



Traffic & Transportation Direction



Glanmire Solar Farm

4823 Great Western Highway,
Glanmire

Traffic Impact Assessment

October 2022

Reference: 372 rep 221025 final

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Glanmire

Traffic Impact Assessment

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Contact

Website: www.amberorg.com.au

E: info@amberorg.com.au

Phone: 1800 022 363

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Appendix A

Swept Path Assessment

The solar farm is proposed to have a capacity of approximately 60MW and will also include a battery energy storage system. The site is located approximately 11 kilometres east of Bathurst, with access to the site proposed via Brewongle Lane which connects with Great Western Highway. Staff are expected to primarily be located in Bathurst, with all plant expected to be delivered from Port Botany.

1.2 Environmental Assessment Requirements

NSW Department of Planning & Environment issued Secretary's Environmental Assessment Requirements (SEARs) for the project. The required traffic and transport matters include the following:

- *An assessment of the peak and average traffic generation, including over-dimensional vehicles and construction worker transportation;*
- *An assessment of the likely transport impacts to the site access route (including, but not limited to the Great Western Highway and Brewongle Lane), site access point(s), rail corridors, any Crown land, particularly in relation to the capacity and condition of the roads, road safety and intersection performance;*
- *A cumulative impact assessment of traffic from nearby developments; and*
- *Provide details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades (including resulting from heavy vehicle and over mass / over dimensional traffic haulage routes), road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road and rail authorities (if required).*

1.3 Purpose of Document

This Traffic Impact Assessment has been prepared to assess the construction, operational and decommissioning traffic impacts, and the access arrangements of the solar farm. The assessment details how road impacts of the project traffic, particularly from heavy vehicle use and oversize and overmass vehicles, will be avoided or managed using road-use management strategies.

More specifically, the report addresses the following key matters:

- Details of both light and heavy vehicle traffic volumes and proposed transport routes;
- An assessment of the potential traffic impacts of the project on road network function and safety;
- An assessment of the capacity of the existing road network to accommodate the type and volume of traffic generated by the project;
- Details of measures to mitigate and / or manage potential impacts, including construction traffic control, road dilapidation surveys and measures to control soil erosion and dust generated by traffic volumes; and
- Details of access roads and how these connect to the existing road network and ongoing operational maintenance.

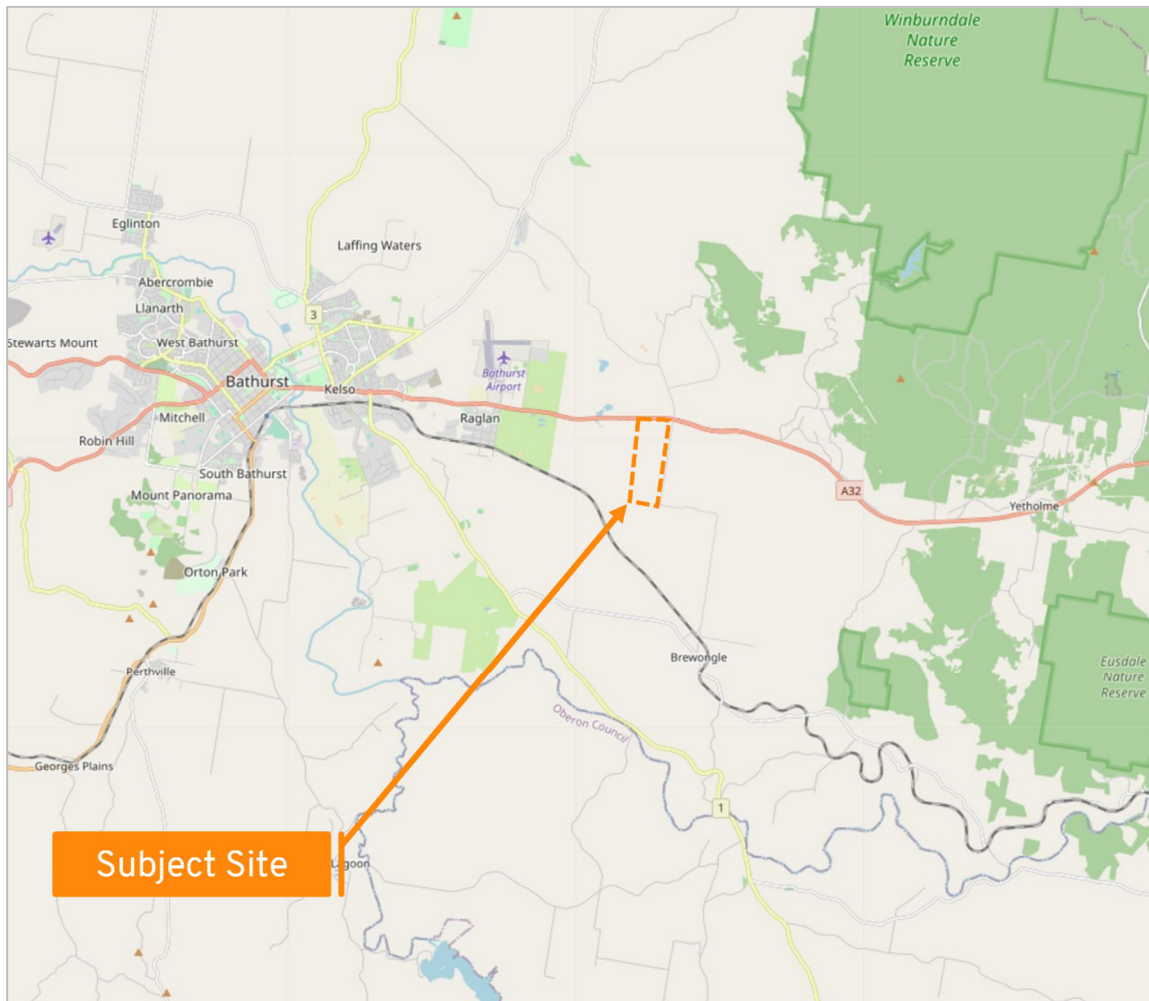
The traffic assessment has been undertaken in conjunction with consultation with Transport for NSW and Bathurst Regional Council.

