and measures to encourage employee use of this service; • encouraging car-pooling or ride sharing by employees; • scheduling of haulage vehicle movements to minimise convoy length or platoons;	Sections 2.7, 3, 4, 6

Consent No.	Consent description	Relevant sections of this report
	• responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding; • responding to any emergency repair or maintenance requirements; and • a traffic management system for managing over-dimensional vehicles;	
	(d) a driver's code of conduct that addresses: • driver fatigue; • procedures to ensure that drivers adhere to the designated transport routes and speed limits; and • procedures to ensure that drivers implement safe driving practices;	Section 5
	(e) a program to ensure drivers working on the development receive suitable training on the code of conduct and any other relevant obligations under the Traffic Management Plan.	Section 5.2.3
	(f) a detailed program to monitor and report on the effectiveness of these measures and the code of conduct. Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.	Section 7

1.3. References

In preparing this TMP, reference has been made to the following:

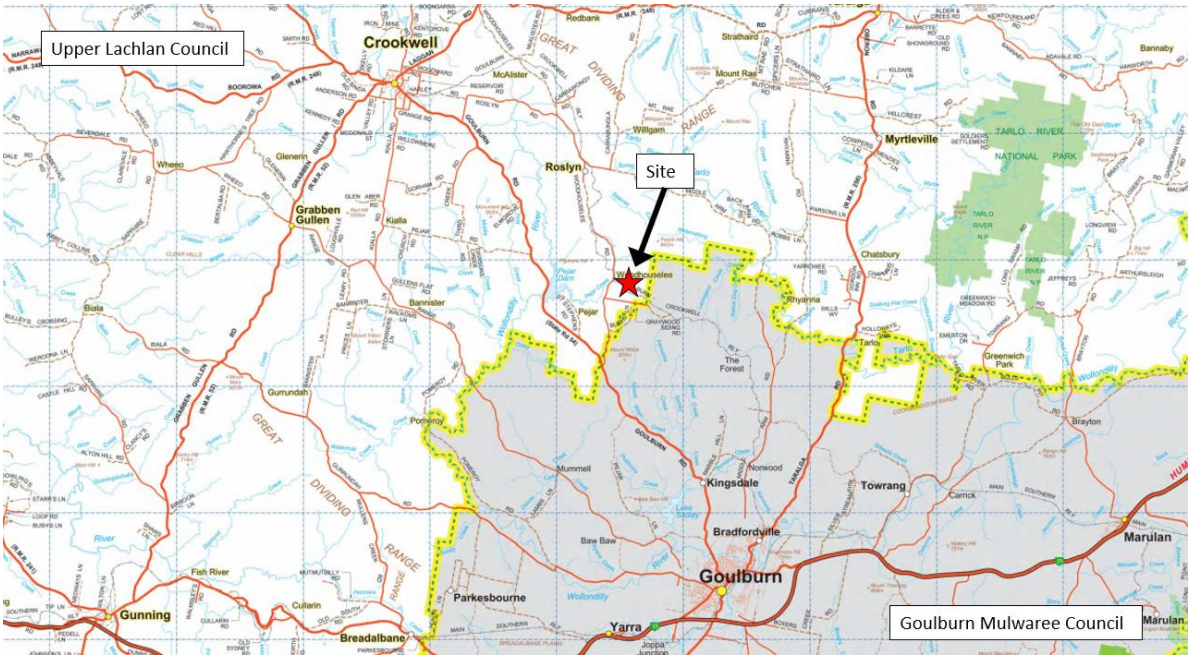
- OSOM Deliveries Transport Management Plan: Vesta Crookwell 3 Wind Farm: Ex Port Kembla prepared by Rex J Andrews, dated 20 July 2021 (included as Appendix A)
- Traffic Control at Work Sites manual, TfNSW, October 2020
- Australian Standard AS1742.3:2019 Manual of Uniform Traffic Control Devices – Traffic control for works on roads
- Transport for NSW (formerly Roads and Maritime Services) Oversize Overmass Load Carrying Vehicles Network Map
- Transport for NSW Restricted Access Vehicle (RAV) map
- Heavy vehicle driver fatigue requirements by National Heavy Vehicle Regulator (NHVR), dated October 2018
- other documents and data as referenced in this assessment.

2. OVERVIEW OF CONSTRUCTION ACTIVITIES

2.1. Subject Site

The C3WF site is located approximately 25 kilometres northwest of Goulburn, New South Wales. The site covers an area of 1,100 hectares and is within the Upper Lachlan Shire Council (Council) LGA. The surrounding properties are predominately used for agriculture and grazing. The location of the project area is shown in Figure 2.1.

Figure 2.1: Project area

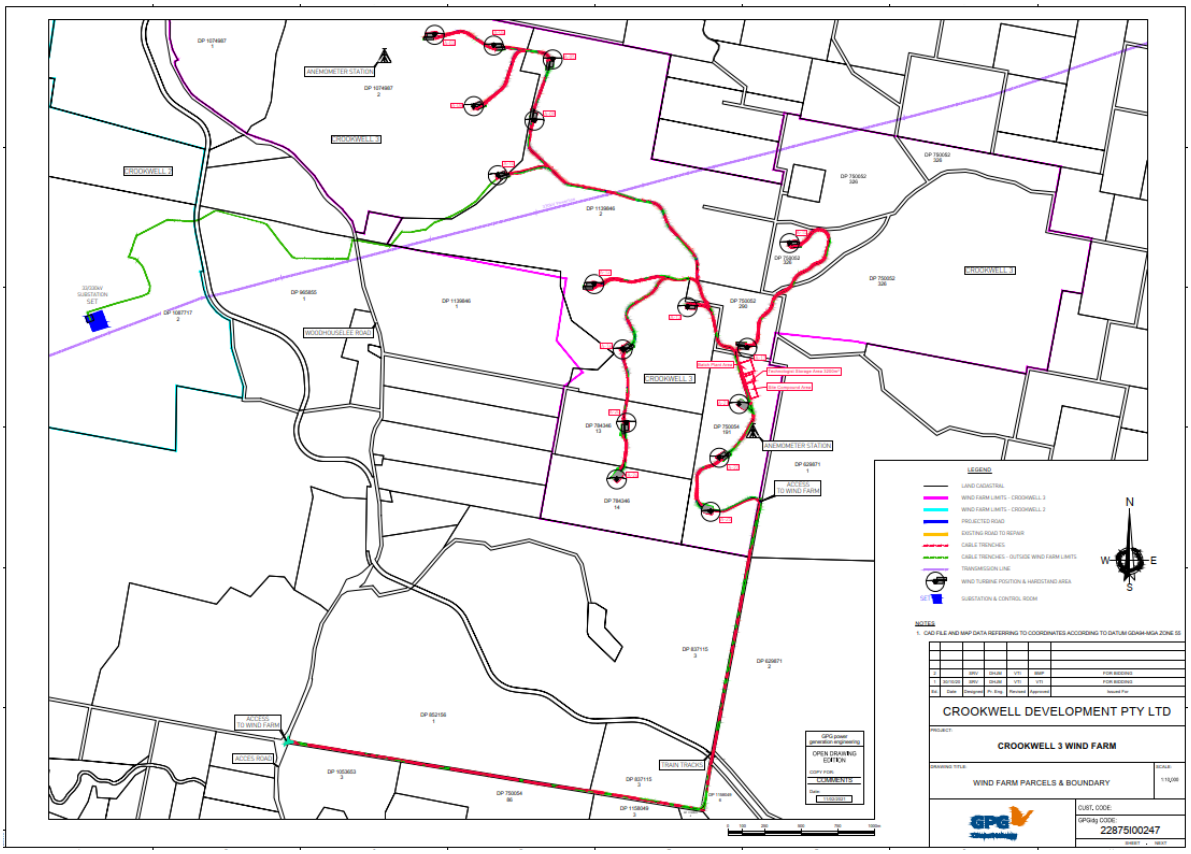


Basemap source: https://www.upperlachlan.nsw.gov.au/road-map-upper-lachlan-shire, accessed 23 February 2021

The wind turbines will be serviced by a network of access roads within the project area and will be connected to the existing road network via Woodhouselee Road, as illustrated in Figure 2.2.

The proposed vehicle access points will be used for the construction and operational phases.

Figure 2.2: Project area and vehicle access locations



Source: GPGidg Code: 22875100247, dated 11 February 2021 by GPG Grupo Naturgy

2.2. Work Hours

Work associated with construction or decommissioning will be carried out between the following approved hours:

- Monday to Friday 7:00am and 6:00pm
- Saturday 8:00am and 1:00pm
- Sunday/ public holiday no work.

The lead contractor will be responsible for instructing and controlling all subcontractors regarding the hours of work. Any work outside the approved construction hours would be subject to specific prior approval from the Secretary.

The following construction activities are permitted to be undertaken outside the above hours without the approval of the Secretary:

- The delivery of material requested by the NSW Police Force or other authorities for safety/ regulatory reasons (i.e. OSOM deliveries
- Emergency work to avoid the loss of life, property and/ or material harm to the environment.

2.3. Vehicle and Load Details

2.3.1. Oversize and/or Overmass Vehicles

The wind farm components required to be transported from Port Kembla to the Crookwell 3 Wind Farm site include the following:

- 64 wind turbine tower sections (base, lower mid-section, upper mid-section, top section)
- 48 wind turbine blades
- 16 wind turbine nacelles
- 16 wind turbine hubs.

Each component listed above would be transported intact and without disassembly. The dimensions and weights of each of the load types, combined with the transport vehicle, are detailed in Table 2.1. Side perspective diagrams of the proposed vehicles have been prepared by RJA and are provided in Appendix A.

Table 2.1: Load type summary

Load Type	Length	Width	Height	Weight
Load only				
Bottom tower section	28.7m	4.8m	4.45m	84t
Mid tower section	26.8m	4.45m	3.95m	51t
Top tower section	36.0m	3.95m	3.3m	56t
Turbine blades	62.0m	4.2m	3.4m	15t
Turbine nacelles	13.0m	4.0m	4.2m	125t
Turbine hubs	5.4m	3.8m	3.8m	34t
Combined Load and Vehicle				
Bottom tower section	49.9m	5.1m	4.45m	84t
Mid tower section	39.9m	4.5m	5.2m	100t
Top tower section	49.0m	4.3m	5.2m	80.5t
Turbine blades	70.0m	4.2m	4.9m	56.5t
Turbine nacelles	49.0m	4.3m	5.2m	223t
Turbine hubs	22.0m	3.6m	4.8m	54.5t

Based on the above, the combined load and vehicle dimensions for the blades will form the largest and physically most restrictive vehicle.

2.3.2. Construction heavy vehicles

Heavy vehicles will be required to access the project site and surrounding areas during the construction period. Heavy vehicles will consist of trucks up to and including 19-metre-long semi-trailers and 19-metre truck and dog trailers.

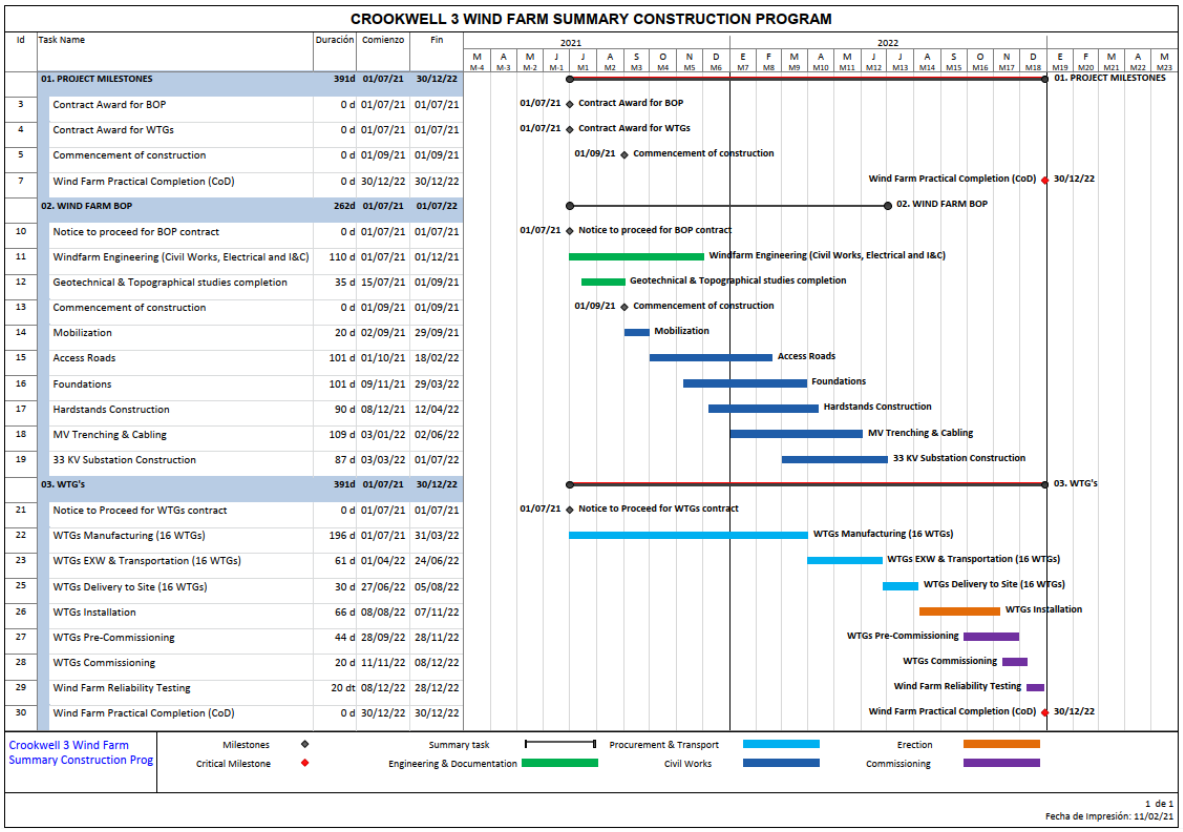
2.3.3. Light Vehicles

Most trips to the project area will be light vehicle movements (attributed to project personnel) comprising cars, 4x4s and utility vehicles.

2.4. Construction Program

The expected duration of the works is 18 months, with construction originally anticipated to commence in July 2021 and be completed by December 2022, with these dates to be adjusted to suit project approvals and mobilisation timing. The key milestones for the project are shown in Figure 2.3, which includes details of the main activities and duration for each stage.

Figure 2.3: Construction program



Source: Global Power Generation (GPG) Australia Pty Ltd

2.4.1. Duration of OSOM Deliveries

The wind farm components will be transported from Port Kembla to the C3WF site over a six-week period (June 2022 to August 2022). The delivery schedule is provided in Table 2.2, and is subject to obtaining OSOM approvals and weather conditions.

It is proposed that each delivery will occur from 2:30am, with the OSOM vehicle required to be out of Goulburn Town Centre from 5:00am. This is to limit any impact on peak period traffic, school bus services and school operating hours.

Table 2.2: OSOM movement delivery schedule

Components	Quantity	Period
Tower Sections (Base, Lower mid, Upper mid, Top Sections)	16 each (64 total)	27 June 2022 to 5 August 2022
Turbine blades	48	
Turbine nacelles	16	
Turbine hubs	16	

2.5. Traffic Generation

2.5.1. Balance of Plant works

The overall traffic generation has been summarised for the Balance of Plant (BoP) works and is presented in Table 2.3. Numbers presented indicate number of loads required for material, equipment, and personnel. The number of loads has been provided by the relevant contractors including Decmil and RJE Global.

Table 2.3: Overall traffic generation for Civil and Electrical BoP works

Phases	Key Activities	No. Construction Personnel	Daily Volume (Return trips)			
			Light Vehicles		Heavy Vehicles	
			Typical	Peak	Typical	Peak
Civil BoP						
1 – Site Establishment	Access roads/ site and batch plant pads/ turkey nests	15	30	40	5	10
2 – Roads and hardstands	Road and hardstand construction (earthworks)	30-40	60	80	30	40
3 – Concrete works	Reinforcement/ concrete delivery	40-60	80	100	8	12
4 - Demobilisation	Demobilisation site sheds	15	30	40	5	10
Electrical BoP						
1 – Site Establishment	Mobilisation and site establishment	8	10	15	3	8
2 – Wind turbine generator earthing and trenching works	Wind turbine generator earthing and trenching and cabling	10-20	20	30	5	15
3 – Substation	Substation and switchgear works	15-30	30	50	5	15
4 - Demobilisation	Demobilisation site sheds	15	30	40	5	10

For a short period of time, there will be some overlap in the construction of the access tracks and turbine foundation construction. This period of construction will result in the highest volume per day of heavy vehicles delivering materials to the site. These deliveries will be spread across the day within the allowed construction period. The maximum daily traffic volumes will then be a combination of the light vehicles for staff and the loads for access track and turbine foundation construction.

Based on the above, it is expected that there will be a typical daily traffic volume of 238 vehicle movements (return trips), with a peak construction vehicle activity resulting in up to 342 vehicle movements (return trips) per day on the surrounding road network.

This daily peak traffic peak of BoP activities is not predicted to align with the delivery of the turbine components. During this peak construction period there will be a focus on community engagement, ensuring that the surrounding community and school bus operators are informed of the vehicle movements occurring. Contact details for the C3WF development team will be provided.

2.5.2. OSOM Deliveries

It is expected that an average of two to three complete turbines will be delivered per week. This results in a total of 27 OSOM movements per week. On this basis, this would average four to five movements per day

over a six-day week. At least three escort vehicles (including police and pilot vehicles) will accompany each OSOM vehicle to guide the OSOM vehicle and manage traffic under the direction of police where required. Police vehicles will provide traffic management at 'pinch points' as identified in this study. The OSOM vehicles will leave at specific intervals, although regroup at specific 'pinch points' to allow police to implement the required traffic management, such as road closures.

It is estimated that during the peak, there will be up to 60 construction personnel for the delivery and construction of the wind turbines, with the average being 55 construction personnel. Given that most personnel will be required to travel some distance to the site, it is anticipated that there would be a element of carpooling and as such, a vehicle occupancy rate of 1.5 people per vehicle has been assumed. Construction personnel are likely to start and finish work shifts at the same time.

Consequently, the maximum number of vehicle movements per hour is anticipated to be approximately 50 trips (40 construction personnel plus two OSOM vehicles and eight escort vehicles) during the peak wind turbine delivery and construction periods.

2.6. Proposed Routes

2.6.1. Balance of Plant

Generally, construction personnel and construction heavy vehicles will have origins and destinations from a wide variety of locations during the Balance of Plant works. However, all construction heavy vehicles will generally use the State and Regional Road network to access the site from origins such as Hume Highway.

Routes for construction personnel traffic will depend on their place of residence or temporary accommodation.

2.6.2. OSOM Deliveries

Most of the wind turbine components will be manufactured overseas and delivered to Port Kembla. The proposed OSOM route from Port Kembla to the C3WF site will encompass two transportation routes. This is a result of the 4.9 metre height restriction under the University Avenue footbridge on the Princes Motorway, Gwynneville, shown in Figure 2.4, for which some OSOM vehicles and components will be too high to clear. To bypass the height restriction, a secondary route has been identified through the Wollongong Area.

Figure 2.4: Height restriction - University Avenue footbridge, Gwynneville

Source: Google Maps

Primary Transportation Route (vehicle and load heights less than 4.9 metres)

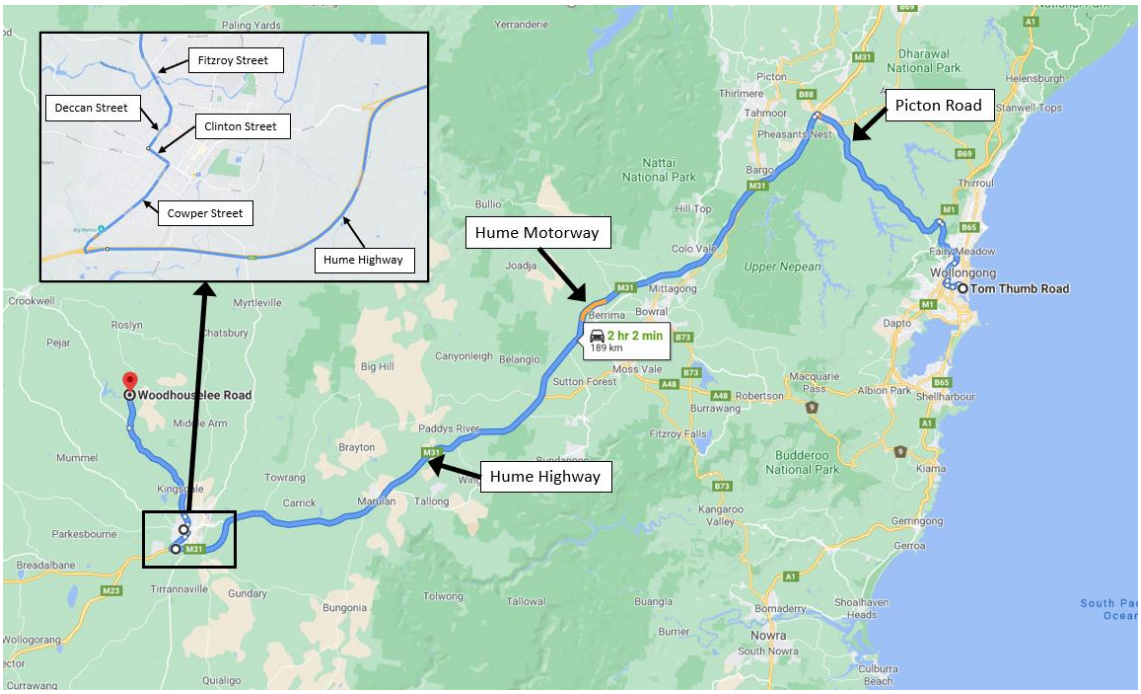
The primary route will be used by OSOM vehicles transporting components with combined vehicle load heights of less than 4.9 metres.

The primary transportation route will use the following roads from Port Kembla to the C3WF site:

- Tom Thumb Road, Springhill Road, Masters Road, Princes Motorway, Mount Ousley Road, Picton Road, Hume Motorway, Hume Highway, Hume Street, Cowper Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road and Woodhouselee Road.

The primary transportation route is shown in Figure 2.5 and is approximately 189 kilometres in length with no railway crossings.

Figure 2.5: Primary transportation route



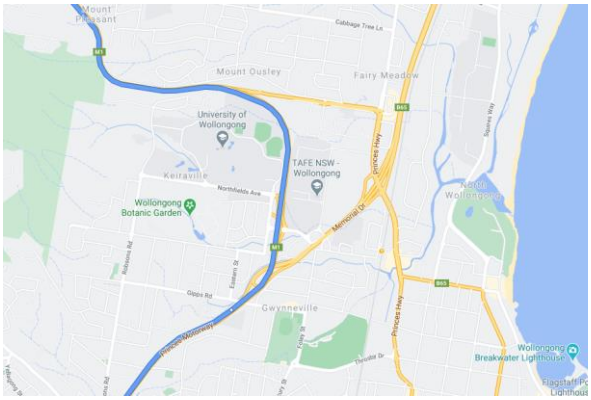
Source: Google Maps

Detour route at Mount Ousley (vehicle and load heights more than 4.9 metres)

The detour route at Mount Ousley will be used by OSOM vehicles transporting loads with a combined height (trailer and load) of more than 4.9 metres. Examples of load combinations exceeding this height include the tower sections with a maximum height of 5.30 metres.

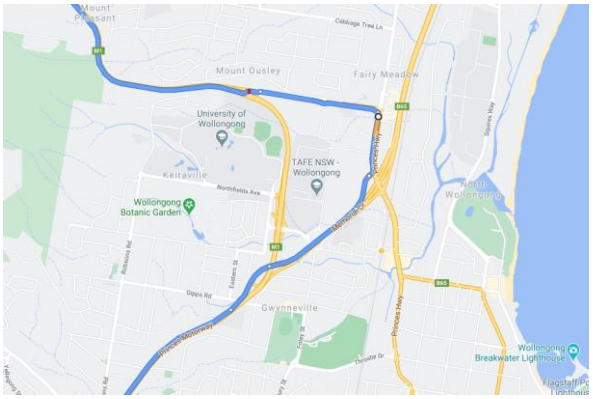
The detour route will require the affected OSOM vehicles to exit Princes Motorway onto Memorial Drive, Gwynneville. These vehicles will then use Princes Highway and Mount Ousley Road to return to Princes Motorway and re-join the primary transportation route. The detour route increases the travel distance by approximately 1.1 kilometres with no railway crossings. The differences between the two routes are shown in Figure 2.6 and Figure 2.7.

Figure 2.6: Primary Route (vehicle and load heights less than 4.9m)



Source: Google Maps

Figure 2.7: Detour route (vehicle and load heights more than 4.9m)



Source: Google Maps

A review of the transportation route indicates there are no livestock crossings along the route that would be impacted by the OSOM movements.

Details of the obstacles and 'pinch points' identified along the proposed route, along with procedures that will be used to safely navigate through these areas are summarised in Section 4.7.6 of this report, with the full details provided in Section 15.0 of the RJA OSOM Deliveries TMP provided in Appendix A.

Consultation with relevant authorities is required for the modification of infrastructure to facilitate the OSOM vehicle movements.

