RE Future

Swansons Lane Wind Farm

Application for Planning Permit

Volume 1 – Planning Report

May 2025

Version History

Version	Author	Reviewer	Date Issued	Description
Rev 1	SS	PL	29/05/2025	Issued for submission to Minister for Planning

Circulation History

Version	Name (Company) Position	Reason for Circulation	Date Issued	Form
Rev 1	Severin Staalesen, RE Future Michael Juttner, DTP – Planning Rashmitha Perera, DTP – Planning Kerry Greenfield, DTP – Planning	Submission to Minister for Planning	29/05/2025	Electronic

REF Developments Pty Ltd

PO Box 739

Geelong VIC 3220

Contents

Executive Summary

The Swansons Lane Wind Farm is located on Sisters – Garvoc Rd at Garvoc, Victoria, approximately 8 km south-west of Terang, Victoria, as shown in Section 13 Figure 1. The wind farm will consist of up to five wind turbine generators together with ancillary civil and electrical infrastructure required to construct and the operate the wind farm.

The subject site is bounded by Coyles Rd to the north, Sisters – Garvoc Rd to the west, and the Princes Hwy to the east and south. The subject site consists of fourteen privately owned parcels, together with five road and/or rail reserves adjoining their boundaries which are to be utilised for access and the reticulation and export of electricity. These nineteen areas of land constituting the subject site have a combined area of 689 Ha.

The development footprint, which is the area containing all temporary and permanent works, is equal to approximately 13 Ha, and corresponds to approximately 1.8% of the subject site. The area of works is based on the area of all temporary and permanent works, plus an additional buffer of 50 m around all temporary and permanent works—except where such a buffer encroaches on an external private property boundary—to ensure that it captures all possible areas where works will be carried out on the subject site. The area of works is equal to approximately 111 Ha.

The proposed wind farm is located on the boundary of the Corangamite Shire Council and Moyne Shire Council, requiring planning permission under both planning schemes.

The following permit triggers are relevant to the Corangamite proposal:

- Clause 35.07-1 (Farming Zone): Use of a wind energy facility; use of a utility installation;
- Clause 35.07-4 (Farming Zone): Buildings and works associated with Section 2 Use (wind energy facility and utility installation); works within 20 metres of a road; works within 5 metres from a boundary;
- Clause 36.04-1 (Transport Zone 2): Buildings and works associated with Section 2 Use (utility installation);
- Clause 52.05 (Signs): Construct or put up for display a business identification sign;
- Clause 52.06 (Car Parking): Construction of car parking spaces not listed in Table 1;
- Clause 52.17 (Native Vegetation): Remove, destroy or lop native vegetation; and
- Clause 52.29 (Land Adjacent to the Principle Road Network): Create or alter access to a road in a Transport Zone 2; and
- Clause 52.32 (Wind Energy Facility): Use and development of land for a wind energy facility.
- Clause 53.22 (Significant Economic Development): Use and development of land for a renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

The following permit triggers are relevant to the Moyne proposal:

- Clause 35.07-1 (Farming Zone): Use of a wind energy facility; use of a utility installation;
- Clause 35.07-4 (Farming Zone): Buildings and works associated with Section 2 Use (wind energy facility and utility installation); works within 20 metres of a road; works within 5 metres from a boundary;
- Clause 36.04-1 (Transport Zone 2): Buildings and works associated with Section 2 Use (utility installation);
- Clause 52.05 (Signs): Construct or put up for display a business identification sign;
- Clause 52.06 (Car Parking): Construction of car parking spaces not listed in Table 1;
- Clause 52.17 (Native Vegetation): Remove, destroy or lop native vegetation; and
- Clause 52.29 (Land Adjacent to the Principle Road Network): Create or alter access to a road in a Transport Zone 2; and

- Clause 52.32 (Wind Energy Facility): Use and development of land for a wind energy facility, which includes the use and development of a permanent anemometer.
- Clause 53.22 (Significant Economic Development): Use and development of land for a renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

The subject site is well suited for a wind farm of the proposed scale with direct access to necessary infrastructure, and the proposal is well supported by the balance of policies under the planning scheme, particularly those which seek to encourage the provision of renewable energy with minimal impact on the amenity of the area in which it is located.

This report provides an assessment of the proposal against the provisions of the Corangamite Planning Scheme and Moyne Planning Scheme. Technical reports completed by subject matter experts and the proponent form part of the planning permit application and are presented in Volume 2.

An overview of the thematic areas of assessment and results of the technical reports is provided below.

Noise

A pre-construction predictive noise assessment has been carried out by Marshall Day Acoustics in support of this application and can be found in Volume 2. The Environmental Noise Assessment report concludes that the proposal will comply with the requirements of the relevant noise standard NZS 6808:2010, with the highest predicted noise level for a non-participating dwelling being 34.6 dBA LA90. For more information concerning noise emissions and compliance with NZS6808:2010 refer to Section 10.

An accompanying noise assessment report prepared by an environmental auditor appointed under Part 8.3 of the *Environment Protection Act 2017* has been prepared by Arup and can also be found in Volume 2.

Blade Glint

All wind turbine components will be coated in industry standard non-reflective paints to attenuate reflection of sunlight, ensuring any adverse impacts associated with blade glint are avoided.

Shadow Flicker

The effects of the facility in relation to shadow flicker have been modelled using industry standard software WindPro. It was found that no non-participating dwellings will receive shadow flicker as a result of the wind farm, while one dwelling belonging to a participating landowner is modelled to receive approximately 27 hours of shadow flicker annually.

Electromagnetic Interference

An electromagnetic interference assessment has been carried out and found that the proposal will not cause interference to either television broadcasting or point-to-point radio links.

Landscape and Visual Assessment

The potential impact of the proposed wind farm on public viewpoints and landscape values is assessed in the Landscape and Visual Impact Assessment (LVIA) that can be found in Volume 2. The LVIA concluded that the visual impact of the project is likely to be low to moderate from publicly accessible locations and that the proposed wind farm:

- Will have a moderate and moderate – high visual effect on four dwellings located within the 2 km viewshed of the wind farm;
- Will have a low and low – moderate visual effect on most dwellings between the 2 km and 5 km viewsheds of the wind farm;
- Will have a low – moderate visual effect on principal rural townships and localities;
- Will result in a low – moderate visual effect on views from local roads; and

- Will result in a low visual effect from distant elevated views from Mount Noorat, Mount Warrnambool and regional state parks and conservation areas.

Flora and Fauna

An Ecological Assessment and a standalone Microbat Assessment have been carried out for the proposal, both of which can be found in Volume 2.

A flora and vegetation survey was conducted as part of the Ecological Assessment. This survey consisted of an assessment of all areas in which wind farm infrastructure is proposed to be located, up to and including the proposed transport route from the Princes Hwy to the subject site. In general, the subject site is highly modified due to its use as an operating dairy farm and is generally comprised of pasture paddocks bordered by planted windrows and intersected by constructed farm tracks. Aside from planted specimens, no significant flora species were recorded on the subject site and no flora species of National or State significance are considered likely to occur due to the highly modified condition of vegetation. Native vegetation within and immediately adjacent to the assessment area is representative of three EVCs, namely Heavier Soils Plains Grassland (132), Plains Grassy Wetland (EVC 125), and Plains Grassy Woodland (EVC 55). A total of eight scattered trees were also recorded within the ecological assessment area, which consisted of five large scattered trees and three small scattered trees. The remainder of the subject site is highly modified and actively grazed and/or cropped and comprised typically of improved pastures, with some areas showing outbreaks of noxious weed species.

Concurrently with the flora and vegetation assessments, a fauna assessment was undertaken to obtain information on fauna values in the vicinity of the proposed wind farm. This assessment consisted of a general fauna survey of the entire subject site and its surrounds, a Bird Utilisation Survey spanning two seasons, and a Level One Assessment of the risk posed to Brolga. The general fauna survey did not identify any significant terrestrial fauna values that would be put at risk by the proposed development. Due to the absence of a permanent natural water source, sparse vegetation, and the highly modified nature of the subject site, the assessment found that the development footprint is unlikely to support habitat relied on by significant species and therefore that the potential impact of the wind farm on terrestrial fauna values is considered to be low to negligible.

As the subject site is located within the known range of the Southern Bent Wing Bat (SBWB) and the Yellow-bellied Sheath-tailed Bat (YBSB), a standalone significant microbat assessment was prepared in order to ascertain the risk posed by the proposed wind farm to these species. As part of this assessment a roost cave assessment and a acoustic microbat surveys were carried out over the course of two years, taking in four migration seasons of these species. During these survey events a total of six, six, twelve and twenty-two acoustic devices were deployed throughout the subject site. Bat calls were analysed by a recognised expert in bat calls analysis and SBWB was observed at low levels of activity. YBSB was not observed at all during the survey period. Based on these results, the dimensions of the candidate wind turbine model, and the small number of wind turbines proposed, the SBWB Assessment and YBSB Assessment found that the collision risk associated with the proposed wind farm is low for these species.

No other significant fauna species are considered likely to occur on or near the subject site or be impacted by the proposal.

Cultural Heritage

The subject site is located with the boundary of the Eastern Maar Registered Aboriginal Party. There are no areas of cultural heritage sensitivity located within the subject site, and therefore there is no requirement for a mandatory Cultural Heritage Management Plan (CHMP). Nevertheless, a voluntary CHMP was prepared and has been approved by the Registered Aboriginal Party.

Aircraft Safety and Obstacle Lighting

An Aviation Impact Assessment (AIA) has been prepared by Aviation Projects Pty Ltd in support of this application. The AIA found that the wind farm will have no impact on any of these aeronautical activities, infrastructure or services.

In accordance with the AIA which accompanies this application for planning permit, it is proposed that the wind farm is not equipped with aviation obstacle lighting, due to the low risk the wind farm poses to aviation and the amenity impact that aviation lighting has on the surrounding landscape.

Traffic and Transport

An independent Preliminary Transport Assessment has been carried out for the proposal. The assessment demonstrates that impacts to the road network will be acceptable, with negligible operational impacts and construction impacts that may be suitably managed through development of a traffic management plan via standard permit conditions, in consultation with Corangamite Shire Council, Moyne Shire Council and VicRoads. Swept path assessments have been carried out for the OSOM delivery route and determined that offsite intersection upgrades will be limited to temporary gravel shoulder extensions and removal of street furniture.

Fire Risk

A Risk Management Plan has been prepared by Fire Risk Consultants in support of this application. This Risk Management Plan follows the guidance provided by the CFA in their *Design Guidelines and Model Requirements: Renewable Energy Facilities 2022*, as well as relevant local planning provisions. The assessment of fire risk within the proposed wind farm including the nacelle, substation and office compound identified that it represented a low risk in terms of bushfire. This risk level, combined with the mitigation treatments outlined within the CFA Guidelines which all wind farm developments must comply with, ensures a high level of fire safety in any new wind energy facility. Accordingly, the outcome of the risk assessment has indicated that the development can occur in this landscape and not increase the risk of fire to the surrounding community or other infrastructure.

Geotechnical

Melbourne Geotechnics completed a Geotechnical Desktop Study in support of this application. This study assessed the general ground conditions of the site and did not raise any concerns with the regard to the suitability of the ground conditions on the subject site.

Consultation and Engagement Plan

To date a range of consultation activities have been undertaken to inform the community of the proposal and give local residents an opportunity to meet face-to-face with a company representative, including the distribution of information pamphlets by mail, the launch of a project website, and face-to-face house visits for all dwellings located within 3 km of a wind turbine location.

Following submission of this planning application a similar range of consultation activities will be undertaken to further inform the surrounding community of the proposal, including but not limited to the distribution of additional information pamphlets, updates to the project website, further house visits, and community information sessions.

Further, in line with the objectives of the *Community Engagement and Benefit Sharing in Renewable Energy Developments – A Guide for Renewable Energy Developers*, RE Future will develop a community benefit scheme for the project which will come into effect at the commencement of operation, and will include:

- Annual payments to immediate neighbours;
- Subsidies for energy efficiency measures for nearby dwellings;
- An annual fund for support of general community projects; and
- An annual fund for support of local education.

Glossary

AHD	Australian Height Datum
AIA	Aviation Impact Assessment
AIS	Aeronautical Information Service
ACMA	Australian Communications and Media Authority
Activity Area	The area containing all temporary and permanent works, also referred to as the development footprint
AMSL	Above Mean Sea Level
Area of Works	The area of land within which all temporary and permanent works will take place, incorporating a buffer of 50 m around all temporary and permanent works except where such a buffer encroaches on an external property boundary
BMP	Bushfire Management Plan
CASA	Civil Aviation Safety Authority
CFA	Country Fire Authority
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CO_2	carbon dioxide
dB	Decibels
dBA	Decibels (A-weighted)
DEECA	Department of Energy, Environment and Climate Action
DELWP	Department of Environment, Land, Water and Planning
Development Footprint	The area containing all temporary and permanent works
DTM	digital terrain model
EHP	Ecology and Heritage Partners
EMI	Electromagnetic interference
EMP	Environmental Management Plan
EPBC	Environment Protection and Biodiversity Conservation Act 1999
EVC	Ecological vegetation class
FFG	Flora and Fauna Guarantee Act 1988
FZ	Farming Zone
GBD	Green Bean Design Pty Ltd
GIS	Geographical Information System
GWh	Gigawatt hours
Heritage Act	Aboriginal Heritage Act 2006
HHa	Habitat Hectare
HH150; HH166	Turbine Hub Height of 150 m or 166 m
HO	Heritage Overlay
IPCC	Intergovernmental Panel on Climate Change
km	Kilometre
kV	Kilovolt
LGA	Local Government Area

LVIA	Landscape and Visual Impact assessment
m	Metre
MW	Megawatt
MWh	Megawatt hour
NASAG	National Airports Safeguarding Advisory Group
NASF	National Airports Safeguarding Framework
National Guidelines	Draft National Wind Farm Guidelines July 2010
NZS 6808:2010	New Zealand Standard 6808:2010 Acoustics
OLS	Obstacle Limitation Surface
OSOM	Oversize Overmass
Policy and Planning Guidelines	Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria September 2023
RAAF	Royal Australian Air Force
RAP	Registered Aboriginal Party
RDZ1	Road Zone Category 1
RET	Renewable Energy Target
RSA	Rotor Swept Area
SLO	Significant Landscape Overlay
SPPF	State Planning Policy Framework
SRES	Small-scale Renewable Energy Scheme
SWVLAS	South West Victoria Landscape Assessment Study
SBWB	Southern Bent-wing Bat
Subject Site	The area of land within which the development footprint is located, as described in Table 1.
VAHR	Victorian Aboriginal Heritage Register
VCAT	Victorian Civil and Administrative Tribunal
Vestas V162, V172	Model turbine types
VHI	Victorian Heritage Inventory
VHR	Victorian Heritage Register
VVP	Victorian Volcanic Plain
WindPro	Proprietary wind farm modelling software
Wind Turbine, Turbine, or WTG	Triple blade horizontal axis wind turbine generator
YBSB	Yellow-bellied Sheath-tail Bat
ZVI	Zone of Visual Influence

1 Introduction

This document has been prepared in support of an application for a planning permit to use and develop land for the purposes of a wind energy facility, herein referred to as the Swansons Lane Wind Farm.

The subject site is located approximately 8 km southwest of Terang, Victoria. The subject site lies on the border of the Corangamite Shire Council and the Moyne Shire Council, with approximately half of the site located in each local government area.

The wind farm will consist of up to five wind turbine generators and associated works, buildings and infrastructure required for their construction and operation, as well as native vegetation removal, business identification signage, and carparking spaces sufficient for the ongoing operation of the wind farm.

This planning report forms an assessment of the proposal against all relevant provisions of the Corangamite Planning Scheme and Moyne Planning Scheme. The remainder of this report is structured as follows:

- Section 2: A brief profile of the proponent;
- Section 3: A description of the proposal;
- Section 4: An analysis of the subject site and its context;
- Section 5: A description of the design response;
- Section 6: An outline of the relevant planning provisions of the Corangamite Planning Scheme;
- Section 7: An outline of the relevant planning provisions of the Moyne Planning Scheme;
- Section 8: An outline of other relevant legislation;
- Section 9: An assessment of the proposal against all relevant provisions;
- Section 10: An assessment of the proposal against the provisions of the *Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria September 2023*;
- Section 11: Conclusion;
- Section 12: Development Plans, and;
- Section 13: All Figures.

Technical reports completed by specialist consultants and the proponent which form part of this planning permit application can be found in Volume 2. This planning report has been peer reviewed by planning consultancy NGH. A letter from NGH confirming that a peer review was carried out is also included in Volume 2.

2 The Proponent

The applicant is Swansons Lane Wind Farm Pty Ltd, a special purpose project company wholly owned by REF Developments Pty Ltd, the registered business name of which is RE Future. RE Future is an Australian owned and funded enterprise operated by a small group of seasoned wind industry professionals. With over 60 years of combined experience in the wind industry the REF team contains extensive experience in wind farm development. Since 2001 the REF team have worked independently or as partners and successfully developed over 840 MW of wind projects that are now built and operating. For more information about RE Future refer to the project website at www.refuture.com.au.

3 The Proposal

The Swansons Lane Wind Farm is located on Sisters – Garvoc Rd at Garvoc, Victoria, approximately 8 km southwest of Terang, Victoria, Section 13 Figure 1. The wind farm will consist of up to five wind turbine generators together with ancillary civil and electrical infrastructure required to construct and the operate the wind farm. The subject site, proposed wind turbine model, ancillary infrastructure and proposed works are outlined in this section.

3.1 Subject Site, Development Footprint and Activity Area

The subject site is bounded by Coyles Rd to the north, Sisters – Garvoc Rd to the west, and the Princes Hwy to the east and south. The subject site consists of fourteen privately owned parcels, together with five road and/or rail reserves adjoining their boundaries which are to be utilised for access and the reticulation and export of electricity. These nineteen areas of land constituting the subject site have a combined area of approximately 689 Ha. Details pertaining to these parcels are shown in Table 2, while the shape, orientation and dimensions of the subject site and development footprint are shown Section 12.

The development footprint, which is the area containing all temporary and permanent works, is equal to approximately 13 Ha, and corresponds to approximately 1.8% of the subject site. The area of works is based on the area of all temporary and permanent works, plus an additional buffer of 50 m around all temporary and permanent works—except where such a buffer encroaches on an external private property boundary—to ensure that it captures all possible areas where works will be carried out on the subject site. The area of works is equal to approximately 111 Ha.

3.1.1 Land Details and Encumbrances

The subject site is comprised of fourteen land parcels and five road and/or rail reserves. A number of these parcels are subject to encumbrances pertaining to a gas pipeline and a water pipeline that traverse the site in different locations. The proposed wind farm will not breach any of the encumbrances associated with these easements. There are no other encumbrances on the parcels constituting the subject that would affect the proposed use and development of the site. The details of the land contained within the subject site, including the parcel SPIs, certificates of title and any relevant overlays or zones, are listed in Table 2. These details are also shown in Section 13 Figure 2.

3.2 Wind Turbine Generators

The proposed wind farm will consist of up to five horizontal axis wind turbine generators. For the purposes of assessing the potential impacts associated with the proposed wind farm, a range of turbine dimensions have been considered in order to provide for a degree of flexibility in the contracting phase of the wind farm development process. In particular, two configurations of two separate wind turbine models have been considered in order to assess potential impacts associated with the proposed wind farm. These configurations are as follows:

- Vestas V162 HH150: Maximum RSA height of 231 m, minimum RSA height of 69 m, rotor diameter of 162 m, tower height of 150 m;
- Vestas V162 HH166: Maximum RSA height of 247 m, minimum RSA height of 85 m, rotor diameter of 162 m, tower height of 166 m;
- Vestas V172 HH150: Maximum RSA height of 236 m, minimum RSA height of 64 m, rotor diameter of 172 m, tower height of 150 m; and
- Vestas V172 HH166: Maximum RSA height of 252 m, minimum RSA height of 80 m, rotor diameter of 172 m, tower height of 166 m.

Altogether, the overall dimensional envelope encompassing these four wind turbine configurations is as follows:

- A maximum RSA height of 252 m;
- A minimum RSA height of 64 m;

- A maximum rotor diameter of 172 m; and
- A maximum tower height of 166 m.

Dimensioned elevations of these turbine configurations are reproduced in Section 12 Figures 7 through 10.

The wind turbines will be erected on a mass pad concrete footing measuring approximately 20 m x 20 m in area, and approximately 3 m in depth. Apart from a small plinth surrounding the base of the tower these foundations will be covered with topsoil and returned to pasture following completion of construction. As per standard industry practice all wind turbines will be coated in low reflectivity light grey paint, as detailed in Section 12 Figures 7 through 10.

For the purposes of modelling potential impacts associated with the proposed wind farm, the candidate wind turbine configuration with the greatest impact has been adopted in order to ensure that the worst-case scenario is considered. In particular, this has meant that the following technical assessments have been based on the following candidate wind turbine configuration:

- Landscape and Visual Impact Assessment: V172 HH166;
- Environmental Noise Assessment and accompanying Noise Audit: V172 HH150;
- Aviation Impact Assessment: V172 HH166;
- Ecological Assessment: V172 HH150 and V172 HH166;
- Southern Bent-Winged Bat Assessment: V172 HH150;
- Preliminary Transport Assessment: V172 HH166;
- Electromagnetic Interference Risk Assessment: V172 HH166; and
- Shadow Flicker Assessment: V172 HH166.

The fire risk assessment and the desktop geotechnical assessment did not specifically reference the turbine model used for assessment purposes as the difference between the four configurations did not have a material bearing on their investigation.

While this application for planning permit is premised on the four candidate wind turbine configurations detailed above, the final selection of wind turbine will depend upon intervening economic, technological and regulatory developments. In the event that the final choice of turbine differs from one of the configurations listed above, the selected wind turbine generator will comply with the dimensional envelope listed above, and all modelling will be redone on the basis of the final choice of turbine, with the Swansons Lane Wind Farm to comply with all conditions of development approval.

3.3 Turbines Within One Kilometre of a Dwelling

There are no dwellings located within 1000 m of a proposed wind turbine location. There are four dwellings belonging to participating landowners, one dwelling belonging to a non-participating landowner, and one farmworker accommodation unit belonging to a non-participating landowner, located within 1500 m of a proposed wind turbine location. The distance and bearing of all dwellings and farmworker accommodation units located within 2000 m of a wind turbine generator are shown in Table 1. The locations of these dwellings in relation to the wind farm are shown in Section 13 Figure 6.

Table 1: Distance and Bearing to Dwellings within 2 km of a Wind Turbine Location

No	Address	Easting	Northing	Nearest WTG	Distance (m)	Bearing (deg)	Stakeholder Status	Accommodation Type
65	7350 Princes Highway, Garvoc VIC 3265	662148	5761500	T4	1090	115	Participating	Dwelling
62	7350 Princes Highway, Garvoc VIC 3265	661971	5760735	T5	1116	109	Participating	Dwelling

63	160 Sisters-Gravoc Road, Garvoc VIC 3265	659301	5761082	T3	1220	229	Participating	Dwelling
49	170 Coyles Rd, Garvoc VIC 3265	658669	5763565	T2	1413	331	Neighbour	Dwelling
53	421 Ridge Rd, Garvoc VIC 3265	661910	5759979	T5	1501	139	Neighbour	Dwelling
51	7610 Princes Hwy, Garvoc VIC 3265	660169	5759802	T5	1505	210	Neighbour	Dwelling
123	211 Sisters-Garvoc Rd, Garvoc VIC 3265	657953	5761680	T2	1544	245	Neighbour	Workers Accommodation
69	87 Coyles Rd, Garvoc VIC 3265	662420	5762871	T4	1549	54	Participating	Dwelling
57	10 Baxters Rd, Garvoc VIC 3265	662114	5760104	T5	1560	130	Neighbour	Dwelling
59	69 Baxters Rd, Garvoc VIC 3265	662751	5760308	T5	1999	113	Neighbour	Dwelling

3.4 Associated Infrastructure

In addition to the five wind turbine generators, the following ancillary infrastructure will be required for construction and operation of the wind farm.

3.4.1 Access Tracks

Access tracks will be required for both construction and operation of the wind farm. Access tracks will have a trafficable width of 5.5 m and will be accompanied by spoon drains on both sides, taking their overall width to approximately 7.5 m. In accordance with the recommendations of the Fire Risk Assessment passing bays have been incorporated into the access track network at intervals of 600 m for the purposes of allowing firefighting vehicles to pass one another without delay in the event of an emergency. The total length of access tracks will be approximately 10 km. Access tracks will be constructed of locally sourced crushed rock and will remain in place after construction for the duration of the life of the wind farm. The dimensions of the access tracks will not be altered following completion of construction. The layout of the access tracks is shown in Section 13 Figure 5.

3.4.2 Hardstands

Hardstand areas will be required at the base of each turbine for the purposes of facilitating construction of the foundation and erection of the wind turbine generator. These hardstands will measure 60 m x 40 m and will be constructed of locally sourced crushed rock. Hardstands will remain in place for the duration of the life of the wind farm. The location and dimensions of the hardstand areas are shown in Section 12 Figures 1 through 6 and Section 13 Figure 5.

3.4.3 Substation

The proposed wind farm will require a substation in order to be connected to the electricity grid. The substation will house a control building, high voltage electrical infrastructure, and metering and control equipment as required by the Network Service Provider. The location and dimensions of the substation are shown in Section 13 Figure 5, while plan and elevation views of a typical substation layout are Section 12 Figures 13 and 14. The substation plans included with this application for planning permit are based on a preliminary design only. The final layout and construction of the substation will be determined by the detailed engineering design which will be prepared in accordance with the requirements of the Network Service Provider.

Table 2: Land Details

Parcel No	Street Address/Description	SPI	Ownership/Management	Volume and Folio	Encumbrances	LGA	Planning Zone	Planning Overlays	Area (m)
Parcel 1	SISTERS-GARVOC ROAD GARVOC VIC 3265	1\LP111320	Private	09044/676	Easement (Gas Supply)	Moyne	FZ	BPA	553292
Parcel 2	PRINCES HIGHWAY GARVOC VIC 3265	1\TP601284	Private	10017/387	Easement (Water Supply)	Corangamite	FZ1	BPA, BMO	645206
Parcel 3	SISTERS-GARVOC ROAD GARVOC VIC 3265	1\TP612899	Private	02683/599	Easement (Gas Supply)	Moyne	FZ	BPA, BMO	998430
Parcel 4	SISTERS-GARVOC ROAD GARVOC VIC 3265	2\TP612899	Private	02683/599	Easement (Gas Supply)	Moyne	FZ	BPA, BMO	
Parcel 5	PRINCES HIGHWAY GARVOC VIC 3265	1\TP840880	Private	08926/682	NA	Corangamite	FZ1	BPA	191691
Parcel 6	PRINCES HIGHWAY GARVOC VIC 3265	2\TP601284	Private	10017/387	Easement (Water Supply)	Corangamite	FZ1	BPA	62872
Parcel 7	PRINCES HIGHWAY GARVOC VIC 3265	3\TP601284	Private	10017/387	Easement (Water Supply)	Corangamite	FZ1	BPA	665642
Parcel 8	SISTERS-GARVOC ROAD GARVOC VIC 3265	36A\PP2857	Private	10872/900	Easement (Gas Supply)	Moyne	FZ	BPA, BMO	547722
Parcel 9	SISTERS-GARVOC ROAD GARVOC VIC 3265	36B\PP2857	Private	10872/899	Easement (Gas Supply)	Moyne	FZ	BPA, BMO	548318
Parcel 10	SISTERS-GARVOC ROAD GARVOC VIC 3265	46\LP505	Private	07793/164	Easement (Gas Supply, Water Supply)	Moyne	FZ	BPA	740521
Parcel 11	PRINCES HIGHWAY GARVOC VIC 3265	6C\PP2636	Public	11735/678	NA	Corangamite	FZ1	BPA	20783
Parcel 12	PRINCES HIGHWAY GARVOC VIC 3265	6D\PP2636	Public	11735/679	NA	Corangamite	FZ1	BPA	8734
Parcel 13	PRINCES HIGHWAY GARVOC VIC 3265	7A\PP2636	Private	03289/684	NA	Corangamite	FZ1	BPA, BMO	651892
Parcel 14	PRINCES HIGHWAY GARVOC VIC 3265	PC365133	Private	10756/778	Easement (Water Supply)	Corangamite	FZ1	BPA	1063070
Road Reserve 1	Road reserve of Sisters - Garvoc Road adjoining Parcels 1\LP111320 and 2\LP111320	Moyne Shire Council		NA	NA	Moyne	FZ	BPA	9348
Road Reserve 2	Road reserve of Princes Hwy adjoining Parcels 2~12\PP5309, 13~16\PP5309, and 12~16\PP5309	VicRoads		NA	NA	Moyne	TRZ2	BPA	39107
Road Reserve 3	Road reserve of Princes Hwy adjoining Part 3 of Parcel PC365133	Corangamite Shire Council		NA	NA	Corangamite	TRZ2	BPA	44469
Road Reserve 4	Road resserve of Swansons Lane adjoining Parcels 1\LP111320, 46\LP505, and 1\TP612899	Corangamite Shire Council and Moyne Shire Council		NA	NA	Corangamite and Moyne	FZ/FZ1	BPA, BMO	89211
Rail Reserve 1	That part of Parcel 1\TP613597 which adjoing Part 3 of Parcel PC365133	1\TP613597	Private (VicTrack)	02069/790	NA	Corangamite	FZ	BPA	7797

*Calculated using Vicmap Parcel layer accessed 16/01/2025.

**These two parcels appear as one within the Vicmap Parcel layer, however they are designated as separate parcels on the relevant title documents.

3.4.4 Electrical Cabling

Electrical cabling will be required between the wind turbine generators and the wind farm substation, as well as between the substation and the point of connection with the electricity grid. With the exception of the point of connection with the electricity grid, a gas pipeline crossing and a railway corridor crossing via 6 concrete or wood poles, all electrical reticulation located on the subject site will be located underground. The above ground electrical cabling between the substation and the electricity grid will consist of an above-ground powerline of concrete or wood pole construction measuring approximately 290 m in length, and will travel in an easterly direction from its point of departure in the substation to the proposed point of connection with an existing powerline located in the road reserve of the Princes Hwy. The above ground gas pipeline and railway corridor crossings will measure approximately 80 m and 70 m in length respectively, and will also be of concrete or wood pole construction. The remaining internal electrical reticulation, totalling approximately 7 km, will consist of conventional underground electrical cable located at a minimum depth of 600 mm. The location and dimensions of all above and below ground electrical reticulation are shown in Section 12 Figures 2 through 6 and Section 13 Figure 5.

3.4.5 Static Water Supply

In accordance with the recommendations of the Fire Risk Assessment which forms part of this application for planning permit, the proposed wind farm will be supplied with a static water supply for the purposes of assisting local firefighting. A total of four water tanks of at least 45,000 L capacity will be installed on the wind farm site. These water tanks will be installed according to the CFA Guidelines. The location of these water tanks are shown in Section 13 Figure 5 and 30.

3.4.6 Fire Breaks

In accordance with the recommendations of the Fire Risk Assessment which forms part of this application for planning permit, the proposed wind farm will incorporate compacted gravel fire breaks of 10 m width around wind turbine generators, site compounds and the substation. The location of these fire breaks are shown in Section 12 Figure 1, and Section 12 Figures 2 through 6.

3.4.7 Passing Bays

In accordance with the CFA Guidelines, the proposed wind farm will incorporate passing bays along the internal access track network at intervals of 600 m. The locations of these passing bays are shown in Section 12, Figure 1.

3.4.8 Site Entrances

The proposed wind farm will require three site entrances. These are:

- Entrance 1: Located on Sisters – Garvoc Rd, this entrance will provide access for construction personnel, machinery and materials for all five wind turbine generators and ancillary infrastructure, as well as the site office and staging area;
- Entrance 2: Located on the Princes Hwy, this entrance will provide access for construction of the substation and above ground powerline connecting the substation with the electricity grid; and
- Entrance 3: Located on Coyles Rd, this entrance will be used for delivery of OSOM turbine components.

All three of these site entrances will be located on existing property driveways, meaning there will be no requirement for the creation of new access points. In the case of Entrance 3 works will be required to facilitate delivery of oversize and over-mass turbine (OSOM) components, while in the case of Entrance 1 and Entrance 2 only minor works will be required to facilitate delivery of construction materials and substation components respectively.

At all entrances, irrespective of existing conditions, proposed works will consist of the creation of all-weather engineered gravel surfaces. This will entail at a minimum the removal of topsoil and the layering and compaction of engineered crushed rock to the engineering specification of the relevant wind turbine or high voltage infrastructure supplier. Like the access tracks, the site entrance works will be constructed of locally sourced crushed rock and will be accompanied by spoon drains on both

sides which themselves will be incorporated into the drainage system of the site and the roads with which they intersect. The geometry of the proposed site entrance upgrades has been determined using the swept path assessments contained in this report.

Plans of the site entrances, comparing existing conditions with proposed works, are shown in Section 12 Figures 23 – 25.

3.4.9 Meteorological Mast

It is proposed that one permanent meteorological tower measuring 140 m in height, and associated wind monitoring equipment (anemometer), be located on the subject site. The proposed monitoring mast has setbacks to proposed wind turbine locations of 1379 m (T1), 580 m (T2), 419 m (T3), 1356 m (T4) and 1406 m (T5). The location of this monitoring mast is shown in Section 12, Figure 1 and Section 13, Figure 5, with plan and elevation views of it shown in Section 12, Figures 11 and 12.

3.5 Offsite Intersection Upgrades

Oversize and overmass (OSOM) wind turbine components will be delivered to the site from the port of Portland and will be delivered via the following route: Henty Hwy toward Heywood, right turn onto Princes Hwy, continue on Princes Hwy through Port Fairy and Warrnambool, left turn onto Occupation Lane, turn right onto Terang – Framlingham Rd, turn right onto Sisters – Garvoc Rd, turn left onto Coyles Rd, continue onto Site Entrance 3.

An independent assessment of the proposed OSOM route concluded that it presents a low risk to transport infrastructure and will only require temporary works in order to accommodate the proposed turning movements. Proposed works along the OSOMS route are limited to the temporary relocation of electrical infrastructure and road furniture, and the construction of temporary gravel hardstands.

The transport route for turbine components and swept path diagrams are presented in Section 13 Figures 13 through 24. For more information about potential impacts to the traffic network please refer to the Preliminary Transport Assessment in Volume 2.

3.6 Signage

It is proposed that a single permanent business identification sign be located at each of the site entrances for the purposes of identifying the wind farm and communicating safety information. This signage will have a total display area of less than 3 sqm, be no greater than 2.5 m in height, and will be fixed to either the site entrance gate or to a metal frame in close proximity to the site entrance gate. An elevation of the proposed signage is included at Section 12, Figure 21, and the locations of the signs are shown in Section 12, Figure 22.

3.7 Native Vegetation Removal

A permit is required under Clause 52.17 to remove 0.136 Ha of native vegetation across the subject site. This vegetation clearance is located in two LGAs, namely the Moyne and Corangamite LGAs, within which vegetation clearance is associated with the development footprint of the project. Within the Moyne Shire Council LGA, native vegetation clearance comprises a total of 0.089 hectares of native vegetation patches and two Large Trees. As such, within the Moyne Planning Scheme the permit application falls under the Intermediate assessment pathway, and the offset requirement for native vegetation removal is 0.019 General Habitat Units and 2 Large Trees. Within the Corangamite Shire Council LGA, native vegetation clearance comprises a total of 0.047 hectares. As such, within the Corangamite Planning Scheme the permit application falls under the Basic assessment pathway, and the offset requirement for native vegetation removal is 0.008 General Habitat Units. It is worth noting that wherever possible the alignment of the access tracks has followed existing farm tracks, and the swept path of blade delivery vehicles avoided native vegetation wherever possible, meaning impacts to productive agricultural land and native vegetation have been avoided and minimised wherever possible.

3.8 Aviation Obstacle Lighting

In accordance with the Aviation Impact Assessment which accompanies this application for planning permit, it is proposed that the wind farm is not equipped with aviation obstacle lighting, due to the

low risk the wind farm poses to aviation and the relative impact that aviation lighting has on the surrounding landscape. For further information concerning potential impacts to aviation refer to the Aviation Impact Assessment in Volume 2.

3.9 Temporary Works

A temporary site office and a number of temporary laydown areas will be required for construction of the wind farm. The site office area will be located in the centre of the site, and will house the site office and amenities, allow for storage of shipping containers and wind turbine components, and provide parking facilities. This site office and staging area will measure up to 50 m x 100 m and will be paved with locally sourced crushed rock. At the completion of construction, the site office and staging area will be remediated to the satisfaction of the owner of the land on which it is located. A laydown area of up to 100 m x 100 m will be located adjacent to the site office area and will be used to store wind turbine blades, nacelles and other OSOM components and machinery. The laydown area will also be paved with locally sourced crushed rock or other suitable paving material as required by the turbine manufacturer. At the completion of construction, the laydown area will also be remediated to the satisfaction of the owner of the land on which it is located. The locations and dimensions of the site office and staging area and the laydown area are shown in Section 12, Figure 18, while plans and elevations of the site office and amenity buildings to be located in the site office area are shown in Section 12 Figures 18 and 19.

Given the size of the proposed wind farm and its location in relative proximity to Cobden, Terang, and Warrnambool it is anticipated there will be no requirement for a concrete batching plant. However, should a concrete batching plant be required the proposed laydown area will be used for this purpose.

4 Site and Context Analysis

The subject site was selected because it is highly suitable for a wind energy facility, possessing a high quality wind resource, being in close proximity to supporting infrastructure, and being away from sensitive land uses. The present state of the subject site and its surrounds is addressed in this section.

4.1 Subject Site

The land comprising the subject site is detailed in Section 3 above. The existing conditions of this land are detailed in this section.

4.1.1 Topography

The subject site is relatively flat, with a gentle consistent slope leading from an elevation of 111 m in the north of the site to 99 m in the south of the site. Elevation contours, drainage lines, and other topographic features of the subject site are shown in Section 13, Figure 10.

4.1.2 Existing Land Use

The land defined by the subject site is used for grazing and dairy farming. There are four occupied dwellings located on the parcels which comprise the subject site, all of which belong to participating landowners. Existing access to the site (for its current use) is via a combination of well-constructed and poorly constructed farm tracks which feed a network of smaller unformed farm tracks that traverse the site. There are a number of small farm dams scattered throughout the site, as well as a range of farm buildings including dairies, haystacks, grain silos and storage sheds, the majority of which are located in clusters throughout the site. These features are shown in Section 13, Figure 7.

4.1.3 Existing Vegetation and Habitat

The subject site is highly modified due to its use as an operating dairy farm and is generally comprised of pasture paddocks bordered by planted windrows and intersected by constructed farm tracks.

Native vegetation within and immediately adjacent to the ecological assessment area is representative of three EVCs, namely Heavier Soils Plains Grassland (132), Plains Grassy Wetland (EVC 125), and Plains Grassy Woodland (EVC 55). The presence of these EVCs is generally consistent with the modelled pre-1750s and extant (2005) modelled native vegetation mapping (DELWP 2022a). A total of eight scattered trees were also recorded in the ecological assessment area. Specific details relating to the observed EVCs and Scattered Trees are provided below.

Heavier Soils Plains Grassland is generally described a treeless vegetation dominated by graminoids and herbs. The EVC is present on fertile, cracking basalt soils prone to seasonal waterlogging (DEECA 2023c). Within the ecological assessment area, two small discrete patches of Plains Grassland were present within the road reserve of Coyles Road, however weed cover was high in both patches.

Plains Grassy Wetland is typically dominated by grasses, small sedges and herbs that are tolerant of periodic inundation, and is usually species poor in the wetter, central areas and species rich in the drier, outer areas (DELWP 2022c). Adjacent to the current development footprint, Plains Grassy Wetland was recorded around the edge of artificial waterbodies (farm dams), or within shallow, low-lying depressions that formed ephemeral wetlands after sustained periods of rainfall. Apart from patches recorded around an artificial waterbody, all areas of Plains Grassy Wetland displayed high weed cover.

Plains Grassy Woodland is generally described as an open eucalypt woodland, or acacia/Sheoak woodland over fertile soils. Within public land that intersected the ecological assessment area, much of the native vegetation present appears to be the result of replanting and/or revegetation activities; the majority of which is in the form of dense stands of Black Wattle Acacia mearnsii and Blackwood Acacia melanoxylon, with the occasional specimen of Lightwood Acacia implexa also present.

A total of eight scattered trees were also recorded within the ecological assessment area, which consisted of five large scattered trees and three small scattered trees. These trees would have once formed part of the Plains Grassy Woodland or Plains Grassland EVC; however, the understorey

vegetation contained predominantly introduced species (mainly exotic pasture grasses) and the trees no longer formed a patch of native vegetation.

The remainder of the subject site is highly modified and actively grazed and comprised typically of improved pastures, with some areas showing outbreaks of noxious weed species.

In terms of habitat, the patches of Plains Grassland and Plains Grassy Woodland may support a diverse community of small mammals and birds, which can also provide an important food resource for native raptors. However, these patches of native vegetation would only provide low to moderate quality habitat to native fauna due to high levels of disturbance and modification from the natural state.

For further information concerning existing flora and habitat values of the subject site please refer to the Ecological Assessment in Volume 2. Flora, vegetation and fauna habitat identified by the Ecological Assessment are presented in Section 13, Figure 8.

4.1.4 Cultural Heritage

The subject site is located with the boundary of the Eastern Maar Registered Aboriginal Party. There are no areas of cultural heritage sensitivity located within the subject site, and therefore there is no requirement for a mandatory Cultural Heritage Management Plan (CHMP). Nevertheless, a voluntary CHMP was prepared and has been approved by the Registered Aboriginal Party. The activity area (also defined as the development footprint) and areas of cultural heritage sensitivity located in the vicinity of the subject site are shown in Section 13, Figure 9.

4.1.5 Wind Characteristics

The subject site is located in one of Australia's premier wind regions and is surrounded by an open landscape free of obstructions and as a result receives undisturbed wind flow with strong consistent wind speeds.

4.2 **Surrounding Area**

4.2.1 Landscape

The landscape of the subject site and its surrounds is characterised by its history of agricultural land use. The subject site exhibits features characteristic of agricultural landscapes in Western Victoria, such as fence lines, shelterbelts, lightly formed farm tracks, and various farm buildings. The subject site is predominantly cleared of trees, with the exception of a small number of shelterbelts of both exotic and native origin. There are a number of commercial blue gum plantations in the general vicinity of the subject site. There are no notable rocky features or significant bodies of water or watercourses located on or near the subject site. From a regional perspective the landscape surrounding the subject site is characterised as level to gently undulating, and is a highly modified agricultural landscape. The landscape features of the site and its surrounds are shown in Section 13, Figure 10.

4.2.2 Proximity to Dwellings

There are no dwellings located within 1000 m of a proposed wind turbine location. There are four dwellings belonging to participating landowners, one dwelling belonging to a non-participating landowner, and one farmworker accommodation unit belonging to a non-participating landowner, located within 1500 m of a proposed wind turbine location. The distance and bearing of all dwellings and farmworker accommodation units located within 2000 m of a wind turbine generator are shown in Table 1. The locations of these dwellings in relation to the wind farm are shown in Section 13, Figure 6.

4.2.3 Proximity to National Power Grid

The site is located directly adjacent to its proposed point of connection with the national power grid, namely an existing powerline which is located in the road reserve of the Princes Hwy. Accordingly, with the exception of the above ground cable connecting the substation to the proposed point of connection, no new powerlines will be required in order to connect the proposed wind farm to the national electricity grid.

4.2.4 Proximity to Other Wind Farms

There are many proposed and operating wind farms in southwest Victoria. The three closest operating wind farms are Mortlake South Wind Farm (15 km northwest), Timboon West Wind Farm (29 km south) and Ferguson Wind Farm (47 km southeast). The Mortlake South Wind Farm consists of 35 wind turbine generators with a total tip height of up to 186 m. The Timboon West Wind Farm consists of two wind turbine generators with a total tip height of up to 150 m. The Ferguson Wind Farm consists of three wind turbine generators with a total tip height of 200 m. The location of these wind farms is shown in Section 13, Figure 11.

4.2.5 Proximity to Aviation Facilities

The Aviation Impact Assessment (AIA) identified that there are two certified airports and two aerodromes located in the vicinity of the wind farm. The two certified airports are the Warrnambool Airport, which is located approximately 34 km from the proposed wind farm, and the Peterborough Airport, which is located approximately 37 km from the proposed wind farm. The two aerodromes consist of the Cobden Aerodrome which is located at a distance of 20 km from the proposed wind farm, and a private airstrip located at Dixie Victoria which is located approximately 10 km from the wind farm. The AIA found that the proposed wind farm will not have an impact on any of these aviation facilities. The location of these aerodromes are shown in Section 13, Figure 12. For further information concerning potential impacts refer to the Aviation Impact Assessment in Volume 2.

4.2.6 Access to Heavy Industry and Transport Infrastructure

The subject site is well serviced by existing road infrastructure, being located on a national highway, namely the Princess Hwy. Being in close proximity to the regional city of Warrnambool and the regional towns of Cobden and Terang, the proposed wind farm is well placed in relation to heavy industry such as concrete plants and quarries, and light industry such as equipment hire.

4.2.7 Proximity to Amenities and Other Notable Features

Other notable features of the area include:

- Old Garvoc Hall (not in use), located 2.3 km south-west of the nearest wind turbine;
- Garvoc CFA, located 3.0 km south-west of the nearest wind turbine; and
- Garvoc Community Hall located 3.0 km south-west of the nearest wind turbine.

Given the distances separating the wind farm from these land uses, and the nature of the particular activities that accompany them, it is anticipated that the wind farm will have no impact on these other notable features.

5 Design Response

The design of the proposed wind farm has been informed by the context of the site and its surrounds. In particular, the wind farm design has been through three iterations, each of which has resulted in a reduction of known or potential impacts to environmental and/or amenity values. The design objectives driving these iterations, as well as the selection of the site, are outlined below.

5.1 Design Objectives

Both the identification of a wind farm site, and the subsequent design of a wind farm on that site, require the project proponent to balance a number of competing design objectives. These include the requirement of the relevant planning schemes to consider the following:

- Potential impacts on environmental values;
- Potential impacts on the amenity of nearby residents, in particular due to shadow flicker, noise and landscape impacts;
- Potential impacts to essential infrastructure such as aerodromes and telecommunications facilities; and
- The proximity of the proposed use and development to appropriate supporting infrastructure, in particular the national electricity network and road infrastructure.

Further, in identifying a wind farm site and developing a wind farm layout for that site, project proponents must also consider engineering and commercial considerations, such as the following:

- The overall capacity of the project;
- The separation distance between wind turbines, due to its influence on energy production;
- The setback distances between wind turbines and nearby dwellings;
- The accessibility of the site; and
- The proximity of the site to a commercially viable point of connection with the electricity grid.

5.2 Site Identification

In the first instance the site of the proposed wind farm was identified on the basis that it meets the following criteria:

- It is located in a region of the national electricity network that has capacity available for the connection of an additional wind farm;
- It is located sufficiently close to a proposed point of connection with the national electricity network such that it is commercially viable to connect the wind farm to the network;
- It is located in an area with sufficient setbacks to neighbouring dwellings to ensure potential impacts to community amenity are acceptable;
- It receives undisturbed wind flow with strong consistent winds;
- It is located in an area dedicated to agricultural land uses that are compatible with a wind energy facility;
- It is well served by existing transport infrastructure;
- It is located away from critical infrastructure that is susceptible to interference from wind energy facilities, such as aerodromes and telecommunications facilities;
- It is located away from significant townships, landscapes, tourist destinations and recreation areas;
- It is located away from national parks, state parks, coastal reserves and significant wetlands;

- It is not located in an area with known significant Aboriginal cultural heritage; and
- It is not located in an area with high Aboriginal archaeological potential.

Significantly, at a time when the Victorian electricity network is reaching capacity, and as a result greenfield high-voltage powerlines are becoming a necessary accompaniment of renewable energy facilities, the site of the proposed Swansons Lane Wind Farm represents a rare opportunity to connect a wind farm to the national electricity market without the need for upgrades to the Victorian electricity network.

5.3 Wind Farm Design

5.3.1 Design Iteration One

Once the wind farm site was identified, the first iteration of the wind farm design was prepared and consisted of seven wind turbine generators. This design sought primarily to maximise setbacks to existing dwellings, while minimising impacts to known flora and fauna values, and complying with the requirements of the participating landowners. Impacts to flora and fauna values were minimised by:

- Locating proposed access tracks on the site of existing farm tracks;
- Locating wind turbines and ancillary infrastructure away from native vegetation wherever possible; and
- Making vegetation clearance the limiting factor in the design of the delivery route and turning movements of blade delivery vehicles.

5.3.2 Design Iteration Two

The second iteration of the wind farm design was informed by a more detailed survey of nearby dwellings and accommodation units, as well as feedback received in relation to potential habitat for the Southern Bent-wing Bat (SBWB). In particular, the second revision of the wind farm design sought to increase the minimum distance between a nearby accommodation unit and the nearest wind turbine, as well as decrease the number of potential SBWB habitat features located within 200 m of a proposed wind turbine location (please note this distance was measured in relation to the blade tip, meaning it equates to a distance of approximately 260 m from the tower after taking account of the geometry of the proposed wind turbine). This was due to the fact that the first iteration of the design resulted in:

- One wind turbine being located approximately 1 km from the nearest farmworker accommodation unit; and
- The following setbacks to potential SBWB habitat features:
  - Two wind turbines within 200 m of a blue gum plantation;
  - One wind turbine within 200 m of a farm dam; and
  - Seven wind turbines located within 200 m of a planted windrow.

Accordingly, a second design iteration was developed that sought to increase the minimum distance to the nearest farmworker accommodation unit and reduce the number of wind turbines that are located within 200 m of potential SBWB habitat. These outcomes were achieved by removing one turbine from the wind turbine layout and by relocating the remaining wind turbines closer together. These design measures resulted in a reduction in the overall capacity of the wind farm of approximately 14%, as well as a reduction in the efficiency of the wind farm due to reduced separation distances resulting in increased wake losses, both of which will result in lower energy production. However, the changes made as part of the second iteration of the wind farm design resulted in:

- The distance to the nearest farmworker accommodation unit being increased to over 1300 m, thereby reducing potential impacts associated with shadow flicker and noise; and
- The following setbacks to potential SBWB habitat features:
  - Two wind turbines being located within 200 m of a blue gum plantation;

- One wind turbines being located within 200 m of a farm dam;
- Four wind turbines being located within 200 m of a planted windrow.