2. Existing Conditions

2.1 Site Location

The site forms Lot 141 in DP 1144786 and is located on the southwestern corner of the intersection of Great Western Highway and Brewongle Lane, in Glanmire. Figure 2 shows the location of the site in relation to the surrounding transport network.

Figure 2: Site Location



Source: OpenStreetMap

The site and the surrounding area are zoned as RU1 - Primary Production and are occupied by agricultural land. The site is also occupied by a dwelling which gains access via a connection with Great Western Highway.

2.2 Road Network

Great Western Highway is a State road under the care and management of Transport for NSW. It runs in a general east-west alignment between its continuation as Western Highway near Emu Plains and Mitchell Highway in Bathurst. Within the vicinity of the site, it has a carriageway width

of approximately 12 metres accommodating one eastbound lane and two westbound lanes. It has a speed limit of 100km/hr.

Brewongle Lane is a municipal local road which runs in a general north-south alignment between Great Western Highway and Station Street. It has a sealed surface of approximately 6.5 metres for 250 metres extending from Great Western Highway and has an unsealed surface further south. It accommodates two-way vehicle movement and has a speed limit of 100km/hr.

The intersection of Great Western Highway and Brewongle Lane forms a cross-intersection with Glanmire Lane. The intersection is provided with right turn lanes from Great Western Highway, a left turn lane to Glanmire Lane, and a Basic Left Turn treatment for vehicles turning left into Brewongle Lane. Vehicles exiting Brewongle Lane and Glanmire Lane are provided with Give Way signage and associated linemarking.

2.3 Traffic Volumes

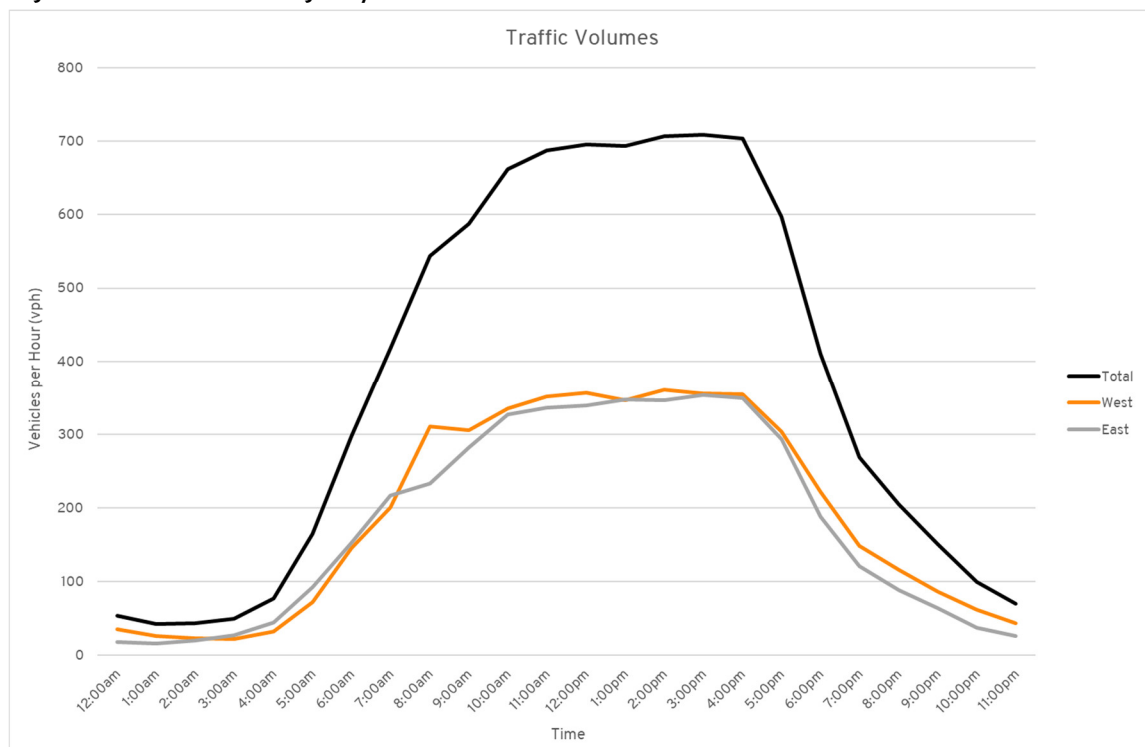
Traffic volume data for Great Western Highway was obtained from the TfNSW traffic volume viewer. The closest available data was located 4 kilometres west of the site and is summarised below in Table 1.

Table 1: Great Western Highway 2022 Traffic Volume Data

Road	Survey Location	Survey Year	Recorded Volume	Peak Hour
Great Western Highway ID: 6107	390m east of Ceramic Avenue, Raglan 2795	2022	8,801 vpd 79% Light 21% Heavy	11:00am - 677 vph 3:00pm - 698 vph

The traffic volumes have also been provided for each hour and separated into east and westbound movements. The traffic volumes are shown in Figure 3.

Figure 3: Great Western Highway 2022 Traffic Volume Data



The TfNSW survey data indicates that Great Western Highway currently experiences most traffic movements between the hours of 8:00am and 5:00pm with a relatively flat-shaped distribution between the peak hours. Overall, the survey data suggests that Great Western Highway currently accommodates a moderate level of traffic.

