



Traffic & Transportation Direction



Bunyip North BESS

Lot 2, 30 Tonimbuk Road, Bunyip North

Traffic Impact Assessment

19 March 2026

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

Reference: 1226 rep 260319 final

**ADVERTISED
PLAN**

Bunyip North BESS

Lot 2, 30 Tonimbuk Road, Bunyip North

Traffic Impact Assessment

**ADVERTISED
PLAN**

Prepared for: Environmental Resources Management Australia Pty Ltd

Status: Final report

Date: 19 March 2026

Reference: 1226 rep 260319 final

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

Rev	Date	Description	Author	Reviewed	Approved
A	11/10/25	Draft 01	S. Eduards	T. Dwyer	T. Dwyer
B	05/11/25	Final 01	S. Eduards	O. Mihaila	T. Dwyer
C	11/11/25	Final 02	S. Eduards	O. Mihaila	O. Mihaila
D	19/03/26	Final 03	S. Eduards	O. Mihaila	O. Mihaila

Contact

Website: www.amberorg.com.au

E: info@amberorg.com.au

Phone: 1800 022 363

Table of Contents

1.	Background	1
1.1	Introduction	1
1.2	Purpose of Document	3
2.	Existing Conditions	4
2.1	Site Location.....	4
2.2	Road Network	5
2.3	Traffic Volumes	6
2.4	Public Transport.....	6
2.5	Restricted Vehicle Access.....	6
2.6	Crash History.....	7
3.	Project Description	10
3.1	Proposed Works	10
3.2	Construction Information.....	11
4.	Traffic Assessment	12
4.1	Construction	12
4.2	Operational Phase	16
5.	Route Assessment	17
5.1	Heavy Vehicles	17
5.2	OSOM Vehicles	17
6.	Site Access	19
6.1	Turn Treatment Assessment.....	19
6.2	Sight Distance.....	20
6.3	Acceleration Lane.....	20
7.	Traffic Management Plan.....	22
7.1	Access Management.....	22
7.2	Other Measures	22
8.	Conclusion	24

This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright

Appendices

Appendix A

SIDRA Traffic Analysis Results

Appendix B

Site Access Design and Sight Distance Assessment

**ADVERTISED
PLAN**

1. Background

1.1 Introduction

Amber Organisation Pty Ltd has been engaged by Environmental Resources Management Australia Pty Ltd (ERM) on behalf of RES Australia Pty Ltd (the Applicant) to conduct a Traffic Impact Assessment (TIA) for the Bunyip North BESS (the Project).

Traffic impacts associated with the construction, operation and decommissioning (where relevant) of the Battery Energy Storage System (BESS) have been addressed in this report, in accordance with relevant regulatory and statutory requirements.

The Project Area is located on Lot 2 on Plan of Subdivision PS315155, at 30 Tonimbuk Road, Bunyip North. The Project is wholly located within the Cardinia Shire local government area (LGA), approximately 80 kilometres (km) southeast of central Melbourne in Victoria's Gippsland region and approximately 2.5 km north of the Bunyip town centre.

The Bunyip North BESS (The Project) is proposed to deliver a Battery Energy Storage System (BESS) for large-scale electricity storage and dispatch capability, supporting Victoria's transition toward a more renewable and reliable energy network. The BESS is anticipated to have a storage capacity of up to 400 MW / 2,400 MWh, with a connection to the existing 220 kV transmission network via a new transmission terminal station, the Bunyip North Terminal Station (BNTS). The Project will also include associated ancillary infrastructure.

Access to the site is proposed via a new left-in left-out access connecting with the northern side of Princes Freeway which would be constructed to accommodate the Project traffic. Figure 1 shows the proposed layout of the BESS in relation to the road network, access locations and existing infrastructure.

Construction is expected to commence mid-2027 and occur over a period of approximately 27 months, subject to approvals. A maximum workforce of up to 75 personnel would be on-site during the peak construction period and would primarily reside in nearby towns including Bunyip, Drouin, Garfield and Longwarry.

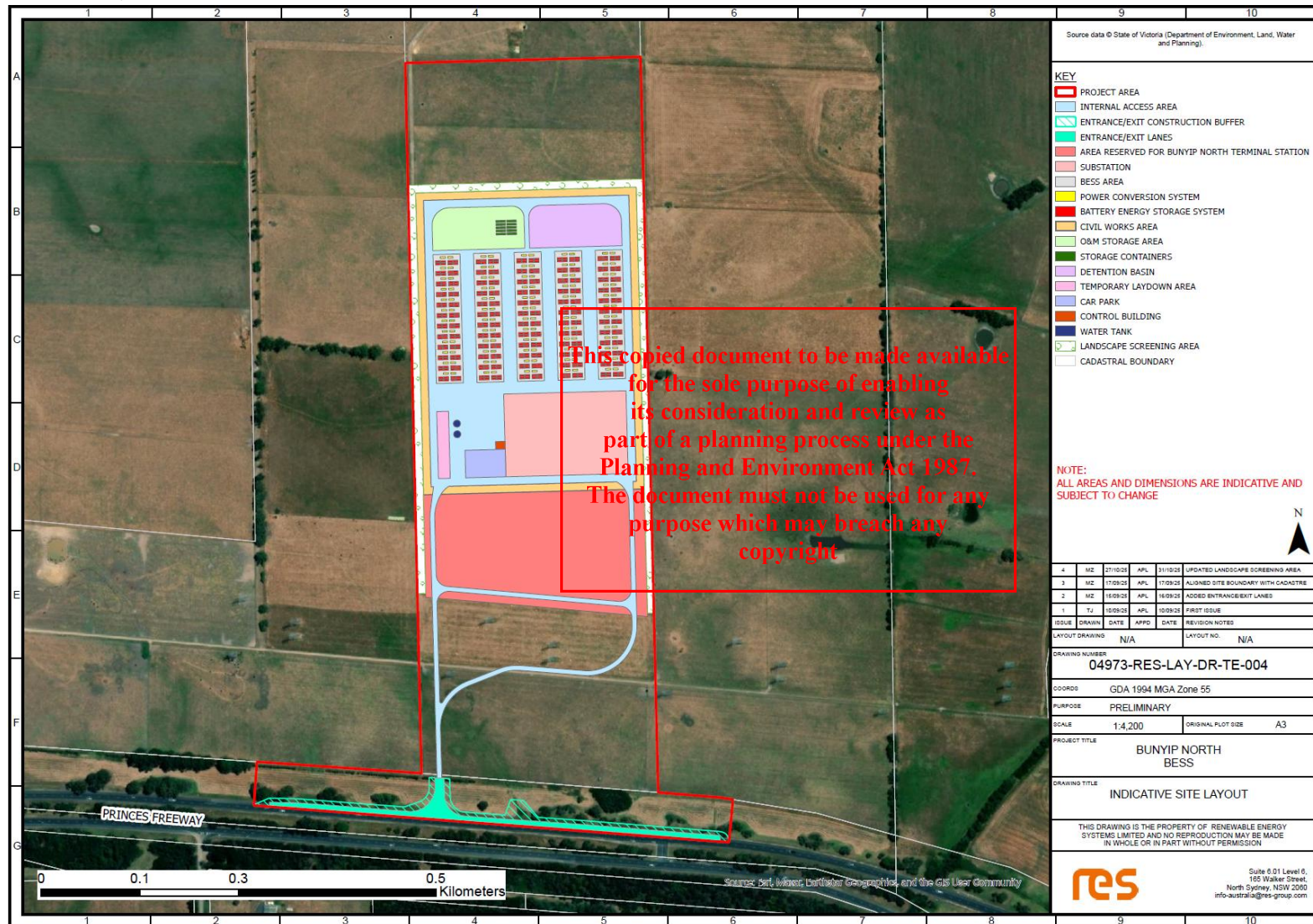
The BESS components are expected to be delivered from Port of Melbourne, while construction materials and plant will generally be sourced from the surrounding area where practicable.

This report has been prepared to support a development application under the Department of Transport and Planning (DTP) Development Facilitation Program. It is based on surveys and observations at the site and our experience of similar developments elsewhere.

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

**ADVERTISED
PLAN**

Figure 1. Project Layout



Source: RES Australia

1.2 Purpose of Document

This Traffic Impact Assessment has been prepared to assess the construction, operational and decommissioning (where relevant) traffic impacts, and the access arrangements of the Project. The assessment details how road impacts of the Project traffic, particularly from heavy vehicle use and oversize vehicles, would be avoided or managed using road-use management strategies.

The assessment has been undertaken in accordance with relevant *DTP Traffic Engineering Manuals* and Austroads Guidelines.

**ADVERTISED
PLAN**

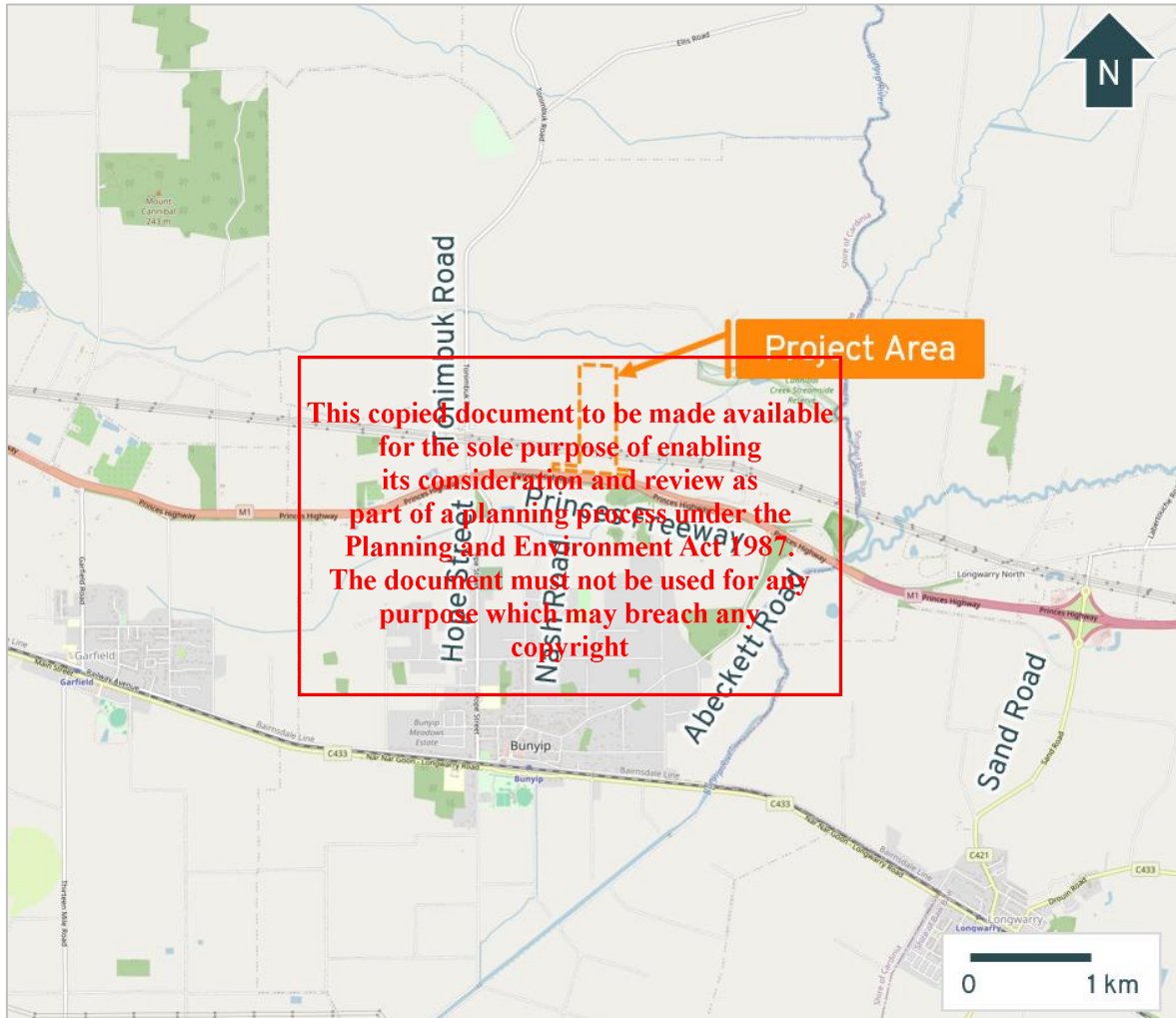
**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

2. Existing Conditions

2.1 Site Location

The Project Area is located on Lot 2 PS315155, on the northern side of Princes Freeway in Bunyip North, approximately 2.5 km north of the Bunyip town centre. Figure 2 shows the location of the site in relation to the surrounding transport network.