5.3.3 Design Iteration Three

The third and current iteration of the wind farm design was developed in response to information gathered during consultation with nearby residents, as well as the goal of further reducing potential impacts to SBWB. In particular, during consultation it came to light that a neighbouring landowner planned to rebuild a dwelling that had burnt down during the St Patrick's Day fires of 2018, and which therefore was not in existence at the time dwellings were surveyed as part of the first and second wind farm designs. In order to achieve the goals of achieving a suitable setback between this former dwelling location and the nearest turbine, and reducing the number of wind turbines within 200 m of potential SBWB habitat, a further turbine was removed from the wind farm layout and remaining turbines relocated yet further closer together. These design measures resulted in a further reduction in both the capacity and the efficiency of the wind farm, which in turn further reduced estimated energy production. In part, the commercial impact of removing a further turbine from the wind farm layout was offset by proposing a slightly larger candidate wind turbine model. The changes made as part of the second iteration of the wind farm design resulted in:

- The distance to the nearest dwelling (that which had burnt down) being over 1400 m;
- The distance to the nearest farmworker accommodation unit being over 1500 m; and
- The number of turbines located within 200 m of the following potential SBWB habitat:
  - One wind turbines being located within 200 m of blue gum plantations;
  - Zero wind turbines being located within 200 m of a farm dam;
  - Three wind turbines located being located within 200 m of planted windrows.

As is evident from the summary above, with each revision of the wind farm design all reasonable attempts have been made to place wind turbines further than 200 m from potential Southern Bent-wing Bat habitat, with a hierarchy of habitat types adopted according to which waterbodies were the highest priority, blue gum plantations the next most important habitat type, and planted windrows being the lowest priority. It is for this reason that, of the final turbine locations selected, none encroach within 200 of a waterbody, only one encroaches within 200 m of a plantation, and three encroach within 200 m of planted shelterbelts.

In relation to the remaining turbines located within 200 m of a blue gum plantation and/or planted windrows, it is important to note that, in spite of the subject site being highly modified and extensively cleared of vegetation, it was practically impossible to locate all five wind turbines further than 200 m from all forms of potential SBWB habitat, while also complying with other regulatory requirements pertaining to shadow flicker and noise emissions, as well as the minimum separation distances required between individual wind turbines.

In relation minimum separation distances between individual wind turbines, a modest target separation distance of six rotor diameters, or 1032 m, was adopted, even though the industry standard is ten rotor diameters, or 1720 m. Importantly, the final layout complies with neither of these targets, with the nearest non-participating dwelling being located just over 1400 m from the nearest wind turbine, and only one turbine enjoying a minimum separation distance of over six rotor diameters. Accordingly, the final wind farm design represents a compromise between competing design criteria.

The target setback and separation distances discussed above are shown in Section 13 Figure 29, together with nearby dwellings, flora and fauna values, and other relevant features of the site.

5.3.4 Further Mitigation measures

As a further mitigation measure it is also proposed that the wind farm is subjected to a regime of nighttime low wind speed curtailment during the spring and autumn months, when SBWB activity is at its greatest. Low wind speed curtailment is a design measure that increases the minimum speed at which wind turbines commence operating. By increasing this minimum wind speed, wind farm operators can reduce the amount of time wind turbines are operating while SBWB are potentially

flying over the site, which has been shown to significantly reduce bat collisions with wind turbines. It is proposed that the final details of the nighttime low wind speed curtailment regime are determined as part of a Bat and Avifauna Management Plan, to be prepared to the satisfaction of DEECA prior to the commencement of construction in accordance with standard wind farm planning permit conditions.

6 Planning Provisions—Corangamite Planning Scheme

The following is an outline of the key provisions of the first of the two relevant planning schemes that apply to the proposal, namely the Corangamite Planning Scheme. The second planning scheme which is relevant to the proposal, namely the Moyne Planning Scheme, is addressed in the following section. Other relevant legislation and policies are outlined in Section 6. A full assessment of the proposal against the provisions outlined in Sections 6, 7 and 8 is provided in Sections 9 and 10.

6.1 Permit Triggers

A planning permit is required under the following clauses of the Corangamite Planning Scheme:

- Clause 35.07-1 (Farming Zone): Use of a wind energy facility; use of a utility installation;
- Clause 35.07-4 (Farming Zone): Buildings and works associated with Section 2 Use (wind energy facility and utility installation); works within 20 metres of a road; works within 5 metres from a boundary;
- Clause 36.04-1 (Transport Zone 2): Buildings and works associated with Section 2 Use (utility installation);
- Clause 52.05 (Signs): Construct or put up for display a business identification sign;
- Clause 52.17 (Native Vegetation): Remove, destroy or lop native vegetation;
- Clause 52.29 (Land adjacent to the principal road network): Create or alter access to a road in a Transport 2 Zone; and
- Clause 52.32 (Wind Energy Facility): Use and development of land for a wind energy facility.
- Clause 53.22 (Significant Economic Development): Use and development of land for a renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

This application also seeks approval for car parking spaces provided to the satisfaction of the responsible authority in accordance with Clause 52.06-6.

6.2 Referral Triggers

6.2.1 Cl 66.03 Land adjacent to principal road network

Under Clause 66.03 an application under Clause 52.29 to create or alter access to a road declared as a freeway or arterial road under the *Road Management Act 2004* must be referred to the Head of Transport for Victoria as a determining referral authority.

6.3 Zoning Provisions

The majority of that part of the subject site which is located within the Corangamite Planning Scheme is located within the Farming Zone of said planning scheme, while two small areas are located within the Transport Zone 2 of the same planning scheme for the purposes of access and electrical reticulation.

6.3.1 Farming Zone

The relevant purposes of the Farming Zone are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To provide for the use of land for agriculture;
- To encourage the retention of productive agricultural land;
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture;
- To encourage the retention of employment and population to support rural communities; and
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

A permit is required under the provisions of the Farming Zone.

6.3.2 Transport Zone 2

The relevant purposes of the Transport Zone 2 are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To provide for an integrated and sustainable transport system;
- To identify transport land use and land required for transport services and facilities;
- To provide for the use and development of land that complements, or is consistent with, the transport system or public land reservation; and
- To ensure the efficient and safe use of transport infrastructure and land comprising the transport system.

A permit is required under the provisions of the Transport Zone 2.

Land zoning on and around the subject site is shown in Section 13, Figure 3.

6.4 Overlay Provisions

There are no relevant overlays that affect the subject site.

The Bushfire Management Overlay affects parts of the site however there are no relevant permit triggers associated with the use and development of a wind energy facility and utility installation.

The Special Controls Overlay adjoins the site to the southeast and is associated with the rail line that transects the site.

Planning overlays on and around the subject site are shown in Section 13, Figure 4.

6.5 Particular Provisions

6.5.1 Clause 52.05 – Signs

The purposes of Clause 52.05 are:

- To regulate the development of land for signs and associated structures.
- To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.
- To ensure signs do not contribute to excessive visual clutter or visual disorder.
- To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.

Clause 35.07-7 of the Farming Zone specifies that sign requirements in this zone are as per the provisions of Clause 52.05, and that the Farming Zone is a Category 4 area. The purpose of Category 4 is to provide for unobtrusive signs in areas requiring strong amenity control.

In Category 4 areas a permit is required to construct or put up for display a business identification sign, and the total display area allowed is 3sqm per premises.

Business signage up to 3sqm is proposed and therefore a permit is required.

6.5.2 Clause 52.06 – Car Parking

Table 1 at Clause 52.06 of the Corangamite Planning Scheme outlines the car parking requirements associated with various uses. A wind energy facility or utility installation is not listed in Table 1. Clause 52.06-6 states that:

Where a use of land is not specified in Table 1 or where a car parking requirement is not specified for the use in another provision of the planning scheme or in a schedule to the Parking Overlay, before a new use commences or the floor area or site area of an existing use is increased, car parking spaces must be provided to the satisfaction of the responsible authority.

Therefore, no permit is required under Clause 52.06 for the application, however parking for the new use of a wind energy facility and utility installation must be provided to the satisfaction of the responsible authority and this application seeks that approval.

6.5.3 Clause 52.17 – Native Vegetation

The purpose of this clause is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):

1. Avoid the removal, destruction or lopping of native vegetation.
2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

The purpose of this clause is also to manage the removal, destruction or lopping of native vegetation to minimise land and water degradation.

If a permit is required to remove, destroy or lop native vegetation, the biodiversity impacts from the removal, destruction or lopping of native vegetation must be offset, in accordance with the Guidelines. The conditions on any planning permit that allows removal, destruction or lopping of native vegetation must specify the offset requirement and the timing to secure the offset.

The first step in determining the type of assessment required for any site in Victoria is to determine the assessment pathway for the proposed native vegetation removal. The three possible assessment pathways for applications to remove native vegetation in Victoria are:

- Basic
- Intermediate; or
- Detailed.

The assessment pathway is determined by two factors being the Location Category and the Extent of Native Vegetation.

A permit is required under Clause 52.17 to remove 0.136 Ha of native vegetation across the subject site, with native vegetation clearance required in two LGAs, namely the Moyne and Corangamite LGAs, within which vegetation clearance is associated with the development footprint of the project. in which the subject site is located. Within the Moyne Shire Council LGA, native vegetation clearance comprises a total of 0.089 hectares of native vegetation patches and two Large Trees. As such, within the Moyne Planning Scheme the permit application falls under the Intermediate assessment pathway, and the offset requirement for native vegetation removal is 0.019 General Habitat Units and 2 Large Trees. Within the Corangamite Shire Council LGA, native vegetation clearance comprises a total of 0.047 hectares. As such, within the Corangamite Planning Scheme the permit application falls under the Basic assessment pathway, and the offset requirement for native vegetation removal is 0.008 General Habitat Units. It is worth noting that wherever possible the alignment of the access tracks has followed existing farm tracks, and the swept path of blade delivery vehicles avoided native vegetation. This means impacts to productive agricultural land and native vegetation have been avoided and minimised wherever possible.

6.5.4 Clause 52.29 Land Adjacent to the Principal Road Network

The relevant purpose of Clause 52.29 is:

- To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.

A permit is required because a new use is proposed on land adjacent to Princes Highway (TRZ2 road) where there is the potential for changes in traffic entering or exiting the road.

6.5.5 Clause 52.32 Wind Energy Facility

The purpose of Clause 52.32 is to facilitate the establishment and expansion of wind energy facilities, in appropriate locations, with minimal impact on the amenity of the area.

Clause 52.32 stipulates that a permit is required to use and develop land for a Wind energy facility, and that the use and development of land for a Wind energy facility is prohibited in locations listed in the table to Clause 52.32-2.

An application for a planning permit to use and develop land for a Wind Energy Facility must be accompanied by the following information as appropriate:

- Site and context analysis:
    - Site shape, dimensions and size;
    - Orientation and contours;
    - Current land use;
    - The existing use and siting of buildings or works on the land;
    - Existing vegetation types, condition and coverage;
    - The landscape of the site;
    - Species of flora and fauna listed under the Flora and Fauna Guarantee Act 1988 and the Environment Protection and Biodiversity Conservation Act 1999 (Cwth);
    - Sites of cultural heritage significance;
    - Wind characteristics;
    - Any other notable features, constraints or other characteristics of the site;
- Design response:
    - Existing land uses;
    - Above-ground utilities;
    - Access to infrastructure;
    - Direction and distances to nearby dwellings, townships, urban areas, significant conservation and recreation areas, water features, tourist routes and walking tracks, major roads, airports, aerodromes and existing and proposed wind energy facilities;
    - The siting and use of buildings on adjacent properties;
    - Views to and from the site, including views from existing dwellings and key vantage points including major roads, walking tracks, tourist routes and regional population growth corridors;
    - Sites of flora and fauna listed under the Flora and Fauna Guarantee Act 1988 and Environment Protection and Biodiversity Conservation Act 1999 (Cwth), including significant habitat corridors, and movement corridors for these fauna;
    - Sites of cultural heritage significance;
    - National Parks, State Parks, Coastal Reserves and other land subject to the National Parks Act 1975;
    - Land declared a Ramsar wetland as defined under section 17 of the Environment Protection and Biodiversity Conservation Act 1999 (Cwth);
    - Location of any land included in the schedule to Clause 52.32-2 of the planning scheme
    - Any other notable features or characteristics of the area
    - Bushfire risks
- Mandatory noise assessment carried out as per the provisions of Clause 52.32-4.

- Evidence of written consent of any owner as at the date of the application of an existing dwelling location within one kilometre of a proposed turbine (measured from the centre of the tower at ground level) as per the provisions of Clause 52.32-3.

Before deciding on an application, in addition to the decision guidelines of Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework;
- The effect of the proposal on the surrounding area in terms of noise, blade glint, shadow flicker and electromagnetic interference;
- The impact of the development on significant views, including visual corridors and sightlines;
- The impact of the facility on the natural environment and natural systems;
- The impact of the facility on cultural heritage;
- The impact of the facility on aircraft safety;
- Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (Department of Environment, Land, Water and Planning, July 2021);
- The New Zealand Standard NZS6808:2010, Acoustics - Wind Farm Noise.

A permit is required under this clause for the use and development of the wind energy facility.

6.5.6 Clause 53.22 Significant Economic Development

This clause applies to any renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

The purposes of the clause are to:

- Prioritise and facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy and provide substantial public benefit, including jobs for Victorians.
- Provide for the efficient and effective use of land and facilitate use and development with high quality urban design, architecture and landscape architecture.

Under Clause 53.22-4, the application is exempt from the decision requirements of Sections 64(1), (2) and (3), and the review rights of Sections 82(1) of the Act.

6.6 Planning Policy Framework (PPF)

This section provides an overview of the most relevant sections of the PPF of the Corangamite Planning Scheme, against which the proposal must be assessed. Objectives of these sections are summarised as most relevant to the proposal.

6.6.1 Clause 11.02-1S Supply of Urban Land

The objective of this clause is to ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.

6.6.2 Clause 11.03-5S Distinctive Areas and Landscapes

The objective of this clause is to protect and enhance the valued attributes of identified distinctive areas and landscapes.

6.6.3 Clause 11.03-6S Regional and Local Places

The objective of this clause is to facilitate integrated place-based planning.

6.6.4 Clause 12.01-1S Protection of Biodiversity

The objective of this clause is to assist the protection and conservation of Victoria's biodiversity.

6.6.5 Clause 12.01-2S Native Vegetation

The objective of this clause is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This clause operates in conjunction with clause 52.17.

6.6.6 Clause 12.03-1S River Corridors, Waterways, Lakes and Wetlands

The objective of this clause is to protect and enhance river corridors, waterways, lakes and wetlands.

6.6.7 Clause 12.05-2S Landscapes

The objective of this clause is to protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.

6.6.8 Clause 13.01-1S Natural Hazards and Climate Change

The objective of this clause is to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning.

6.6.9 Clause 13.02-1S Bushfire Planning

This policy applies to land within a designated bushfire prone area and subject to a Bushfire Management Overlay, and therefore applies to the subject site. The subject site is fully within a designated bushfire prone area and is partially subject to a Bushfire Management Overlay.

The objective of this clause is to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.

6.6.10 Clause 13.03-1S Floodplain Management

The objective of this clause is to assist the protection of waterways in terms of their function and environmental health.

6.6.11 Clause 13.05-1S Noise Management

The objective of this clause is to assist the control of noise effects on sensitive land uses. The Environment Protection Regulations under the Environment Protection Act 2017 should be considered as relevant, along with the Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues (EPA May 2021).

Clause 52.32 contains further guidance for wind energy facilities in relation to appropriate noise limits and assessment methods.

6.6.12 Clause 13.07-1S Land Use Compatibility

The objective of this clause is to protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts.

6.6.13 Clause 14.01-1S and 14.01-1L Protection of Agricultural Land

The objective of this clause is to protect the state's agricultural base by preserving productive farmland.

6.6.14 Clause 14.01-2S Sustainable Agricultural Land Use

The objective of this clause is to encourage sustainable agricultural land use.

6.6.15 Clause 14.02-1S Catchment Planning and Management

The objective of this clause is to assist the protection of restoration of catchments, waterways, estuaries, water bodies, groundwater and the marine environment.

6.6.16 Clause 15.01-6S Design for Rural Areas

The objective of this clause is to ensure development respects valued areas of rural character.

6.6.17 Clause 15.03-1S Heritage Conservation

The objective of this clause is to ensure the conservation of places of heritage significance.

6.6.18 Clause 15.03-2S Aboriginal Cultural Heritage

The objective of this clause is to ensure the protection and conservation of places of Aboriginal cultural heritage significance.

6.6.19 Clause 17.01-1S Diversified Economy and 17.01-1R Diversified Economy – Great South Coast

The objective of this clause is to strengthen and diversify the economy with a focus on agriculture.

6.6.20 Clause 18.02-4S Roads and Clause 18.02-4L Road system

The objective of this clause is to facilitate an efficient and safe road network that integrates all movement networks and makes best use of existing infrastructure.

6.6.21 Clause 18.02-7S Airports and Airfields

The objective of the clause is to strengthen the role of Victoria's airports and airfields within the state's economic and transport infrastructure, facilitate their siting and expansion, and protect their ongoing operation.

6.6.22 Clause 19.01-1S Energy Supply

The objective of this clause is to facilitate appropriate development of energy supply infrastructure. This is a key clause. Strategies seek to support renewable energy and greenhouse emission reductions, and provide new energy facilities in strategic locations.

6.6.23 Clause 19.01-2S Renewable Energy and 19.01-2R Renewable Energy – Great South Coast

The objective of this clause is to promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met. This is a key overarching clause for assessment of the application.

Strategies include:

- Facilitate renewable energy development in appropriate locations.
- Protect energy infrastructure against competing and incompatible uses.
- Develop appropriate infrastructure to meet community demand for energy services.
- Set aside suitable land for future energy infrastructure.
- Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.
- Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.
- Plan for and sustainably manage the cumulative impacts of alternative energy development.

6.6.24 Clause 19.03-4S Telecommunications

The objective of this clause is to facilitate the orderly development, extension and maintenance of telecommunication infrastructure.

7 Planning Provisions - Moyne Planning Scheme

The following is an outline of the key provisions of the second of the two relevant planning schemes that apply to the proposal, namely the Moyne Planning Scheme. The first planning scheme which is relevant to the proposal, namely the Corangamite Planning Scheme, is addressed in the previous section. Other relevant legislation and policies are outlined in Section 8. A full assessment of the proposal against the provisions outlined in Sections 6, 7 and 8 is provided in Sections 9 and 10.

7.1 Permit Triggers

A planning permit is required under the following clauses of the Moyne Planning Scheme:

- Clause 35.07-1 (Farming Zone): Use of a wind energy facility; use of a utility installation;
- Clause 35.07-4 (Farming Zone): Buildings and works associated with Section 2 Use (wind energy facility and utility installation); works within 20 metres of a road; works within 5 metres from a boundary;
- Clause 52.05 (Signs): Construct or put up for display a business identification sign;
- Clause 52.17 (Native Vegetation): Remove, destroy or lop native vegetation;
- Clause 52.29 (Land adjacent to the principal road network): Create or alter access to a road in a Transport 2 Zone; and
- Clause 52.32 (Wind Energy Facility): Use and development of land for a wind energy facility, which includes the use and development of a permanent anemometer.
- Clause 53.22 (Significant Economic Development): Use and development of land for a renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

This application also seeks approval for car parking spaces provided to the satisfaction of the responsible authority in accordance with Clause 52.06-6.

7.2 Referral Triggers

7.2.1 Cl 66.03 Land Adjacent to Principal Road Network

Under Clause 66.03 an application under Clause 52.29 to create or alter access to a road declared as a freeway or arterial road under the *Road Management Act 2004* must be referred to the Head of Transport for Victoria as a determining referral authority.

7.3 Zoning Provisions

The majority of that part of the subject site which is located within the Moyne Planning Scheme is located within the Farming Zone of said planning scheme, with one small area located within the Transport Zone 2 of the same planning scheme for the purposes of access.

7.3.1 Farming Zone

The relevant purposes of the Farming Zone are:

- To implement the Municipal Planning Strategy and the Planning Policy Framework;
- To provide for the use of land for agriculture;
- To encourage the retention of productive agricultural land;
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture;
- To encourage the retention of employment and population to support rural communities; and
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

A permit is required under the provisions of the Farming Zone.

Planning zones on and around the wind farm are shown in Section 13, Figure 3.

7.4 Overlay Provisions

There are no relevant overlays that affect the subject site.

The Bushfire Management Overlay affects parts of the site however there are no relevant permit triggers associated with the use and development of a wind energy facility and utility installation.

Planning overlays on and around the subject site are shown in Section 13, Figure 4.

7.5 Particular Provisions

7.5.1 Clause 52.05 – Signs

The purposes of Clause 52.05 are:

- To regulate the development of land for signs and associated structures.
- To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.
- To ensure signs do not contribute to excessive visual clutter or visual disorder.
- To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.

Clause 35.07-7 of the Farming Zone specifies that sign requirements in this zone are as per the provisions of Clause 52.05, and that the Farming Zone is a Category 4 area. The purpose of Category 4 is to provide for unobtrusive signs in areas requiring strong amenity control.

In Category 4 areas a permit is required to construct or put up for display a business identification sign, and the total display area allowed is 3sqm per premises.

Business signage up to 3sqm is proposed and therefore a permit is required.

7.5.2 Clause 52.06 – Car Parking

Table 1 at Clause 52.06 of the Moyne Planning Scheme outlines the car parking requirements associated with various uses. A wind energy facility or utility installation is not listed in Table 1. Clause 52.06-6 states that:

Where a use of land is not specified in Table 1 or where a car parking requirement is not specified for the use in another provision of the planning scheme or in a schedule to the Parking Overlay, before a new use commences or the floor area or site area of an existing use is increased, car parking spaces must be provided to the satisfaction of the responsible authority.

Therefore, no permit is required under Clause 52.06 for the application, however parking for the new use of a wind energy facility and utility installation must be provided to the satisfaction of the responsible authority and this application seeks that approval.

7.5.3 Clause 52.17 – Native Vegetation

The purpose of this clause is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):

- Avoid the removal, destruction or lopping of native vegetation.
- Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
- Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation.

The purpose of this clause is also to manage the removal, destruction or lopping of native vegetation to minimise land and water degradation.

If a permit is required to remove, destroy or lop native vegetation, the biodiversity impacts from the removal, destruction or lopping of native vegetation must be offset, in accordance with the Guidelines. The conditions on any planning permit that allows removal, destruction or lopping of native vegetation must specify the offset requirement and the timing to secure the offset.

The first step in determining the type of assessment required for any site in Victoria is to determine the assessment pathway for the proposed native vegetation removal. The three possible assessment pathways for applications to remove native vegetation in Victoria are:

- Basic
- Intermediate; or
- Detailed.

The assessment pathway is determined by two factors being the Location Category and the Extent of Native Vegetation.

A permit is required under Clause 52.17 to remove 0.136 Ha of native vegetation across the subject site, with native vegetation clearance required in two LGAs, namely the Moyne and Corangamite LGAs, within which vegetation clearance is associated with the development footprint of the project. in which the subject site is located. Within the Moyne Shire Council LGA, native vegetation clearance comprises a total of 0.089 hectares of native vegetation patches and two Large Trees. As such, within the Moyne Planning Scheme the permit application falls under the Intermediate assessment pathway, and the offset requirement for native vegetation removal is 0.019 General Habitat Units and 2 Large Trees. Within the Corangamite Shire Council LGA, native vegetation clearance comprises a total of 0.047 hectares. As such, within the Corangamite Planning Scheme the permit application falls under the Basic assessment pathway, and the offset requirement for native vegetation removal is 0.008 General Habitat Units. It is worth noting that wherever possible the alignment of the access tracks has followed existing farm tracks, and the swept path of blade delivery vehicles avoided native vegetation. This means impacts to productive agricultural land and native vegetation have been avoided and minimised wherever possible.

7.5.4 Clause 52.29 Land Adjacent to the Principal Road Network

The relevant purpose of Clause 52.29 is:

- To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.

A permit is required because a new use is proposed on land adjacent to Princes Highway (TRZ2 road) where there is the potential for changes in traffic entering or exiting the road.

7.5.5 Clause 52.32 Wind Energy Facility

The purpose of Clause 52.32 is to facilitate the establishment and expansion of wind energy facilities, in appropriate locations, with minimal impact on the amenity of the area.

Clause 52.32 stipulates that a permit is required to use and develop land for a Wind energy facility, and that the use and development of land for a Wind energy facility is prohibited in locations listed in the table to Clause 52.32-2.

An application for a planning permit to use and develop land for a Wind Energy Facility must be accompanied by the following information as appropriate:

- Site and context analysis:
    - Site shape, dimensions and size;
    - Orientation and contours;
    - Current land use;
    - The existing use and siting of buildings or works on the land;
    - Existing vegetation types, condition and coverage;
    - The landscape of the site;

    - Species of flora and fauna listed under the Flora and Fauna Guarantee Act 1988 and the Environment Protection and Biodiversity Conservation Act 1999 (Cwth);
    - Sites of cultural heritage significance;
    - Wind characteristics;
    - Any other notable features, constraints or other characteristics of the site;
- Design response:
    - Existing land uses;
    - Above-ground utilities;
    - Access to infrastructure;
    - Direction and distances to nearby dwellings, townships, urban areas, significant conservation and recreation areas, water features, tourist routes and walking tracks, major roads, airports, aerodromes and existing and proposed wind energy facilities;
    - The siting and use of buildings on adjacent properties;
    - Views to and from the site, including views from existing dwellings and key vantage points including major roads, walking tracks, tourist routes and regional population growth corridors;
    - Sites of flora and fauna listed under the Flora and Fauna Guarantee Act 1988 and Environment Protection and Biodiversity Conservation Act 1999 (Cwth), including significant habitat corridors, and movement corridors for these fauna;
    - Sites of cultural heritage significance;
    - National Parks, State Parks, Coastal Reserves and other land subject to the National Parks Act 1975;
    - Land declared a Ramsar wetland as defined under section 17 of the Environment Protection and Biodiversity Conservation Act 1999 (Cwth);
    - Location of any land included in the schedule to Clause 52.32-2 of the planning scheme
    - Any other notable features or characteristics of the area
    - Bushfire risks
- Mandatory noise assessment carried out as per the provisions of Clause 52.32-4.
- Evidence of written consent of any owner as at the date of the application of an existing dwelling location within one kilometre of a proposed turbine (measured from the centre of the tower at ground level) as per the provisions of Clause 52.32-3.

Before deciding on an application, in addition to the decision guidelines of Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework;
- The effect of the proposal on the surrounding area in terms of noise, blade glint, shadow flicker and electromagnetic interference;
- The impact of the development on significant views, including visual corridors and sightlines;
- The impact of the facility on the natural environment and natural systems;
- The impact of the facility on cultural heritage;
- The impact of the facility on aircraft safety;
- Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (Department of Environment, Land, Water and Planning, July 2021);

- The New Zealand Standard NZS6808:2010, Acoustics - Wind Farm Noise.

A permit is required under this clause for the use and development of the wind energy facility.

7.5.6 Clause 53.22 Significant Economic Development

This clause applies to any renewable energy facility with an installed capacity of one megawatt (1 MW) or greater.

The purposes of the clause are to:

- Prioritise and facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy and provide substantial public benefit, including jobs for Victorians.
- Provide for the efficient and effective use of land and facilitate use and development with high quality urban design, architecture and landscape architecture.

Under Clause 53.22-4, the application is exempt from the decision requirements of Sections 64(1), (2) and (3), and the review rights of Sections 82(1) of the Act.

7.6 Planning Policy Framework (PPF) and Local Planning Policy Framework (LPPF)

This section provides an overview of the most relevant sections of the PPF and LPPF, against which the proposal must be assessed. The Moyne Planning Scheme has yet to integrate the LPPF under the PPF therefore LPPF policies are listed under the relevant thematic head of PPF clauses. Objectives of these sections are summarised as most relevant to the proposal.

7.6.1 Clause 11.02-1S Supply of Urban Land

The objective of this clause is to ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.

7.6.2 Clause 11.03-5S Distinctive Areas and Landscapes

The objective of this clause is to protect and enhance the valued attributes of identified distinctive areas and landscapes.

7.6.3 Clause 11.03-6S Regional and Local Places

The objective of this clause is to facilitate integrated place-based planning.

7.6.4 Clause 12.01-1S Protection of Biodiversity, Clause 22.02-2 Rare and Threatened Species and Clause 22.02-8 Flora and Fauna Local Policy

The objective of these clauses is to protect and conserve biodiversity, including rare and threatened species of flora and fauna.

7.6.5 Clause 12.01-2S Native Vegetation, Clause 22.02-4 Susceptibility to Mass Movement and Clause 22.02-5 Pest Plant Management

The objective of these clauses is to ensure retention of native vegetation and promote biodiversity. Clause 12.01-2S aims to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This clause operates in conjunction with Clause 52.17.

7.6.6 Clause 12.03-1S River Corridors, Waterways, Lakes and Wetlands

The objective of this clause is to protect and enhance river corridors, waterways, lakes and wetlands.

7.6.7 Clause 12.05-2S Landscapes

The objective of this clause is to protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.

7.6.8 Clause 13.01-1S Natural Hazards and Climate Change

The objective of this clause is to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning.

7.6.9 Clause 13.02-1S Bushfire Planning, Clause 22.03-8 Fire Protection Local Policy

Clause 13.02-1S applies to land within a designated bushfire prone area and subject to a Bushfire Management Overlay, therefore applies to the subject site. The subject site is fully within a designated bushfire prone area and is partially subject to a Bushfire Management Overlay. The objective of this clause is to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.

Clause 22.03-8 seeks to ensure that land use and development does not increase fire risk.

7.6.10 Clause 13.03-1S Floodplain Management

The objective of this clause is to assist the protection of waterways in terms of their function and environmental health.

7.6.11 Clause 13.05-1S Noise Management

The objective of this clause is to assist the control of noise effects on sensitive land uses. The Environment Protection Regulations under the Environment Protection Act 2017 should be considered as relevant, along with the Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues (EPA May 2021).

Clause 52.32 contains further guidance for wind energy facilities in relation to appropriate noise limits and assessment methods.

7.6.12 Clause 13.07-1S Land Use Compatibility

The objective of this clause is to protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts.

7.6.13 Clause 14.01-1S Protection of Agricultural Land, Clause 14.01-2S Sustainable Agricultural Land Use, Clause 22.03-4 Agricultural Production

The objective of these clauses is to protect the state's agricultural base by preserving productive farmland. Sustainable agricultural land use is encouraged and agriculture is recognised as the most significant land use in the Shire. Diversification of agricultural enterprise is encouraged to ensure the sustainability of these enterprises.

7.6.14 Clause 14.02-1S Catchment Planning and Management

The objective of this clause is to assist the protection and restoration of catchments, waterways, estuaries, water bodies, groundwater and the marine environment.

7.6.15 Clause 15.01-6S Design for Rural Areas

The objective of this clause is to ensure development respects valued areas of rural character.

7.6.16 Clause 15.03-1S Heritage Conservation

The objective of this clause is to ensure the conservation of places of heritage significance.

7.6.17 Clause 15.03-2S Aboriginal Cultural Heritage and 22.01-1 Aboriginal Heritage

The objective of this clause is to ensure the protection and conservation of places of Aboriginal cultural heritage significance.

7.6.18 Clause 17.01-1S Diversified Economy and 17.01-1R Diversified Economy – Great South Coast

The objective of this clause is to strengthen and diversify the economy with a focus on agriculture.

7.6.19 Clause 18.02-4S Roads

The objective of this clause is to facilitate an efficient and safe road network that integrates all movement networks and makes best use of existing infrastructure.

7.6.20 Clause 18.02-7S Airports and Airfields

The objective of the clause is to strengthen the role of Victoria's airports and airfields within the state's economic and transport infrastructure, facilitate their siting and expansion, and protect their ongoing operation.

7.6.21 Clause 19.01-1S Energy supply

The objective of this clause is to facilitate appropriate development of energy supply infrastructure. This is a key clause. Strategies seek to support renewable energy and greenhouse emission reductions, and provide new energy facilities in strategic locations.

7.6.22 Clause 19.01-2S Renewable Energy and 19.01-2R Renewable Energy – Great South Coast

The objective of this clause is to promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met. This is a key overarching clause for assessment of the application.

Strategies include:

- Facilitate renewable energy development in appropriate locations.
- Protect energy infrastructure against competing and incompatible uses.
- Develop appropriate infrastructure to meet community demand for energy services.
- Set aside suitable land for future energy infrastructure.
- Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.
- Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year.
- Plan for and sustainably manage the cumulative impacts of alternative energy development.

7.6.23 Clause 19.03-4S Telecommunications

The objective of this clause is to facilitate the orderly development, extension and maintenance of telecommunication infrastructure.

8 Other Relevant Legislation and Policies

Relevant legislation, standards, and guidelines, including those referred to in the Corangamite and Moyne Planning Schemes, are outlined in this section.

A combined assessment of the proposal against the relevant sections of the Moyne and Corangamite Planning Schemes is provided in Sections 9 and 10.

8.1 Policy and Planning Guidelines for Development of Wind Energy Facilities

The Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (the Guidelines) are a reference document under the Corangamite Planning Scheme and Moyne Planning Scheme at Clauses 19.01 and 52.32.

The guidelines form a key overarching policy framework for assessment of wind energy facility planning permit applications. The guidelines outline how the Victorian Government will facilitate the appropriate development of wind energy facilities, balancing environmental, social and economic outcomes.

Accordingly the Guidelines set out a decision-making framework within which the environmental and economic benefits of proposed wind farms are assessed against their potential impacts on matters of federal, state and local importance. The considerations that factor into this equation include:

- Proximity to dwellings;
- Potential impacts to native flora and fauna;
- Potential impacts to Aboriginal and historical cultural heritage;
- Potential impacts to landscape values;
- Noise impacts;
- Shadow flicker;
- Electromagnetic interference; and
- Impacts to aviation.

Section 10 of this report assesses this application against the key thematic issues identified by the Guidelines.

8.2 New Zealand Standard NZS 6808:2010 Acoustics – Wind Farm Noise

The New Zealand Standard NZS 6808:2010 is identified as the relevant noise standard for assessment of wind farm applications under the Guidelines and at Clause 52.32 of the Corangamite Planning Scheme and Moyne Planning Scheme.

The objective of the NZS 6808:2010 is to avoid adverse noise effects of wind farms. NZS 6808:2010 defines the allowable noise limit of wind farms in the following terms:

As a guide to the limits of acceptability at a noise sensitive location, at any wind speed, wind farm sound levels (LA90(10 min)) should not exceed the background sound level by more than 5 dB, or a level of 40 dB LA90(10 min), whichever is the greater.

According to NZS 6808:2010 a noise sensitive location means:

The location of a noise sensitive activity, associated with a habitable space or education space in a building not on the wind farm site.

At Section 5.4.2 the noise standard also requires that wind turbine sound levels with special audible characteristics (such as tonality, impulsiveness and amplitude modulation) shall be adjusted by arithmetically adding up to 6 dB to the measured level at the noise sensitive location.

The application has been assessed against the requirements of the NZS 6808:2010 as required by the Corangamite Planning Scheme. Further details are contained in Sections 8 and 9 of this report and within the specialist noise report that accompanies the application.

8.3 Environment Protection Act 2017 and Environment Protection Regulations 2021

From 1 July 2021, the Environment Protection Act (EP Act) introduced changes to position the EPA as the single regulator of operational wind turbine noise. The EP Act introduces a 'general environmental duty' and 'unreasonable noise' provisions that apply to wind turbine noise emissions at wind energy facilities. The Environment Protection Regulations 2021 (Vic) also set specific requirements for compliance.

These requirements address the general environmental duty to minimise harm to human health and the environment, and also stipulate that wind energy facilities must not emit unreasonable noise. Under the regulations, operators of wind energy facilities must make sure they:

- Comply with the NZ standard;
- Implement a noise management plan;
- Implement a complaints management plan;
- Provide an annual statement with details of complaints, maintenance activities, and noise remediation actions during the previous 12 months; and
- Undertake noise monitoring procedures every five years to ensure ongoing compliance with the relevant noise limits.

8.4 Aboriginal Heritage Act 2006 and Aboriginal Heritage Regulations 2018

The Aboriginal Heritage Act 2006 came into effect on 28 May 2007 to replace the Archaeological and Aboriginal Relics Preservation Act 1972 and Part IIA of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984.

According to the Aboriginal Heritage Act 2006 and Aboriginal Heritage Regulations 2018, an application for planning permission must be accompanied by a Cultural Heritage Management Plan (CHMP) if the action proposed is both a high impact activity and is located in an area of cultural heritage sensitivity. If the proposed action does not meet both these criteria, it is not necessary to prepare a CHMP to accompany an application for planning permission; however, project proponents may still prepare a CHMP voluntarily.

The project is not within any areas of Aboriginal cultural heritage sensitivity and a mandatory CHMP is not required. Nevertheless, a voluntary CHMP was prepared and has been approved by the Registered Aboriginal Party

8.5 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) came into force on 16 July 2000. The EPBC Act protects matters of National Environmental Significance. The objectives of the EPBC Act are as follows:

- To provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;
- To promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;
- To promote the conservation of biodiversity;
- To provide for the protection and conservation of heritage;

- To promote a cooperative approach to the protection and management of the environment involving governments, the community, landholders and Indigenous peoples;
- To assist in the cooperative implementation of Australia's international environmental responsibilities;
- To recognise the role of Indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- To promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

Under the EPBC Act assessment and approval is required for actions that are likely to have a significant impact on:

- A matter of national environmental significance;
- The environment of Federal land (even if the action is taken outside Federal land); and
- The environment anywhere in the world (if the action is undertaken by the Federal Government).

An action includes a project, development, undertaking, activity, or series of activities. When a person proposes to take an action they believe may need approval under the EPBC Act, they must refer the proposal to the Australian Government Minister for the Environment and Water Resources by submitting a completed Referral Form to the Department.

Federal agencies are also required to consider advice before authorising certain actions. The Minister may exempt a person from the requirement to undergo an environmental assessment and/or obtain approval, if it is considered in the national interest to do so.

As outlined in the Ecological Assessment and Southern Bent Wing Bat Assessment accompanying the application at Volume 2, the proposal is unlikely to have a significant impact on any matter of National Environmental Significance. Nevertheless, the proposal has been referred to the Commonwealth Environment Minister regarding matters listed under the EPBC Act due to it being located within the range of the nationally significant Southern Bent Wing Bat. The project has been determined a controlled action, meaning it will be assessed under a bilateral agreement by the Commonwealth (DCCEEW) and the relevant Victorian state agency (DEECA).

8.6 Guidelines for the Removal, Destruction or Lopping of Native Vegetation

The Guidelines for the Removal, Destruction or Lopping of Native Vegetation (Native Vegetation Guidelines) is an incorporated document at Clause 81.01 of all planning schemes in Victoria. The guideline operates in conjunction with Clause 52.17 and 12.01-2S of planning schemes.

The purpose of these guidelines is to set out and describe the application of Victoria's statewide policy in relation to assessing and compensating for the removal of native vegetation.

This includes:

- The assessment of impacts from removing native vegetation on biodiversity and other values; and
- How offsets are calculated and established to compensate for the loss in biodiversity value from the removal of native vegetation.

The Guidelines is an incorporated document at Clause 81.01 of all planning schemes in Victoria. This means it:

- Must be considered by planning authorities when preparing a planning scheme amendment, as relevant;
- Must be considered by responsible authorities when making decisions in relation to development plans, as appropriate;

- Must be applied when a permit is required under Clauses 52.16 or 52.17 of planning schemes;
- Must be applied when developing a Native Vegetation Precinct Plan (NVPP); and
- May be considered in other planning decisions to meet statewide objectives for native vegetation protection and management.

A total 0.136 ha of native vegetation removal is proposed, comprising 0.089 Ha of native vegetation removal within the Moyne Planning Scheme under the intermediate assessment pathway and 0.047 Ha of vegetation removal within the Corangamite Planning Scheme under the basic assessment pathway. An assessment against the Native Vegetation Guidelines is included within the Ecological Assessment that accompanies this application.

8.7 NASF Guideline D

CASA, and more recently the National Airports Safeguarding Advisory Group (NASAG), have provided guidance to State and Territory authorities, developers and airport operators as to the location and marking of buildings located away from aerodromes so as to ensure that new developments do not constitute a hazard to aviation. To this end CASA and NASAG have published guidelines relating to the construction and marking of buildings located away from aerodromes. These are:

- AC 139-08(0) Reporting of Tall Structures—April 2005;
- AC 139-18(0) Obstacle Marking and Lighting of Wind Farms—December 2005 (Repealed); and
- The National Airports Safeguarding Framework, Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation—July 2012.

In the first instance AC 139-08(0) Reporting of Tall Structures—April 2005 prescribes that developers, authorities and decision makers should report all structures that meet the following criteria to the Royal Australian Air Force (RAAF) Aeronautical Information Service (AIS):

- Structures 30 m in height located within 30 km of an aerodrome; and
- Structures 45 m in height located elsewhere.

AC 139-18(0) was repealed in September of 2008 as a result of a challenge to its legal validity. Accordingly, it is no longer applicable to the planning approvals process of proposed wind farms.

Of these three sets of guidelines only one is pertinent to this proposal, namely The National Airports Safeguarding Framework, Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation—July 2012.

According to these guidelines CASA must be informed of a proposal if it meets the following two criteria:

- The total height of turbines is greater than 150 m; and
- The proposal is located within 30 km of a certified or registered aerodrome.

8.8 CFA Design Guidelines and Model Requirements for Renewable Energy Facilities

The purpose of these guidelines is to provide details about standard measures and processes in relation to fire safety, risk and emergency management that should be considered when designing, constructing and operating new renewable energy facilities, and upgrading existing facilities.

In relation to wind energy facilities, the CFA Design Guidelines and Model Requirements for Renewable Energy Facilities (CFA Guidelines) recommend the following measures in relation to the siting, operation and maintenance of wind energy facilities:

- Where practicable, wind energy installations can be sited on open grassed areas (such as grazed paddocks). Vegetation is to be managed as per the requirements of this guideline, or as informed through a risk management process.

- Wind turbines are to be located no less than 300 metres apart. This provides adequate distance for aircraft to operate around a wind energy facility given the appropriate weather and terrain conditions. Fire suppression aircraft operate under visual flight rules. As such, fire suppression aircraft only operate in areas where there is no smoke and can operate during the day or night.
- Installed weather monitoring stations can be high and difficult to see and are hazardous to CFA flight operations during fires. CFA requires the following in relation to the installation of these monitoring stations:
    - All monitoring towers must be clearly marked, even where marking is not required by CASA.
    - The installation must be notified to CASA and Geoscience Australia (for inclusion in the Vertical Obstruction Database).
- Adjoining property use and distances to habitable buildings must be considered in the design of wind energy installations, with regard made to turbine height and prevailing wind speeds.
- A wind energy facility emergency plan must include maximum operational wind speed and temperature conditions and operating procedures to limit fire risk. This information must be provided within the content of the emergency information book.

It is noted that the subject site is within a Bushfire Prone Area under the Building Act 1993 and is partially affected by the Bushfire Management Overlay. An assessment against the relevant bushfire policies of the planning scheme including the CFA Guidelines is included within the Fire Risk Assessment which forms part of this application.

8.9 Community Engagement and Benefit Sharing Guidelines

The Community Engagement and Benefit Sharing Guidelines (the Community Engagement Guidelines) were first released in 2017 with the guide being updated in July 2021. The guide sets the Victorian Government's expectations for leading practice community engagement and benefit sharing across all renewable energy technologies.

The Community Engagement Guide describes factors that contribute to better practice community engagement and describes benefit sharing and why it is important.

While acknowledging that a flexible approach to community engagement is essential in the context of different technologies and regional contexts, the community engagement guide sets out several key factors that consistently contribute to positive social outcomes and strong community support. These include:

- Starting engagement early in the development process;
- Integration of the development with local landscape values and local identity (tailoring to local context);
- Completing a social feasibility analysis;
- Community (especially local) participation in decision-making and design (fair process);
- Sharing the benefits from the development in an equitable way (fair outcomes);
- Building trust and relationships with stakeholders;
- Providing diverse and ongoing opportunities for engagement;
- Prioritising an accessible complaints management process and responding quickly and clearly to feedback; and
- Tailoring and adapting engagement for local history, context, priorities and needs.

The Community Engagement Guide acknowledges that the required level of any benefit sharing program will be dependent on the type of technology, scale of project, and project location, and provides a broad range of examples of benefit sharing as follows:

- Local jobs and procurement;
- Sponsorship and community benefit funds;
- In-kind contributions (employee volunteerism); and
- Innovative products (including electricity products) and innovative financing (including co-investment and co-ownership).

8.10 Great South Coast Regional Growth Plan

The Great South Coast Regional Growth Plan provides a regional approach to land use planning in the Great South Coast region and includes the municipality of Corangamite.

The five strategic directions of the plan are:

1. Position the Great South Coast for economic growth, including through new and renewable energy – a major opportunity for the region and Victoria;
2. Improve connections;
3. Sustain the natural assets of the Great South Coast;
4. Strengthen the communities of the Great South Coast; and
5. Increase collaboration in the Great South Coast.

8.11 Corangamite Shire Economic Development Strategy 2017-2021

The Corangamite Shire Economic Development Strategy 2017-2021 sets out a five year vision for the municipality providing economic development guidance for both Council and stakeholders.

Relevant parts of the strategy include Theme 5 which aims to develop emerging industries.

Corangamite Shire has an abundance of renewable energy resources and a significant supply of natural gas. Corangamite Shire has several unique strengths that make it attractive for large-scale renewable energy investment:

- Strong wind particularly in the southern area of the Shire;
- Moderate solar irradiance in some parts of the Shire, particularly to the north, in proximity to transmission lines; and
- The presence of transmission lines through Corangamite Shire, including the 66kV and 500kV Alcoa lines, make it attractive for large scale energy projects.

Theme 5 of the strategy outlines that private sector investment into renewable energy production should be considered as a potential focus of Corangamite's Economic Development and Tourism Unit. Under Theme 5 sits Action 1.37 of the strategy; *Support renewable energy projects throughout the Shire.*

8.12 Moyne Shire Economic Development Strategy 2019-29

The Moyne Shire Economic Development Strategy 2019-29 is a ten year strategy for long term sustainable economic growth in the Shire. The plan is to be reviewed every five years.

The strategy contains a five year action plan to be reviewed annually.

The strategy acknowledges Moyne as a prime location for renewable energy generation and aims to position Moyne to secure the long term benefits from renewables projects. Renewable energy is identified as one of three major local industries along with agricultural and tourism.

The Action Plan identifies the following relevant actions:

- Continue to lobby State Government to implement recommendations 8.2.1 to 8.2.7 from the 2017 Annual Report of the National Wind Farm Commissioner;

- Increase information provision and communication about wind and other projects in the Shire;
- Maximise local employment and business opportunities in renewable energy projects;
- Capitalise on wind farm projects while they are in-region;
- Focus on long-term planning opportunities for the renewable energy industry, including potential use of wave, solar and hydrogen;
- Share and build knowledge of wind farm issues and opportunities with other LGA's;
- Develop wind-farm tourism products to showcase innovative renewable energy products;
- Promote Moyne as open for business; and
- Encourage innovation and diversity in farming practices.

9 Assessment

The following section provides an assessment of the proposal against the most relevant sections of the Corangamite and Moyne Planning Schemes, including against the purposes and decisions guidelines of the provisions outlined in Sections 6, 7 and 8 of this report, the decision guidelines in Clause 65, and any other relevant matter.

9.1 Planning Policy Framework

This section outlines the most relevant thematic areas for assessment under the PPF, including the relevant local clauses of the Corangamite and Moyne Planning Schemes. The proposed use and development is assessed against these themes below.

9.1.1 Overarching Policy Clause 19.01-2 Renewable Energy

The overarching PPF policy for assessment of renewable energy facilities can be found at Clause 19.01-2S Renewable Energy and 19.01-2R Renewable Energy Great South Coast. These clauses seek to promote the provision of renewable energy in appropriate locations. This means that provided that a location is appropriate and can be demonstrated to have acceptable impact, a renewable energy facility is likely to warrant approval. Other policy points must be balanced against this overarching clause.

The proposal is strongly supported under this policy. The site is a high-quality location for a wind energy facility, with convenient access to the national electricity network, a relatively low populated vicinity relative to the wider area, and being located within a low sensitivity landscape. The site is not located in the vicinity of other sensitive agricultural land uses, is not irrigated or regionally significant agricultural land, and has an excellent wind resource.

There will be limited adverse impact on the immediate area, which is demonstrated by the expert reports that accompany this application. The broader community will benefit from a new stabilising factor in the agricultural economy and from new economic opportunities that will diversify the local economy that is currently dominated by agriculture.

Impacts on the environment, including native vegetation removal and impacts on aerial fauna will be balanced with the benefit of providing renewable energy and responding to climate change.

The proposed wind farm will contribute to the ongoing development of renewable energy and strengthening of the electricity grid in Victoria.

9.1.2 Protection of Distinctive Areas and Landscapes (Clause 11.03-5S and 12.05-2S)

The intent of these clauses is to protect significant landscapes and significant areas, particularly those of environmental and/or cultural significance.

The proposed wind farm is located in an area dominated by agriculture and is not within any landscape areas specifically identified in policy for protection. The region is typified by flat to gently rolling topography of paddocks divided by shelter belts with some remnant stands of vegetation.

The landscape will not be unduly impacted by the proposal as demonstrated by the assessment at Section 10 of this report and in the accompanying Landscape and Visual Impact Assessment contained in Volume 2. The landscape has no overlay or additional policy measure that identifies it as significant and requiring unique protection. It is unlikely there will be a significant adverse impact on tourism or agriculture which are the main drivers of the region's economy. The impact of the proposal will be acceptable within the context of policies that seek to protect significant areas and landscapes, particularly when those policies are balances against Clause 19.01-2.

9.1.3 Protection of Environmental Values (Clause 12.01-1S, 12.01-2S, 12.03-1S, Moyne 22.02-2, 22.02-8, 22.02-4 and 22.02-5)

The intent of these clauses is to protect the environmental values of places and biodiversity generally, included to protect flora, fauna and native habitat. These clauses work with Clause 52.17 aiming to avoid and minimise vegetation removal and impacts on ecology generally.