2.7. Public Transport/ School Bus Routes

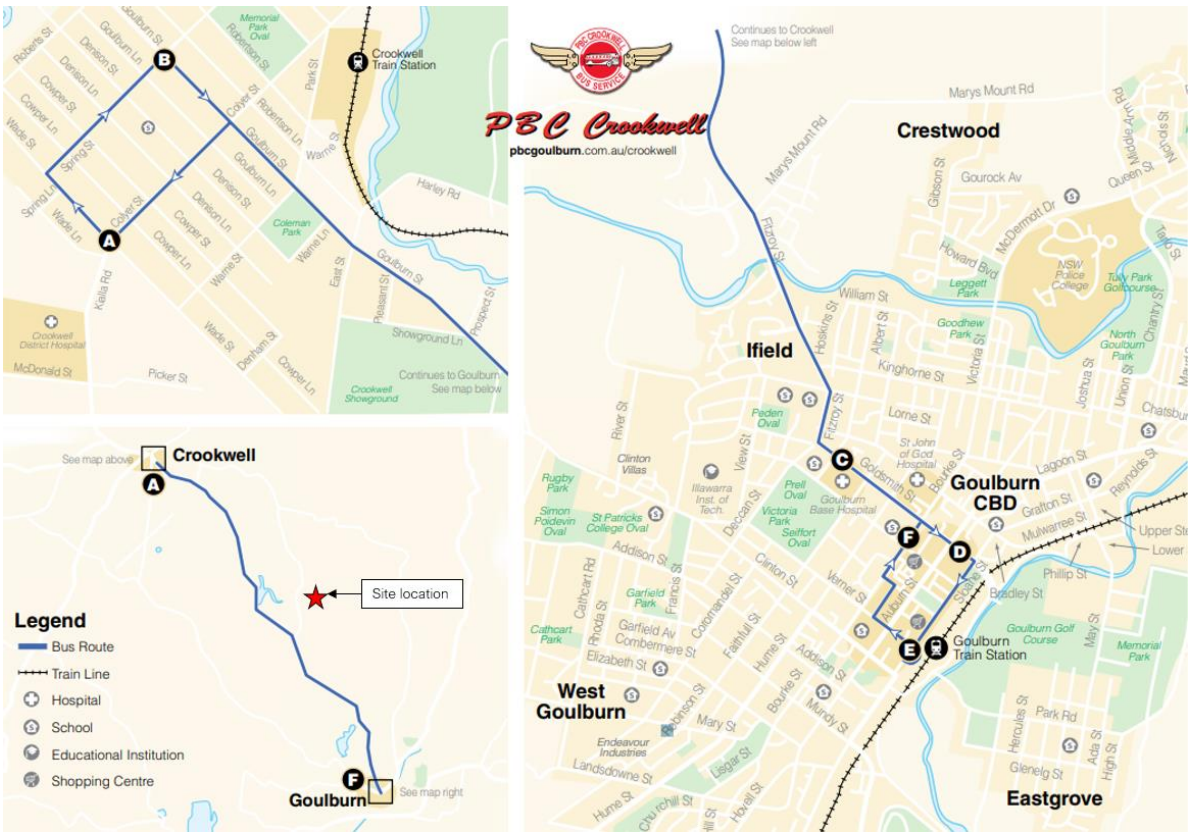
A review of the public transport available near the site indicates that public bus services run along Crookwell – Goulburn Road. The 818 bus service coincides with school times, and effectively serves as a school bus. A summary of this service is shown in Table 2.4.

Table 2.4: Public transport routes

Service	Monday to Friday (school term)	Monday to Friday (school holidays)
818 – Goulburn to Crookwell via Crookwell Road and Goulburn Road	9:55am, 1:35pm and 3:15pm	9:55am, 1:35pm and 3:15pm
818 – Crookwell to Goulburn via Goulburn Road and Crookwell Road	7:24am, 10:30am and 2:10pm	8:26am, 10:30am and 2:10pm

The 818 bus service routes are shown in Figure 2.8 and the schedules are detailed in Figure 2.9.

Figure 2.8: Bus route 818 network map



Source: http://www.pbcgoulburn.com.au/crookwell/route818.html, accessed 19 February 2021

Figure 2.9: Bus route 818 schedule

Crookwell to Goulburn
via Goulburn Rd & Crookwell Rd

	Monday to Friday				
map ref	Route	818	818	818	818
		am	am	am	pm
A	Kialla Rd opp **Crookwell Hospital**	S7:24	H8:26	10:30	2:10
B	Spring St at Goulburn St	S7:27	H8:29	10:35	2:15
	Goulburn Rd at Roslyn Rd	S7:32	H8:34	10:40	2:20
	Lake Edward, Goulburn Rd	S7:34	H8:36	10:42	2:22
	Goulburn Rd opp **Wind Farm**	S7:36	H8:38	10:44	2:24
C	Goulburn Rd opp Pejar Rd	S7:39	H8:41	10:47	2:27
	Crookwell Rd at St Stephens Rd	S7:43	H8:46	10:52	2:32
D	Crookwell Rd at Woodhouselee Rd	S7:47	H8:48	10:54	2:34
	Crookwell Rd at Fenwicks Creek Rd	S7:51	H8:52	10:58	2:38
	Crookwell Rd before Marble Hill Rd	S7:56	H8:55	11:01	2:41
E	Goldsmith St opp **Goulburn Hospital**	S8:02	H9:00	11:06	2:46
F	**Goulburn Post Office**, Auburn St	S8:05	H9:02	11:08	2:48
G	**Goulburn Station**, Sloane St	D 8:12	H9:04	11:10	2:50
	West Goulburn, Knox St	S8:25	...	...	...
	North Goulburn, Union St	S8:40	...	...	...

Goulburn to Crookwell
via Crookwell Rd & Goulburn Rd

	Monday to Friday				
map ref	Route	818	818	818	818
		am	pm	pm	pm
G	**Goulburn Station**, Sloane St	9:55	1:35	S3:15	H3:15
F	Auburn St opp **Belmore Park**	9:57	1:37	S3:17	H3:17
	North Goulburn, Union St	...	...	S3:27	...
	West Goulburn, Knox St	...	...	S3:39	...
E	**Goulburn Hospital**, Goldsmith St	9:59	1:39	T3:44	H3:19
	Crookwell Rd opp Marble Hill Rd	10:04	1:44	S3:51	H3:24
	Crookwell Rd opp Fenwicks Creek Rd	10:07	1:47	S3:55	H3:27
D	Crookwell Rd opp Woodhouselee Rd	10:11	1:51	S4:02	H3:31
	Crookwell Rd opp St Stephens Rd	10:13	1:53	S4:06	H3:33
C	Goulburn Rd at Pejar Rd	10:18	1:58	S4:15	H3:37
	Wind Farm, Goulburn Rd	10:21	2:01	S4:19	H3:40
	Goulburn Rd at Third Creek Rd	10:23	2:03	S4:21	H3:43
	Goulburn Rd opp Roslyn Rd	10:25	2:05	S4:23	H3:45
A	Kialla Rd opp **Crookwell Hospital**	10:30	2:10	S4:32	H3:50
B	Spring St at Goulburn St	10:33	2:13	S4:35	H3:52

Source: http://www.pbcgoulburn.com.au/crookwell/route818.html, accessed 19 February 2021
S – Times for the service during School Term
H – Times for the service during School Holidays (including school development days)

In addition, Valmar Community Transport also offers a Thursday fortnightly service from Crookwell to Goulburn. The community bus runs twice a day with departure in the morning and return in the afternoon.

Given the low number of OSOM deliveries for wind turbine components, it is not anticipated that the OSOM deliveries will cause adverse impacts to the bus service. During Balance of Plant works, there will be some 240 to 340 vehicle movements daily (including light and heavy vehicles), with the peak movements at the start and end shifts.

The following mitigation measures will be implemented to avoid impact on any bus services.

- The information collected on bus routes and times will be included in the induction and form part of the Drivers Code of Conduct.
- Regular drivers will be instructed to be aware of the potential for passengers waiting at bus stops and buses stopping to pick up passengers during these times.
- If complaints are received from bus operators or passengers then the procedures in Section 6.4 will be implemented, including reviewing vehicle tracking information for vehicles in the vicinity at the time of the complaint. Additional traffic management control may be implemented where required, such as providing escorts for buses.

3. EXISTING CONDITIONS ASSESSMENT

3.1. Dilapidation Survey

A dilapidation survey of the existing roads along the transportation route will be completed by using an ARRB 'laser car' survey (or other method agreed with relevant authorities) before and after the construction period, including all OSOM deliveries, with any roadworks required at the completion to be agreed with the relevant authorities.

3.2. Route Survey

RJA has completed a detailed route survey and assessment along the transportation route from Port Kembla to the C3WF site. The OSOM TMP prepared by RJA (see Appendix A) also included swept path analysis for the transportation of the 62-metre-long blades at locations identified as 'pinch points', which are listed in Table 3.1.

Table 3.1: Key pinch point locations

Location	Chainage (from Port Kembla)
Exiting Port Kembla	0.0km
Tom Thumb Road onto Springhill Road, Port Kembla	0.2km
Springhill Road onto Masters Road, Port Kembla	1.4km
Princes Motorway under The Avenue, Figtree	2.7km
Princes Motorway under Gipps Road, Keiraville	6.4km
University overbridge on Southern Freeway, Keiraville	6.5km
Mount Ousley Road onto Picton Road, Mount Ousley	13km
Picton Road onto Hume Motorway M31, Wilton	40km
Cowper Street onto Clinton Street, Goulburn	164.4km
Clinton Street onto Deccan Street, Goulburn	165.2km
Deccan Street onto Fitzroy Street, Goulburn	166km
Fitzroy Street, Goulburn	167km
Woodhouselee Road into Crookwell 3 site access road, Wayo	188km

As part of the 'pinch point' identification, RJA has identified several potential infrastructure upgrades to facilitate the proposed OSOM movements and these are presented in Appendix A. These identified 'pinch points' have also been used to develop the required traffic management arrangements including under bridges and through road narrowings (i.e. pedestrian crossing facilities and road bridges/ culverts), the details of which are provided in Section 4.7.6.

3.3. Trial Run

Once a transport contractor and manager has been appointed, it is proposed that the contractor complete a trial run of a blade delivery prior to the commencement of any OSOM deliveries. It is noted that the transport route has been utilised previously for Crookwell 2 Wind Farm. The trial would include the trailer to be used for the 62-metre-long turbine blade, a mock turbine to simulate the overhang and height clearance, escort vehicles and all required permits.

The trial run would confirm the requirements for infrastructure modifications detailed in previous studies and identify any additional modifications required.

3.4. Current Roadworks

The Live Traffic NSW website provides enhanced traffic information, providing up to date news of incidents and conditions for NSW roads. The roadworks planned along the proposed OSOM delivery route are shown in Table 3.2.

Table 3.2: Scheduled roadworks

Location	Duration	Notes
M1 Princes Motorway near Welby Interchange	16 August 2021 – 10 September 2021	Reduced speed limited (40km/h)
Hume Highway near George Street/ Medway Road	16 July 2021 – 10 September 2021	Reduced speed limit (40km/h) with traffic controllers on site to direct motorists. Speed limit outside work hours is 80km/h.

As noted above, pilot vehicles will accompany all OSOM vehicles for the transportation of the wind turbine components, with police to provide traffic management at 'pinch points' as required.

The Live Traffic NSW website will be monitored prior to the days of the movements, especially in relation to any planned upcoming works along the transportation route.

4. TRAFFIC MANAGEMENT ARRANGEMENTS

4.1. Traffic Guidance Scheme

Detailed information for work site operations is contained in the Transport for NSW *Traffic Control at Work Sites Technical Manual, Issue 6* dated 14 September 2020 (TfNSW, 2020) and Australian Standard 1742.3. The control of traffic at work sites must be undertaken with reference to WorkCover requirements and any other Workplace Health and Safety manuals.

The proposed Traffic Guidance Scheme (TGS), provided in Appendix C, includes the following considerations:

- Construction vehicle activity, including the loading/ unloading of trucks to be conducted within the work site.
- Pedestrians and all passing vehicles will maintain priority.
- Clear definition of the work site boundary.
- All signage will be clean, clearly visible and not obscured.
- All construction vehicle activity will be minimised during peak periods, where possible.

The TGS has been prepared by a consultant who holds the TfNSW *Prepare a Work Zone Traffic Management Plan* accreditation.

4.2. Project Personnel Car Parking

It is envisaged that car parking for construction workers will be provided on-site. No development related vehicles are permitted to park on public roads at any time. A drop-off and storage facility will be provided on-site for larger tools and equipment. As such, the car parking impact of construction workers will be negligible on Woodhouselee Road.

During the site induction, workers will be informed of the designated car parking area. It is recommended that the construction workers carpool or use ride-sharing to travel to and from the site to reduce the traffic volumes along the local road network.

4.3. Public Transport

The construction activities are not expected to impact any public transport services.

4.4. Emergency Vehicle Access

Access to the subject site by emergency vehicles would not be affected by the works as road frontages would be unaffected. Emergency protocols on the site would include a requirement for suitably accredited site personnel to assist with emergency access from the street.

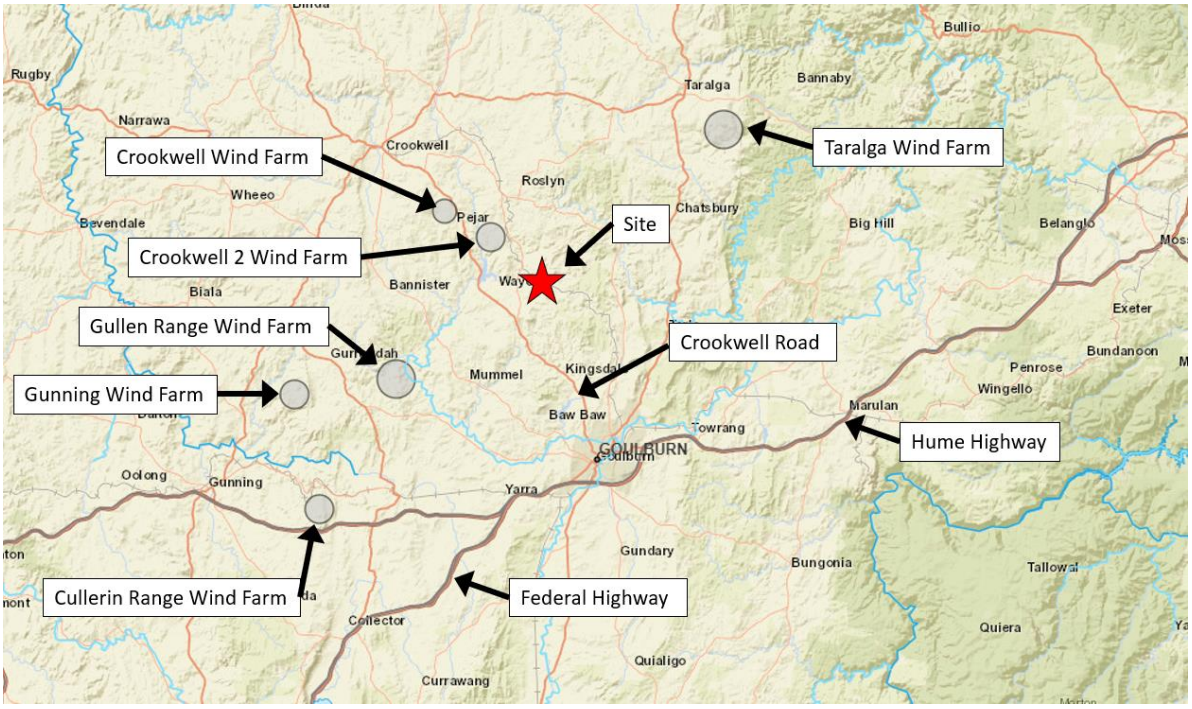
Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

Liaison would be maintained with the police and emergency services agencies throughout the construction period and a 24-hour contact would be made available for 'out-of-hours' emergencies and access.

4.5. Surrounding Wind Farm Developments

Due to the excellent wind resources by international standards, the Southern Tablelands is a popular region for wind farms. Currently, several wind farms are either operational, under construction or proposed for the region. A map of the surrounding operational wind farms is shown in Figure 4.1.

Figure 4.1: Surrounding operational wind farms



Source: https://www.resourcesandgeoscience.nsw.gov.au/miners-and-explorers/geoscience-information/products-and-data/renewable-resources-map, accessed 22 February 2021

Rye Park Wind Farm (RPWF) located approximately 70 kilometres west of the project area has been granted approval and a modification application was lodged in April 2020 with the NSW Department of Planning, Industry and Environment (DPIE)[1]. There is no firm timeline for the construction of RPWF. Similarly, Biala Wind Farm located approximately 23 kilometres west of the project area is currently under construction and due to be completed for formal operation by May 2021[2]. The construction traffic generated from these wind farms will not coincide with the traffic generated from the construction of C3WF.

Given the low number of oversized and overmass deliveries of wind turbine components, it is not anticipated that the OSOM deliveries will cause adverse impacts to the road network.

Nonetheless, the following mitigation measures shall be implemented during both Balance of Plant works and OSOM deliveries to avoid impact on the road network.

- The information collected on the surrounding wind farms traffic generation and construction hours will be included in the induction and form part of the Drivers Code of Conduct.
- Drivers will be instructed to be aware of other potential OSOM vehicles along the transportation route.

[1] https://www.tiltrenewables.com/assets-and-projects/Rye-Park-Wind-Farm/, accessed 22 February 2021
[2] https://bialawindfarm.com/the-project/about-the-project/, accessed 22 February 2021

4.6. Site Induction

All staff employed on the site by appointed contractor (including sub-contractors) would be required to undergo a site induction.

The induction would include permitted access routes to and from the construction site for site staff and delivery vehicles, limited parking arrangements, as well as standard environmental, Safework NSW, driver protocols and emergency procedures. The approved work hours must be included as part of this induction.

4.7. OSOM Deliveries

4.7.1. Roles and Responsibilities

Pilot and police arrangements are required for each OSOM vehicle movement. The roles and responsibilities of the parties involved during the movements are as follows:

- Pilot vehicle(s) – driven by an appropriately trained and accredited driver to guide the OSOM vehicle from the front and rear, manage vehicle queuing behind the convoy and assist police with traffic management at pinch points, as required.
- Police vehicle(s) – to hold traffic at intersections or intersection approaches to allow OSOM vehicles to navigate through an area, as required.

As previously mentioned, each OSOM vehicle will require at least two pilot vehicles as part of the convoy, depending on the size and traffic control required. The pilot vehicles will have at least two personnel, with the passenger to guide the OSOM vehicle on foot and/ or temporarily remove and replace signposts before and after manoeuvres are complete.

In addition, locations have been identified within Wollongong and Goulburn where police will be required to temporarily control traffic at intersections whilst the OSOM vehicles navigate through each area.

4.7.2. Emergency Procedures

In the event of an emergency such as a truck breakdown, the OSOM vehicle will be moved to the left lane and/ or shoulder to ensure traffic flow on the adjacent section of road can be maintained with minimal disruption. Police and pilot vehicles (under the direction of the police) will manage traffic around the OSOM vehicle and traffic flow as necessary. Pilot vehicles accompanying the movements will be required to follow the direction of police at all times. In such instances, the Transport Management Centre will be promptly advised so that necessary warnings can be provided to the surrounding traffic.

If a vehicle collides with the load, the police will immediately assess the situation and call emergency services, before providing traffic control with the assistance of the pilot vehicles and enact their emergency procedures for this type of incident.

In the event of poor weather such as heavy rain, the appointed contractor will make a decision whether to proceed the afternoon prior to the OSOM movements. All relevant parties will be notified at this time and a suitable alternative date for the movements will be set. This will require further consultation with relevant authorities.

In the event of a communications failure between any of the vehicles within the convoy, the OSOM movement is to cease at a suitable location until communications can be re-established.

4.7.3. Communications Protocol

A pre-departure meeting will be held at least 15 minutes prior to the commencement of any OSOM movement. Communication between parties involved in the movements will occur on a UHF radio channel chosen on the day (in addition to mobile phones as required). All parties will be informed of the chosen UHF channel in the pre-departure meeting along with all relevant procedures and schedules required for the OSOM movements.

4.7.4. Rest and Fatigue Break Locations

A fatigue schedule has been prepared as part of the RJA OSOM TMP (see Appendix A) which sets out the trip schedule between Port Kembla and C3WF site. The schedule has been prepared based on values known at the time for good driving conditions and no known fatigue related issues prior to starting the trip.

The OSOM trucks will depart from Port Kembla at 2:30am with an expected arrival time of 6:30am at the site before having a fatigue break. The trucks will then depart the site at 9:00am with an estimated time of arrival of 12:00pm at Port Kembla before having a second fatigue break. No other breaks are generally expected between Port Kembla and Goulburn.

Notwithstanding the above, 'pull over' locations have also been identified based on past experiences which are suitable for OSOM and can realistically be used as rest locations, as follows:

- stopping bay on Mount Ousley Road (approximately 10.7 kilometres from origin)
- parking bay on Picton Road (approximately 40.9 kilometres from origin)
- parking bay on Hume Motorway (approximately 67.2 kilometres from origin)
- parking bay on Hume Motorway (approximately 104.4 kilometres from origin)
- parking bay on Hume Motorway (approximately 124.6 kilometres from origin).

4.7.5. "Pull Over" Activation

It is expected that there will be three instances where a 'pull over' may be activated. These are:

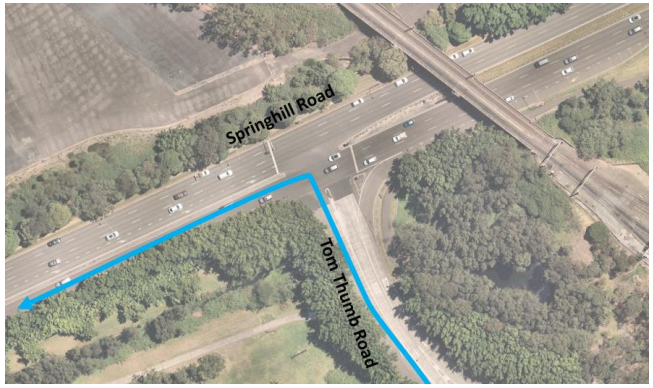
- when queuing behind the convoy requires clearing
- when approaching a pinch point and awaiting advice from police that temporary closures have been implemented and the OSOM vehicle is safe to proceed
- when other OSOM vehicle(s) are approaching to ensure there is sufficient room for the OSOM vehicle to pass.

When a 'pull over' is activated the lead pilot vehicle for each OSOM vehicle is to determine a safe location for the convoy to stop and provide sufficient road width to allow one lane of traffic to pass. The 'pull over' locations could include using either the left lane and/ or road shoulder of a carriageway. 'Pull over' locations have been identified in Section 4.7.4.

4.7.6. Temporary Road Network Modifications

Table 4.1 presents a summary of the anticipated temporary road and intersection upgrades or modification works required to accommodate the OSOM movements, identified as part of the route survey and swept path analysis conducted in the Rex J Andrews Route Survey (Appendix A).

Table 4.1: Temporary road network modifications and traffic management requirements

Location	Image	Modification of intersection	Traffic Management Requirements
Tom Thumb Road/ Springhill Road, Port Kembla		• No modifications are required	• Police escort vehicle to temporarily hold all eastbound traffic on Spring Hill Road • Pilot vehicle to temporarily hold all northbound within John Carey Place and Bluescope Steel • Pilot vehicle to temporarily hold all westbound traffic on Spring Hill Road • Pilot vehicle to stay 50 metres behind the load and warn all traffic • A spotter will need to watch the traffic signals on the inside and outside of the turn.
Springhill Road/ Masters Road, Port Kembla		• No modifications are required	• Police escort vehicle to temporarily hold all northbound traffic on Springhill Road at the intersection • Police escort vehicle to temporarily hold all eastbound traffic on Masters Road, approximately 100 metres west of the intersection • Pilot vehicle to warn all eastbound traffic on Masters Road • Pilot vehicles to stay 50 metres and 100 metres behind the load and warn all traffic.

TRAFFIC MANAGEMENT ARRANGEMENTS

Location	Image	Modification of intersection	Traffic Management Requirements
Mt Ousley Road/ Picton Road, Mount Ousley		• No modifications are required	• Police escort vehicle to temporarily hold all southbound traffic on Mount Ousley Road at the Picton Road off-ramp • Escort vehicle to warn all eastbound traffic on Picton Road • Pilot vehicles to stay 100 metres and 400 metres behind the load and warn all traffic.
Picton Road/ Hume Highway, Wilton		• No modifications are required	• Police escort vehicle to temporarily merge all southbound traffic on the Hume Highway into the right lane • Police escort to temporarily hold all eastbound traffic on Picton Road • Pilot vehicle to warn all southbound traffic on the Hume Highway • Pilot vehicle to warn all traffic entering the onramp from Picton Road. • Pilot vehicles to stay 50 metres and 100 metres behind the load and warn all traffic • A spotter will need to keep an eye on the traffic signal while making this turn.

TRAFFIC MANAGEMENT ARRANGEMENTS

Location	Image	Modification of intersection	Traffic Management Requirements
Hume Highway/ Hume Street, Goulburn		• No modifications are required	• Police escort vehicle to warn all oncoming traffic on Hume Street • Police escort vehicle to temporarily hold all eastbound traffic on Picton Road • Pilot vehicle to warn all oncoming traffic on Hume Street • Pilot vehicle to warn all traffic on the northbound off-ramp onto Hume Street • Pilot vehicle to warn all westbound traffic on Hume Street • Pilot vehicle to stay 50 metres behind the load and warn all traffic • A spotter will need to watch the poles on the rear overhang.
Cowper Street/ Clinton Street, Goulburn		• No modifications are required • Existing signs are currently removeable • Signs on the centre median island to be removed and replaced for each blade movement	• Police escort vehicle to temporarily hold all eastbound traffic on Clinton Street • Police escort vehicle to temporarily hold all westbound traffic on Clinton Street • Pilot vehicle to warn all eastbound traffic on Clinton Street • Pilot vehicles to stay 50 metres and 100 metres behind the load and warn all traffic.