Figure 2: Site Location



Source: OpenStreetMap

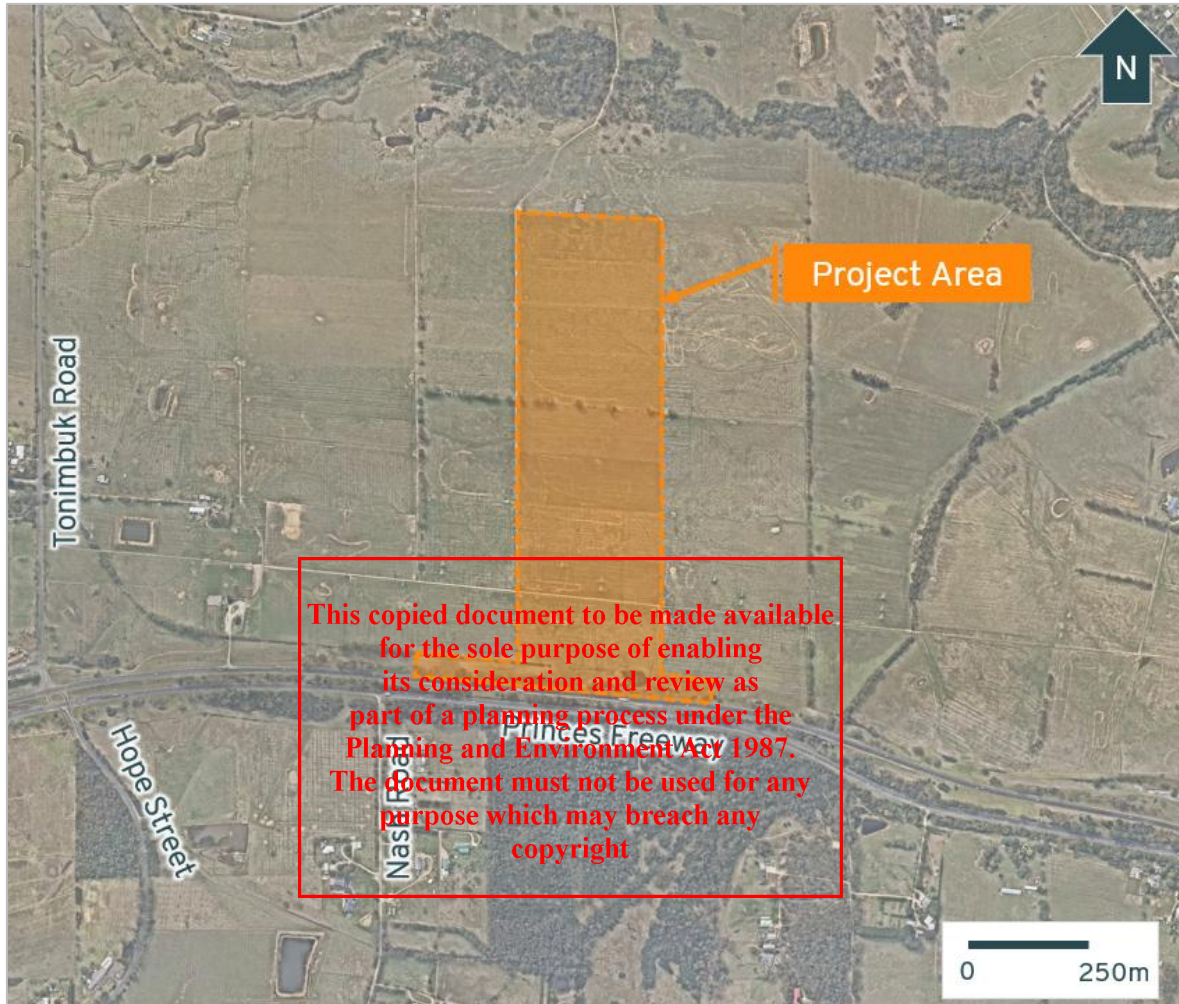
The site is connected with the surrounding state-controlled road network through Princes Freeway which runs along the southern boundary and provides access to nearby townships as well as the Melbourne metropolitan area.

The site and surrounding land to the east and west are primarily zoned *Green Wedge Zone* and occupied by agricultural or vegetated land. Cannibal Creek runs along the northern boundary of the site (*Public Conservation and Resource Zone*) while Princes Freeway to the south is categorised as *Transport Zone 2* land.

**ADVERTISED
PLAN**

Figure 3 provides an aerial photograph of the Project Area and the surrounding land. It demonstrates the agricultural nature of the area and shows that the site only has frontage to Princes Freeway along the southern boundary.

Figure 3: Aerial Photograph of Site and Surrounding Area



Source: Nearmap

ADVERTISED PLAN

2.2 Road Network

Princes Freeway is a state-controlled road (Freeway) divided into two sections, with the western section running between Geelong and Laverton North and the eastern section running between Narre Warren and Morwell. The site is located along the eastern section which provides a divided carriageway consisting of two travel lanes in each direction and wide sealed shoulders in the vicinity of the site. A speed limit of 80 km/h applies in the vicinity of the site¹, and no footpaths or dedicated cycling facilities are provided.

The intersections of **Princes Freeway / Hope Street / Tonimbuk Road** and **Princes Freeway / Abeckett Road** provide full access for all movements by way of rural wide median treatments. The intersection of **Princes Freeway / Sand Road** also provides full access by way of a diamond interchange with roundabouts located approximately 5 km east of the site.

¹ It is understood that the speed limit was reduced from 100 km/h to 80 km/h in 2021 in relation to safety concerns and crash history.

2.3 Traffic Volumes

Data obtained from the DTP Traffic Volume dataset (2020) indicates that Princes Freeway carries in the order of 30,000 vehicles per day (two-way traffic) with approximately 12% heavy vehicles. Overall, the data indicates traffic movements are generally split evenly between eastbound and westbound trips, and the road carries a high level of traffic in line with its freeway classification.

2.4 Public Transport

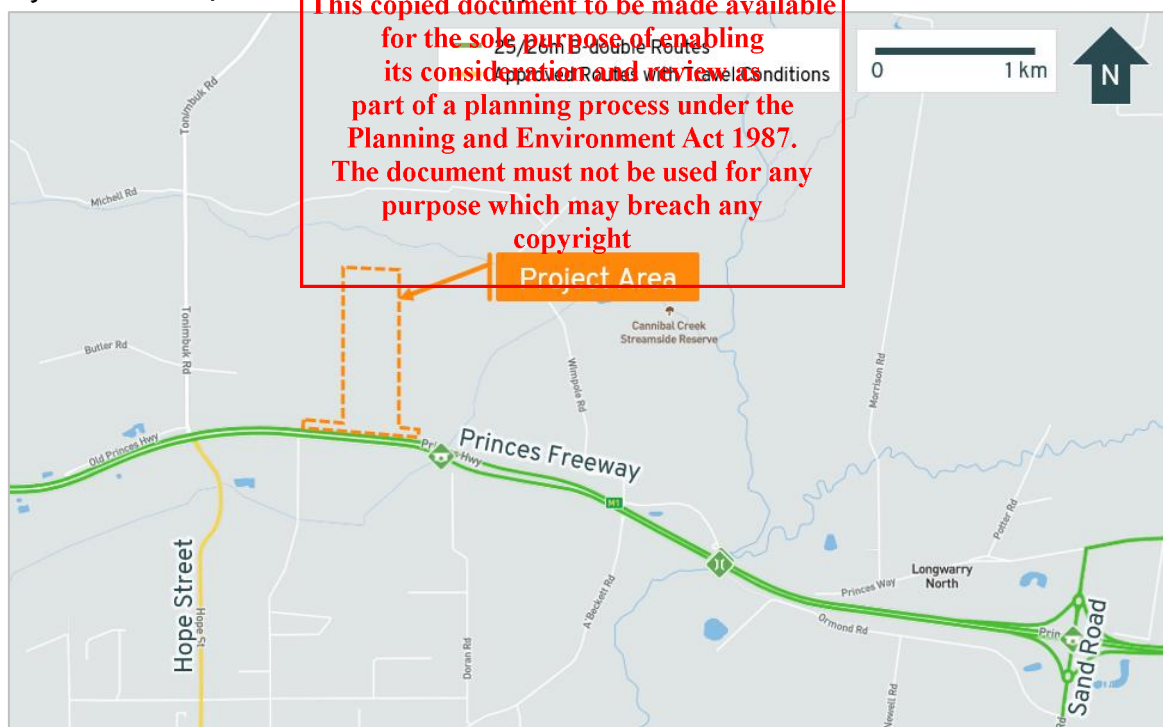
The closest public transport services are provided at the Bunyip Railway Station which is served by Gippsland line V/line services, located approximately 3km south of the site.

2.5 Restricted Vehicle Access

2.5.1 B-Doubles

The National Heavy Vehicle Regulator (NHVR) Restricted Access Vehicle Map for the surrounding area is provided within Figure 4.

Figure 4: NHVR 25/26m B-Double Network Approved Roads



Source: NHVR Restricted Access Vehicle Map

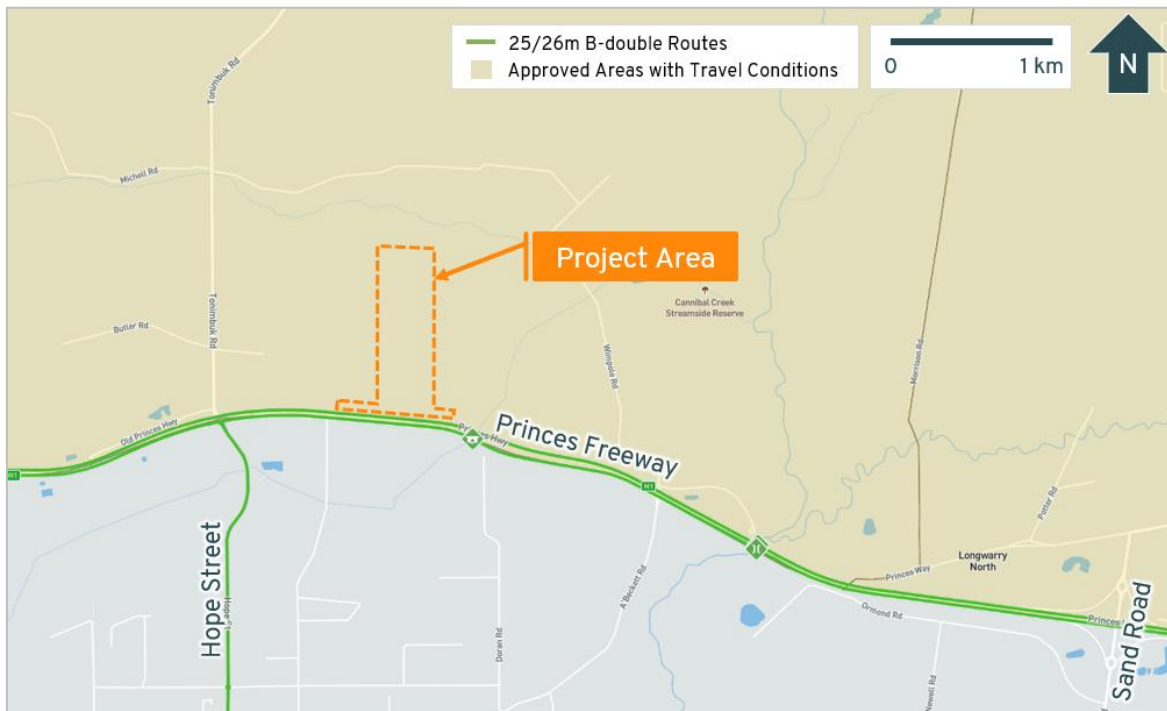
The green lines indicate approved B-Double routes and subsequently the figure shows the surrounding road network is rated to accommodate B-Double vehicles. The freeway interchange at Sand Road provides a suitable location for vehicles to turn around if required to travel in a westerly direction. B-double vehicle use of Hope Street is prohibited between 8:00am – 9:30am and 2:30pm – 4:00pm on school days.