A comprehensive assessment of the ecological values of the site is provided in the ecological assessment and southern bent-wing bat assessment that accompany this application, with further

details contained in the assessment under Section 10 of this report. As demonstrated by the assessment, the proposal will have acceptable impacts on the environmental values of the site and wider area, including on native flora, fauna and habitat. The environmental values of surrounding water bodies and wetlands will be maintained, including the cultural and tourism assets these values provide. This includes impacts of pests and impacts on soil from development.

9.1.4 Protection of Heritage Values (Clause 15.03-1S, 15.03-2S, Moyne 22.01-1)

The intent of these clauses is to protect and ensure the conservation of cultural heritage and heritage places. No Victorian Heritage Register or Victorian Heritage Inventory places will be unduly affected by the proposal. There are no significant heritage sites located in the activity area of the project, nor its immediate surrounds. The proposal will have no significant adverse impacts on heritage places, and will support the intent of Clauses 15.03-1S and 15.03-2S.

9.1.5 Natural Hazards, Bushfire and Climate Change (Clause 13.01-1S, 13.02-1S, Moyne 22.03-8)

The key purpose of these clauses is to plan for natural hazards including climate change. In relation to bushfire, priority is to be given to protection of human life, while also identifying bushfire hazards for settlements and essential infrastructure. Utility scale energy generation facilities are essential infrastructure and therefore form an important consideration for bushfire risks.

The guidance contained within the CFA Guidelines has been considered and appropriately applied to the proposed facility, ensuring appropriate bushfire risk mitigation for the essential electricity generation facility. The proposal does not present an unacceptable bushfire risk and will not unduly increase risks for residents in the area. Bushfire risks are considered further under Section 10 of this report.

The facility directly addresses climate change risks by provided and new renewable energy source that will minimise emissions. The balance of policy strongly supports the facility with regard to natural hazards and climate change considerations.

In accordance with Moyne's local fire policy at Clause 22.03-8, the views of the CFA are integrated into the development via consideration of the CFA Guidelines for Renewable Energy Installations. This will ensure the facility does not unreasonably increase fire risk.

9.1.6 Effective Land Use Planning and Essential Infrastructure (Clause 11.02-1S, 13.05-1S, 13.07-1S, 15.01-6S, 18.02-4S, 18.02-7S, 19.03-4S, Corangamite 18.02-4L)

These clauses seek to balance the impacts of essential infrastructure by ensuring overall effective land use planning and minimising land use conflicts. Of particular relevance for the proposal is minimising amenity impacts for sensitive uses.

The proposal is located in an area dominated by agriculture, with major infrastructure in the vicinity including roads, rail, and agroforestry. The landscape of the surrounding area is not a key point destination for tourism or of cultural significance. The impact of the proposal on surrounding amenity will be low and acceptable, as detailed in Section 10 of this report.

There are no significant land use conflicts between the proposed facility and other major infrastructure of roads, rail and airports. The site is well positioned to take advantage of existing transport infrastructure for construction. Operation of the facility will have negligible impact on roads. Potential impact through construction are assessed further in Section 10.

There are no significant land use conflicts and no unacceptable amenity impacts. The proposal is supported by the intent of the PPF policies which seek to minimise amenity impacts and land use conflicts.

9.1.7 Protection of Agricultural Land (Clause 14.01-1S, 14.01-1L, 14.01-2S, Moyne 22.03-4, Corangamite 14.01-1L)

The intent of these clauses is to protect productive agricultural land and land that contributes significantly to regional economies.

The proposed wind energy facility is located in an area dominated by dairy farming and grazing, is not located in the vicinity of other sensitive agricultural land uses, and will not have a significant impact on the current agricultural productivity of the site. Moreover, by adding a new and drought-proof income stream for the owners of the agricultural properties involved in the wind farm, the proposed use and development of the site will contribute towards the diversification and resilience of agriculture in the state of Victoria.

9.1.8 Promotion of a Strong and Diverse Economy (Clause 17.01-1S)

The proposed wind farm will contribute to the strengthening and diversification of the regional and Victorian economy.

Construction of the proposed wind farm will support the Victorian wind industry via the supply and installation of wind turbine generators and ancillary infrastructure, and the Victorian high voltage electrical industry via the supply and installation of high voltage electrical plant and the completion of high voltage line works.

Construction of the wind farm will support local manufacturers, heavy industry and small business via the supply of concrete, road building materials, electrical cabling, equipment hire, accommodation, consumables and hospitality services.

During operation the wind farm will add a new and drought-proof income stream for the owners of the properties hosting the facility, thereby contributing towards the diversification and resilience of agriculture in the state of Victoria. Maintenance and operation of the wind farm will contribute to ongoing employment in the Victorian wind industry and high voltage electrical industry.

Further, in line with the objectives of the *Community Engagement and Benefit Sharing in Renewable Energy Developments – A Guide for Renewable Energy Developers*, the proposed wind farm will be accompanied by a community benefit scheme. While the details of this scheme will ultimately be determined in consultation with the local community, it will include as a minimum the following measures which will contribute to the diversity and strength of the local economy:

- Annual cash payments to immediate neighbours;
- Subsidies for energy efficiency measures for nearby dwellings;
- An annual fund for support of general community projects; and
- An annual fund for support of local education.

9.2 **Zoning**

The majority of the subject site is located within the Farming Zone of the Corangamite Planning Scheme and Moyne Planning Scheme, while three small areas are located within the Transport Zone 2 of the same planning schemes for the purposes of access and electrical reticulation.

9.2.1 Farming Zone

The subject site is predominantly within the Farming Zone.

The purpose of the Farming Zone is to protect productive agricultural land from conflicting land uses and to ensure non-agricultural uses do not adversely affect the use of the land for agriculture.

Agriculture is identified under both the Corangamite and Moyne Planning Schemes as a key economic driver for the region along with tourism. Primarily, the impacts of the proposal must be considered against the relevant provisions which seek to retain and support agriculture.

The proposed wind energy facility and utility installation integrates well with agricultural uses and is generally supported for the following reasons:

- The siting of the facility is well located with regard to existing infrastructure, including roads and high voltage transmission lines;
- Ongoing agricultural production of the subject land and the surrounding area is not significantly impacted. Agricultural uses can easily continue around wind turbines throughout the life of a wind energy facility. The facility provides a stable source of income for host landholders assisting with fluctuations in commodity prices, crop yields, and

assisting with investment in agriculture by using the stable income for purchasing agricultural business investments. The site is not a gazetted irrigation district and is not an irrigated agricultural site. The facility provides increased diversification of the economic base of the municipality while using a negligible amount of agricultural land to do so;

- The effect of the facility on sustainable agricultural potential of the land is negligible, with the small amount of land being utilised able to be reinstated after the life of the facility without significant impacts on future uses; and
- The operation of the wind energy facility will not limit the agricultural capabilities of adjoining land or land in the wider vicinity. A wind energy facility is a compatible use with adjoining land holdings and zoning of the wider area.

The proposed use and development is supported by the stated purposes of the Farming Zone.

9.2.2 Transport Zone 2

A small area of works is proposed within the Transport Zone 2 to connect the facility to the electricity grid and for temporary and permanent works required for delivery of turbine components and machinery, as detailed in Section 3 of this report.

The purpose of the Transport Zone 2 is to ensure land use and development is compatible with a safe, efficient, integrated and sustainable transport system.

The proposed wind energy facility and utility installation integrates well with the transport system and will have limited impact on it. No significant permanent changes are proposed to the principal transport network or to local roads. Road works are limited to temporary works, works to construct and augment existing property driveways, and works to construct and augment electrical infrastructure within road reserves.

A full assessment of traffic and road impacts is contained at Section 10 of this report. The proposal will have minimal impacts on the road network and will accord with the purposes of the Transport Zone 2. Construction impacts will be suitably managed by a Traffic Management Plan that will be prepared prior to works and may be conditioned by any permit that may issue.

Further details are contained in the Preliminary Transport Assessment included with this application.

9.3 Overlays

There are no relevant overlays that affect the subject site. The Bushfire Management Overlay does not trigger the requirement for a planning permit. Bushfire considerations are considered against the relevant sections of the PPF, the Bushfire Management Overlay and Clause 52.32 in Section 10 below.

9.4 Particular Provisions

9.4.1 Clause 52.05 Signs

A planning permit is required under Clause 52.05 of the Planning Scheme for business identification signage. The site is within the Farming Zone which falls within Category 4, where a total display area is limited to 3 square metres.

It is proposed that a permanent business identification sign be located at each site entrance for the purposes of identifying the wind farm. Signage will be a maximum of 3 square metres and will not be illuminated. The sign will be unobtrusive and befitting of its context.

There will be no visual clutter associated with the single sign and there will be negligible impact on the visual amenity of the area, satisfying the intent of Clause 52.05.

9.4.2 Clause 52.06 Car Parking

As outlined in Sections 6 and 7 of this report, no permit is required for car parking for a wind energy facility or utility installation. Car parking for the new use must be provided to the satisfaction of the responsible authority.

All car parking will be provided alongside main site facilities on site, with ample room for all personnel attending the site for construction and operation purposes. There will be no impact on

local roads or local parking requirements. It is submitted that the proposed provision of parking is acceptable.

9.4.3 Clause 52.17 Native Vegetation

The purpose of this clause is to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. The three step approach of avoid, minimise and offset has been applied in formulating the design of the facility, and has been assessed under the ecological assessment that accompanies the application. Further details of native removal and flora impacts are contained under Section 10 of this report.

9.4.4 Clause 52.29 Land Adjacent to the Principal Road Network

The proposal has considered the impact on the road network through the preliminary transport assessment that accompanies the application in Volume 2. There will be no unreasonable impacts during construction, with these impacts able to be suitably managed via the preparation a traffic management plan. Impacts during operation will be negligible and will not affect the operation of the principal road network, in accordance with this clause and the purposes of the Transport Zone 2.

9.4.5 Clause 52.32 Wind energy facility

Clause 52.32 of the Planning Scheme outlines the key provisions relevant to the application. The purpose of this clause is to facilitate the establishment and expansion of wind energy facilities, in appropriate locations, with minimal impact on the amenity of the areas in which they are located. This is a key overarching policy directive for framing assessment of the application.

In addition to setting out application requirements and decision guidelines, this clause references separate guidelines, standards and legislation that are relevant to the assessment of a wind energy facility planning permit application, such as the Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria, New Zealand Standard NZS6808:2010, and the Aboriginal Heritage Act 2006.

The requirement of Clause 52.32 are assessed below, including the decision guidelines and reference documents—guidelines, standards and legislation—listed in Clause 52.32. The key matters for consideration outlined in the *Policy and Planning Guidelines for Wind Energy Facilities in Victoria* are assessed under Section 10 of this report.

9.4.5.1 Clause 52.32-3 Turbines within one kilometre of a dwelling

Clause 52.32 stipulates that an application that includes a proposed wind turbine within one kilometre of an existing dwelling/s must be accompanied by evidence of written consent of the owner/s of said dwelling/s. There are no dwellings located within 1 km of a proposed wind turbine location as measured from the centre of the tower at ground level.

9.4.5.2 Clause 52.32-4 Site and Context Analysis and Design Response

Section 4 details the context of the subject site and surrounding area. The following section details how the application has provided a design response to the context of the site.

9.4.5.2.1 Plans

Detailed plans of the proposed development accompany this application in Section 12 and 13 and include plans and elevations of the candidate wind turbine generator, and all works required to connect the facility to the electricity network such as transmission infrastructure and utility works. The substation plans included with this application are based on a preliminary design only. The final layout and construction of the substation will be in accordance with the detailed engineering design to be prepared in accordance with the requirements of the Network Service Provider. The plans accompanying this application also detail access road options.

9.4.5.2.2 Visual Simulations

Visual simulations illustrating the development in the context of the surrounding area and from key public viewpoints are included within Section 13 this report and are also separately provided with the Landscape and Visual Impact Assessment in Volume 2.

9.4.5.2.3 Written Report

This planning report documents the details of the proposal and an assessment of its impacts, providing reference to technical reports where relevant. This includes:

- A description of the proposal (Section 3);
- An explanation of how the proposed design derives from and responds to the site analysis (Section 5);
- A statement of why the site is suitable for the wind energy facility (Section 9.4.5.2.5);
- An environmental management plan (Section 10);
- A rehabilitation plan (Section 10); and
- An assessment of visual impact, flora and fauna, noise and cultural heritage (Section 10).

9.4.5.2.4 Design Response

The design response of the proposed wind farm to the site and its surrounds is detailed in Section 5.

9.4.5.2.5 Statement of Suitability of the Site

The subject land is suitable for a wind energy facility for the following reasons:

- It receives undisturbed wind flow with strong consistent winds;
- It is in close proximity to the national electricity grid;
- It is well served by existing transport infrastructure;
- The agricultural land use of the site and its surrounds, namely dairy farming and grazing, are compatible with a wind energy facility;
- There will be no unreasonable adverse impact on telecommunications, road, rail and aviation infrastructure;
- There are sufficient setbacks to neighbouring dwellings to ensure potential impacts to community amenity are acceptable;
- It is located away from townships, significant landscapes, destinations and recreation areas;
- It is located away from national parks, state parks, coastal reserves and Ramsar wetlands;
- It has been subject to intensive agriculture clearing and therefore has minimal remnant ecological value that could be impacted by a wind energy facility; and
- There are no areas of cultural heritage sensitivity that will be impacted by the proposal.

9.4.5.3 Clause 52.32 Mandatory Noise Assessment

A preconstruction (predictive) noise assessment is included in Volume 2 of this report. Section 10 details how this application meets the requirement for a pre-construction (predictive) noise assessment demonstrating compliance with NZS6808:2020. An accompanying noise assessment report prepared by an environmental auditor appointed under Part 8.3 of the *Environment Protection Act 2017* is included in Volume 2 of this application.

10 Policy and Planning Guidelines

The *Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria November 2021* (the Policy and Planning Guidelines) provide guidance for developers, decision makers and the community as to how planning permit application requirements might be met by proponents. Together with the decision guidelines of 52.32 and other reference documents listed in both Clause 52.32 and the guidelines, they list a range of matters for consideration essential to the assessment of a wind farm planning permit application. These matters are:

- Noise emissions;
- Blade glint;
- Shadow flicker;
- Electromagnetic interference;
- Landscape and visual impact;
- Impacts on native flora and fauna;
- Impacts on aboriginal and non-aboriginal cultural heritage;
- Impacts to aviation;
- Transport considerations;
- Bushfire prevention and safety;
- Geotechnical and hydrological considerations;
- Construction impacts;
- Decommissioning; and
- Community engagement and benefit sharing.

Each of these matters for consideration is addressed below.

10.1 Noise Emissions

10.1.1 Compliance with NZS 6808:2010

Clause 52.32 and the Policy and Planning Guidelines stipulate that wind farm noise emissions should comply with New Zealand Standard NZS6808:2010 Acoustics – Wind Farm Noise.

According to NZ6808:2010 wind farm noise emissions (LA90(10 min)) must not exceed the background sound level by more than 5 dBA, or a level of 40 dB LA90(10 min), whichever is the greater, at any noise sensitive location, where a noise sensitive location is a habitable space or education space in a building not on the wind farm site.

A pre-construction predictive Environmental Noise Assessment has been carried out by Marshall Day Acoustics in support of this application. The Environmental Noise Assessment report concludes that the proposal will comply with the requirements of the relevant noise standard NZS 6808:2010, with the highest predicted noise level for a non-participating dwelling being 34.6 dBA LA90 at Receiver 49, and for a participating dwelling being 36.7 dBA LA90 at receiver 63. Because the predicted noise levels for all non-participating dwellings are below 35 dBA it is not necessary to conduct background noise monitoring as part of the Environmental Noise Assessment. For more information concerning noise emissions and compliance with NZS6808:2010 refer to the Environmental Noise Assessment in Volume 2. Predicted noise emission contours for the proposed wind farm are shown in Section 13 Figure 25.

An accompanying noise assessment report prepared by an environmental auditor appointed under Part 8.3 of the *Environment Protection Act 2017* has been prepared by Arup and shown in Volume 2.

10.1.2 Cumulative Impacts

The NZS 6808:2010 requires wind farms in the surrounding area to be included in the predictive noise assessment. However, there are no wind farms sufficiently proximal to the subject site to cause cumulative noise impacts.

10.2 Blade Glint, Shadow Flicker and Electromagnetic Interference

10.2.1 Blade Glint

Both Clause 52.32 and the Policy and Planning Guidelines stipulate that wind farm planning permit applications must consider the effect of the proposal on the surrounding area in terms of blade glint.

Blade glint occurs when sunlight is reflected off the rotating blades of a wind turbine. However, it is now standard industry practice to coat wind turbine components—including blades, towers, nacelles and rotor hubs—in non-reflective paints which attenuate the reflection of sunlight. This will ensure that the potential for the proposed wind farm to impact community amenity via blade glint is avoided.

The details of the non-reflective paint proposed to be used on wind turbine components are shown in Section 12, Figures 7 through 10.

10.2.2 Shadow Flicker

Both Clause 52.32 and the Policy and Planning Guidelines stipulate that wind farm planning permit applications must consider the effect of the proposal on the surrounding area in terms of shadow flicker.

Shadow flicker occurs when the movement of wind turbine blades creates a rotating shadow that appears as an intermittent, or flickering, shadow when experienced from a single vantage point in the vicinity of a wind turbine. Shadow flicker does not pose any risk of causing health effects however it does have the potential to adversely impact the amenity of nearby dwellings by subjecting residents to sharp contrasts of shade and light in short succession.

According to the Policy and Planning Guidelines, shadow flicker experienced immediately surrounding the area of a dwelling (garden fenced area) must not exceed 30 hours per year. The shadow flicker resulting from the proposed wind farm has been modelled using industry standard software, namely WindPro, and it was found that no dwellings belonging to neighbouring landowners will be subjected to shadow flicker caused by the proposed wind farm. Of the dwellings belonging to participating landowners two were found to be subject to shadow flicker caused by the wind farm, namely dwelling 65 which is modelled to receive approximately 27 hours per annum, and dwelling 62 which is modelled to receive approximately 23 hours per annum. In all cases shadow flicker modelling was carried out on the basis of the worst-case scenario in which it is assumed the sun is always shining, there are no intervening obstacles, wind turbines are always facing perpendicular to the line of sight between the point of observation and the turbine, and shadow receptors face all directions. Accordingly, it is important to note that actual shadow flicker will be lower than the levels predicted below.

For more information concerning shadow flicker refer to the Shadow Flicker Assessment in Volume 2. Modelled shadow flicker levels for the proposed wind farm are shown in Section 13, Figure 26.

10.2.3 Electromagnetic Interference

Both Clause 52.32 and the Policy and Planning Guidelines stipulate that wind farm planning permit applications must consider the effect of the proposal on the surrounding area in terms of electromagnetic interference.

Wind farms have the potential to cause electromagnetic interference via the reflection of radio signals. Theoretically there are a range of services that are susceptible to electromagnetic interference from wind farms, however, with the exception of aeronautical navigational systems, in practice wind farms only pose a risk to television broadcasting and point-to-point radio links due to the increased robustness of many modern telecommunications devices.

An Electromagnetic Interference Assessment has been carried out for the proposed wind farm and found that it will not adversely affect television broadcasting or point-to-point radio links. For more information concerning the potential of the wind farm to cause electromagnetic interference refer to the Electromagnetic Interference Assessment in Volume 2. Setbacks to television broadcast towers and point-to-point radio links are shown in Section 13, Figures 27 and 28.

The potential for the wind farm to cause electromagnetic interference to aeronautical navigational systems was considered separately in the Aviation Impact Assessment, the results of which are discussed further below.

10.3 Landscape and Visual Impact

The potential impact of the proposed wind farm on public viewpoints and landscape values has been assessed in the Landscape and Visual Impact Assessment (LVIA). According to the LVIA the visual impact of the proposed wind farm is likely to be low to moderate from publicly accessible locations, on the whole. In particular, the LVIA found that the potential impact of the wind farm on the following viewpoints will be as follows:

- Moderate and moderate – high visual effect on four dwellings located within the 2 km viewshed of the wind farm;
- Low and low – moderate visual effect on most dwellings between the 2 km and 5 km viewsheds of the wind farm;
- Low – moderate visual effect on principal rural townships and localities;
- Low – moderate visual effect on views from local roads; and
- Low visual effect from distant elevated views from Mount Noorat, Mount Warrnambool and regional state parks/conservation areas.

10.3.1 Cumulative Impacts

The LVIA determined that there would be a limited degree of visibility between the proposed project and other operating and/or proposed wind farm projects including the Mortlake South Wind Farm and the proposed Swanson Lane Wind Farm, but that the potential for any significant level of direct and indirect cumulative impact would be mitigated by the distance between sensitive dwelling locations and wind turbines within each of the wind farms, and the presence of tree screening and shelter belt planting across the farmland landscape.

10.3.2 Photomontages

Visual models of the development in the context of the surrounding area and from key public viewpoints are reproduced in Section 13, Figures 31 through 40.

10.4 Flora and Fauna

Both Clauses 52.32 and the Policy and Planning Guidelines stipulate that proponents of wind farms must address the potential impact of the wind farm on native flora, fauna and vegetation, including any species listed under the FFG Act 1988 and the EPBC Act 1999. An Ecological Assessment and a standalone Microbat Assessment have been carried out for the proposal, the findings of which are summarised below.

10.4.1 Flora and Vegetation

A flora and vegetation survey was conducted as part of the Ecological Assessment. This survey consisted of an assessment of all areas in which wind farm infrastructure is proposed to be located, as well as the proposed transport route for OSOM deliveries.

In general, the subject site is highly modified due to its use as an operating dairy farm and is generally comprised of pasture paddocks bordered by planted windrows and intersected by constructed farm tracks.

Aside from planted specimens, no significant flora species were recorded on the subject site and no flora species of National or State significance are considered likely to occur due to the highly modified condition of vegetation.

Native vegetation within and immediately adjacent to the ecological assessment area is representative of three EVCs, namely Heavier Soils Plains Grassland (132), Plains Grassy Wetland (EVC 125), and Plains Grassy Woodland (EVC 55). The presence of these EVCs is generally consistent with the modelled pre-1750s and extant (2005) modelled native vegetation mapping (DELWP 2022a). A total of eight scattered trees were also recorded in the ecological assessment area. Specific details relating to the observed EVCs and Scattered Trees are provided below.

Heavier Soils Plains Grassland is generally described a treeless vegetation dominated by graminoids and herbs. The EVC is present on fertile, cracking basalt soils prone to seasonal waterlogging (DEECA 2023c). Within the ecological assessment area, two small discrete patches of Plains Grassland were present within the road reserve of Coyles Road, however weed cover was high in both patches.

Plains Grassy Wetland is typically dominated by grasses, small sedges and herbs that are tolerant of periodic inundation, and is usually species poor in the wetter, central areas and species rich in the drier, outer areas (DELWP 2022c). Adjacent to the current development footprint, Plains Grassy Wetland was recorded around the edge of artificial waterbodies (farm dams), or within shallow, low-lying depressions that formed ephemeral wetlands after sustained periods of rainfall. Apart from patches recorded around an artificial waterbody, all areas of Plains Grassy Wetland displayed high weed cover.

Plains Grassy Woodland is generally described as an open eucalypt woodland, or acacia/Sheoak woodland over fertile soils. Within public land that intersected the ecological assessment area, much of the native vegetation present appears to be the result of replanting and/or revegetation activities; the majority of which is in the form of dense stands of Black Wattle Acacia mearnsii and Blackwood Acacia melanoxylon, with the occasional specimen of Lightwood Acacia implexa also present.

A total of eight scattered trees were also recorded within the ecological assessment area, which consisted of five large scattered trees and three small scattered trees. These trees would have once formed part of the Plains Grassy Woodland or Plains Grassland EVC; however, the understorey vegetation contained predominantly introduced species (mainly exotic pasture grasses) and the trees no longer formed a patch of native vegetation.

The remainder of the subject site is highly modified and actively grazed and/or cropped and comprised typically of improved pastures, with some areas showing outbreaks of noxious weed species.

In terms of habitat, the patches of Plains Grassland and Plains Grassy Woodland may support a diverse community of small mammals and birds, which can also provide an important food resource for native raptors. However, these patches of native vegetation would only provide low to moderate quality habitat to native fauna due to high levels of disturbance and modification from the natural state.

For further information concerning existing flora, vegetation and habitat values of the subject site please refer to the Ecological Assessment in Volume 2. Flora, vegetation and fauna habitat identified by the Ecological Assessment are presented in Section 13, Figure 8.

10.4.2 General Fauna Assessment

Concurrently with the flora and vegetation assessments, a fauna assessment was undertaken to obtain information on fauna values in the vicinity of the proposed wind farm. This assessment consisted of a general fauna survey of the entire subject site and its surrounds, a Bird Utilisation Survey spanning two seasons, and a Level One Assessment of the risk posed to Brolga.

The general fauna survey did not identify any significant terrestrial fauna values that would be put at risk by the proposed development. Due to the absence of a permanent natural water source, sparse vegetation, and the highly modified nature of the subject site, the assessment found that the development footprint is unlikely to support habitat relied on by significant species and therefore that the potential impact of the wind farm on terrestrial fauna values is considered to be low to negligible.

As the subject site is located on the southern extent of the Victorian distribution range of the Brolga, a Level One Brolga Assessment was carried out in accordance with the *Interim Guidelines for the*

Assessment, Avoidance, Mitigation and Offsetting of Potential Wind Farm Impacts on the Victorian Brolga Population 2012 to determine the potential impact of the wind farm on the species. The Level One Brolga Assessment included consultation with local residents out to a distance of 10 km from the wind farm site. Based on the feedback received from local residents, the paucity of recent Brolga records within the locality, and the absence of potential Brolga breeding and flocking habitat within the locality, it was determined that the risk posed to Brolga is low to negligible and therefore that a Level Two Assessment was not required.

Fauna habitat identified by the Ecological Assessment is presented in Section 13, Figure 8. The Ecological Assessment by the Ecology and Heritage Partners can be found in Volume 2.

10.4.3 Southern Bent-wing Bat and Yellow-bellied Sheath-tailed Bat Assessment

As the subject site is located within the known range of the Southern Bent-wing Bat (SBWB) and the Yellow-bellied Sheath-tailed Bat (YBSB), a standalone assessment of the risk posed to these species by the proposed wind farm was completed by Nature Advisory.

This assessment took into account results from the following investigations:

- A roost cave assessment comprising a desktop investigation by Dr Susan White and Dr Neville Rosengren, and subsequent cave surveys completed by EcoAerial Environmental Services. The desktop investigation of potential roost caves identified a group of potential sites in the vicinity of Timboon, Victoria, that warranted further assessment. In consultation with DELWP, Rob Gration of EcoAerial Environmental Services subsequently surveyed all but one of these sites and found that none of them were currently suitable for roosting due to a combination of deliberate destruction (i.e. filling and capping by landowners), natural degradation, and encroachment by weeds and other vegetation; and
- Bat detector surveys carried out over the course of two years, taking in four migration seasons of this species. During these survey events a total of six, six, twelve and twenty-two acoustic devices were deployed throughout the subject site, resulting in a cumulative survey effort of 1,672 bat detector nights. These surveys were designed to coincide with peak periods of microbat activity, and also took into account the range of habitats present across the wind farm site. Bat calls were analysed by two recognised experts in bat calls analysis, with SBWB observed at very low levels of activity, and YBSB not observed at all across the entire survey period.

Based on these results, the lack of suitable habitat on the wind farm site, the dimensions of the candidate wind turbine model, and the small number of wind turbines proposed, the assessment found that it was unlikely that the proposed wind farm would have a significant impact on the global SBWB species. Given no YBSB were observed over the entire survey period, the assessment found that the proposed wind farm poses a very low risk to the species.

Notwithstanding that the proposed wind farm is unlikely to result in a significant impact to either the SBWB or YBSB, the following mitigation measures are proposed to be adopted as part of an overarching Bat and Avifauna Management Plan, to be prepared to the satisfaction of DEECA prior to the commencement of construction:

- The removal of unprotected and artificial SBWB habitat features—i.e. farm dams, planted windrows, and introduced tree species—that remain within 200 m of a wind turbine location, and their replacement at a location further than 200 m from all proposed wind turbine locations at a ratio of 3:1;
- An adaptive low wind speed curtailment regime; and
- An offset fund for improvement and protection of SBWB habitat.

No other significant fauna species are considered likely to occur on or near the subject site or be impacted by the proposal.

The Southern Bent-wing Bat and Yellow-bellied Sheath-tail Bat Assessment completed by Nature Advisory can be found in Volume 2.

10.4.4 Vegetation Clearance

A permit is required under Clause 52.17 to remove 0.136 Ha of native vegetation across the subject site. This vegetation clearance is located in two separate LGAs, namely the Moyne and Corangamite LGAs, within which vegetation clearance is associated with the development footprint of the project. Within the Moyne Shire Council LGA, native vegetation clearance comprises a total of 0.089 hectares of native vegetation patches and two Large Trees. As such, within the Moyne Planning Scheme the permit application falls under the Intermediate assessment pathway, and the offset requirement for native vegetation removal is 0.019 General Habitat Units and 2 Large Trees. Within the Corangamite Shire Council LGA, native vegetation clearance comprises a total of 0.047 hectares. As such, within the Corangamite Planning Scheme the permit application falls under the Basic assessment pathway, and the offset requirement for native vegetation removal is 0.008 General Habitat Units. It is worth noting that wherever possible the alignment of the access tracks has followed existing farm tracks and thereby minimised impacts to productive agricultural land and native vegetation.

10.5 Cultural Heritage

The subject site is located with the boundary of the Eastern Maar Registered Aboriginal Party. There are no areas of cultural heritage sensitivity located within the subject site, and therefore there is no requirement for a mandatory Cultural Heritage Management Plan (CHMP). Nevertheless, a voluntary CHMP has been prepared and was approved by the Registered Aboriginal Party. The activity area (also defined as the development footprint) and areas of cultural heritage sensitivity located in the vicinity of the subject site are shown in Section 13, Figure 9.

10.6 Aircraft Safety

Both Clause 52.32 and the Policy and Planning Guidelines stipulate that proponents of wind farms must address the potential impact of the wind farm on aviation.

The Aviation Impact Assessment (AIA) identified that there are two certified airports and two aerodromes located in the vicinity of the wind farm. The two certified airports are the Warrnambool Airport, which is located approximately 34 km from the proposed wind farm, and the Peterborough Airport, which is located approximately 37 km from the proposed wind farm. The two aerodromes consist of the Cobden Aerodrome which is located at a distance of 20 km from the proposed wind farm, and a private airstrip located at Dixie Victoria which is located approximately 10 km from the wind farm. The location of these aerodromes are shown in Section 13, Figure 12.

The Aviation Impact Assessment considered the potential for the proposed wind farm and associated meteorological mast to impact the following:

- Aerodromes and airports in the vicinity of the wind farm;
- OLS and PANS-OPS Surfaces associated with said aerodromes and airports;
- ATC Surveillance Systems;
- Navigations aids;
- IFR Air Route Lowest Safe Altitudes; and
- Visual flight operations.

The Aviation Impact Assessment found that the wind farm will have no impact on any of these aeronautical activities, infrastructure or services. For more information concerning potential impacts to aviation refer to the Aviation Impact Assessment in Volume 2.

10.6.1 Aviation Obstacle Lighting

In accordance with the Aviation Impact Assessment which accompanies this application for planning permit, it is proposed that the wind farm is not equipped with aviation obstacle lighting, due to the low risk the wind farm poses to aviation and the relative impact that aviation lighting has on the surrounding landscape. For further information concerning potential impacts to aviation refer to the Aviation Impact Assessment in Volume 2.

10.7 Traffic and Road Impacts

Clause 52.32 requires that proponents of wind farms consider the proximity of the proposal to sufficient road infrastructure and to provide a concept plan of access road options. A summary of

anticipated traffic impacts and site entrance works is provided below. For further information concerning access to transport infrastructure and the delivery route refer to the Preliminary Transport Assessment in Volume 2. The transport route for turbine components, and swept path diagrams for intersections along it, are presented in Section 13, Figures 13 through 24.

10.7.1 Traffic Impacts

An independent Preliminary Transport Assessment has been carried out for the proposal. Key findings of this assessment were:

- The wind farm will be serviced by three different delivery routes, each servicing a different component of the construction process:
    - OSOM wind turbine components: wind turbine components will be delivered to the site via a dedicated delivery route and Site Entrance 3, as follows: starting from the Henty Hwy, right turn onto Princes Hwy, continue on Princes Hwy through Port Fairy and Warrnambool, left turn onto Occupation Lane, right turn onto Terang – Framlingham Rd, right turn onto Sisters – Garvoc Rd, left turn onto Coyles Rd, continue onto Site Entrance 3;
    - Wind farm personnel, materials and machinery: all other deliveries required to construct the five WTGs and ancillary WTG infrastructure will be delivered to the site via the Sisters – Garvoc Rd and Site Entrance 1;
    - Substation and overhead network connection: all deliveries required to construct the substation and network connection will be delivered to the site via the Princes Hwy and Site Entrance 2;
- The proposed delivery routes represent an effective use of existing transport infrastructure and pose a low risk of interruption to the transport network:
    - OSOM route: this route leverages the VicRoads network and the B-Double network as far as possible while also avoiding a bridge on Sisters – Garvoc Rd which has mass and size restrictions and requiring only temporary intersection upgrades along its length;
    - Wind farm route: as the busiest delivery stream this route leverages the VicRoads network until the last 850 m of its length which will minimise the risk to road safety and disruption to local road users and makes use of a large intersection with existing turning lanes (at the intersection of Sisters – Garvoc Rd and the Prices Hwy) which will further reduce the risk to road safety and disruption, while ensuring that the mass and size restrictions of the bridge on Sisters – Garvoc Rd are not exceeded;
    - Substation route: this route leverages the VicRoads network until the point of entry to the site, thereby minimising the risk to road safety and disruption to local road users;
    - All three site entrances are located on existing property driveways, meaning no new access points will be required;
- Swept path analyses have been carried out by an independent transport engineering firm and it was found that no intersections along the delivery route will require permanent upgrades, with proposed road works limited to temporary gravel hardstands and temporary removal of street furniture;
- As the project is located on the Princess Highway in between a regional city, namely Warrnambool, and two regional towns, Terang and Cobden, it is anticipated that the majority of construction materials (including crushed rock and concrete) will be sourced from the region surrounding Warrnambool, Terang and Cobden and will therefore be delivered to the site via approved local routes;
- During construction the project will generate approximately 5000 vehicle movements, with a peak of approximately 200 daily movements;

- Operational impacts on the road network will be negligible, with approximately one visit per month required for maintenance activities; and
- The development of a traffic management plan via standard permit conditions, in consultation with Corangamite Shire Council, Moyne Shire Council, and VicRoads, will suitably manage any potential impacts to transport infrastructure and traffic movements during and after construction.

For more information concerning access to transport infrastructure and potential impacts to the transport network please refer to the Preliminary Transport Assessment in Volume 2.

10.7.2 Site Entrances

The proposed wind farm will require three site entrances. These are:

- Entrance 1: Located on Sisters – Garvoc Rd, this entrance will provide access for construction personnel, machinery and materials for all five wind turbine generators and ancillary infrastructure, as well as the site office and staging area;
- Entrance 2: Located on the Princes Hwy, this entrance will provide access for construction of the substation and above ground powerline connecting the substation with the electricity grid; and
- Entrance 3: Located on Coyles Rd, this entrance will be used for delivery of OSOM turbine components.

All three of these site entrances will be located on existing property driveways, meaning there will be no requirement for the creation of new access points. In the case of Entrance 3 works will be required to facilitate delivery of oversize and over-mass turbine (OSOM) components, while in the case of Entrance 1 and Entrance 2 only minor works will be required to facilitate delivery of construction materials and substation components respectively.

10.8 Bushfire Prevention and Safety

Both Clause 52.32 and the Policy and Planning Guidelines stipulate that proponents of wind farms must assess the potential bushfire risk associated with proposed projects.

A Fire Risk Assessment has been prepared by Fire Risk Consultants in support of this application. This risk assessment follows the guidance provided by the CFA in their *Design Guidelines and Model Requirements: Renewable Energy Facilities 2022*, as well as relevant local planning policies. The assessment of fire risk within the wind energy facility including the nacelle, substation and office compound identified that these types of developments represent a low risk in terms of bushfire. This risk level, combined with the mitigation treatments outlined within the CFAs *Design Guidelines and Model Requirements: Renewable Energy Facilities 2022* which all wind farm developments must comply with, ensures a high level of fire safety in any new wind energy facility. Accordingly, the outcome of the risk assessment has indicated that the development can occur in this landscape and not increase the risk of fire to the surrounding community or other infrastructure.

The risk assessment also recommended a range of mitigations to manage fire risk including:

- Installation of four static water supply tanks of a minimum of 45,000 litres each spread across the development;
- Provision of fire breaks around the base of the wind turbines, the substation and office compound;
- Provision of overtaking bays within the access track network of the development; and
- Ongoing maintenance programs for the life of the project in accordance with the relevant Standards or manufacturer specifications.

All of these mitigation measures will be adopted as part of the development. Proposed locations for fire breaks, passing bays and static water supply tanks are shown in Section 13, Figure 30.

It is also worth noting that, in accordance with the CFA Guidelines, the proposed wind farm is situated on open grassed paddocks free of obstacles to firefighting aircraft, and that the spacing between wind turbines is greater than 300 m to allow for access by firefighting aircraft.

The development of an emergency management plan via standard permit conditions, in consultation with the CFA, will suitably manage any residual fire risks posed by the project. This plan will be prepared prior to the commencement of construction in consultation with the CFA to ensure best practice operational procedures both during and after construction.

For more information concerning the potential bushfire risk posed by the proposed wind farm refer to the Fire Risk Assessment in Volume 2.

10.9 Geotechnical

A Geotechnical Desktop Study has been completed to provide an initial assessment of the ground conditions most likely to be encountered at the site. The study did not raise any significant concerns in relation to the site being able to accommodate wind turbine foundations, nor other aspects of the project such as roads and hardstands. The Geotechnical Desktop Study can be found in Volume 2.

10.10 Construction Environmental Management Plan

The development of a Construction Environmental Management Plan (CEMP) via a standard permit condition will suitably manage the potential impacts to environmental, cultural and amenity values during the construction process. This plan will be prepared prior to the commencement of construction in consultation with the CMA, EPA, DTP, Agriculture Victoria, Moyne Shire Council, Corangamite Shire Council, CFA and DEECA as appropriate to ensure best practice procedures are adopted in the CEMP.

It is anticipated that the following management measures will be incorporated into the CEMP at a minimum:

- Measures to ensure the development footprint (which is also the activity area) is flagged and that no construction machinery or personnel leave the designated area;
- Measures to ensure all areas of native vegetation not to be cleared are flagged and protected by a vegetation retention zone shown on construction site plans;
- Measures to ensure all construction staff undergo a site induction which includes information about the environmental, cultural and amenity values of the site and its surrounds, and the measures implemented in order to protect them;
- Measures to locate stockpiles and machinery at appropriate distances from the environmental values of the site;
- Measures to tidy up and reinstate the site at the completion of construction;
- The development of a weed management plan which includes requirements relating to the cleansing of vehicles prior to entering the site, the sourcing of weed free construction materials, and the completion of pre and post construction weed surveys;
- The development of a sediment and erosion management plan which includes measures to avoid offsite impacts to waterways and water bodies; and
- The development of a construction noise management plan which includes measures to ensure noisy construction activities are conducted during appropriate hours.

10.11 Decommissioning Plan

The development of a Decommissioning Plan via a standard permit condition will suitably manage the potential impacts of the decommissioning process. This plan will be prepared following the commencement of construction in consultation with DTP, Corangamite Shire Council and Moyne Shire Council as appropriate to ensure best practice procedures are adopted in the Decommissioning Plan.

It is anticipated that the following management measures will be incorporated into the Decommissioning Plan at a minimum:

- Deconstruction and removal of wind turbine generators from the site;
- Deconstruction and removal of electrical infrastructure from the site;
- Covering of former turbine foundations with topsoil;
- Removal and reinstatement of hardstand areas; and
- Reseeding of all disturbed areas.

It is anticipated that access tracks would remain after decommissioning to serve as farm access tracks.

10.12 Consultation and Community Benefits

The Policy and Planning Guidelines recommend that proponents of wind farms develop a plan for community engagement for the purposes of ensuring effective community consultation prior to lodging of the permit application.

A community engagement plan has been prepared for the proposed wind farm and addresses the following themes:

- The identification of stakeholders;
- The consultation methods to be used and a schedule of consultation activities;
- How the results of community engagement activities will be recorded; and
- The details of the community benefit scheme.

To date a number of consultation activities have been undertaken to inform the community of the proposal and give local residents an opportunity to meet face-to-face with a company representative, including:

- The distribution of detailed information packages to all residents located within 5 km of a proposed wind turbine location;
- The launch of a project website; and
- Face-to-face house visits for all dwellings located within 3 km of a wind turbine location, and anywhere else that a house visit is requested.

Following submission of this planning application a similar range of consultation activities will be undertaken to further inform the surrounding community of the proposal, including but not limited to the distribution of additional information pamphlets, updates to the project website, further house visits, and community information sessions.

Further, in line with the objectives of the *Community Engagement and Benefit Sharing in Renewable Energy Developments – A Guide for Renewable Energy Developers*, the proposed wind farm will be accompanied by a community benefit scheme. While the details of this scheme will ultimately be determined in consultation with the local community, it will include as a minimum:

- Annual cash payments to immediate neighbours;
- Subsidies for energy efficiency measures for nearby dwellings;
- An annual fund for support of general community projects; and
- An annual fund for support of local education.

11 Conclusion

This report has provided an assessment against all relevant sections of the Corangamite Planning Scheme and Moyne Planning Scheme, including the Planning Policy Framework, the decision guidelines at Clause 65, and any other relevant matter.

Overall the proposal is strongly supported by the policies and objectives of the Corangamite Planning Scheme and Moyne Planning Scheme for the following reasons:

- The proposal is consistent with the Planning Policy Frameworks and relevant Particular Provisions;
- The proposal responds to the *Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria November 2021*;
- The application responds to the requirements of the Farming Zone;
- The proposal will not impact on agricultural uses within the area;
- The proposal responds to site conditions;
- The proposal will not have an unreasonable impact on the existing environmental values of the subject site or the adjoining or surrounding properties;
- The proposal will not have an impact on the cultural heritage values of the subject site and its surrounds;
- The proposal will not have an unreasonable impact on the landscape or the community amenity of the surrounding area;
- The proposal will result in an increase to the state of Victoria's wind energy supply, and importantly will assist in reducing the reliance on non-renewable energy; and
- The project will provide for a positive social impact through the delivery of community and neighbour benefit schemes.

On balance, the proposal is strongly supported by the suite of policies that seek to facilitate renewable energy facilities where there are minimal adverse impacts. The proposal is in a high-quality location for a wind energy facility, with minimal and acceptable impacts on landscape, environment and residential amenity.

It is respectfully submitted that the application warrants approval resulting in issue of a planning permit subject to conditions.