TRAFFIC MANAGEMENT ARRANGEMENTS

Location	Image	Modification of intersection	Traffic Management Requirements
Clinton Street/ Faithfull Street, Goulburn		• No modifications are required	• Police escort vehicle to temporarily hold all eastbound traffic on Clinton Street • Police escort vehicle to temporarily hold all traffic entering the roundabout from the northern leg • Pilot vehicle to warn all eastbound traffic on Clinton Street • Pilot vehicle to warn all traffic entering the roundabout from Faithfull Street • Pilot vehicle to stay 500 metres behind the load and warn all traffic.
Clinton Street/ Deccan Street, Goulburn		• No modifications are required • Existing signs are currently removeable • Signs on the centre median island to be removed and replaced for each blade movement	• Police escort vehicle to temporarily hold all southbound traffic on Deccan Street • Police escort vehicle to temporarily hold all traffic entering the intersection from the southern and western leg • Pilot vehicle to warn all eastbound traffic on Deccan Street • Pilot vehicles to stay 50 metres and 100 metres behind the load and warn all traffic.

TRAFFIC MANAGEMENT ARRANGEMENTS

Location	Image	Modification of intersection	Traffic Management Requirements
Deccan Street/ Fitzroy Street, Goulburn		• No modifications are required	• Police escort vehicle to temporarily hold all eastbound traffic on Fitzroy Street • Police escort vehicle to temporarily hold all traffic entering the roundabout from the eastern leg • Pilot vehicle to warn all eastbound traffic on Fitzroy Street • Pilot vehicle to warn all traffic on Mount Street • Pilot vehicles to stay 50 metres and 100 metres behind the load and warn all traffic • A spotter to watch the overhang on the crossing sign outside the school.
Crookwell Road/ Woodhouselee Road, Wayo		• No modifications are required	• Police escort vehicle to temporarily hold all southbound traffic on Woodhouselee Road • Police escort vehicle to temporarily hold all eastbound traffic on Crookwell Road • Pilot vehicle to warn all southbound traffic on Woodhouselee Road • Pilot vehicle to warn all eastbound traffic on Crookwell Road • Pilot vehicles to stay 100 metres and 150 metres behind the load and warn all traffic. • A spotter to watch the overhang on the sign on the inside of the corner.

TRAFFIC MANAGEMENT ARRANGEMENTS

Location	Image	Modification of intersection	Traffic Management Requirements
Woodhouselee Road/ Greywood Siding Road (Site access), Wayo		• Culvert extension works required • Embankment widening works required to accommodate vehicle access • Widening works at the intersection results in impacts to Lot 3 DP1053653 and Lot 1 DP852156.	• Police escort vehicle to temporarily hold all southbound traffic on Woodhouselee Road • Police escort vehicle to stay 50 metres behind the load and temporarily hold all traffic • Pilot vehicle to warn all southbound traffic on Woodhouselee Road • Pilot vehicle to warn all traffic on the site access road • Pilot vehicles to stay 100 metres and 150 metres behind the load and warn all traffic.

4.7.7. Upgrades to Site Access Pavement

The internal access roads will be generally made up of unsealed carriageways. To limit loose gravel and dirt being transferred to the connecting roads, it is recommended that the first 50 metres of the site access carriageway (Greywood Siding Road) be sealed or provide cattle grids at the site access.

It is also recommended that "Stop" line marking and signage be provided at the vehicle access point (Greywood Siding Road) to reinforce the priority of Woodhouselee Road.

4.7.8. Monitoring and Maintenance of Roads

Monitoring of Roads

To ensure that the roads utilised by traffic associated with the OSOM deliveries for the C3WF site are maintained to a suitable standard commensurate with their function, it is recommended that a joint inspection of the road surfaces be undertaken by representatives of TfNSW, Council and the Client or Client's representative prior to the commencement of construction works in the project area.

Upon completion of the construction works, it is recommended a final joint inspection is once again undertaken by representatives of TfNSW, Council and the Client or Client's representative. The purpose of this inspection would be to identify those works that will ultimately be necessary to return the roads to their pre-construction condition.

Maintenance of Roads

Should any significant defects be identified during the inspections which restrict the road network from operating at its intended level, wherever possible and practicable, such defects will be rectified within a reasonable timeframe as agreed to by Council, TfNSW and the Client, to the satisfaction of, and at no cost to, the relevant Road Authority.

The anticipated works to rectify any issues could range from the filling in of potholes, to more intensive regrading of road surfaces.

The intention for the development is to provide the community with safe road network conditions during the construction period and to complete the project without damaging the surrounding road network.

4.7.9. Mitigation and Management Measures

Table 4.2 summaries all mitigation measures committed to throughout this TMP. For each measure, the responsible party and stage of project is listed.

Table 4.2: Mitigation measures

Factor	Management of control measure	Responsibility	When does this apply?
Permits/ Consent/ Licenses	• Contractors will abide by this TMP once approved by the Secretary. • The OSOM transportation contractor will obtain a Road Occupancy Licence from Roads and Maritime Traffic Operations Unit prior to commencing work within the classified road reserve or within 100 metres of traffic signals. • The OSOM transportation contractor will ensure that all traffic management approvals for works / traffic management arrangements along Local Roads are	OSOM Transportation Contractor (Crookwell Development to ensure compliance)	Throughout construction

Factor	Management of control measure	Responsibility	When does this apply?
	obtained from Council prior to any work commencing on the stipulated roads.		
Haulage	• The OSOM transportation will use an appropriately licensed haulage contractor for haulage of any items to site. The contractor will have experience in transporting similar loads and be responsible for obtaining all required approvals and permits from Roads and Maritime or National Heavy Vehicle Regulator and Councils and for complying with conditions specified in the approvals. • All loaded vehicles entering or leaving site will have their loads covered or contained.	OSOM Transportation Contractor (Crookwell Development to ensure compliance)	During construction
Road condition and dilapidation	• Crookwell Development will undertake dilapidation surveys in accordance with condition 33 of the Conditions of Consent • Crookwell Development will ensure monthly monitoring of the road conditions occurs on the heavy vehicle route.	Crookwell Development in conjunction with OSOM transportation contractor	Prior to, throughout and post construction
Consultation	• Effective on-going consultation will be undertaken with relevant stakeholders. • Liaison activities will include a combination of the following: o Text message alerts o One-on-one meetings o Newspaper articles or advertisements o Monthly project newsletter distributed via email o Email and Phone discussions o Follow through of complaints as per procedure o An up-to-date website • Operating a Community Consultative Committee.	Crookwell Development in conjunction with OSOM transportation contractor	Prior to, throughout and post construction
Delays to traffic	• Construction trucks are to follow approved routes at all times. • Light vehicles to always drive responsibly and consider other road users. This will be incorporated in the site induction. • As the loading on the road network will maintain a level of service better than an LOS of C, no substantial delays to traffic are expected. • Sufficient dedicated onsite car parking for personnel will be provided. • Construction trucks' arrivals and departures are to be planned with consideration to minimising the impact to other road users during peak traffic periods.	OSOM transportation contractor (Crookwell Development to ensure compliance)	During construction
Driver's Code of Conduct	• The Driver's Code of Conduct is to be developed in consultation with the transport contractor(s). A draft Code of Conduct is included in Section 5. • Training records will be kept for all inductions. • Controls in the code include: o Travelling speeds o Haulage routes o Details on school zones and school bus routes including times o Details on stock crossing locations o Safe and courteous driving practices	OSOM transportation contractor	During construction

Factor	Management of control measure	Responsibility	When does this apply?
	○ Heavy vehicle driver fatigue policies ○ Vehicle maintenance requirements ○ Complaints resolution ○ Disciplinary procedures.		
School Bus Routes	• Details and times of school bus routes will form part of the site induction, so all drivers will be aware. • Consultation is to be ongoing with bus operators. • If deemed necessary, an escort vehicle may be provided.	Crookwell Development in conjunction with OSOM transportation contractor	During construction

5. DRIVER CODE OF CONDUCT

5.1. Overview

The following code of conduct will form part of Crookwell Development's requirements of the OSOM transportation contractor, whereby the OSOM transportation contractor is expected to comply with the code of conduct in full. It will be revised by Crookwell Development in conjunction with the OSOM contractor prior to commencement of on-site works for the project. After Crookwell Development's approval, it will be implemented for all traffic and transport activities associated with the OSOM movements.

5.2. Driver's Code of Conduct

This code of conduct will be communicated to all site workers during the site induction process. Workers will be reminded of the requirements of the code of conduct regularly in toolbox meetings.

The code of conduct will be revised prior to commencement of on-site works and when required during construction works.

5.2.1. Travelling Speeds

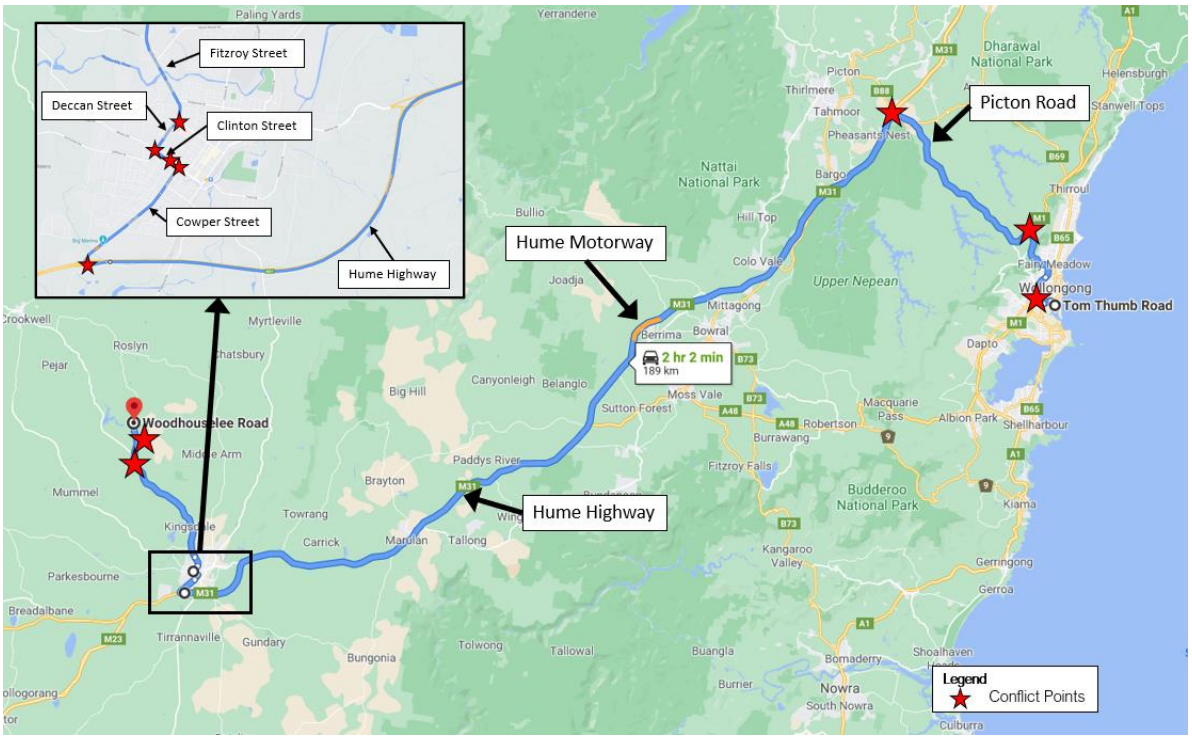
All vehicles associated with the C3WF site are required to travel within the posted speed limits on public roads. In situations where driver's visibility and traffic safety on public roads is affected by weather related conditions such as heavy rainfall or fog, construction vehicles should reduce their speed until visibility and traffic safety has improved.

Vehicle tracking management systems will be used for all site-based vehicles during construction.

5.2.2. Haulage Routes and Timing of Transport

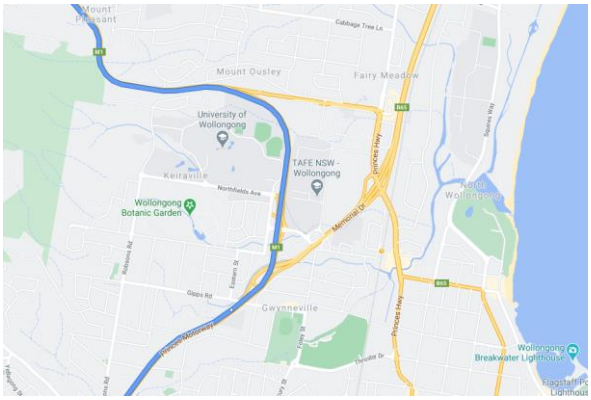
All large vehicles associated with the C3WF site will follow the designated transportation route detailed in Section 2.6. A map of the haulage routes highlighting critical locations is attached to the transport code of conduct. Any school zones and school bus routes corresponding to the transport routes will be marked on the route maps. The transportation route is shown from Figure 5.1 to Figure 5.3.

Figure 5.1: Primary transportation route



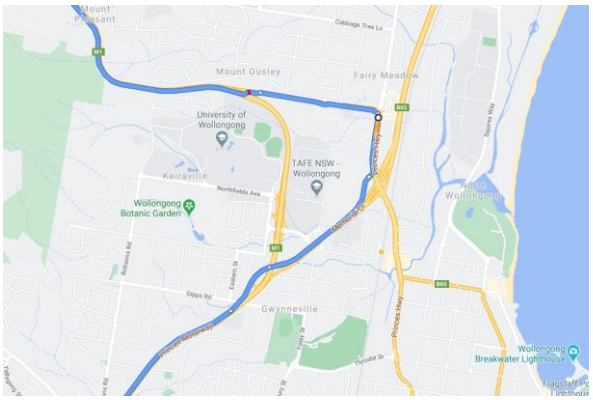
Base image source: Google Maps

Figure 5.2: Primary Route (vehicle and load heights less than 4.9m)



Source: Google Maps

Figure 5.3: Detour route (vehicle and load heights more than 4.9m)



Source: Google Maps

The OSOM transportation contractor will complete the following measures to minimise impact on school bus routes:

- Details and times of school bus routes will form part of the site induction.
- Consultation will be ongoing with bus operators.
- If deemed necessary, an escort vehicle for the school bus will be provided.
- Over dimensioned and over mass deliveries are subject to the OSOM transportation contractor obtaining relevant approvals from TfNSW, with such deliveries typically escorted outside school bus operation hours.

5.2.3. Safe Driving Practices

The operators of all vehicles associated with the C3WF site would maintain a high level of awareness and respect for all other road users. All on-site staff will receive a site induction, which will include details regarding the TMP and this code of conduct. Regular toolbox meetings will be held to maintain awareness of required controls. Details of the traffic and access training and induction will focus on:

- objectives of the TMP
- performance goals
- mitigation measures required to be implemented
- traffic and access monitoring and reporting requirements
- incident investigation and response protocols.

Training is to be provided prior to start-up of any traffic and access related management tasks and updated if task, equipment or procedures are expected to, or have changed.

The following requirements would be adhered to at all times:

- Obey all laws and regulations.
- Do not drive whilst under the influence of alcohol, drugs, nor any medication which may affect ability to drive.
- Be medically fit to drive at all times and inform site coordinators if have any medical condition which may affect ability to drive.
- Drive in a considerate manner at all times and respect the rights of others to use and share the road space.
- Report all vehicle defects to employer. Serious defects must be corrected immediately, or an alternative vehicle supplied.
- Any vehicle crash or incident resulting in injury or significant damage to property must be reported to the police.
- Report any near misses.
- Always adhere to the site working hours.
- Only drive the construction vehicle when conducting works related to the project.
- Securely fasten and cover loads, as appropriate.
- Keep vehicle clean and in good mechanical condition to reduce the environmental impact.
- Extra care should be taken when driving at dawn or dusk, being particularly watchful for wildlife and/ or livestock.
- Vehicles must give way to pedestrians, cranes, forklifts, mobile plant and emergency vehicles.

The transport OSOM contractor is to develop and implement a maintenance program for the heavy transport vehicles that is consistent with these safety requirements.

5.2.4. Heavy Vehicle Driver Fatigue

Fatigue is one of the biggest causes of crashes for heavy vehicle drivers. The Heavy Vehicle Driver Fatigue Reform was therefore developed by the National Transport Commission and approved by Ministers from all States and Territories in February 2007. The heavy vehicle driver fatigue law commenced in NSW on 29 September 2008 and applies to trucks and truck combinations over 12 tonne gross vehicle mass (however

there are Ministerial Exemption Notices that can apply). Under the law, industry has the choice of operating under three fatigue management schemes:

- standard hours of operation
- basic fatigue management
- advanced fatigue management.

Crookwell Development will be responsible for ensuring that all heavy vehicle drivers operating out of the C3WF site are aware of and understand the heavy vehicle driver fatigue requirements, as included in Appendix B.

5.2.5. Maintenance Requirements

The operators of all vehicles associated with the C3WF site are required to undertake a high level of maintenance for the vehicles under their control. The following requirements would be adhered to at all times:

- ensure their vehicle complies with relevant State legislation in relation to roadworthiness and modifications
- undergo regular vehicle checks and maintenance
- ensure their vehicles have correctly fitted mufflers to minimise noise disturbance.

6. CONSULTATION

6.1. Stakeholder Engagement

TfNSW and Upper Lachlan Shire Council have reviewed the original TMP following lodgement. This TMP has been updated to address the comments and feedback received.

6.2. Council Notifications

Prior to any transportation of OSOM deliveries, respective local government areas would be notified of any OSOM movements through the local road network.

6.3. Community Notifications

Information regarding the construction traffic disruption associated with the OSOM deliveries will be provided to the local community. This will be done through letterbox drops that will include information on such planned activities, progress of schedule, traffic routes and flows, enquiry and complaint contact information, as well as any changes to delivery activities.

The letters will be distributed monthly or as appropriate to coincide with the key delivery milestones. Letters will be distributed to property owners within five kilometres of the site access point (Greywood Siding Road).

Updates on traffic information will be provided to the Community Consultative Committee.

6.4. Complaints Management

All complaints will initially be reviewed by the on-site Principal Contractor. On receipt of a complaint, the Principal Contractor will:

- Contact the complainant
- Complete a Community Complaints form to record:
    - date/ time
    - means of complaint (i.e. telephone, email, mail)
    - personal details
    - nature of complaint.
- Coordinate with the Site Manager and/ or relevant contractors on potential corrective actions
- Advise the complainant of the corrective actions and record these on the Community Complaints form
- Complete the Community Complaints Register
- If corrective actions cannot be implemented immediately, an incident report will be raised to manage the process
- If appropriate, follow up with the complainant to review outcome of the implemented corrective actions.

7. MONITORING, REPORTING AND COMPLIANCE

7.1. Overview

Monitoring and reporting of the effectiveness of the measures outlined in this TMP will occur in accordance with Table 7.1.

Table 7.1: Monitoring and reporting of TMP measures

Action	Frequency
Review of Traffic Management Plan and Transport Code of Conduct	Review every 6 months or after a complaint or incident requires amendment.
Review of Site Induction to ensure it includes relevant traffic related information	Monthly during construction.
Review training records to ensure all site staff have completed the site induction and the transport code of conduct	Monthly during construction.
Check that driver behaviour is in accordance with this TMP and the Drivers Code of Conduct	Crookwell Development will remain vigilant to any non-compliance by any site staff during construction. Crookwell Development will undertake monthly safety audits including spot checks on compliance with the TMP, evidence of truck and trailer safety inspections and the Drivers Code of Conduct.
Review of complaints relating to traffic	Any complaints will be handled in accordance with C3WF's Complaints Handling Procedure. An updated (anonymised) complaints register will be placed on the project website at monthly intervals. Any traffic related complaints will be discussed immediately with any relevant contractors. During monthly project meetings, traffic related complaints will be discussed as an agenda item.
Traffic Incident follow-up	Monthly review of incident reports on register to ensure actions are closed out and all follow-ups are completed.
Monitor conditions of access roads to site	Monthly.
Monitor loose material on public road at site entrances	Daily.

A. REX J ANDREWS OSOM TRANSPORT MANAGEMENT PLAN

A

REX J ANDREWS
ENGINEERED TRANSPORTATION

TRANSPORT MANAGEMENT PLAN: VESTAS CROOKWELL 3 WIND FARM: EX PT KEMBLA.

20/07/2021 REV 00

Rev.	Date	Change	Responsible	Checked
00	16/07/20	Route Assessed	C Ewin	✓
00	16/07/20	Report compiled	C Ewin	✓
00	20/07/20	Report completed	W Andrews	✓

Index:

1.0 Introduction

This document describes observations and previous experience on sections of this route and explains the Transport of Wind turbine equipment from Pt Kembla to Crookwell wind farm stage 3.

This Route survey took place on 16-07-21.

2.0 Evaluation

1	No work required
2	Some Work required
3	Moderate amount of works required
4	Large amount of works required

(Mark below boxes with an X)

		1	2	3	4
A	Harbour	**X**			
B	Road Modification	**X**			
C	Road Furnishings		**X**		
D	Trees	**X**			
E	Site Entrance	**X**			
F	Bridge Calculations		**X**		
G	Traffic Control	**X**			

3.0 Project data.

Date of latest Route Assessment. 16/07/2021
Survey undertaken by. (Rex J Andrews P/L)
Project name. Crookwell Windfarm stage 3
Location. Port Kembla (NSW) to Crookwell (NSW)
Turbine type.
16 x Vestas V126, 94 metre H/H

4.0 Transport combinations and escort requirements.

Nacelles (13.0l x 4.0w x 4.2h x 125T)
Possible transport configuration. Prime mover with 12x8 Platform trailer and a backup prime mover.
Overall Dimensions: 49.0l x 4.3w x 5.2h x 223.0T.
Escort requirement: 1x NSW Police & 3 x Company pilots.

Hubs (5.4l x 3.8w x 3.8h x 34.0T)
Possible transport configuration. Prime mover with 4x4 Low Loader.
Overall Dimensions: 22.0l x 3.6w x 4.8h x 54.5T.
Escort requirement: 1x Company pilots.

Blades (62.0l x 4.2w x 3.4h x 15T)
Possible transport configuration. Prime mover with 1x4- 4x4 -Blade trailer.
Overall Dimensions: 70.0l x 4.2w x 4.9h x 56.5T.
Escort requirement: 2x NSW Police & 4x Company pilots.

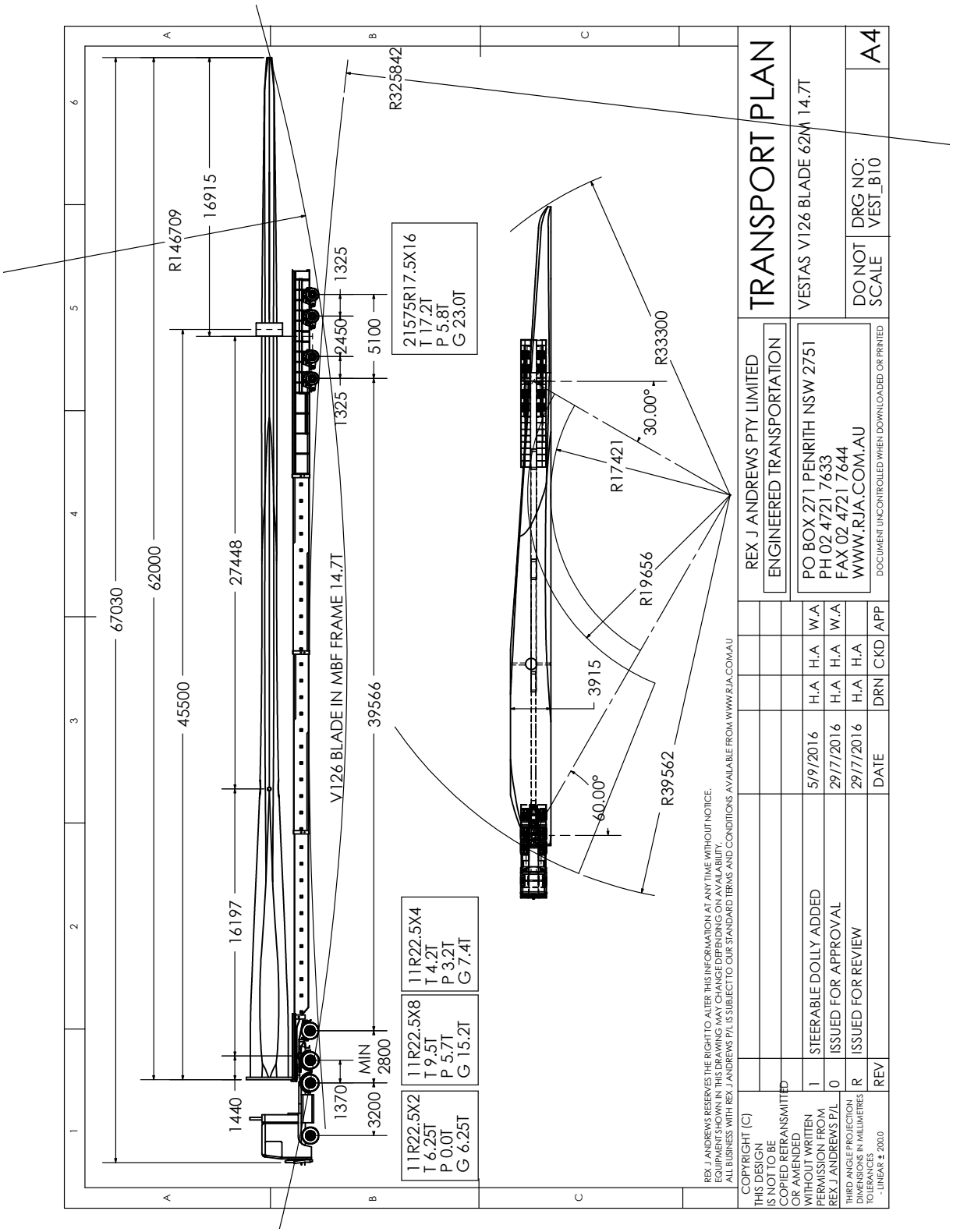
Bottom tower section (28.7l x 4.8 x 4.45 x 84T)
Possible transport configuration. Prime mover with 4x8-4x8 Extending low platform trailer with backup prime mover.
Overall Dimensions: 49.9l x 5.1w x 5.3h x 173.0T.
Escort requirement: 1x NSW Police & 3 x Company pilots.

