

# Suntop Solar Farm Suntop NSW

Traffic Management Plan

13<sup>th</sup> October 2020

## Suntop Solar Farm, Suntop NSW

### Traffic Management Plan

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## Contents

1	Introduction .....	3
1.1	Statutory Requirements.....	4
1.2	Existing Road Network and Local Characteristics .....	7
1.3	Traffic Volumes and Road Operation .....	10
2	Construction Works .....	11
2.1	Timing.....	13
2.2	Working Hours.....	14
2.3	Construction staff numbers .....	14
2.4	Construction Traffic .....	14
3	Site Operations.....	17
4	Traffic Management .....	18
4.1	Traffic Management Objectives.....	18
4.2	Vehicle Movement Plan.....	18
4.3	Haulage Quantities .....	20
4.4	Traffic Diversions.....	20
4.5	Traffic Impacts.....	21
5	Environmental Conditions .....	22
6	Incident Procedures .....	23
7	Complaints .....	23
8	Review Process.....	23
9	Compliance Documentation .....	23
10	Traffic Control Guidance Plan .....	24
10.1	General.....	24
10.2	Existing Traffic Conditions.....	24
10.3	Cyclists and Pedestrians .....	24
10.4	General Traffic Control Considerations .....	24
10.5	Traffic Control – Signage and Line Marking .....	24
10.6	Consent Compliance .....	25
10.7	Daily Checklist.....	26
10.8	Contractors Contact Details .....	26
10.9	TCP Approval .....	26
Appendix A.	Site Plan .....	27
Appendix B.	Civil Engineering Set - Road Works .....	28
Appendix C.	Traffic Control Plans.....	29
Appendix D.	Driver Code of Conduct.....	35

## 1 Introduction

The conditions of consent for the approved Suntop Solar Farm (SSD 8696) prepared by Department of Planning, Industry and Environment (DPIE) requires the preparation and implementation of a Traffic Management Plan (TMP) to the satisfaction of Transport for New South Wales (formerly RMS) and Dubbo Regional Council prior to the commencement of construction. This document takes into consideration the comments provided by TfNSW, dated 13<sup>th</sup> June 2018 and subsequent comments provided by Dubbo Regional Council dated 6<sup>th</sup> March 2020.

Due to the nature of works involved, the TMP also includes details of the required Traffic Control Plans (TCPs) to ensure that the safety for road users is preserved throughout the various stages of the construction works.

The following TMP has been prepared allowing for both construction and operation of the Suntop Solar Farm project. Details of traffic management associated with decommissioning of the site has not been considered and shall be addressed prior to the decommissioning of the site to reflect the future road and traffic conditions at this time.

Suntop Solar Farm is located off Suntop Road approximately 20km south-west of Wellington, NSW as shown in Figure 1-1. The north, east and west boundaries of the site are defined by neighbouring agricultural lots with some sections of unnamed, unsealed rural roads

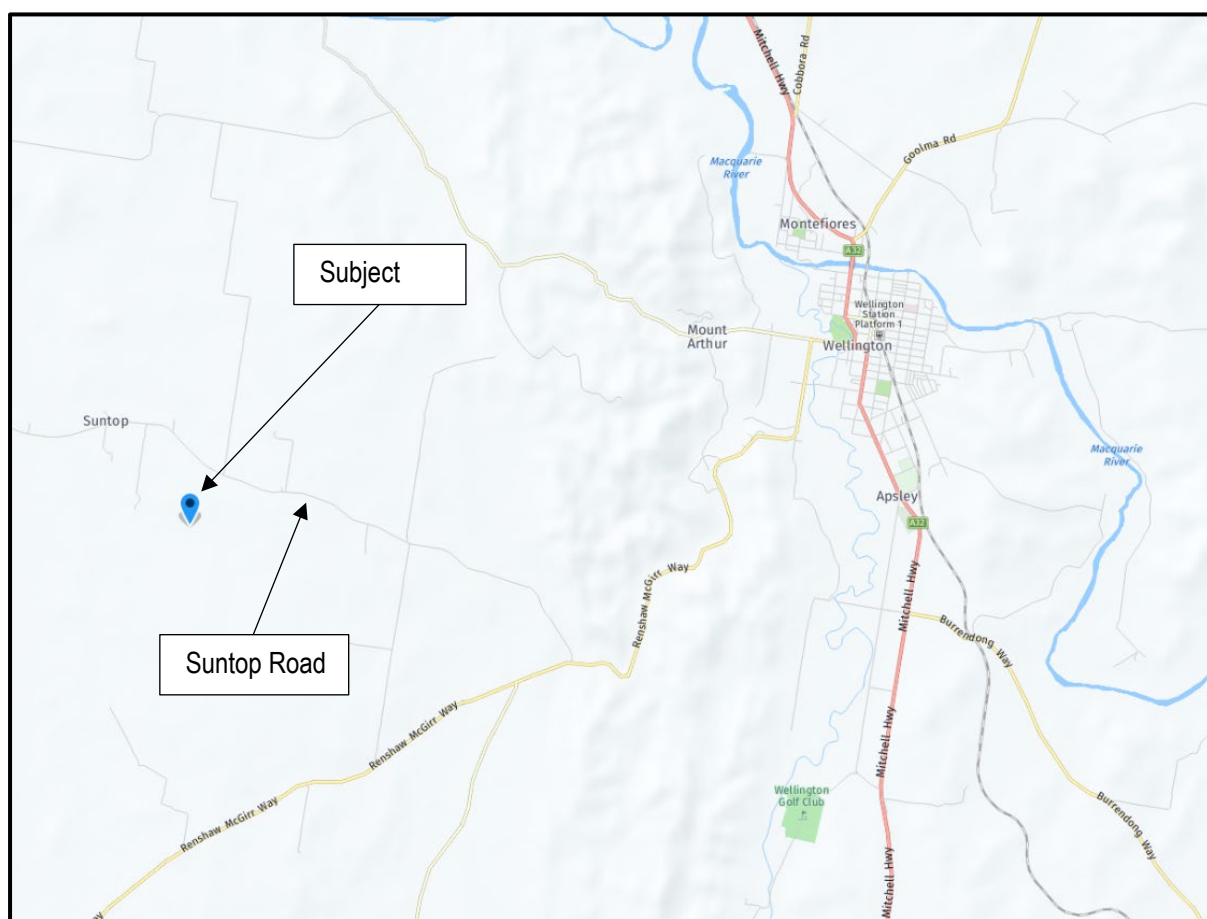


Figure 1-1 – Site Location and Road Network

## 1.1 Statutory Requirements

The development consent granted by the Minister for Planning includes a number of conditions in relation to the traffic, parking and access. These requirements are addressed throughout this report as outlined in Table 1-1.

Consent Condition	Report Section
<p><b>Over-Dimensional and Heavy Vehicle Restrictions</b> The Applicant must ensure that the:</p> <p>(a) development does not generate more than:</p> <ul style="list-style-type: none"> <li>• 45 heavy vehicle movements a day during construction, upgrading or decommissioning;</li> <li>• 1 over-dimensional vehicle movements a day during construction, upgrading or decommissioning;</li> <li>• 5 heavy vehicle movements a day during operations; on the public road network; and</li> </ul> <p>(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 19 metres unless the Secretary agrees otherwise.</p> <p>The Applicant must keep accurate records of the number of over-dimensional and heavy vehicles entering or leaving the site each day.</p>	<p>Section 2.3.2 Section 3</p>
<p><b>Designated Over-Dimensional and Heavy Vehicle Access Route</b> All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Mitchell Highway, Showground Road, Renshaw McGirr Way and Suntop Road, as identified in the figure in Appendix 3.</p> <p><i>Note: The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over dimensional vehicles on the road network.</i></p>	<p>Section 4.2 Appendix D</p> <p>No designated over-dimensional vehicles associated with this construction work.</p>
<p><b>Road Upgrades</b> Prior to commencement of construction, the Applicant must upgrade the intersection of Renshaw McGirr Way and Suntop Road, to the satisfaction of the relevant roads authority.</p>	<p>Section 2 Section 2.1</p>
<p><b>Site Access</b> Prior to the commencement of construction, the Applicant must construct two site access points off Suntop Road (shown in Appendix 1) with a Rural Property Access type treatment to cater for the largest vehicle accessing the site, including sealing the on-site access roads a minimum of 30 m from their intersection with Suntop Road, in accordance with the <i>Austrroads Guide to Road Design</i> (as amended by RMS supplements), to the satisfaction of Council.</p>	<p>Section 2 Section 2.1</p>
<p><b>Operating Conditions</b> The Applicant must ensure:</p> <p>(a) the internal roads are constructed as all-weather roads;</p> <p>(b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site;</p>	<p>(a) Section 2, Section 5 (b) Section 4.4.1, Appendix D</p>

<p>(c) the capacity of the existing roadside drainage network is not reduced;</p> <p>(d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and</p> <p>(e) development-related vehicles leaving the site are in a clean condition and do not result in dirt being tracked onto the public road network.</p>	<p>(c) N/A</p> <p>(d) Section 4.4, Appendix D</p> <p>(e) Section 5, Appendix D</p>
<p><b>Traffic Management Plan</b></p> <p>Prior to the commencement of construction, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and Council, and to the satisfaction of the Secretary. This plan must include:</p> <p>(a) details of the transport route/s to be used for all development-related traffic, including the location of access points;</p> <p>(b) a protocol for undertaking independent dilapidation surveys to assess the:</p> <ul style="list-style-type: none"> <li>• existing condition of Suntop Road, Renshaw McGirr Way and Showground Road on the transport route/s prior to construction, upgrading or decommissioning activities; and</li> <li>• condition of Suntop Road, Renshaw McGirr Way and Showground Road on the transport route/s following construction, upgrading or decommissioning activities;</li> </ul> <p>(c) a protocol for the repair of any local roads identified in the dilapidation surveys to have been damaged during construction, upgrading or decommissioning works;</p> <p>(d) details of the road upgrade works required by condition 5 of Schedule 3;</p> <p>(e) details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction, upgrading or decommissioning works, including:</p> <ul style="list-style-type: none"> <li>• consideration of potential interaction with other State significant development projects in the Dubbo Regional LGA, in consultation with the Applicants of the projects;</li> <li>• temporary traffic controls, including detours and signage;</li> <li>• notifying the local community about project-related traffic impacts;</li> <li>• procedures for receiving and addressing complaints from the community about development related traffic;</li> <li>• minimising potential for conflict with school buses and other motorists as far as practicable;</li> <li>• scheduling of haulage vehicle movements to minimise convoy length or platoons;</li> <li>• responding to local climate conditions that may affect road safety such as fog, dust and wet weather;</li> <li>• responding to any emergency repair or maintenance requirements; and</li> </ul>	<p>(a) Section 2, Section 4.2.1 Appendix A, Appendix D</p> <p>(b) Section 2, Section 2.2.1</p> <p>(c) Section 2</p> <p>(d) Section 2, Section 2.2.1</p> <p>(e)</p> <p>Section 4.4.6, Section 4.4.7</p> <p>Section 4.3, Section 10 Section 4.4.2, Section 4.4.5 Section 7</p> <p>Section 4.4.2</p> <p>Section 4.4, Appendix D</p> <p>Section 5, Appendix D</p> <p>Section 6, Appendix D</p>

<ul style="list-style-type: none"> <li>• a traffic management system for managing over-dimensional vehicles; and</li> </ul> <p>(f) a driver's code of conduct that addresses:</p> <ul style="list-style-type: none"> <li>• travelling speeds;</li> <li>• driver fatigue;</li> <li>• procedures to ensure that drivers adhere to the designated transport route/s; and</li> <li>• procedures to ensure that drivers implement safe driving practices.</li> </ul> <p>Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.</p>	<p>Section 4.2</p> <p>(f) Appendix D</p>
<p><b>Construction, Upgrading and Decommissioning Hours</b></p> <p>Unless the Secretary agrees otherwise, the Applicant may only undertake construction, upgrading or decommissioning activities on site between:</p> <p>(a) 7 am to 6 pm Monday to Friday;</p> <p>(b) 8 am to 1 pm Saturdays; and</p> <p>(c) at no time on Sundays and NSW public holidays.</p> <p>The following construction, upgrading or decommissioning activities may be undertaken outside these hours without the approval of the Secretary:</p> <ul style="list-style-type: none"> <li>• the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or</li> <li>• emergency work to avoid the loss of life, property and/or material harm to the environment.</li> </ul>	<p>Section 2.2, Appendix D</p>
<p><b>Consultation with Council regarding haulage route on local streets</b></p>	<p>July 2020 Discussion was held with staff (Jason Lewis) from Orange City Council to discuss the proposed use of the Orange Bypass by construction heavy vehicles.</p>

The following Traffic Management Plan (TMP) must be read in conjunction with the overarching Environmental Management Strategy (EMS). Figure 1-2 outlined the strategic framework and hierarchy of documentation within the EMS for the Suntop Solar Farm project.