Traffic volume data has been provided by Bathurst Regional Council for Brewongle Lane. The survey data was recorded 6.73 kilometres south of Great Western Highway in 2010. The survey recorded an average daily traffic volume of 51 vehicles per day, an 85th percentile speed of 73.4km/hr, and 15.1% commercial vehicles. Brewongle Lane is estimated to currently be accommodating 61 vehicles per day based on a growth factor of 1.5% per annum.

2.4 Public Transport Services

No public transport services are provided within the vicinity of the site.

2.5 Restricted Vehicle Access

The TfNSW Restricted Vehicle Access Map for the surrounding area is provided within Figure 4. The green lines indicate approved B-Double routes while the black lines represent approved routes with travel conditions. As can be seen from the figure, Great Western Highway is a B-Double route that feeds into the wider state road network and Brewongle Lane is unrated.

Figure 4: TfNSW Restricted Access Vehicle Map



Source: TfNSW Restricted Vehicle Access Map

2.6 Crash History

Amber has conducted a review of the TfNSW Centre for Road Safety Crash and Casualty Statistics database for all injury crashes within 1.0km of the intersection of Great Western Highway and Brewongle Lane. The crash database provides the location and severity of all injury and fatal crashes for the five-year period from 2016 to 2020. The crash search revealed the following midblock crashes along Great Western Highway:

- One moderate and one serious injury crash associated with head on collisions; and
- One serious crash when a vehicle left the road to the left and hit an object.

No crashes were recorded on Brewongle Lane or at its intersection with Great Western Highway. Given the road classification and associated traffic volumes, it is concluded that the road network is currently operating in a relatively safe manner.

3. Traffic Assessment

3.1 Traffic Generation

3.1.1 Construction

The solar farm construction is expected to take approximately 12 months, with the peak construction period expected to take 4 months. A maximum of 150 staff will be on-site during peak construction periods. Construction activities would be undertaken during standard daytime construction hours, as follows:

- Monday to Friday: 7am – 6pm
- Saturday: 8am – 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.

Construction traffic generated by the solar farm can broadly be separated into the following three categories:

- Light vehicles associated with transporting staff to/from the site;
- Medium and Heavy Rigid Trucks (MRV and HRV as defined within AS 2890.2:2018) will be used to deliver raw materials and smaller plant; and
- Articulated Vehicles and B-Doubles (AV and B-Double as defined within AS 2890.2:2018) will be used to transport larger plant.

It is understood that shuttle buses may be provided that can transport staff to/from the site reducing the need for private vehicle use. However, for the purposes of this assessment it has been assumed that all staff arrive in private vehicles in order to undertake a conservative assessment.

Restricted Access Vehicles / oversized and overmass (OSOM) vehicles will be required for the delivery of larger plant to the site such as the substation transformer and are subject to separate permit applications and regulations. The impacts of the OSOM vehicles are discussed within Section 4 with the following assessment focusing on the impacts of the light and heavy vehicles which generate the bulk of the traffic and represent the typical traffic impact of the project on a day-to-day basis.

The construction traffic volumes for the project have been provided by the Applicant. It is anticipated that during peak construction the site could generate up to 60 heavy and 107 light vehicle movements per day. It is noted that a vehicle movement is classified as a vehicle travelling in one direction (i.e. a truck accessing the site would generate one movement towards the site and one movement away from the site when it departs).

Table 1 summarises the traffic movements generated during the construction period of the solar farm.

Table 2: Traffic Generation During Peak Construction Periods

Vehicle Type	Average Vehicle Movements per Day		Peak Vehicle Movements per Day	
	Daily (vpd)	Peak Hour (vph)	Daily (vpd)	Peak Hour (vph)
Light Vehicle (car / 4WD)	30	15	107	50
MRV/HRV	5	1	13	3
AV/B-Double	20	4	47	10
Total	55	20	167	63

Overall, the site is expected to generate approximately 63 vehicle movements during the morning and evening peak hours during the peak construction period, which will reduce to 20 vehicle movements over the typical construction periods.

3.1.2 Operational Traffic

During operation the solar farm is expected to generate a minimal level of traffic associated with maintenance and operation services. The solar farm is expected to be operated by up to 3 staff resulting in a traffic generation of up to 6 vehicle movements per day which would result in a negligible change to the traffic environment. There will also be occasional light commercial vehicle delivering parts to the site but only as required for maintenance.

3.1.3 Decommissioning Traffic

At the end of the operational life of the project all above ground infrastructure will be dismantled and removed from the project site. Internal roads, if not required for ongoing farming purposes or fire access, would be removed and the site reinstated as close as possible to its original state.

Traffic generation during decommissioning would be similar to traffic generation during the average construction period. A comprehensive Construction Traffic Management Plan would be prepared prior to the decommissioning phase in conjunction with the relevant road authorities. This would aim to ensure adequate road safety and road network operations are maintained.

3.2 Traffic Distribution

Traffic accessing the site will do so via Great Western Highway and Brewongle Lane. Staff will primarily be located in Bathurst and the surrounding towns, with all plant expected to be delivered from Port Botany. The following provides a breakdown of the access distribution for each of the vehicle classifications outlined within Table 1:

- **Light Vehicles:** It is anticipated that most staff will travel from Bathurst, with 90% of staff travelling from the west and 10% travelling from the east.
- **MRV/HRV:** These vehicles will predominantly be water trucks and vehicles transporting materials such as concrete and fencing supplies which will be sourced within the surrounding area. The Applicant has advised that 70% will be travelling from the west and 30% travelling from the east.
- **AV/B-Double:** Plant will be transported from Port Botany to the site along Great Western Highway from the east.