12 Development Plans

Swansons Lane Wind Farm

Development Plans

Overview

Legend

- Wind Turbine
- Substation
- Turbine Footing
- Hardstand
- Site Office
- Laydown Area
- Passing Bay
- Static Water Supply
- Access Track
- 140m Meteorological Mast

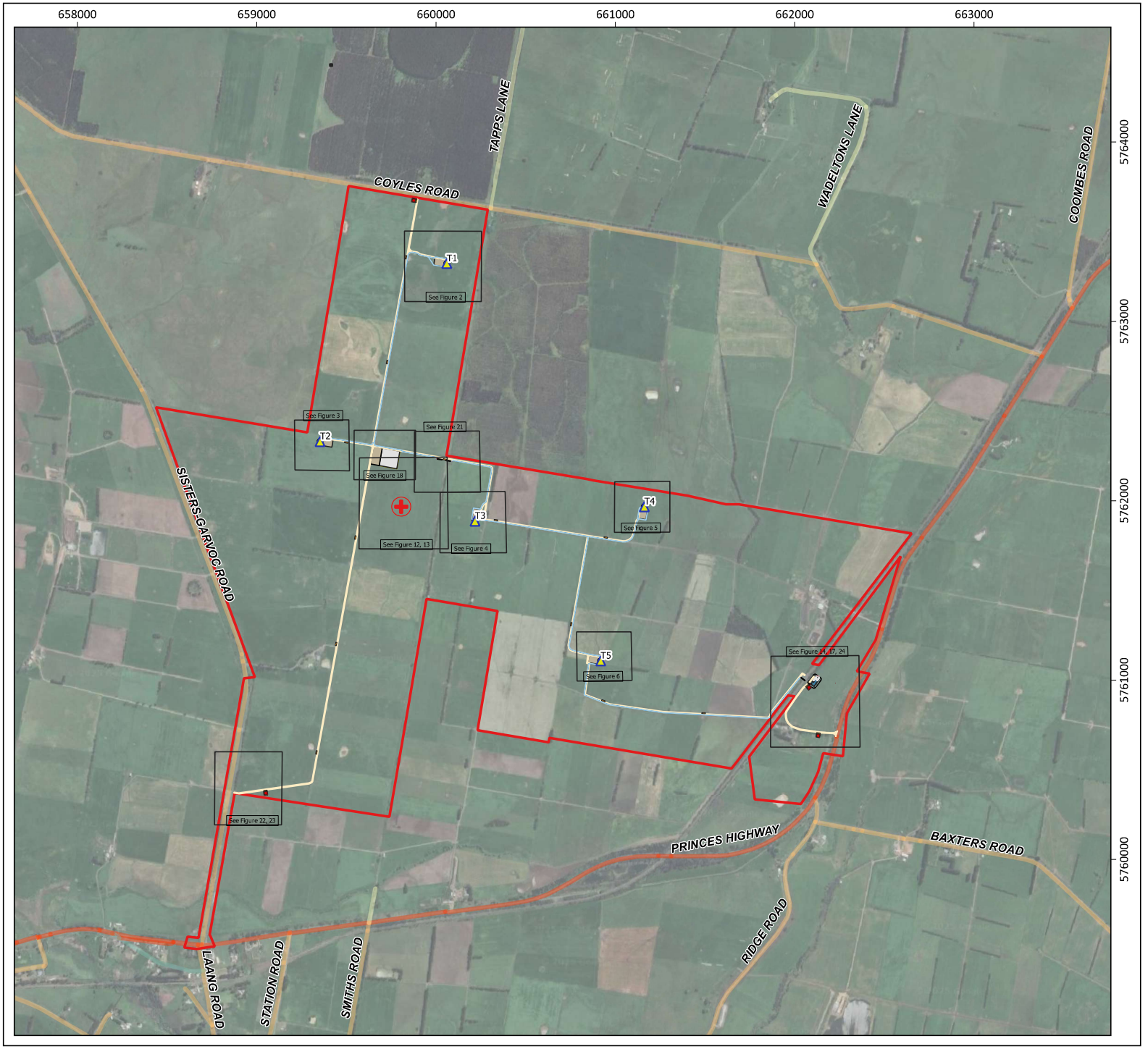
Local Roads

- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 10-02-2025
Approved: SS	Figure: 01

0 500 1,000 m

RE Future



Swansons Lane Wind Farm

Development Plans

Wind Turbine 1

Legend

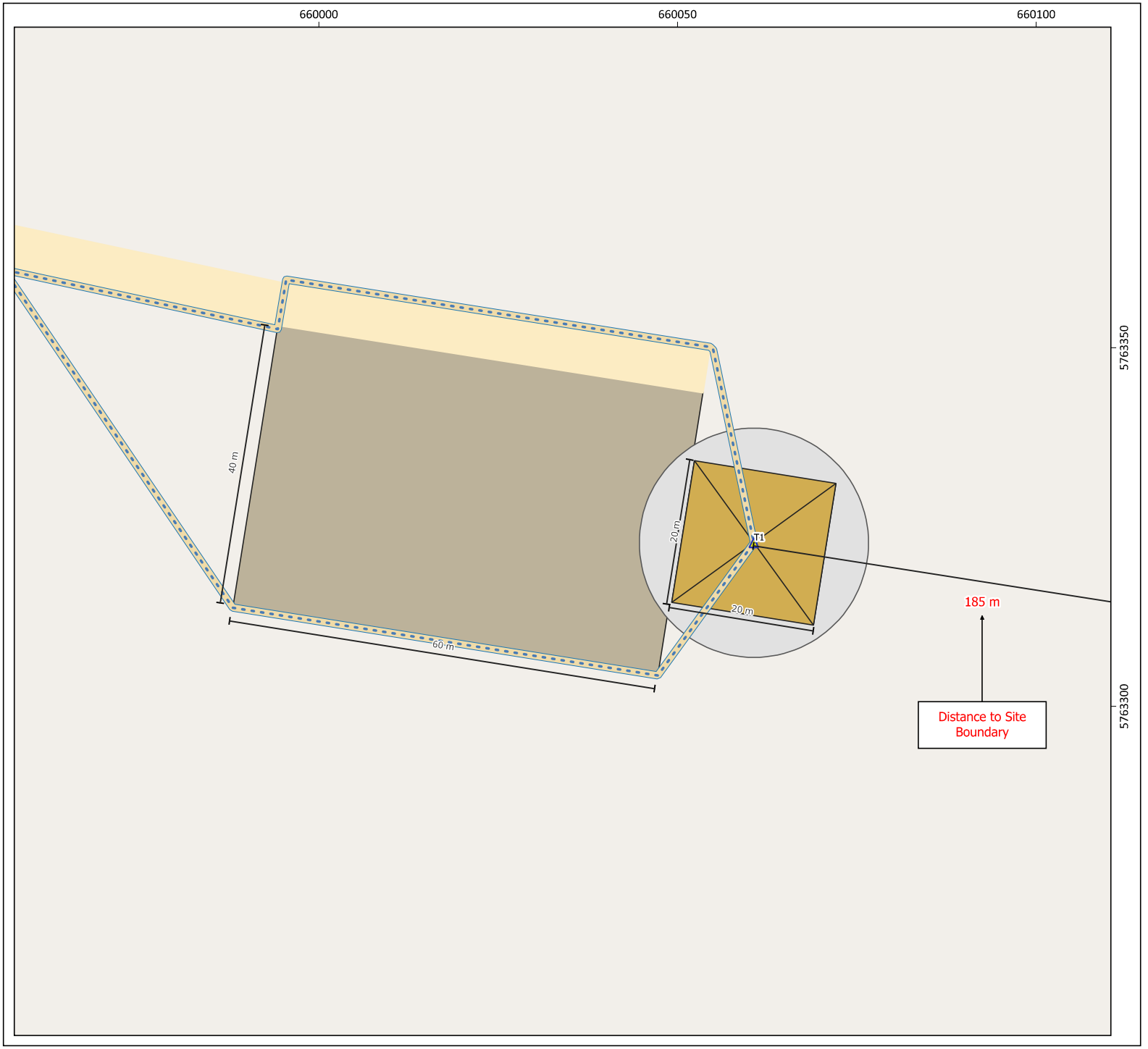
- Wind Turbine
- Turbine Footing
- Hardstand
- Access Track

Cabling

- Underground
- Cable Trench
- 10m Firebreak

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 02

0 10 20 m



RE Future

Swansons Lane Wind Farm

Development Plans

Wind Turbine 2

Legend

- Wind Turbine
- Turbine Footing
- Hardstand
- Access Track

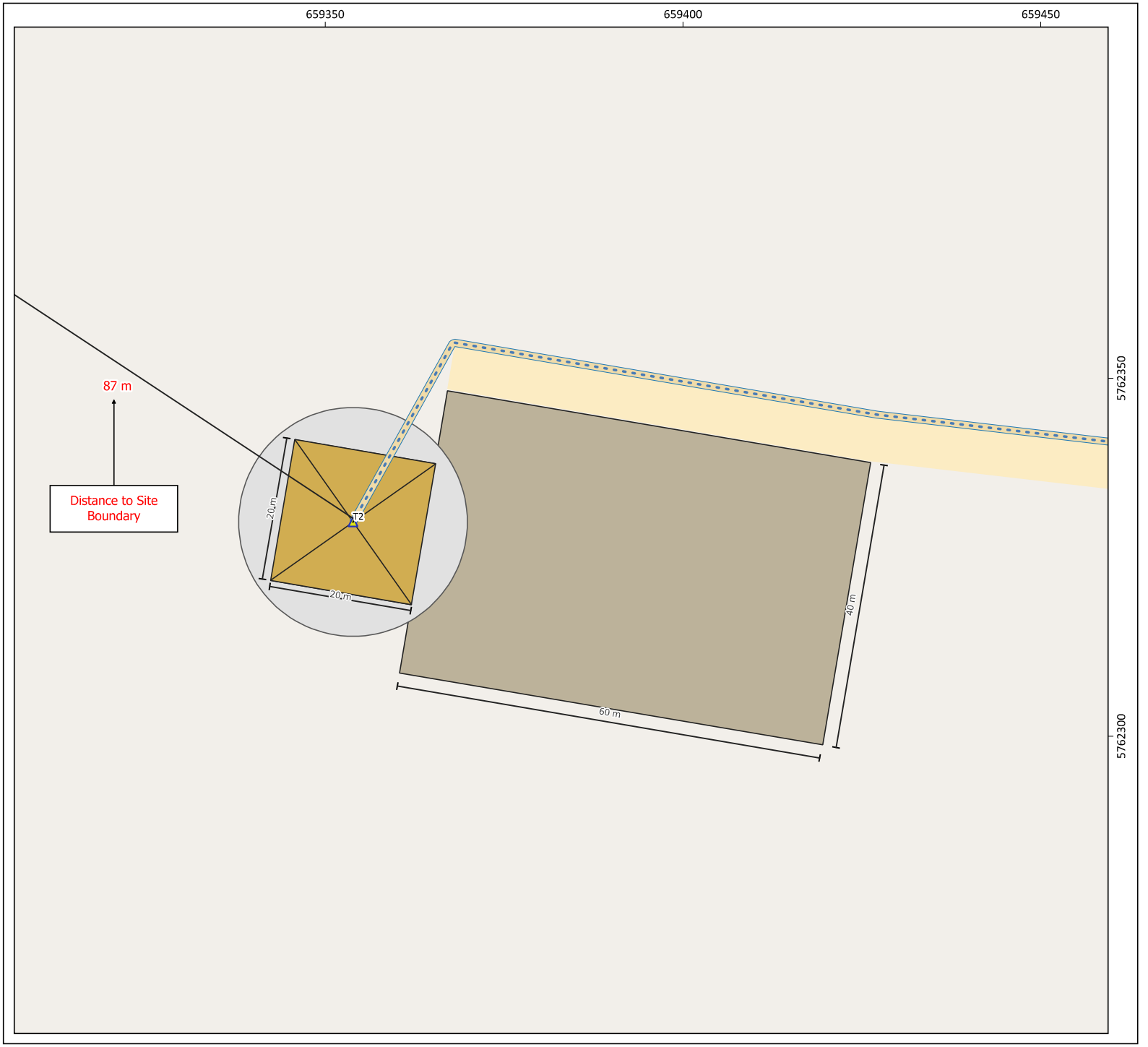
Cabling

- Underground
- Cable Trench
- 10m Firebreak

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 03

0 10 20 m

RE Future



Swansons Lane Wind Farm

Development Plans

Wind Turbine 3

Legend

- Wind Turbine
- Turbine Footing
- Hardstand
- Access Track

Cabling

- Underground
- Cable Trench
- 10m Firebreak

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 04

0 10 20 m

RE Future

660150 660200 660250

5761950 5761900

Distance to Site Boundary → 325 m

40 m

60 m

T3

20 m

20 m

Swansons Lane Wind Farm

Development Plans

Wind Turbine 4

Legend

- Wind Turbine
- Turbine Footing
- Hardstand
- Access Track

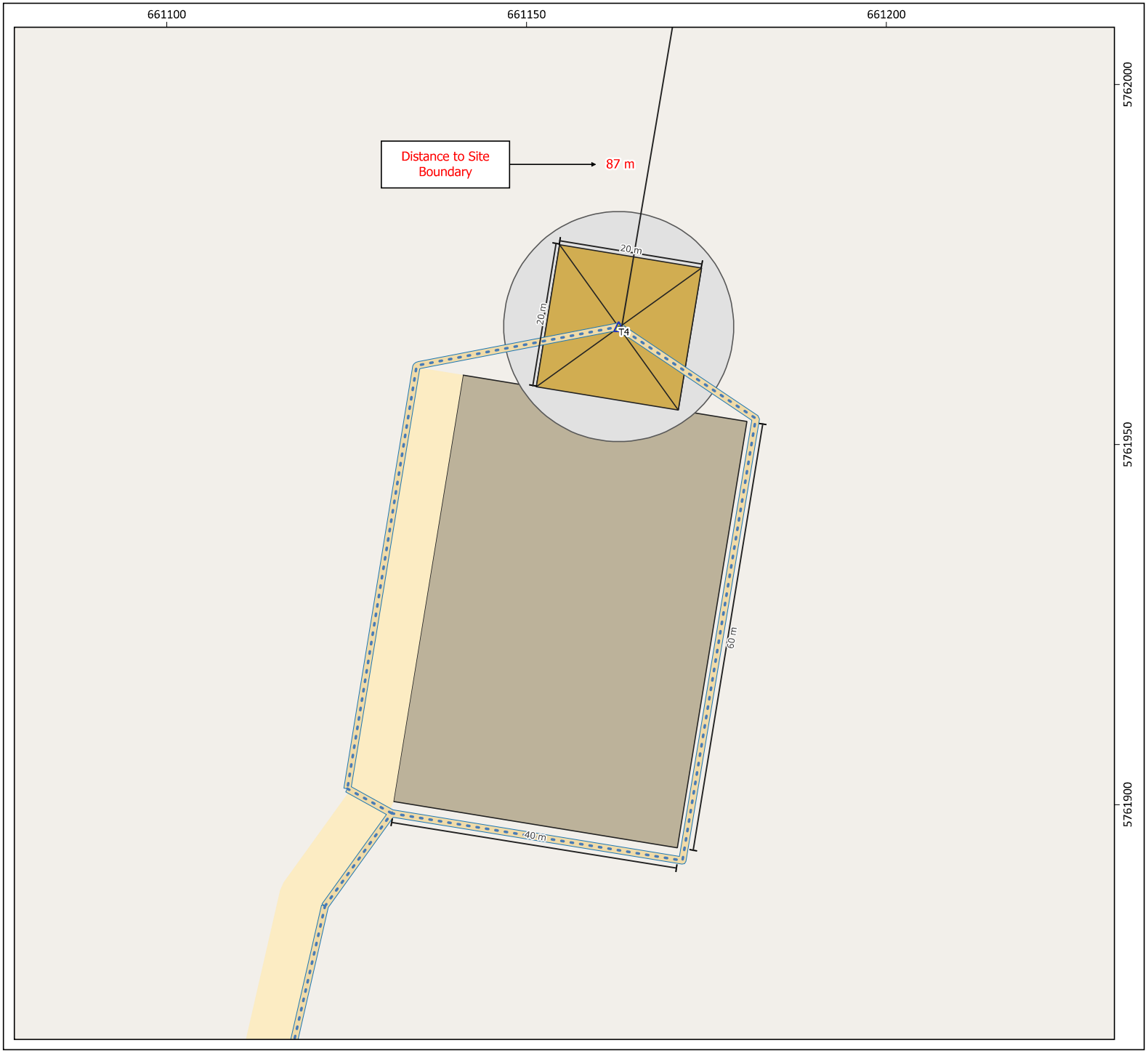
Cabling

- Underground
- Cable Trench
- 10m Firebreak

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 05

0 10 20 m

RE Future



Swansons Lane Wind Farm

Development Plans

Wind Turbine 5

Legend

- Wind Turbine
- Turbine Footing
- Hardstand
- Access Track

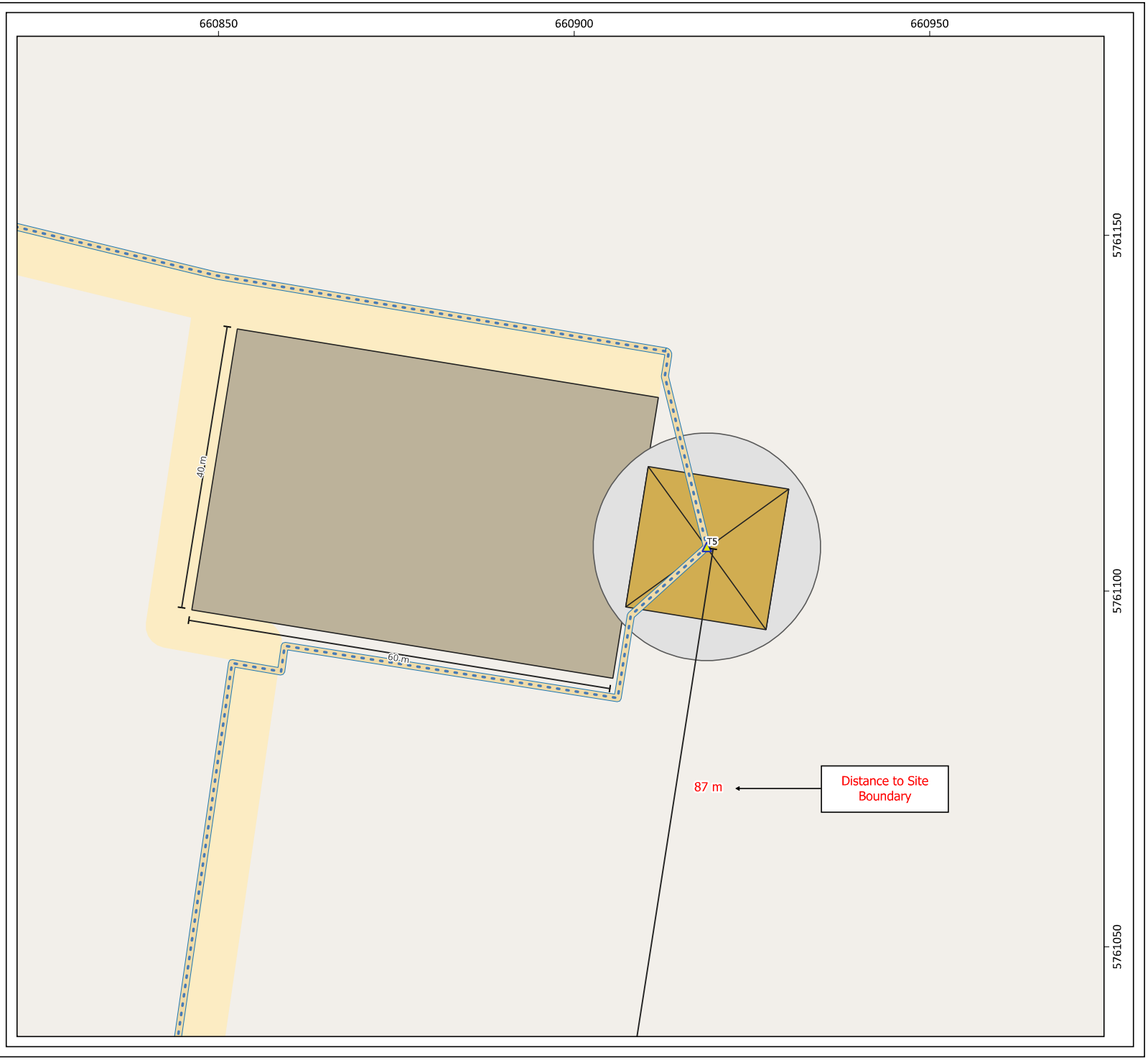
Cabling

- Underground
- Cable Trench
- 10m Firebreak

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 06

0 10 20 m

RE Future



Swansons Lane Wind Farm

Development Plans

Turbine Elevation

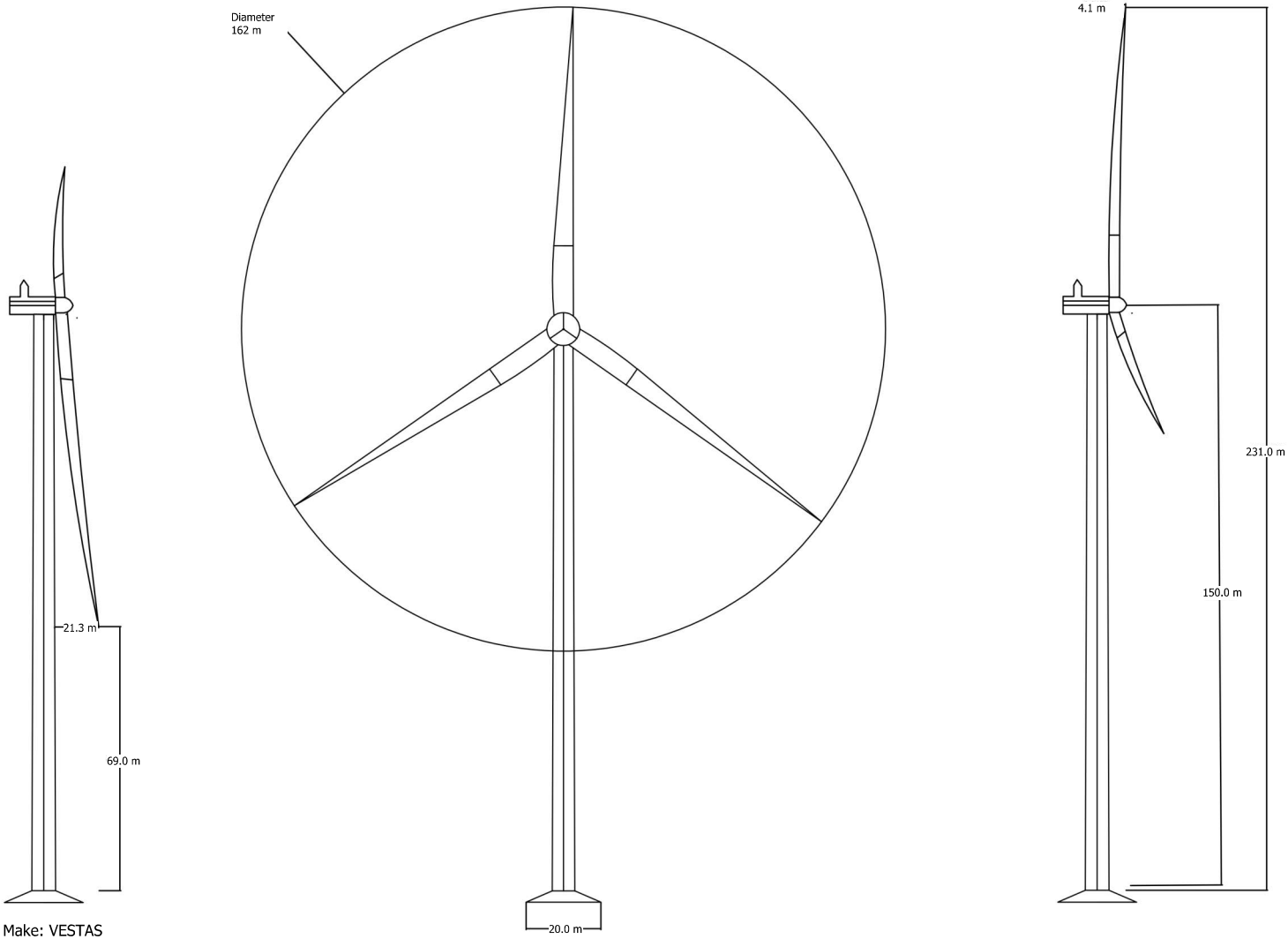
Vestas V162 - 150m Hub Height

Indicative Detail

Not for Construction

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 07

RE Future



Make: VESTAS
Model: V162
Capacity: 6.8 mW
Nacelle, Cooler Tor/Rotor Hub Material: Steel framed fibreglass composite cover
Blade Material: Fibreglass composite
Tower Material: Concrete with steel reinforcment
Stair Material: Aluminium
Colour and Finish of Stairs: Natural Aluminium
Colour and Finish of Turbines: Light Grey (RAL 7035). {industry Standard}
Colour and Finish of Foundations: Cement Grey, Natural Concrete

Swansons Lane Wind Farm

Development Plans

Turbine Elevation

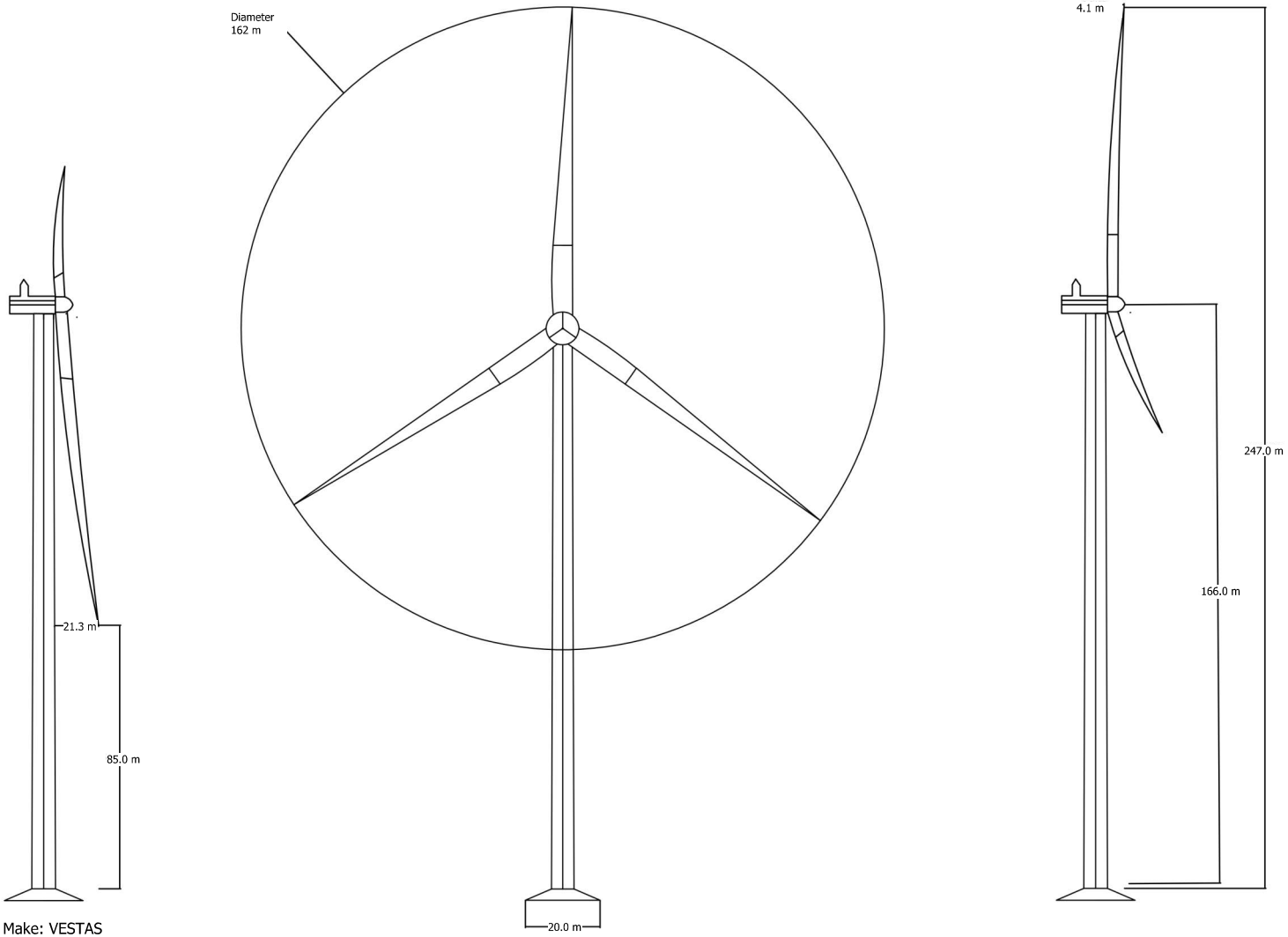
Vestas V162 - 166m Hub Height

Indicative Detail

Not for Construction

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 08

RE Future



Make: VESTAS
Model: V162
Capacity: 6.8 mW
Nacelle, Cooler Tor/Rotor Hub Material: Steel framed fibreglass composite cover
Blade Material: Fibreglass composite
Tower Material: Concrete with steel reinforcment
Stair Material: Aluminium
Colour and Finish of Stairs: Natural Aluminium
Colour and Finish of Turbines: Light Grey (RAL 7035). {industry Standard}
Colour and Finish of Foundations: Cement Grey, Natural Concrete

Swansons Lane Wind Farm

Development Plans

Turbine Elevation

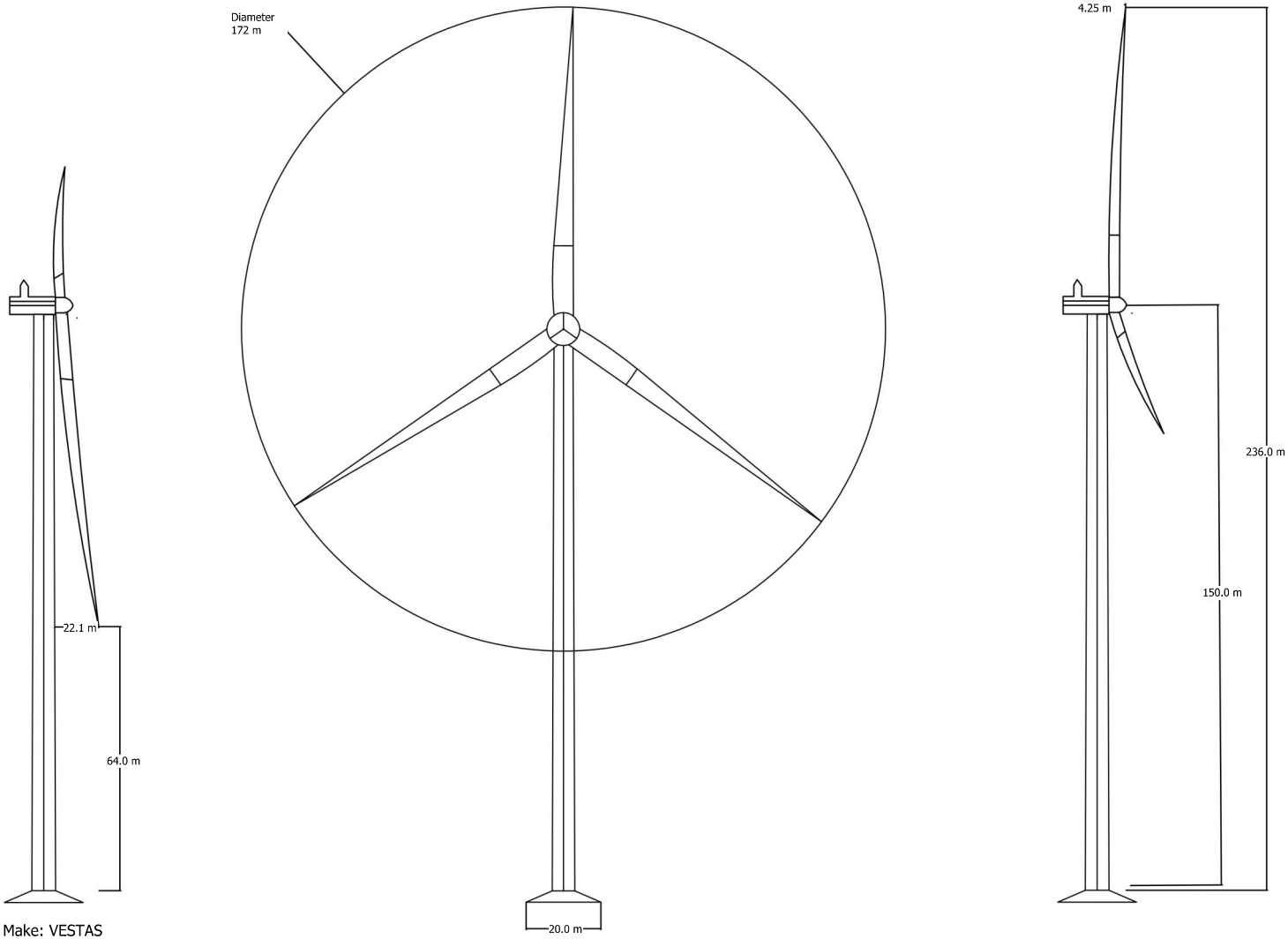
Vestas V172 - 150m Hub Height

Indicative Detail

Not for Construction

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 09

RE Future



Make: VESTAS
Model: V172
Capacity: 6.8 mW
Nacelle, Cooler Tor/Rotor Hub Material: Steel framed fibreglass composite cover
Blade Material: Fibreglass composite
Tower Material: Concrete with steel reinforcment
Stair Material: Aluminium
Colour and Finish of Stairs: Natural Aluminium
Colour and Finish of Turbines: Light Grey (RAL 7035). {industry Standard}
Colour and Finish of Foundations: Cement Grey, Natural Concrete

Swansons Lane Wind Farm

Development Plans

Turbine Elevation

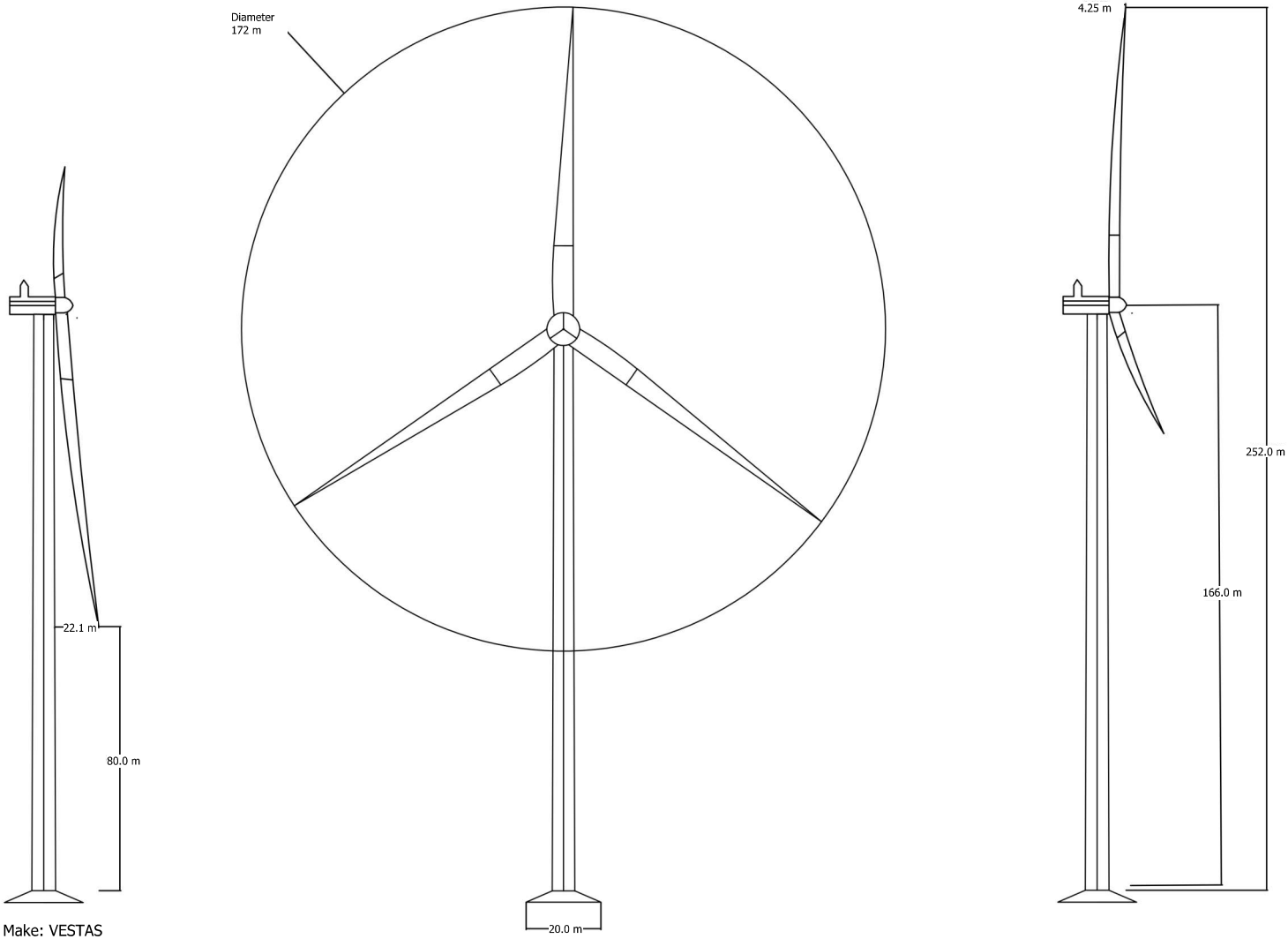
Vestas V172 - 166m Hub Height

Indicative Detail

Not for Construction

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 09-01-2025
Approved: SS	Figure: 10

RE Future



Make: VESTAS
Model: V172
Capacity: 6.8 mW
Nacelle, Cooler Tor/Rotor Hub Material: Steel framed fibreglass composite cover
Blade Material: Fibreglass composite
Tower Material: Concrete with steel reinforcment
Stair Material: Aluminium
Colour and Finish of Stairs: Natural Aluminium
Colour and Finish of Turbines: Light Grey (RAL 7035). {industry Standard}
Colour and Finish of Foundations: Cement Grey, Natural Concrete

Swansons Lane Wind Farm

Development Plans

Meteorological Mast Plan View

Legend

- 140m Meteorological Mast
- Meteorological Mast Guy Radius

Drawn: AM	Scale when printed at A3: 1:1,200
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 11

0 10 20 m

RE Future

Swansons Lane Wind Farm

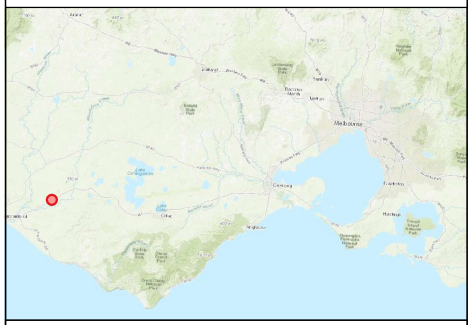
Development Plans

Meteorological Mast Elevation

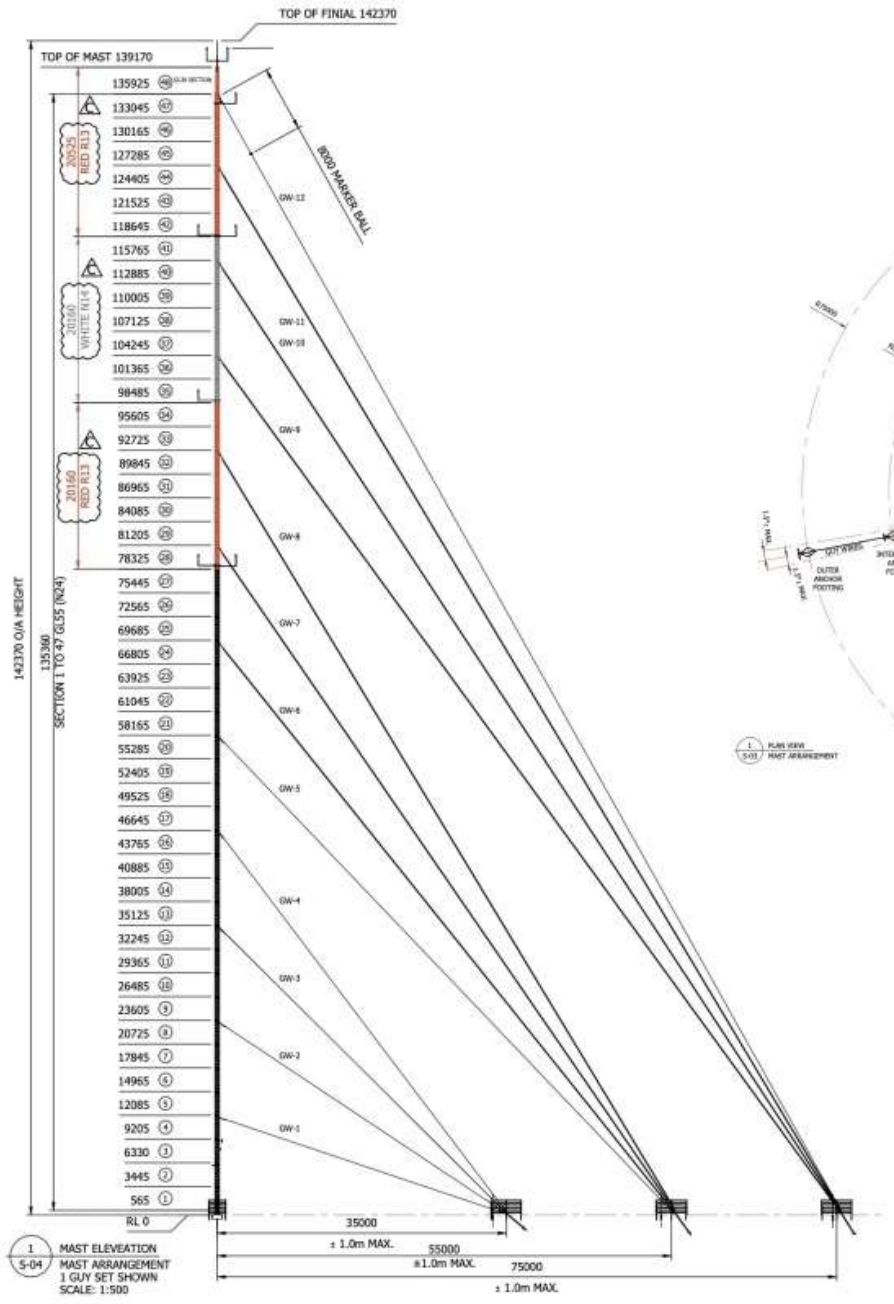
Indicative Detail

Not for Construction

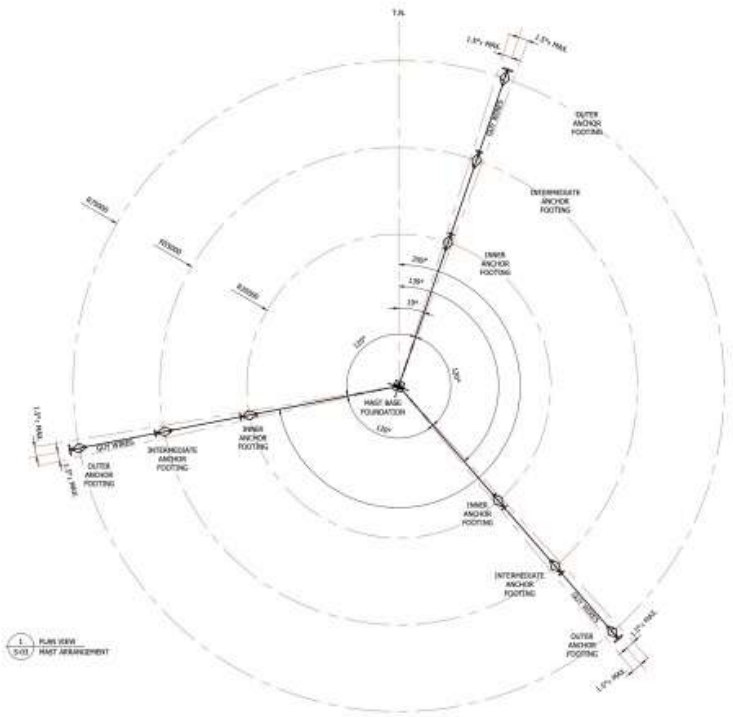
Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 29-05-2025
Approved: SS	Figure: 12



RE Future



Elevation



Plan

Swansons Lane Wind Farm

Development Plans

Substation Plan View

Legend

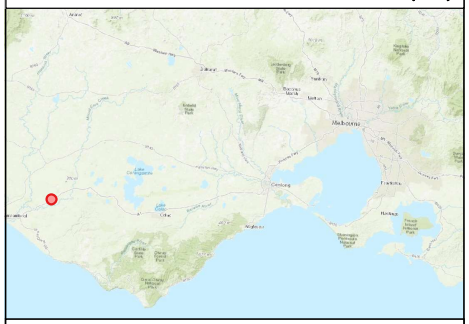
Cabling
- Underground
- Above Ground
- Cable Trench
- Proposed 66 kV Pole

Substation Infrastructure
- Control Building
- Switchyard Infrastructure Pad
- Transformer pad
- TX
- Substation Lines
- Substation
- Parking
- 10m Fire Break

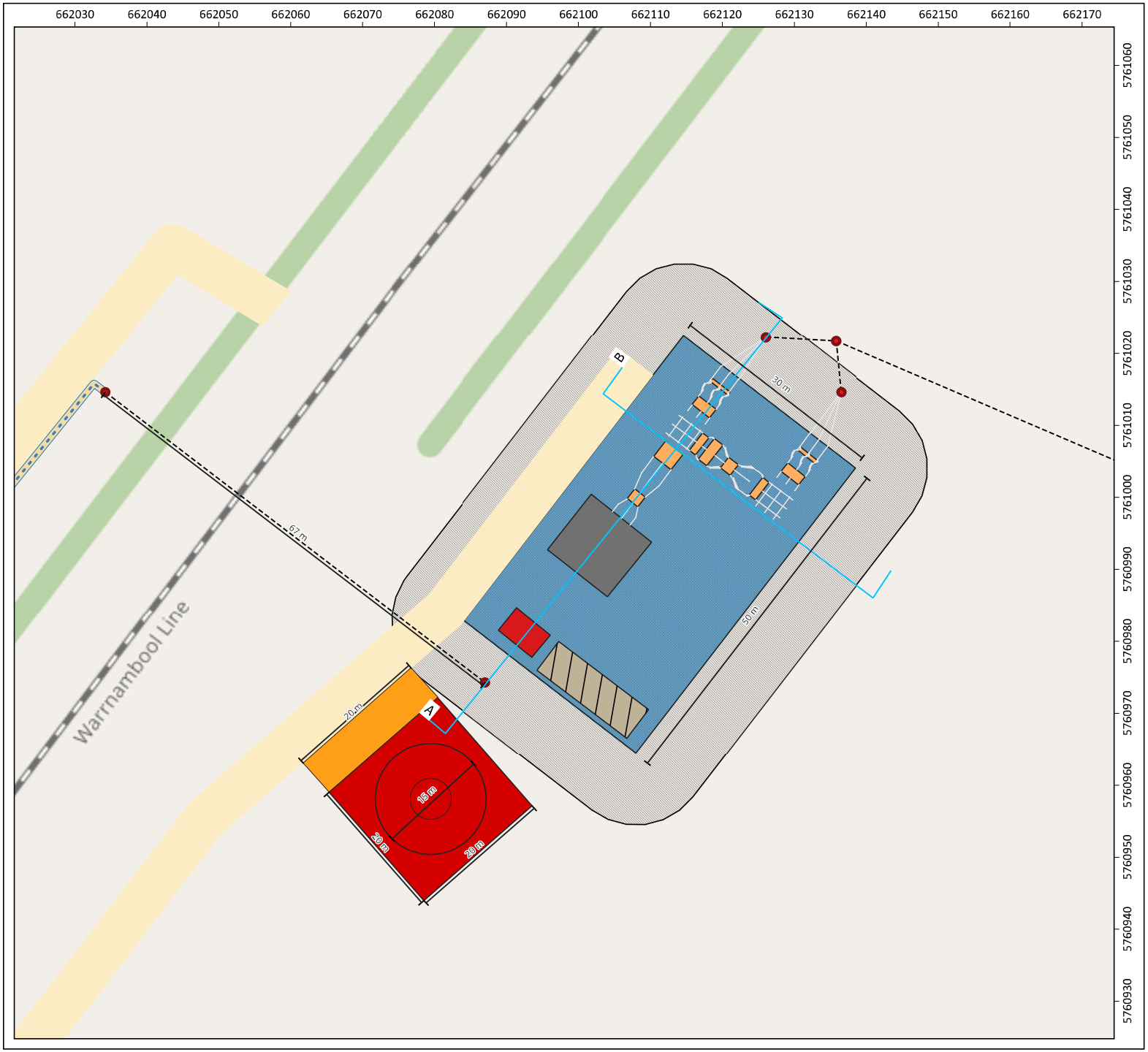
Project Infrastructure
- Access Track
- Static Water Supply
- Passing Bay

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 13

0 10 20 m



RE Future



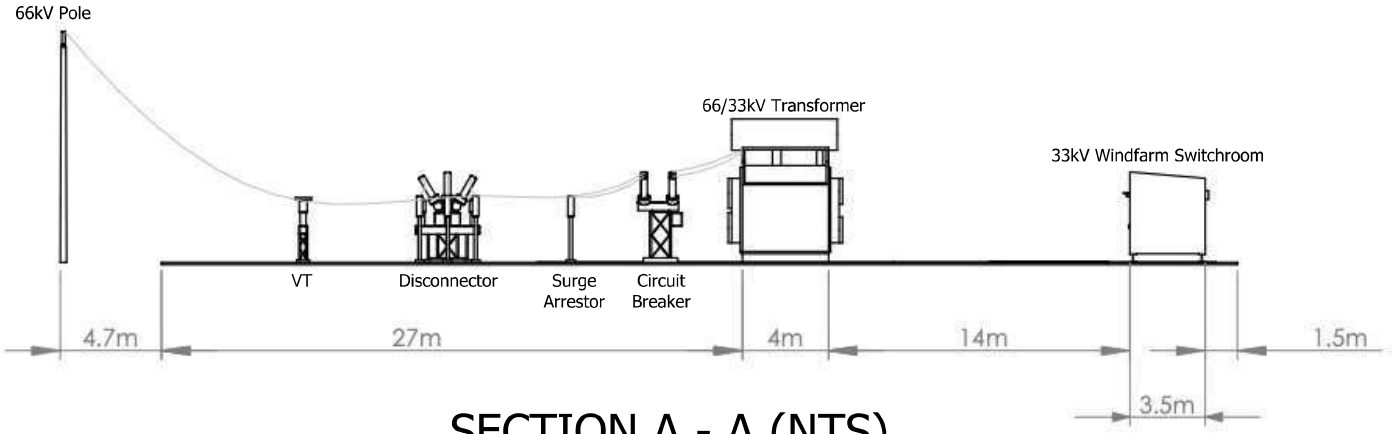
Swansons Lane Wind Farm

Development Plans

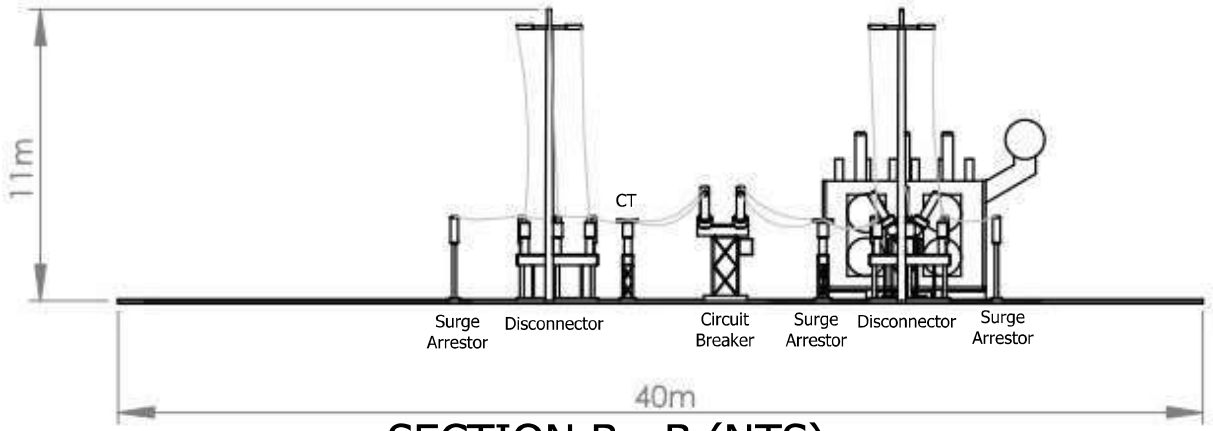
Substation Elevation View

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 14

RE Future



SECTION A - A (NTS)



SECTION B - B (NTS)

Swansons Lane Wind Farm

Development Plans

Connection Detail

Legend

- Subject Site
- Passing Bay
- Static Water Supply
- Access Track

Substation Infrastructure

- Control Building
- Switchyard Infrastructure Pad
- Transformer pad
- TX
- Substation

Cabling

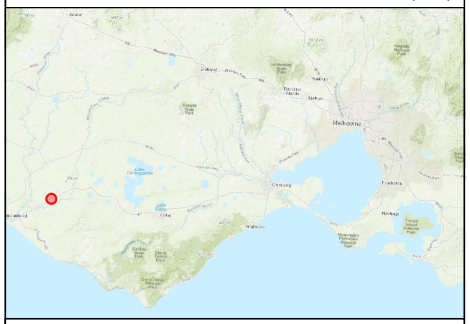
- Underground
- Above Ground
- Existing 66 kV Line
- Proposed 66 kV pole
- Existing 66 kV Pole

Local Roads

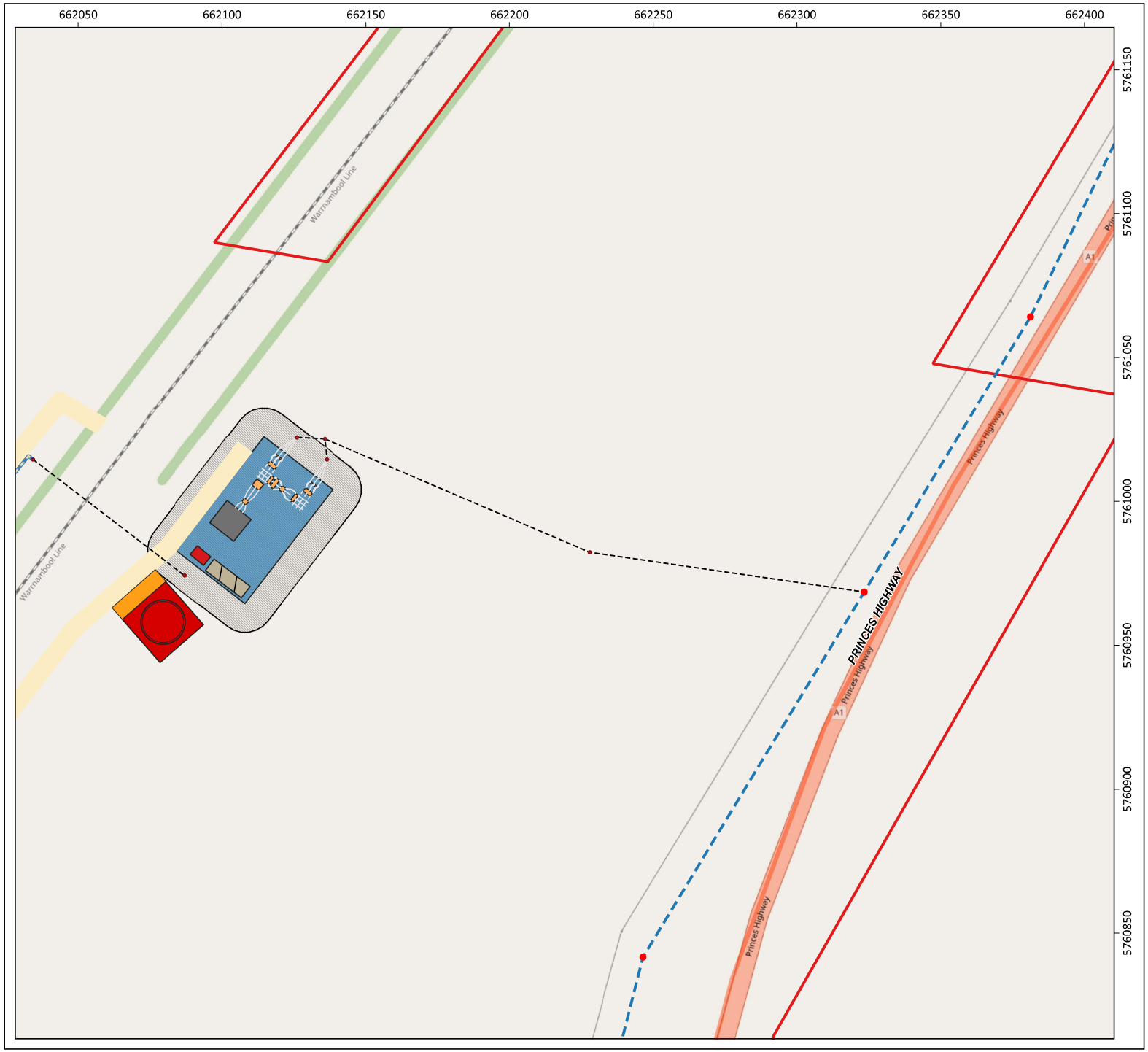
- HIGHWAY

Drawn: AM	Scale when printed at A3: 1:1,250
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 15