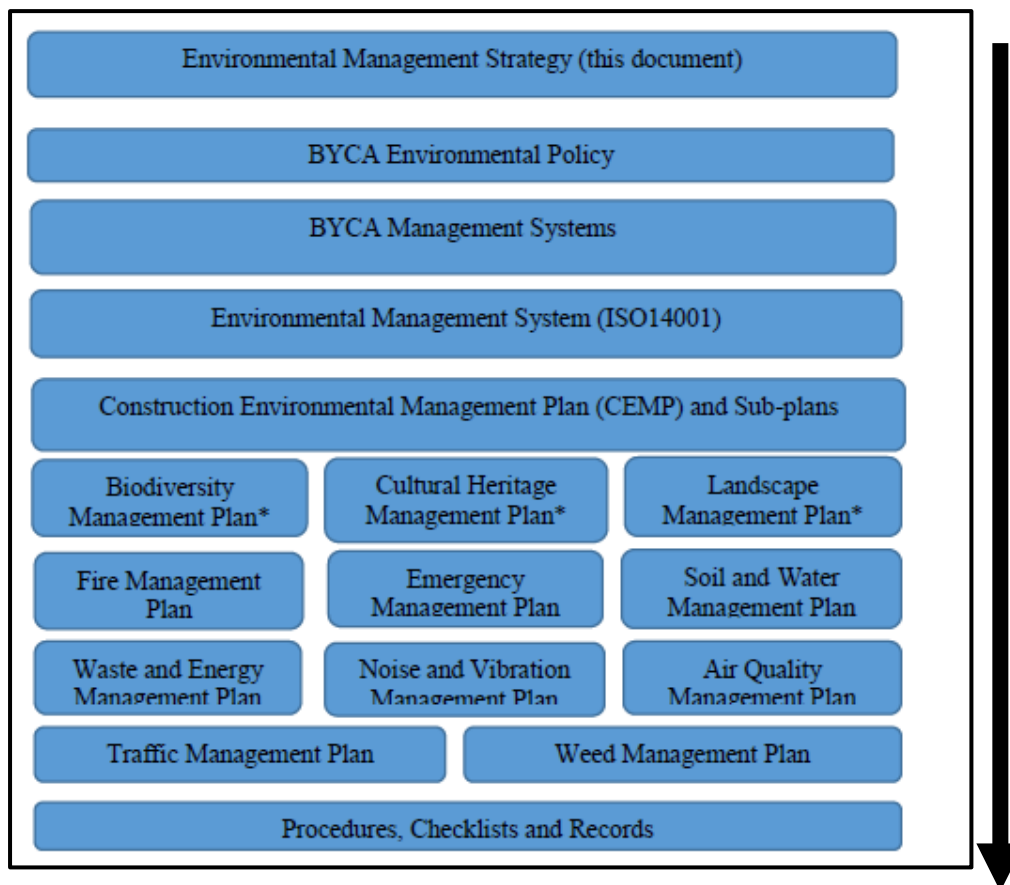


Figure 1-2 – Hierarchy of the Environmental Management Strategy

## 1.2 Existing Road Network and Local Characteristics

**Suntop Road** is a local road (managed by Dubbo Regional Council) which runs along the northern border of the site. Suntop Road connects with Renshaw McGirr Way to the east of the site via a simple give-way controlled intersection with Renshaw McGirr Way being the priority road. Suntop Road is sealed (refer Photo 1 below) and provides a width of approximately 6 metres allowing for two-way traffic movements as required. It operates under the speed limit of 100 km/h.





*Photo 1 – View along Suntop in the vicinity of the proposed site access*

**Renshaw McGirr Way** to the east of the site is a sealed two-way road with an overall width in the order of 7 metres (refer Photo 2 and 3 below). It forms part of the regional road network (MR233) and intersects with Suntop Road via a simple give-way controlled intersection with Renshaw McGirr Way being the priority road. In this location Renshaw McGirr Way provides a straight alignment to the east of the intersection while to the west is a vertical and horizontal curve that partially impacts upon the visibility available for drivers turning in and out of Suntop Road. Renshaw McGirr Way runs generally in a north south direction and connects with Showground Road and Bushrangers Creek Road to the north via a sign-controlled T-intersection. Showground Road / Bushrangers Creek Road is the priority road and provides access to Wellington and the Mitchell Highway.



*Photo 2 – Typical cross section on Renshaw McGirr Way*





*Photo 3 - Typical cross section on Renshaw McGirr Way at intersection with Showground Road*

**Showground Road** provides direct access to Wellington and the Mitchell Highway. Showground Road provides a sealed pavement with a width of approximately 7 metres (refer Photo 4 below) allowing for two-way traffic movements. A bridge crossing connects Showground Road over the Bell River at the western edge of Wellington. There are no weight restrictions on this bridge and the width of this bridge permits two opposing heavy vehicles to pass.



*Photo 4 – View along Showground Road showing typical cross section.*

These roads all operate under the posted speed limit of 100 km/h, except for the urban speed limit of 60 km/h which is effective from the Wellington Horse Racetrack on Renshaw McGirr Way through to Wellington.

As part of the project, it is proposed that all heavy vehicles will travel via the roads identified above.

There are a number of rural residential lots and farms located along this route between the subject site and Wellington. During the site work, a number of heavy vehicles were observed on this road including semi-trailers associated with farm activities.

Showground Road connects with the **Mitchell Highway** at Wellington via a four-leg roundabout. Mitchell Highway forms part of the regional and state road network that is a key freight route in NSW and forms part of the road network designated by Transport for New South Wales (previously Roads and Maritime) to carry oversize, over mass vehicles. It typically provides a single lane of travel in both directions and operates under the posted speed limit of 110 km/h outside of the urban areas where the alignment permits. As part of the regional road network, the Mitchell Highway carries a mixture of local and regional traffic with a significant number of trucks including B-double combinations.

Mitchell Highway runs through the centre of Wellington with no bypass for heavy vehicles.

Staff and local supplies may be sourced from Dubbo and access to Dubbo is provided via the **Mitchell Highway**.

Major supplies could be sourced from Sydney and can travel via the Great Western Highway via Bathurst, Orange and Wellington. These vehicles will then travel via the approved route via Renshaw McGirr Way to the site.

### 1.3 Traffic Volumes and Road Operation

Traffic volumes in the immediate vicinity of the subject site are very low, reflective of the rural environment. Suntop Road provides access to a number of rural land holdings and does not provide a direct access for through traffic movements nor does it provide access to a town or village. As such the traffic flows on this road are considered to be less than 100 vehicles per day two-way. Renshaw McGirr Way similarly carries low traffic flows but does provide local access to Yeoval. Whilst it would carry higher traffic flows than Suntop Road it is still considered that it would carry less than 500 vehicles per day two-way.

As part of the regional road network, it can be seen that the Mitchell Highway carries higher traffic flows, associated with both local and regional demands. Average Annual Daily Traffic (AADT) data published online by TfNSW indicates that in 2017, the two-way traffic volumes on Mitchell Highway, south of Wellington were 2,428 vehicles per day with 23% heavy vehicles (Station I.D. 6170). The traffic data shows that the split in traffic flows north and south in this location are even, as to be expected.

Observations on site during a typical morning peak period (22<sup>nd</sup> November 2017) shows that the current road network in the vicinity of the subject site and around Wellington operates very well with minimal delays and congestion. The route proposed to be used for the project carries low traffic flows and operates with no delays except for those associated with drivers slowing down to observe traffic flows on the approaches to the various intersections and negotiating these intersections. The only delays noted were along the Mitchell Highway through the centre of Wellington, mainly associated with semi-trailers and B-doubles manoeuvring through the two roundabouts on the Mitchell Highway through town.

## 2 Construction Works

### External Works

Prior to the commencement of construction of the Suntop Solar Farm development, the following external road works shall be completed as required by the conditions of consent:

- Upgrade the intersection of Renshaw McGirr Way and Suntop Road to provide a Basic Right (BAR) and Basic Left (BAL) treatment in accordance with the Austroads Guide to Road Design and to the satisfaction of TfNSW. A design speed of 100 km/hr shall be adopted.
- Installation of 'Turning Traffic (W5-25) signs and associated distance plates on Renshaw McGirr Way, 250 metres either side of its intersection with Suntop Road. Signs shall be Size B and shall be removed at the completion of construction.
- Trimming of vegetation to improve sight distances at the intersection of Renshaw McGirr Way and Suntop Road as required.
- Upgrade of existing line marking at the intersection of Renshaw McGirr Way and Suntop Road to extend at least 30 metres either side of the intersection reconstruction.
- Construction of two site access points off Suntop Road with a Rural Property Access type treatment to cater for the largest vehicle accessing the site, including sealing of the access roads for at least a distance of 30 metres from the intersection with Suntop Road. Upgrades shall be completed in accordance with the Austroads Guide to Road Design and to the satisfaction of Dubbo Regional Council.

Detailed design plans for these proposed road upgrades and access points have been prepared by Robert Bird Group for submission to the relevant road authorities. Works are expected to commence immediately following approval of the detailed design and will require approximately 8 weeks to complete.

In addition to the above, a dilapidation survey has been completed prior to the commencement of construction to assess the existing condition of Suntop Road, Renshaw McGirr Way and Showground Road along the proposed haulage route. A subsequent dilapidation survey shall be completed at the completion of construction and works undertaken to rectify any damage or degradation caused during the construction phase. These dilapidation surveys shall be undertaken by external contractors and details of these surveys provided to the road authorities for review. The proponent shall then liaise with TfNSW and Dubbo Regional Council to agree on the level of rectification work required to repair any damage to these roads including resurfacing, pot hole filling etc.

One (1) week after works completion, BYCA will conduct a post-upgrade dilapidation report to determine the locations, if any, that require repair. If any significant damaged is observed, BYCA will liaise with the relevant road authorities (Dubbo Regional Council, TfNSW, Wellington town) in order to proceed with the repair works in a timely manner (no later than 2 weeks after consultation with Roads authority).

To determine road wear and tear attributable to the decommissioning phase, the proponent will conduct a new dilapidation report, aligning with the haulage route for decommissioned materials, immediately prior to the decommissioning works commencing, and again, upon completion of decommissioning works. These dilapidation reports will establish the extent of road maintenance attributable to the project as a result of decommissioning.