The peak hour for construction will occur at the start and end of the day when staff are transported to/from the site. The majority of staff will typically arrive on-site between 6:00am and 7:00am. However, staff generally have staggered finish times which results in the evening peak hour being less pronounced. For the purposes of this assessment, it has been assumed that all staff depart between 5:30pm and 6:30pm and the evening peak traffic volumes is 80% of the morning peak volume.

During the morning peak all vehicle movements will be towards the site and in the evening peak all vehicle movements will be away from the site. Heavy vehicle movements will be distributed throughout the day and will be split evenly between inbound and outbound movements.

3.3 Traffic Assessment

Level of Service 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 to F from best (free flow conditions) to worst (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 *RTA Guide to Traffic Generating Developments*, dated October 2002, suggests that ideally rural roads should not exceed service volumes at Level of Service C. At this level, whilst most drivers are restricted in their freedom to manoeuvre, operating speeds are still reasonable and acceptable delays are experienced. Table 4.5 of the RTA Guide sets out two-way hourly road capacities for two-lane roads for different levels of service with a design speed of 100 km/hr based on different terrain types.

The traffic volumes expected to be accommodated on the surrounding road network during the peak hour are shown within Table 3.

Table 3: Expected Peak Hour Traffic Volumes During Construction

Road	AM Peak (7:00am)			PM Peak (6:00pm)		
	Existing Volume	Expected Volume	LOS	Existing Volume	Expected Volume	LOS
Great Western Highway Westbound	197 vph	213 vph	A	211 vph	249 vph	A
Great Western Highway Eastbound	214 vph	244 vph	A	185 vph	198 vph	A
Brewongle Lane	3 vph	66 vph	A	3 vph	52 vph	A

Therefore, during the peak hours of the solar farm Great Western Highway would accommodate approximately 457 vehicles per hour during peak construction, which is well within the capacity of the road network and the road is expected to continue to operate with a good level of service based on Table 4.5 of the RTA Guide.

During the middle of the day the traffic movements are expected to be predominantly associated with heavy vehicles with approximately 4-6 vehicle movements per hour. This increase in traffic would be within the daily variation of traffic volumes on Great Western Highway and can be readily accommodated on the road network.

During operation the increase in traffic of up to 6 vehicle movements per hour would result in a negligible change to the traffic environment.

Accordingly, the road network is able to readily accommodate the traffic generated by the development during the construction and operational periods.

3.4 Cumulative Traffic Impacts

The primary traffic impact of the solar farm is generated during construction which is anticipated to start late 2023 and be completed late 2024. The assessment outlined earlier demonstrates that the road network will continue to operate with ample spare capacity even during the peak construction period of the solar farm. The following provides an assessment of the cumulative impacts of major projects that are proposed in the surrounding area. The relevant major projects are described below to determine the potential overlap of construction traffic:

- Neoen Australia's proposed 200-250MW Eglinton Solar Farm is located approximately 12.5km to the northwest. The SEARs for this State Significant Development (SSD-8994273) were issued in September 2020. It is understood that this project is currently on hold.
- The Bathurst Second Circuit proposes a FIA Grade 2/FIM Grade A National Circuit (4km), Club Circuit (2km) and associated pit building. To date, the Scoping Report and the SEARs have been released.
- The McPhillamys Gold Project proposes the development of an open cut mine and water supply pipeline. To date the Scoping Report and SEARs have been released. The project has also undergone community consultation.
- The Kempfield Silver Mine Project proposes the development of an open cut silver mine and associated infrastructure. To date the Scoping Report and SEARs have been released.
- The proposed 325MW Central West Pumped Hydro project is located approximately 10km to the southeast of the proposed solar farm in the Mount Tennyson locality. A request for SEARs has been submitted (SSD-32286107) and construction is expected to start from 2022.
- The Bathurst Integrated Medical Centre proposes the development of Construction and use of an integrated medical facility providing hospital, medical centre and education uses and ancillary multilevel carpark to service the medical facility and other surrounding uses within the Bathurst Town Centre. To date an application has been made for the SEARs.

Based on the above assessment the surrounding major projects have the potential to generate a number of staff vehicle movements during the peak periods associated with construction. In particular, a number of staff will be located in Bathurst and the projects may generate additional traffic movements on Great Western Highway.

The traffic assessment provided within this report demonstrates that the road network is expected to continue to operate with a good level of service with ample spare capacity. As such, the combined increase in traffic generated by the site and these projects is expected to have a minimal cumulative impact on the road network, including through Bathurst. Further, it is noted that the peak traffic generated by these projects during construction occurs before 7:00am and after 6:00pm which is outside of the peak times of the road network.