Mid tower section (26.8l x 4.45 x 3.95 x 51.0T)
Possible transport configuration. Prime mover with 4x4 3x8 dolly-jinker.
Overall Dimensions: 39.9l x 4.5w x 5.2h x 100.0T.
Escort requirement: 3x Company pilots.

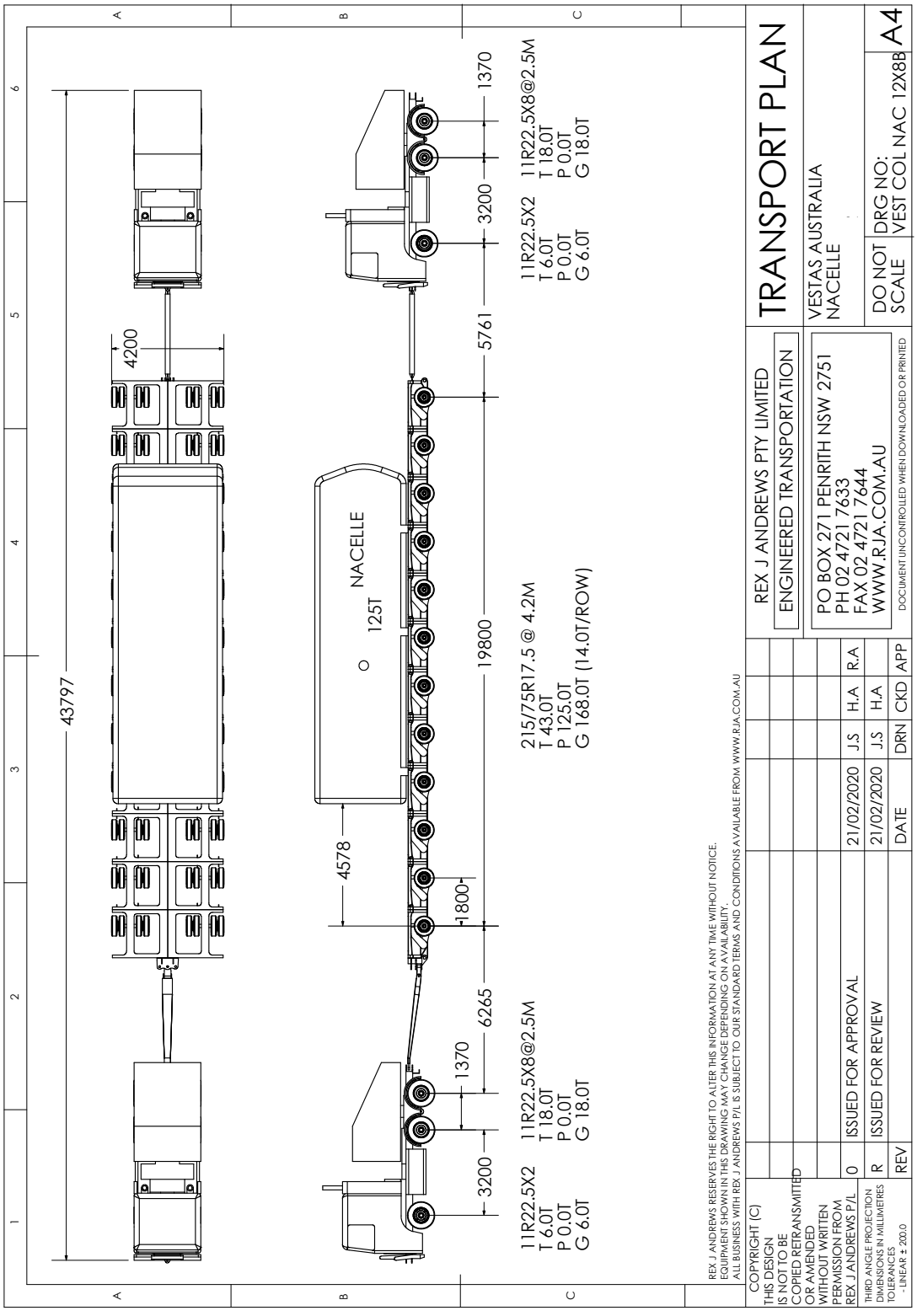
Top tower section (36.0l x 3.95 x 3.3h x 56.0T)
Possible transport configuration. Prime mover with 3x4 2x8 dolly-jinker.
Overall Dimensions: 49.0l x 4.3w x 5.2h x 80.5T.
Escort requirement: 3x Company pilots.

5.0 Transport drawings.

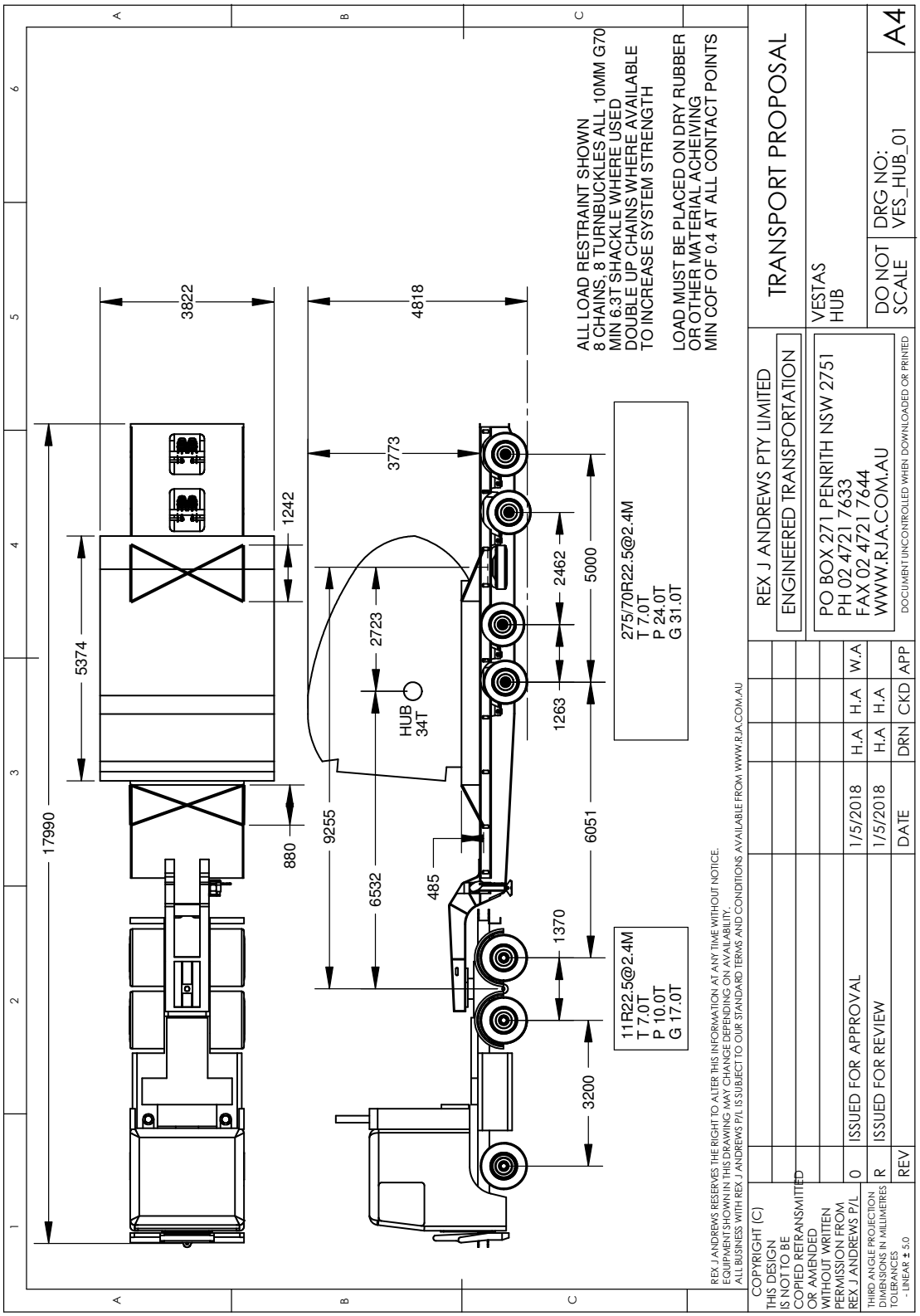
Blade diagram:



Nacelle trailer:



Hub trailer:


ALL LOAD RESTRAINT SHOWN
8 CHAINS, 8 TURNBUCKLES ALL 10MM G70
MIN 6.3T SHACKLE WHERE USED
DOUBLE UP CHAINS WHERE AVAILABLE
TO INCREASE SYSTEM STRENGTH
LOAD MUST BE PLACED ON DRY RUBBER
OR OTHER MATERIAL ACHEIVING
MIN COF OF 0.4 AT ALL CONTACT POINTS
275/70R22.5@2.4M
T 7.0T
P 24.0T
G 31.0T
11R22.5@2.4M
T 7.0T
P 10.0T
G 17.0T
HUB
34T
3822
4818
3773
1242
5374
2723
2462
5000
1263
17990
880
9255
6532
485
6051
1370
3200
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- LINEAR ± 5.0
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1/5/2018
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ISSUED FOR REVIEW
1/5/2018
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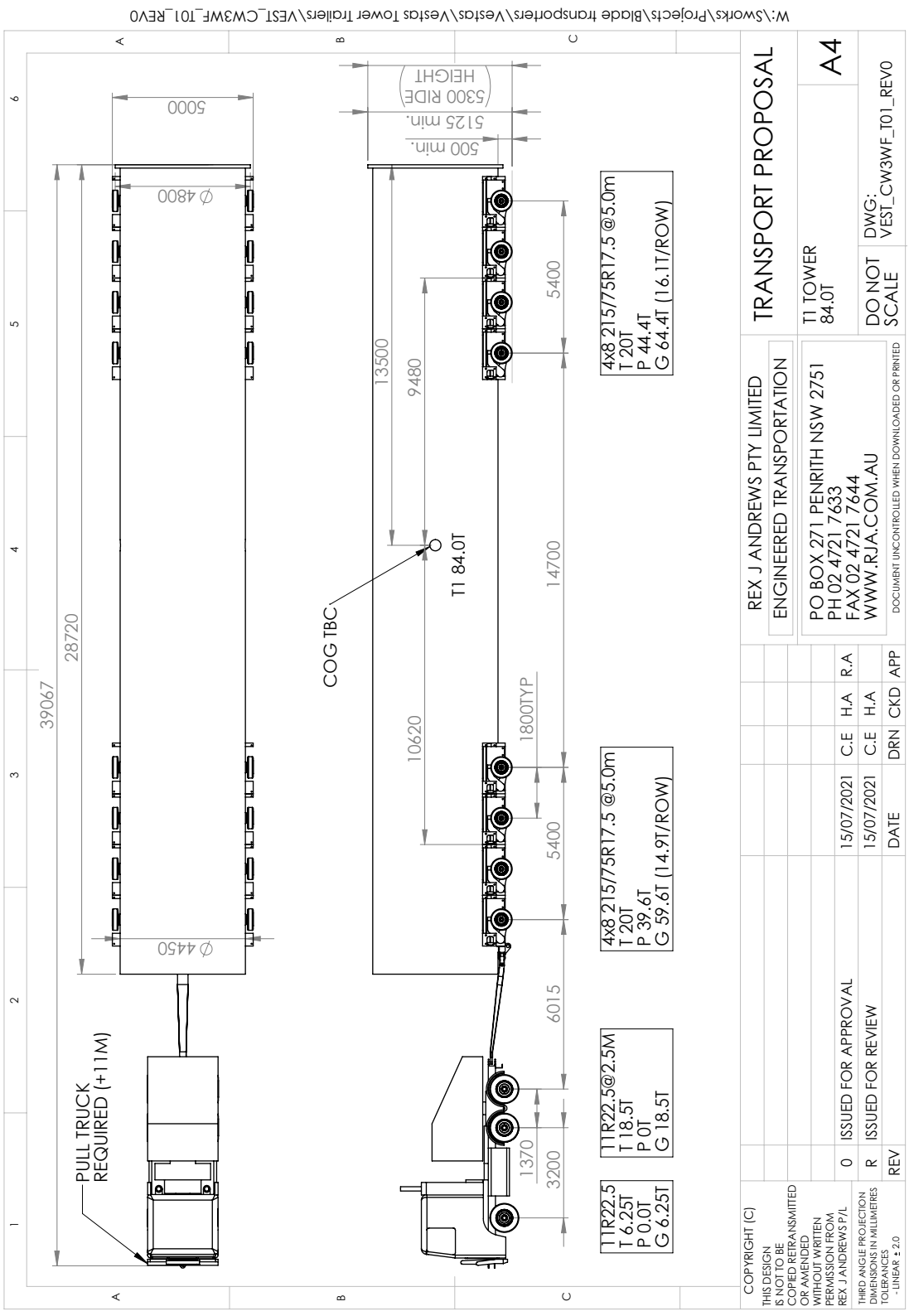
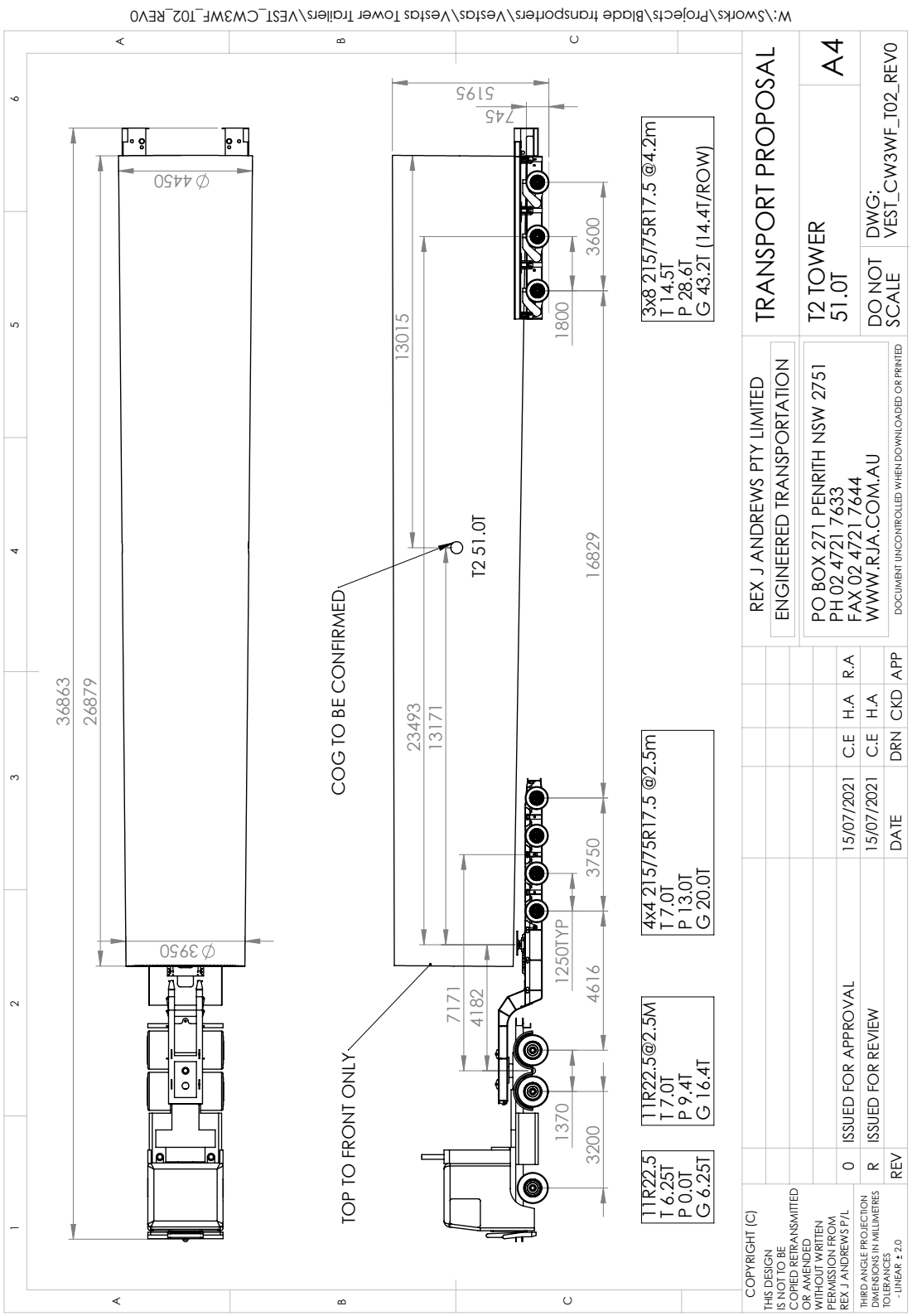
H.A

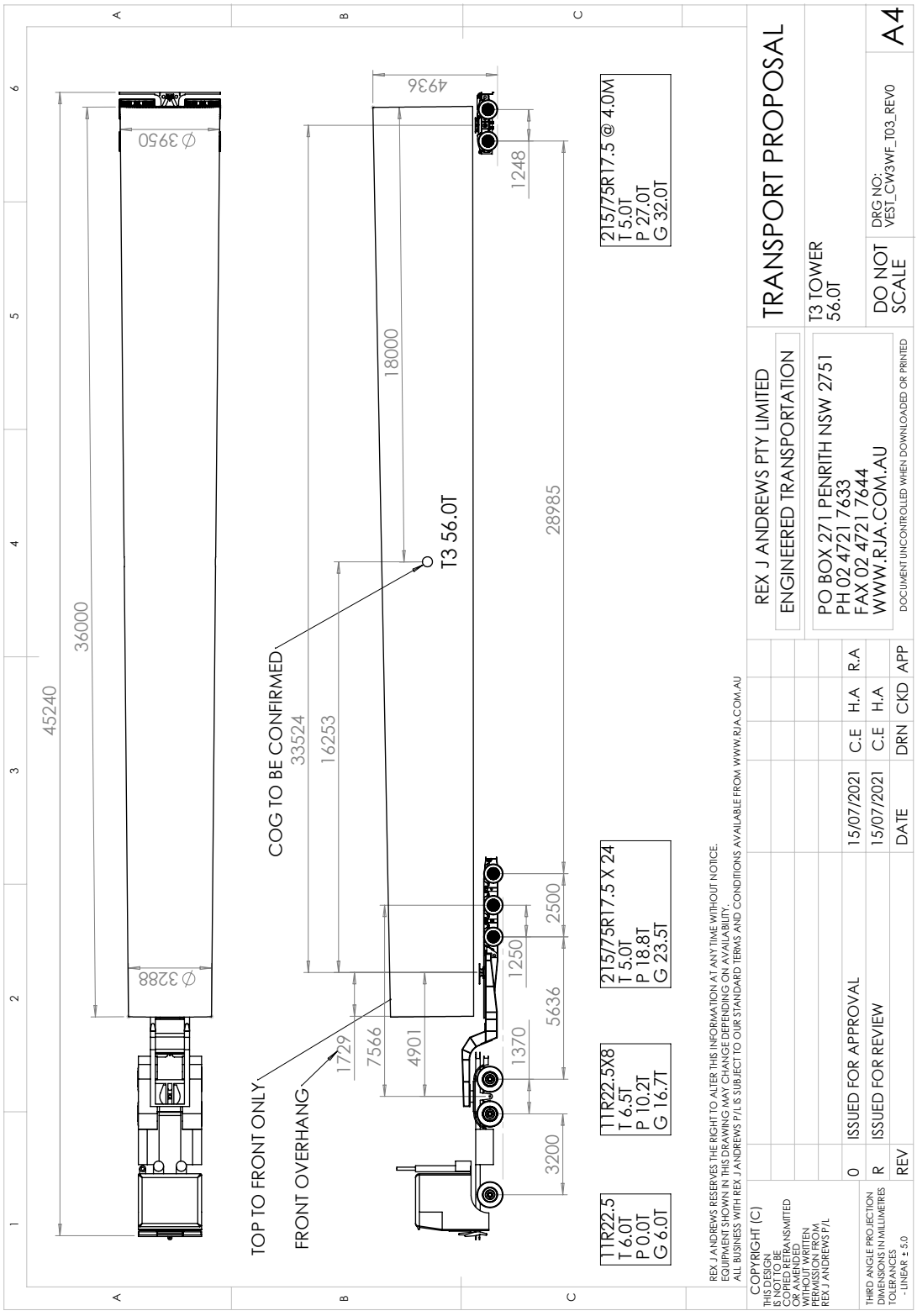
Base tower trailer:



Mid Tower trailer:



Top Tower:


TRANSPORT PROPOSAL
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PH 02 4721 7633
FAX 02 4721 7644
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T3 TOWER
56.0T
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T3 56.0T
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FRONT OVERHANG
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36000
18000
33524
16253
28985
4936
1248
7566
4901
1729
5636
1370
1250
2500
3200
Ø3950
Ø3288
215/75R17.5 @ 4.0M
T 5.0T
P 27.0T
G 32.0T
215/75R17.5 X 24
T 5.0T
P 18.8T
G 23.5T
11R22.5X8
T 6.5T
P 10.2T
G 16.7T
11R22.5
T 6.0T
P 0.0T
G 6.0T
REV
DATE
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CKD
APP
0 ISSUED FOR APPROVAL 15/07/2021 C.E H.A R.A
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6.0 Port of Import.

The wind turbine equipment will be imported from various countries and will arrive on ships into the Port Kembla. The client may alternately source local towers. The ideal berth for these shipments is the AAT Terminal. This facility has a hardstand storage area of roughly 40,000 s/q meters, adjacent to the berth.

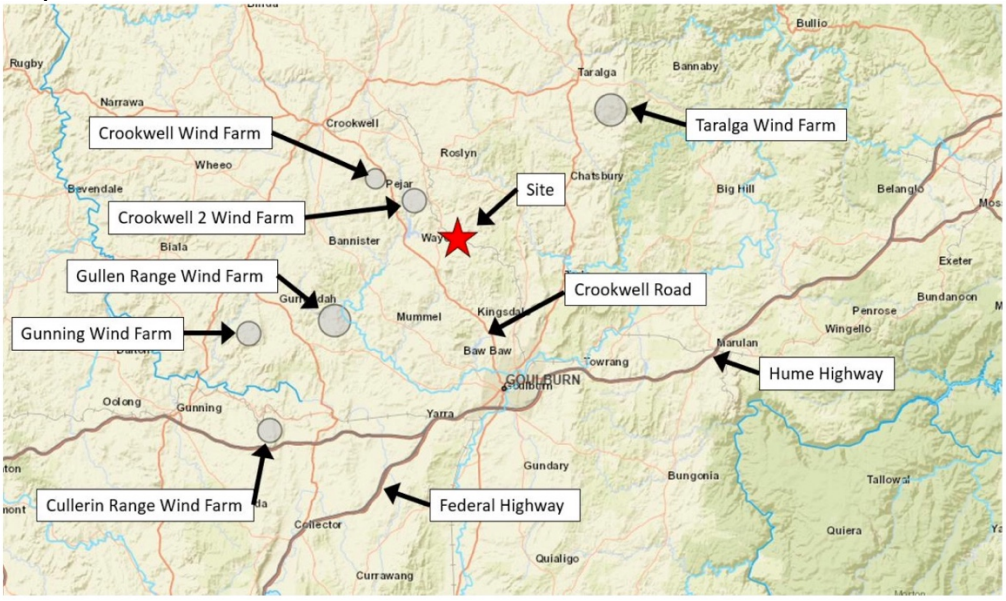
Access from the storage to the Public roads, is via a port operated road onto Tom Thumb Road. The access is suitable for all components.

Image 1: Port overview.