**ADVERTISED
PLAN**

2.5.2 Class 1 OSOM

The NHVR Oversize Overmass Load Carrying Vehicles Network map for the surrounding area is provided within Figure 5. The map shows approved routes for eligible vehicles operating under the Multi-State Class 1 Load Carrying Vehicles Mass and Mass Exemption Notices. The green lines indicate approved Class 1 OSOM Vehicle routes which shows the site has direct access to the network onto Princes Freeway.

Figure 5: NHVR Class 1 Oversize Overmass Load Carrying Vehicles Network Approved Roads



Source: NHVR Oversize Overmass Load Carrying Vehicles Network Map

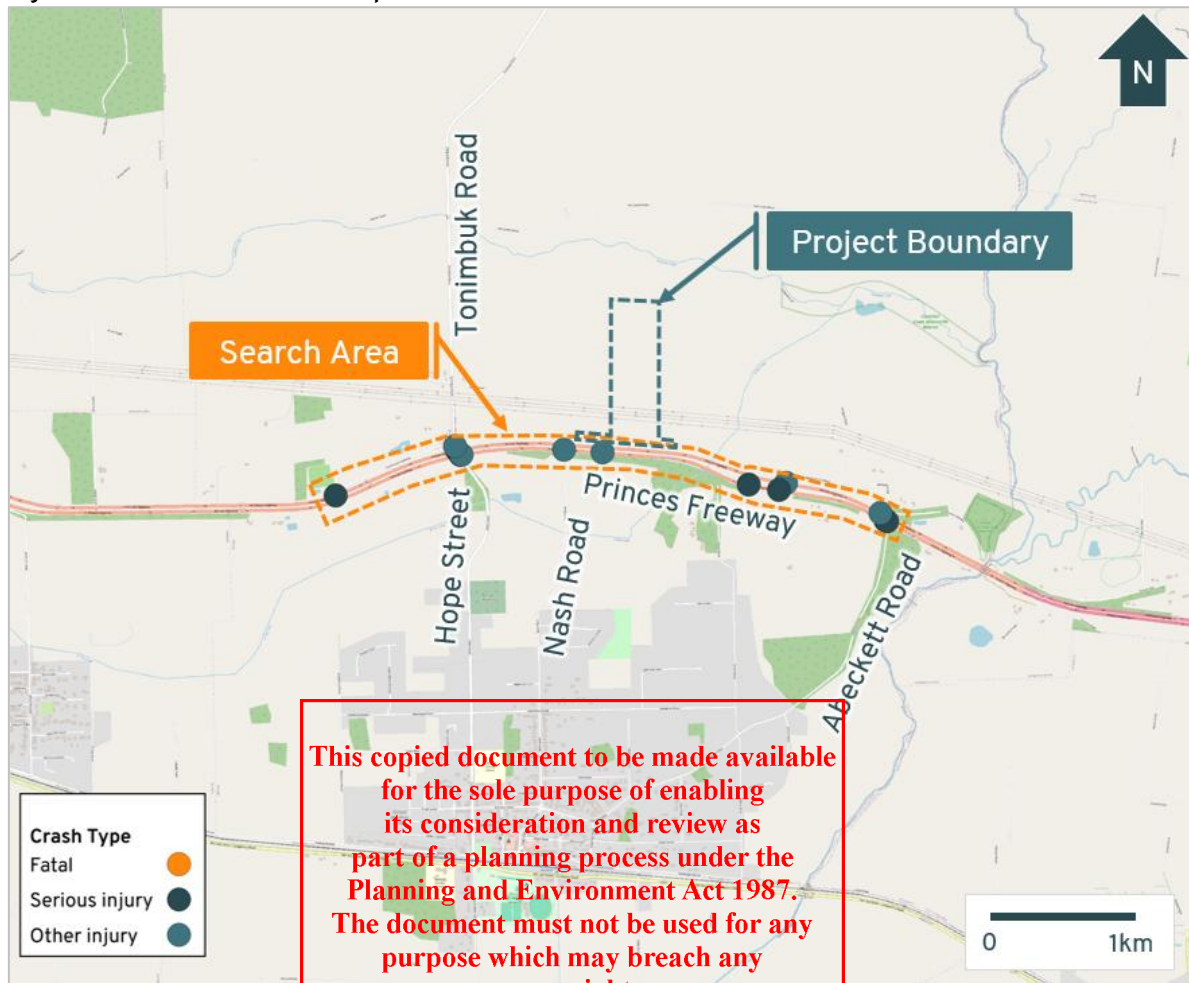
2.6 Crash History

Amber has conducted a review of the Department of Transport and Planning (DTP) Crash Statistics Database for recorded crashes within the surrounding area of the Project. The crash search was undertaken for the most recent available five-year data period up to December 2024. The extents of the search area along the Princes Freeway and the results of the crash search are summarised in Figure 6 and Table 1.

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

Figure 6: DTP Crash Statistics Map



Note: Where multiple crashes are recorded at the same location, only the most recent crash type is shown in the figure. Details of all crashes are provided below.

Table 1: Crash Search Results

Location	Severity	DCA Code and Crash Type	Date and Time	Light Conditions
Princes Freeway – Mid-block				
242m East of Nash Road	Other injury	171 - Left Off Carriageway Into Object/Parked Vehicle	17/05/2024 (11:52 AM)	Day
450m West of Wimpole Road	Other injury	130 - Rear End (Vehicles In Same Lane)	19/02/2020 (10:30 AM)	Day
46m Northwest of Wimpole Road	Other injury	130 - Rear End (Vehicles In Same Lane)	18/08/2024 (12:55 PM)	Day
717m Northwest of Abeckett Road	Serious injury	173 - Right Off Carriageway Into Object/Parked Vehicle	14/05/2021 (6:57 PM)	Dark - No street lights

**ADVERTISED
PLAN**

Location	Severity	DCA Code and Crash Type	Date and Time	Light Conditions
880m Northwest of Abeckett Road	Serious injury	151 - Out Of Control (Overtaking)	08/03/2024 (8:13 AM)	Day
Princes Freeway – At or Near Intersections				
Intersection with Abeckett Road	Serious injury	116 - Left Near (Intersections Only)	21/05/2022 (1:15 PM)	Day
	Fatal	113 - Right Near (Intersections Only)	18/03/2021 (10:59 AM)	Day
	Serious injury	113 - Right Near (Intersections Only)	12/06/2022 (9:35 PM)	Dark - No street lights
Intersection with Hope Street / Tonimbuk Road	Serious injury	110 - Cross Traffic (Intersections Only)	30/11/2020 (4:20 PM)	Day
	Serious injury	130 - Rear End (Vehicles In Same Lane)	15/12/2020 (1:00 PM)	Day
	Other injury	121 - Right Through	12/01/2020 (4:43 PM)	Day
	Serious injury	110 - Cross Traffic (Intersections Only)	12/07/2020 (4:14 PM)	Dusk/Dawn
6m East of Hope Street	Other injury	116 - Left Near (Intersections Only)	20/01/2022 (5:35 AM)	Dusk/Dawn
23m South of Princes Fwy Highway Service Road	Other injury	153 - Cutting In (Overtaking)	22/10/2022 (4:55 PM)	Day
Intersection with Princes Highway Service Road	Serious injury	140 - U Turn	15/12/2023 (1:00 PM)	Day
Intersection with Nash Road	Other injury	116 - Left Near (Intersections Only)	05/07/2022 (2:17 PM)	Day

A total of 16 crashes were recorded within the crash search area.

A review of the crashes shows that those recorded mid-block were generally mixed without a clear pattern in terms of location or time. There was a pattern of crashes for intersections at Abeckett Road and Hope Street where rural wide median treatments are provided, with a total of 9 crashes recorded.

By comparison, only one 'other' type crash was recorded at the Princes Freeway / Nash Road intersection, where left turns are provided.

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

3. Project Description

ADVERTISED PLAN

3.1 Proposed Works

The Bunyip North BESS will comprise the key electrical, civil, and supporting infrastructure outlined below. All design details are indicative and subject to refinement through detailed design and consultation with relevant authorities.

3.1.1 Electrical Infrastructure

- Battery Energy Storage System (BESS) units – modular containerised units comprising battery banks and associated management systems, providing a total installed capacity of approximately 400 MW / 2,400 MWh.
- Power Conversion System (PCS) – bi-directional inverter(s) and transformer skids to convert DC output from the batteries to AC (and vice versa) for transformer voltage step-up and grid connection.
- On-site Substation (HV) – including 33/220kV step-up transformer(s), switchgear, busbars, earthing, protection and metering equipment, reactive power plant and connection points to the terminal station.
- Underground LV/MV ~~This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which the Project is not intended to be used for.~~ connection infrastructure – to connect the on-site substation to the terminal station via either overhead or underground connection, to be confirmed through detailed design and in consultation with the network operator.
- Bunyip North Terminal Station ~~This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which the Project is not intended to be used for.~~ to connect the Project to the established Victorian Declared Shared Network (DSN), a new 220kV Terminal Station (Bunyip North Terminal Station) will be built for the Project to connect into. This new Terminal Station will connect to the existing 220kV transmission line between Rowville and Yallourn via a direct cut-in arrangement. Construction of additional and/or relocation of existing transmission towers may be required to facilitate the deviation necessary for the cut-in.

3.1.2 Site Preparation and Civil Works

- Benches – engineered hardstand areas will provide a stable, level foundation for the PCS and BESS enclosures, electrical infrastructure, balance of plant equipment, and internal access roads. The final cut and fill requirements will be finalised during the detailed design phase.
- Batters – formed around the bench to provide a gradual transition to surrounding natural terrain. The batter will also assist with drainage and perimeter firebreak (subject to CFA requirements).
- Foundations - concrete slab or pier foundations with mounting bolts for the battery containers, transformers, switch room and inverter components.

3.1.3 Ancillary Infrastructure

- Control Room – a combined facility housing medium-voltage switchgear, protection and control systems, and communications equipment for operation of the BESS.
- Operations and Maintenance (O&M) storage area – for maintenance equipment.