During the course of the project, BYCA will undertake a monthly visual inspection of the roads to ensure that no significant damages, creating a potential hazard, have been created on the access roads. In the case of a significant damage is observed, BYCA will immediately contact relevant road authorities to take remedial action. The timeframe of the remedial action will depend on the severity of the created hazard:

- Immediate danger created ☐ immediate remedial action (e.g. road closure)

In any other case, where no danger is observed, the remedial measure will not be taken more than 2 weeks after approval by the road authority.

## Solar Farm Construction

The construction and commissioning phase is expected to last approximately 14 months with expected commencement by March 2020. The main construction activities would include:

- Site establishment and preparation for construction:
  - Installation of security measures including fencing.
  - Establishment of site compound and material layout areas. This shall include the provision of suitable on-site parking for vehicles and workers.
  - Ground preparation.
- Installation of environmental controls:
  - A detailed Construction Environmental Management Plan (CEMP) would outline the environmental controls required.
- Minor vegetation clearing (grasses, shrubs and isolated trees):
  - Targeted clearance of low laying vegetation around trenching areas to steel post installation to minimise disturbance to existing ground cover.
  - Establishment of tree and vegetation protection measures as required.
  - Clearance of larger vegetation such as bushes and isolated trees.
  - Establishment of additional sedimentation and erosion controls as required.
- Preliminary civil works including:
  - Drainage works
  - Setting up foundations for the substation
  - Earthing works (see below)
- Installation of steel post and rail foundation system for the solar panels.
- Installation of PV panels and DC wiring beneath the panels.
- Installation of underground cabling (trenching) and installation of inverter stations.
- Construction of 132kV substation.
  - Site establishment and clearing (if required)
  - Bulk earthworks via a range of plant that may include scrapers, bulldozers, excavators, rollers, trucks and loaders
  - Detailed civil works including drainage, earthing, foundations etc. generally using excavators, piling rigs, trucks and cranes
  - Erection of steelwork, equipment, demountable buildings and transformer generally using trucks, EWP's and cranes
  - Electrical connections generally EWP's and other minor plant
  - Testing and commissioning generally EWP's and other minor plant
- Connection of substation to existing 132 kV transmission line
- Testing of electrical infrastructure
- Removal of temporary construction facilities and rehabilitation of disturbed areas.

The project does not require any concrete footings to be provided for the solar panel construction. The substation will require a hardstand base with material imported for this. The electrical substation is to be installed under a separate contract with TransGrid.

A site office and compound will be established on site for the duration of the works. Internal roads shall be constructed as all-weather roads. There may also be temporary access tracks provided to allow for access across the site as required.

All staff vehicles will be able to park within the site adjacent to the site office creating no external parking demands. The car park area will allow for the layover of buses within the site associated with the transportation of staff to surrounding suburbs such as Wellington and Dubbo as well as providing capacity for a small number of private vehicles associated with specialist trades and site visitors.



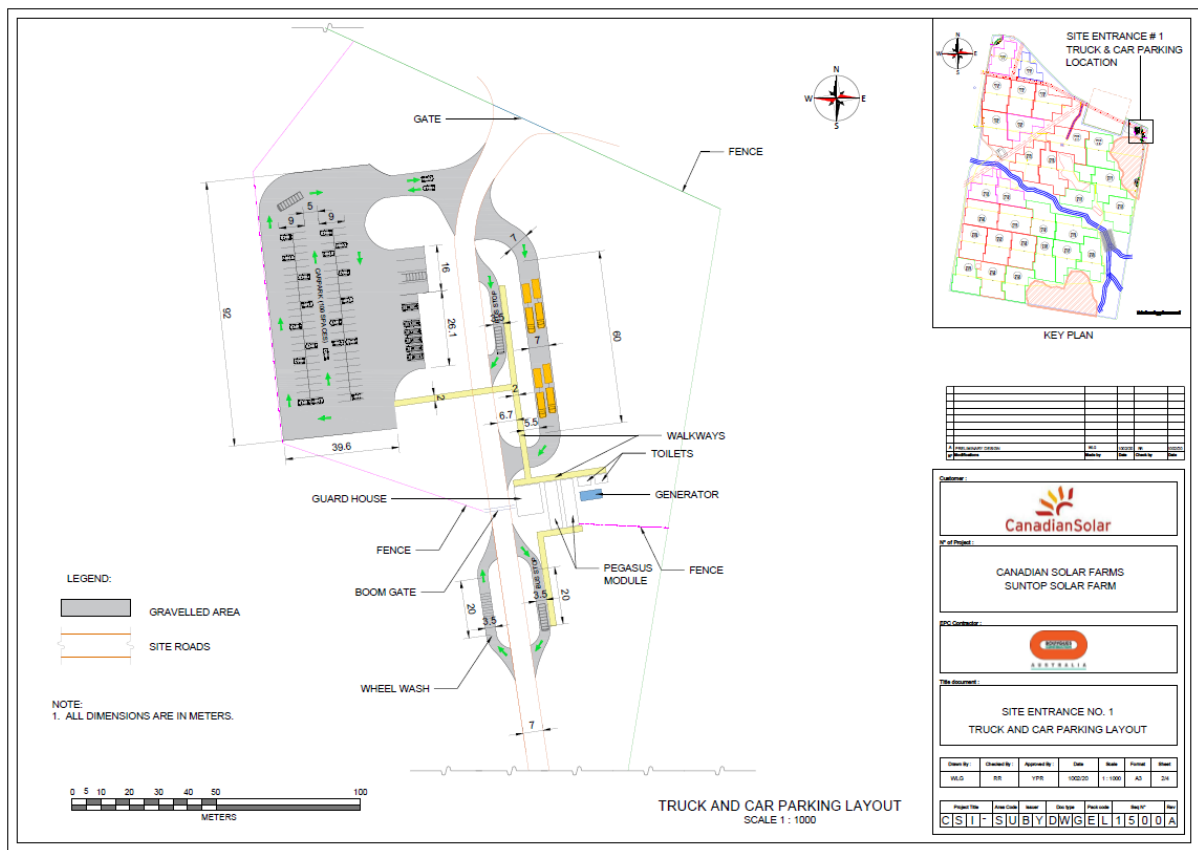


Figure 2-1 – Site layout for compound and parking

This area will have solar panels installed towards the end of the construction phase requiring vehicles to be parked away from this area. The size of the overall site footprint however will allow for all construction staff vehicles to park on site.

To suppress dust during construction, when necessary, water truck will spray water during the earthworks operations as a dust mitigation measure.

Internal roads are expected to be complete within 2 months from the start of construction.

## 2.1 Timing

External works shall commence following approval of the detailed design. All external works shall be completed prior to the commencement of the construction associated with Suntop Solar Farm (excluding early works within the site)

Following the completion of the required road upgrades and dilapidation surveys, construction of the Solar Farm shall require approximately 14 months to complete.

Prior to commencement of Works, design will be approved by the Roads Authority. This approval has already been obtained.

Once Works are completed, Roads authority inspection will be conducted, and approval will be obtained.

## 2.2 Working Hours

Unless the Secretary agrees otherwise construction hours are in accordance with the *Interim Construction Noise Guidelines* (DECC 2009) (ICNG) with standard construction hours being

- 7:00am and 6:00pm Monday to Friday
- 8.00 AM to 1.00 PM on a Saturday
- No construction work is to be carried out on a Sunday or NSW public holiday.

No construction work, upgrading or decommissioning activities will be undertaken outside of these hours with the exception of:

- The delivery of material as requested by the NSW Police Force to other authorities for safety reasons; or
- Emergency work to avoid the loss of life, property and / or material harm to the environment.

## 2.3 Construction staff numbers

Peak demand levels for the construction work will vary with an expected peak of 400 workers for a 6 month duration throughout the construction phase, with lower staffing requirements outside of the peak period. The staff will be sourced locally where appropriate with any specialist and project management staff from outside of the local area to be housed in Dubbo and Wellington.

Details of staff accommodation and employment shall be addressed within an Accommodation and Employment Strategy to be provided to Dubbo Regional Council.

## 2.4 Construction Traffic

### 2.4.1 Light Vehicles

Bus services shall be provided for the transportation of staff to the local centres such as Dubbo and Wellington. These buses shall be large 45 seat coaches which shall arrive at the site at the beginning of the work day and depart at the end of each shift. The route for these bus services shall provide for the collection of workers at local hotels / motels or other key locations to be determine once workers have been housed.

The number of buses required will vary throughout the project depending on the construction demands. The number of buses provided will allow for maximum use of these buses by construction staff to minimise light vehicle movements.

To discourage the need for private vehicle travel, all tools and equipment required for the construction works shall be provided on site for workers. As such the demand for private vehicle use is expected to be very low with no staff to be permitted to drive to the site without prior approval.

There may however be a need for specialist trades to use their own vehicle when travelling to the site associated with the transportation of specialists' equipment which may not otherwise be available on site. The demands for such trips however would be relatively low and may vary throughout the construction phase.

There may also be low demands for visitors such as professional engineers to travel to the site for inspections etc. throughout the construction phase although these demands would also be low.

All light vehicles will be able to park on site within the office compound area as required.

### 2.4.2 Buses

Allowing for up to 400 staff during the peak construction period with the majority of workers being required to travel to the site by coach, the transportation of staff could see demands for up to 9 buses accessing and departing the site each day (based on a capacity of 45 seats).

Designated pick up and drop areas for the buses will be determined in consultation with Council taking into account the location of the accommodation for the workers on the site. This will be determined upon commencement of the construction works and this CTMP shall be updated in consultation with Council when these locations have been determined and agreed.

#### 2.4.3 Heavy Vehicles

The demands for heavy vehicles accessing the site will vary throughout the construction phase. At the beginning of the project there will be a requirement for some earthwork moving equipment to construct the access road and some minor earthworks across the site as required. This may require a scraper or bulldozer which will be transported to site on a low loader. This machinery will remain on site for the duration of the earthworks portion of the project construction work.

While extensive earthworks are not proposed, some land forming (including localised cut and fill areas) may be undertaken to achieve more consistent gradients beneath the PV modules. Additionally, earthworks are required for trenching works.

In total, approximately:

- 15,000 m<sup>3</sup> of gravel would be required to cap the access road
- 13,612 m<sup>3</sup> of sand (subject to detailed design) would be required for the bedding of cables that are to be buried throughout the site

Should any excavated material not be suitable for reuse or additional fill material is required, the maximum amount of fill is estimated to be 12,000 m<sup>3</sup>.

Once the earthworks have been completed, the balance of the construction work will commence requiring machinery including:

- Pile driver (12)
- Piling rig
- All terrain fork-lift (20)
- All terrain utility vehicles (10)
- Backhoe (10)
- Flatbed trucks (10)
- Mobile crane (1)

Other equipment if required may include an elevated work platform, scraper, roller and winches. All of the plant will be located on site and will therefore only be required to access the site once for the construction works.

The solar panels are expected to be all delivered from the Port of Newcastle or Port Botany in Sydney. Other specialist equipment is generally sourced from Newcastle or Greater Sydney as required whilst consumables such as concrete and general material supplies will be locally supplied from the Dubbo or Wellington area.

The conditions of consent for the project provide the following restrictions on heavy vehicle movements throughout the construction phase:

- 45 heavy vehicles per day (45 inbound movements and 45 outbound movements)
- 1 over-dimensional vehicle per day (inbound /outbound movement)
- Length of any heavy vehicles (excluding over-dimensional vehicles) does not exceed 19 metres (i.e. semi-trailers only).

The application shall keep accurate records of the number of heavy vehicles entering and leaving each day.

A log/register will be maintained at all entry and exit points at site which will record accurate heavy vehicle movements entering and exiting the site.



Additionally, a dedicated logistics manager will also monitor the material deliveries coming from port and through coordination with other subcontractor's working at site, heavy vehicle movement will be restricted to 45 per day during construction.