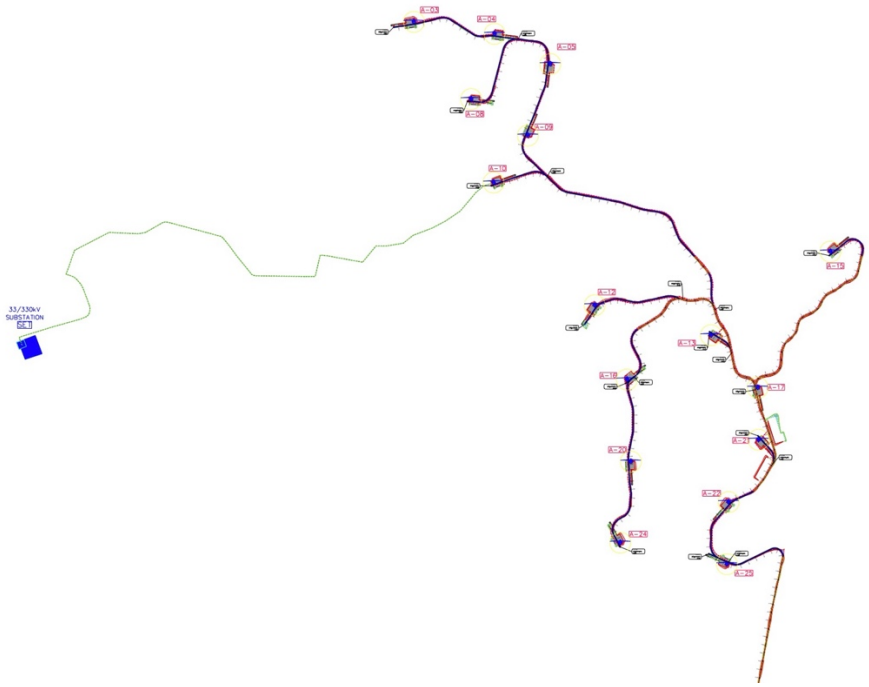
7.0 Site Location and layout.

The Crookwell 3 Wind farm is located approx. 150 Kilometers southwest of Port Kembla, and approx. 10 Kilometers east of Crookwell.

Map: Location



Map: Site layout



8.0 Transport Routes

Route 1: (Loads under 4.9 metres in overall height).
From: Port Kembla
To: Crookwell windfarm stage 3
Distance: 188.0 kilometres:

GPS LINK: https://goo.gl/maps/9Jeq8Xrszh4Ea7zp6

This route took us via Tom Thumb Road, Springhill Road, Masters Road, Southern Freeway, Mt Ousley Road, Picton-Wilton Road, Hume Highway, Hume Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road, Woodhouselee Road, Graywood Siding Road.
Components that use this route: Blades, Hubs and general loads.

Route 2: (Loads over 4.9 metres in overall height).
From: Port Kembla
To: Crookwell windfarm stage 3
Distance: 190.0 kilometres:

GPS LINK: https://goo.gl/maps/Ci9cEUGB8tVBy5hZ7

This route took us via Tom Thumb Road, Springhill Road, Masters Road, Princes Motorway, Memorial Drive, Princes Highway, Mt Ousley Road, Picton-Wilton Road, Hume Highway, Hume Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road, Woodhouselee Road, Graywood Siding Road.
Components that use this route: Nacelle, Base Tower, Mid Tower, Top Tower.

9.0 Transport conditions

The following are the conditions for these routes:

- Largest Loads to travel between 12:00am till 6:00am in the Wollongong Zone, and during daylight hours from Goulburn through to site.
- The smaller loads can travel within that same time frame and additionally between 9:00am and 3:00pm.
- We would request that the blades get an exemption to travel between Goulburn and Crookwell in the dark if required. This would minimize the impact to motorists during the busy part of the morning.
- Prior notice to be given to all road stakeholders who may have roadworks on route. RJA one week prior will send out the schedule and TMP to all Roadworks to understand if the movements conflict with their operations. Pilots will notify all live roadwork sites if there are conflicts through the workzones during transport.
- No unnecessary noise to be made before 7.00am.
- A prestart meeting to be held between the truck driver, police & pilots before load departs.
- If for any reason communications fail between any of the pilot, escort of load vehicle occurs, the load is to cease until such time as it can be re-established.
- Permits/Approval letter from rail authorities to travel across any rail crossing/structure on this route are to be carried with load.
- Permits/Approval letters from state government authorities to access their networks on this route are to be carried with load.
- Permits/Approval letter from Local councils to access their networks on this route are to be carried with load.
- Permits/Approval letter from Electrical/Communication authorities to pass under their networks on this route are to be carried with load.
- Site must have suitable areas available to safely park all loads once inside the windfarm boundary, if they cannot travel direct to the pads.
- All trucks and trailers that are to be used on all loads must have current service records and registration.
- All drivers and pilots are to follow procedures listed in the Transport plan including pinch point procedures and travel restrictions.

10.0 Schedule of movements

PROJECT START DATE: Q2 2022 TILL Q4 2022

At this stage the project is looking at delivering 2 to 3 complete turbines per week. This is a total of up to 27 OSOM movements per week. Over a 6-day week this would average 4-5 movements per day.

CROOKWELL 3 WINDFARM TURBINE DELIVERIES

TYPICAL TURBINE DELIVERY SCHEDULE REV00

SUNDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES:
MONDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BASE (49.9l x 4.8w x 5.2h x 173.0T)	TBC	1 X POLICE, 3 X PILOTS	3.00AM	9.00AM	10.45AM	
MID (39.9l x 4.5w x 5.2h x 100.0T)	TBC	3 X PILOTS	3.15AM	9.15AM	11.00AM	
TUESDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
NACELLE (49.9l x 4.3w x 5.2h x 223.0T)	TBC	1 X POLICE, 3 X PILOTS	3.00AM	9.00AM	10.45AM	
TOP (49.9l x 4.3w x 5.2h x 81.0T)	TBC	1 X POLICE, 3 X PILOTS	3.15AM	9.15AM	11.00AM	
HUB (22l x 3.6w x 4.6h x 54.5T)	TBC	1 X PILOT	9.00AM	11.30AM	12.30PM	
WEDNESDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BASE (49.9l x 4.8w x 5.2h x 173.0T)	TBC	1 X POLICE, 3 X PILOTS	3.00AM	9.00AM	10.45AM	
MID (39.9l x 4.5w x 5.2h x 100.0T)	TBC	3 X PILOTS	3.15AM	9.15AM	11.00AM	
THURSDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
NACELLE (49.9l x 4.3w x 5.2h x 223.0T)	TBC	1 X POLICE, 3 X PILOTS	3.00AM	9.00AM	10.45AM	
TOP (49.9l x 4.3w x 5.2h x 81.0T)	TBC	1 X POLICE, 3 X PILOTS	3.15AM	9.15AM	11.00AM	
HUB (22l x 3.6w x 4.6h x 54.5T)	TBC	1 X PILOT	9.00AM	11.30AM	12.30PM	
FRIDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BASE (49.9l x 4.8w x 5.2h x 173.0T)	TBC	1 X POLICE, 3 X PILOTS	3.00AM	9.00AM	10.45AM	
MID (39.9l x 4.5w x 5.2h x 100.0T)	TBC	3 X PILOTS	3.15AM	9.15AM	11.00AM	
SATURDAY						
SECTION:	TRUCK	ESCORT REQUIREMENT	DEPART PORT KEMBLA	DEPART GOULBURN	ARRIVE CROOKWELL	NOTES
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	
BLADE (70l x 4.2w x 4.9h x 56.5T)	TBC	2 X POLICE, 4 X PILOTS	2.15AM	5.00AM	6.30AM	

11.0 Fatigue scheduling:

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ENGINEERED TRANSPORTATION

Sydney
PO Box 271, Penrith NSW 2751
Ph: 02 4721 7633 Fx: 02 47217644
Em: sydney@rja.com.au

Adelaide
PO Box 6072, Burton SA 5110
Ph: 08 8280 5541 Fx: 08 8280 8365
Em: adelaide@rja.com.au

Newcastle
16 Yilen Close, Beresfield NSW 2322
Ph: 02 4966 1788 Fx: 02 4966 1744
Em: newcastle@rja.com.au

Trip Schedule

Schedule Details Crookwell 3 windfarm
Transportation of turbine blades

Sch No SCH07265
Date 19/07/2021 2:00:45 pm
Written By Warrick Andrews
Consulted Mark Sciberras

Schedule Notes:
-This Schedule has been written based on values known at the time for good driving conditions and no known fatigue related issues prior to starting the trip.
- Do not drive to the schedule if you fell tired. Stop revive survive
- No attempt should be made to make up for lost time on a schedule.
- Please modify all times according to your real start time.
- You must still fill in your Logbook, exactly as the hours you have worked.

Please work with the Scheduler who wrote this to make the schedule better for all.

Start	End	Hr	Day	Km	avg	Type	Location	Notes
2:15am	2:30am	0.25	1	0	0	Working	Port Kembla	Toolbox and prestart
2:30am	5:00am	2.50	1	160	64	Driving	Port Kembla to Goulburn	Loaded travel
5:00am	6:30am	1.50	1	35	23	Driving	Goulburn to Crookwell	Loaded travel
6:30am	7:00am	0.50	1	0	0	Paid Rest	Crookwell	Fatigue break
7:00am	9:00am	2.00	1	0	0	Working	Crookwell	Unloading
9:00am	12:00pm	3.00	1	195	65	Driving	Crookwell to Port Kembla	Empty Travel
12:00pm	12:30pm	0.50	1	0	0	Paid Rest	Port Kembla	Fatigue break
12:30pm	2:15pm	1.75	1	0	0	Working	Port Kembla	Loading
2:15pm	11:59pm	9.73	1	0	0	Rest	Port Kembla	Rest Break

12.0 Emergency Procedures

- In the event of an emergency situation, such as breakdown, the load will be moved to the left-hand lane/shoulder to ensure minimal traffic impacts; police and pilots (Under the direction of the police) will manage traffic flow. In such instances the TMC should be promptly advised so that all necessary warnings are made. All parties involved in the movement will have contacts for all emergency numbers required on the project.
- Where a tow is required, the trailer will be unhooked from the prime mover and a Heavy towing operator be called from the list of emergency contacts. In such instances the TMC should be promptly advised so that all necessary warnings can be made.
- If a vehicle collides with the load, the police will immediately assess the situation and call emergency services, before providing traffic control with the assistance of the pilots and enact their emergency procedures for this type of incident.
- If police decide that the movement should be suspended as a result of time or potential traffic impacts the trailer with the load will be moved to a safe parking location and TMC will be notified.
- In the event of bad weather, the driver is to notify the first point of contact before departing.
- If the road is blocked between the pickup location and drop off location, and the load is still at the port than the load is not to depart.
- If the load is in transit, and the road is blocked ahead, then the load is to find a suitable parking area until road is cleared.
- Refer to Rex J Andrews P/L “SOP_025_Emergency plan”

13.0 Emergency contacts

- Main emergency number (000)
- Rex J Andrews operations (02 47217633)
- TMC operations room (1800 679782)
- NSW Police Wollongong command (02 42267746)
- NSW police Traffic operations (02 88821219)

ASSET OWNERS ON ROUTE:

- RMS Assets (02 66401345)
- Essential energy (132391)
- Telstra (1802244)
- ARTC (02 49029410)
- CRN JHG (02 40289400)

HEAVY TOWING OPERATORS ON ROUTE:

- Wollongong: Fairall's (02 42618889)
- Sydney: GRS Towing, (1300550600)
- Sydney: Westruck Towing, (1300136129)
- Goulburn: Goulburn heavy towing, (0455555656)

14.0 Transport approvals required

Approvals that will need to be carried with the loads.

- NHVR
- NSW Police
- CRN JHG
- Essential energy
- Telstra

15.0 Pinch Points

The following are the pinch points on these routes:

- REGULAR ROUTE ASSESMENTS: Throughout the project Rex J Andrews P/L is to keep in constant contact with the TMC and local councils regarding roadwork's and any upcoming road modifications that would take place on the route during the project. Drivers are to have full contact details and communicate regularly with these roadwork's managers while on route.
- PORT KEMBLA: Blades are to travel onto the incorrect side of Springhill Road before crossing back to the correct side of Master's Road. Police and pilots to control traffic as per the procedure for this pinch point.

  Load to travel around tight pinch points under the guidance of a spotter. Spotter to monitor any structures/Road furnishings that may come in contact with the load and advise the driver throughout the procedure.
- PRINCES MOTORWAY UNDER THE PRINCES HIGHWAY: All loads over 5.1 metres are to travel under this structure in the right-hand lane and lower the trailers to under 5.25 metres in height. Loads not to exceed 5.25 metres in height.
- PRINCES MOTORWAY UNDER GIPPS ROAD: All loads over 5.0 metres are to travel under this structure in the Left-hand lane and take the Memorial Drive exit. Loads are to lower the trailers to under 5.25 metres in height. Loads not to exceed 5.25 metres in height.
- PRINCES MOTORWAY UNDER UNIVERSITY AVENUE: All loads over 5.0 metres are not to travel under this structure. Loads at 5.0 metres an under will travel under this structure in the left-hand lane.
- MOUNT OUSLEY ROAD: Blades are to travel from the correct side to the correct side. The overhang may travel over the southbound lanes of Mt Ousley Road. Police will need to hold all southbound traffic on Mt Ousley Road as per the traffic control procedure on page 42 of this TMP.
- GOULBURN: There are several tight corners to navigate through Goulburn. Some corners required signs to be removed and replaced for each load. Police and pilots to control traffic as per the procedures for these pinch points.
- SITE: All drivers once onsite MUST check the current site road conditions before proceeding. From this point a call will be made whether additional pulling power is required, and that the road ahead is clear ahead.

PINCHPOINT PROCEDURES

Whilst some pinch points are known along the route demonstrating a method of negotiating each individual hazard would be flawed as traffic conditions are constantly changing.

It is crucial that appropriate measures are applied to avoid impact to road users and road infrastructure, the chosen route has been assessed and the load is capable of navigating the route, however local traffic conditions can create pinch points.

A pinch point is an area identified by the lead pilot and relayed to the convoy as having the potential to interfere with the swept path of the load, pinch points can be created by road furnishings, roundabouts, narrow sections of road, road kill, corners, road works, parked vehicles, damaged pavement, this list is not exhaustive.

For the purposes of this traffic management plan identified pinch points will follow the following protocol.

The lead pilot must travel a sufficient distance in front of the load so as to survey the swept path required for the Wind turbine, this will to allow sufficient time to relay back road conditions or choke points to allow the driver to halt the load before causing congestion to other road users.

In the event of parked vehicles or local traffic conditions preventing the load from safely navigating the permitted route, the load cannot proceed until it is safe to do so.

The lead pilot will warn all oncoming traffic of the impending load, when the way forward for the transporter is established as being clear the load may proceed.

If built up queued traffic is behind the load, ensure that an opportunity to allow this traffic to pass is taken at the first safe opportunity.

The procedure for crossing bridges is reliant on only the Wind turbine being on the bridge during the crossing, this will require a concentrated effort from the escort team to ensure that all vehicular traffic both in front of and behind the load are warned of the hazard.

It is crucial that pinch points are discussed at the toolbox briefing and that all parties are aware of the protocols in place.

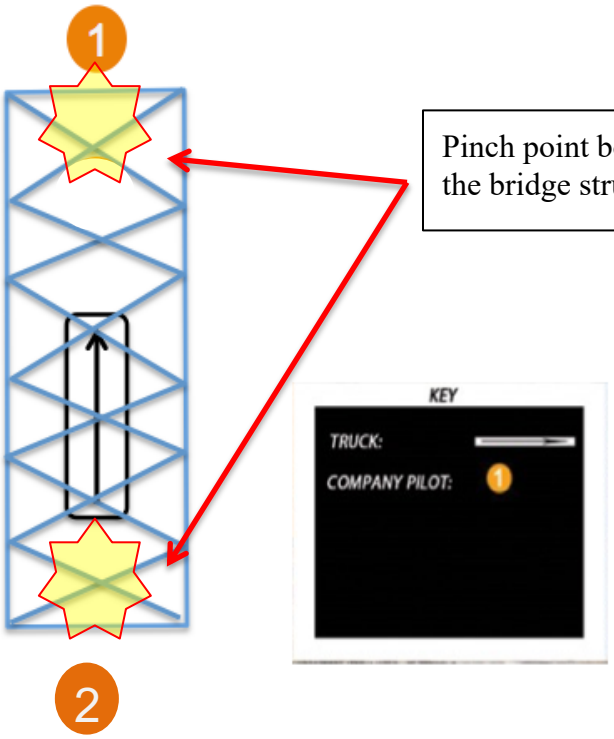
Drivers should familiarise themselves with the route including nominated bypasses for heavy vehicles along the route.

If there is any doubt as to the viability of accessing the permitted route the load must not continue until the way forward has been deemed appropriate.

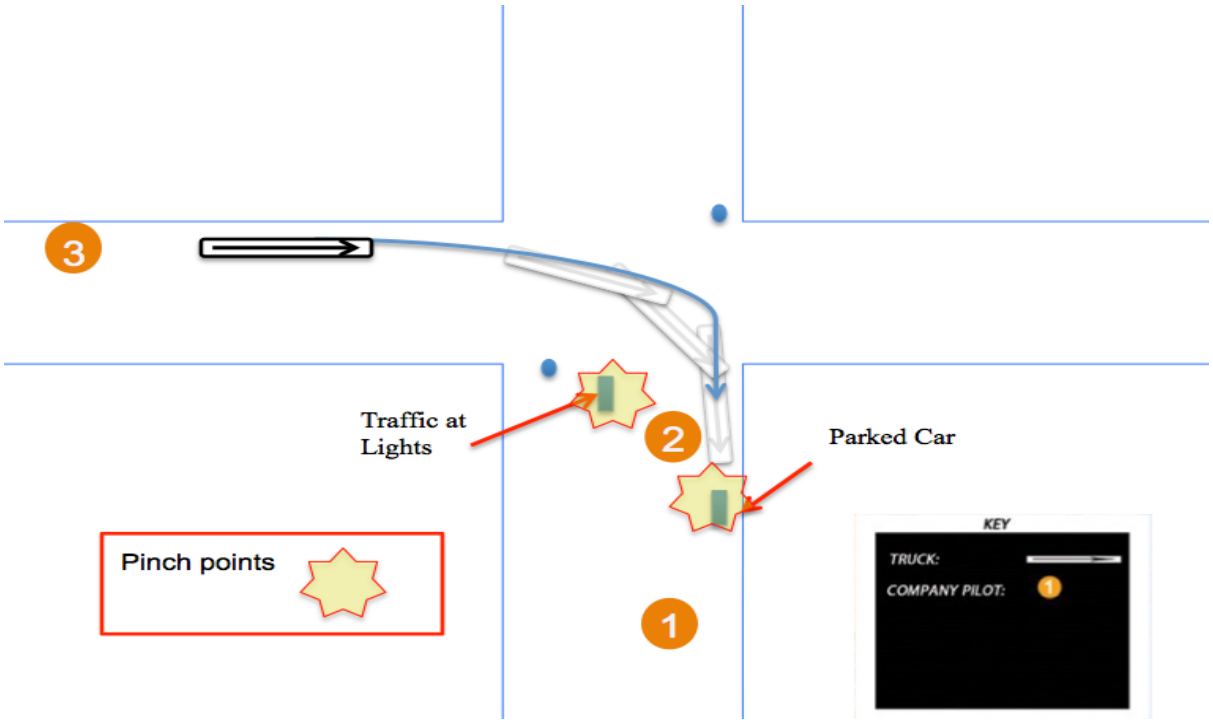
For more detail analysis of coping with roadwork refer to section 16.

Examples of pinch points:

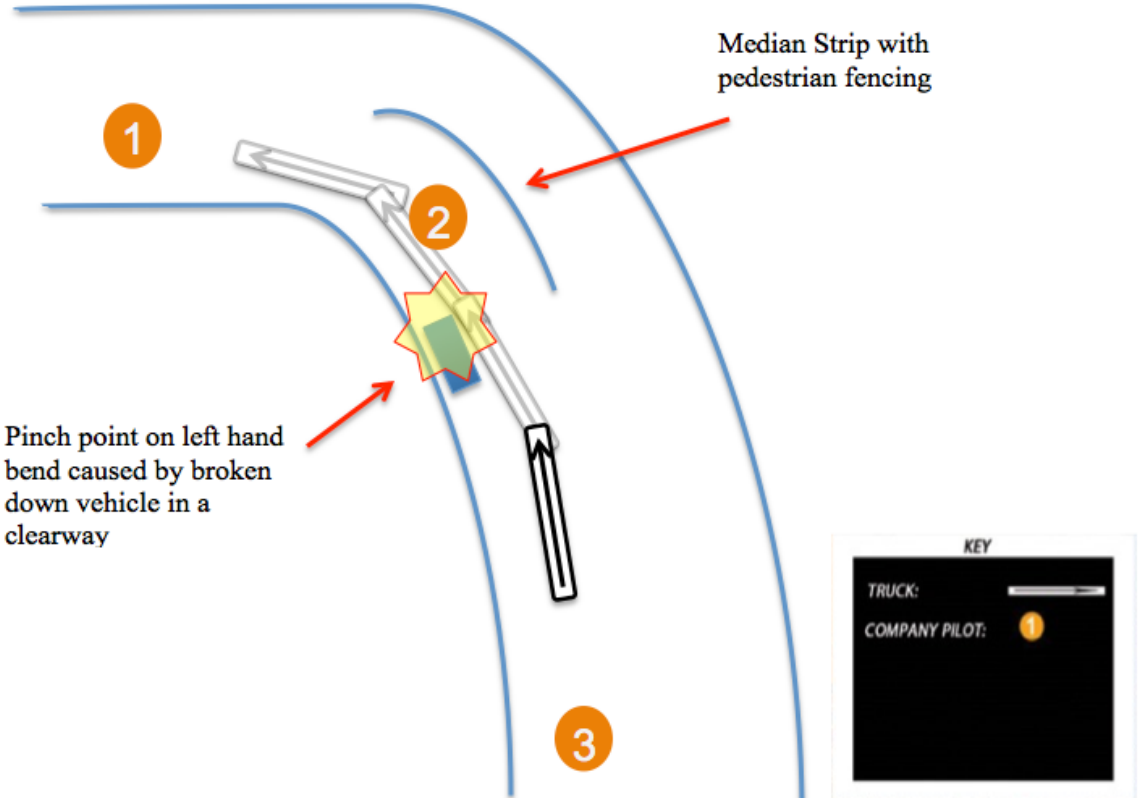
Bridge Crossings:



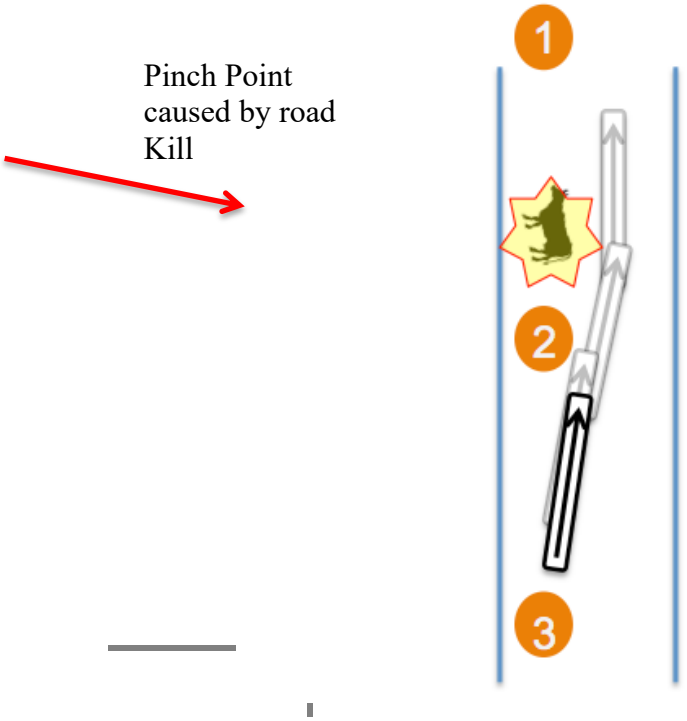
Intersections:



Bends:



Road Kill:



16.0 Managing queued traffic behind the load.

During the journey the interaction with other road users will require management of queued traffic.

The protocol to provide queued traffic an opportunity to pass the load will be reliant on the rear pilot constantly monitoring the queue of traffic and relaying this information back to the convoy, the lead pilot / Police in conjunction with the driver will identify suitable areas that allow a safe passing point for the passing vehicles.

The lead escort / Police escort will also determine safe areas to halt the load to allow backed up vehicles to pass. Safe pull over areas can include turn off into Private Roads and/or other roads, Pull over on the shoulder during over taking lanes, designated pull over/ rest stop areas or service stations, these areas will be a hardstand area, or an area wide enough for the escort to direct vehicles around the combination.

The load MUST pull over or slow to allow the backed-up vehicles to pass. Rear pilot will inform all other pilots and driver when there has been a lag from last pull over and if other cars have been following for a short distance, in this instance apply the passing protocol again, this will continue throughout the journey as required to ensure queued traffic do not experience excessive delays. The driver and pilots will also allow vehicles to pass at any opportunity that allows a safe area for this vehicle and its load to pull over safely and will.

17.0 Interacting with roadwork:

Roadworks to be checked prior to load departing. TMC will provide RJA with a list of conflicts weekly. RJA will than contact each of these conflicts and seek approval to pass through their workzone prior to departing.

The lead pilot will make contact with the road crews to advise of the nature of the load, size, dimensions, to establish if the load is ok to enter the work zone.

In this instance the load will work with all reasonable instructions from the road crew to coordinate the safe passage of the load through the affected areas.

Pilots, Police and local traffic controllers will work together to facilitate the necessary actions required to travel through the work zone.

18.0 Emergency stopping / pulling up for rest areas:

In the event of an emergency or scheduled rest break, establish positive communications with all pilots and driver and identify the next suitable area to halt the wind turbine, rear pilot should remain 200 metres behind the load to warn approaching traffic.

Ensure the wind turbine is as far left as possible so as to not impede any traffic from passing.

If the breakdown is major and requires a mechanic to attend contact the TMC and advise them of the disruption to traffic. Minor repairs that can be rectified in a short time do not require the TMC to be advised.