- Temporary construction compound and laydown area – for offices, amenities, and equipment storage during construction.
- Car parking areas for operational and construction staff.
- Security fencing and controlled access gates – enclosing the Project Site.
- Low-level night-time lighting for safety and security purposes.
- Business identification signage installed in accordance with planning requirements.
- Water storage tanks – to provide water supply for firefighting, construction, and maintenance purposes. As the site does not have access to mains water, water will be sourced from commercial sources, trucked onto site and stored in water tanks for use during construction and operation.
- Fire detection and suppression systems – integrated within each battery container, incorporating monitoring and control equipment in accordance with fire safety and electrical standards.
- Fire water and stormwater management system / Detention Basin – proposed to manage runoff from potential fire events and general stormwater flows, with design measures to be refined through detailed design and consultation with relevant authorities.
- Landscape screening – to reduce visual impacts and support local amenity.

3.1.4 Access and Transport

- New Site access road – proposed along the southern boundary of the Site from the Princes Freeway, designed to support construction and operational vehicle movements.
- Internal access roads (gravel) to support access for construction, operations and emergency vehicles.

3.2 Construction Information

Construction is expected to commence mid-2027 and occur over a period of approximately 27 months, subject to approvals. Construction activities would be undertaken during standard daytime construction hours, as follows:

- Monday to Friday: 7am – 6pm
- Saturday: 7am – 1pm
- No work on Sundays or public holidays.

Any construction outside of these normal working hours would only be undertaken with prior approval from relevant authorities and consultation with impacted road users.

A construction workforce of up to 75 personnel would be on-site during the peak construction period and would primarily reside in nearby towns including Bunyip, Drouin, Garfield and Longwarry.

The BESS components are expected to be delivered from Port of Melbourne, while construction materials and plant will generally be sourced from the surrounding area where practicable.

**ADVERTISED
PLAN**

4. Traffic Assessment

The peak traffic generating potential is during construction which generates vehicles associated with workers accessing the site and the delivery of raw materials and plant. During operation the BESS is expected to generate a lower amount of traffic associated with 2-4 full-time equivalent (FTE) maintenance personnel accessing the site on an ad hoc basis. The following provides an assessment of the potential traffic impacts of the Project on the road network function.

4.1 Construction

4.1.1 Traffic Generation

Construction traffic generated by the project can be broadly separated into the following categories:

- Light Vehicles: personal vehicles or minivans associated with staff accessing the site.
- Heavy Vehicles: includes rigid trucks and articulated vehicles up to 26-metre-long B-doubles.
- OSOM Vehicles: larger vehicles which may require escort vehicles and traffic management measures.

The construction traffic volumes for the Project have been provided by the Applicant. Table 2 summarises the proposed average construction traffic volumes and the traffic volumes expected during the peak construction period. It is noted that the traffic volumes are for a single direction (i.e. movement to or from the site).

Table 2: Traffic Generation During Construction Period

Vehicle Type		Average Traffic Volumes		Peak Construction Traffic Volumes	
		Daily	Peak Hour	Daily	Peak Hour
		(vpd)	(vph)	(vpd)	(vph)
Light Vehicles		52	26	76	38
Heavy Vehicles	Rigid	6	1	4	1
	Truck & Dog	10	1	14	2
	Semi-Trailer	14	2	24	3
Total		82	30	118	44

Overall, the Project is expected to generate up to 44 vehicle movements in each of the morning and evening peak hours and 118 vehicle movements per day.

In addition to the traffic volumes presented within the table, the Project is expected to be accessed by OSOM vehicles during construction. These have not been included in the table as they do not represent the typically daily construction of the site and would be undertaken with traffic management measures. Access for these vehicles is discussed further in Section 2.5 and Section 5.2.

**ADVERTISED
PLAN**

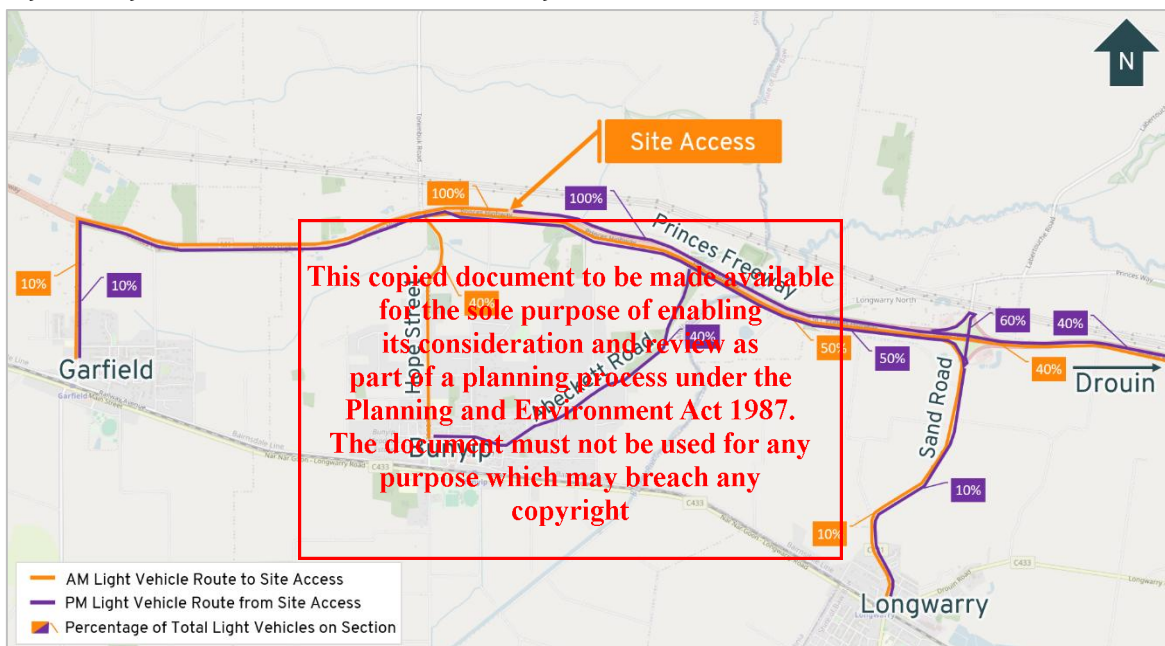
4.1.2 Traffic Distribution

All project vehicles would approach the site access from the west on Princes Freeway, with the origins of the workforce arriving to the site in light vehicles assumed to be as follows:

- Bunyip: 40%,
- Garfield: 10%,
- Drouin: 40%, and
- Longwarry: 10%.

The distribution of light vehicle traffic during the morning and evening peak hours is shown below in in Figure 7.

Figure 7: Light Vehicle Routes from Different Origins



Furthermore, it has been assumed that:

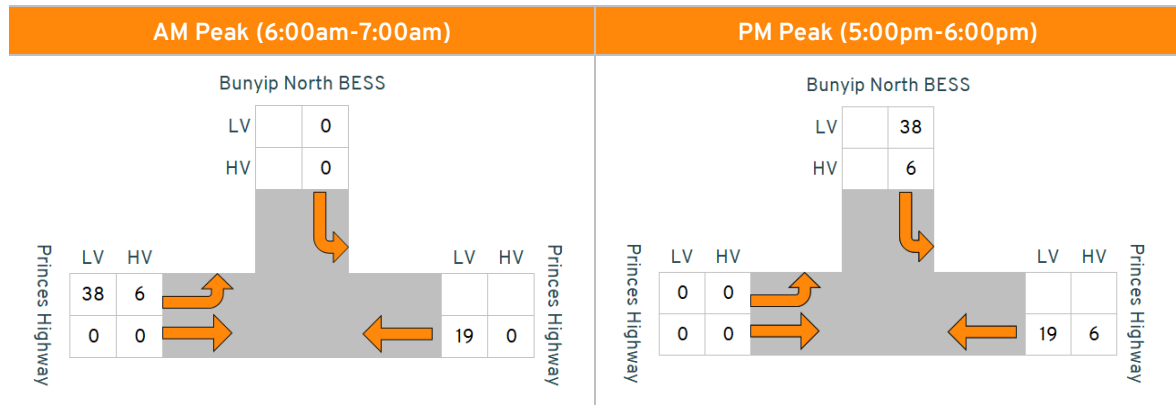
- all vehicles will travel towards the site in the morning peak hour, and all vehicles will travel away from the site in the evening peak hour, and
- heavy vehicle trips would be distributed throughout the day and would be split evenly between inbound and outbound trips, with an origin and destination to the west of the site (towards Melbourne).

To ensure safe access to and from the site for all motorists, all departure movements from the site with a destination to the west (towards Melbourne) would be managed to only use the Sand Road / Princes Freeway interchange to head west as outlined in in Section 7.

The resulting peak hour volumes at the intersection are outlined in Figure 8.

**ADVERTISED
PLAN**

Figure 8: Expected Project Traffic During Peak Construction – Princes Freeway and Site Access



4.1.3 Cumulative Traffic Impacts

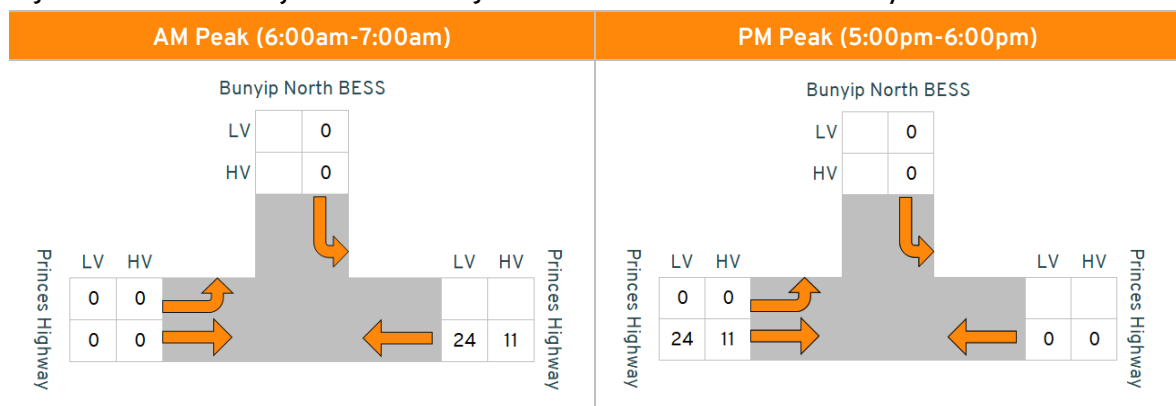
The primary traffic impact of the Project is generated during construction which is anticipated to take approximately 27 months.

A review has been undertaken of the Victorian State Government Department of Transport and Planning website which outlines current and completed projects across the state. The review indicates there is one proposed project within the vicinity of the Project Area that could potentially coincide with the construction of the Bunyip North BESS.

The Bunyip North Granite Quarry project will be located approximately two kilometres northwest of the Project Area with access to the site provided from Tonimbuk Road. The project is currently in preliminary stages and has not yet received approval for development.

Project traffic volumes have been sourced from a Preliminary Traffic Assessment produced by Cardno in 2015. The proposed route to the site directs vehicles would use the westbound carriageway of Princes Freeway during the morning peak period and the eastbound carriageway of Princes Freeway during the evening peak period. The resulting peak hour volumes along Princes Freeway are outlined in Figure 9 and have conservatively been included in the traffic assessment for Bunyip North BESS to assess the cumulative impacts if construction of both projects occurs during the same time period.

Figure 9: Cumulative Project Traffic During Peak Construction – Princes Freeway and Site Access



**ADVERTISED
PLAN**

4.1.4 Traffic Assessment

In order to determine the ability of the road network to accommodate the traffic expected to be generated during the peak construction period, a traffic modelling exercise has been undertaken using SIDRA intersection modelling software for the Project's site access onto Princes Freeway.