0 25 50 m



RE Future



Swansons Lane Wind Farm

Development Plans

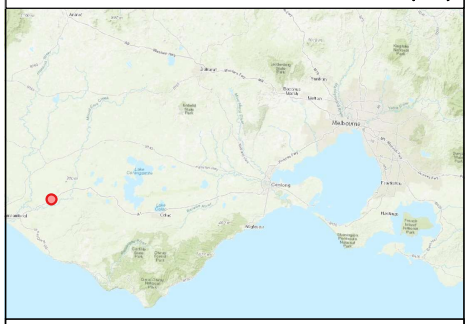
Gas Pipeline Crossing

Legend

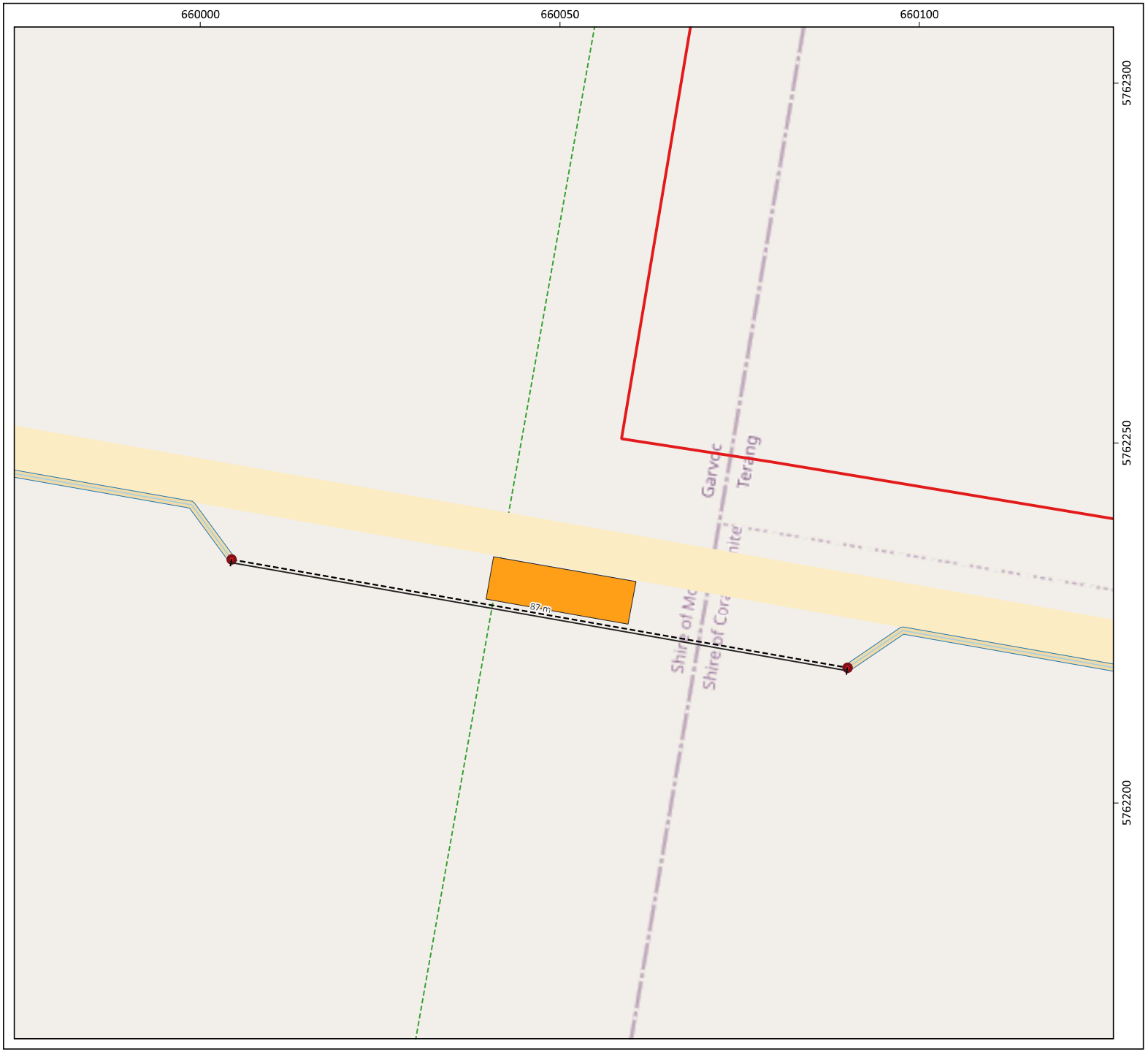
- Passing Bay
- Proposed 66 kV Pole
- Above Ground Cabling
- Cabling
- Cable Trench
- Access Track
- Subject Site
- Gas Pipeline

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 16

0 15 30 m



RE Future



Swansons Lane Wind Farm

Development Plans

Rail Line Crossing

Legend

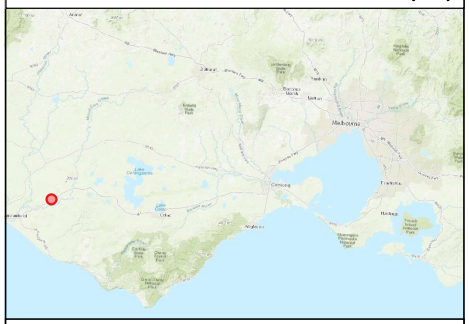
- Subject Site
- Passing Bay
- Proposed 66 kV Pole
- Above Ground Cabling
- Cabling
- Cable Trench
- Access Track
- Static Water Supply

Substation Infrastructure

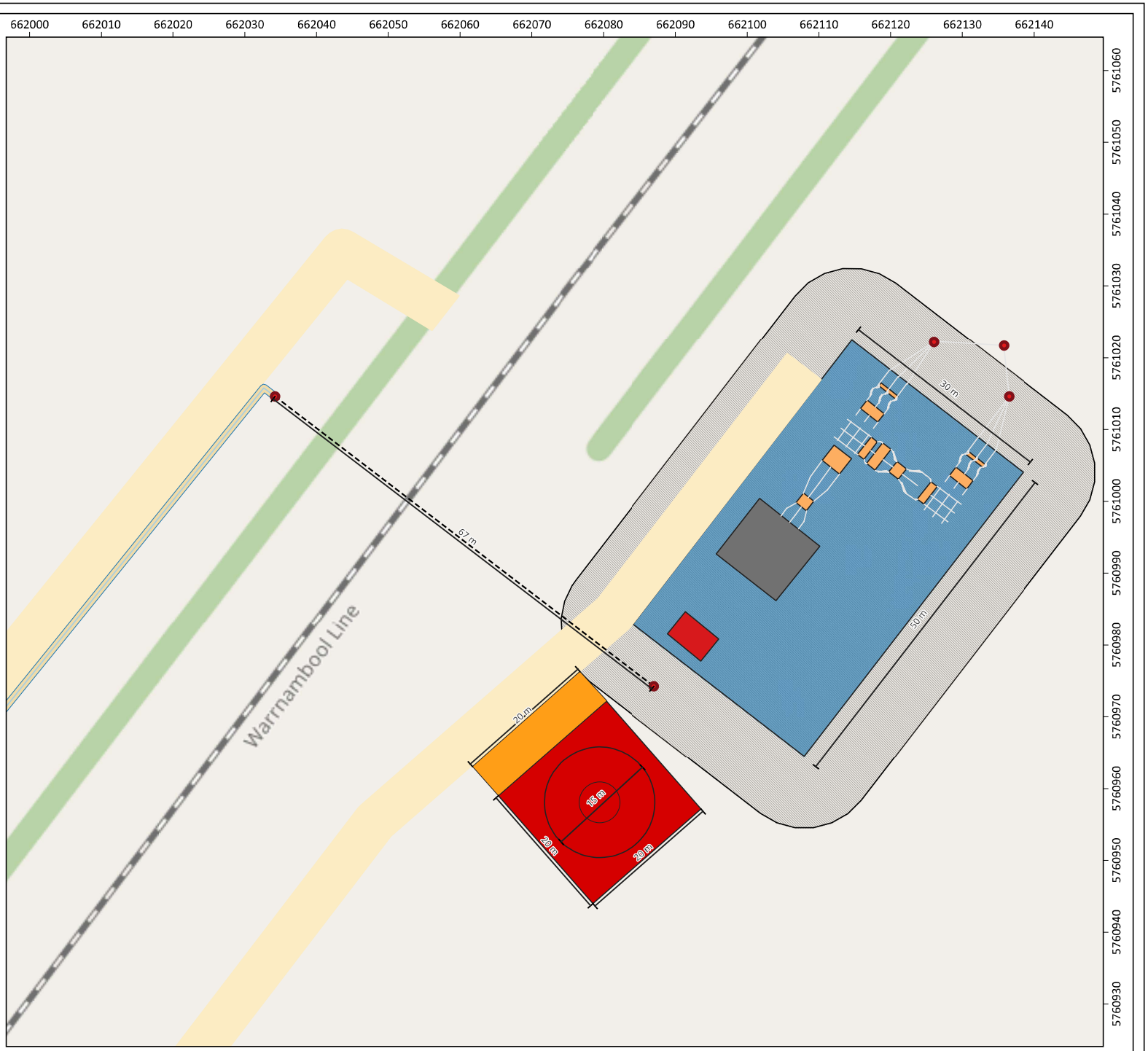
- Control Building
- Switchyard Infrastructure Pad
- Transformer pad
- TX
- Substation Area
- 10m Fire Break
- Substation Lines

Drawn: AM	Scale when printed at A3: 1:500
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 17

0 15 30 m



RE Future



Swansons Lane Wind Farm

Development Plans

Site Office and Laydown Area

Legend

- Laydown Area
- Access Track

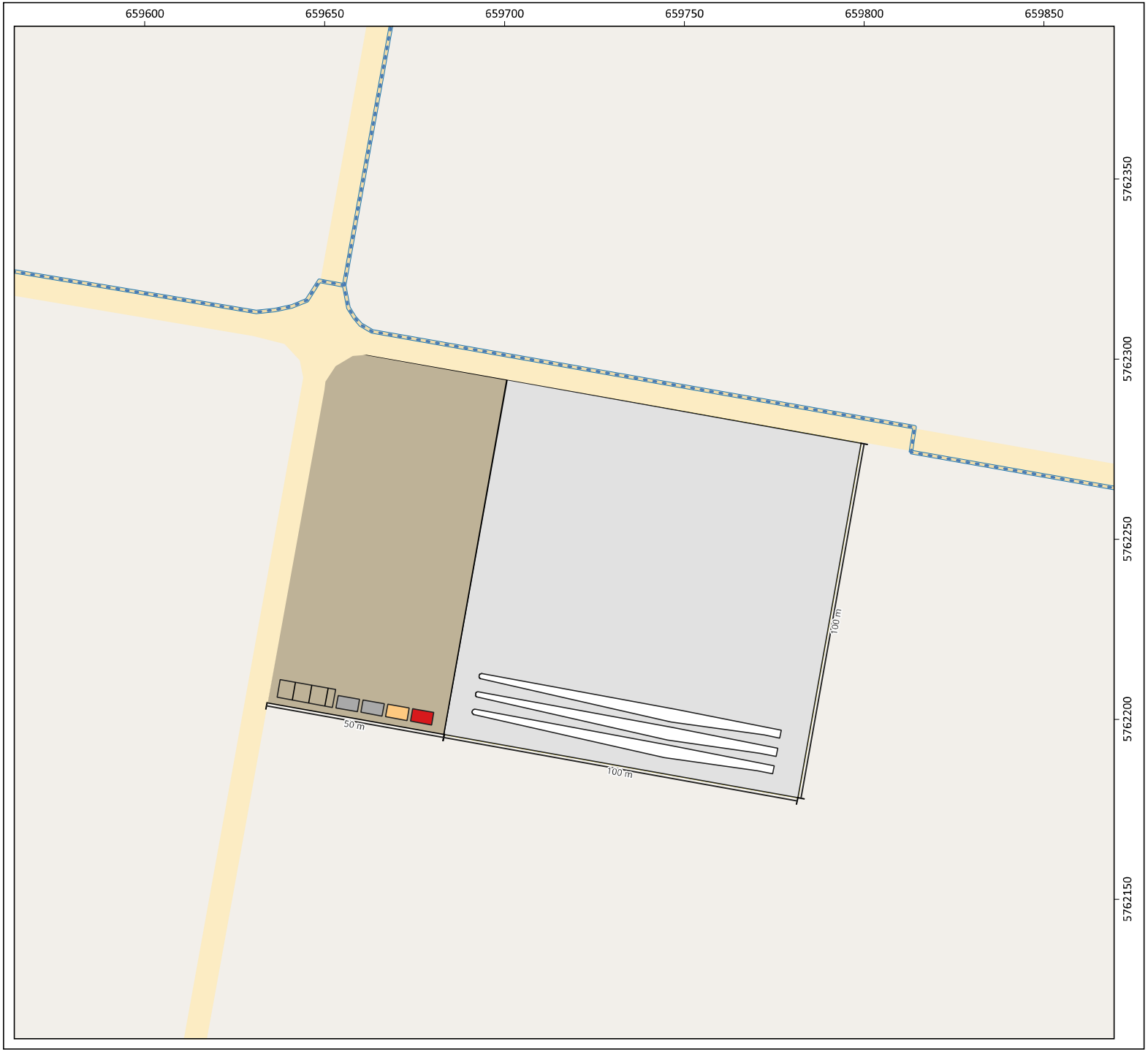
Site Office Compound

- Abolution Block
- Mess Hall
- Site Office
- Staging Area

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 18

0 25 50 m

RE Future



Swansons Lane Wind Farm

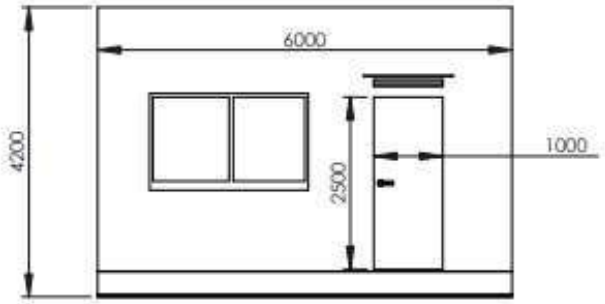
Development Plans

Typical Office and Mess Building

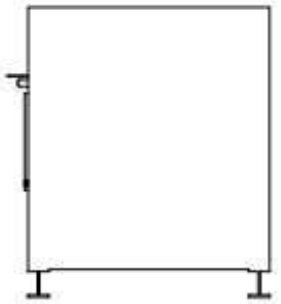
Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 19

RE Future

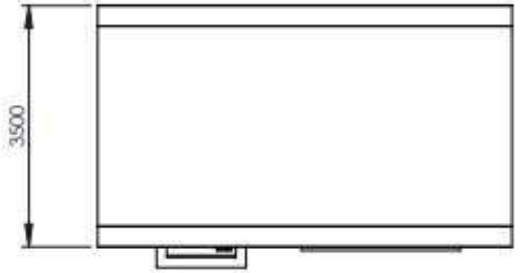
FRONT VIEW

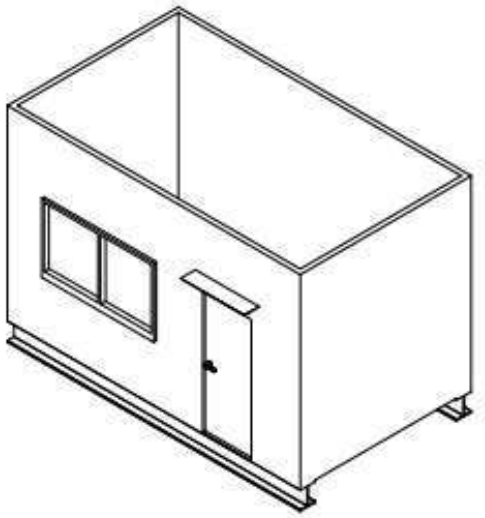


SIDE VIEW



TOP VIEW





Swansons Lane Wind Farm

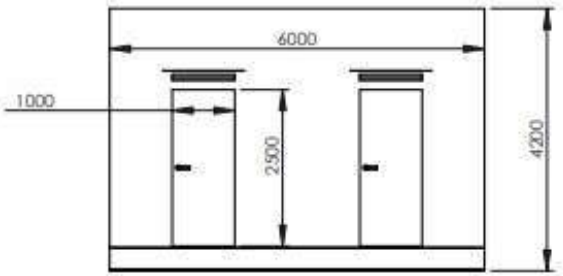
Development Plans

Typical Amenities Building

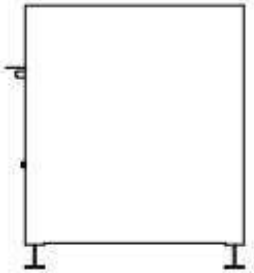
Drawn AM	Scale when printed at A3 Not to Scale
Checked VM	Date 06-02-2025
Approved SS	Figure 20

RE Future

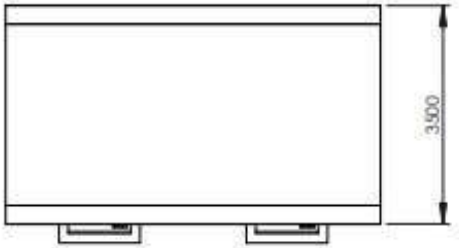
FRONT VIEW

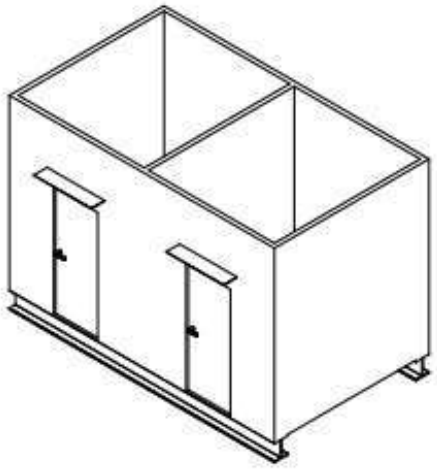


SIDE VIEW



TOP VIEW



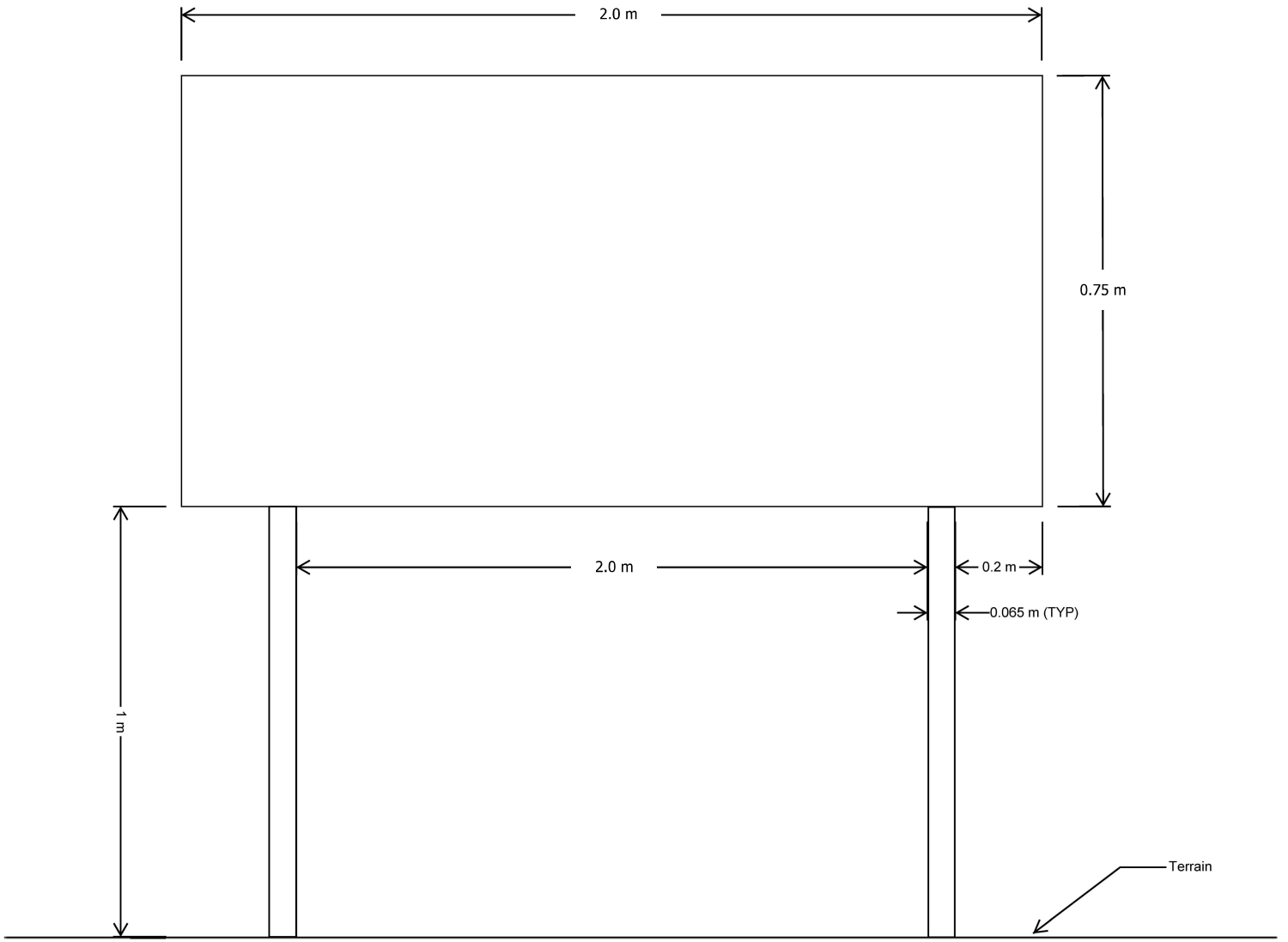


Swansons Lane Wind Farm

Development Plans

Signage Elevation

Drawn: AM	Scale when printed at A3: Not to Scale
Checked: VM	Date: 10-02-2025
Approved: SS	Figure: 21



Swansons Lane Wind Farm

Development Plans

Signage Location

Legend

- Wind Turbine
- Substation
- Turbine Footing
- Hardstand
- Site Office
- Laydown Area
- Passing Bay
- Static Water Supply
- Access Track
- Sign Location
- Subject Site
- 140m Meteorological Mast

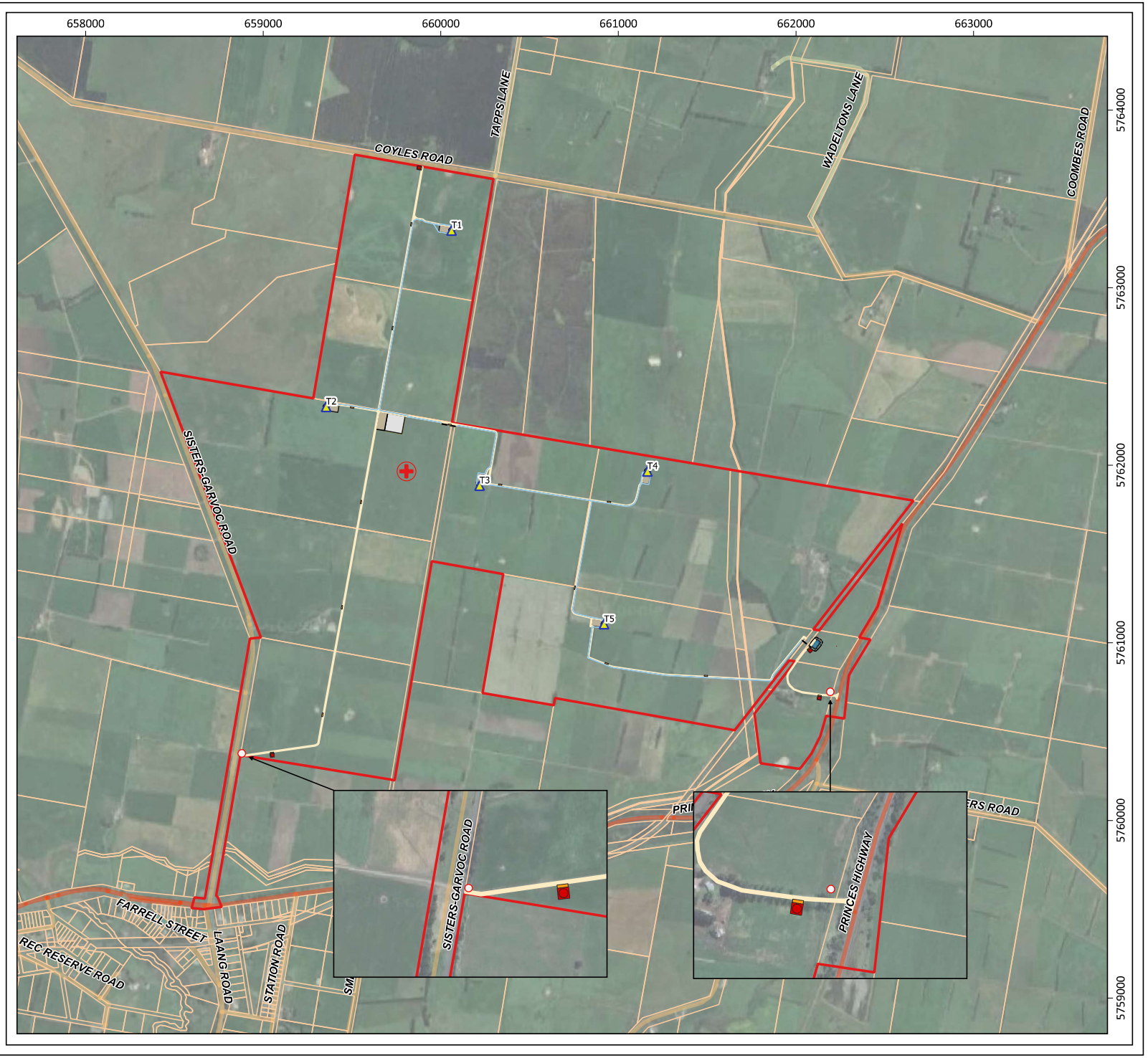
Local Roads

- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 22

0 500 1,000 m

RE Future



Swansons Lane Wind Farm

Development Plans

Site Entrance 1 Detail

Legend

- Passing Bay
- Static Water Supply
- Access Track (Permanent)
- Subject Site

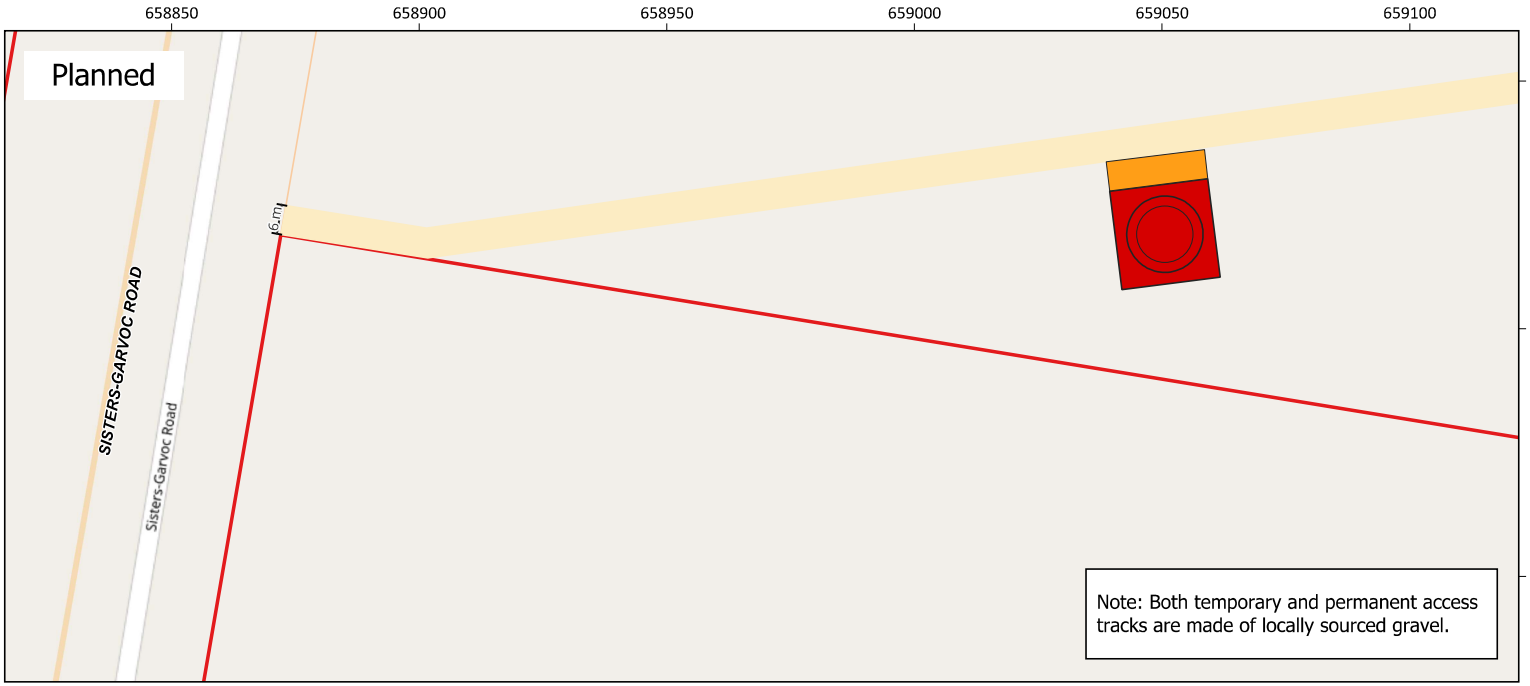
Local Roads

- ROAD

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 23

0 25 50 m

RE Future



Swansons Lane Wind Farm

Development Plans

Site Entrance 2 Detail

Legend

- Passing Bay
- Static Water Supply
- Access Track (Permanent)
- Subject Site

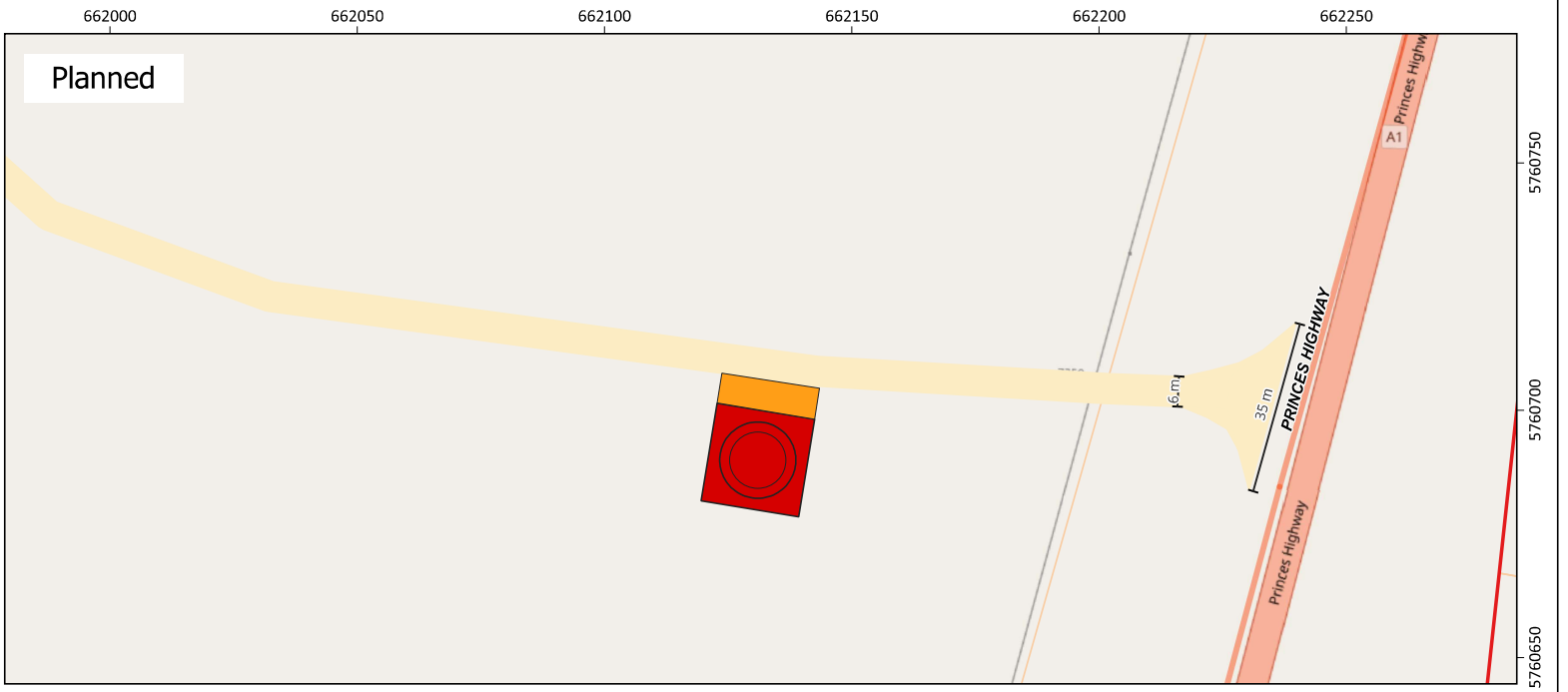
Local Roads

- HIGHWAY

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 24

0 25 50 m

RE Future



Swansons Lane Wind Farm

Development Plans

Site Entrance 3 Detail

Legend

- Passing Bay
- Static Water Supply
- Access Track (Permanent)
- Access Track (Temporary)
- Subject Site

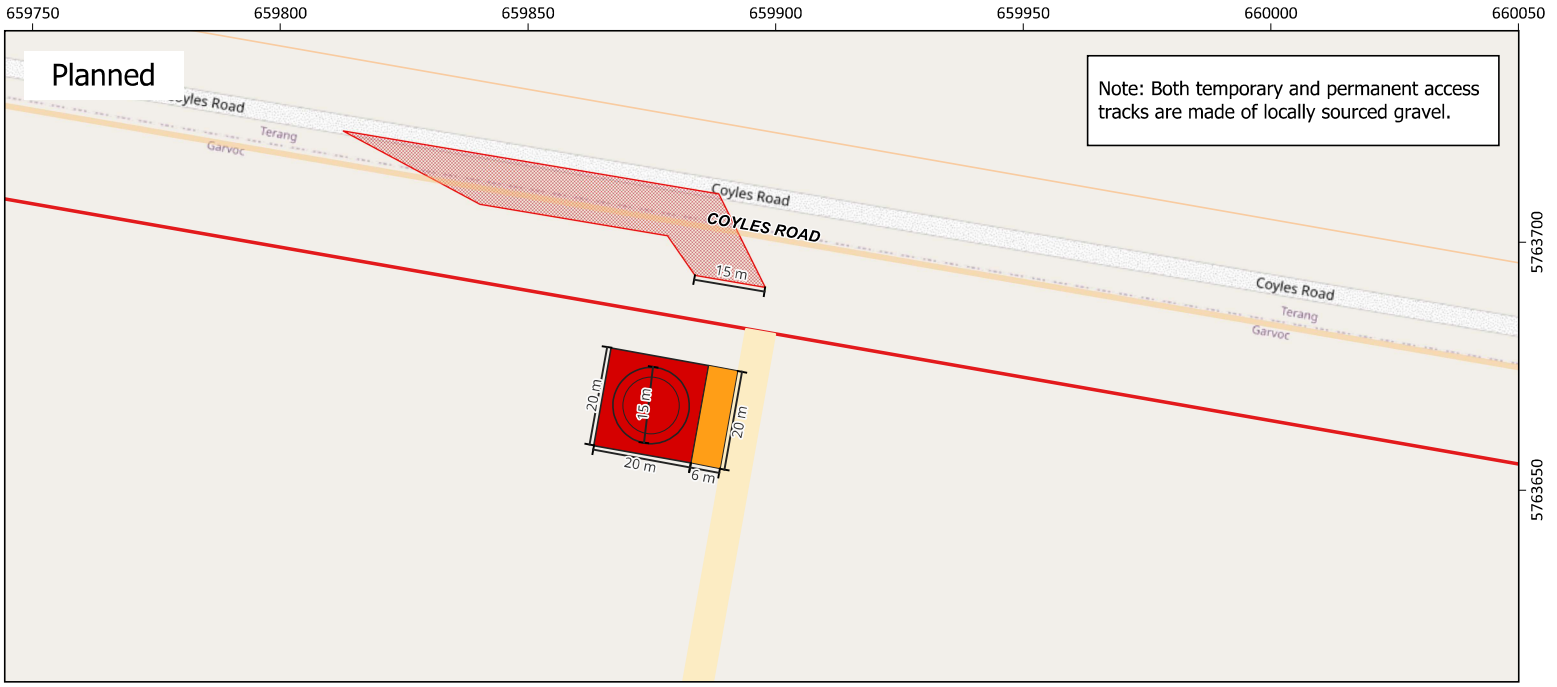
Local Roads

- ROAD

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 27-05-2025
Approved: SS	Figure: 25

0 25 50 m

RE Future



13 Figures

Swansons Lane Wind Farm

Figures

Location Plan

Legend

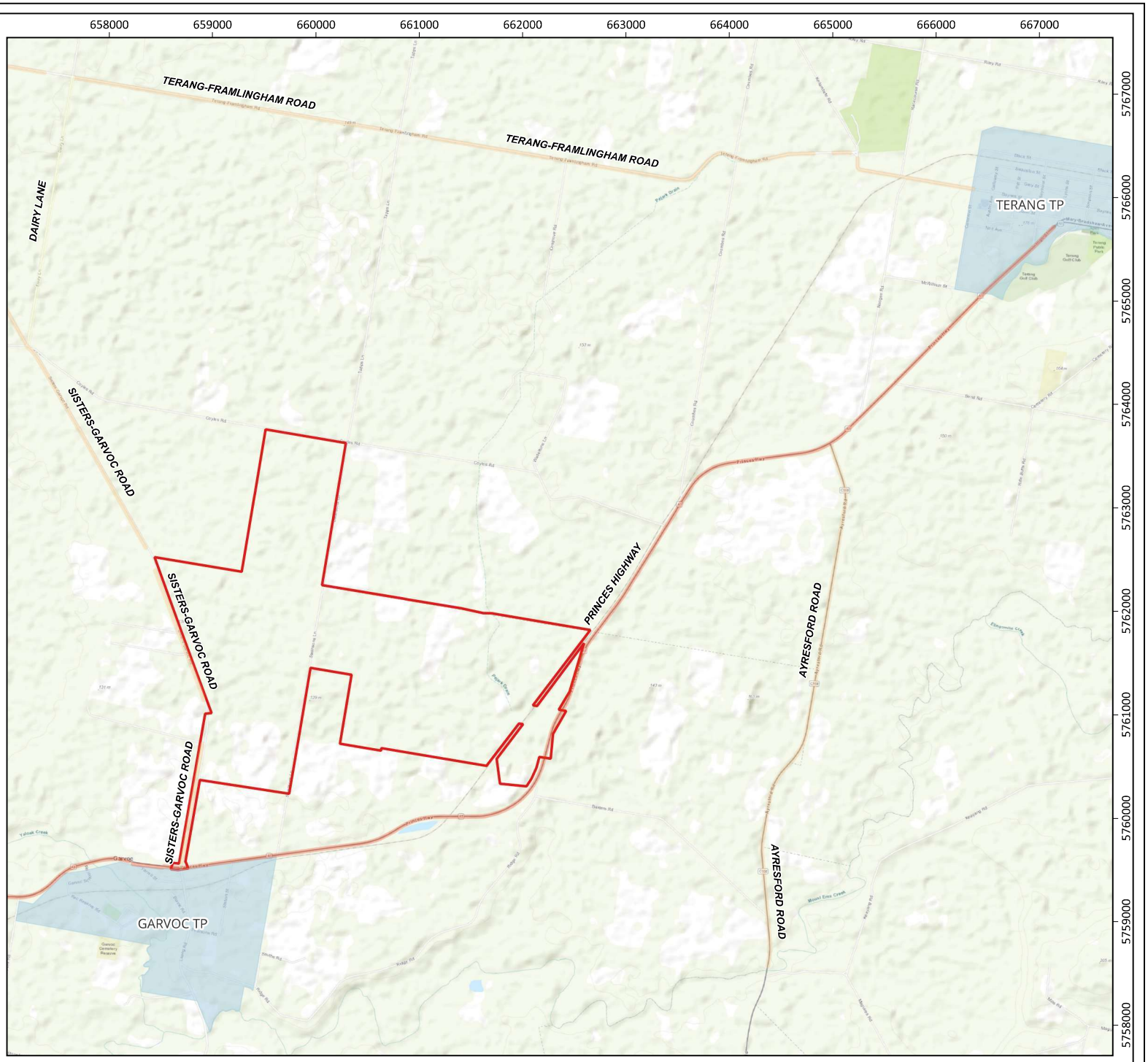
- Township Area
- Subject Site

Roads for labels

- HIGHWAY
- LANE
- ROAD

Drawn: AM	Scale when printed at A3: 1:35,000
Checked: VM	Date: 23-01-2025
Approved: SS	Figure: 01

0 0.5 1 km



RE Future

Swansons Lane Wind Farm

Figures

Land Details

Legend

Encumberance
- Water Supply 10.06m Easement
- South East Australia Gas 25 m Easement

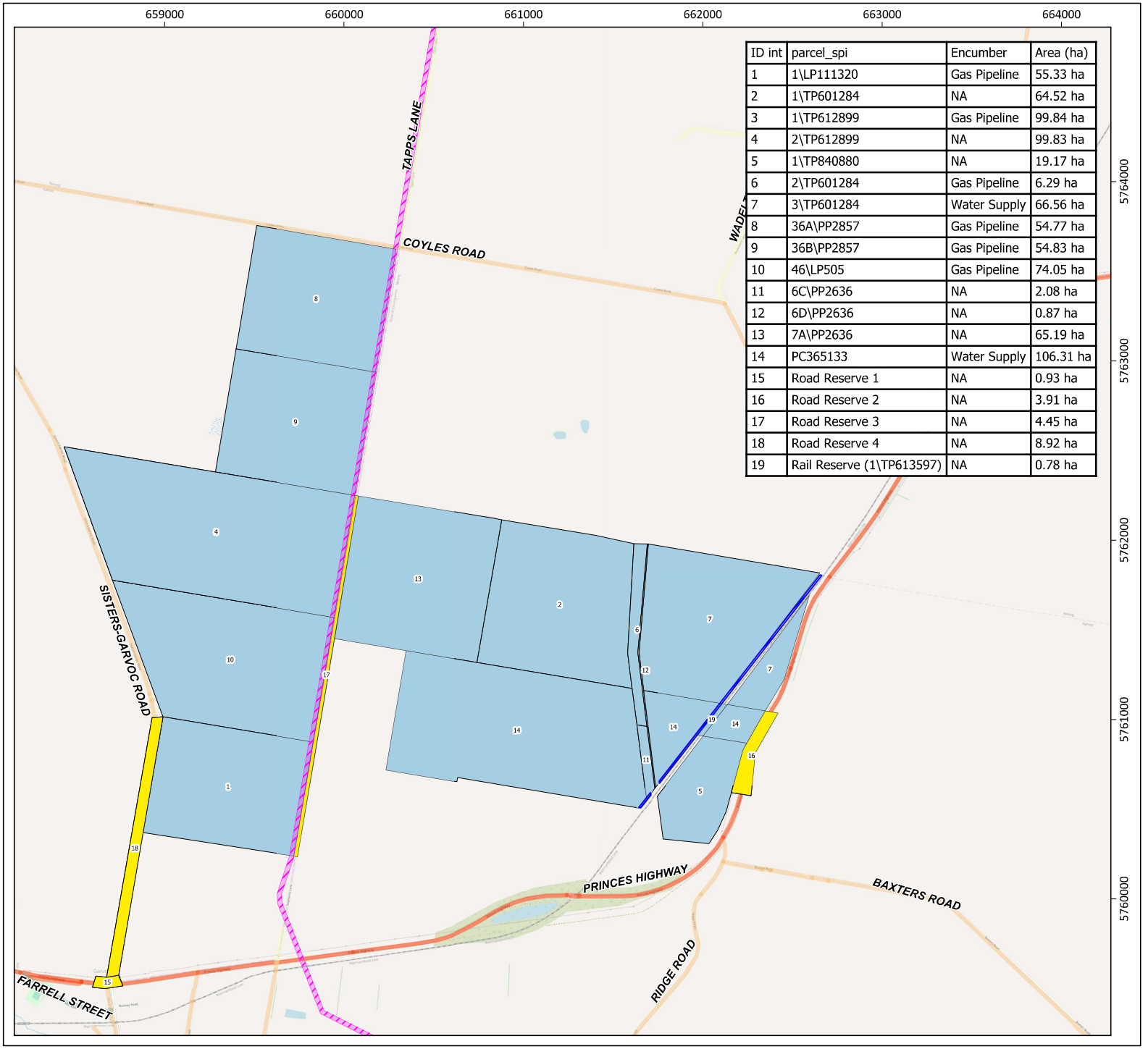
Site Parcels
- Landowner
- Road Reserve

Roads
- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 24-01-2025
Approved: SS	Figure: 02

0 500 1,000 m

RE Future



ID int	parcel_spi	Encumber	Area (ha)
1	1\LP111320	Gas Pipeline	55.33 ha
2	1\TP601284	NA	64.52 ha
3	1\TP612899	Gas Pipeline	99.84 ha
4	2\TP612899	NA	99.83 ha
5	1\TP840880	NA	19.17 ha
6	2\TP601284	Gas Pipeline	6.29 ha
7	3\TP601284	Water Supply	66.56 ha
8	36A\PP2857	Gas Pipeline	54.77 ha
9	36B\PP2857	Gas Pipeline	54.83 ha
10	46\LP505	Gas Pipeline	74.05 ha
11	6C\PP2636	NA	2.08 ha
12	6D\PP2636	NA	0.87 ha
13	7A\PP2636	NA	65.19 ha
14	PC365133	Water Supply	106.31 ha
15	Road Reserve 1	NA	0.93 ha
16	Road Reserve 2	NA	3.91 ha
17	Road Reserve 3	NA	4.45 ha
18	Road Reserve 4	NA	8.92 ha
19	Rail Reserve (1\TP613597)	NA	0.78 ha

Swansons Lane Wind Farm

Figures

Planning Zones

Legend

- Wind Turbine
- Subject Site

Corangamite Shire - PA2503551

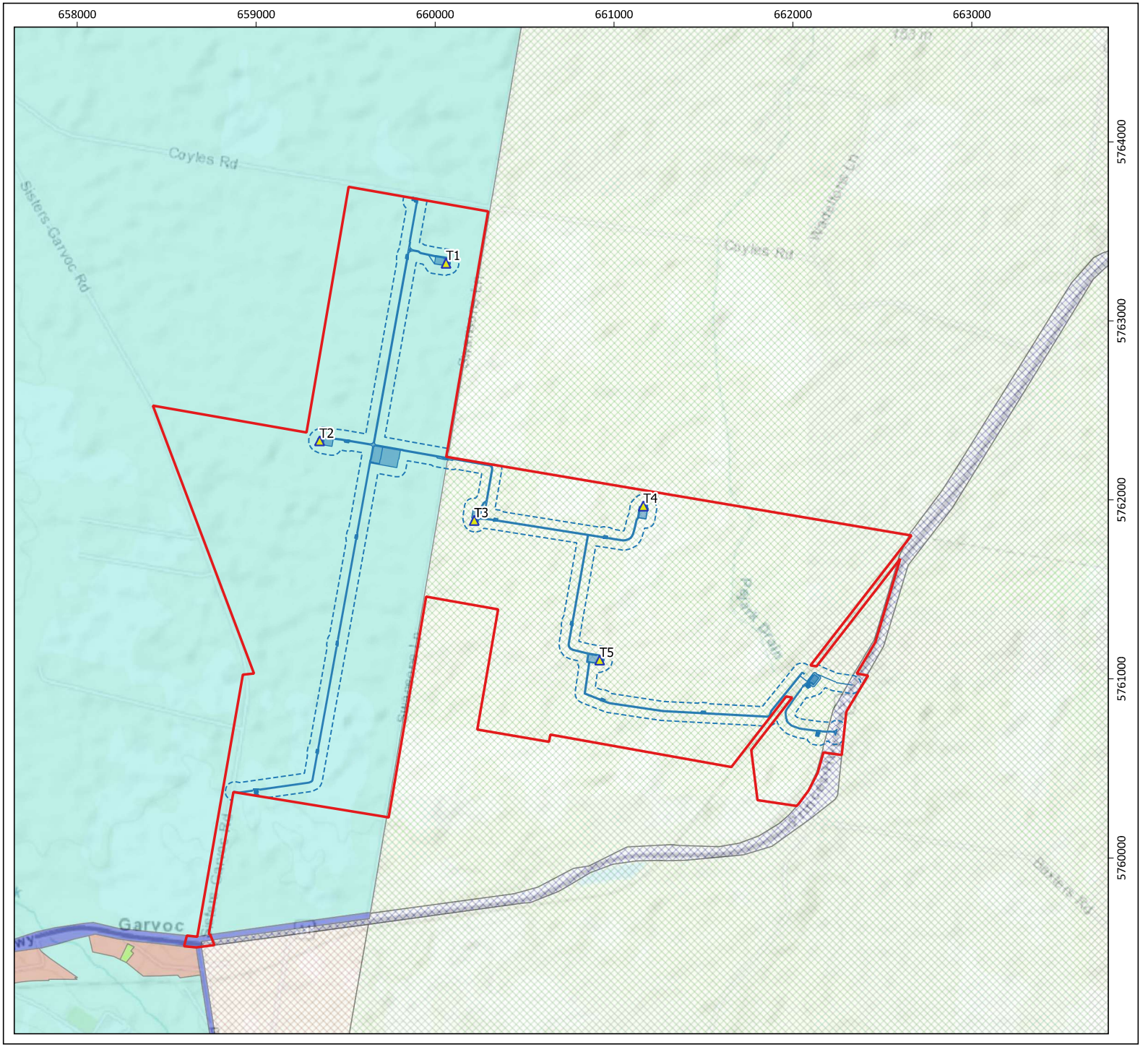
- FARMING ZONE
- FARMING ZONE - SCHEDULE 1
- PUBLIC PARK AND RECREATION ZONE
- TOWNSHIP ZONE
- TRANSPORT ZONE 2 - PRINCIPAL ROAD NETWORK