### 3 Site Operations

Once constructed the site will operate for approximately 30 years at which point the site will either be decommissioned, or panels replaced to extend the length of operations. Once operational the site is expected to provide employment for 6-10 staff with traffic demands associated with the ongoing operations to be significantly lower than those during construction.

The conditions of consent for the project provide the following restrictions on heavy vehicle movements associated with the operation of the site:

- 5 heavy vehicles per day (5 inbound movements and 5 outbound movements)
- Length of any heavy vehicles (excluding over-dimensional vehicles) shall not exceed 19 metres (i.e. semi-trailers only).

The application must keep accurate records of the number of heavy and over-dimensional entering and leaving each day.

## 4 Traffic Management

### 4.1 Traffic Management Objectives

The objectives of the traffic management plan are to:

- Minimise disruptions and ensure the safety of traffic on the external road network.
- Provide suitable access to the site for construction workers, heavy and over-dimensional vehicles.
- Ensure the safety and protection of workers working within the public domain.

### 4.2 Vehicle Movement Plan

The proposed traffic management measures allow for all access off Suntop Road only with separate access proposed near the eastern and western site boundaries. These accesses shall be for the construction traffic movements as well as the future on-site operational demands.

All heavy and over-dimensional vehicles associated with the development shall travel to and from the site via Mitchell Highway, Showground Road, Renshaw-McGirr Way and Suntop Road, as identified in Figure 4-1. No heavy or over-dimensional vehicles shall be permitted use alternate routes when travelling to/from the site as documented within the 'Drivers Code of Conduct'.

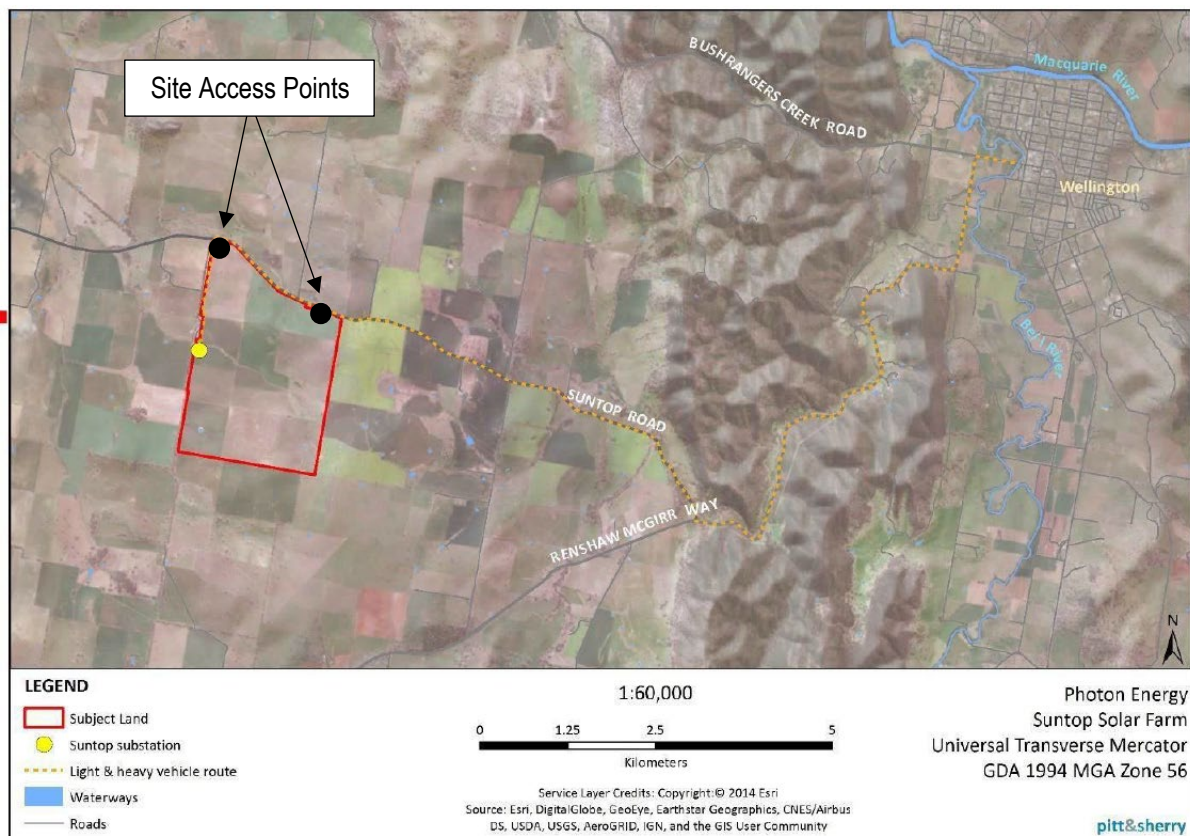


Figure 4-1 – Heavy and Over-Dimensional Vehicle Route



Route 2A includes a heavy vehicle bypass around Orange on the Northern Distributor Road. This is a local road and approved by Council as a B-double route. Similar bypass routes are provided at Gulgong which is also an approved B double route. The balance of the routes are all on state roads.

The application is required to obtain relevant permits under Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network. This construction work does not require any over-dimensional vehicles, with the substation to be supplied under a separate contract and approval to TransGrid.

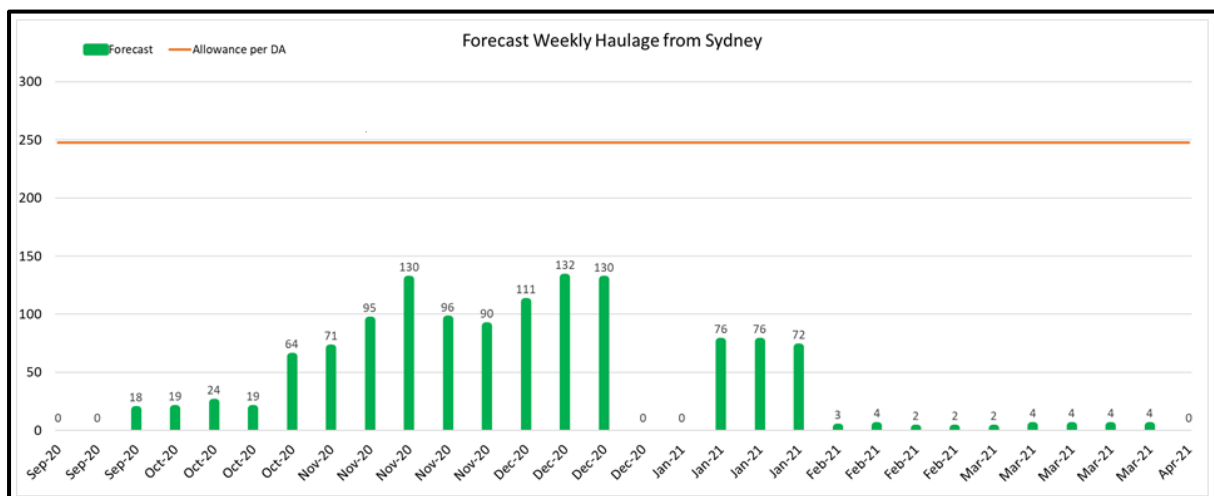
Reference to the approved route to and from the site will be a part of the scope of services that the logistics provider will need to follow. All Heavy vehicles are fully equipped with interactive tracking devices and live monitoring of all truck position will be conducted by operations teams for the Logistics subcontractor.

The future appointed logistics provider will manage the compliance of their subcontractors with the NVNL regulation and provide the approved route and CoR actions on behalf of the proponent.

### 4.3 Haulage Quantities

A summary of the haulage quantities see:

- Total forecast 19m (from Port) = 1,253 vehicles
- Out of these, 1,224 will pass through Blue Mountain route which amounts to ~97% of the total nos.
- Of the remaining 3% overweight cargo will pass through the route #1.
- The below graph provides an indicative overview of forecast movements compared with approved traffic volumes which shows adequate spare capacity in haulage over the approved DA.
- No over dimensional vehicles are required for this project.



Note, that whilst the predicted truck numbers above show a peak of 132 in one week, an allowance of up to 250 per week and 45 per day is proposed, to ensure that there are no hold ups to the construction. For example, if there are delays in delivery of supplies to the port or delays created by weather, then there could be a requirement to bring more equipment to site which would increase the expected peak to above the 132 trucks in one week.

### 4.4 Traffic Diversions

No traffic diversions are required in conjunction with the general construction or operation of the Solar Farm.

External works associated with construction of the accesses to Suntop Road and upgrades to the intersection of Suntop Road / Renshaw-McGirr Way shall be undertaken within the shoulders with no diversions or road closures required however lanes closures are anticipated during the intersections works which shall require traffic to be restricted to a single lane of travel at a time.

Details of the necessary traffic management to ensure the safety of construction workers during these works are provided below.

#### 4.4.1 Proposed Speed Zone

Reduced speed zones shall be implemented during construction of the upgrades to the intersection of Suntop Road and Renshaw McGirr Way in accordance with the Traffic Control at Work Sites Manual. Similarly during the tie in of the proposed accesses from the site onto Suntop Road.

No other speed reductions are required for the construction or ongoing operation of the site.

#### 4.5 Traffic Impacts

The potential impacts of construction and operational traffic on the surrounding road network have been assessed as part of the development application and subsequent approval for the project. This has also included the cumulative impacts of other State Significant Projects within the Dubbo Local Government Area.

As there are no road closures or diversions required during the various stages of the project, the only delays for motorists associated with the road works are those created by the traffic controllers and/or portable traffic signals. These delays shall be minimal, typically less than 2 minutes. Speed reductions through the work zones shall have a minimal impact on travel times.

There will be no public vehicle access within the work site during the construction works, with a fence provided at the commencement of the project along the entire site boundary. This fence will remain once the project is completed for security purposes with a locked gate to be provided at the site accesses off Suntop Road.

All vehicles are to be loaded and unloaded within the site only and are to enter and exit the site in a forward direction.

The loading of panels etc at the port shall create gaps in truck movements. Deliveries shall be scheduled to avoid convoys of heavy vehicles travelling together when accessing or departing the site. Two trucks travelling together shall leave a suitable gap (at least 50 metres) to enable other drivers to overtake as required. This shall be included in the Drivers Code of Conduct.

##### 4.5.1 Construction Parking Demands

A compound is to be provided within the site which shall accommodate the site office together with an all-weather area for the parking of staff vehicles and shuttle buses as required. Management policies shall be implemented to encourage carpooling and discourage construction workers living in Dubbo or Wellington to drive to the site (unless required for the transportation of specialist tools and equipment).

No vehicles associated with the project shall be permitted to park on Suntop Road.

##### 4.5.2 Public Transport and School Buses

There is a school bus that runs along Suntop Road along the site boundary, with one bus in the morning at around 7.55 AM and one bus in the afternoon at around 3.45 PM. The majority of the nominated heavy vehicle route on local roads does not form part of the school bus route with the only interactions being along Suntop Road and on Showground Road in Wellington.

Deliveries will occur throughout the day with only a small number of deliveries occurring in the morning when local school buses are operating. Wherever practical, deliveries shall be scheduled to arrive after 8am to reduce the potential interactions with local school buses. Any over-dimensional vehicles shall be scheduled during the day or at night (with approval) when there are no buses operating.

Staff will be on site prior to the morning bus run and will depart site after the afternoon bus run. As such it is considered that there is very limited interaction between local school buses and coaches associated with the transportation of staff to/from the site.

On the regional and state road network all school zones will be delineated in accordance with RMS Guidelines with reduced speed limits in accordance with normal NSW road rules.

All drivers associated with the project construction work will adhere to the road rules as applicable and will be advised of the school bus operation on Suntop Road.

There will be no impact upon public transport services with no diversions required. There are no bus stops impacted upon by the proposal. Wellington is not serviced by a train and is reliant upon a coach link with infrequent operation.