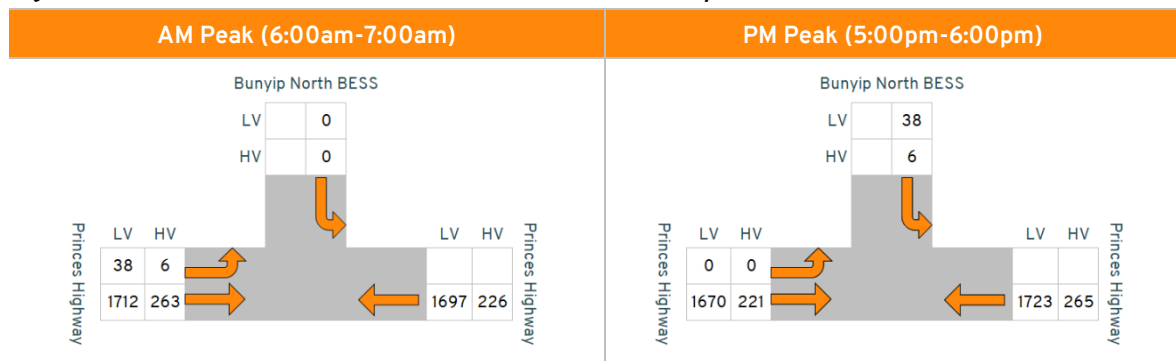
Level of Service (LOS) is a qualitative measure used to describe the operating conditions of a section of road or an intersection. Levels of Service are designated from A (free flow conditions) to F (forced flow with stop start operation, long queues and delays) and represent the perception of the road conditions by motorists including speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience, and safety. The assessment of the level of service for sign-controlled intersections is based on the average delay (seconds/vehicle) of the critical movement.

The traffic modelling exercise has been undertaken for the Project morning peak hour (6:00am-7:00am) and evening peak hour (5:00pm-6:00pm) during the peak construction period. The traffic volumes utilised for the assessment are the sum of the following:

- Peak hour traffic volumes derived from the DTP Traffic Volume dataset presented within Section 2.3, factored up by a yearly growth rate of 3.5% from 2020 to the final construction year of 2029. 10% of the daily vehicle volume has been adopted to obtain an estimate of the peak hour volume.
- The peak construction traffic volumes presented in Figure 8.
- The cumulative project traffic volumes presented in Figure 9.

The resulting traffic volumes used for the assessment are presented in Figure 10.

Figure 10: Peak Construction Traffic Volumes – Princes Freeway and Site Access



The results of the SIDRA analysis are summarised in Table 3, with the full results provided in Appendix A. To assess the vehicle exiting capacity of the site access, it has been assumed that 60% of the traffic travels in the outer lane (noting that vehicles not overtaking are required to remain in the left lane), thereby reducing the appropriate gaps for the exiting vehicles to undertake the turning movement onto Princes Freeway.

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

Table 3: SIDRA Analysis Results Summary – Princes Freeway and Site Access

Road Name (approach)		Morning Peak Hour				Evening Peak Hour			
		Degree of Saturation	Average Delay (sec)	95% Queue (m)	Level of Service	Degree of Saturation	Average Delay (sec)	95% Queue (m)	Level of Service
Site Access (north)		0.005	19.2	0.1	B	0.269	26.7	5.9	B
Princes Freeway (west)	Left Turn Lane	0.027	7.2	0.0	A	0.001	6.9	0.0	A
	Outside Lane	0.687	0.3	0.0	A	0.651	0.3	0.0	A
	Inside Lane	0.454	0.1	0.0	A	0.430	0.1	0.0	A

The SIDRA analysis indicates the intersection is expected to operate with an excellent level of service with minimal queues and only a small delay (in the order of 20 to 30 seconds) experienced when exiting the site access.

Accordingly, the proposed site access intersection is able to readily accommodate the construction traffic. The Project traffic would represent a very small proportion of the overall traffic along Princes Freeway and is therefore not expected to have any notable impact on the operation of the road.

4.2 Operational Phase

During operation the Project is expected to generate a minimal level of traffic associated with maintenance and operation services. The BESS is expected to be operated by 2-4 FTE maintenance personnel accessing the site as required, which would result in a negligible change to the traffic environment. There would also be occasional light commercial vehicles delivering parts but only as required for maintenance.

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

5. Route Assessment

5.1 Heavy Vehicles

The Port of Melbourne has been identified as the location where the BESS components will be imported. The proposed construction traffic access route from the port would utilise the arterial road network to access the Princes Freeway. Vehicles would then enter the Project Area via a left turn from Princes Freeway. The proposed access route from Port of Melbourne to the site is shown in Figure 11.

Figure 11: Heavy Vehicle Access Route from Port of Melbourne



Source: Google Maps – [Link](#)

The access route is approved for use by B-Doubles as outlined within the NHVR map provided within Figure 4. Accordingly, the access route is able to accommodate the loads and type of heavy vehicle movement to be generated during construction of the BESS.

5.2 OSOM Vehicles

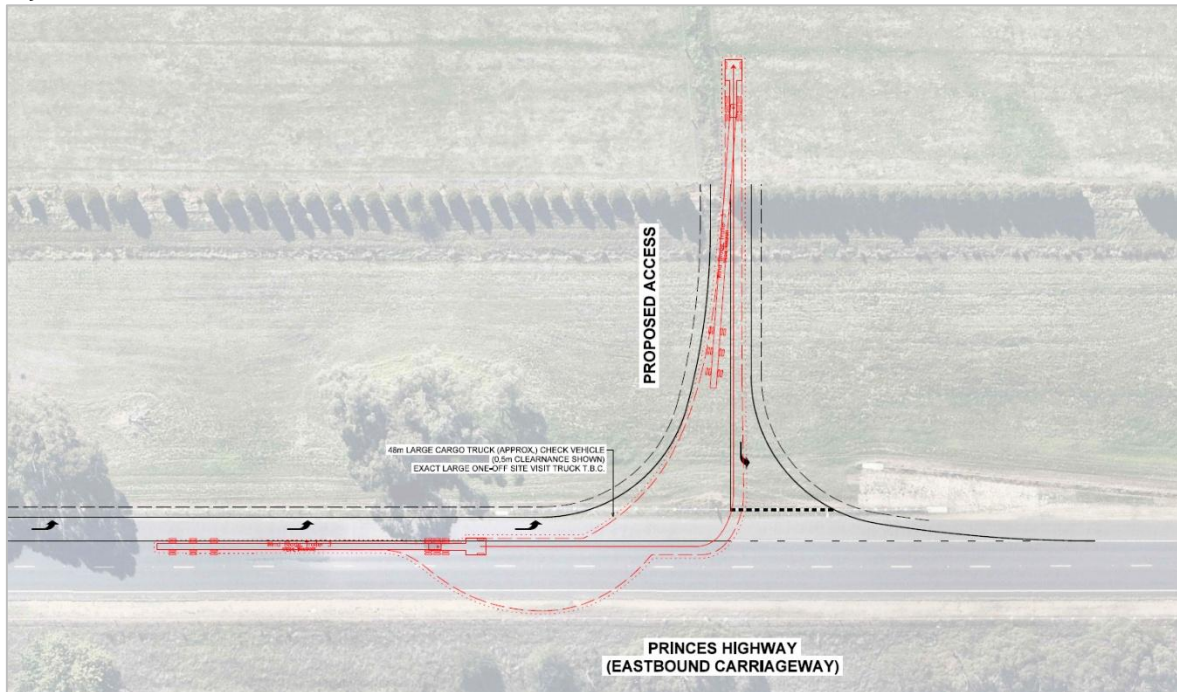
It is noted that some OSOM vehicles will be required to deliver larger plant to the site such as the substation transformer. Some of these vehicles are expected to be able operate on the approved Class 1 OSOM network with the surrounding network approved for these vehicles as outlined within the NHVR map provided within Figure 5.

The largest component to be delivered to the site is expected to be the transformer. At the time of writing the dimensions of the required transformer nor transport vehicle combination are unknown.

**ADVERTISED
PLAN**

However, to test the suitability of the site access design a swept path assessment of a 48.5 metre long OSOM vehicle has been undertaken by Impact Traffic Engineering. The swept path assessment confirms the test vehicle can suitably access the site with an extract provided in Figure 12.

Figure 12: OSOM Vehicle Access to Site



Source: Impact Traffic Engineering Swept Path Analysis

It is recommended to undertake a full OSOM route assessment to confirm the suitability of the route from the Port of Melbourne to the Project Area as part of a future NHVR permit application once loads and potential vehicle combinations are confirmed.

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

**ADVERTISED
PLAN**

6. Site Access

Access to the site is proposed via a new left-in left-out access connecting with the northern side of Princes Freeway which would be constructed to accommodate the Project traffic. Direct access to Princes Freeway is required as the subject site does not have frontage to any other roads. It is understood that the freeway is an access-controlled road, and an assessment of the suitability and design of the proposed access is provided below.

6.1 Turn Treatment Assessment

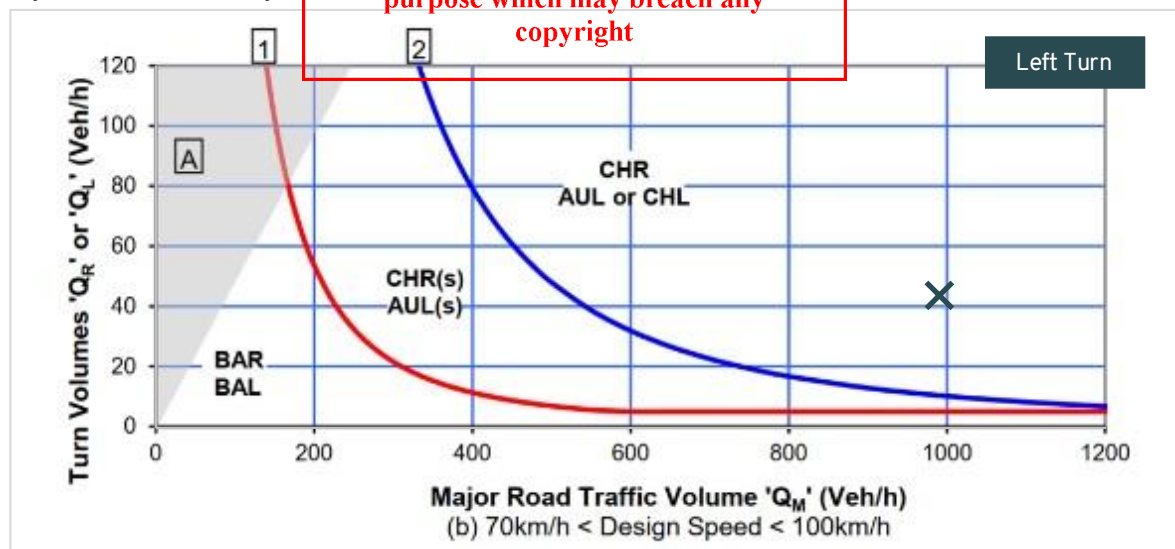
Figure 3.25 of *Austrroads Guide to Traffic Management Part 6: Intersections, Interchanges, and Crossings* specifies the turning treatments required at intersections. The requirement to provide turn facilities is primarily generated during the morning peak hour when the workforce access the site. The following provides an assessment of the required turn treatments at the proposed intersection of Princess Freeway with the site access.

The traffic volumes used for the assessment are the morning peak hour volumes as used for the SIDRA analysis presented within Figure 10. The traffic volumes are summarised within Table 4 and have been plotted on the Austrroads diagram within Figure 13.

Table 4: Turning Volumes for Turn Treatment Calculations

Turning Treatment	Traffic Volume (vp/h)	Requirement
Left Turn	44	AUL or CHL

Figure 13: Austrroads Figure 3.25 - Turn Treatment Assessment



The proposed intersection does not allow right turning movements and there is currently no left turn treatment provided. Figure 13 shows that an Auxiliary Left (AUL) or Channelised Left (CHL) turn treatment would be required at the site access intersection. It is proposed to provide an AUL at the site access with a concept design provided within Appendix B which has been designed in accordance with the requirements of the Austrroads Guide.