Moyne Shire - PA2503552

- FARMING ZONE
- PUBLIC PARK AND RECREATION ZONE
- TOWNSHIP ZONE
- TRANSPORT ZONE 2 - PRINCIPAL ROAD NETWORK

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 27-05-2025
Approved: SS	Figure: 03

0 500 1,000 m



RE Future

Swansons Lane Wind Farm

Figures

Planning Overlays

Legend

- Wind Turbine
- Subject Site

Planning Overlays

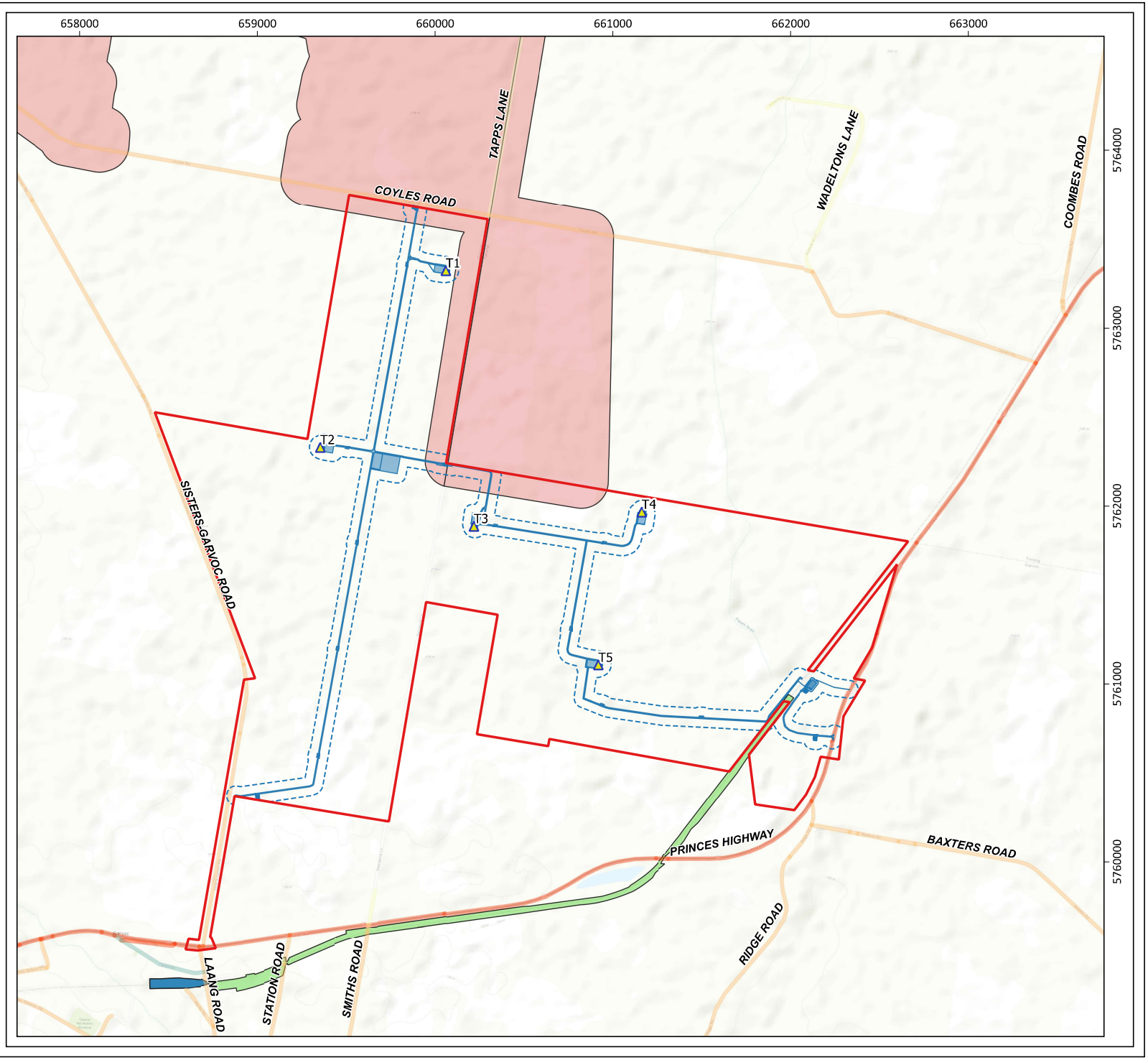
- BUSHFIRE MANAGEMENT OVERLAY
- SPECIFIC CONTROLS OVERLAY - PS MAP REF SCO2
- SPECIFIC CONTROLS OVERLAY - PS MAP REF SCO3

Local Roads

- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 27-05-2025
Approved: SS	Figure: 04

0 500 1,000 m



RE Future

Swansons Lane Wind Farm

Figures

Site Plan

Legend

- Wind Turbine
- Passing Bay
- Cabling
- Cable Trench
- Access Track
- Site Office Area
- Laydown Area
- Turbine Footing
- 10m Firebreak
- Hardstands
- 140m Meteorological Mast
- Static Water Supply
- Substation

LAND STATE

- Subject Site

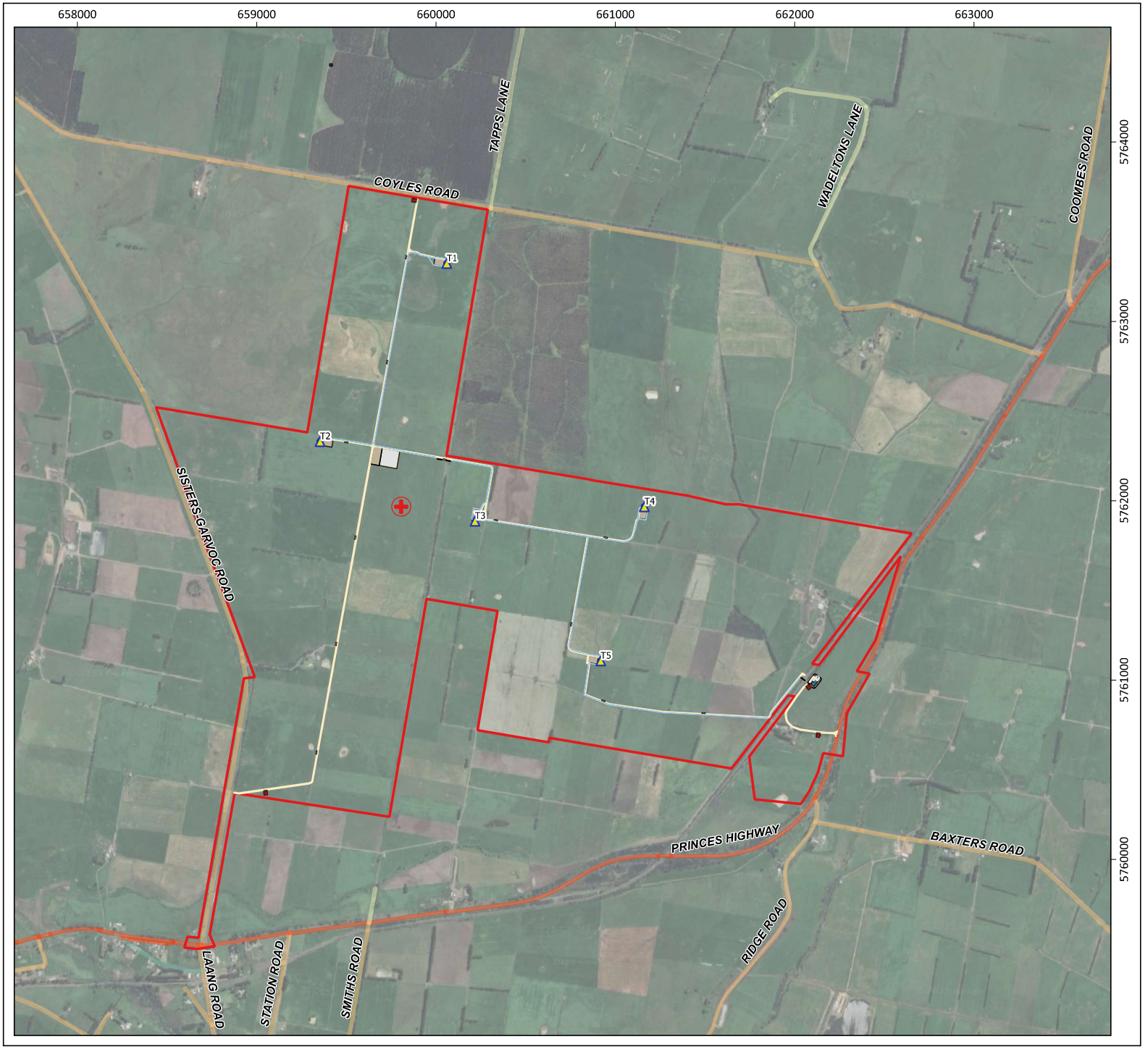
Roads

- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 06-02-2025
Approved: SS	Figure: 05

0 500 1,000 m

RE Future



Swansons Lane Wind Farm

Figures

Nearby Dwellings

Legend

- Wind Turbine
- 1km Distance Ring
- Subject Site
- Parcel

Dwellings

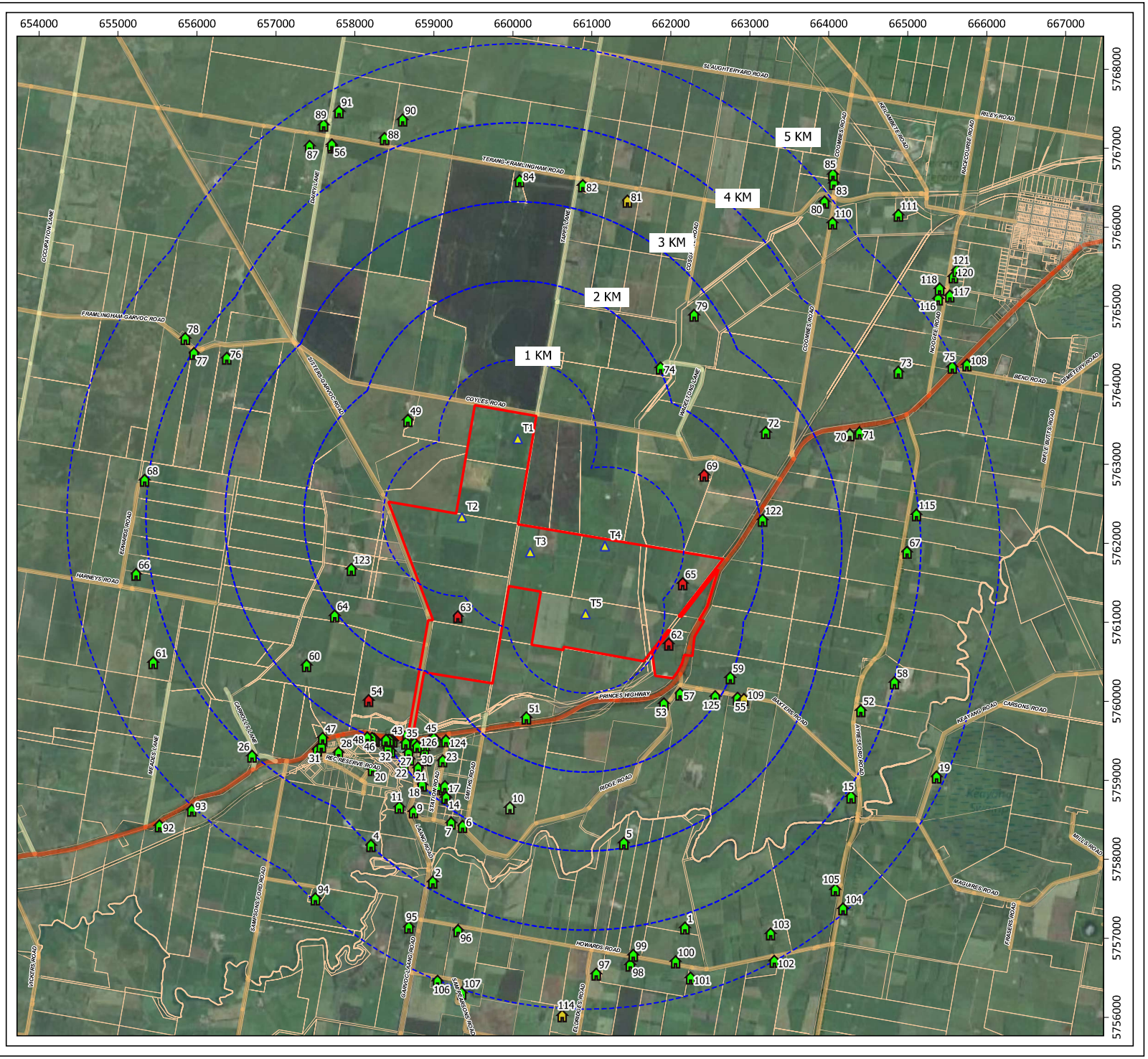
- Neighbour
- Host
- Vacant

Local Roads

- GROVE
- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:45,000
Checked: VM	Date: 23-01-2025
Approved: SS	Figure: 06

0 1 2 km



RE Future

Swansons Lane Wind Farm

Figures

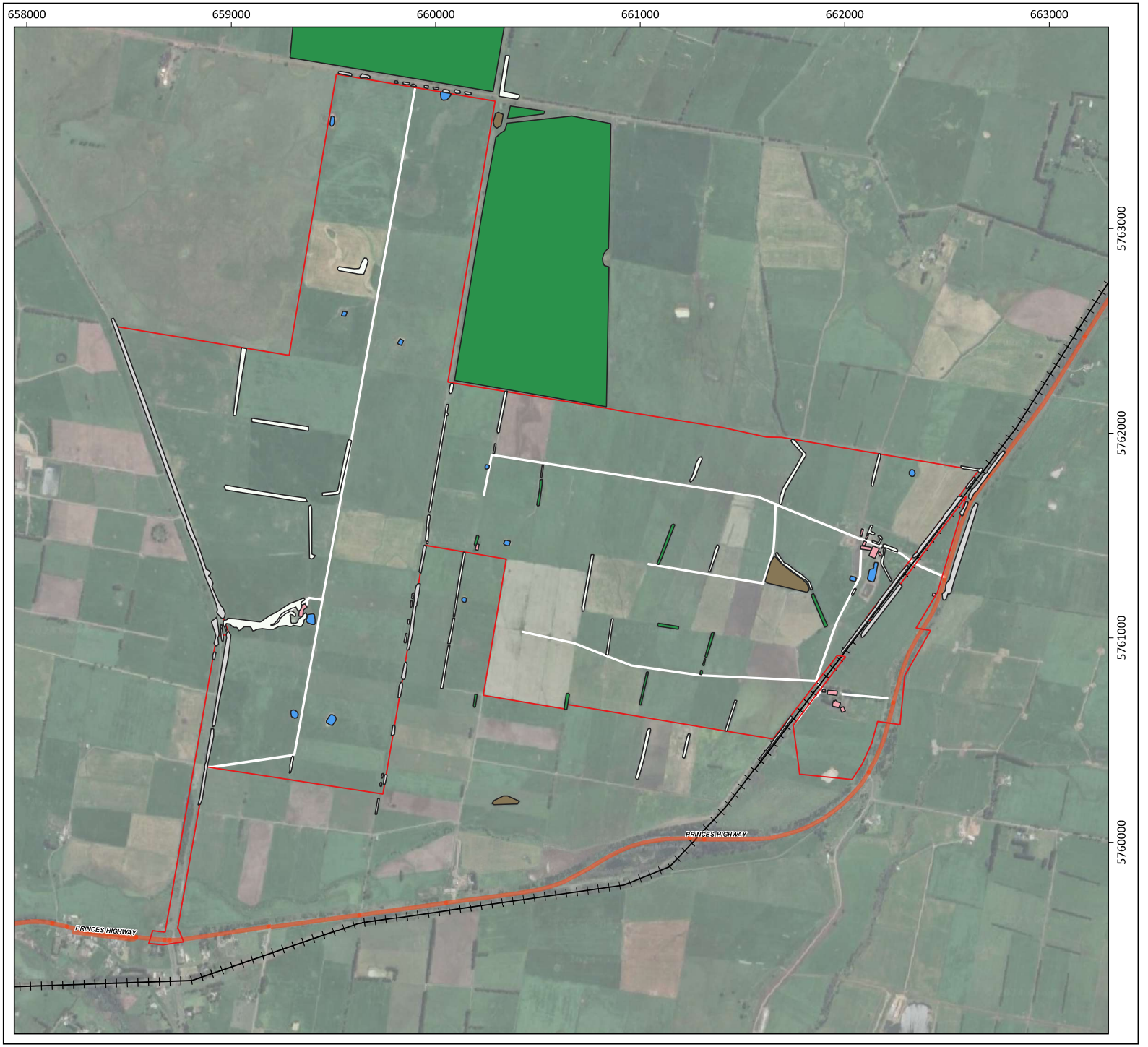
Existing Conditions

Legend

- Subject Site
- Eucalypt Tree Row
- Farm dam / wetland
- Forestry Plantation
- Pine Tree Row
- Remnant Native Woodland
- Roadside Vegetation
- Farm Buildings
- Farm Tracks
- HIGHWAY
- Railway

Drawn: AM	Scale when printed at A3: 1:17,500
Checked: VM	Date: 23-01-2025
Approved: SS	Figure: 07

0 500 1,000 m



RE Future

Swansons Lane Wind Farm

Figures

Flora, Vegetation and Fauna Habitat

Legend

Site Features
- Subject Site

Significant Flora
- Removed
- Retained

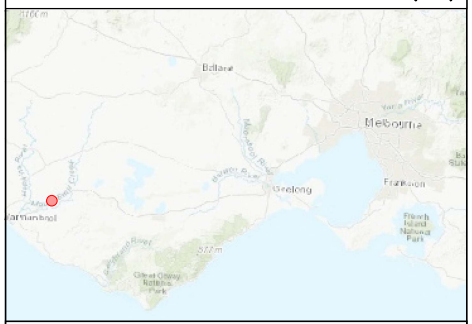
Scattered Trees
- Retained (native)
- Removed (native)
- Retained (non-native)

Planted Vegetation
- Planted Windrow (native)
- Planted Vegetation (non-native)
- Planted Windrow (non-native)
- Planted Vegetation (native)

Native Vegetation
- Plains Grassland (EVC 132)
- Plains Grassy Wetland (EVC 125)
- Plains Grassy Woodland (EVC 55)
- Impacted Vegetation

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 29-05-2025
Approved: SS	Figure: 08

0 500 1,000 m



RE Future

658000 659000 660000 661000 662000 663000

5764000 5763000 5762000 5761000 5760000

Vegetation Clearance			
Location	PATCH_ID	EVC Type	AREA (M2)
Site Entrance 2	C2-f	EVC 55	34.78
Site Entrance 2	C3-f	EVC 55	12.88
Site Entrance 2	C4-f	EVC 55	108.22
Site Entrance 3	M13-f	EVC 55	104.23
Site Entrance 3	M14-e	EVC 132	292.9
Site Entrance 3	M15-f	EVC 55	26.54
WTG 3	C8-ts	EVC 55	310
Site Entrance 1	M5-tl	EVC 55	310
Site Entrance 1	M6-tl	EVC 55	310

Swansons Lane Wind Farm

Figures

Areas of Cultural Heritage Sensitivity

Legend

- Subject Site
- Planned Area of Works
- Development Footprint
- Areas of Cutural Heritage Sensitivity

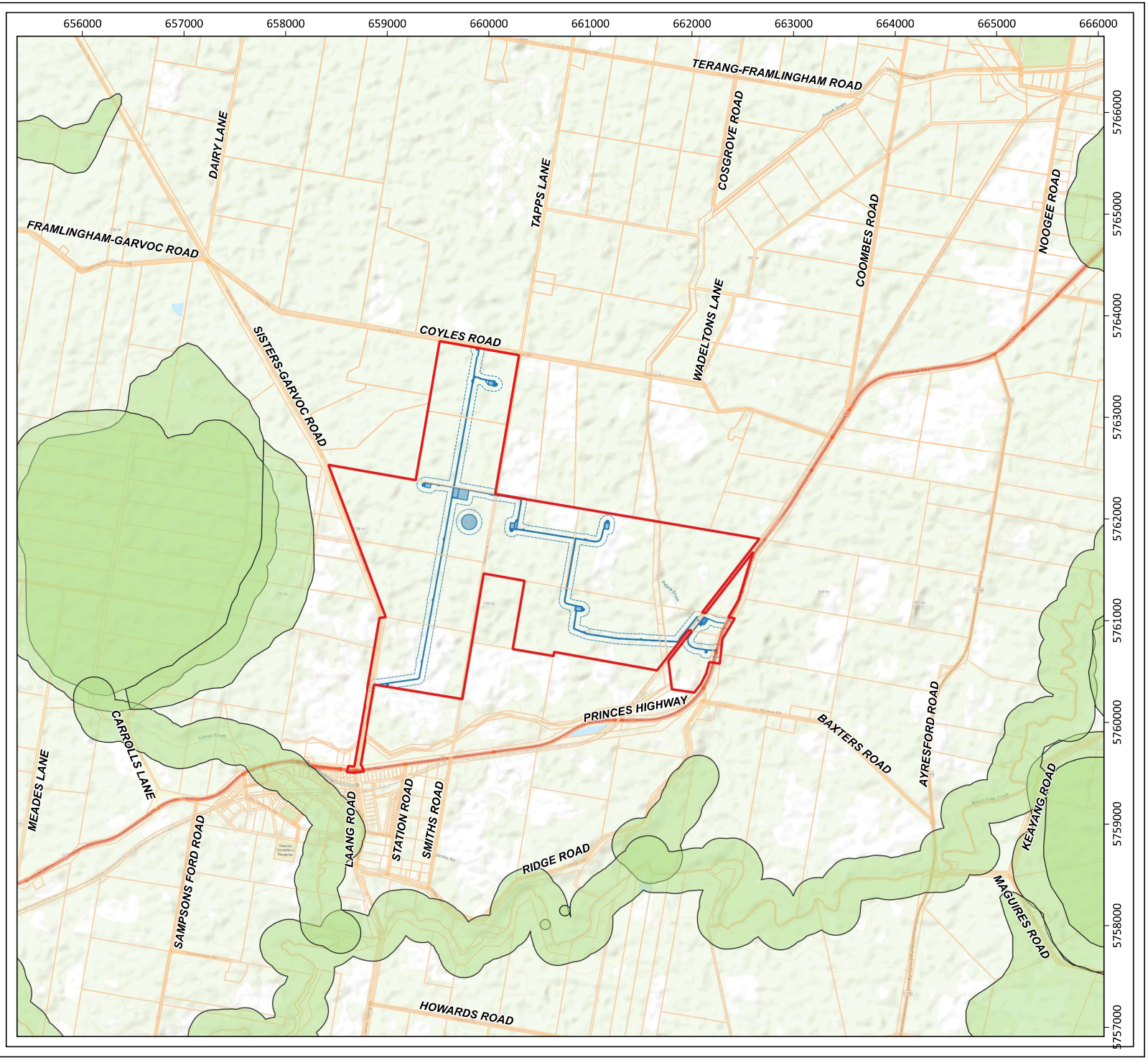
Local Roads

- HIGHWAY
- LANE
- ROAD
- STREET

Drawn: AM	Scale when printed at A3: 1:35,000
Checked: VM	Date: 27-05-2025
Approved: SS	Figure: 09

0 0.5 1 km

RE Future



Swansons Lane Wind Farm

Figures

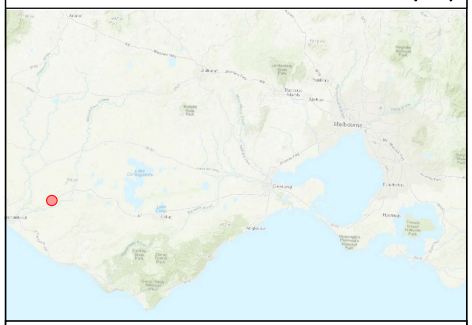
Regional Landscape Features

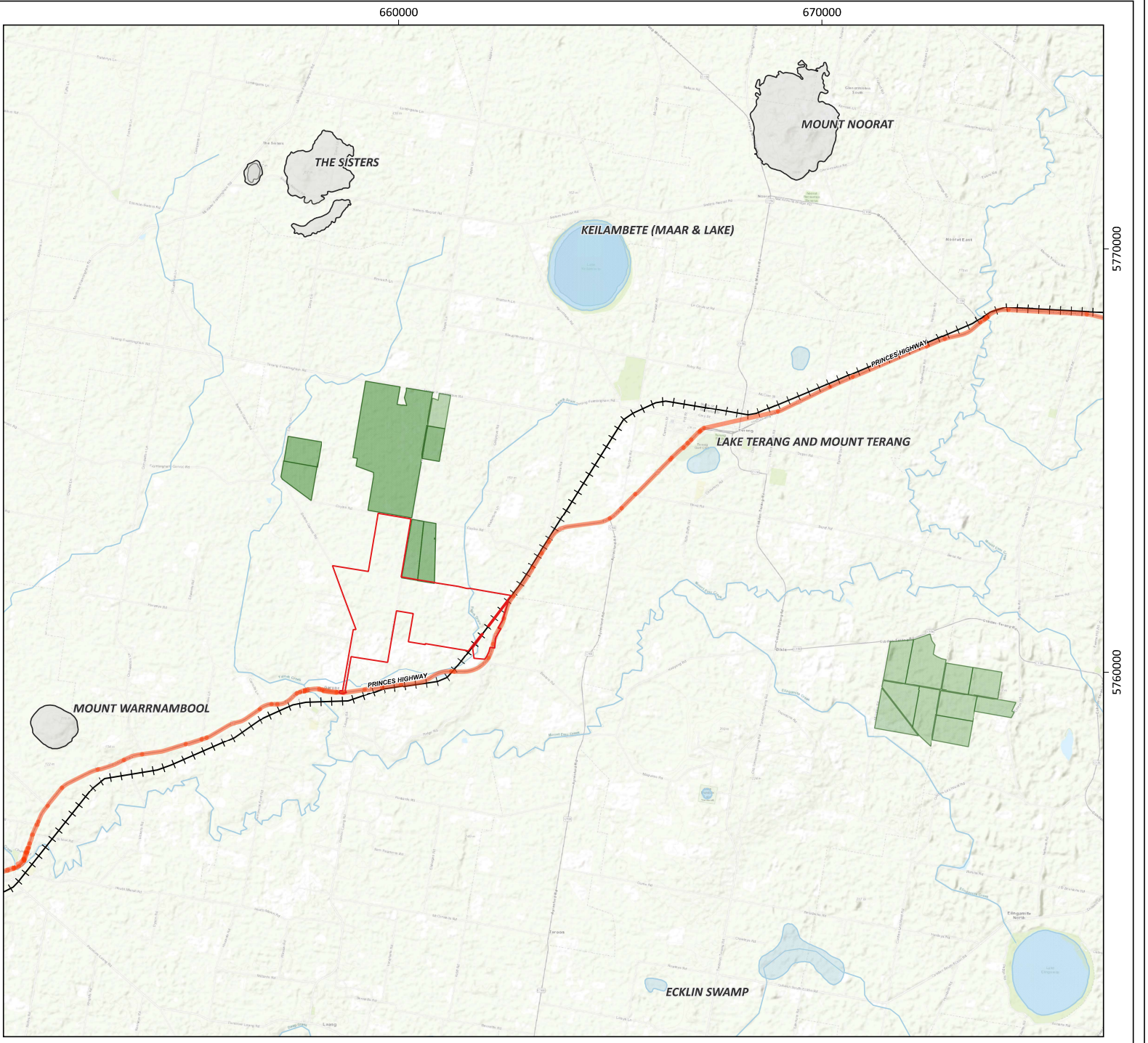
Legend

- Subject Site
- Mountain
- Softwood Plantation
- Major Wetland
- Watercourse
- Highway
- Terang Warrnambool Railway

Drawn: AM	Scale when printed at A3: 1:85,000
Checked: VM	Date: 24-01-2025
Approved: SS	Figure: 10

0 2 4 km





RE Future

Swansons Lane Wind Farm

Figures

Nearby Wind Farms

Legend

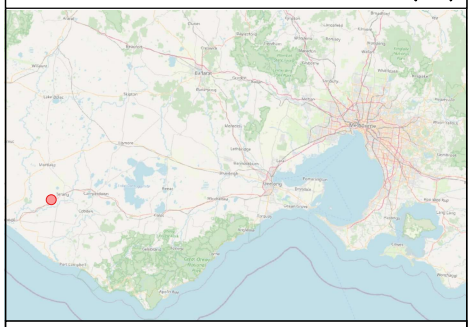
- Subject Site

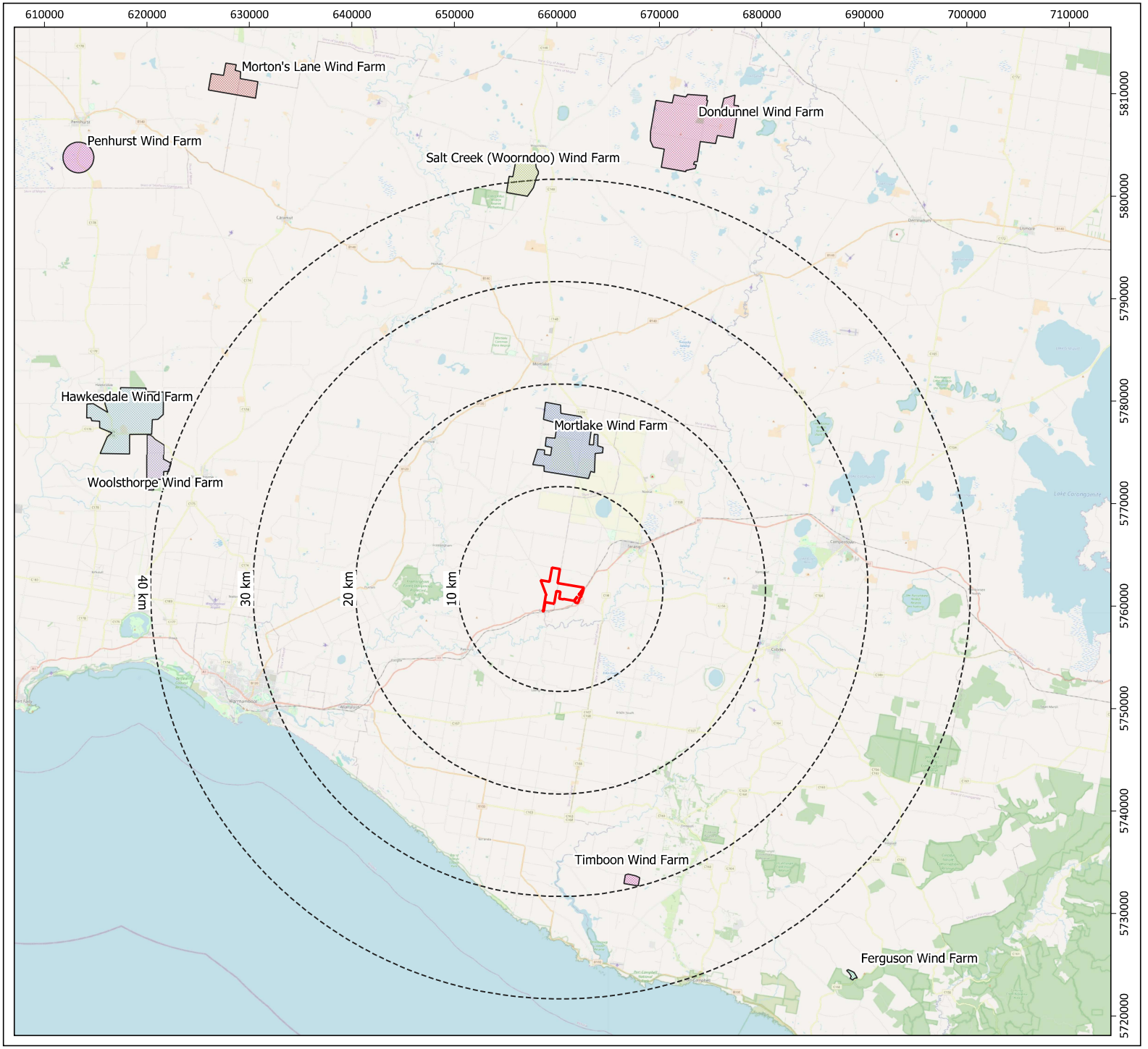
Nearby Wind Farms

- Dondunnel
- Ferguson
- Hawkesdale
- Mortlake
- Morton's Lane
- Penhurst
- Salt Creek (Woorndoo)
- Timboon
- Woolsthorpe

Drawn: AM	Scale when printed at A3: 1:350,000
Checked: VM	Date: 23-01-2025
Approved: SS	Figure: 11

0 10 20 km





RE Future

Swansons Lane Wind Farm

Figures

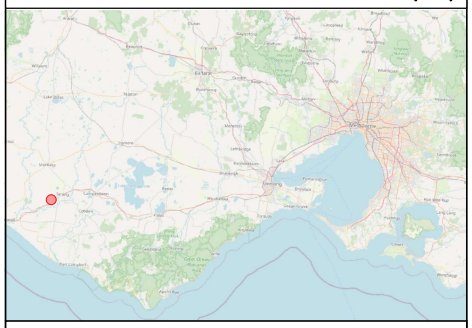
Nearby Aerodromes

Legend

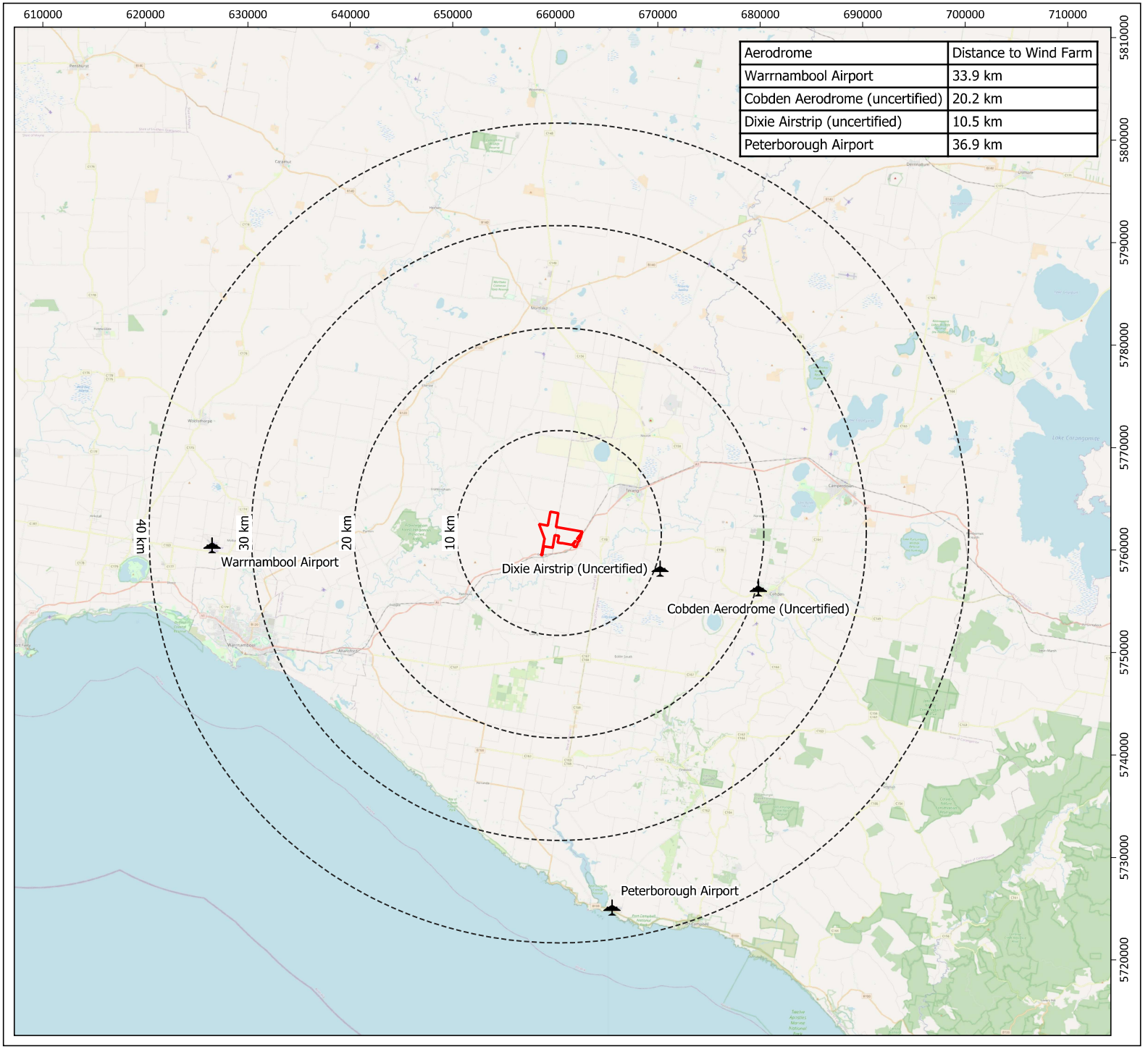
- Aircraft Facility
- Subject Site

Drawn	Scale when printed at A3
AM	1:350,000
Checked	Date
VM	08-04-2025
Approved	Figure
SS	12

0 10 20 km



RE Future



Aerodrome	Distance to Wind Farm
Warrnambool Airport	33.9 km
Cobden Aerodrome (uncertified)	20.2 km
Dixie Airstrip (uncertified)	10.5 km
Peterborough Airport	36.9 km

Swansons Lane Wind Farm

Figures

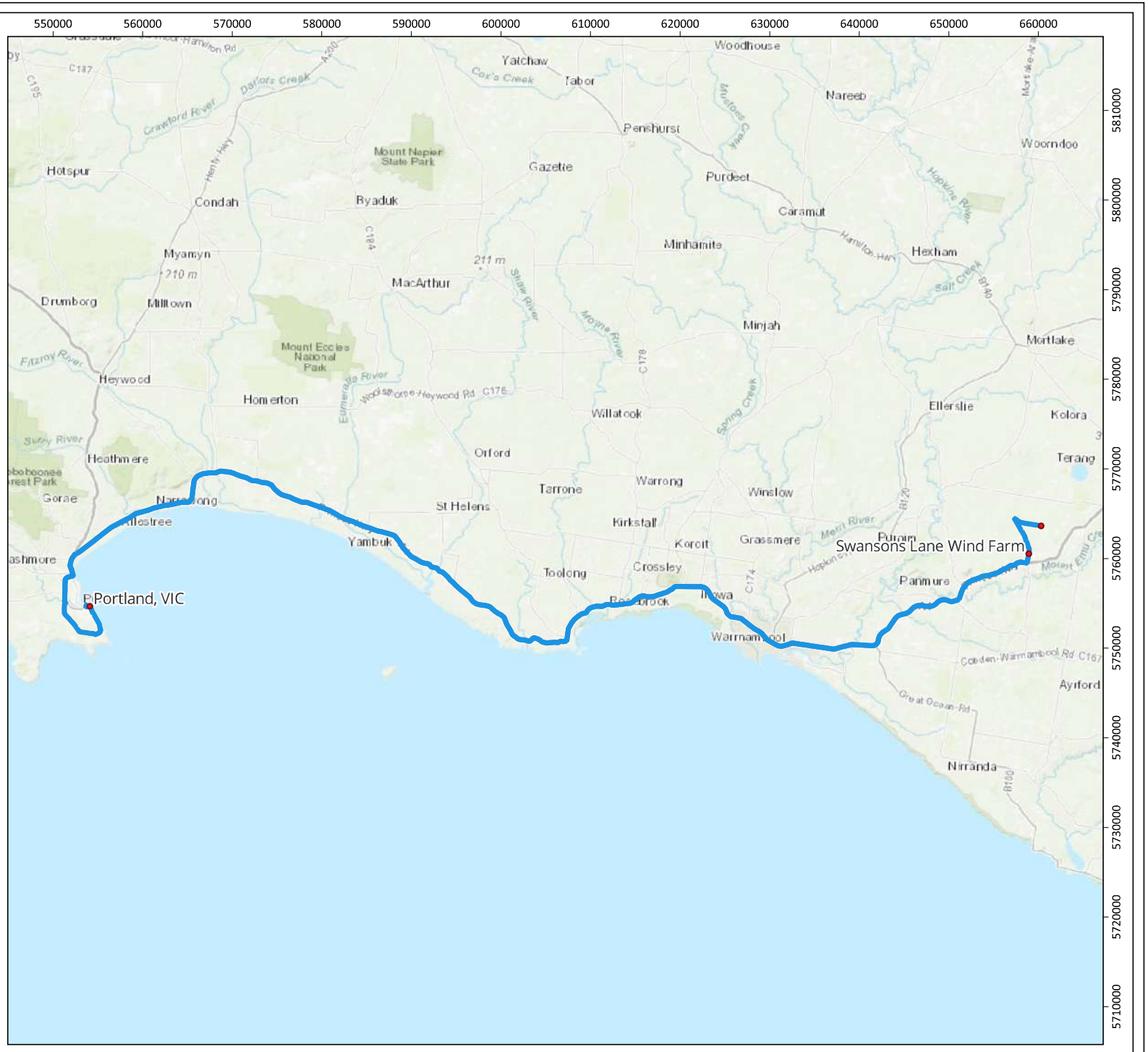
Transport Route

Legend

- Transport Route
- Start/Finish Points

Drawn: AM	Scale when printed at A3: 1:400,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 13

0 10 20 km



RE Future

Swansons Lane Wind Farm

Figures

Swept Path Analysis - Cliff Street onto Madeira Packet Road

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

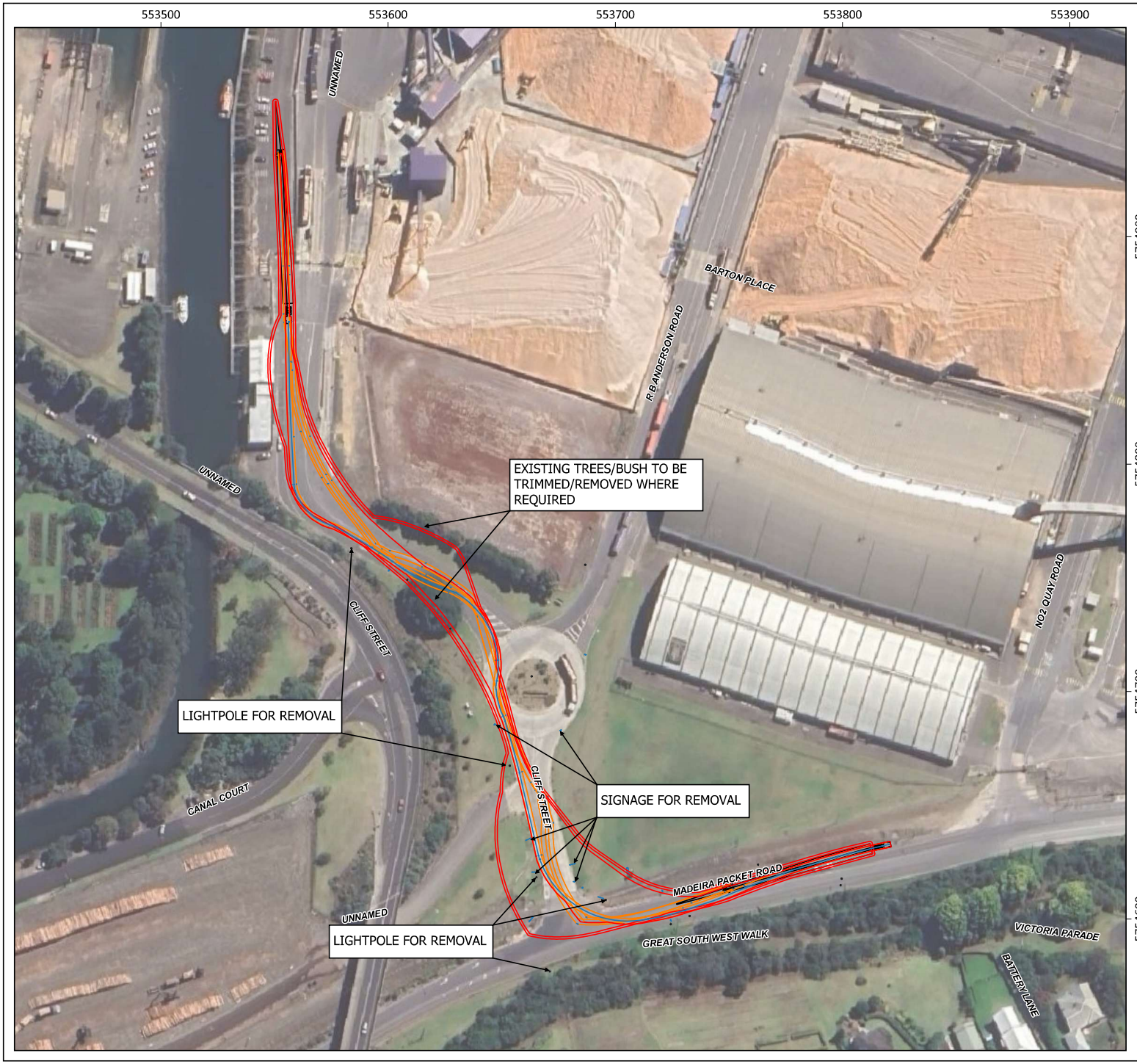
Drawn: AM	Scale when printed at A3: 1:1,600
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 14

0 25 50 m

General Notes:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE
2. LOCAL ROADS - CLIFF STREET (SPEED ZONE 50KM/H)
- RB Anderson ROAD (SPEED ZONE 50KM/H)
- MADEIRA PACKET ROAD (SPEED ZONE 60KM/H)
3. BASE INFORMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 02/2022

RE Future



Swansons Lane Wind Farm

Figures

Swept Path Analysis - Madeira Packet Road onto Madeira Packet Road

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

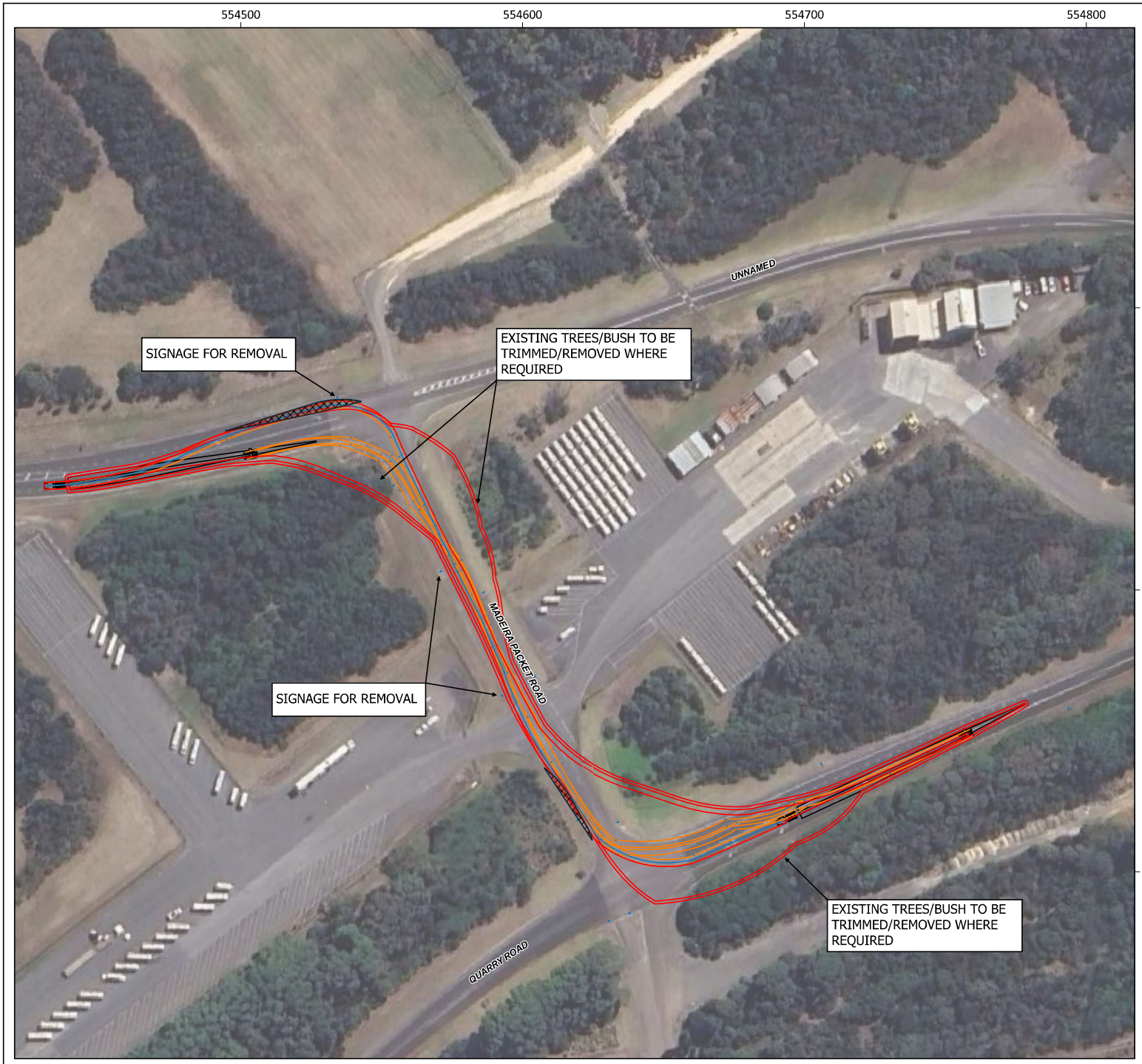
Drawn: AM	Scale when printed at A3: 1:1,300
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 15

0 25 50 m

General Notes:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE
2. LOCAL ROADS - MADIERA PACKET ROAD (SPEED ZONE 60KM/H)
3. BASE INFORMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 02/2022

RE Future



Swansons Lane Wind Farm

Figures

Swept Path Analysis - Madeira Packet Road onto Henty Highway

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,200
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 16

0 25 50 m

General Notes:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE
2. LOCAL ROADS - CAPE NELSON ROAD (SPEED ZONE 60KM/H)
- MADEIRA PACKET ROAD (SPEED ZONE 60KM/H)
3. BASE INFORMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 02/2022