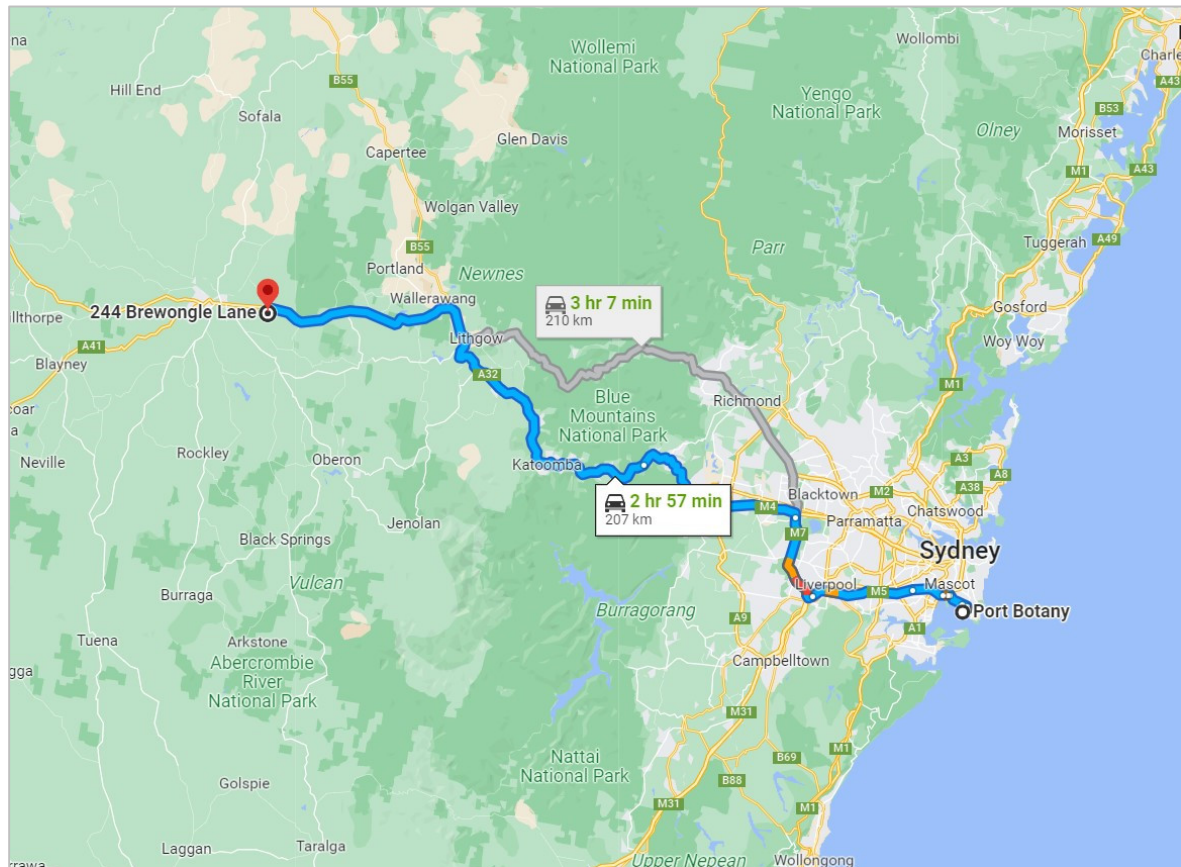
Accordingly, the combined increase in traffic generated by the site and these projects is expected to have a minimal cumulative impact on the road network in the surrounding area.

4. Route Assessment

4.1 Access Route

Port Botany has been identified as the location where the solar farm plant will be imported. The proposed construction traffic access route from the port to the site is expected to be via Foreshore Road, M1, M5, M7, M4, Great Western Highway, and Brewongle Lane. The proposed access route is shown within Figure 5.

Figure 5: Proposed Access Route



Source: Google Maps - <https://goo.gl/maps/DJYnW2xE4fxCwuHn9>

The access route utilises roads that are designated for B-Double vehicles as outlined within the TfNSW Restricted Access Vehicle Map excluding Brewongle Lane. Accordingly, the State roads along the access route are able to accommodate the loads and type of vehicle movement to be generated during construction of the solar farm.

It is also noted that some oversize and overmass vehicles will be required to deliver larger plant to the site such as the sub-station transformer and earthmoving equipment. The vehicles are subject to specific road permits that will be applied for by the contractor once the dimensions of the load and the specific delivery vehicle are known.

4.2 Local Road Network

Brewongle Lane is not rated to accommodate B-Double vehicles but is designed to accommodate the large vehicles associated with the surrounding agricultural use. It has a width of approximately 6.5 metres which is sufficient to accommodate simultaneous two-way vehicle movement.

The *Australian Road Research Board Best Practice Guide for Unsealed Roads 2* (ARRB Guide), dated October 2020, provides a breakdown of the unsealed road classifications based on a functional classification system which is reflective of the approach taken within the Austroads Guidelines. A summary of the classifications outlined within Table 3.9 of the ARRB Guide is provided below.

Table 4: Unsealed Roads Classification System (ARRB Guide)

Road Class	Class Type	Service Function Description	Road Type Description
4A	Main Road > 150 vpd	This type of road is used for major movements between population centres and connection to adjacent areas. High traffic volumes occur, and the road can carry large vehicles.	<ul style="list-style-type: none"> All weather road, predominantly two-lane and unsealed. Can be sealed if economically justified. Operating speed standard of 50–80 km/h according to terrain. Minimum carriageway width is 7m.
4B	Minor Road 50-150 vpd	This type of road is used for connection between local centres of population and links to the primary network.	<ul style="list-style-type: none"> All-weather two-lane road formed and gravelled or single-lane sealed road with gravel shoulders. Operating speed standard of 30–70 km/h according to terrain. Minimum carriageway width is 5.5m.
4C	Access Road 10-50 vpd	Provides access to low use areas or individual rural property sites and forest areas. Caters for low travel speed and a range of vehicles and may be seasonally closed.	<ul style="list-style-type: none"> Substantially a single lane two-way, generally dry weather, formed road. Operating speeds standard of < 20–40 km/h according to terrain. Minimum carriageway width is 4m.
4D	Tracks < 10 vpd	Mainly used for fire protection purposes, management access and limited recreational activities.	<ul style="list-style-type: none"> Predominantly a single-lane two-way earth track (unformed) at or near the natural surface level. Predominantly not conforming to any geometric design standards. Minimum cleared width is 3m.

Brewongle Lane is expected to accommodate up to 218 vehicle movements per day during peak construction periods, and 106 vehicle movements per day during the average construction period.

Unsealed roads would typically be considered for sealing when they accommodate between 200 and 500 vehicle movements per day. The ARRB Guide notes that roads may warrant paving when maintenance costs increase to unacceptable levels, in wet climates, or when economic or social benefits are evident. Given the expected traffic volume on the local roads is in the order of 200 vehicles per day and the increase in traffic is only temporary it is considered acceptable for Brewongle Lane to remain unsealed.