In the event that road works are encountered on route lead pilot is to call in on the nominated UHF channel and advise the local traffic control of the inbound load and await approval to enter the work zone.

Follow normal traffic management procedures as out lined in: SOP_030 Traffic Management Procedures.

The suggested rest areas are an indication only and dependant on the local traffic movements and occupancy of these rest areas it may not be possible to get off the road.

In this instance the lead pilot should travel ahead to identify the next suitable area.

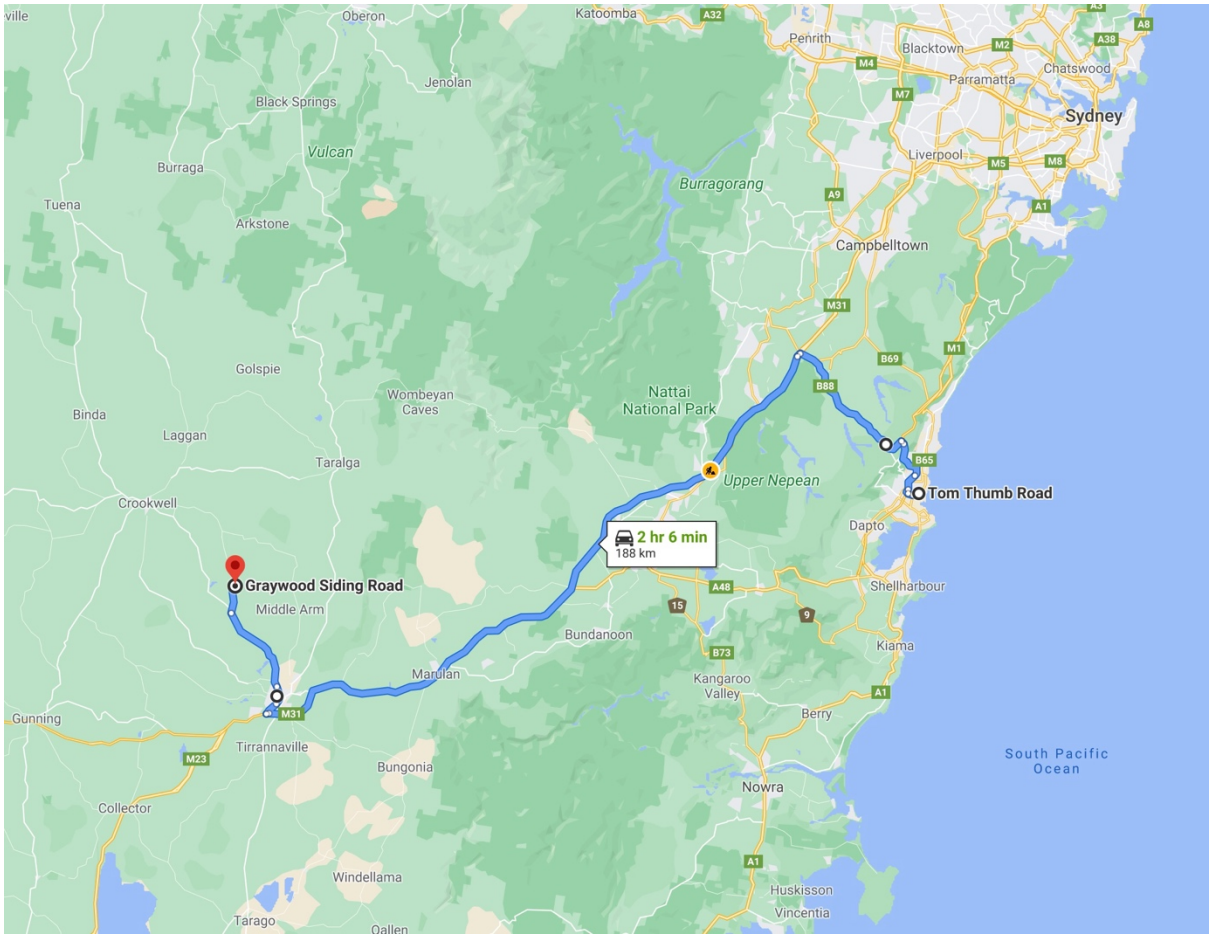
This methodology can also be adopted to allow built up traffic to pass by slowing the wind turbine down and easing into break down areas to allow traffic to pass before continuing on.

Listed in the index are Emergency parking areas on route.

19.0 Route 1: Transport plan & pinch points

(Used for loads under 4.9 metres in overall height).

From: Port Kembla
To: Crookwell windfarm stage 3
Distance: 188.0 kilometres:
This route took us via Tom Thumb Road, Springhill Road, Masters Road, Southern Freeway, Mt Ousley Road, Picton-Wilton Road, Hume Highway, Hume Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road, Woodhouselee Road, Graywood Siding Road.
Components that use this route: Blades, Hubs and general loads.



GPS LINK: https://goo.gl/maps/9Jeq8Xrszh4Ea7zp6

KEY	
MODIFICATIONS REQUIRED	
PINCH POINT	
EMERGENCY PARKING	

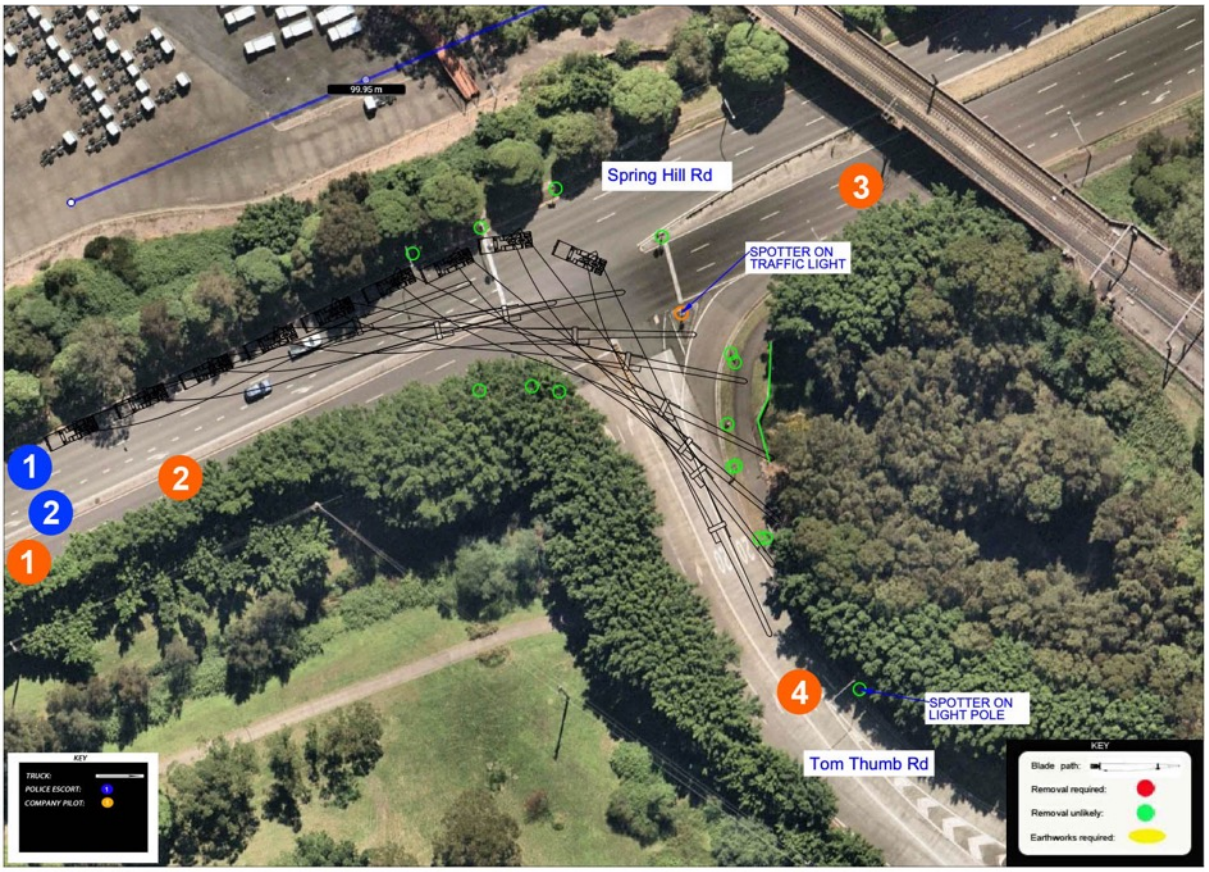
KM index	Location	Section of road	Current Measurement	Procedure	Notes
0.0	Port Kembla	Exit port onto Tom Thumb Road GPS link: https://goo.gl/maps/nXdxosvr1fQG6L2b9	Width: 5.5 metres	Travel directly ahead	No problems with this section of road
0.2	Port Kembla	Tom Thumb Road onto Springhill Road GPS link: https://goo.gl/maps/QB9L1BYNAUKJgoZ78	Length: 70.0 metres Width: 7.0 metres	Left hand turn	Load to turn from the incorrect side to the incorrect side of the road, before returning to the correct side of Springhill Road 100 metres to the west of the intersection. A spotter will need to watch the traffic signal on the inside and outside of the turn. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. **NOTE**: Load to stay on the incorrect side of Springhill Road through to Masters Road.
1.4	Port Kembla	Springhill Road onto Masters Road GPS link: https://goo.gl/maps/pNxY2pLLej1KW4uh6	Length: 70.0 metres Width: 7.0 metres	Right hand turn	The load will already be on the incorrect side of Springhill Road. Once at the slip lane the load is to travel across Masters Road and back onto the correct side via the centre median strip. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. **NOTE**: Load to return to the correct side of the road once onto Masters Road.
2.6	Figtree	Masters Road onto Princes Motorway GPS link: https://goo.gl/maps/i57nvCKoETt8FYrs9	Length: 90.0 metres Width: 6.0 metres	Right hand sweeping bend	No problems with this section of road
2.7	Figtree	Princes Motorway under The Avenue GPS link: https://goo.gl/maps/qAGCrHkbgnMdNvNq6	Height clearances: Left Lane: 5.44 mtrs Right Lane: 5.38 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
2.7	Figtree	Princes Motorway under The Princes Highway GPS link: https://goo.gl/maps/2NDQZcUrWzd6cexF7	Height clearances: Left Lane: 5.15 mtrs Centre Lane: 5.2 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.
6.4	Keiraville	Princes Motorway under Gipps Road GPS link: https://goo.gl/maps/VTqvHNfE25cpWXxs7	Height clearances: Left Lane: 5.36 mtrs Centre Lane: 5.27 mtrs Right Lane: 5.10 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.
6.5	Keiraville	Princes Motorway under the University Bridge GPS link: https://goo.gl/maps/S9kYztURpquEk3EQ7	Height clearances: Left Lane: 4.95 mtrs Centre Lane: 5.1 mtrs Right Lane: 5.1 mtrs	Travel directly ahead	Loads that exceed 4.9 metres will not be able to use this section of road. Detour for loads up to 5.25 metres high via Memorial Drive and the Princes Highway, before returning onto Mt Ousley Road, as per route 2.
7.7	Mt Ousley	Princes Motorway onto Mt Ousley Road GPS link: https://goo.gl/maps/9LCLZVycbbaom8rv8	Width: 8.0 metres	Travel directly ahead	No problems with this section of road
13.0	Mount Ousley	Mount Ousley Road onto Picton-Wilton Road GPS link: https://goo.gl/maps/8m1Er1RF785No29z5	Length: 70.0 metres Width: 6.0 metres	Left hand turn	The load will turn from the correct side to the correct side of the road. The truck is to go as deep as possible into the corner, which will require the prime mover to travel over the median strip. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint.
40.0	Wilton	Picton-Wilton Road onto the Hume Highway GPS link: https://goo.gl/maps/ZQKvS4wJ1ygWH3Ab7	Length: 70.0 metres Width: 7.0 metres	Left Hand Turn	The load will turn from the correct side to the correct side of the road and stay as far to the right side of the slip lane as possible. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. Spotter will need to keep an eye on the traffic signal while making this turn.
100.0	Sutton Forest	Hume Highway https://goo.gl/maps/uT1ubtSuawS2	150.0 long x 10.0 wide	Merge to left	Large parking area
149.0	Goulburn	Hume Highway https://goo.gl/maps/7HywRcjZiJy	180.0 long x 15.0 wide	Merge to left	Large parking area
161.0	Goulburn	Hume Highway onto Hume Street https://goo.gl/maps/kQvFRgTuNLhvfR9o6	Length: 70 metres Width: 6.5 metres	Travel around to the right and take the 3rd exit onto Hume Street	No problems with this section of road

KM index	Location	Section of road	Current Measurement	Procedure	Notes
161.9	Goulburn	Hume Street roundabout https://goo.gl/maps/H1wDeMnGxcnJFjHi8	Length: 70 metres Width: 6.5 metres	Travel directly ahead and take the 2nd exit to remain on Hume Street	No problems with this section of road
164.4	Goulburn	Cowper Street onto Clinton Street https://goo.gl/maps/9Y33xhXbaNzFB6Tz8	Length: 70 metres Width: 6.5 metres	Left hand turn	The signs on the centre median strips will need to be removed and replaced for each blade movement.
164.7	Goulburn	Clinton Street roundabout https://goo.gl/maps/8y88iFRfopiaZmfv5	Length: 70 metres Width: 6.5 metres	Travel directly ahead and take the 2nd exit to remain on Clinton Street	No problems with this section of road
165.2	Goulburn	Clinton Street onto Deccan Street https://goo.gl/maps/UnmVcdAGyrVUgeHW8	Length: 70 metres Width: 6.5 metres	Right hand turn	The signs on the inside of the corner will need to be removed and replaced for each blade movement.
166.0	Goulburn	Deccan Street onto Fitzroy Street https://goo.gl/maps/tdr9FFbRcSCu6eNn6	Length: 70 metres Width: 6.5 metres	Slight veer to the left	The overhang will tighten up on the crossing sign outside the school. Spotter to guide the blade through this section.
167.0	Goulburn	Fitzroy Street https://goo.gl/maps/X8aiFeZejuVjJE4e6	Length: 70 metres Width: 6.5 metres	Slight veer to the left	The overhang will tighten up on the crossing sign on the center median strip. Spotter to guide the blade through this section.
183.0	Crookwell	Crookwell Road into Woodhouselee Road https://goo.gl/maps/dzPLfA1AeZx1ANyh6	Length: 70 metres Width: 6.5 metres	Right hand turn	No problems with this section of road
188.0	Crookwell	Woodhouselee Road into Crookwell 3 site access Road https://goo.gl/maps/34qsZcWxMxHy13ns6	Length: 20 metres Width: 3.5 metres	Right hand turn	Site access road to be made suitable for the swept path of the largest loads.

0.2 Km's: Tom Thumb Road onto Springhill Road at Port Kembla.

Image 1:



GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/QB9L1BYNAUKJgoZ78

POLICE ESCORT 1: Travel through to the intersection of Masters Road and Springhill Road and shut down this section of road.

POLICE ESCORT 2: Travel through to the intersection of Masters Road and Springhill Road and shut down this section of road.

COMPANY PILOT 1: Hold all northbound traffic within John Carey Place and Bluescope Steel.

COMPANY PILOT 2: Hold all northbound traffic within Bluescope Steel.

COMPANY PILOT 3: Hold all southbound traffic on Springhill Road.

COMPANY PILOT 4: Stay 50 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Left hand turn from the incorrect side of Tom Thumb Road onto the incorrect side of Springhill Road. Load to than travel along the incorrect side up to Masters Road.

A spotter will need to watch the traffic signal on the inside and outside of the turn.

ROAD MODIFICATIONS: Nil.

1.4 Km's: Springhill Road onto Masters Road at Port Kembla.

Image 1:

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/pNxY2pLLej1KW4uh6

POLICE ESCORT 1: Hold all eastbound traffic on Masters Road, 100 metres west of the intersection.

POLICE ESCORT 2: Hold all northbound traffic on Springhill Road at the intersection.

COMPANY PILOT 1: Warn all eastbound traffic on Masters Road.

COMPANY PILOT 2: Warn all eastbound traffic on Masters Road.

COMPANY PILOT 3: Stay 50 metres behind the load and warn all traffic.

COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Right hand turn from Springhill Road onto Masters Road. The load will already be on the incorrect side of Springhill Road. Once at the slip lane the load is to travel across Masters Road and back onto the correct side via the centre median strip. Load to return to the correct side of the road once onto Masters Road.

ROAD MODIFICATIONS: Nil.

6.5 Km's: Princes Motorway under University Avenue at Keiraville.

Image 1:

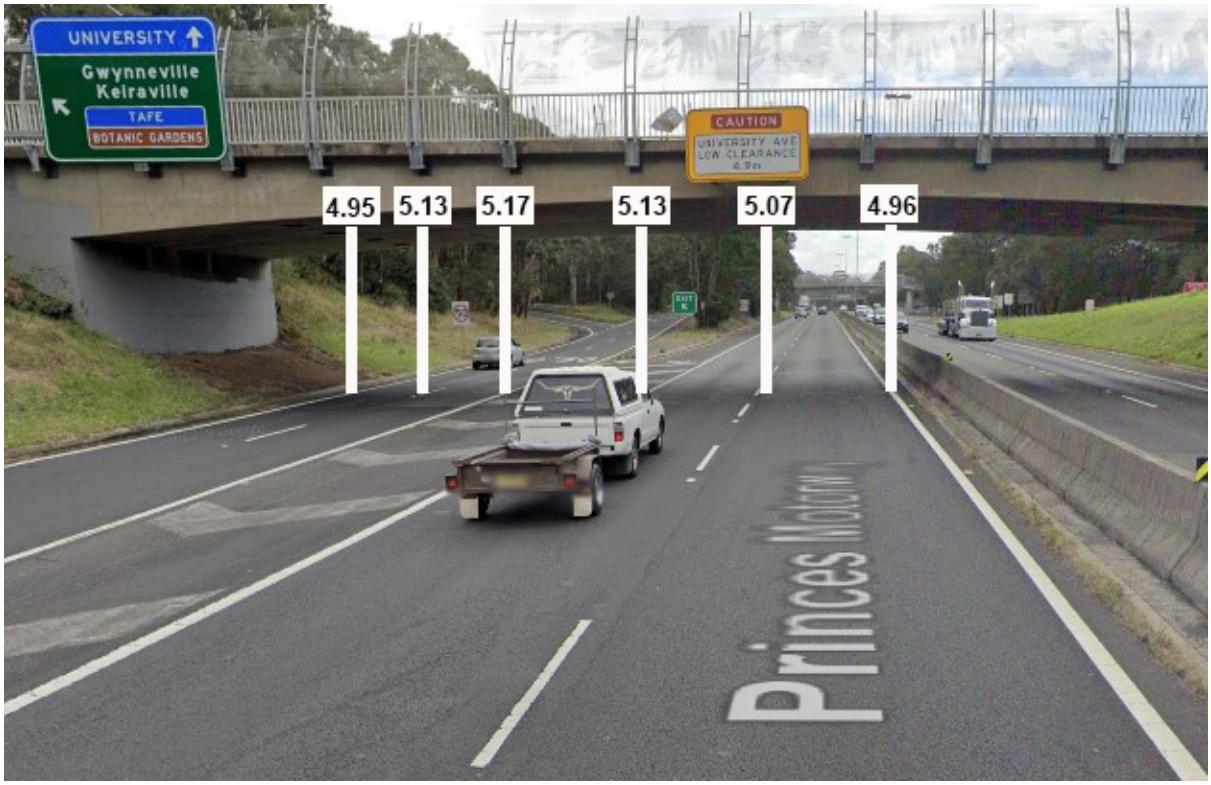
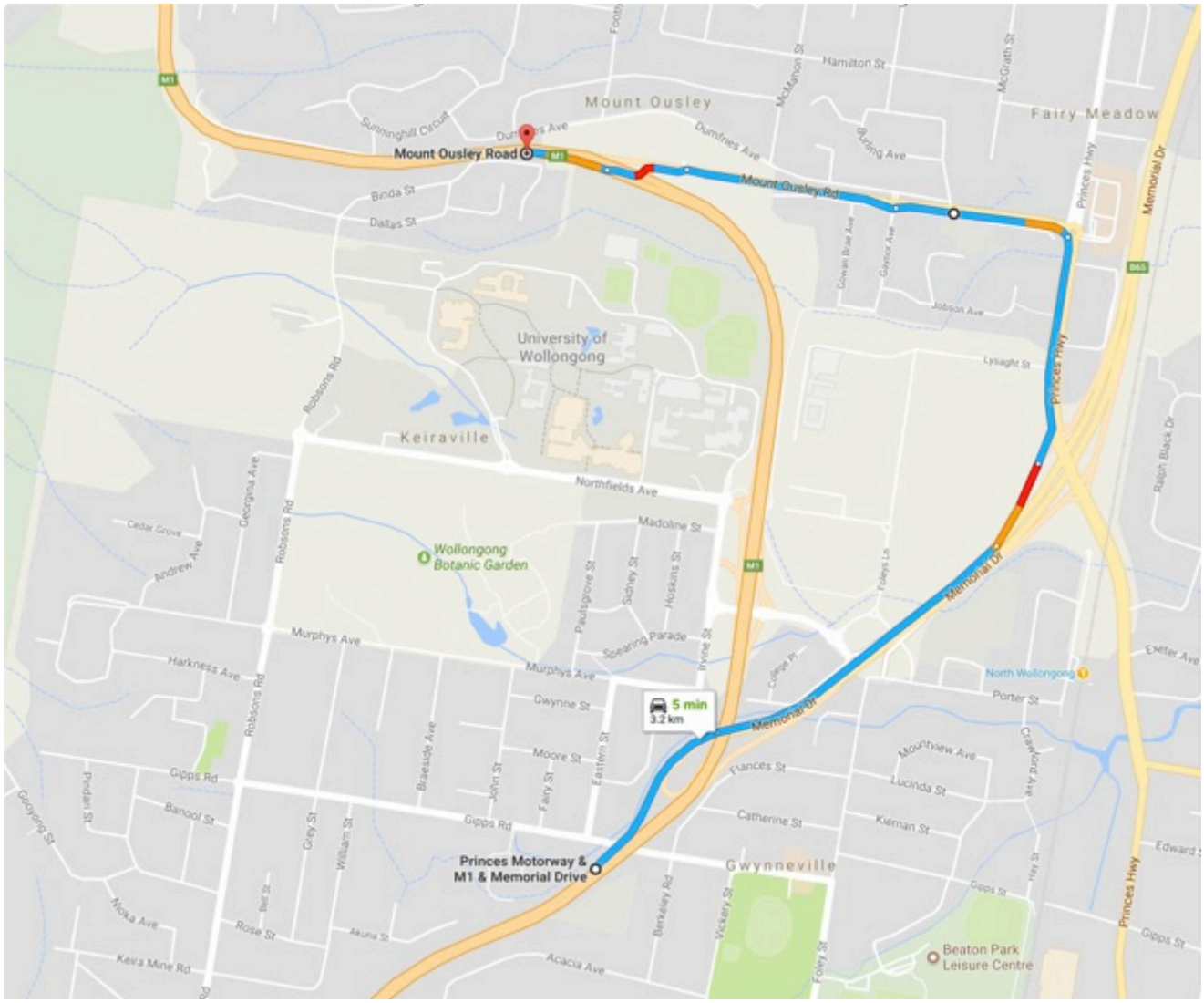


Image 2: (Route 2 High load detour)

VIA: Southern Freeway, Memorial Drive, Princes Highway, Mount Ousley Road.



GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/S9kYztURpquEk3EQ7

PROCEDURE: Travel under bridge in the left-hand lane.

COMMENTS: No loads that exceed 4.9 metres to pass under this structure. Loads that are 5.0 metres high are to travel under this structure in the left-hand lane.

CONCLUSION: Loads that exceed 4.9 metres high will need to use Route 2, high load detour. All drivers are to measure their loads prior to departing the port and do not travel under this structure if they exceed 4.9 metres in height.

ROAD MODIFICATIONS: Nil.

13.1 Km's: Mt Ousley Road onto Picton-Wilton Road at Mt Ousley.

Image 1:

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/8m1Er1RF785No29z5

POLICE ESCORT 1: Hold all southbound traffic on Mt Ousley Road at the Picton Road offramp.

POLICE ESCORT 2: Hold all southbound traffic on Mt Ousley Road at the Picton Road offramp.

COMPANY PILOT 1: Warn all eastbound traffic on Picton Road.

COMPANY PILOT 2: Warn all southbound traffic on Mt Ousley Road.

COMPANY PILOT 3: Stay 100 metres behind the load and hold all northbound traffic.

COMPANY PILOT 4: Stay 400 metres behind the load and warn all northbound traffic.

PINCHPOINT PROCEDURE: Left hand turn from Mt Ousley Road onto Picton-Wilton Road. The load will turn from the correct side to the correct side of the road. The truck is to go as deep as possible into the corner, which will require the prime mover to travel over the median strip.

Police will need to assist with holding southbound traffic on Mt Ousley road so the overhang can pass over the southbound lanes.

ROAD MODIFICATIONS: Nil.

40.2 Km's: Picton-Wilton Road onto the Hume Highway at Wilton.

Image 1:

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/ZQKvS4wJ1ygWH3Ab7

POLICE ESCORT 1: Merge all southbound traffic on the Hume Highway into the right hand lane.

POLICE ESCORT 2: Hold all eastbound traffic on Picton Road.

COMPANY PILOT 1: Warn all southbound traffic on the Hume Highway.

COMPANY PILOT 2: Warn all traffic entering the onramp from Picton.