Consultation has been undertaken in conjunction with Ogden Coaches to document the upcoming works. Evidence of this consultation is provided within **Appendix E**. Ongoing consultation shall be completed throughout the project construction phase to document any changes to the surrounding roads or potential impacts to school bus services.

#### 4.5.3 Pedestrians and Cyclists

Given the rural location, demands for pedestrians and cyclists are very low. No pedestrian or cyclist diversions are required for the external works on Suntop Road and Renshaw McGirr Way.

#### 4.5.4 Emergency Services

There will be minimal impact for emergency vehicles and heavy vehicles with no diversions required.

#### 4.5.5 Local Residents

There are no residential dwellings in the immediate locality of the site access that will be impacted upon by the project and construction work. There are a number of residences along the heavy and light vehicle access routes within the vicinity of the site and these residents will be notified in writing of the construction works as necessary including any works which may impact on the local road network (i.e. installation of traffic control).

BYCA will hold a community engagement session with the local community, where local community will be engaged and their comments heard and addressed to a reasonable extent.

A complaint register will be maintained at the site entry point where complaints will be registered. Once BYCA receives any complaint, it will evaluate and consult with the complainant on how it can be mutually resolved. A time frame (no more than 3 weeks) will be targeted to resolve the issue.

All construction traffic will use the dedicated route as per CoC, which will minimize the traffic impact on local community, especially schools. Additionally, construction will start at 07:00AM, whereas school timings start from 09:00am.

Dust mitigation during construction: When necessary, water truck will spray water during the earthworks operations as a dust mitigation measure.

#### 4.5.6 Other Developments

There will be minimal impact upon any other development within the locality of the site. The impact on other major projects has been considered in conjunction with the traffic impact assessment with cumulative traffic only impacting the State roads (e.g. Mitchell Highway) which have adequate capacity to accommodate additional flows.

#### 4.5.7 Adjoining Council Areas

There will be minimal impact upon adjoining Council areas. Traffic routes in and out of the locality will be along the arterial road network which will experience minimal impacts due to the works.

## 5 Environmental Conditions

Noise has been considered in the approved working times.



Construction vehicle movement on internal roads could lead to dust generation, internal roads however will be all weather reducing this risk. Where required a water truck will be used for dust suppression to minimise the production of dust, with the amount of water spreading adjusted accordingly to reflect the conditions. Where necessary any significant deposits of dirt and other construction materials will be promptly removed from public roadways.

Vehicles departing the site are to be in a clean condition to ensure dirt is not tracked into the public road network. A suitable wash bay shall be provided adjacent to the access points for the cleaning of vehicles as required. The first 30 metres of the site access shall be sealed to prevent the tracking of dirt onto Suntop Road.

The rural location of the site presents a number of environmental risks such as fog or wildlife along the haulage route. Drivers accessing the site are to drive to suit the road conditions including slowing down in fog or adverse weather conditions. Incidents involving wildlife are to be reported to the site and relevant authorities as appropriate.

## 6 Incident Procedures

In the case of an incident on site, emergency services will be notified and given priority access to the site as required.

Incidents shall be reported in accordance with OHS and SafeWork requirements.

## 7 Complaints

Any complaints received from the community in relation to the construction and operational traffic for Suntop Solar Farm shall be directed to the nominated Health Safety Environment and Community Manager for the project.

Dennis Hinton  
HSE Coordinator, Bouygues Construction  
0412 829 026

## 8 Review Process

The Construction Traffic Management Plan and relevant Traffic Control Guidance Plans (TCGPs) will be monitored regularly to ensure their effectiveness and applicability and updated accordingly.

## 9 Compliance Documentation

Refer to Legislative and Jurisdiction compliance requirements, company policies and procedures as appropriate.



## 10 Traffic Control Guidance Plan

### 10.1 General

These TCGPs have been prepared to meet the requirements of the RMS Traffic Control at Work Sites Manual 2018. The plans cover the access requirements to the site during the construction of the solar farm as well as traffic control to ensure the safety of construction workers and road users during external road upgrades at the intersection with Renshaw McGirr Way and Suntop Road and the access points on Suntop Road.

At all times the Roads and Maritime Service's Traffic Control at Work Sites guidelines must be adhered to. Please refer to the RMS guidelines for traffic control matters not listed in this report.

### 10.2 Existing Traffic Conditions

- Posted speed limit of 100 km/hr on Suntop Road
- Posted speed limit of 80 km/hr on Renshaw McGirr Way (between Showground Road and Suntop Road) and 100 km/hr to the south of Suntop Road.
- Daily traffic volumes expected to be less than 500 vpd on each of these roads.

### 10.3 Cyclists and Pedestrians

Given the rural location, demands for pedestrians and cyclists are very low.

### 10.4 General Traffic Control Considerations

The factors that have been considered in preparing the TCGPs are:

- Duration of the works and minimising potential disruptions to local traffic.
- Provision of safe access for heavy and over-dimensional vehicles off Suntop Road.
- Protection of construction workers associated with external road upgrades and intersection improvements.
- Existing traffic volumes and road conditions.

Due to the limited pavement width of Suntop Road and Renshaw McGirr Way, it is not possible for the construction works and associated delineation of the works area to be contained within the road shoulder whilst also maintaining a single lane of travel in each direction. As such, the road shoulder and travel lane adjacent to the works areas shall be closed off during construction.

This shall require the use of portable traffic signals and/or traffic controllers with an associated speed reduction to 60 km/hr. There will be sufficient clearance between the road centreline and the edge of the works areas without the need for safety barriers to be installed. This applies to all proposed road works.

### 10.5 Traffic Control – Signage and Line Marking

#### Construction

The TCGP for the Construction provides Work Site definition. Temporary signage is required as part of the works due to the nature of the passing traffic, access for construction traffic to the compound and the location and nature of the works. During construction, signs will be installed to advise construction vehicles to turn right out of the site and a sign will be installed at the intersection of Suntop Road and Renshaw McGirr Way to direct drivers to turn right into Suntop Road for construction access. These signs will be placed in the road reserve and the exact location will be discussed and agreed with Council prior to installation.

The conditions of consent for the project require the installation of 'truck turning' signs on Suntop Road 250 metres either side of the site access. These signs shall be permanently mounted prior to the commencement of construction works on site and shall be removed at the conclusion of construction activities. The location of these signs is shown on the Civil Engineering Drawing set prepared by Robert Bird Group (**Appendix A**).

### External Roadworks

For the external road works, separate traffic control plans have been prepared for the various stages of work and are provided in **Appendix B**. The need to cover certain signs outside of work hours has been identified on the various plans as required.

These plans shall be reviewed in conjunction with the detailed design and construction methodology which is still to be confirmed. Night time controls on Renshaw-McGirr Way shall be dependent upon this but may include the availability of travel lanes outside construction times with suitable delineation of the works and if necessary, further speed reduction and signage to allow for times when road surface is uneven.

Given the low traffic flows on Suntop Road, and depending upon the availability of adequate forward visibility approaching the works zone, the provision of a single traffic controller may be suitable with no traffic control required at night (Section 8.1.3 of Traffic Control at Work Sites Manual). However should the road environment be considered high risk (i.e. vehicles failing to slow, constrained sight lines), portable traffic signals should be adopted to eliminate potential risks associated with the use of manual traffic controllers. Options are provided for the use both manual traffic control and portable traffic signals to manage traffic through around these work zones.

A copy of this TCGP must always be on site during the road and public domain construction work.

## 10.6 Consent Compliance

### a) BASELINE DATA:

The original traffic impact assessment prepared by Seca Solution demonstrated that the construction and operation will not have an unacceptable impact on the surrounding roads and intersections.

Traffic control shall be required to support the short period of roadworks prior to commencement of construction of the Solar Farm.

### b) MANAGEMENT PLAN DETAILS:

- i) Statutory Requirements: Prepare in accordance with RMS and Council, identify measures that are to be implemented to ensure road safety, detail heavy vehicle routes, identify driver code of conduct, minimise road impacts and environmental risks, notification of any upcoming major works to the local community.
- ii) Limits & Performance Measures: Traffic control is required to manage traffic throughout roadworks. Refer to the above report for further details and below for indicators.
- iii) Specific Performance Indicators:
  - Monitor TCGP to ensure its suitability for the protection of workers and management of all traffic.
  - On site safety inspections completed and documented in accordance with Traffic Control at Worksites Manual for temporary traffic control associated with the external road works.

### c) DESCRIPTION OF MEASURES USED TO COMPLY WITH STATUTORY REQUIREMENTS:

- Licenced traffic consultant and traffic controllers engaged to complete the works
- Traffic control signage and plan to be maintained throughout the works
- Maintain through access on affected roads

### d) PROGRAM FOR MONITORING & REPORTING:

To be detailed by the contractor engaged to complete the external works.

### e) CONTINGENCY PLAN:

If the traffic control plan does not maintain the safety of road users and construction workers, the TCGP is to be modified by a suitably qualified and accredited person and changes recorded within the register.

f) PROGRAM TO IMPROVE PERFORMANCE

The traffic management plan will be regularly reviewed to ensure its suitability for the works being completed.

g) PROTOCOL FOR MANAGING & REPORTING INCIDENTS & COMPLAINTS

To be detailed by the contractor engaged to complete the external works.

- i) All incidents and / or non-compliances that may arise will be documented and notified to appropriate personnel immediately on the same business day.
- ii) Complaints shall be forwarded to the nominated manager and appropriate actions taken to address any concerns raised.

h) PROTOCOL FOR PERIODIC REVIEW

Periodic review of the plan is captured above.

## 10.7 Daily Checklist

In accordance with the Roads and Maritime Services of New South Wales 'Traffic Control at Worksites' guidelines, the site foreman / manager should complete a daily traffic control checklist and this checklist should be filed for future reference.

Details on this checklist can be found at <https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/traffic-control-at-worksites-manual.pdf>.

## 10.8 Contractors Contact Details

Project Manager: Fabrice Geoffroy

Telephone: 0402 333 429

E-mail: [f.geoffroy@bouygues-construction.com](mailto:f.geoffroy@bouygues-construction.com)

## 10.9 TCP Approval

This TCP will be submitted to the road authority for review and approval.

Details for lodging this TCP and the TMP are:

**Dubbo Regional Council:**

PO Box 81, Dubbo NSW 2820

**Roads and Maritime Services:**

PO Box 334, Parkes NSW 2870

This Traffic Control Plan has been prepared and reviewed by suitable qualified professionals in accordance with the RMS Traffic Control at Work Sites Manual 2018 edition.