Brewongle Lane is currently provided with an unsealed carriageway with a minimum width of approximately 6.5 metres which is sufficient to accommodate simultaneous two-way vehicle movement. Accordingly, Brewongle Lane is expected to be able to accommodate the vehicle movements generated by the project.

4.3 Mitigation Measures

A Construction Traffic Management Plan (CTMP) will be prepared prior to construction of the site. It is recommended that the following form part of the CTMP to minimise the impact of construction traffic along the unsealed roads:

- Prior to construction, a pre-condition survey of the relevant sections of the existing road network be undertaken, in consultation with Council. During construction the sections of the road network utilised by the proposal are to be monitored and maintained to ensure continued safe use by all road users, and any faults attributed to construction of the solar farm would be rectified. At the end of construction, a post-condition survey would be undertaken to ensure the road network is left in the consistent condition as at the start of construction.
- Vehicles are recommended to drive at slower speeds when travelling on unsealed roads. This can reduce the amount of dust created and the amount of dirt tracked onto the public road network. Standard mitigation measures such as a water trucks to dampen the roads and reduce the amount of dust in the air, can also be considered to reduce dust levels.
- Neighbours of the solar farm be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.

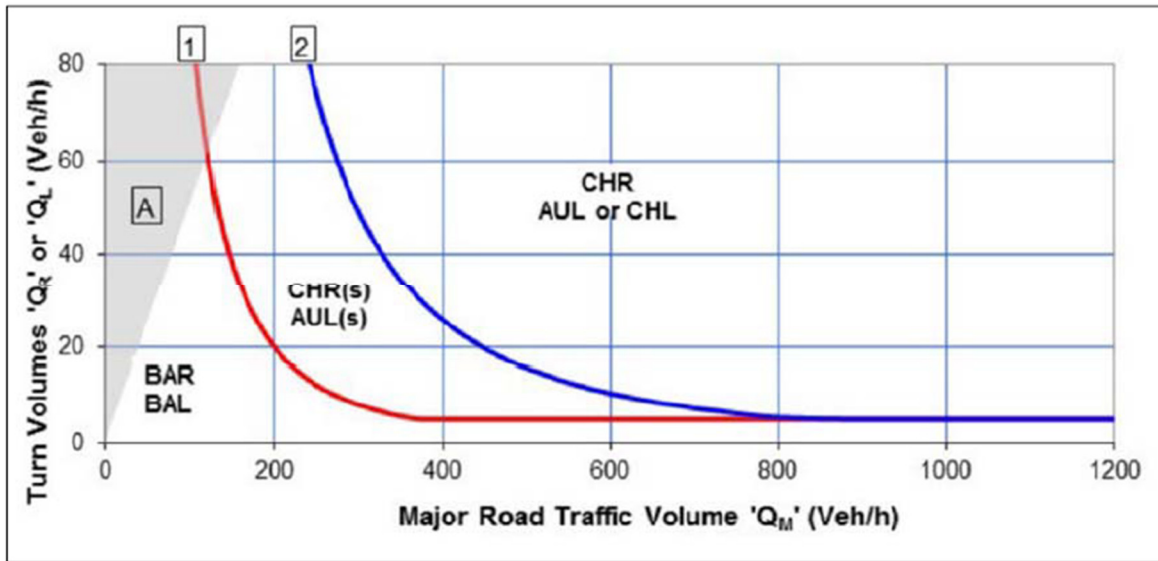
Therefore, it is concluded that the surface and widths of the roads are suitable to accommodate the future traffic volumes.

5. Intersection Assessment

5.1 Turn Treatments

Austrroads Guide to Traffic Management Part 6: Intersections, Interchanges, and Crossings specifies the turning treatments required at intersections. Figure 3.25 of the guide specifies the required turn treatments on the major road at unsignalised intersections and is provided below in Figure 6.

Figure 6: Figure 3.25 of Austrroads Guide to Traffic Management Part 6



During construction of the solar farm additional vehicle movements will be generated at the intersection of Great Western Highway and Brewongle Lane. The requirement to provide turn facilities is primarily generated during the morning peak hour when staff access the site which occurs from 6:00am to 7:00am. Table 5 identifies the required turning treatments based on the expected traffic volumes at the intersection.

Table 5: Turning Volumes for Turn Treatment Calculations

Turning Treatment	Traffic Volume (vph)		Requirement
	Turn Volume	Major Road	
Right Turn	50	430	CHR
Left Turn	19	197	BAL

Therefore, the intersection would require a Basic Left Turn (BAL) and a Channelised Right Turn (CHR) treatment. These turn facilities are already provided at the intersection.

A SIDRA analysis has been undertaken at the intersection to determine the queue length generated within the right turn lane from Great Western Highway. The analysis indicates a 95th percentile queue of 0.2 vehicles or 1.1 metres. Accordingly, the existing intersection layout is expected to be able to safely allow vehicles to turn from the State road network.

In order to confirm Brewongle Lane can be accessed by B-Double vehicles a swept path assessment has been provided within Appendix A using the Autodesk Vehicle Tracking software.

The assessment demonstrates that the vehicle is able to suitably turn to/from Great Western Highway.

5.2 Sight Distance

Austroads Guide to Road Design Part 4A: 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 3.1 of the guide specifies the SISD required for various design speeds. Given Great Western Highway and Brewongle Lane have a speed limit of 100km/hr a design speed of 110km/hr has been adopted which requires an SISD of 285 metres.

The available sight distance at the intersection exceeds the requirements of the Austroads Guide given the relatively flat and straight alignment of the road network. Accordingly, vehicles are expected to be able to safely enter the State road network.

5.3 Site Access

The site access has been designed to allow two B-Double vehicles to pass. A swept path assessment has been prepared for the site access and is provided within Appendix A.