COMPANY PILOT 3: Stay 50 metres behind the load and warn all traffic.

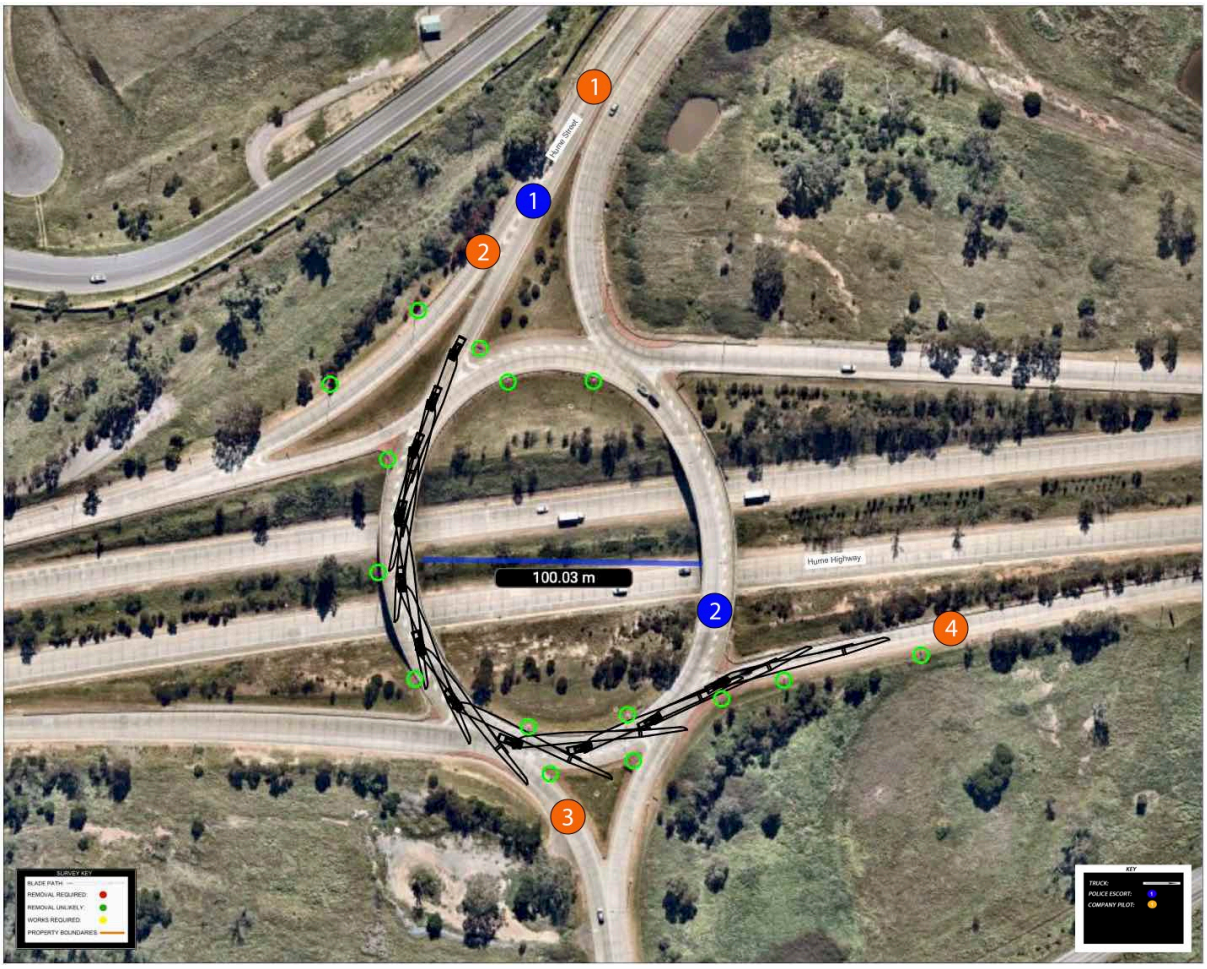
COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Left hand turn from Picton-Wilton Road onto the Hume Highway. The load will turn from the correct side to the correct side of the road and stay as far to the right side of the slip lane as possible. Spotter will need to keep an eye on the traffic signal while making this turn.

ROAD MODIFICATIONS: Nil.

161.0 Km's: Hume Highway onto Hume Street at Goulburn.

Image 1:



GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/kQvFRgTuNLhvfR9o6

POLICE ESCORT 1: Warn all oncoming traffic on Hume Street.

POLICE ESCORT 2: Hold all eastbound traffic on Picton Road.

COMPANY PILOT 1: Warn all oncoming traffic on Hume Street.

COMPANY PILOT 2: Warn all traffic on the northbound offramp onto Hume Street.

COMPANY PILOT 3: Warn all westbound traffic on Hume Street.

COMPANY PILOT 4: Stay 50 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Sweeping right hand turn around the roundabout. Care is to be taken with the inside guardrail. A spotter will need to watch the poles on the rear overhang. The overhang will pass over any of the warning signs.

ROAD MODIFICATIONS: Nil.

164.4 Km's: Cowper Street onto Clinton Street at Goulburn.

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/9Y33xhXbaNzFB6Tz8

POLICE ESCORT 1: Hold all eastbound traffic on Clinton Street.

POLICE ESCORT 2: Hold all westbound traffic on Clinton Street.

COMPANY PILOT 1: Warn all eastbound traffic on Clinton Street.

COMPANY PILOT 2: Warn all eastbound traffic on Clinton Street.

COMPANY PILOT 3: Stay 50 metres behind the load and warn all traffic.

COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Left hand turn onto Clinton St. The signs on the centre median strips will need to be removed and replaced for each blade movement.

ROAD MODIFICATIONS: Nil. The sign is currently removable.

164.7 Km's: Roundabout on Clinton Street at Goulburn

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/8y88iFRfopiaZmfv5

POLICE ESCORT 1: Hold all eastbound traffic on Clinton Street.

POLICE ESCORT 2: Hold all traffic entering the roundabout from the right.

COMPANY PILOT 1: Warn all eastbound traffic on Clinton Street.

COMPANY PILOT 2: Warn all eastbound traffic on Clinton Street.

COMPANY PILOT 3: warn all traffic entering the roundabout from Faithful Street.

COMPANY PILOT 4: Stay 500 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Travel straight through the roundabout. The trailers will need to pass over the roundabout on the correct side.

ROAD MODIFICATIONS: Nil.

165.2 Km's: Clinton Street onto Deccan Street at Goulburn

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/UnmVcdAGyrVUgeHW8

POLICE ESCORT 1: Hold all southbound traffic on Deccan Street.

POLICE ESCORT 2: Hold all traffic entering the intersection from the south and the west.

COMPANY PILOT 1: Warn all eastbound traffic on Deccan Street.

COMPANY PILOT 2: Warn all eastbound traffic on Deccan Street.

COMPANY PILOT 3: Stay 50 metres behind the load and warn all traffic.

COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Right hand turn onto Deccan St. 2x signs on the inside of the corner will need to be removed and replaced for each blade movement.

ROAD MODIFICATIONS: Nil. The signs are currently removable.

166.0 Km's: Deccan Street onto Fitzroy Street in Goulburn.

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/tdr9FFbRcSCu6eNn6

POLICE ESCORT 1: Hold all eastbound traffic on Fitzroy Street.

POLICE ESCORT 2: Hold all traffic entering the roundabout from the right.

COMPANY PILOT 1: Warn all eastbound traffic on Fitzroy Street.

COMPANY PILOT 2: Warn all traffic on Mount Street.

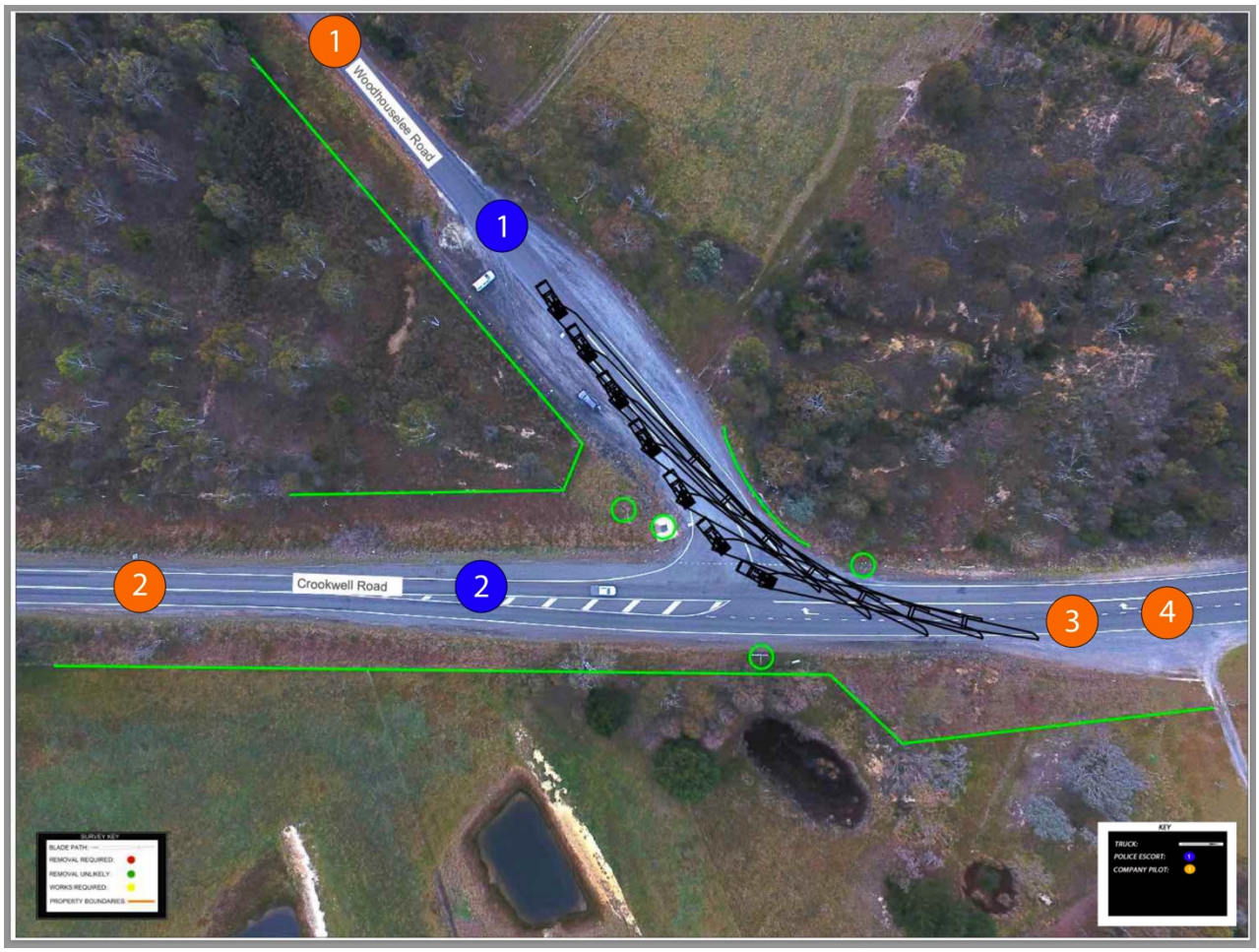
COMPANY PILOT 3: Stay 50 metres behind the load and warn all traffic.

COMPANY PILOT 4: Stay 100 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Travel through the roundabout onto Fitzroy St. Loads to pass over the concrete apron on the roundabout on the correct side. Spotter to watch the overhang on the crossing sign outside the school.

ROAD MODIFICATIONS: Nil.

183.0 Km's: Crookwell Road onto Woodhouselee Road at Wago.



GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/dzPLfA1AeZx1ANyh6

POLICE ESCORT 1: Hold all southbound traffic on Woodhouselee Road.

POLICE ESCORT 2: Hold all eastbound traffic on Crookwell Road.

COMPANY PILOT 1: Warn all southbound traffic on Woodhouselee Road.

COMPANY PILOT 2: Warn all eastbound traffic on Crookwell Road.

COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.

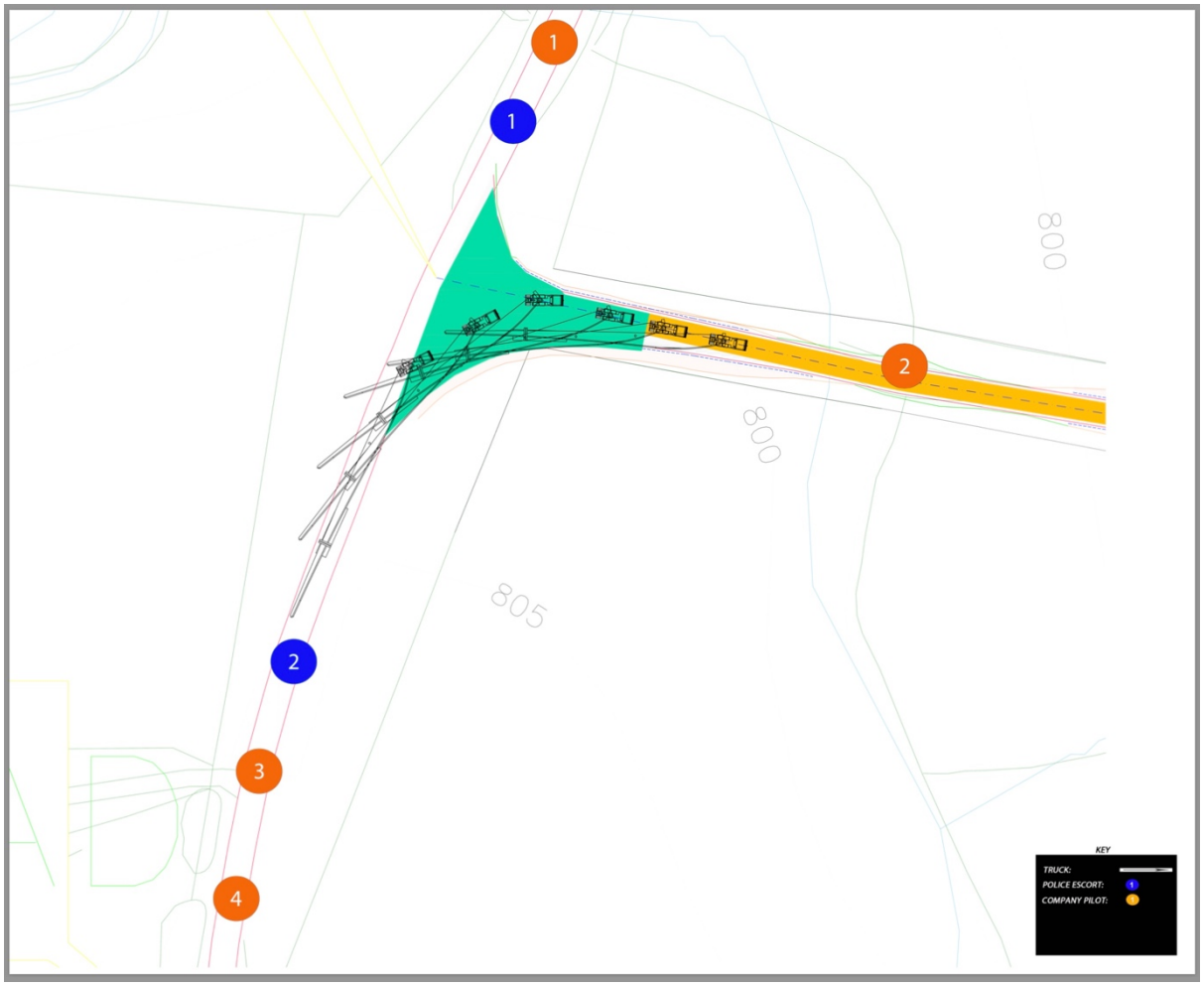
COMPANY PILOT 4: Stay 150 metres behind the load and warn all traffic.

PINCHPOINT PROCEDURE: Load to turn right from Crookwell Road onto Woodhouselee Road.Spotter to watch the overhang on the sign on the inside of the corner.

ROAD MODIFICATIONS: Nil.

188.0 Km's: Woodhouselee Road into Crookwell 3 windfarm

Image 1:



GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/34qsZcWxMxHy13ns6

POLICE ESCORT 1: Hold all southbound traffic on Woodhouselee Road.

POLICE ESCORT 2: Stay 50 metres behind the load and hold all traffic.

COMPANY PILOT 1: Warn all southbound traffic on Woodhouselee Road.

COMPANY PILOT 2: Warn all traffic on the site access Road.

COMPANY PILOT 3: Stay 100 metres behind the load and warn all traffic.

COMPANY PILOT 4: Stay 150 metres behind the load and warn all traffic.

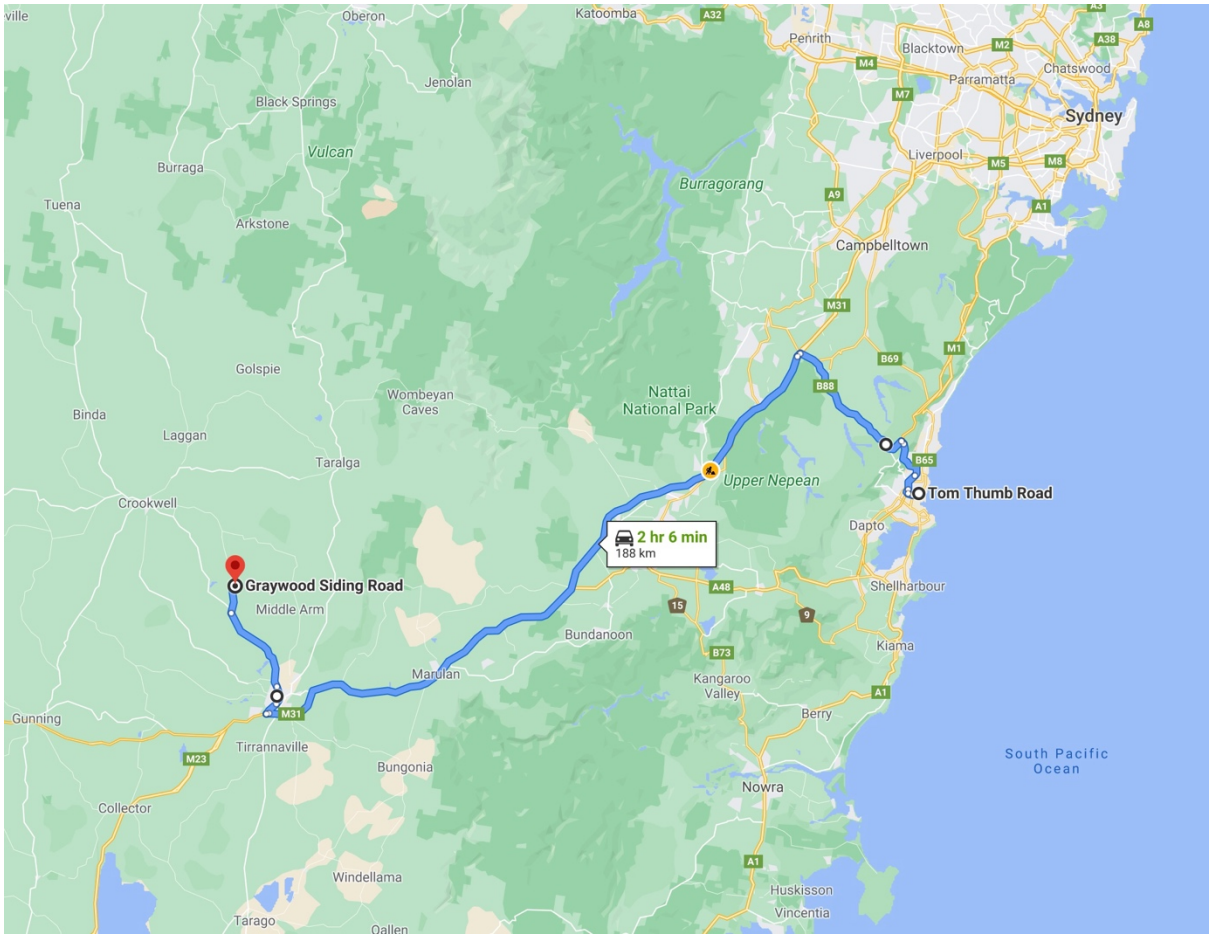
PINCHPOINT PROCEDURE: Right hand turn off Woodhouselee Road onto the site access Road. This entrance will be constructed with a suitable swept path for the largest loads.

ROAD MODIFICATIONS: Nil.

20.0 Route 2: Transport plan & pinch points

(Used for loads over 4.9 metres in overall height).

From: Port Kembla
To: Crookwell windfarm stage 3
Distance: 190.0 kilometres:
This route took us via Tom Thumb Road, Springhill Road, Masters Road, Princes Motorway, Memorial Drive, Princes Highway, Mt Ousley Road, Picton-Wilton Road, Hume Highway, Hume Street, Clinton Street, Deccan Street, Fitzroy Street, Crookwell Road, Woodhouselee Road, Graywood Siding Road.
Components that use this route: Nacelle, Base Tower, Mid Tower, Top Tower.



GPS LINK: https://goo.gl/maps/Ci9cEUGB8tVBy5hZ7

KEY	
MODIFICATIONS REQUIRED	
PINCH POINT	
EMERGENCY PARKING	

KM index	Location	Section of road	Current Measurement	Procedure	Notes
0.0	Port Kembla	Exit port onto Tom Thumb Road GPS link: https://goo.gl/maps/nXdxosvr1fQG6L2b9	Width: 5.5 metres	Travel directly ahead	No problems with this section of road
0.2	Port Kembla	Tom Thumb Road onto Springhill Road GPS link: https://goo.gl/maps/QB9L1BYNAUKJgoZ78	Length: 70.0 metres Width: 7.0 metres	Left hand turn	Load to turn from the incorrect side to the incorrect side of the road, before returning to the correct side of Springhill Road 100 metres to the west of the intersection. A spotter will need to watch the traffic signal on the inside and outside of the turn. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. **NOTE**: Load to stay on the incorrect side of Springhill Road through to Masters Road.
1.4	Port Kembla	Springhill Road onto Masters Road GPS link: https://goo.gl/maps/pNxY2pLLej1KW4uh6	Length: 70.0 metres Width: 7.0 metres	Right hand turn	The load will already be on the incorrect side of Springhill Road. Once at the slip lane the load is to travel across Masters Road and back onto the correct side via the centre median strip. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. **NOTE**: Load to return to the correct side of the road once onto Masters Road.
2.6	Figtree	Masters Road onto Princes Motorway GPS link: https://goo.gl/maps/i57nvCKoETt8FYrs9	Length: 90.0 metres Width: 6.0 metres	Right hand sweeping bend	No problems with this section of road
3.7	Figtree	Princes Motorway under The Avenue GPS link: https://goo.gl/maps/qAGCrHkbgnMdNvNq6	Height clearances: Left Lane: 5.44 mtrs Right Lane: 5.38 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
4.3	Figtree	Princes Motorway under The Princes Highway GPS link: https://goo.gl/maps/2NDQZcUrWzd6cexF7	Height clearances: Left Lane: 5.15 mtrs Centre Lane: 5.2 mtrs Right Lane: 5.3 mtrs	Travel directly ahead	Loads that exceed 5.25 metres will not be able to use this section of road. Loads over 5.1 metres are to slow down to walking pace and travel under the bridge in the far-right lane.
6.4	Keiraville	Princes Motorway under Gipps Road and onto Memorial Drive. GPS link: https://goo.gl/maps/VTqyHNfE25cpWXxs7	Height clearances: Left Lane: 5.36 mtrs Centre Lane: 5.27 mtrs Right Lane: 5.10 mtrs	Travel directly ahead	Loads that exceed 5.3 metres will not be able to use this section of road. Loads that exceed 5.0 metres in height are to travel under the bridge in the far left lane and take the exit onto Memorial Drive.
5.9	Mount Ousley	Memorial Drive onto Princes Highway GPS link: https://goo.gl/maps/MsT5EJiiyWtmyZ2LA	Length: 50.0 metres Width: 6.0 metres	Left hand turn	No problems with this section of road
7.4	Mount Ousley	Princes Highway onto Mount Ousley Road GPS link: https://goo.gl/maps/pUdTMgVWi93yJP1R7	Length: 40.0 metres Width: 6.0 metres	Left hand turn	No problems with this section of road
7.9	Mount Ousley	Mount Ousley Road at Gaynor Avenue GPS link: https://goo.gl/maps/SCa2jdWL6fZUoXzD9	Length: 40.0 metres Width: 6.0 metres	Travel directly ahead	Spotter to guide load through this section of road.
8.8	Mt Ousley	Mt Ousley Road intersection of Princes Motorway GPS link: https://goo.gl/maps/9LCLZVycbbaom8rv8	Length: 50.0 metres Width: 6.0 metres	Right hand turn	No problems with this section of road
15.0	Mount Ousley	Mount Ousley Road onto Picton-Wilton Road GPS link: https://goo.gl/maps/8m1Er1RF785No29z5	Length: 70.0 metres Width: 6.0 metres	Left hand turn	The load will turn from the correct side to the correct side of the road. The truck is to go as deep as possible into the corner, which will require the prime mover to travel over the median strip. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint.
42.0	Wilton	Picton-Wilton Road onto the Hume Highway GPS link: https://goo.gl/maps/ZQKvS4wJ1yqWH3Ab7	Length: 70.0 metres Width: 7.0 metres	Left Hand Turn	The load will turn from the correct side to the correct side of the road and stay as far to the right side of the slip lane as possible. Police and Pilots to provide traffic control, as per the specific procedure for this pinchpoint. Spotter will need to keep an eye on the traffic signal while making this turn.