**ADVERTISED
PLAN**

It is noted that an approved planning permit (Permit No. T240063) exists for the creation of a temporary rural access to Princes Freeway on the adjoining land to the east (Lot 3, PS315155). The approved access is associated with low intensity agricultural use, specifically cattle grazing and infrequent livestock movements (anticipated to occur only every couple of years) and is therefore expected to generate minimal traffic volumes.

The proposed Bunyip North BESS access on Lot 2 has been assessed with full regard to the location and intent of this approved access on Lot 3. The proposed access is located approximately 450 metres west of the approved Lot 3 access, providing adequate separation between access points and ensuring no operational or safety conflict between the two accesses, consistent with Austroads guidance for access spacing on rural highways (400-800 metres as per *Guide to Traffic Management Part 5: Link Management*).

Ongoing engagement with Council, DTP and the Head, Transport for Victoria will ensure appropriate coordination of these matters are resolved prior to planning approval.

Accordingly, it is concluded that the site access has been suitably designed with consideration to the approved planning permit for the neighbouring lot and is able to accommodate the vehicles expected to access the site.

6.2 Sight Distance

Austroads Guide to Road Design Part 4: Unsignalised and Signalised Intersections specifies the Safe Intersection Sight Distance (SISD) as the minimum sight distance which should be provided along the major road at any intersection. Table 3.2 of the guide specifies the SISD required for various design speeds. Given Princes Freeway has a speed limit of 80 km/h, a design speed of 90 km/h has been adopted which requires an SISD of 214 metres based on a reaction time of 2.0 seconds.

Princes Freeway has a flat and straight alignment which means the sight distance at the intersection will exceed the requirements of the *Austroads Guide*. An SISD assessment is provided within Appendix B which shows that the sight line exceeds 300 metres to the west along Princes Freeway.

6.3 Acceleration Lane

It is considered that an acceleration lane is not required for vehicles exiting the site onto Princes Freeway for the following reasons:

- The speed limit along Princes Freeway has been lowered from 100 km/h to 80 km/h which decreases the speed differential and any associated safety risks for project traffic entering the freeway. It is understood that the 100 km/h speed limit may be reinstated subject to the future delivery of road upgrades along Princes Freeway, however DTP does not currently have any clear timeframes for this. Accordingly, it is expected that the construction of the Bunyip BESS project will be completed before the freeway upgrade, while the 80 km/h speed limit remains in place.
- It is not typical for BESS projects to provide acceleration lanes as the bulk of the traffic impacts will be generated during the construction period which is temporary. Operational traffic will be minimal and would largely consist of light vehicles.
- The available Safe Intersection Sight Distance at the proposed site access greatly exceeds the Austroads requirement (300m+) to allow project traffic to safely enter the highway.

**ADVERTISED
PLAN**

- The results of the SIDRA traffic modelling assessment outlined in Section 4.1.4 indicate that the site access would operate with minimal delays during the peak hour, with suitable gaps for vehicles to enter the traffic stream.
- An acceleration lane would theoretically need be at least 320m long (based on a semi-trailer accelerating to 60 km/h) which would result in a substantial footprint of road widening required involving significant cost, disruption and impacts to other roadside assets (e.g. safety barriers).
- An acceleration lane would extend near the neighbouring site's (Lot 3) approved access point to the east. This may result in dynamic sight obstructions where slower-moving heavy vehicles in the acceleration lane may block visibility of faster-moving vehicles in the adjacent eastbound lanes.

Accordingly, an acceleration lane is not considered to be necessary as vehicles are expected to be able to safely enter Princes Freeway from the site.

ADVERTISED PLAN

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

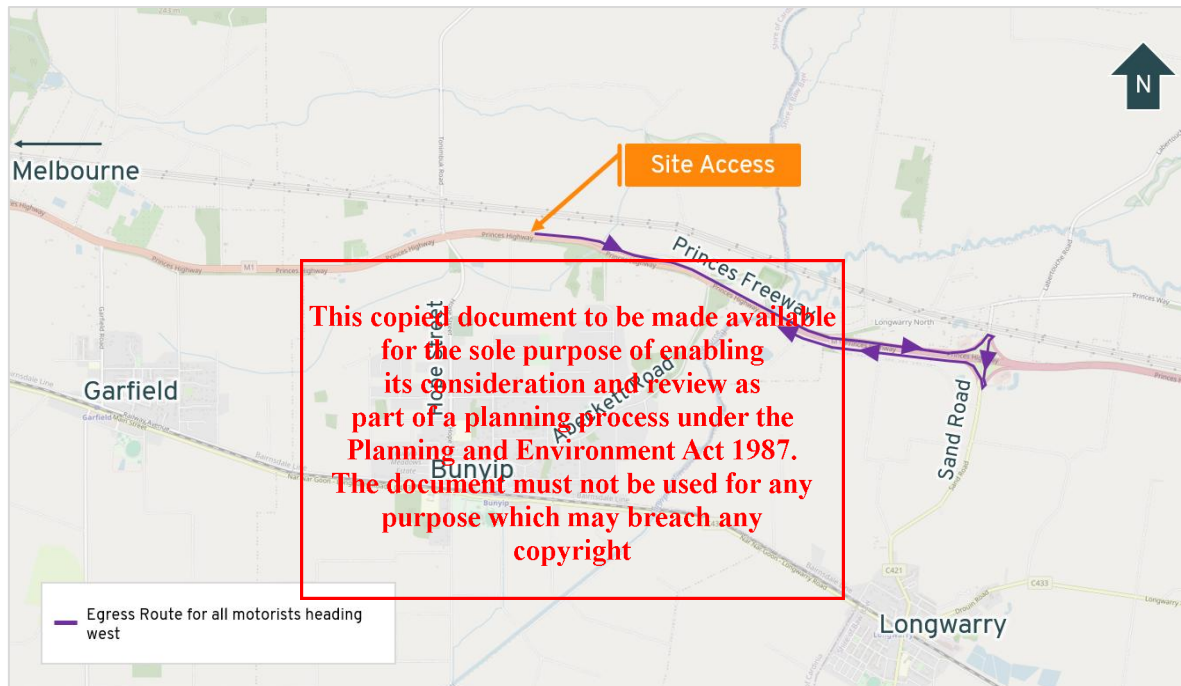
7. Traffic Management Plan

A Traffic Management Plan (TMP) would be prepared prior to commencement of construction of the Project. Recommended measures to be included within the TMP are outlined below.

7.1 Access Management

In order to provide safe vehicular access from the site, all motorists that depart the site with a destination to the west would be required to utilise the Princes Freeway and Sand Road interchange, as shown in Figure 14.

Figure 14: Egress Route for all Motorists Heading West



Source: OpenStreetMaps

All motorists would be made aware of the designated egress route with additional measures to ensure that the route is followed, including:

- Updates to all drivers as part of site inductions and daily toolboxes.
- Development of a Driver Code of Conduct to be followed by all drivers that access the site.
- Regular communication to all logistics contractors and delivery drivers on the route to be followed from site.
- Spot checks at key intersections.

7.2 Other Measures

The TMP would provide additional information regarding the traffic volumes and distribution of construction vehicles as well as operating protocols, including:

- Road transport volumes, distribution and vehicle types broken down into:
 - Hours and days of construction.

**ADVERTISED
PLAN**

- Schedules for phasing/staging of the Project.
- The origin, destination and routes for access to and from the site for:
 - Employee and contractor light vehicles.
 - Heavy vehicle traffic.
 - Oversize/overmass vehicles.
- A map of the primary haulage routes highlighting critical locations.
- An induction process for vehicle operators and regular toolbox meetings.
- A complaint resolution and disciplinary procedure.
- Local climatic conditions that may impact road safety of employees throughout all project phases (e.g. fog, wet and significant dry, dusty weather).
- A program of consultation to ensure local residents/businesses are aware of construction traffic accessing the Project.
- On-site mitigation measures targeted at safety and reducing the impact of on-site transport, including:
 - On-site speed restrictions.
 - Appropriate dust suppression measures.
 - Maintenance program for on-site access tracks to ensure safe access.
 - Loading and unloading is proposed to occur within the work area. No street or roads would be used for material storage at any time.
 - Sufficient car parking is to be provided on-site to ensure vehicles do not park on the surrounding road network.
 - All car parking and loading areas to be designed in accordance with the relevant Australian Standard (2890 series) and Council requirements.
- A Driver Code of Conduct to maintain safety within and around the project.

The above recommendations would ensure the construction traffic would have a minimal impact to the capacity and safety of the surrounding road network. The TMP would be prepared in conjunction with consultation with DTP and Council.

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

ADVERTISED PLAN

8. Conclusion

Amber Organisation has assessed the traffic impacts of the proposed Bunyip North BESS for RES Australia Pty Ltd. The BESS is anticipated to have a storage capacity of up to 400 MW / 2,400 MWh, with a connection to the existing 220 kV transmission network via a new transmission terminal station, the Bunyip North Terminal Station (BNTS). The Project will also include associated ancillary infrastructure.

Access to the site is proposed via a new left-in left-out access connecting with the northern side of Princes Freeway which would be constructed to accommodate the Project traffic.

Construction is expected to commence mid-2027 and occur over a period of approximately 27 months, subject to approvals. A maximum workforce of up to 75 personnel would be on-site during the peak construction period and would primarily reside in nearby towns including Bunyip, Drouin, Garfield and Longwarry. The BESS components are expected to be delivered from Port of Melbourne, while construction materials and plant will generally be sourced from the surrounding area where practicable.

The above assessment determined the following:

- The Project is expected to generate up to 118 vehicle movements per day during peak construction periods, including 42 heavy vehicle and 76 light vehicle movements. The road network is able to accommodate the traffic generated by the development during construction and operation.
- There is potential for a neighbouring project to be under construction at the same time as the Project. Construction traffic associated with the Garfield North Granite Quarry Project in the order of 35 vehicles per hour is expected to use the eastbound lanes of Princes Freeway in the afternoon peak period.
- The proposed construction traffic access route from the Port of Melbourne to the site is designated for B-Double vehicles. As such, the access route is able to accommodate the loads and type of vehicle movements to be generated during construction of the Project.
- It is noted that some OSOM vehicles would be required to deliver larger plant and equipment to the site such as the substation transformer and earthmoving equipment. It is recommended to undertake a full OSOM route assessment to confirm the suitability of the route from the Port of Melbourne to the Project Area as part of a future NHVR permit application once loads and potential vehicle combinations are confirmed.
- The proposed site access intersection on Princes Freeway provides left-in/left-out movements to the site. The turn treatment assessment shows that AUL turn facilities would be required to meet the requirements of the Austroads Guideline and the intersection is able to accommodate the Project traffic in a safe manner.
- It is proposed to provide an AUL at the site access with a concept design provided within Appendix B which has been designed in accordance with the requirements of the Austroads Guide. Adequate sight distance is provided to allow vehicles to safely enter and exit the road network.
- In order to mitigate the impacts of the development during construction a TMP would be prepared prior to construction commencing which would include measures to ensure safe routes to and from the site are followed.

Based on the assessment above, it is concluded that the proposed access arrangements are suitable to accommodate the expected vehicle types and traffic volumes during the construction and operational phases of the Project.