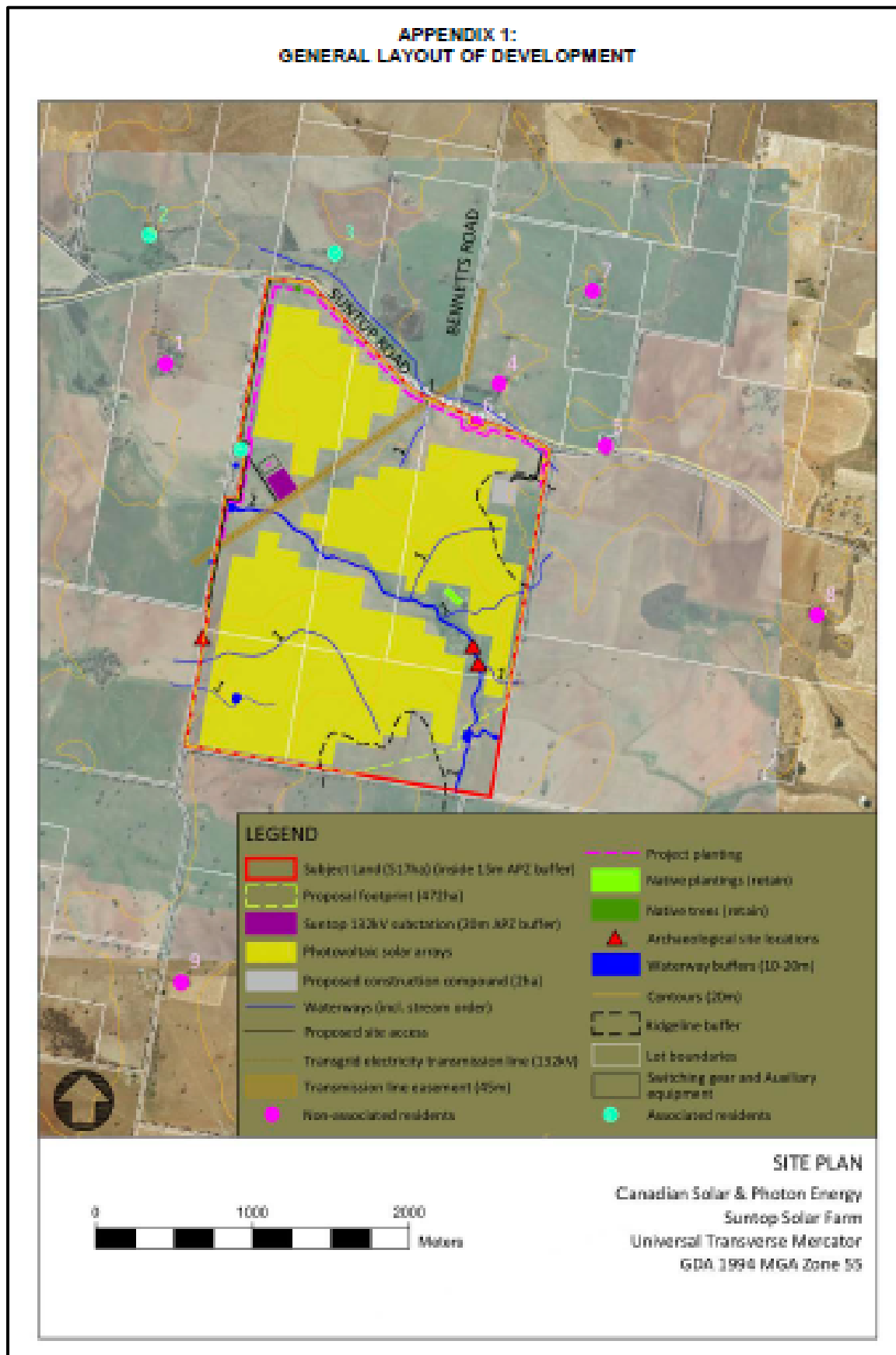


**Shaun Lear**

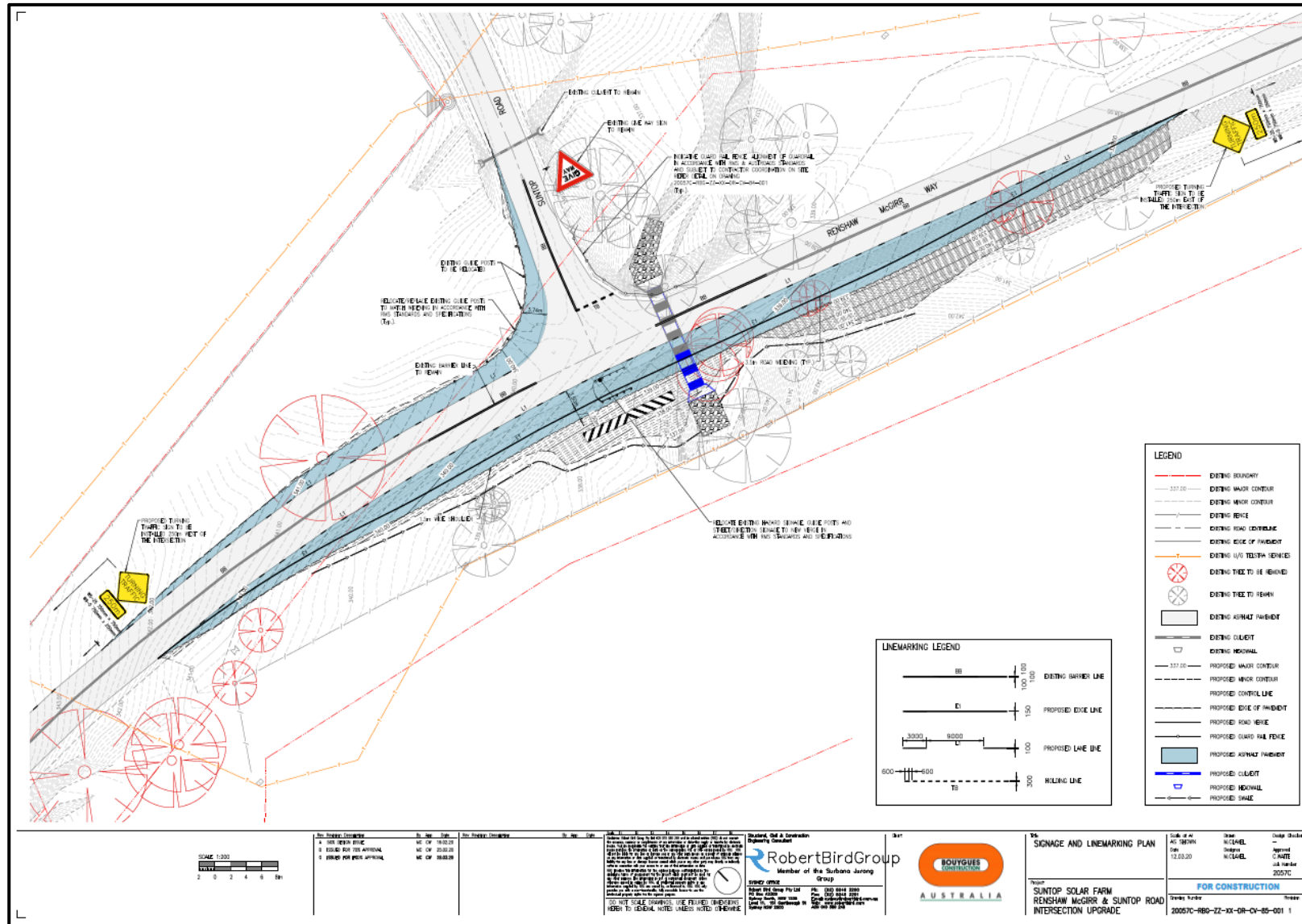
Traffic Engineer

(WZTMP Card No. 0051973368, Exp 15 March 2022)