The available sight distance at the access extends 371 metres to the north to Great Western Highway and in excess of 300 metres to the south. The sight distance exceeds the Austroads requirement of 181 metres based on an 85th percentile speed of 80km/hr.

Accordingly, the site access is concluded to be suitably designed for the vehicles expected to access the site.

6. Construction Management Plan

A Construction Traffic Management Plan (CTMP) will be prepared prior to construction commencing by the appointed contractor. The CTMP will provide additional information regarding the traffic volumes and distribution of construction vehicles that is not available at this time, including:

- Road transport volumes, distribution and vehicle types broken down into:
 - Hours and days of construction.
 - Schedule for phasing/staging of the project.
- The origin, destination and routes for:
 - Employee and contractor light traffic.
 - Heavy vehicle traffic.
 - Oversize and overmass traffic.

The following provides recommended measures that should be adopted within the CTMP to minimise the impact of construction traffic along the road network:

- Neighbours of the solar farm be consulted and notified regarding the timing of major deliveries which may require additional traffic control and disrupt access.
- Loading and unloading is proposed to occur within the work area. No street or roads will be used for material storage at any time.
- All vehicles will enter and exit the site in a forward direction.
- Management of vehicular access to and from the site is essential in order to maintain the safety of the general public as well as the labour force. The following code is to be implemented as a measure to maintain safety within the site:
 - Utilisation of only the designated transport routes.
 - Construction vehicle movements are to abide by finalised schedules as agreed by the relevant authorities.
- Implementation of a proactive erosion and sediment control plan for on-site roads, hardstands and laydown areas.
- All permits for working within the road reserve must be received from the relevant authority prior to works commencing.
- 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).

The above recommendations will ensure the construction traffic will create a minimal impact to the capacity and safety of the surrounding road network.

7. Conclusion

Amber Organisation has assessed the traffic impacts of the 60MW solar farm located approximately 11km east of Bathurst. Access to the site is proposed via Brewongle Lane which connects with Great Western Highway. Staff are expected to primarily be located in Bathurst, with all plant expected to be delivered from Port Botany. The above assessment determined the following:

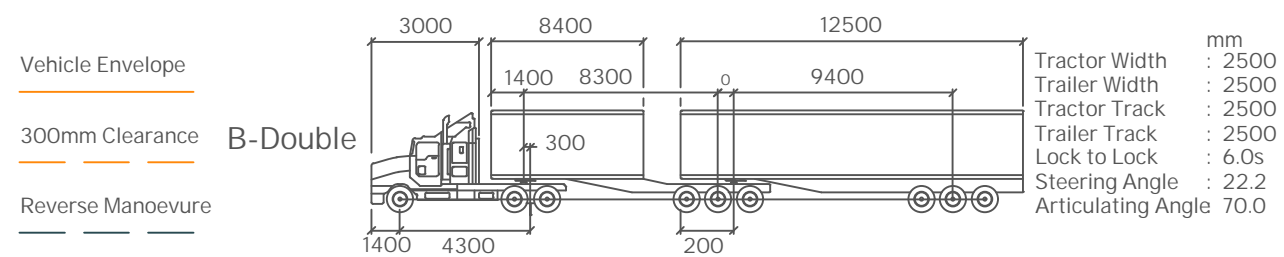
- The site is expected to generate up to 167 vehicle movements per day during peak construction times, including 60 truck movements;
- The road network is able to accommodate the traffic generated by the development during the construction, operation and decommissioning stages. Further, the cumulative impact of the site traffic with nearby developments is expected to be minimal;
- The proposed construction traffic access route from Port Botany to the site is proposed to be via Foreshore Road, M1, M5, M7, M4, Great Western Highway, and Brewongle Lane. The roads are designated for B-Double vehicles and as such, the access route is able to accommodate the loads and type of vehicle movements to be generated during construction of the solar farm;
- It is noted that some oversize and overmass vehicles will be required to deliver larger plant to the site such as the sub-station transformer and earthmoving equipment. The vehicles are subject to specific road permits that will be applied for by the contractor once the dimensions of the load and the specific delivery vehicle are known;
- The intersection of Great Western Highway and Brewongle Lane is provided with suitable turn treatments and adequate sight distance to allow vehicles to safely enter and exit the State road network;
- The site access is proposed to be constructed to accommodate B-Double vehicles and any OSOM vehicles; and
- In order to mitigate the impacts of the development during construction a CTMP will be prepared which should include the recommendations provided within this document.

Accordingly, based on the assessment above, it is concluded that the proposed access arrangements for the solar farm are suitable to accommodate the expected construction vehicle types and traffic volumes during the construction and operation phase of the project.