RE Future

Swansons Lane Wind Farm

Figures

Swept Path Analysis - Madeira Packet Road onto Henty Highway

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,600
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 17

0 25 50 m

General Notes:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE
2. LOCAL ROADS - MADEIRA PACKET ROAD (SPEED ZONE 60KM/H)
- HENTY HIGHWAY (SPEED ZONE 80KM/H)
3. BASE INFORMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 02/2022

RE Future

Swansons Lane Wind Farm

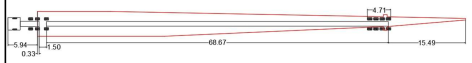
Swept Path Analysis - Henty Highway onto Princes Highway

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,600
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 18

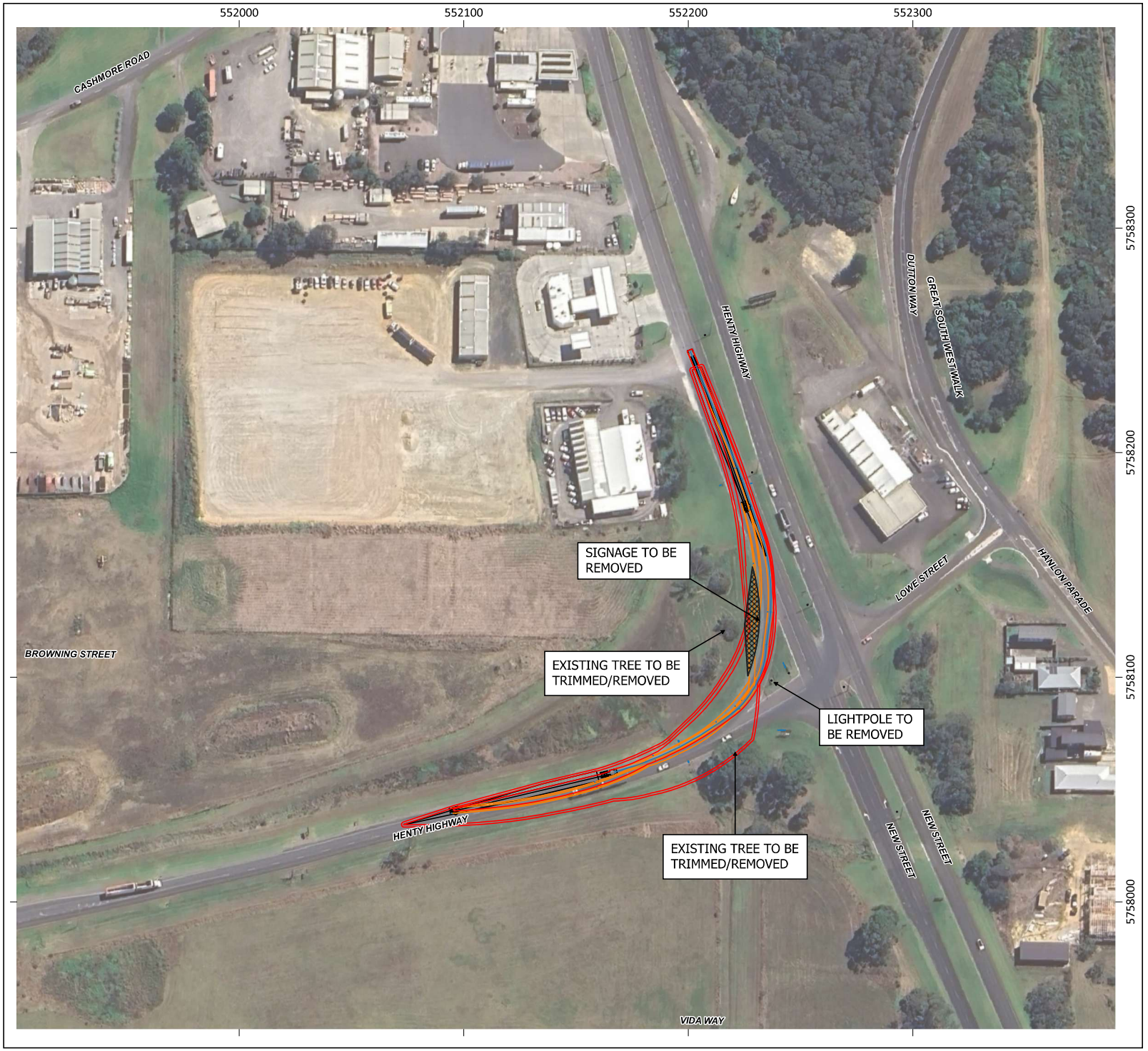
0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
   - HENTY HIGHWAY (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future



Swansons Lane Wind Farm

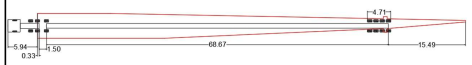
Swept Path Analysis - Henty Highway onto Princes Highway

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,200
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 19

0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- HENTY HIGHWAY (SPEED ZONE 100KM/H)
- PRINCES HIGHWAY (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future

Swansons Lane Wind Farm

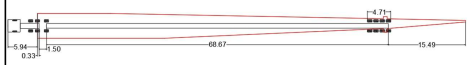
Swept Path Analysis - Princes Highway onto Occupation Lane

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 20

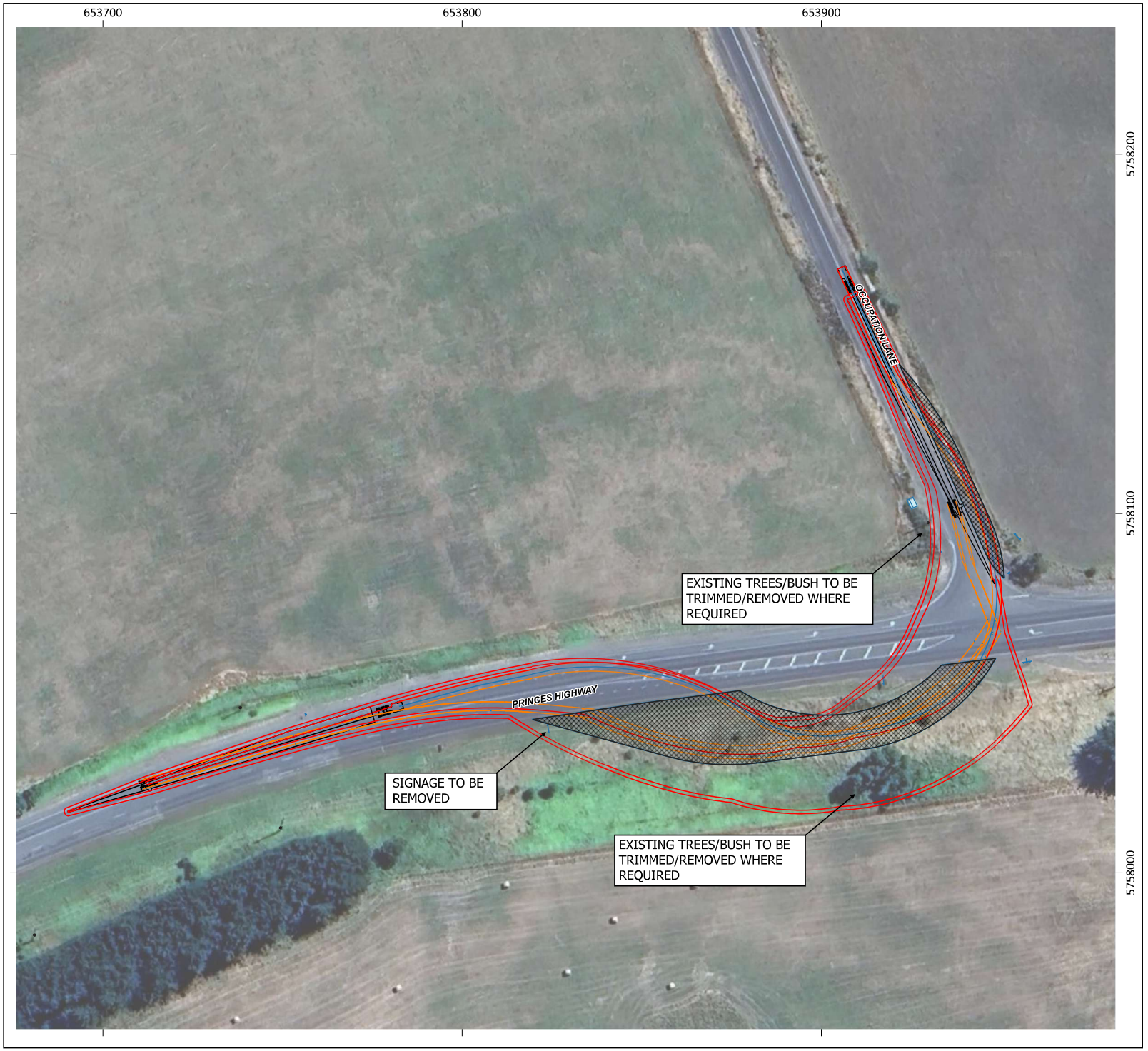
0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- PRINCES HIGHWAY (SPEED ZONE 100KM/H)
- OCCUPATION LANE (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future



Swansons Lane Wind Farm

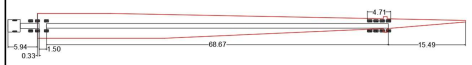
Swept Path Analysis - Occupation Lane onto Terang-Framlingham Road

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 21

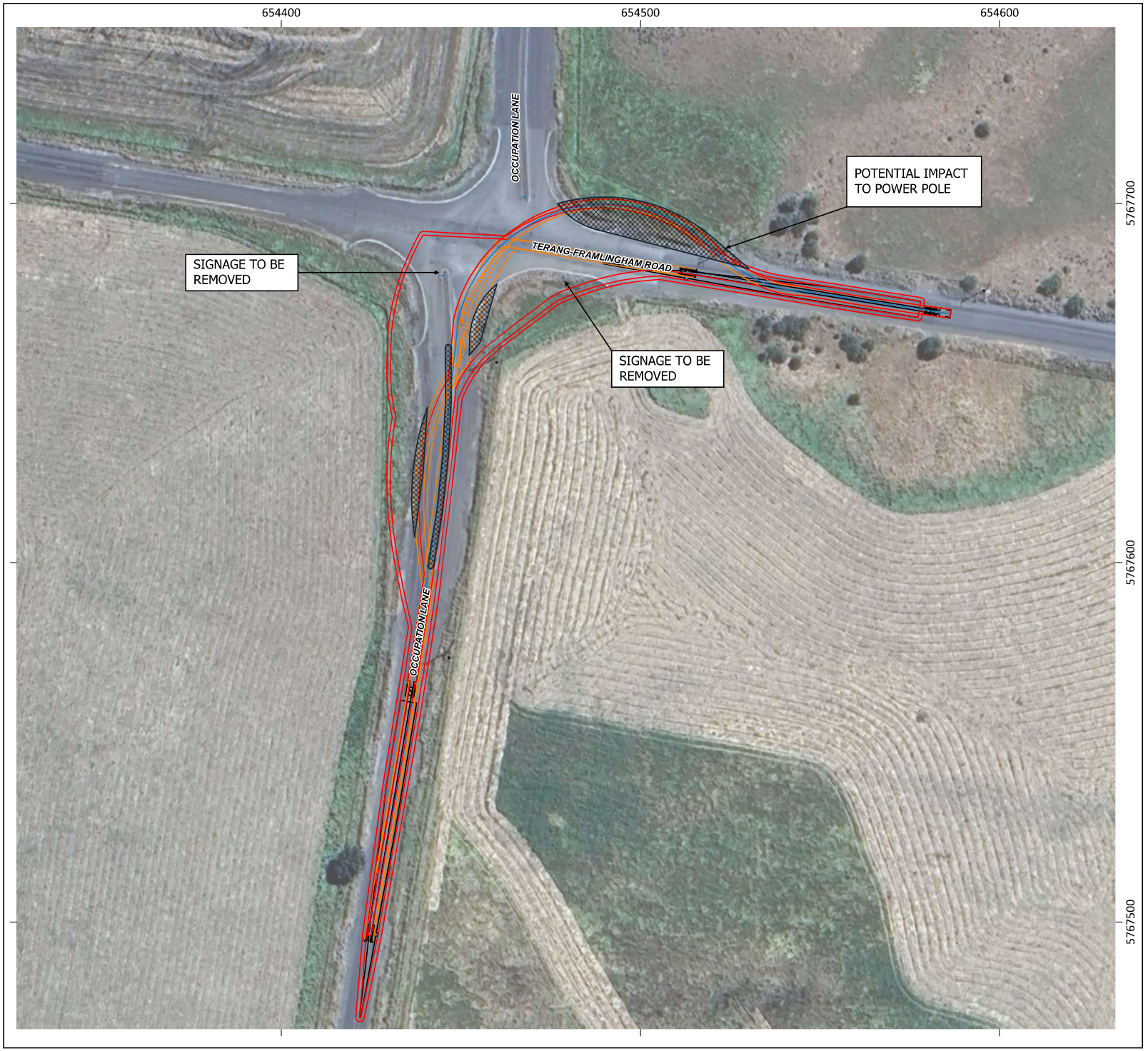
0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- OCCUPATION LANE (SPEED ZONE 100KM/H)
- TERANG-FRAMLINGHAM ROAD (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future



Swansons Lane Wind Farm

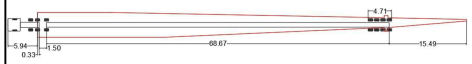
Swept Path Analysis - Terang-Framlingham Road onto Sisters-Garvoc Road

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:800
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 22

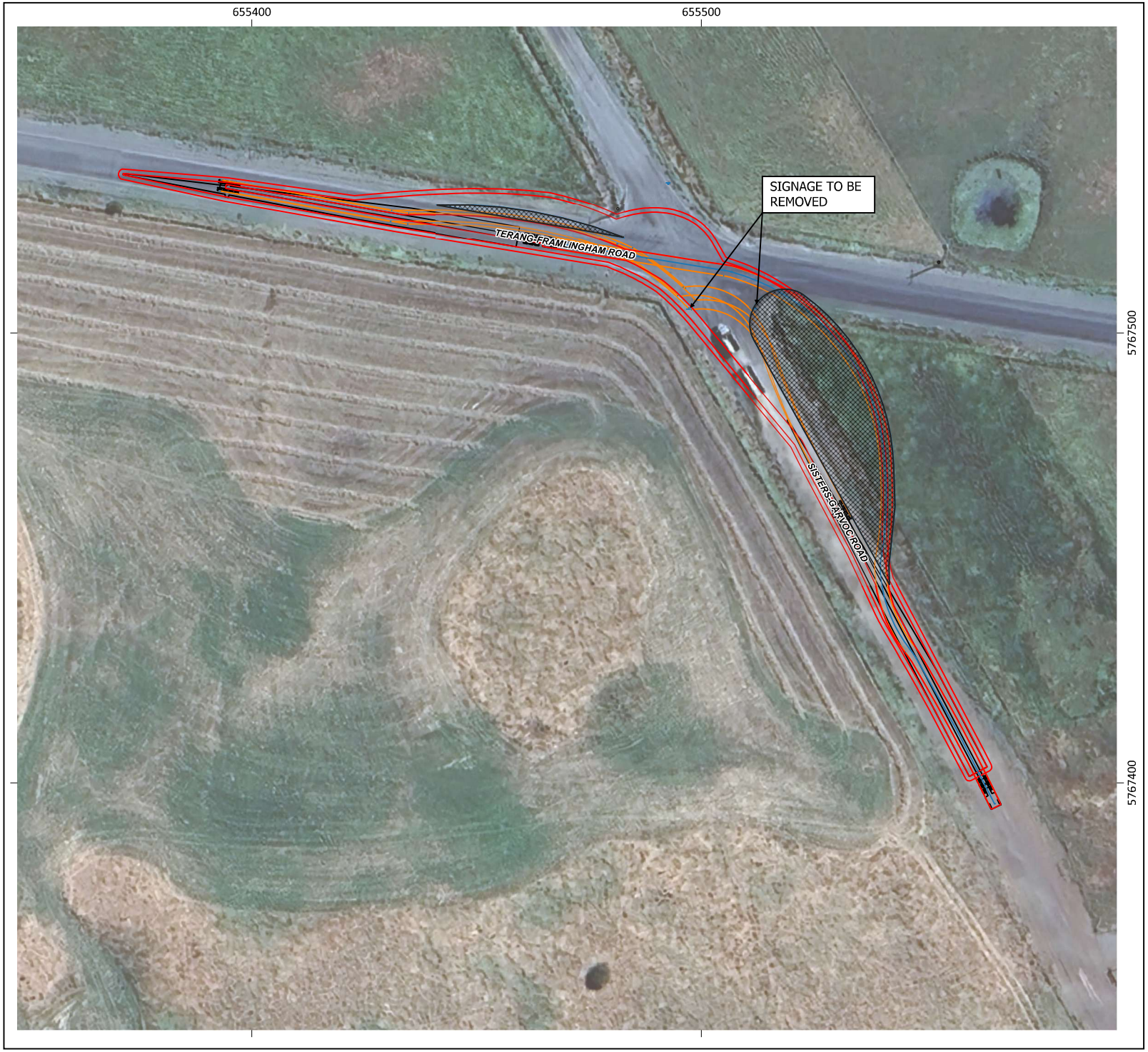
0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- TERANG-FRAMLINGHAM ROAD (SPEED ZONE 100KM/H)
- SISTERS-GARVOC ROAD (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future



Swansons Lane Wind Farm

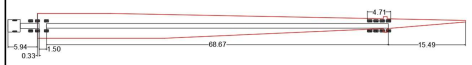
Swept Path Analysis - Sisters-Garvoc Road onto Coyles Road

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:1,100
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 23

0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- TERANG-FRAMLINGHAM ROAD (SPEED ZONE 100KM/H)
- SISTERS-GARVOC ROAD (SPEED ZONE 100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future

Swansons Lane Wind Farm

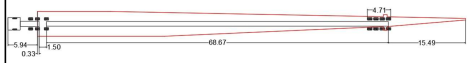
Swept Path Analysis - Coyles Road onto Site Entrance 3

Legend

- Blade Envelope (1m Clearance)
- Vehicle Body
- Vehicle Envelope
- Tyre Path
- Trafficable Width Improvement

Drawn: AM	Scale when printed at A3: 1:800
Checked: VM	Date: 22-05-2025
Approved: SS	Figure No: 24

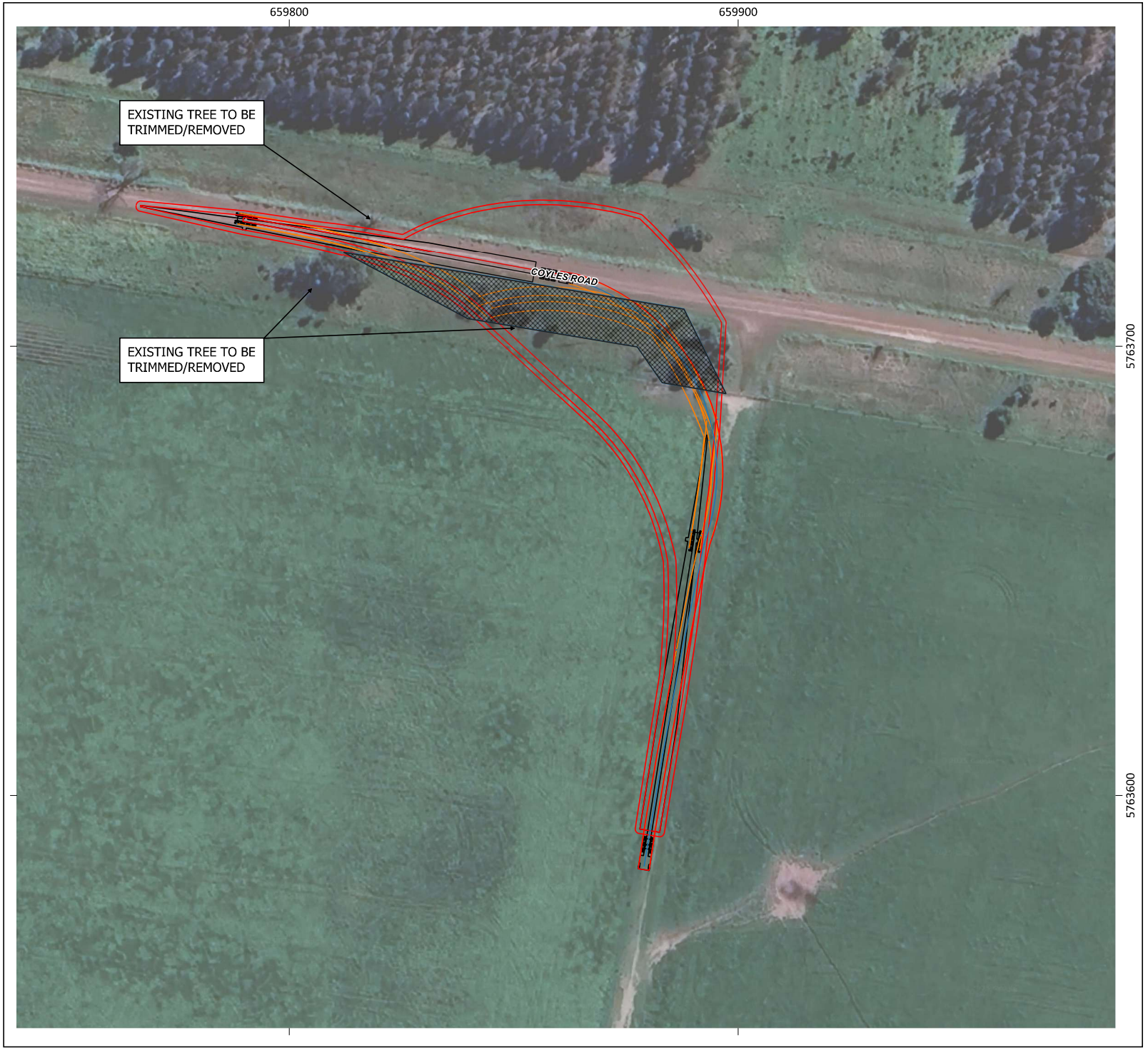
0 25 50 m



GENERAL NOTES:

1. ALL DIMENSION ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. LOCAL ROADS
- COYLES ROAD (100KM/H)
3. BASE INFOMATION FROM GOOGLE EARTH AERIAL PHOTOGRAPHY DATED 2024

RE Future



Swansons Lane Wind Farm

Figures

Predictive Noise Contours

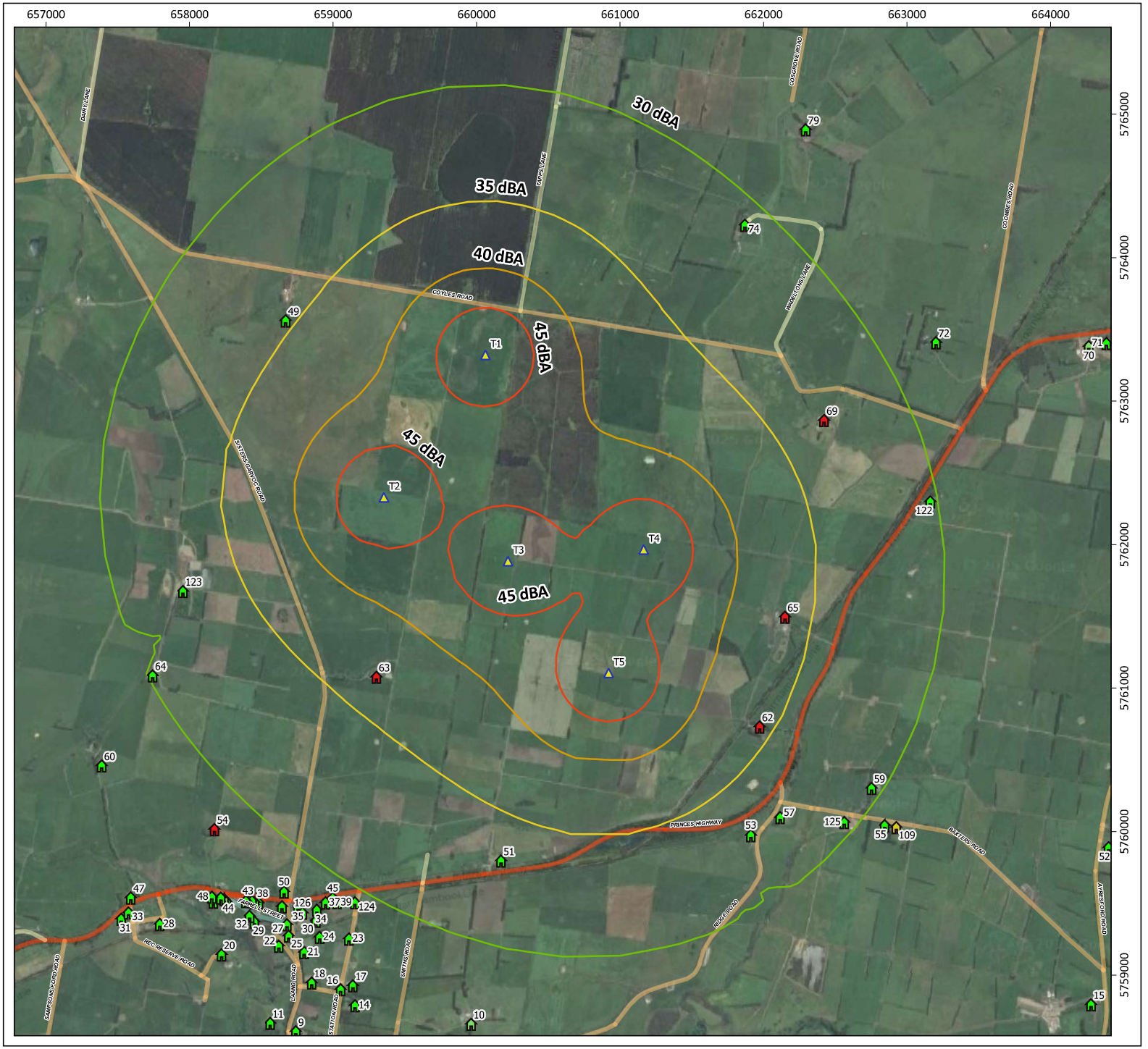
Legend

- Wind Turbine
- Dwellings
  - Neighbour
  - Host
  - Vacant
- Noise Contours (dBA)
  - 30.00
  - 35.00
  - 40.00
  - 45.00
- Local Roads
  - HIGHWAY
  - LANE
  - ROAD
  - STREET

Drawn: AM	Scale when printed at A3: 1:25,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 25

0 0.5 1 km

RE Future



Swansons Lane Wind Farm

Figures

Predicted Shadow Flicker

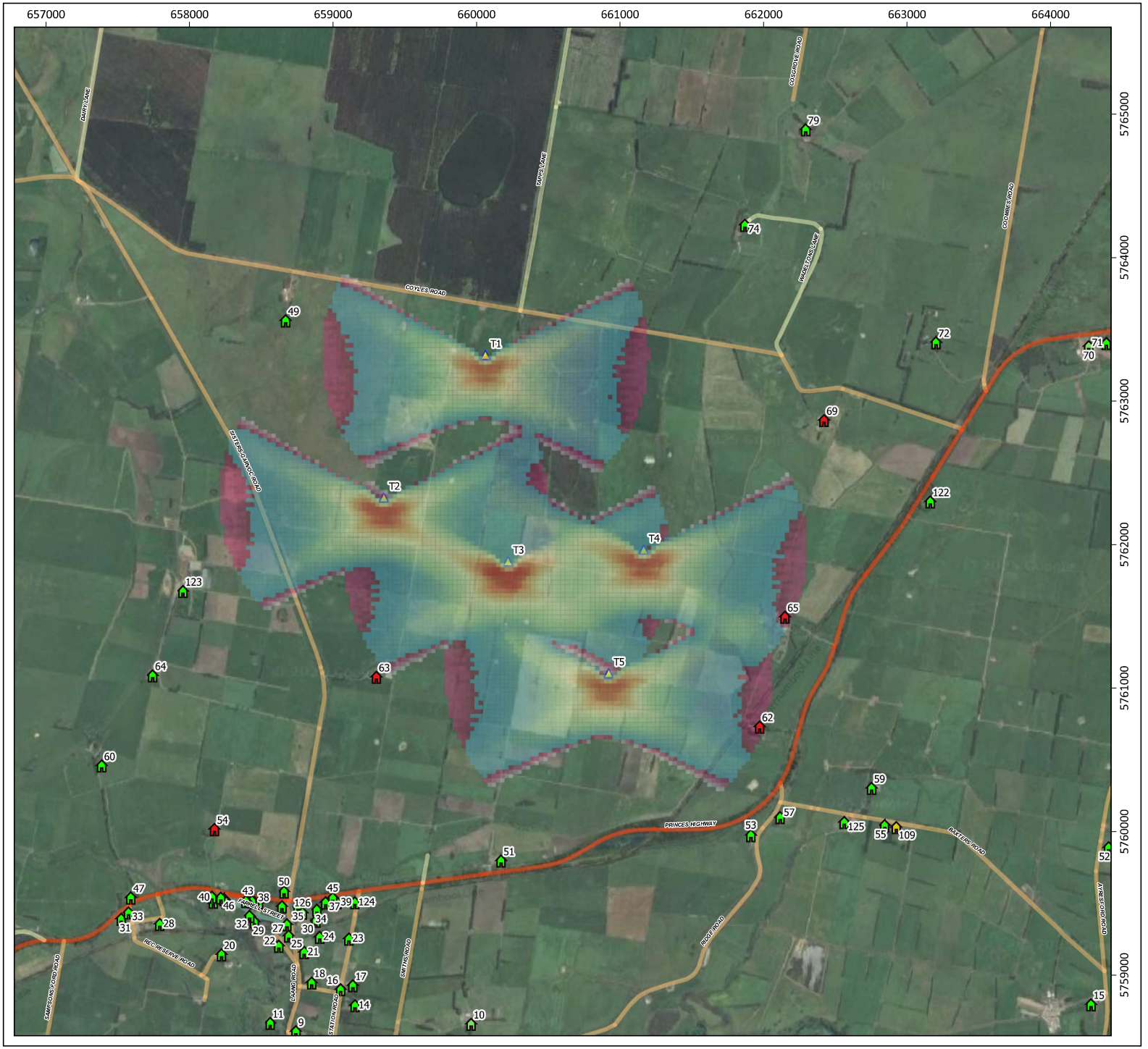
Legend

- Wind Turbine
- Dwellings
  - Neighbour
  - Host
  - Vacant
- Local Roads
  - HIGHWAY
  - LANE
  - ROAD
  - STREET
- Annual Shadow Flicker
  - Above 30 hours
  - Below 30 hours

Drawn: AM	Scale when printed at A3: 1:25,000
Checked: VM	Date: 22-05-2025
Approved: SS	Figure: 26

0 0.5 1 km

RE Future



Swansons Lane Wind Farm

Figures

Microwave Links in the Vicinity of the Wind Farm

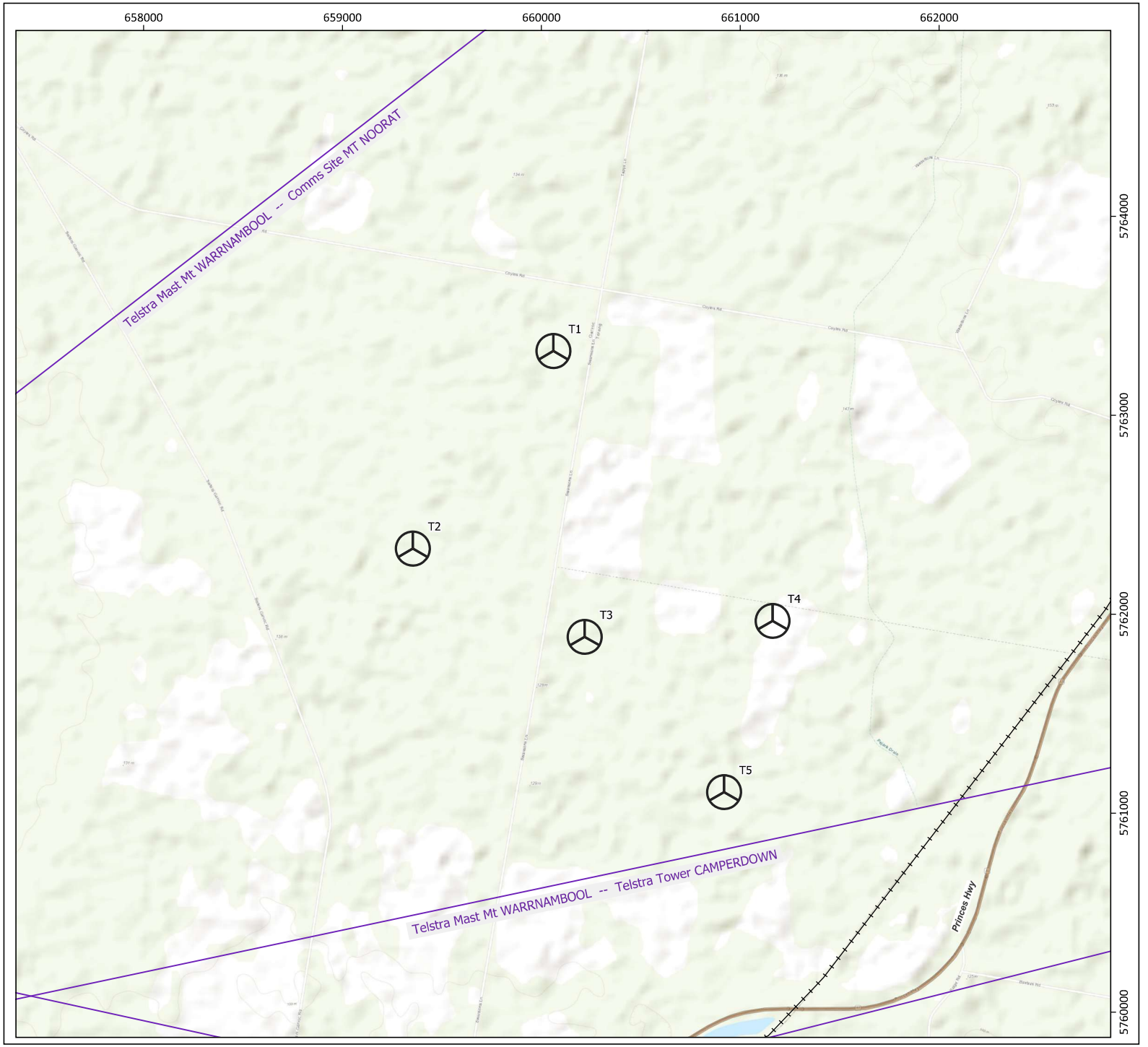
Legend

- Wind turbine
- Microwave Link
- HIGHWAY
- Rail

Drawn: VM	Scale when printed at A3: 1:18,000
Checked: SS	Date: 22-05-2025
Approved: SS	Figure No: 27

0 0.5 1 km

RE Future



Swansons Lane Wind Farm

Figures

Television Broadcast Sites in the Vicinity of the Wind Farm

Legend

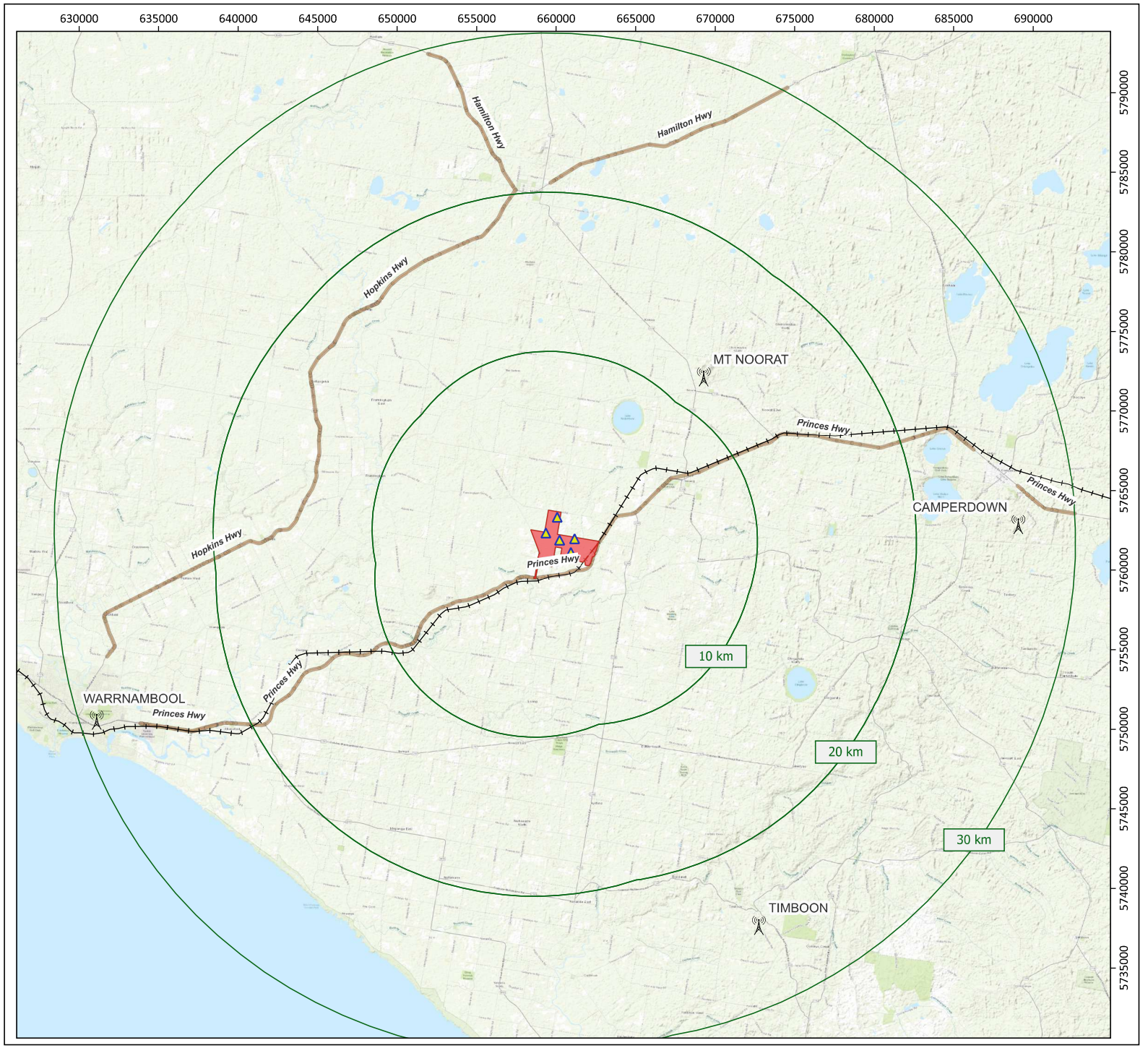
DTV Transmitter

Subject site

Drawn: VM	Scale when printed at A3: 1:225,000
Checked: SS	Date: 22-05-2025
Approved: SS	Figure No: 28

0 5 10 km

RE Future



Swansons Lane Wind Farm

Figures

Design Response

Legend

- Wind Turbine
- Encompassed SBWB Habitat
- SBWB Habitat
- 260m SBWB Distance Ring
- 1000m Dwelling Distance Ring
- Subject Site

Roads
- HIGHWAY
- LANE
- ROAD
- STREET

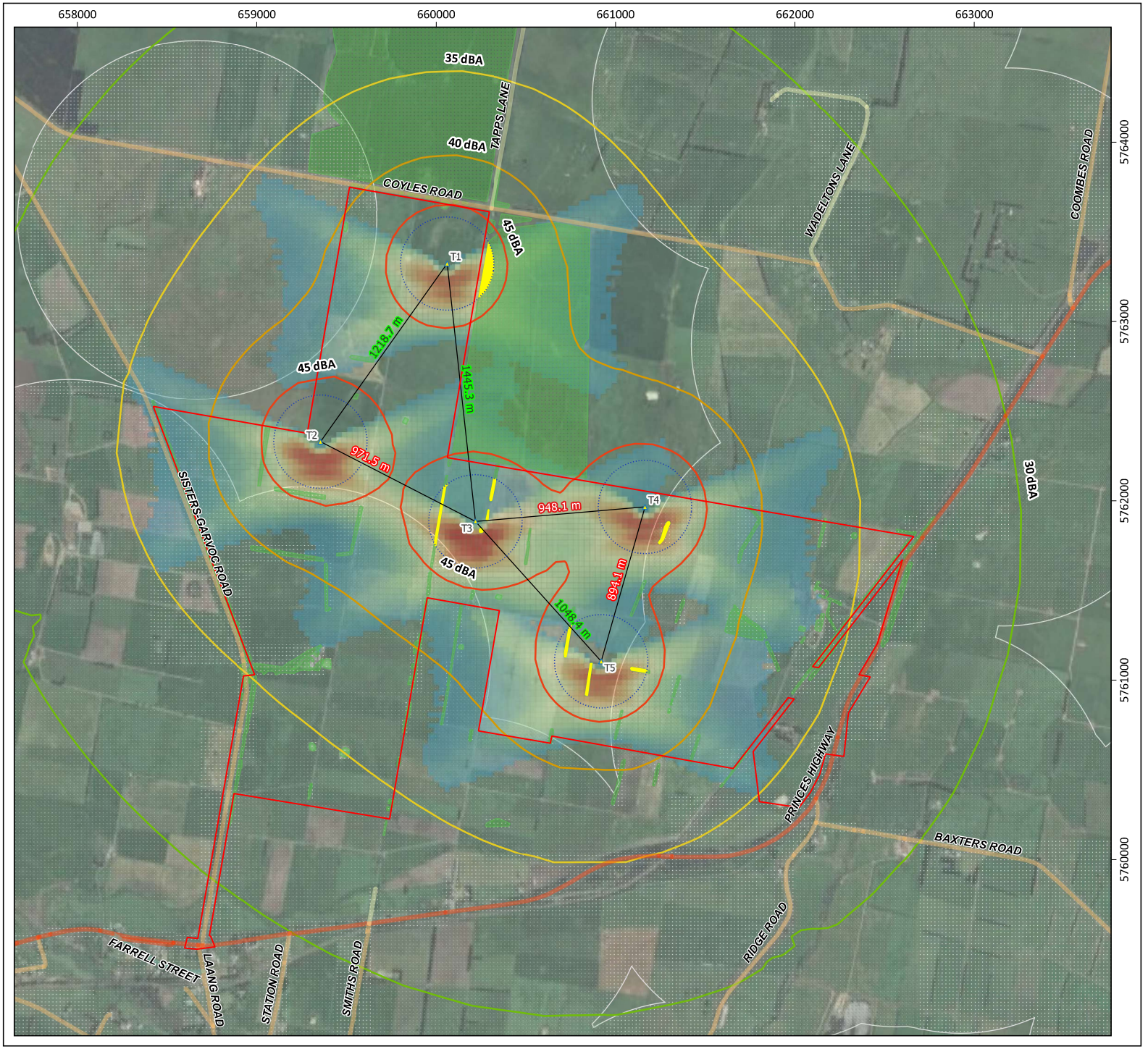
Predictive Noise Contours (dBA)
- 30.00
- 35.00
- 40.00
- 45.00

Annual Shadow Flicker
- > 30 hours

Drawn: AM	Scale when printed at A3: 1:20,000
Checked: VM	Date: 29-05-2025
Approved: SS	Figure: 29

0 0.5 1 km

RE Future



Swansons Lane Wind Farm

Figures

Locations of Fire Prevention Infrastructure

Legend

- Substation
- Turbine Footing
- Hardstand
- Site Office
- Laydown Area
- Static Water Supply
- Access Track
- Subject Site

Location of Fire Prevention Fire Infrastructure

- Static Water Supply Location
- Passing Bay Location
- Fire Break Location

Local Roads

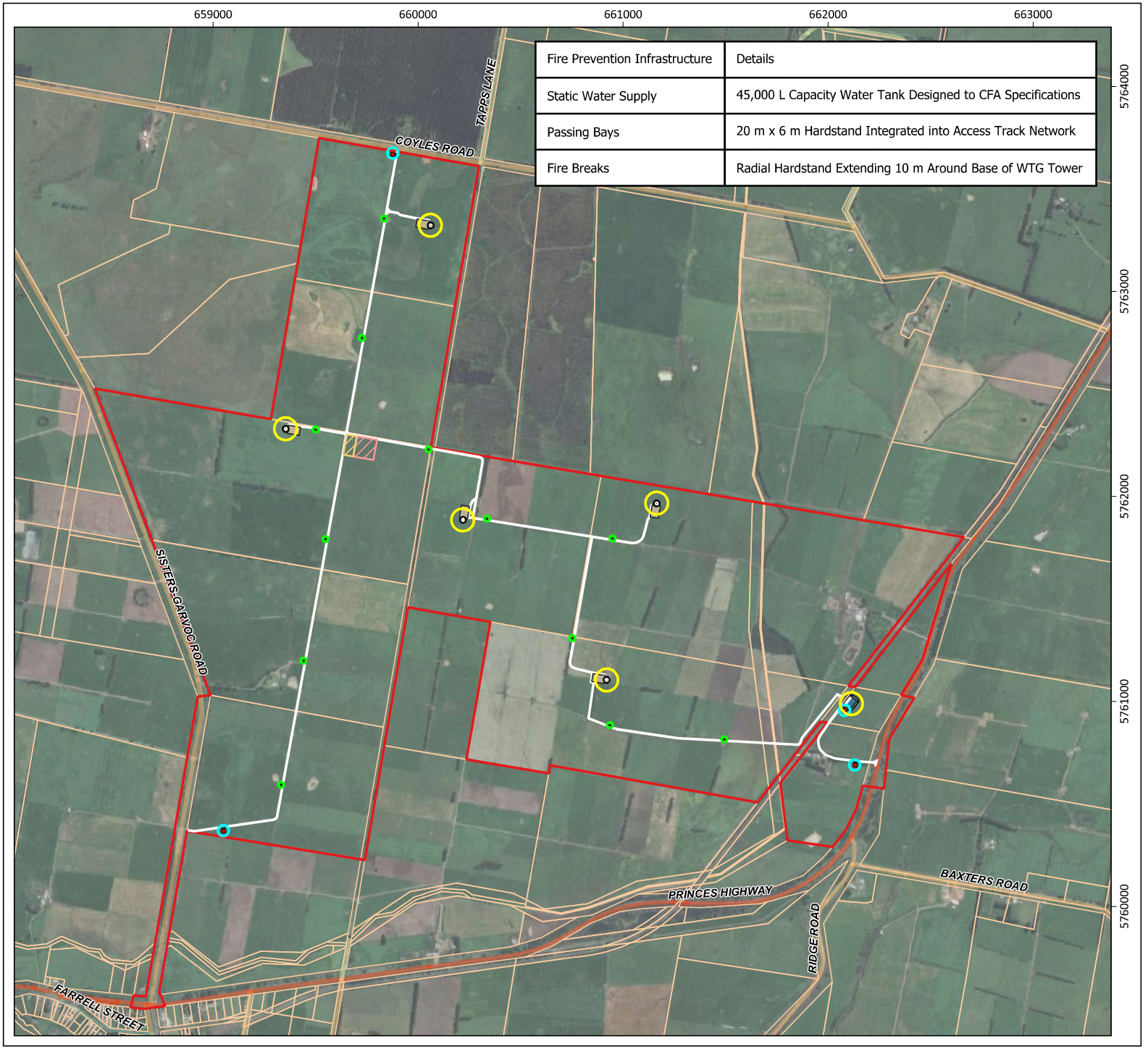
- HIGHWAY
- ROAD

Drawn: AM	Scale when printed at A3: 1:17,500
Checked: VM	Date: 29-05-2025
Approved: SS	Figure: 30

0 0.5 1 km

RE Future

Fire Prevention Infrastructure	Details
Static Water Supply	45,000 L Capacity Water Tank Designed to CFA Specifications
Passing Bays	20 m x 6 m Hardstand Integrated into Access Track Network
Fire Breaks	Radial Hardstand Extending 10 m Around Base of WTG Tower



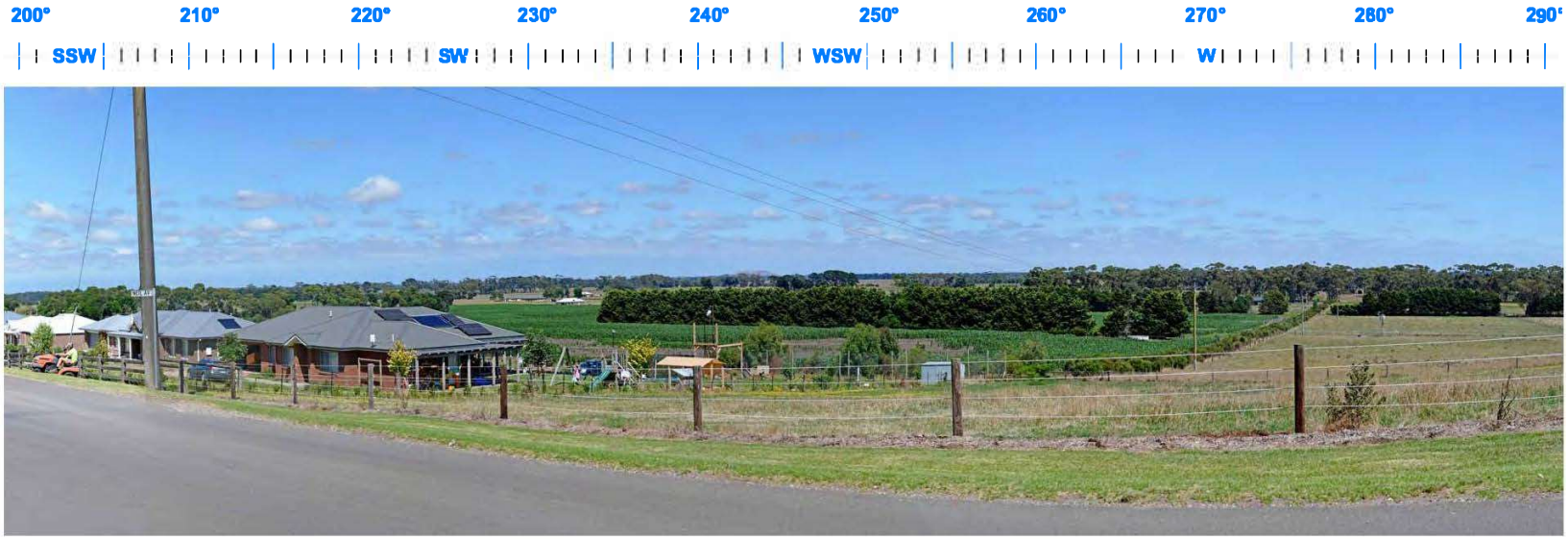
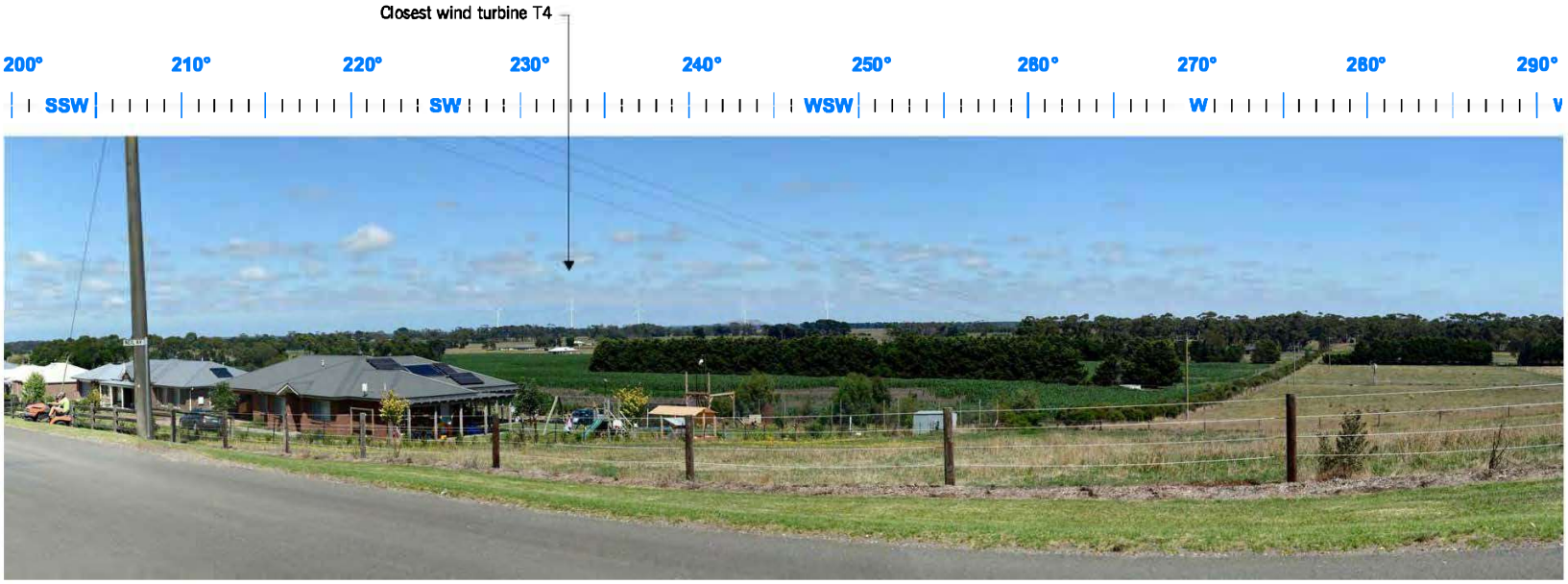


Photo location PM01 - Existing view south south west to west north west from Cameron Street, Terang.