## Appendix A. Site Plan

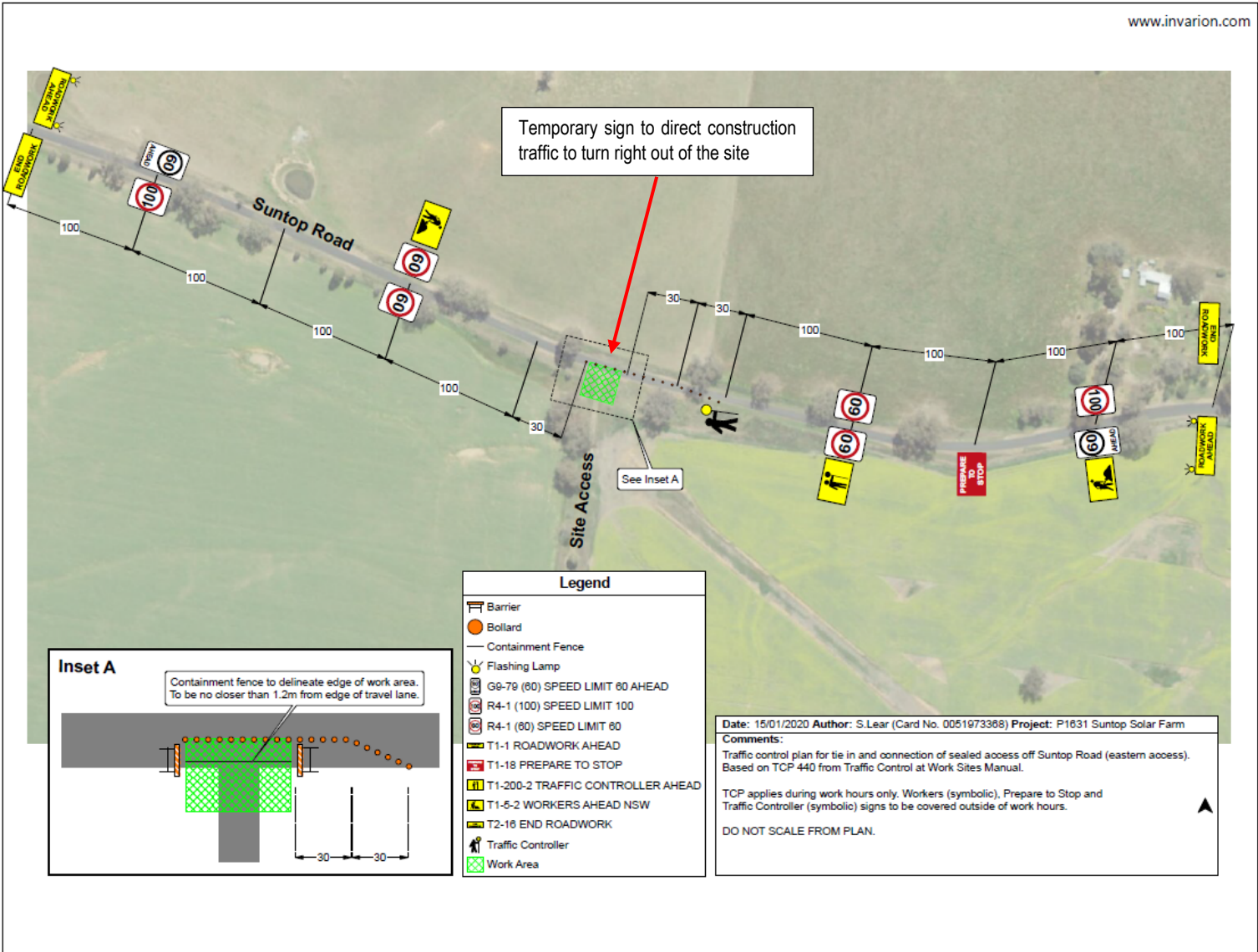


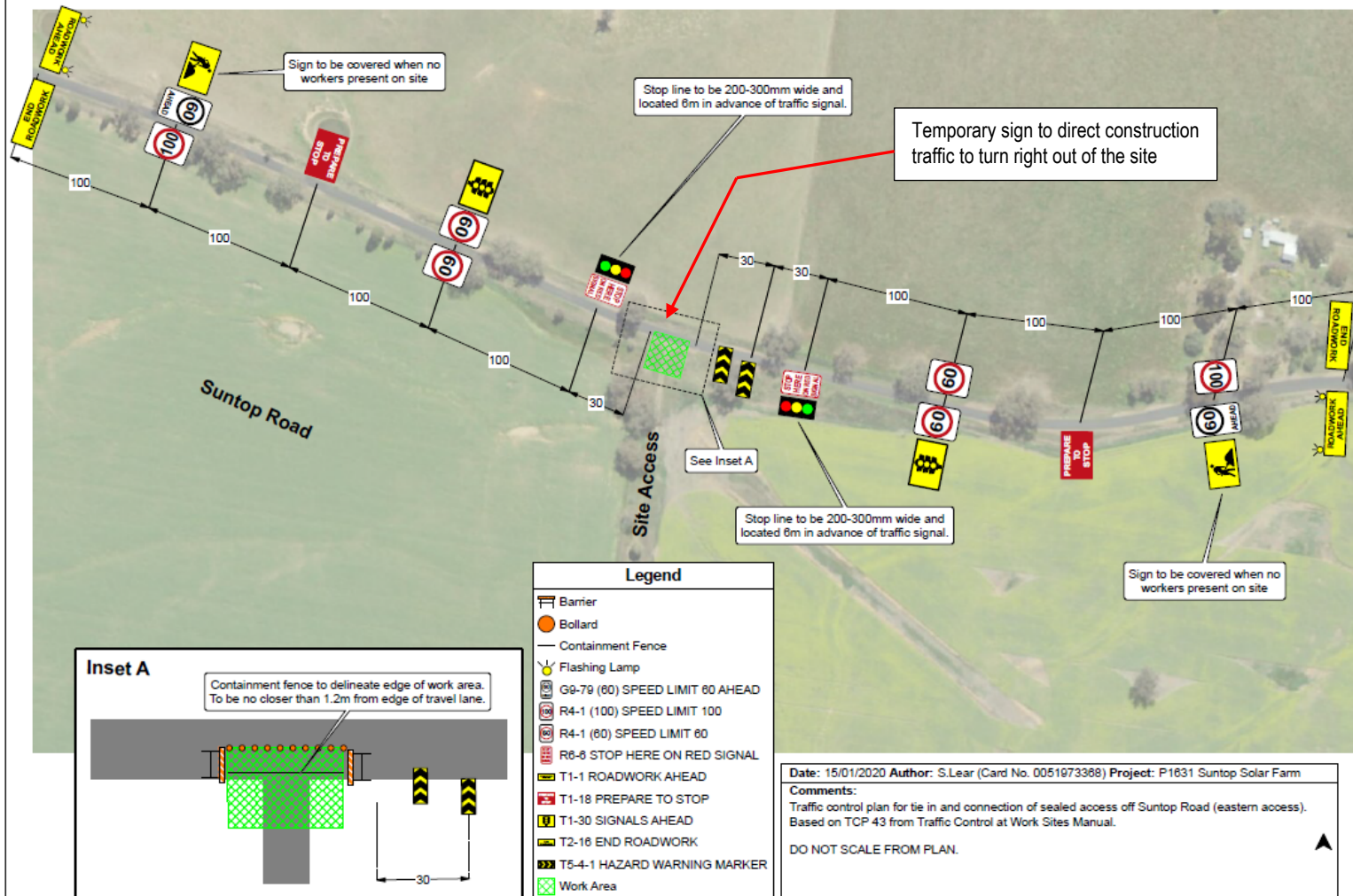
## Appendix B. Civil Engineering Set - Road Works