Appendix A

SIDRA Traffic Analysis Results

**ADVERTISED
PLAN**

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

SITE LAYOUT

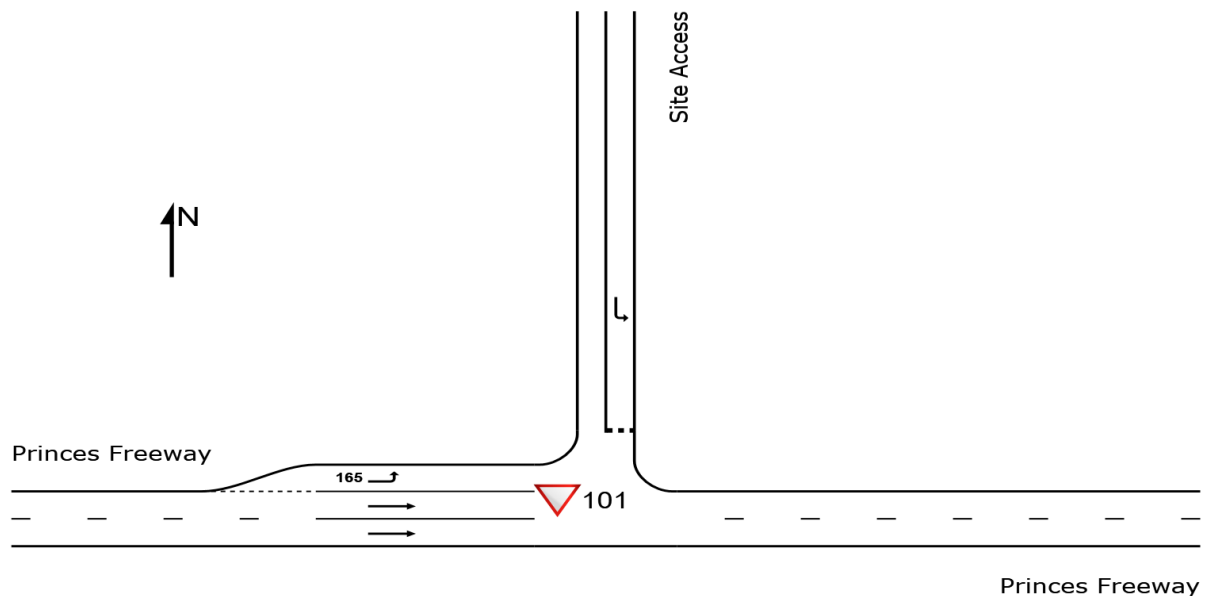
▽ Site: 101 [Bunyip North BESS - AM Peak Hour (Site Folder: General)]

New Site

Site Category: (None)

Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: AMBER ORGANISATION | Licence: NETWORK / 1PC | Created: Thursday, 9 October 2025 2:56:23 PM

Project: C:\Users\sedua\OneDrive - Amber Organisation Pty Ltd\Amber Organisation - Admin's files - Amber\Jobs\1226 - Bunyip North BESS
\Modelling\1226 SIDRA Traffic Analysis v3.sip9

This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright

ADVERTISED
PLAN

LANE SUMMARY

Site: 101 [Bunyip North BESS - AM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Give-Way (Two-Way)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]	veh/h	v/c	%	sec		[Veh]	[Dist] m		m	%	%
North: Site Access															
Lane 1	1	0.0	1	0.0	208	0.005	100	19.2	LOS B	0.0	0.1	Full	500	0.0	0.0
Approach	1	0.0	1	0.0		0.005		19.2	LOS B	0.0	0.1				
West: Princes Freeway															
Lane 1	46	13.6	46	13.6	1710	0.027	100	7.2	LOS A	0.0	0.0	Short	165	0.0	NA
Lane 2	1252	13.3	1252	13.3	1823	0.687	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 3	827	13.3	827	13.3	1823	0.454	66 ⁵	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	2125	13.3	2125	13.3		0.687		0.4	NA	0.0	0.0				
All Vehicles	2126	13.3	2126	13.3		0.687		0.4	NA	0.0	0.1				

Site Level of Service (LOS) Method: Delay (HCM NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: per movement delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)									
North: Site Access									
Mov.	L2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From N To Exit:	E				Cap. veh/h	v/c	%	%	
Lane 1	1	1	0.0		208	0.005	100	NA	NA
Approach	1	1	0.0			0.005			
West: Princes Freeway									
Mov.	L2	T1	Total	%HV	Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From W To Exit:	N	E			Cap. veh/h	v/c	%	%	
Lane 1	46	-	46	13.6	1710	0.027	100	0.0	2
Lane 2	-	1252	1252	13.3	1823	0.687	100	NA	NA
Lane 3	-	827	827	13.3	1823	0.454	66 ⁵	NA	NA
Approach	46	2079	2125	13.3		0.687			
Total %HV Deg.Satn (v/c)									
All Vehicles	2126	13.3				0.687			

ADVERTISED
PLAN

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

5 Lane under-utilisation found by the program

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
North: Site Access				
Lane 1	0.0	0.0	0.0	0.0
West: Princes Freeway				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

ADVERTISED
PLAN

LANE SUMMARY

Site: 101 [Bunyip North BESS - PM Peak Hour (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site

Site Category: (None)

Give-Way (Two-Way)

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total veh/h]	[HV %]	[Total veh/h]	[HV %]	veh/h	v/c	%	sec		[Veh]	[Dist] m		m	%	%
North: Site Access															
Lane 1	46	13.6	46	13.6	172	0.269	100	26.7	LOS B	0.8	5.9	Full	500	0.0	0.0
Approach	46	13.6	46	13.6		0.269		26.7	LOS B	0.8	5.9				
West: Princes Freeway															
Lane 1	1	0.0	1	0.0	1876	0.001	100	6.9	LOS A	0.0	0.0	Short	165	0.0	NA
Lane 2	1198	11.7	1198	11.7	1841	0.651	100	0.3	LOS A	0.0	0.0	Full	500	0.0	0.0
Lane 3	792	11.7	792	11.7	1841	0.430	66 ⁵	0.1	LOS A	0.0	0.0	Full	500	0.0	0.0
Approach	1992	11.7	1992	11.7		0.651		0.2	NA	0.0	0.0				
All Vehicles	2038	11.7	2038	11.7		0.651		0.8	NA	0.8	5.9				

Site Level of Service (LOS) Method: Delay (HCM NSW). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Lane LOS values are based on average delay per lane.

Minor Road Approach LOS values are based on average delay for all lanes.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: per movement delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

⁵ Lane under-utilisation found by the program

Approach Lane Flows (veh/h)									
North: Site Access									
Mov.	L2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From N To Exit:	E				Cap. veh/h	v/c	%	%	
Lane 1	46	46	13.6		172	0.269	100	NA	NA
Approach	46	46	13.6			0.269			
West: Princes Freeway									
Mov.	L2	T1	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W To Exit:	N	E			Cap. veh/h	v/c	%	%	
Lane 1	1	-	1	0.0	1876	0.001	100	0.0	2
Lane 2	-	1198	1198	11.7	1841	0.651	100	NA	NA
Lane 3	-	792	792	11.7	1841	0.430	66 ⁵	NA	NA
Approach	1	1991	1992	11.7		0.651			
Total %HV Deg.Satn (v/c)									
All Vehicles	2038	11.7		0.651					

ADVERTISED
PLAN

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

5 Lane under-utilisation found by the program

Merge Analysis											
	Exit Lane Number	Short Lane Length m	Percent Opng in Lane % veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
There are no Exit Short Lanes for Merge Analysis at this Site.											

Variable Demand Analysis				
	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
North: Site Access				
Lane 1	0.0	0.0	0.0	0.0
West: Princes Freeway				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
Lane 3	0.0	0.0	0.0	0.0

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

ADVERTISED
PLAN

Appendix B

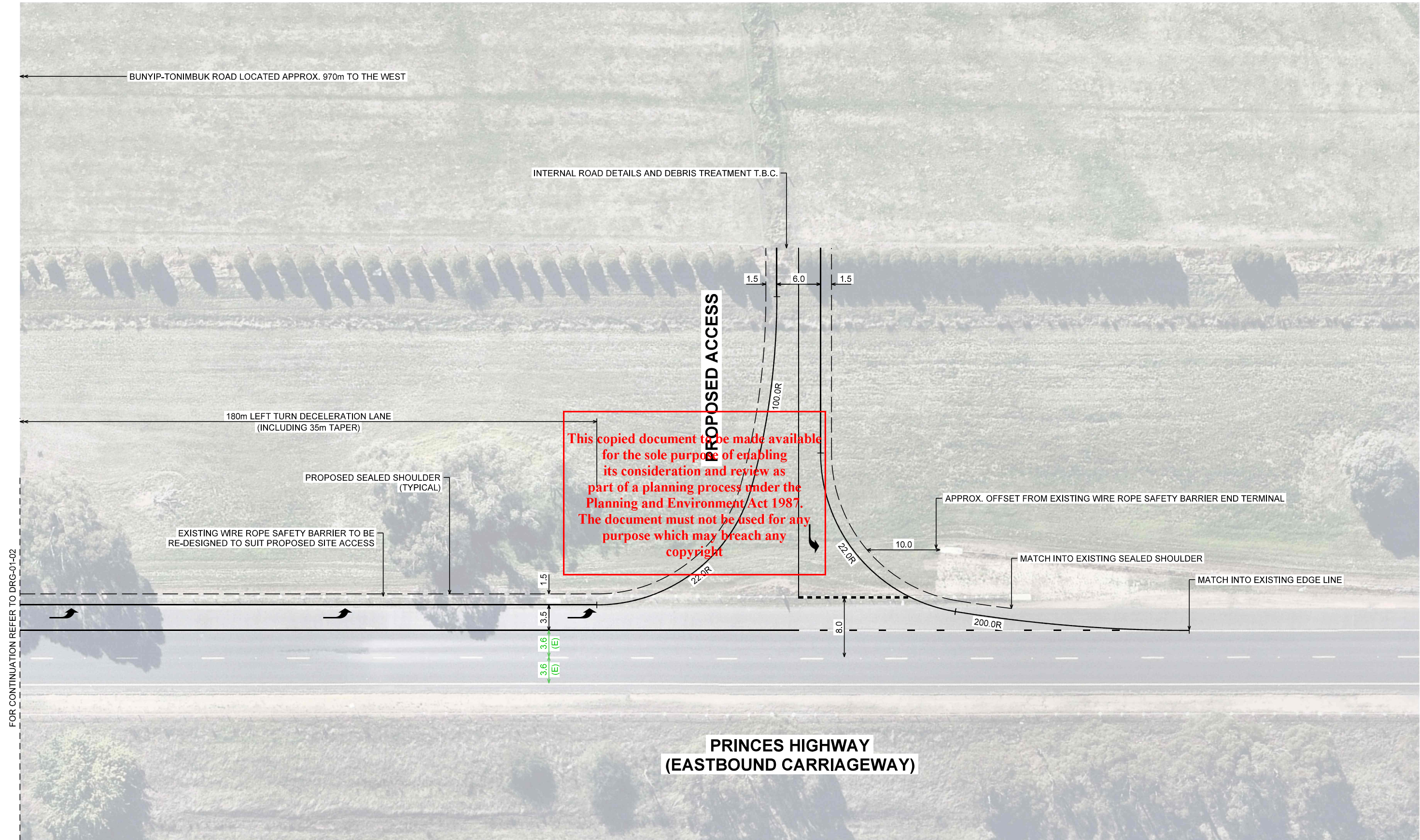
Site Access Design and Sight Distance Assessment

Prepared by Impact Traffic Engineering

**ADVERTISED
PLAN**

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

24/10/2022 5:03:04 PM



ADVERTISED
PLAN

res

IMPACT TRAFFIC ENGINEERING PTY LTD. © 2022. ALL RIGHTS RESERVED.
THIS WORK IS EXCLUSIVELY OWNED BY IMPACT TRAFFIC ENGINEERING PTY LTD
AND CANNOT BE REPRODUCED, PUBLISHED, STORED, COPIED, ADAPTED,
DISTRIBUTED OR TRANSMITTED EITHER WHOLLY OR IN PART, IN ANY FORM OR
BY ANY MEANS WHATSOEVER (GRAPHIC, ELECTRONIC, MECHANICAL,
PHOTOCOPIING, RECORDING OR OTHERWISE) WITHOUT THE PRIOR WRITTEN
PERMISSION OF IMPACT TRAFFIC ENGINEERING PTY LTD.