KM index	Location	Section of road	Current Measurement	Procedure	Notes
102.0	Sutton Forest	Hume Highway https://goo.gl/maps/uT1ubtSuawS2	150.0 long x 10.0 wide	Merge to left	Large parking area
151.0	Goulburn	Hume Highway https://goo.gl/maps/7HywRcjZiJy	180.0 long x 15.0 wide	Merge to left	Large parking area
163.0	Goulburn	Hume Highway onto Hume Street https://goo.gl/maps/kQvFRgTuNLhvfR9o6	Length: 70 metres Width: 6.5 metres	Travel around to the right and take the 3rd exit onto Hume Street	No problems with this section of road
163.9	Goulburn	Hume Street roundabout https://goo.gl/maps/H1wDeMnGxcnJFjHi8	Length: 70 metres Width: 6.5 metres	Travel directly ahead and take the 2nd exit to remain on Hume Street	No problems with this section of road
166.4	Goulburn	Cowper Street onto Clinton Street https://goo.gl/maps/9Y33xhXbaNzFB6Tz8	Length: 70 metres Width: 6.5 metres	Left hand turn	The signs on the centre median strips will need to be removed and replaced for each blade movement.
166.7	Goulburn	Clinton Street roundabout https://goo.gl/maps/8y88iFRfopiaZmfv5	Length: 70 metres Width: 6.5 metres	Travel directly ahead and take the 2nd exit to remain on Clinton Street	No problems with this section of road
167.2	Goulburn	Clinton Street onto Deccan Street https://goo.gl/maps/UnmVcdAGyrVUgeHW8	Length: 70 metres Width: 6.5 metres	Right hand turn	The signs on the inside of the corner will need to be removed and replaced for each blade movement.
168.0	Goulburn	Deccan Street onto Fitzroy Street https://goo.gl/maps/tdr9FFbRcSCu6eNn6	Length: 70 metres Width: 6.5 metres	Slight veer to the left	The overhang will tighten up on the crossing sign outside the school. Spotter to guide the blade through this section.
169.0	Goulburn	Fitzroy Street https://goo.gl/maps/X8aiFeZejuVjJE4e6	Length: 70 metres Width: 6.5 metres	Slight veer to the left	The overhang will tighten up on the crossing sign on the center median strip. Spotter to guide the blade through this section.
185.0	Crookwell	Crookwell Road into Woodhouselee Road https://goo.gl/maps/dzPLfA1AeZx1ANyh6	Length: 70 metres Width: 6.5 metres	Right hand turn	No problems with this section of road
190.0	Crookwell	Woodhouselee Road into Crookwell 3 site access Road https://goo.gl/maps/34qsZcWxMxHy13ns6	Length: 20 metres Width: 3.5 metres	Right hand turn	Site access road to be made suitable for the swept path of the largest loads.

4.3 Km's: Princes Motorway under Princes Hwy

Image 1:

Image 2:

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/1wZuTMR8kDgzJZMN9

PROCEDURE: Travel under bridge as far to the **Right** as possible.

COMMENTS: An extra spotter and VMS board must accompany platform trailer tower loads that have a ride height >5.25m (T1 towers). These trailers will need to stop and lower <5.25m before passing under this bridge at a crawl.

CONCLUSION (T1 trailers):

- Trailers are to be lowered and measured then measured again at both ends before proceeding under bridge
- 2x Spotters required to watch the front and back of the towers while passing under the bridge
- VMS to accompany these trailers to warn traffic of a very slow-moving vehicle ahead.

6.4 Km's: Princes Motorway under Gipps Rd

Image 1:

Image 2:

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/996kvmbMmTpN7oDY6

PROCEDURE: Travel under bridge as far to the **Left** as possible. Loads >5m to continue onto Memorial Dr and Hi load route (see page 46)

COMMENTS: An extra spotter and VMS board must accompany platform trailer tower loads that have a ride height >5.25m (T1 towers). These trailers will need to stop and lower <5.25m before passing under this bridge at a crawl.

CONCLUSION (T1 trailers):

- Trailers are to be lowered and measured then measured again at both ends before proceeding under bridge
- 2x Spotters required to watch the front and back of the towers while passing under the bridge
- VMS to accompany these trailers to warn traffic of a very slow-moving vehicle ahead.

21.0 Conclusion:

After studying all options and undertaking a route survey, this route in its current condition is suitable for transporting the proposed components.

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

BRIDGES:

- All bridges from the Hume Highway through to site have been assessed at the time that the Newcastle report was undertaken. The bridges from Pt Kembla through to the Hume Highway have now been assessed and approved for all loads.
- Rail authorities have approved loads to cross their structures.

OVERHEAD STRUCTURES: (5.25 Maximum loaded height)

- There are a large number of overhead structures between Pt Kembla and Crookwell 3 Windfarm. The lowest of these structures is the Princes Motorway under the University Bridge at Wollongong which has a maximum allowable load height of 4.9 metres. (The blade would have to be under 4.9 metres loaded height to exit Pt Kembla). There is a detour via Memorial Drive and the Princes Highway that would allow a loaded height of up to 5.25 metres.
- The blades have no issues if the overall height of the load does not exceed 4.0 Metres. However, the maximum diameter tower that could travel on this route would be a loaded height of no more than 5.25 metres.

OVERHEAD UTILITIES:

- This route will need to be checked by an authorised scoping company. It is likely that a route of at least 5.25 metres is required for this project.

VEGETATION:

- No problems on this route.

PAVEMENT:

- The route up until Woodhouselee Road is highway grade asphalt and will be adequate for all loads. The pavement along Woodhouselee Road is generally okay but may need to be monitored for wear throughout the project.

PT KEMBLA:

- No modifications required.

WOLLONGONG:

- The Blade, Hubs and general loads are the only loads allowed to travel under The University Drive overpass on the Princes Motorway on Route 1. All other loads to use Route 2 via the high load detour.
- Towers cannot exceed a loaded height of 5.25 metres , and must exit Wollongong Via Memorial Drive, Princes Highway than Mt Ousley Road.
- Police to hold Southbound traffic on Mount Ousley Road at the Picton Road interchange.

GOULBURN:

- All signs in Goulburn are already removable.

WOODHOUSELEE ROAD:

- Pavement along Woodhouselee Rd will need to be monitored for damage over the duration of the project.
- Some general tree trimming may be required on this road for height.
- Pejar Creek bridge will need to be assessed for loadings.

SITE:

- Site access roads to be made suitable for the swept path of the largest components.

22.0 References:

Australian Load Restraint Guide
Rex J Andrews P/L Drawings
Rex J Andrews route survey # 271REV01
CWP Renewables
GE Renewables
Google Earth/Maps
Nearmaps
NHVR (OSOM)
NHVAS Maintenance Management (NHVAS21193)
NHVAS Basic Fatigue Management (NHVAS21193)
CRN JHG
Essential Energy

Disclaimer: This study was undertaken using data supplied by Rex J Andrews P/L. Equipment and swept paths might vary if using transport methodology other than the data supplied by Rex J Andrews.

23.0 TMP Review:

Final Review	Name	Signature	Date
TMP Checked by:	Warrick Andrews		
	Mark Sciberras		

Sign On: **I confirm that I have received a hard copy of this TMP, I have read and understood the contents; by signing this document I acknowledge that I am now familiar with the identified pinch points, the route and the conditions relating to time of travel. I understand that prior to travel a supervisor may ask me questions specific to this TMP, in the event that I cannot demonstrate awareness of the conditions of the TMP I must delay my departure until I have reviewed its content.**

Name	Role	Signature	Date	Company

B. DRIVER FATIGUE MANAGEMENT REQUIREMENTS

B

Heavy vehicle driver fatigue requirements

Compliance and Enforcement bulletin 7

This bulletin provides practical advice to help heavy vehicle drivers and other parties to comply with the requirements of the Heavy Vehicle National Law (HVNL) as they relate to heavy vehicle driver fatigue.

What are my obligations under the HVNL?

Amendments to the HVNL in 2018 will introduce 'safety duties' that must be met by all parties in the Chain of Responsibility (CoR). This requirement means that all parties have a duty to ensure the safety of their transport activities, so far as is reasonably practicable.

Responsible parties in the chain include: employers, prime contractors, operators, schedulers, consignors, consignees, packers, loading managers, loaders, and unloaders.

In addition, the executive officers of each party in the chain must exercise 'due diligence' to ensure the safety of their business's transport activities. The law will require executive officers to:

- keep up-to-date with the safe conduct of transport activities in their business
- fully understand the hazards and risks associated with their transport activities and how these are being managed
- provide appropriate resources–including people, systems and equipment–to manage their safety hazards and risks effectively.

In terms of heavy vehicle driver fatigue, the safety duties provision of the HVNL places a requirement on responsible parties to prevent a driver from driving any heavy vehicle whilst fatigued, not just fatigue-regulated heavy vehicles.

These safety duties extend to identifying any fatigue risks to prevent or reduce potential harm or loss, to yourself and others.

What are the HVNL fatigue requirements?

Driver fatigue is a leading contributor to heavy vehicle crashes in Australia, with some studies showing fatigue involved in one eighth of Australian heavy vehicle crashes.

To assist drivers and operators of heavy vehicles to avoid driver fatigue, the HVNL sets four key requirements.

Four key HVNL requirements to avoid driver fatigue

Requirement	Description
1. Don't drive a heavy vehicle while fatigued	Drivers must not drive a fatigue-regulated heavy vehicle on a road while impaired by fatigue. Other parties in the CoR must ensure they prevent a driver from doing this.
2. Work within set limits	Drivers must work within set limits and have minimum rest requirements. Other parties must not ask or allow drivers to exceed these limits.
3. Keep work and rest records	Drivers (or in some cases a driver's record keeper) must make an accurate and complete record of their work and rest time in either a National Driver Work Diary or, if driving within an area with a radius of 100 km of the driver's base, alternative work records.
4. Provide records to record keeper	Drivers must provide their work and rest records to their record keeper within set time frames. A record keeper must retain these records for three years.

Understanding the HVNL fatigue requirements

1. Don't drive a heavy vehicle while fatigued

Under the HVNL, the safety duty for all heavy vehicle drivers is to not drive a fatigue-related heavy vehicle on a road while impaired by fatigue. A driver is impaired by fatigue when their ability to drive a heavy vehicle safely is affected by fatigue.

The HVNL defines fatigue as including (but not limited to) the following feelings and behaviours:

- feeling sleepy
- feeling physically or mentally tired, weary or drowsy
- feeling exhausted or lacking energy
- behaving in a way consistent with the above.

If a heavy vehicle driver is driving and experiences any of these symptoms, they must stop work immediately (as soon as it is safe to do so). The driver must not work again until they are no longer affected by fatigue.

Tip: Getting plenty of good quality rest and/or sleep are the most effective ways to prevent and recover from fatigue.

A driver can be impaired by fatigue at any time, even when they comply with work and rest hour limits. Regardless of how many hours they may have worked or rested, they must never drive if they are impaired by fatigue.

2. Work within set limits

The scientific evidence shows that fatigue increases the longer a person is awake and or the less sleep they have. To assist heavy vehicle drivers get enough time to sleep and to not work too long, the HVNL requires all heavy vehicle drivers to comply with set work and rest limits.

What is work and rest?

While driving is the most common type of work, it is important to note that any other task relating to the operation of a fatigue-regulated heavy vehicle is regarded as work, including for example:

- instructing/supervising another person driving a fatigue-regulated heavy vehicle
- loading or unloading a fatigue-regulated heavy vehicle
- inspecting, repairing or servicing a fatigue-regulated heavy vehicle
- inspecting or attending to a load (adjusting/securing load) of a fatigue-regulated heavy vehicle (a load includes passengers)
- cleaning and refuelling a fatigue-regulated heavy vehicle
- completing paperwork in relation to a fatigue-regulated heavy vehicle (organising loads/work)
- recording information or completing a document that is required under the HVNL
- helping another person or supervising any of the above
- occupying the driver seat of a fatigue-regulated heavy vehicle while its engine is running
  Note: Exemptions may apply.

These tasks have been limited because they extend the time a person is awake, increasing the risk of being fatigued.

Rest in relation to the operation of a fatigue-regulated heavy vehicle is not doing any of the above.

What work and rest options are available?

The HVNL provides heavy vehicle drivers and operators with various work and rest hours options, each with their own work and rest limits. There are four options available:

1. Standard hours
2. Basic Fatigue Management (BFM) hours
3. Advanced Fatigue Management (AFM) hours
4. Exemption hours.

Note: The following link to the NHVR website provides the work and rest requirements for each of the work and rest hours options.
www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/work-and-rest-requirements

BFM and AFM provide increased levels of flexibility by managing fatigue risks through the National Heavy Vehicle Accreditation Scheme (NHVAS). Heavy vehicle drivers can only work under these hours if they have been inducted into an accredited operators system.

Exemptions enable operators and drivers to apply for work and rest hours not possible under any of the other work and rest options. Strict constraints apply.

3. Keep work and rest records

When does a driver need to carry a Work Diary?

A driver of a fatigue-regulated heavy vehicle is required to carry a Work Diary when they are, or if they have in the last 28 days, been:

- driving outside a radius of 100km from their driver base (100+km work)
- working under BFM or AFM
- working under an exemption.

At the request of an Authorised Officer, drivers must produce their Work Diary records for the previous 28 days. An Authorised Officer is a police officer, state or territory road agency officer or an NHVR officer.

Note: Some specific state and territory exemptions exist.

Completing a Work Diary (100+km work)

Drivers of a fatigue-regulated vehicle undertaking or planning to undertake a 100+km journey in a day must complete their Work Diary (including all work and rest) for that day. Detailed instructions on how to complete your Work Diary, including examples, are located at the beginning of your Work Diary.

Counting time

There are detailed instructions on pages 21–25 of the Work Diary explaining how to count time. It is important to remember when counting time that:

- each 24-hour period starts at the end of a major rest break relevant to the work/rest hours arrangement under which the driver is working (e.g. standard hours solo (at least) seven hours continuous rest).
- each 24-hour period ends exactly 24 hours after commencement.
- it is possible that you could have more than one 24-hour period running at the same time. This can occur when there are two major rest breaks within a 24-hour period.

Tip: A major rest break does not reset your 24-hour period; it commences another 24-hour period.

Recording work/rest in non-participating jurisdictions

If you are the driver of a fatigue-regulated heavy vehicle travelling into WA or NT for a period of seven days or less, you are required to comply with both the HVNL fatigue requirements and any relevant local laws. To demonstrate your compliance, you should complete your Work Diary as you would if you were working in a participating jurisdiction.

For periods of work longer than seven days carried out in a non-participating jurisdiction, the driver will need to comply with the local heavy vehicle driver fatigue, work rest and record keeping requirements. When driving a fatigue-regulated heavy vehicle and returning from a non-participating jurisdiction to a participating jurisdiction, the driver must complete their Work Diary from the beginning of the last major rest break taken prior to re-entering the participating jurisdiction.

Further information can be found on page 9 of the Work Diary instructions.

4. Provide records to record keeper within set time frames

Record keepers must keep a record of specific information for drivers of fatigue regulated heavy vehicles. A record keeper may be the:

- employer, if the driver is employed
- accredited operator, if the driver is working under BFM or AFM accreditation
- driver (as a self-employed or owner driver).

Drivers must provide their record keeper with their relevant work and rest hours totals and any other relevant vehicle information the record keeper may not reasonably have access to (registration numbers, dates the driver worked, etc.).

The record keeper determines the record location and notifies the driver. The record location is usually the driver's base.

All records must be:

- kept for three years after they are created
- kept at a location accessible to an Authorised Officer for audit or investigation purposes
- in a format that is readable and reasonably assumed it will be readable in at least three years from the date of its creation.

When do HVNL fatigue requirements apply?

The heavy vehicle driver fatigue requirements found in chapter 6 of the HVNL apply to drivers and other parties operating a fatigue-regulated heavy vehicle.

A fatigue-regulated heavy vehicle is defined as a:

- motor vehicle with a Gross Vehicle Mass (GVM) of more than 12t
- combination with a GVM of more than 12t
- fatigue-regulated bus (GVM greater than 4.5t and built or fitted to carry more than 12 adults including the driver).

Some vehicles have been specifically excluded from this definition, these include motor vehicles that are:

- built to operate primarily as a machine or implement off-road and are not capable of carrying goods or passengers by road

or

- motorhomes.

For example, a truck with a GVM of 8.7t towing a trailer with a GVM of 3.4t (8.7t + 3.4t = 12.1t) would be classed as a fatigue-regulated heavy vehicle.

Tip: The manufacturer specifies the GVM and it can be located on the vehicle identification plate, registration label or papers.

What can I do to manage fatigue?

The implementation of a safety management system (SMS) that addresses the risks associated with fatigue will assist in satisfying the requirements of the HVNL as they relate to heavy vehicle driver fatigue.

While this bulletin is not intended to provide an exhaustive list, here are some examples of systems that can be established as part of an effective SMS:

- Reviewing driving or work schedules and work records of relevant drivers
- Regularly assessing fitness for duty of relevant drivers
- Reviewing contractual arrangements and documentation relating to the consignment and delivery of goods
- Reviewing loading and unloading times and delays at loading and unloading places
- Developing and adhering to trip plans
- Implementing formalised processes to engage and consult with other parties in the chain.

What actions can Authorised Officer's take?

Authorised Officers have powers relating to heavy vehicle driver fatigue requirements, including inspecting heavy vehicle driver's work and rest records.

Enforcement action for any breach of fatigue, work/rest hours or Work Diary requirements will depend on the nature and severity of the breach. Options available to Authorised Officers include (but are not limited to) formal warnings, infringement notices and court imposed penalties.

Drivers of fatigue-regulated heavy vehicles that are deemed to be driving while impaired by fatigue may face penalties and be prevented from working, even if they are complying with work and rest requirements.

Drivers of fatigue-regulated heavy vehicles may be directed to immediately stop work and not work again for a stated period if:

- the driver is impaired by fatigue
- the driver has committed a severe or critical work/rest hours breach
- the driver is unable to produce a Work Diary without a reasonable excuse
- the Work Diary produced cannot be relied on as an accurate record of the time the driver recently spent working or resting.

Where can I get more information?

Heavy vehicle driver fatigue or Work Diary requirements

This bulletin summarises the key obligations set out in the HVNL and is not exhaustive. Visit our website for more information about heavy vehicle driver fatigue or Work Diary requirements or contact us on 1300 MYNHVR (1300 696 487). www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management

Chain of Responsibility (CoR)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility

NHVAS

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme

Fatigue management exemptions

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/fatigue-management-exemptions

Safety Management Systems (SMS)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/safety-management-systems

For more information

Subscribe:	www.nhvr.gov.au/subscribe
Visit:	www.nhvr.gov.au
Email:	info@nhvr.gov.au
Telephone:	1300 MYNHVR (1300 696 487)*

*Standard 1300 call charges apply. Please check with your phone provider.
Image source: Volvo Trucks Australia

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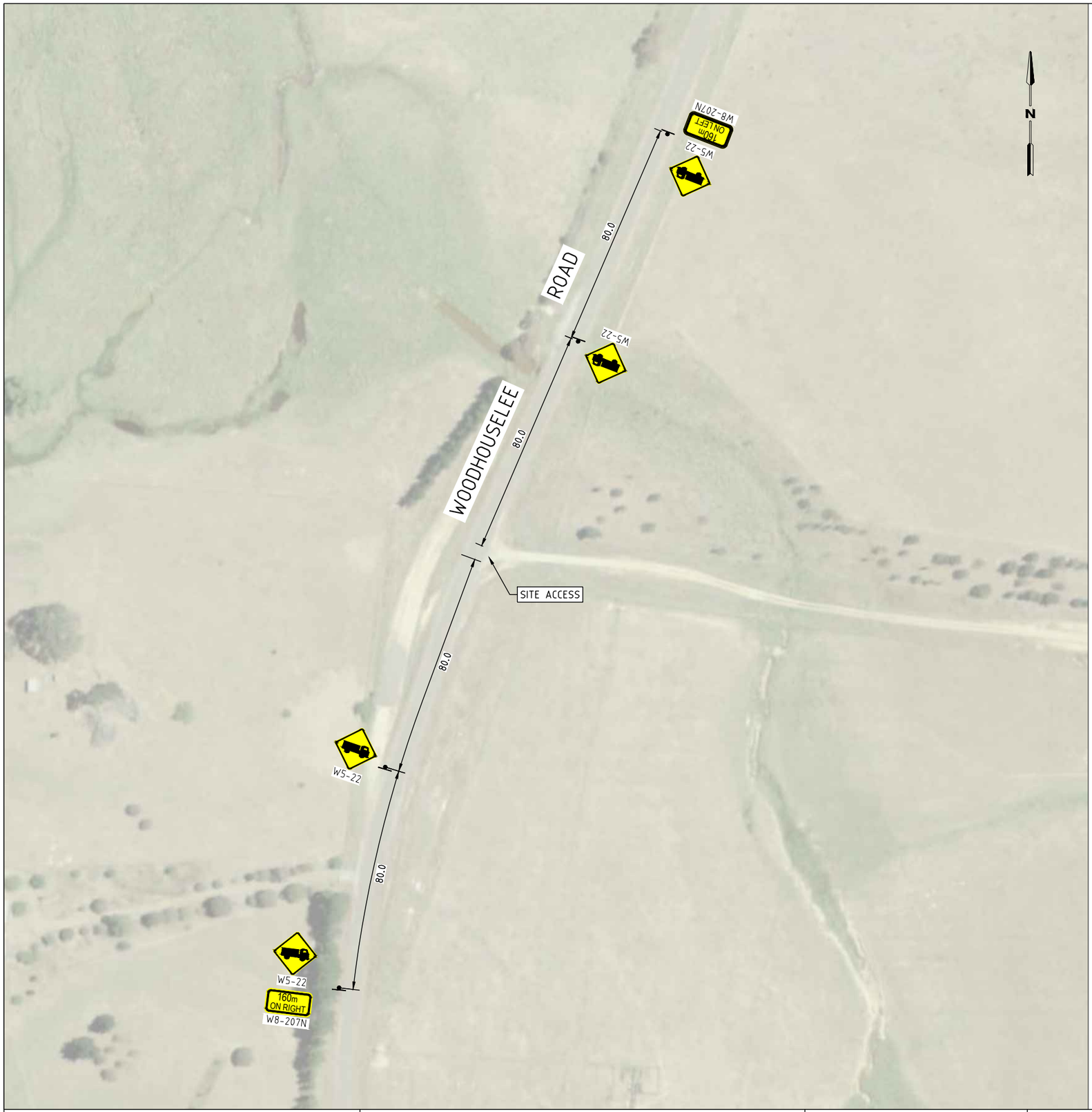
C. TRAFFIC GUIDANCE SCHEME

C



NOTES:

1. NOT ALL DIMENSIONS SHOWN ARE TO SCALE.
2. LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY.
3. ALL SIGNS TO BE MINIMUM SIZE A.
4. ALL SIGNS TO BE CLASS 1 RETROREFLECTIVE.
5. ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE RMS "TRAFFIC CONTROL AT WORK SITES" MANUAL, VER 5 (RMS 2018) AND AUSTRALIAN STANDARDS AS1742.3:2019 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS.
6. THIS TRAFFIC CONTROL PLAN MUST BE SET UP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC MANAGEMENT PLANS" TICKET AND THE RMS TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION.
7. THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS MADE TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL.
8. IT IS THE RESPONSIBILITY OF AN ACCREDITED PERSONNEL WITH A 'PREPARE WORK ZONE TRAFFIC MANAGEMENT PLAN' TICKET TO ENSURE THE FOLLOWING:
   - THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURES THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
   - VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES.
   - AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHOULD BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE.
9. ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN.
10. IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS.
11. TRAFFIC CONTROLLERS ARE NOT REQUIRED AT THE ACCESS FULL TIME, SHOULD CONDITIONS BE MODIFIED AND TRAFFIC CONTROLLERS REQUIRED, THEY ARE TO BE SUITABLY ACCREDITED TO AUSTRALIAN STANDARDS AND RMS ACCREDITATION AS REQUIRED. WHEN REQUIRED T1-34 AND T1-10 SIGNS ARE TO BE SET UP IN ACCORDANCE TO AUSTRALIAN STANDARDS AND RMS REQUIREMENTS.
12. ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED.
13. ALL SIGNS TO BE COVERED OR REMOVED WHEN WORKERS ARE NOT ON SITE.
14. ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2019.
15. ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2019. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS.

LEGEND

SIGN POST

AERIAL IMAGE
SIX MAPS

CERTIFICATION

THE UNDERSIGNED HAS COMPLETED AND OBTAINED:
- PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN

AND IS SUITABLY EXPERIENCED TO DESIGN, SELECT AND MODIFY TRAFFIC CONTROL PLANS

CERTIFICATE NO. 0039450274
PREPARE A WORK ZONE TMP CARD
ASHISH MODESSA

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Brisbane	07 3113 5000
Adelaide	08 8334 3600
Perth	08 6169 1000

PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY
SUBJECT TO CHANGE WITHOUT NOTIFICATION

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED	R.ZHANG
DESIGN CHECK	A.MODESSA
APPROVED BY	B.MAYNARD
DATE ISSUED	1 MARCH 2021
SCALE	A3 - N/A
CAD FILE NO.	N122393-01-P1.DWG

CROOKWELL 3

TRAFFIC GUIDANCE SCHEME

DRAWING NO. N122393-01-01 SHEET 01 OF 01 ISSUE P1

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