Appendix A

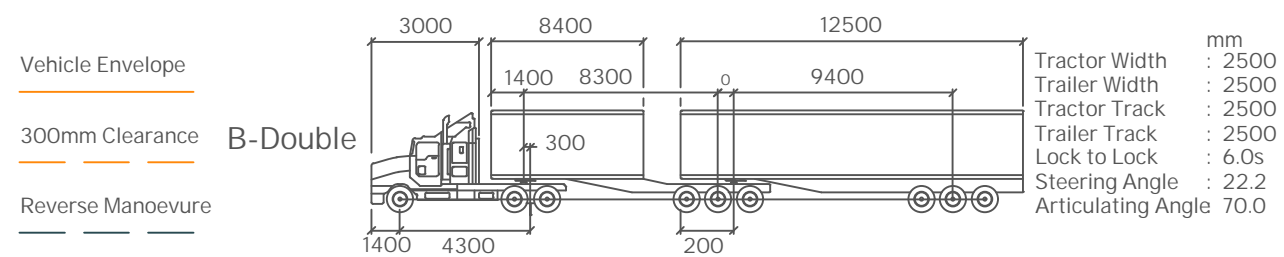
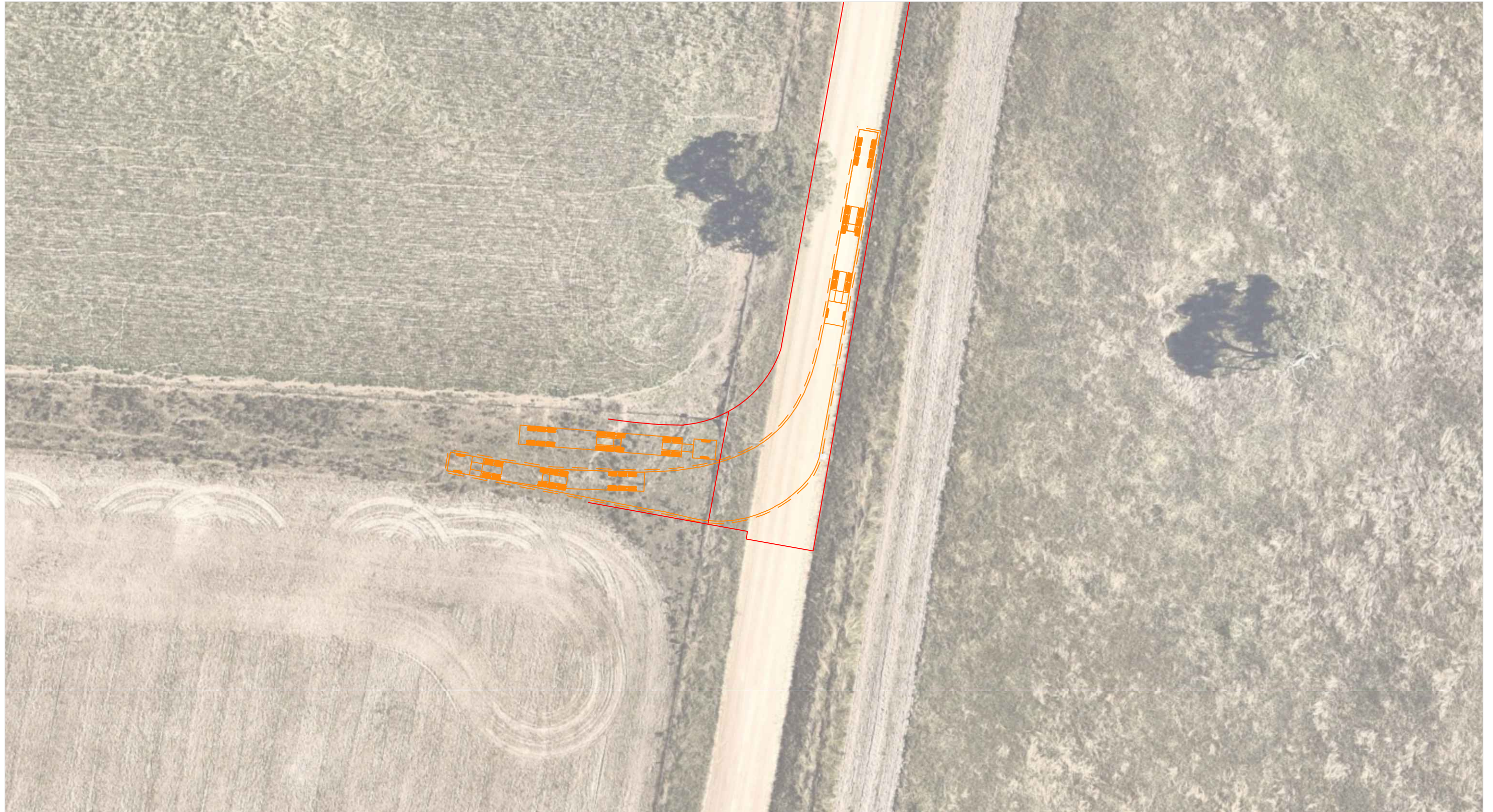
Swept Path Assessment





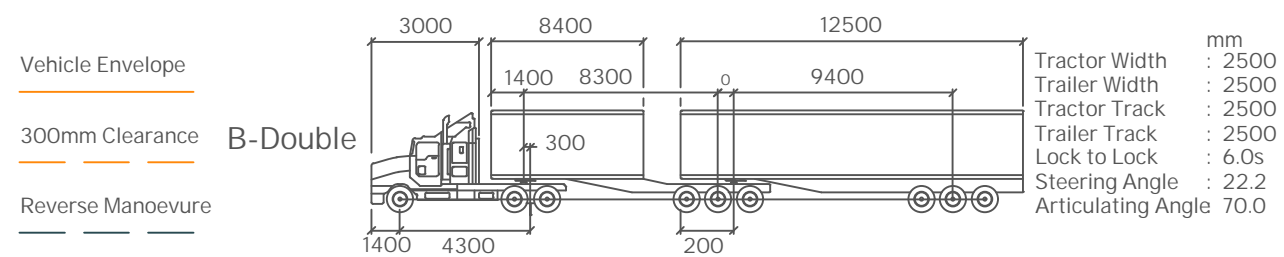
Glanmire Solar Farm
4823 Great Western Highway, Glanmire
Swept Path Assessment

DRAWN: MW
DATE: 17/10/2022
DWG NO: 372-S01D
SCALE at A3: 1:500m



Glanmire Solar Farm
4823 Great Western Highway, Glanmire
Swept Path Assessment

DRAWN: MW
DATE: 17/10/2022
DWG NO: 372-S01D
SCALE at A3: 1:500m



Glanmire Solar Farm
4823 Great Western Highway, Glanmire
Swept Path Assessment

DRAWN: MW
DATE: 17/10/2022
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SCALE at A3: 1:500m