Photomontage PM01 - Approximate 90° field of view south south west to west north west from Cameron Street, Terang. Approximate distance to closest visible wind turbine (T4) 6.4km

General Notes:

Panorama photo coordinates:
UTM Easting 666297, Northing 5765758

Photo date: 19th February 2023, 10.59am

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM01 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 31
Photomontage PM01 Cameron Road, Terang - 90 degree field of view

GBD
Landscape architecture

Photo location PM02 - Existing view south west to north west from the Princes Highway and Ayresford Road intersection.

Photomontage PM02 - Approximate 90° field of view south west to north west from Princes Highway and Ayresford Road intersection. Approximate distance to closest visible wind turbine (T4) 4.18km

General Notes:

Panorama photo coordinates:
UTM Easting 664999, Northing 5763614

Photo date: 19th February 2023, 11.06am

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM02 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

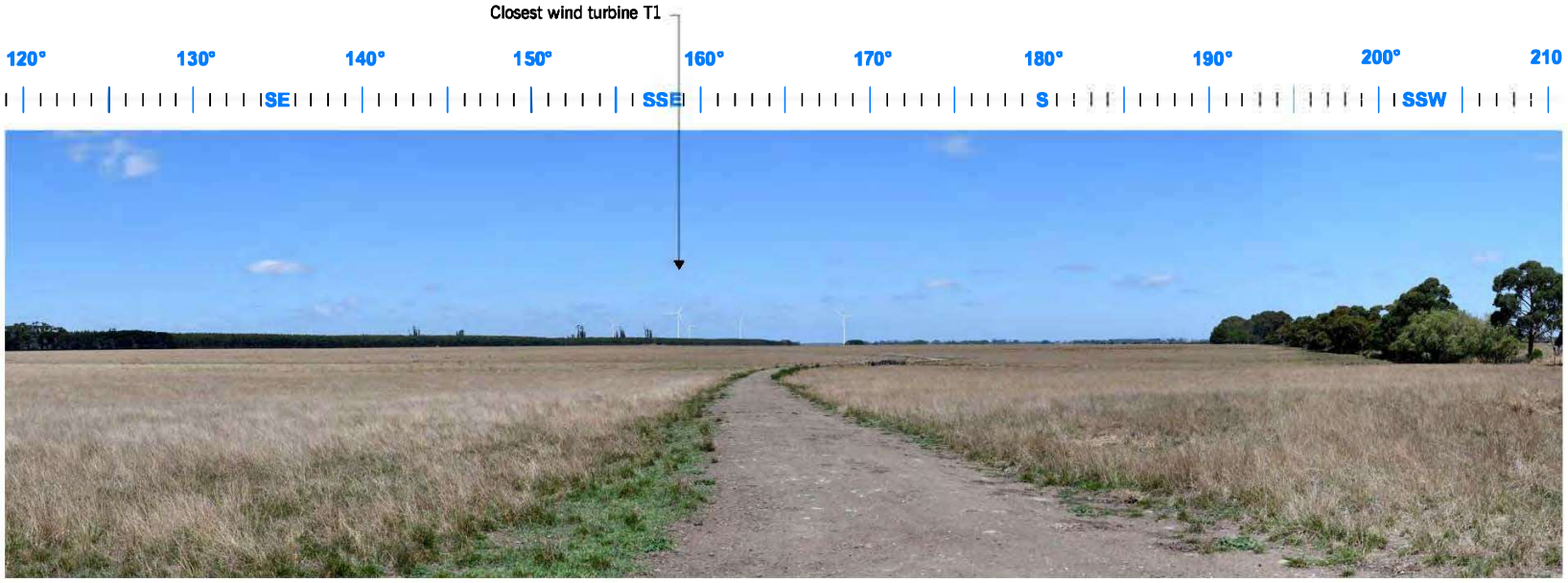
The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 32
Photomontage PM02 Princes Highway and Ayresford Road intersection - 90 degree field of view

GBD
Landscape architecture

Photo location PM03 - Existing view south east to south south west from the Terang Framlingham Road.



Photomontage PM03 - Approximate 90° field of view south east to south south west from the Terang Framlingham Road. Approximate distance to closest visible wind turbine (T1) 4.1km

General Notes:

Panorama photo coordinates:
UTM Easting 658469, Northing 5767009

Photo date: 19th February 2023, 12.59pm

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM03 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 33

Photomontage PM03 Terang Framlingham Road - 90 degree field of view

GBD

Landscape architecture

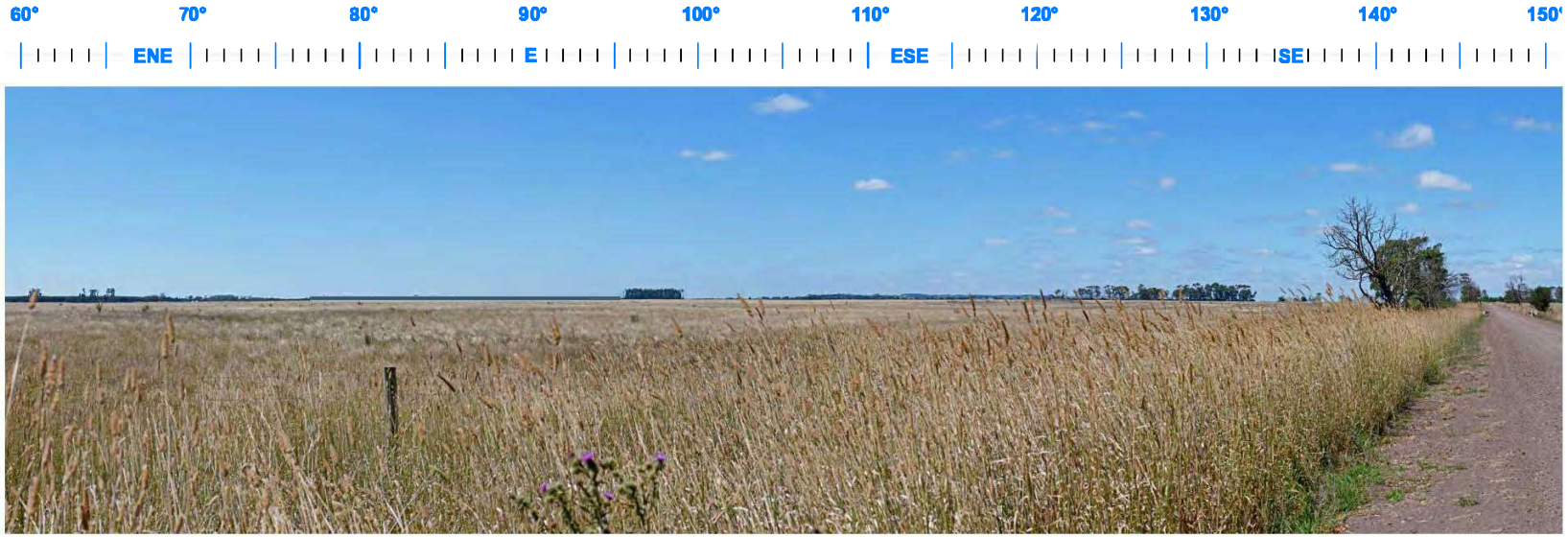
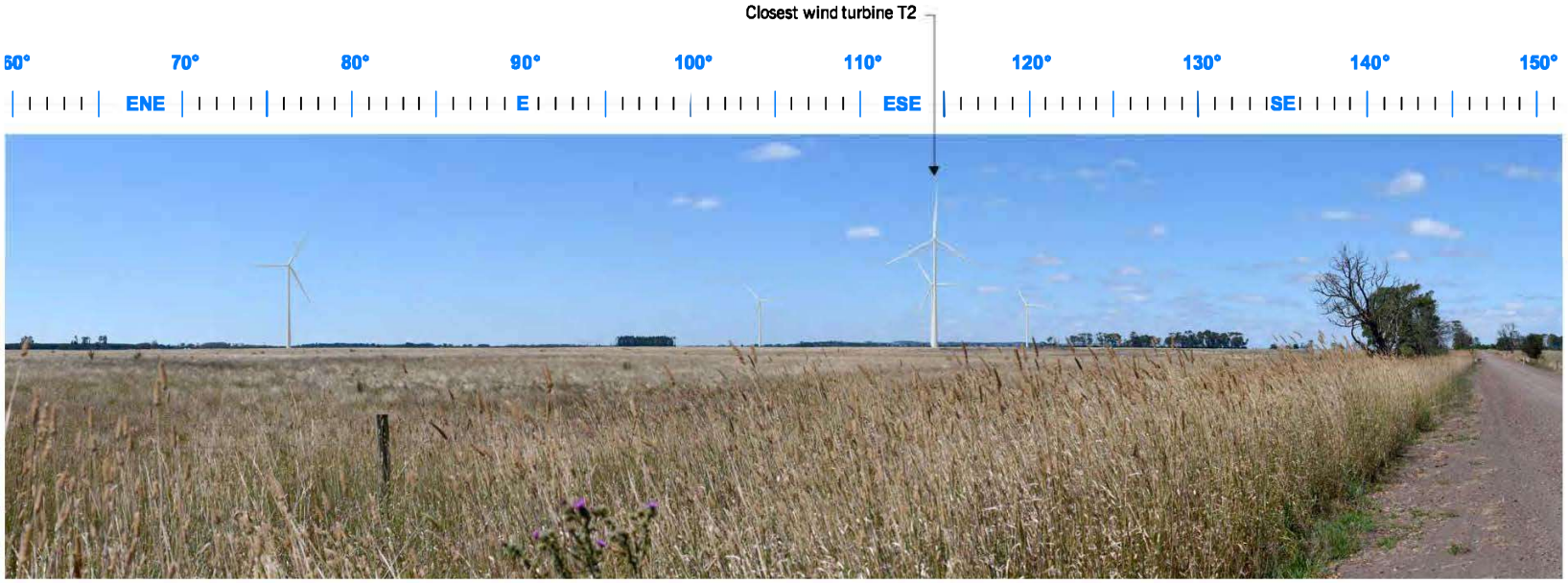


Photo location PM04 - Existing view east north east to south from the Sisters Garvoc Road.



Photomontage PM04 - Approximate 90° field of view east north east to south from the Sisters Garvoc Road. Approximate distance to closest visible wind turbine (T2) 1.6km

General Notes:

Panorama photo coordinates:
UTM Easting 658070, Northing 5763144

Photo date: 19th February 2023, 11.53am

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM04 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure **34**

Photomontage PM04 Sisters Garvoc Road - 90 degree field of view

Swansons Lane Wind Farm : Landscape and Visual Impact Assessment

GBD

Landscape architecture

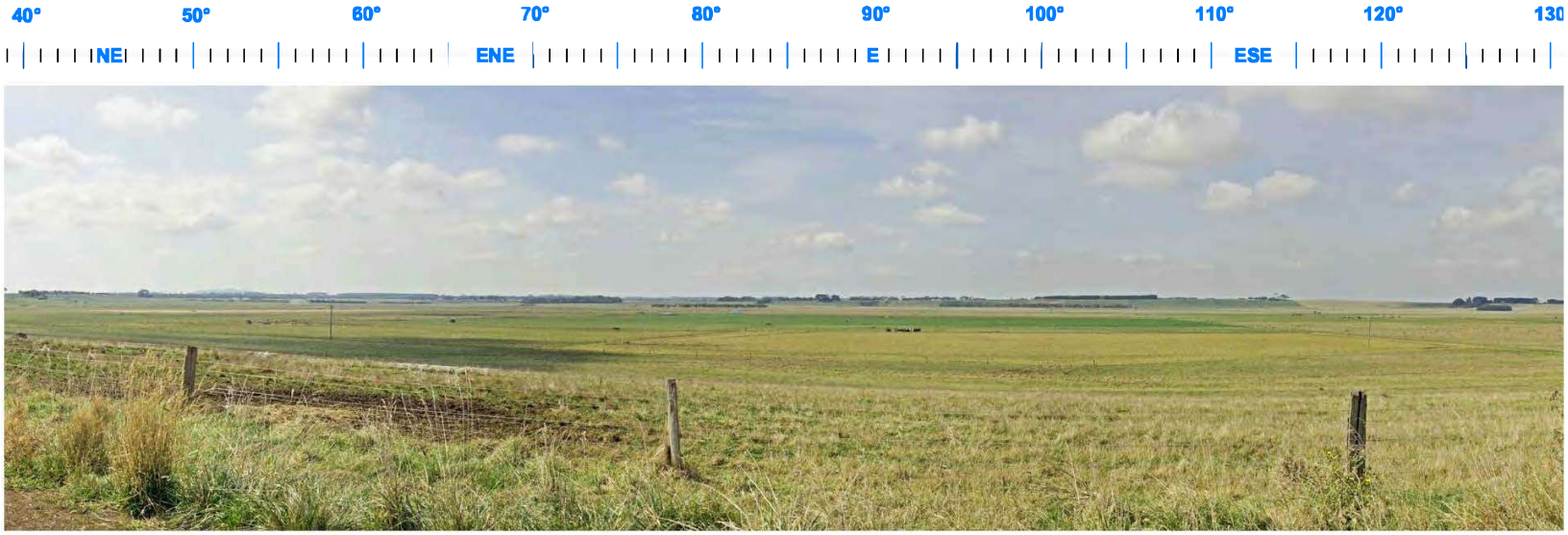
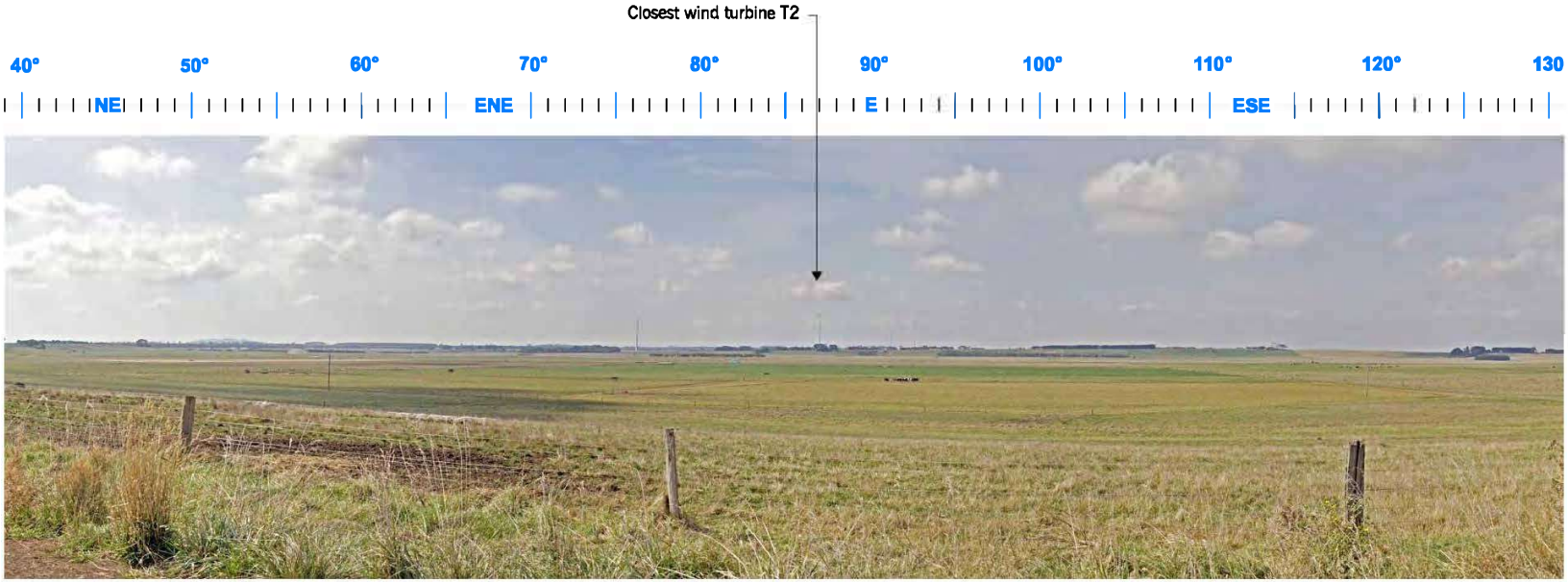


Photo location PM05 - Existing view east north east to south east from Edwards Lane.



Photomontage PM05 - Approximate 90° field of view east north east to south east from Edwards Lane. Approximate distance to closest visible wind turbine (T2) 4.3km

General Notes:

Panorama photo coordinates:
UTM Easting 655178, Northing 5762240

Photo date: 4th April 2023, 1.09pm

Camera: Nikon D700, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM05 is illustrated et a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 35

Photomontage PM05 Edwards Lane - 90 degree field of view

GBD

Landscape architecture

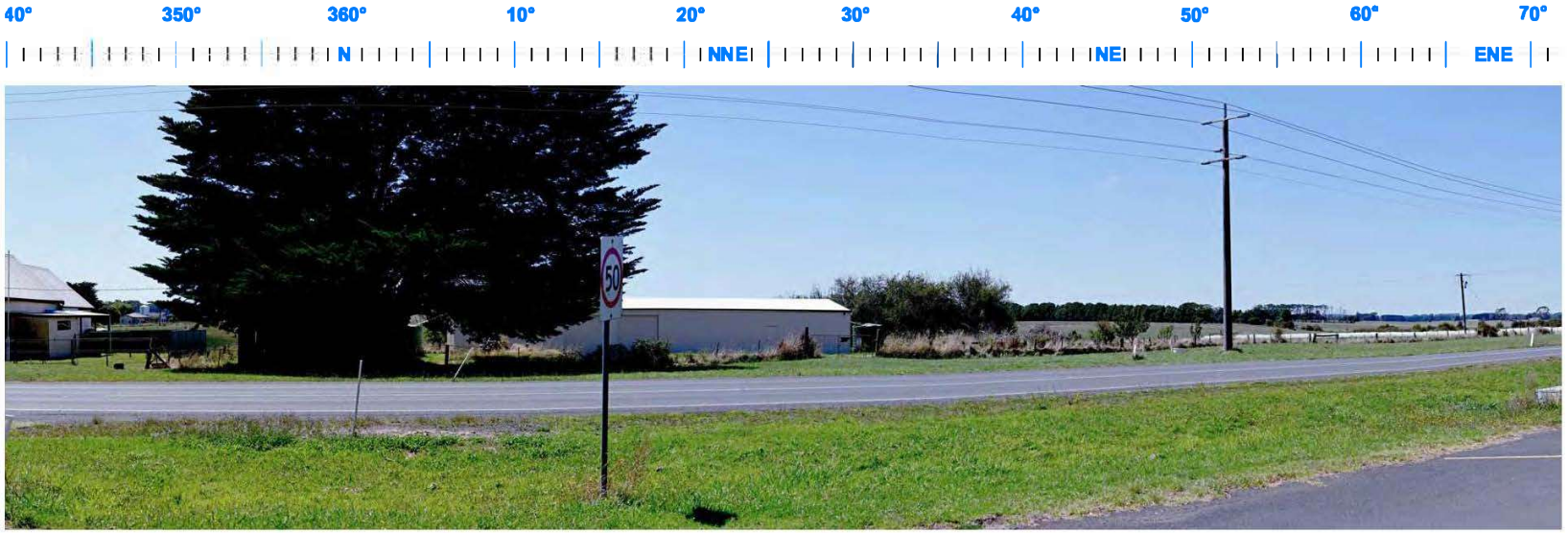
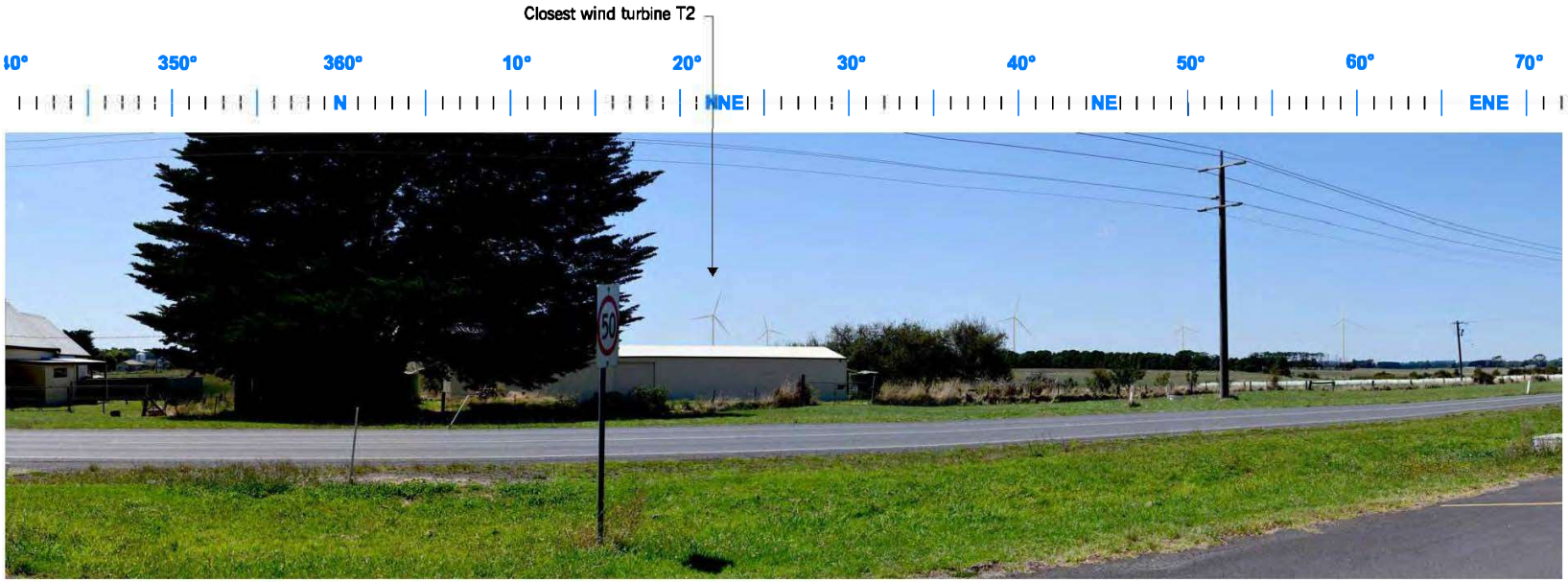


Photo location PM06 - Existing view north north west to north east from Farrell Street at Princes Highway, Garvoc.



Photomontage PM06 - Approximate 90° field of view north north west to north east from Farrell Street at Princes Highway, Garvoc. Approximate distance to closest visible wind turbine (T2) 3.1km

General Notes:

Panorama photo coordinates:
UTM Easting 658201, Northing 5759564

Photo date: 19th February 2023, 1.18pm

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM06 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 36

Photomontage PM06 Farrell Street at Princes Highway, Garvoc - 90 degree field of view

GBD
Landscape architecture

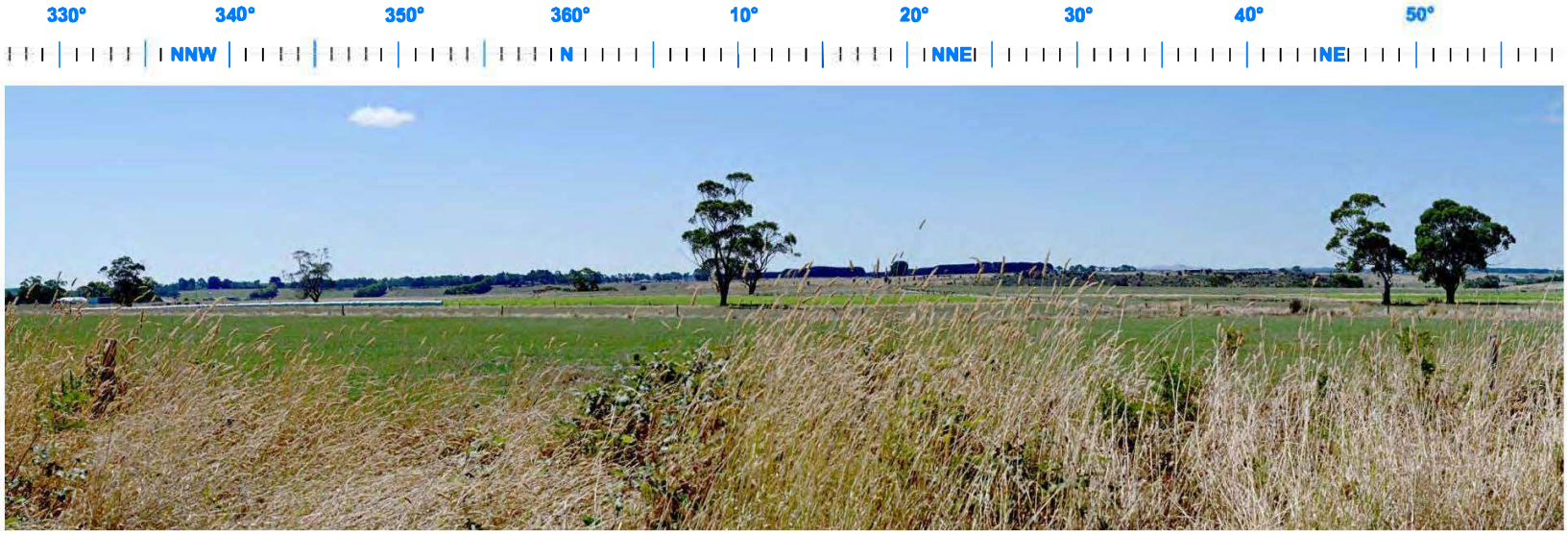
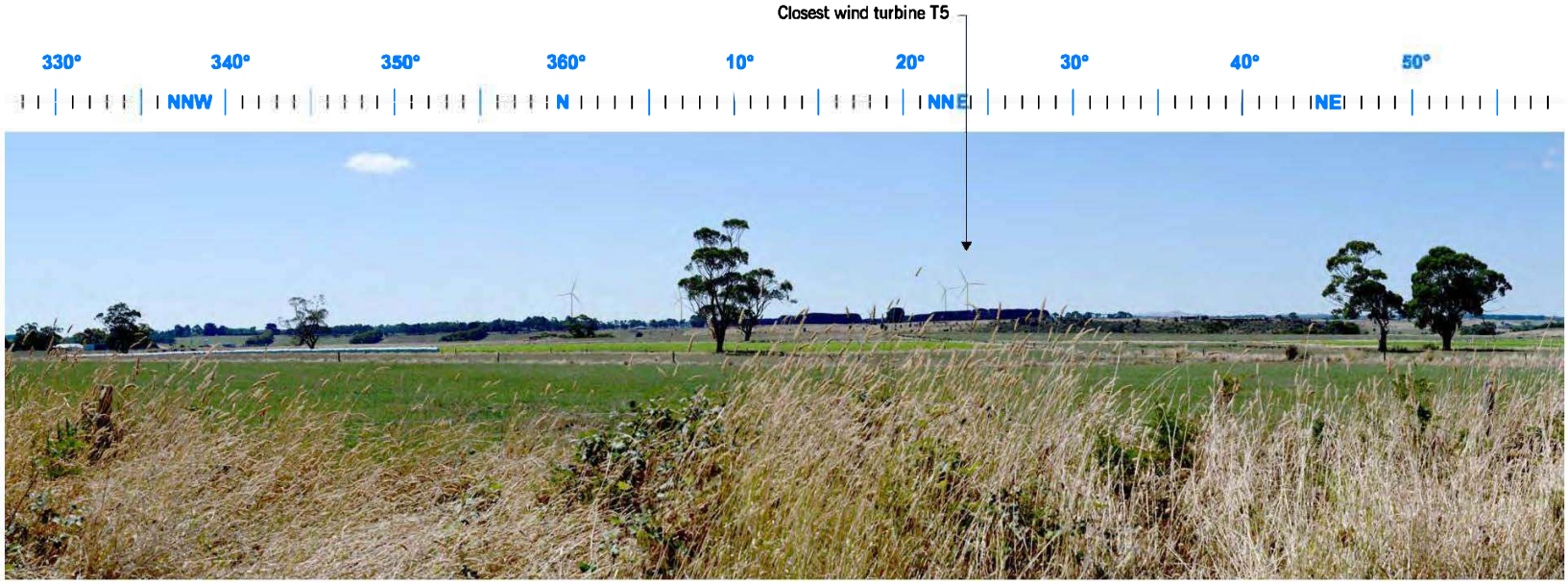


Photo location PM07 - Existing view north north west to north east from Howards Road.



Photomontage PM07 - Approximate 90° field of view north north west to north east from Howards Road. Approximate distance to closest visible wind turbine (T5) 4.3km

General Notes:

Panorama photo coordinates:
UTM Easting 659271, Northing 5757162

Photo date: 19th February 2023, 1.18pm

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM07 is illustrated et a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 37
Photomontage PM07 Howards Road, Garvoc - 90 degree field of view

GBD
Landscape architecture

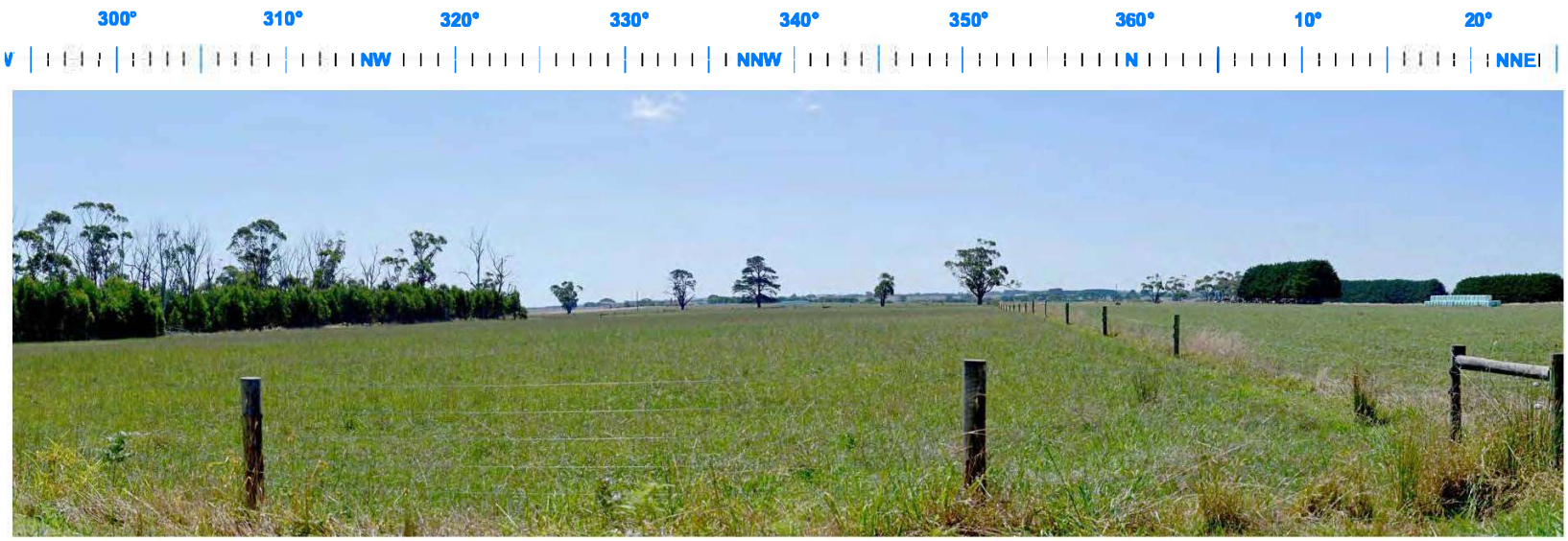
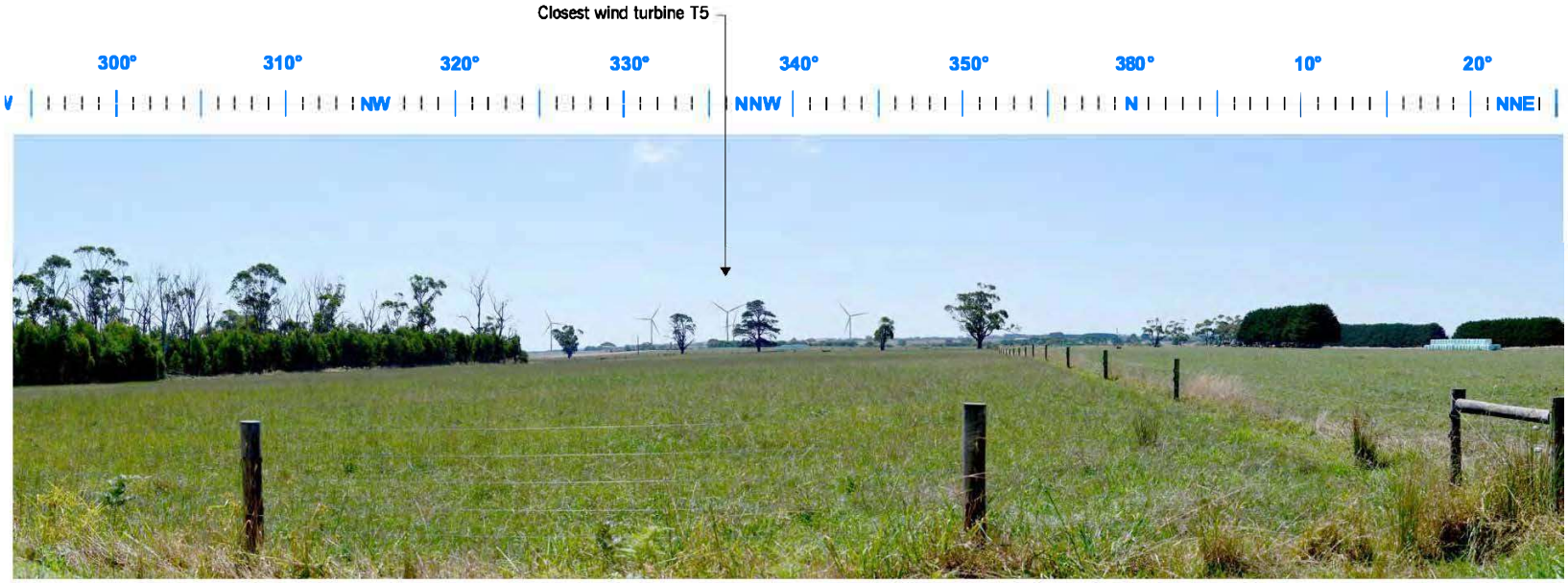


Photo location PM08 - Existing view west north west to north north east from Howards Road.



Photomontage PM08 - Approximate 90° field of view west north west to north north east from Howards Road. Approximate distance to closest visible wind turbine (T5) 4.7km

General Notes:

Panorama photo coordinates:
UTM Easting 662713, Northing 5756664

Photo date: 19th February 2023, 1.52pm

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM08 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 38
Photomontage PM08 Howards Road, Garvoc - 90 degree field of view

GBD
Landscape architecture

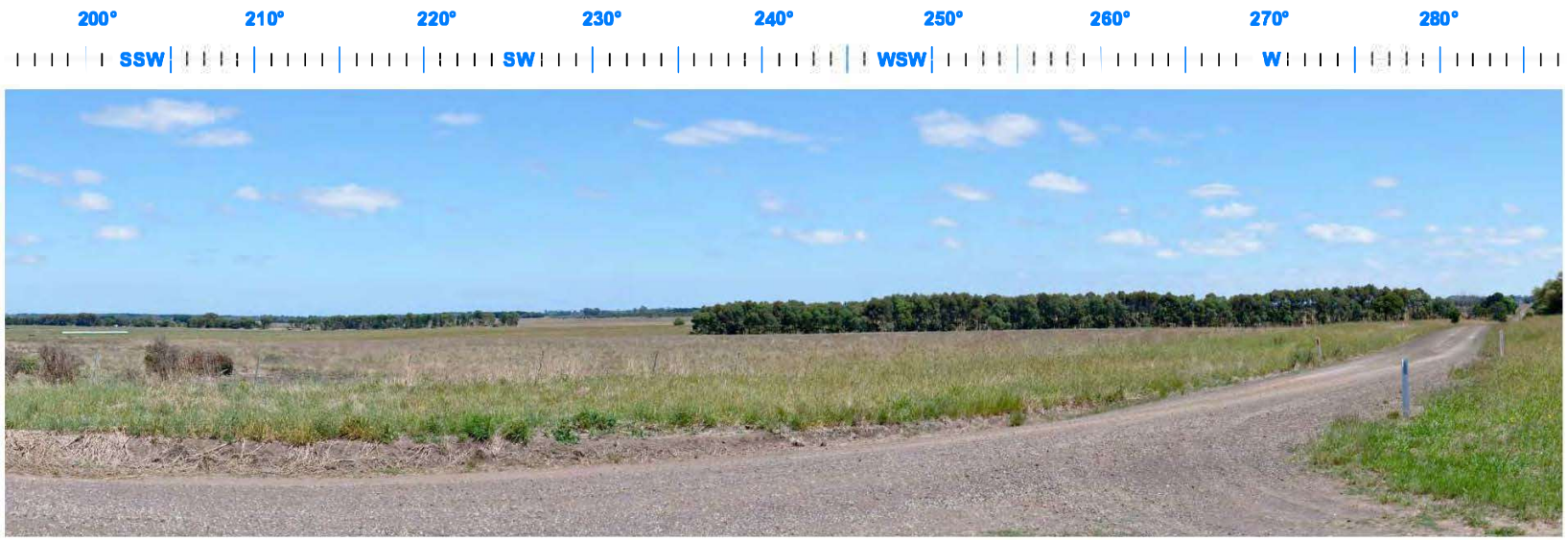
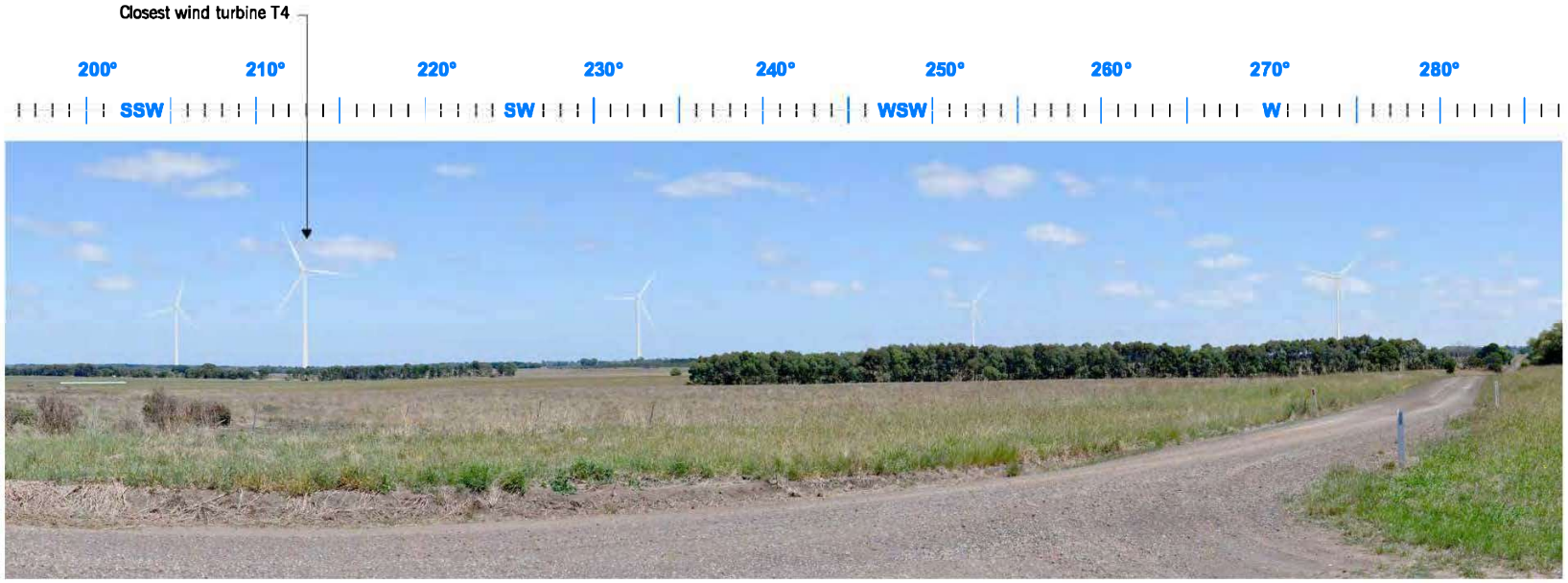


Photo location PM09 - Existing view south south west to west north west from Coyles Road.



Photomontage PM09 - Approximate 90° field of view south south west to west north west from Coyles Road. Approximate distance to closest visible wind turbine (T4) 1.7km

General Notes:

Panorama photo coordinates:
UTM Easting 662143, Northing 5763347

Photo date: 19th February 2023, 12.17pm

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM09 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure 39

Photomontage PM09 Coyles Road - 90 degree field of view

Swansons Lane Wind Farm : Landscape and Visual Impact Assessment

GBD

Landscape architecture

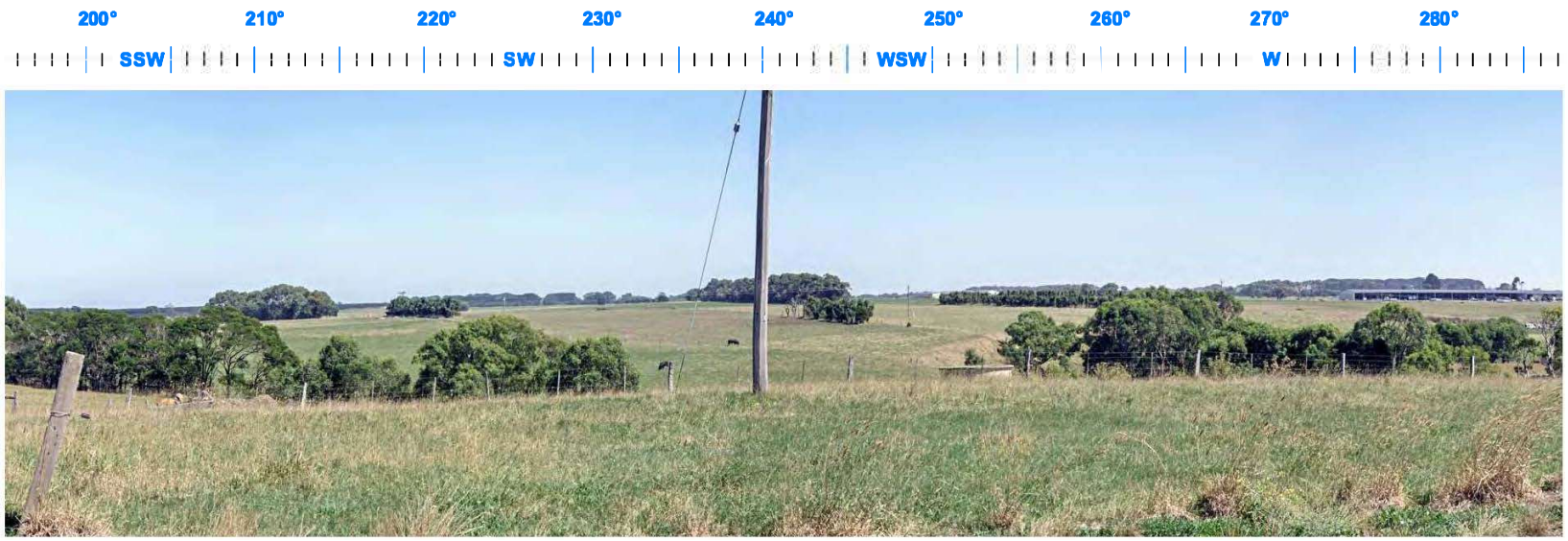
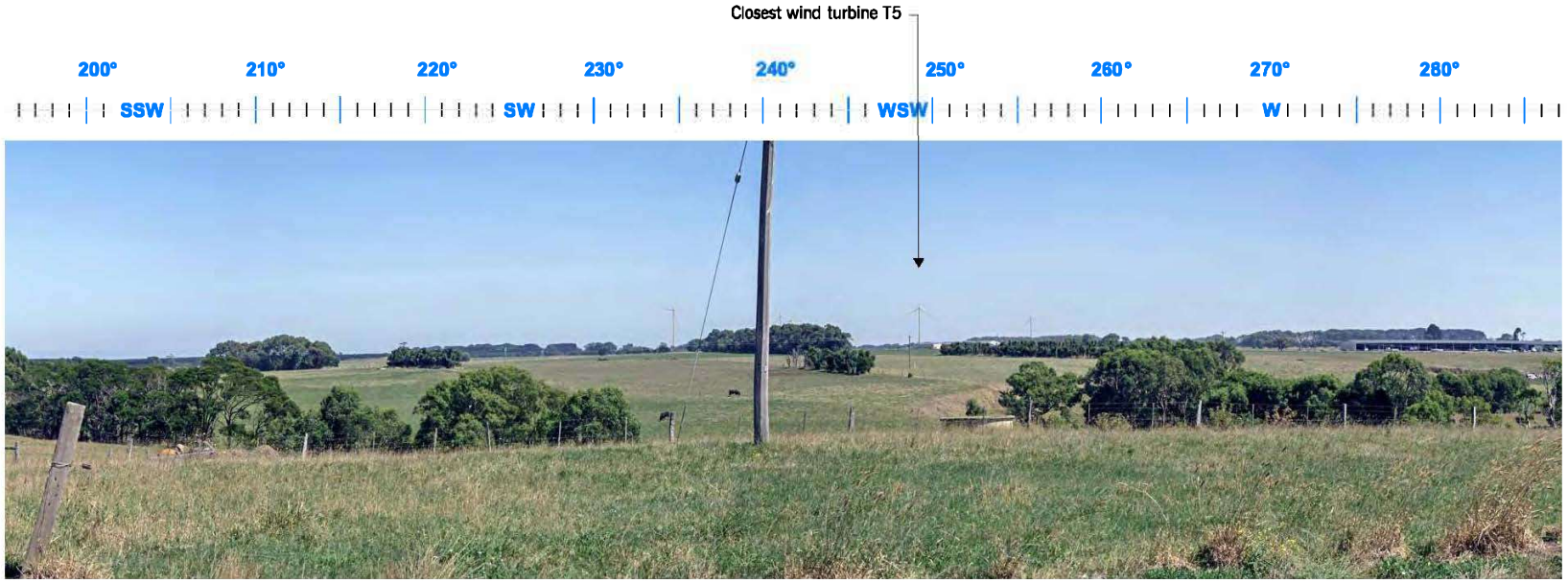


Photo location PM10 - Existing view south south west to west north west from Keayang Road.



Photomontage PM10 - Approximate 90° field of view south south west to west north west from Keayang Road. Approximate distance to closest visible wind turbine (T5) 4.7km

General Notes:

Panorama photo coordinates:
UTM Easting 662143, Northing 5763347

Photo date: 17th February 2023, 11.58am

Camera: Nikon D850, 50mm 1:1.4D Lens

Original Page Format - A3 Landscape

Photomontage PM10 is illustrated at a view angle of around 90 degrees which is within the central, binocular field, of human vision.

Photomontage limitations

A photomontage can never show exactly what the wind farm will look like in reality due to factors such as different lighting, weather and seasonal conditions which vary through time and the resolution of the image. Also a static image cannot convey turbine movement.

The images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate.

The viewpoints illustrated are representative of views in this location, but cannot represent visibility at all locations.

Figure **40**
Photomontage PM10 Keayang Road - 90 degree field of view

GBD
Landscape architecture