Impact

IMPACT TRAFFIC ENGINEERING PTY LTD
ABN 78 611 424 107
LEVEL 17, 31 QUEEN STREET, MELBOURNE VIC 3000
create@impactaustralia.com.au
Impactaustralia.com.au



VICROADS COUNTRY DIR REF: MAP 96 D3

SCALE
1:500 @ A3

Client
RES

Project
**PROPOSED SOLAR FARM
PRINCES HIGHWAY, BUNYIP NORTH
CITY OF CARDINIA**

Title
**PROPOSED SITE ACCESS
CONCEPT LAYOUT PLAN**

Status
PRELIMINARY

Revision Description
ISSUED FOR INFORMATION

Date
2022-10-24
Drawn / Approved
CB / DH

Drawing Number
IMP2112047 - DRG-01-01

Revision
A

24/10/2022 5:03:05 PM

ADVERTISED
PLAN

res

IMPACT TRAFFIC ENGINEERING PTY LTD. © 2022. ALL RIGHTS RESERVED.
THIS WORK IS EXCLUSIVELY OWNED BY IMPACT TRAFFIC ENGINEERING PTY LTD
AND CANNOT BE REPRODUCED, PUBLISHED, STORED, COPIED, ADAPTED,
DISTRIBUTED OR TRANSMITTED EITHER WHOLLY OR IN PART, IN ANY FORM OR
BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING,
RECORDING OR OTHERWISE, WITHOUT THE PRIOR WRITTEN
PERMISSION OF IMPACT TRAFFIC ENGINEERING PTY LTD.

Impact

IMPACT TRAFFIC ENGINEERING PTY LTD
ABN 78 611 424 107
LEVEL 17, 31 QUEEN STREET, MELBOURNE VIC 3000
create@impactaustralia.com.au
Impactaustralia.com.au



VICROADS COUNTRY DIR REF: MAP 96 D3

SCALE
1:500 @ A3

Client
RES

Project
**PROPOSED SOLAR FARM
PRINCES HIGHWAY, BUNYIP NORTH
CITY OF CARDINIA**

Title
**PROPOSED SITE ACCESS
CONCEPT LAYOUT PLAN**

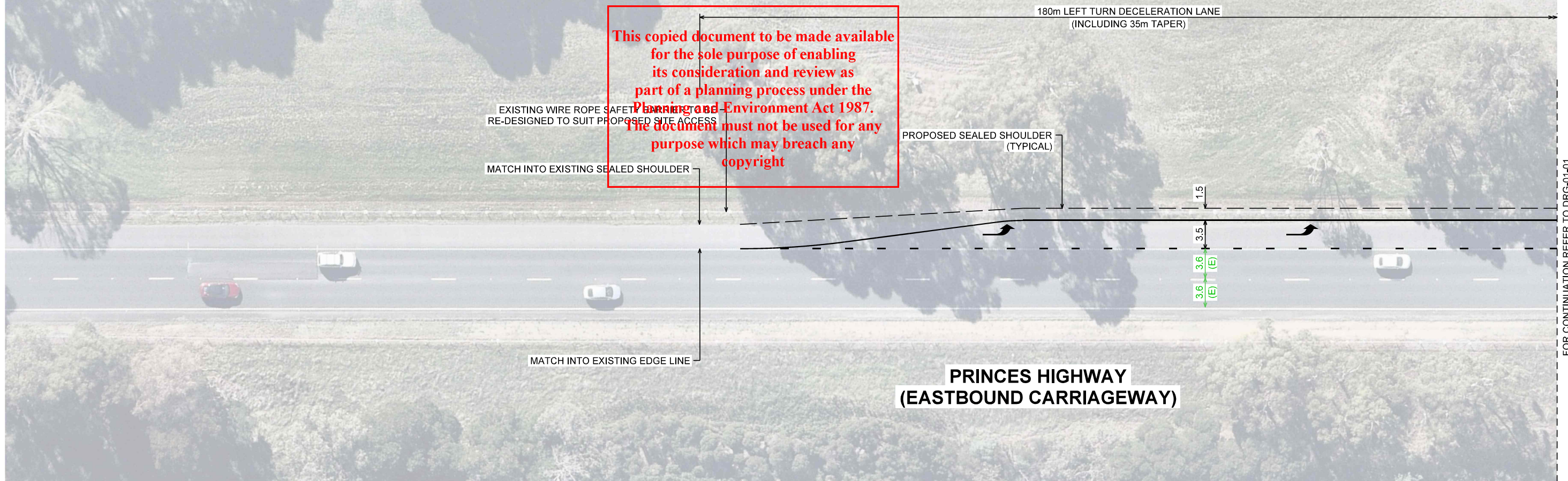
Status
PRELIMINARY

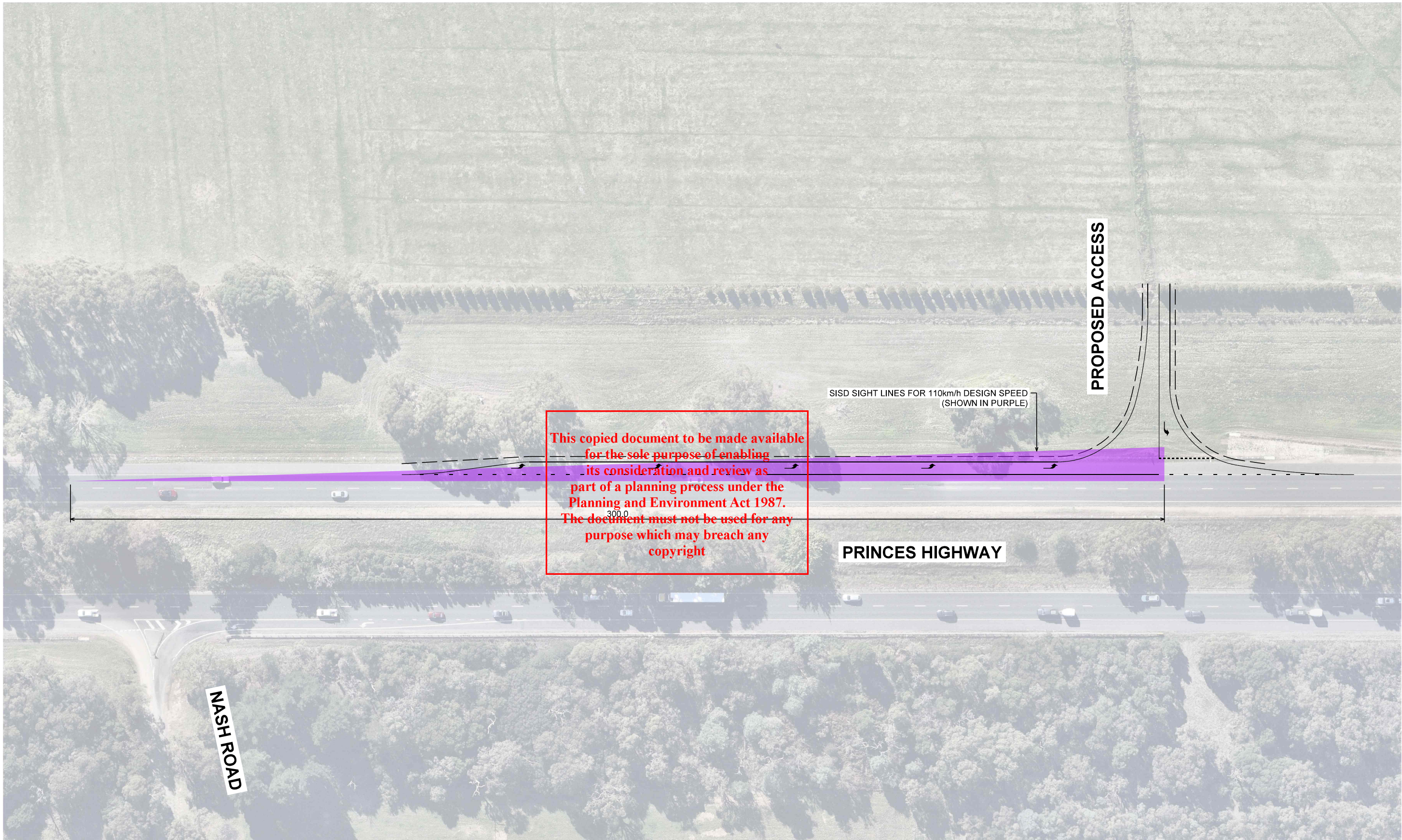
Revision Description
ISSUED FOR INFORMATION

Date
2022-10-24
Drawn / Approved
CB / DH

Drawing Number
IMP2112047 - DRG-01-02

Revision
A





**ADVERTISED
PLAN**

res

Impact

IMPACT TRAFFIC ENGINEERING PTY LTD
ABN 78 611 424 107
LEVEL 17, 31 QUEEN STREET, MELBOURNE VIC 3000
create@impactaustralia.com.au
Impactaustralia.com.au



VICROADS COUNTRY DIR REF: MAP 96 D3

SCALE
1:1000 @ A3

Client
RES

Project
**PROPOSED SOLAR FARM
PRINCES HIGHWAY, BUNYIP NORTH
CITY OF CARDINIA**

Title
**PROPOSED SITE ACCESS
SISD SIGHT LINE ASSESSMENT**

Status
PRELIMINARY

Revision Description
ISSUED FOR INFORMATION

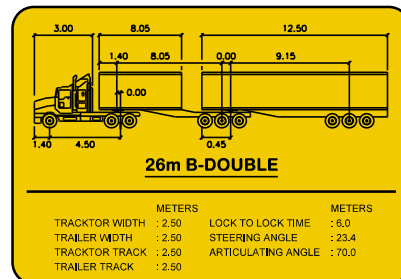
Date
2022-10-24
Drawn / Approved
CB / DH

Drawing Number
IMP2112047 - DRG-01-05

Revision
A

24/10/2022 5:03:06 PM

ADVERTISED PLAN



res

Impact

IMPACT TRAFFIC ENGINEERING PTY LTD
ABN 78 611 424 107
LEVEL 17, 31 QUEEN STREET, MELBOURNE VIC 3000
create@impactaustralia.com.au
Impactaustralia.com.au



VICROADS COUNTRY DIR REF: MAP 96 D3

SCALE
1:500 @ A3

Client
RES

Project
**PROPOSED SOLAR FARM
PRINCES HIGHWAY, BUNYIP NORTH
CITY OF CARDINIA**

Title
**PROPOSED SITE ACCESS
SWEEP PATH ANALYSIS
26m AUSTRROADS B-DOUBLE DESIGN VEHICLE**

Date
2022-10-24
Drawn / Approved
CB / DH

Drawing Number
IMP2112047 - DRG-01-03

Status
PRELIMINARY

Revision Description
ISSUED FOR INFORMATION

Revision

A

PROPOSED ACCESS

This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright.

26m AUSTRROADS B-DOUBLE SWEEP PATH
(0.5m CLEARANCE SHOWN)

26m AUSTRROADS B-DOUBLE SWEEP PATH
(0.5m CLEARANCE SHOWN)

**PRINCES HIGHWAY
(EASTBOUND CARRIAGEWAY)**