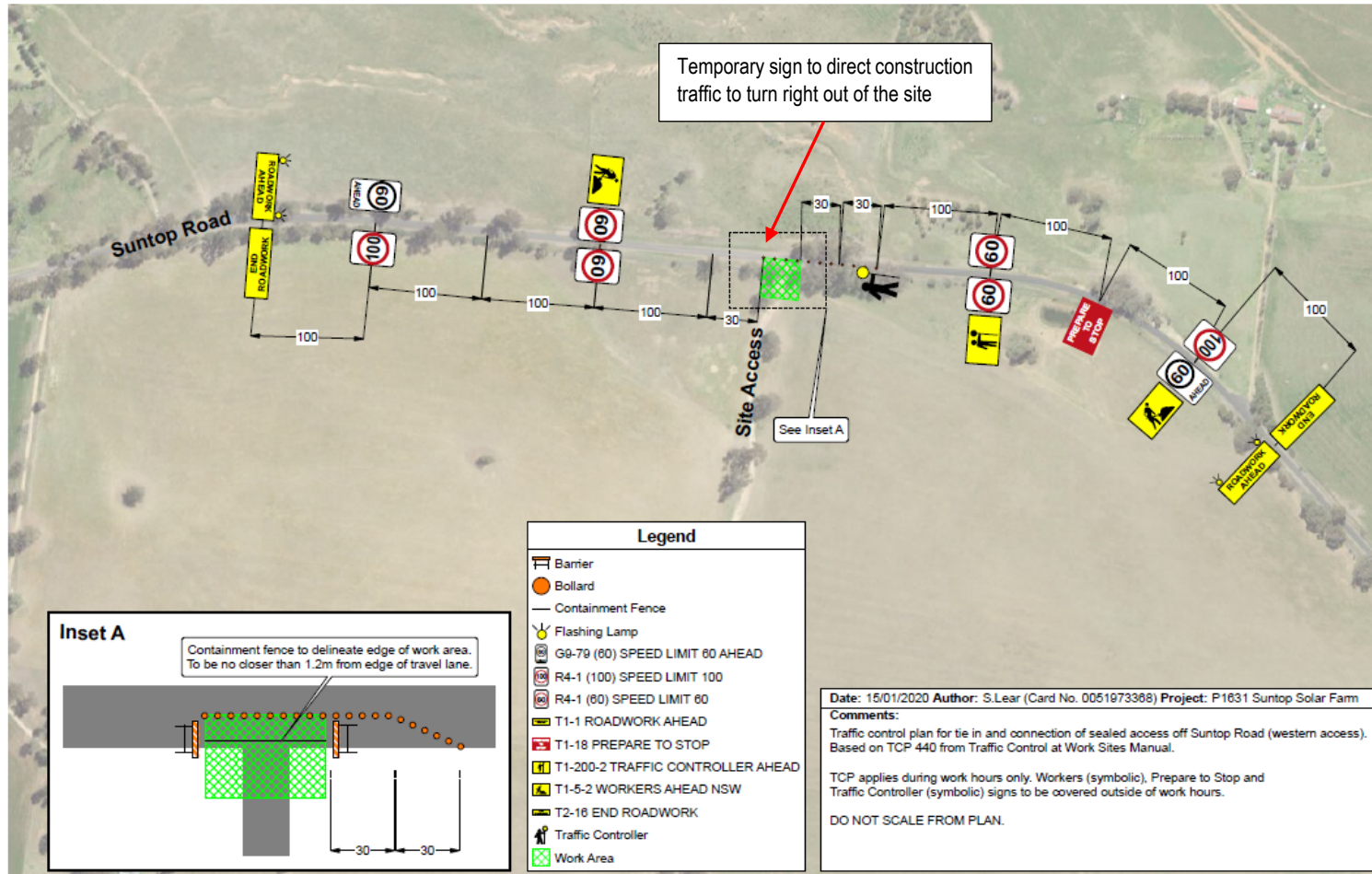




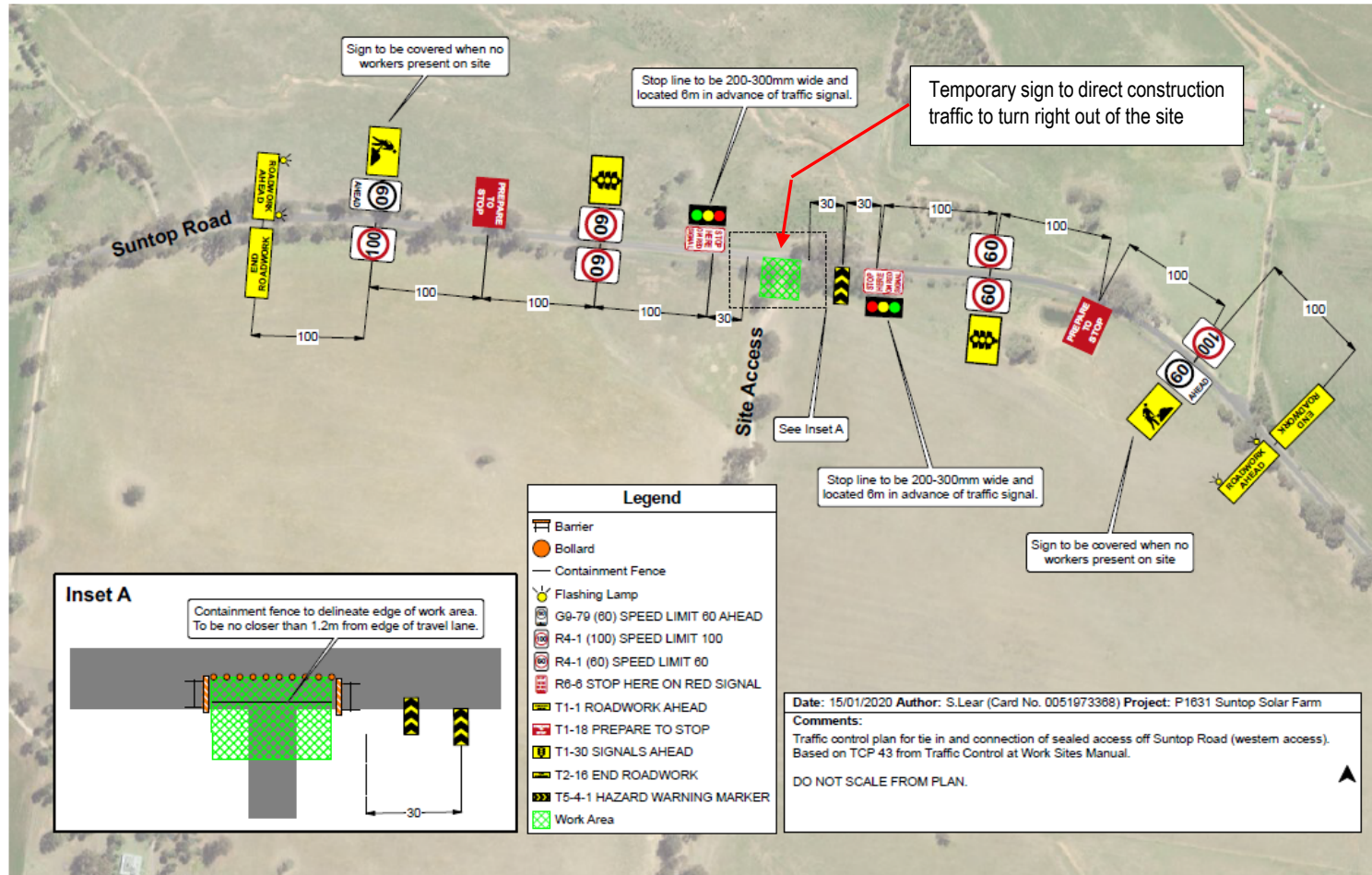
Appendix C. Traffic Control Plans

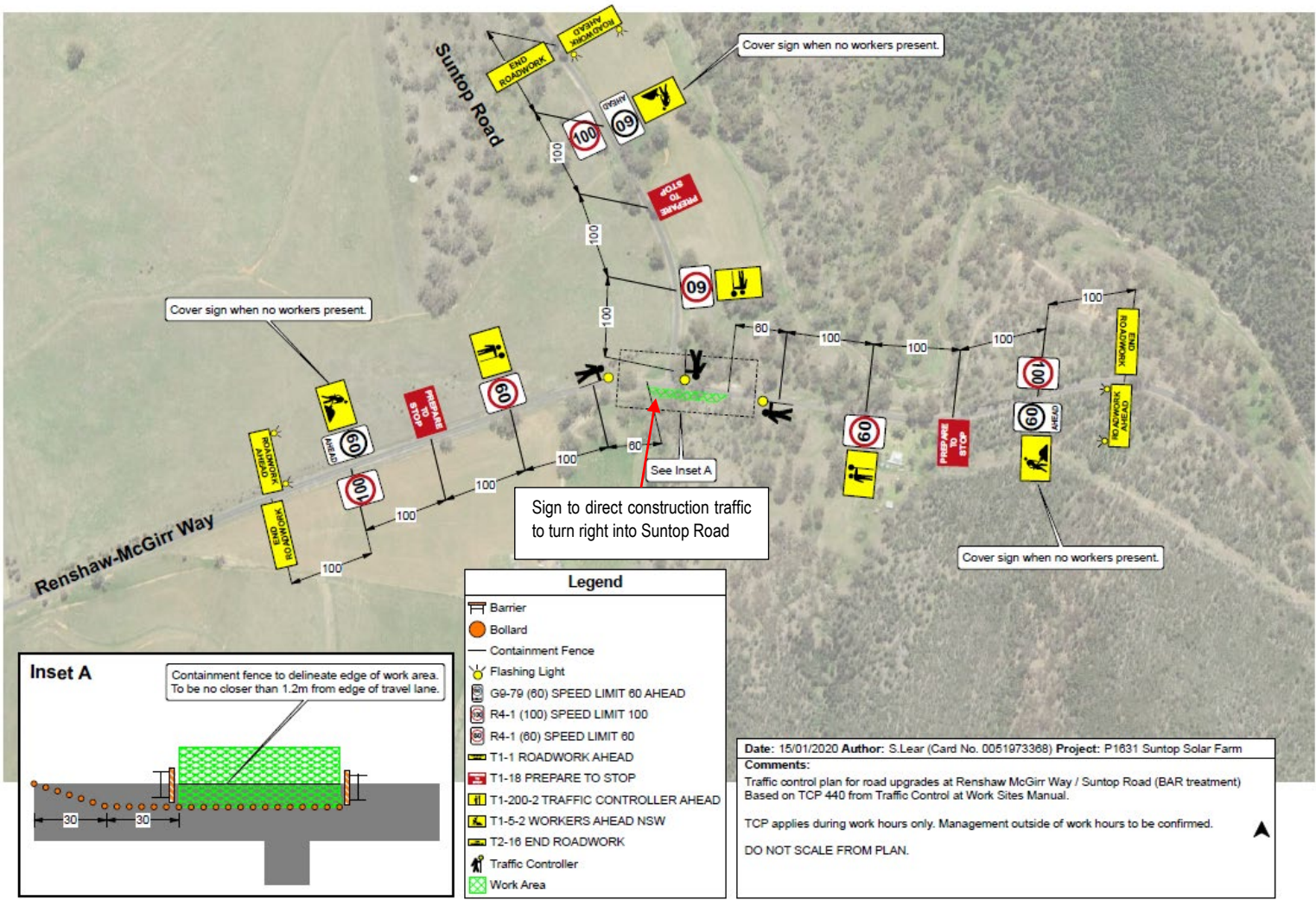




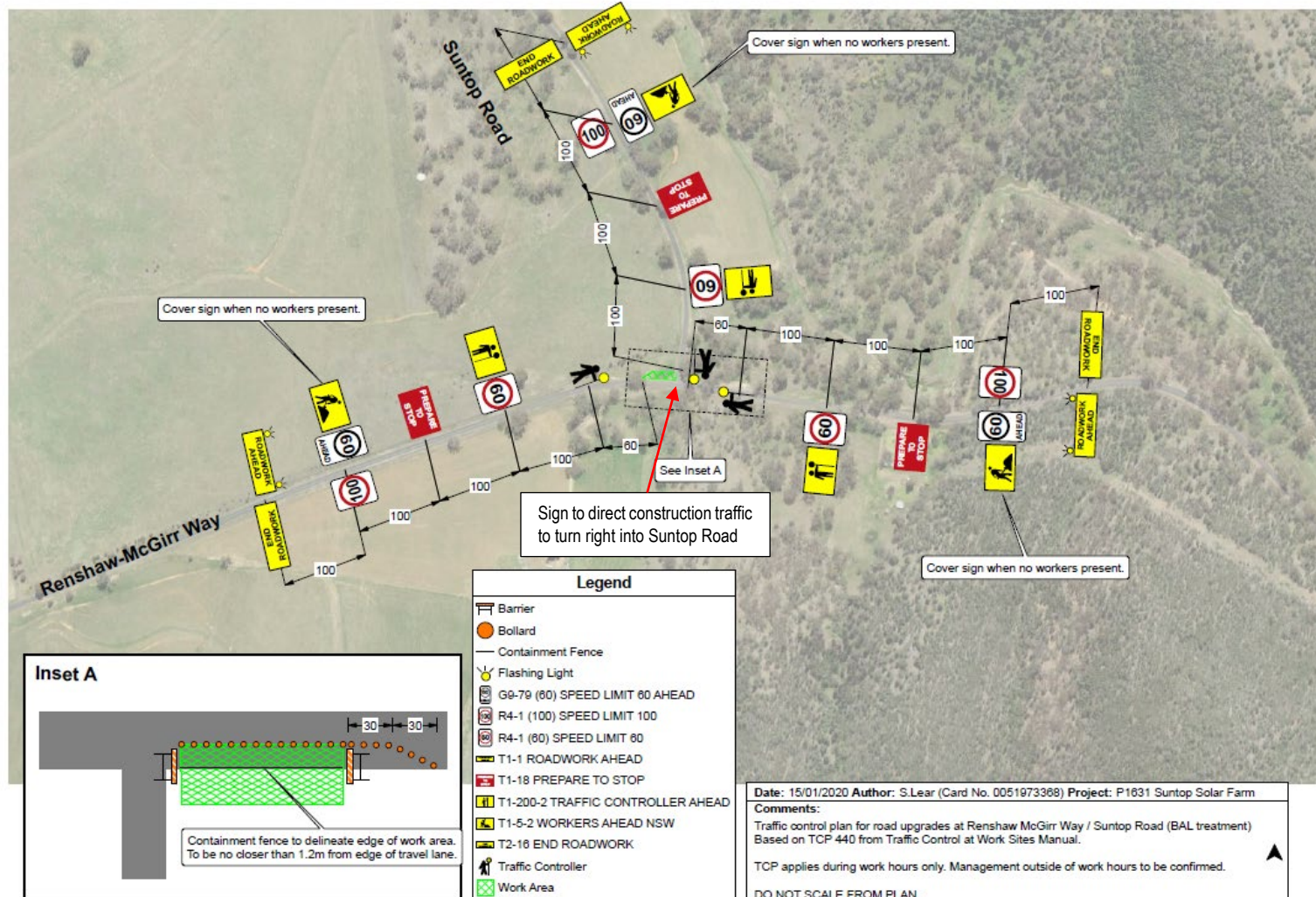












## Appendix D. Driver Code of Conduct

This Drivers Code of Conduct has been established to minimise the impact of our construction on the environment and the local community whilst providing our customers with a high quality, reliable and safe service.

All persons traveling to and from the Suntop Solar Farm must adhere to the rules detailed in this document. This applies to all on-site personnel and delivery drivers and includes both light and heavy vehicles.

This Code of Conduct is for the construction of the Solar Farm.

Please ensure all persons attending the construction site read, understand and sign this document and return it to the nominated site representative.

General	<p>All vehicles / drivers accessing the site must:</p> <ul style="list-style-type: none"> <li>i) Be registered and hold a valid driver's licence for the class of vehicle being operated.</li> <li>ii) Operate the vehicle in a safe and appropriate manner whilst travelling to / from the site or when operating within the site. This includes obeying all New South Wales state road rules.</li> <li>iii) Comply with the directions of authorised personnel when operating within the site and obey any relevant signage installed along the internal roads.</li> <li>iv) Not use a mobile phone while operating any vehicle.</li> <li>v) Must always wear a seatbelt when operating any vehicle.</li> </ul>
Times	<p><b>Construction</b></p> <p>Construction is to be completed in accordance with the <i>Interim Construction Noise Guideline</i> (DECC 2009) which defined standard construction work hours as:</p> <ul style="list-style-type: none"> <li>• Monday to Friday: 7am to 6pm</li> <li>• Saturday: 8am to 1pm</li> <li>• Sunday and Public holidays: No work</li> </ul> <p>The following construction, upgrading and decommissioning activities may be undertaken outside these hours without the approval of the secretary:</p> <ul style="list-style-type: none"> <li>• The delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or</li> <li>• Emergency work to avoid loss of life, property and / or material harm to the environment.</li> </ul> <p>Vehicle movements shall be undertaken during standard construction hours (or just before to allow workers to get to site). Oversize vehicles may require access to the site after hours however this would be subject to the requirements of Roads and Maritime, Dubbo Regional Council or NSW Police.</p> <p>Vehicles are not to arrive at the site prior to commencement of working hours. No parking of vehicles permitted on Suntop Road.</p> <p><b>Normal Operations</b></p> <p>Daily operations and maintenance by site staff would be undertaken during standard working hours:</p> <ul style="list-style-type: none"> <li>• Monday to Friday: 7am to 6pm</li> </ul>

	<ul style="list-style-type: none"> <li>• Saturday: 8am to 1pm</li> <li>• Sunday and Public holidays: No work</li> </ul> <p>During normal operations, all vehicle movements shall be undertaken during the standard operating hours (or just before to allow workers to get to site).</p> <p>There may be a requirement for vehicles to access the site after hours during an emergency however these would be infrequent.</p>
Access	<p>All heavy vehicles must adhere to the designated heavy vehicle routes as nominated in Figure 1 below. No heavy vehicles shall be permitted to travel along alternate routes (i.e. via Arthurville).</p> <p>Drivers must ensure they enter and exit the site in a forward direction and are not permitted to load or unload on Suntop Road</p> <p>All construction traffic must turn right out of the site when exiting in accordance with the signage at this exit point.</p> <p>All construction traffic must turn right onto Suntop Road off Renshaw McGirr Way in accordance with the signage at this location.</p>
Vehicle Departure and Arrival	<p>Heavy vehicles departing the site shall have a minimum 5 minute separation to reduce the impacts upon the local road network.</p> <p>Always maintain a minimum separation of at least 50 metres between vehicles when travelling within the site.</p> <p>Drivers must contact the site supervisor upon arrival and await further instructions or direction before proceeding. Drivers must also report to the site supervisor prior to departure.</p> <p>All vehicles must enter and exit the site in a forward direction. Vehicles are to be washed down and in a clean condition upon exiting the site to prevent dirt being tracked onto the public road network</p>
Illegal and Unsafe Truck Parking	<p>No vehicle are permitted to park on Suntop Road. All parking is to be contained within the designated parking area as specified in the Site Management Plan.</p> <p>No persons shall be permitted to park in any other area of the site without prior written consent.</p>
Heavy Vehicle Compression Braking	<p>Compression braking by heavy vehicles is a source of irritation to the community. Brakes must be applied so as not to create excessive noise that could disturb residents along the haulage routes, particularly within the township of Wellington.</p> <p>Compression braking should only be used if required for safety reasons.</p>
Load Covering and Restraint (as per NHVL and CoR Regulations)	<p>All trucks arriving to or departing the site are required to have an effective cover over their load for the duration of the trip.</p> <p>Drivers must ensure that following loading or unloading that all gates and tailgates are secured and locked before leaving the site.</p> <p>Drivers are to ensure that their loads are secured as per the NTC Load Restraint Guide 2018 and that checks are completed on restraint equipment</p>

	<p>such as tailgates, chains, straps, ratchet dogs, tarps etc on a regular basis to ensure they are functioning correctly.</p> <p>Drivers must exit their vehicle to inspect the above every time they are loaded, prior to arrival at the site and following unloading at the site, prior to departure. The security of your load, your life and the life of others relies upon proper load restraint practices.</p>
Mass and Dimension (as per NHVL and CoR Regulations)	<p>Drivers should be aware that:</p> <ul style="list-style-type: none"> <li>• Adhering to legal axle and gross weight limits are their responsibility</li> <li>• Trucks accessing the site must adhere to any weight and dimension limit/restrictions that apply along the approach routes. These include those load limits applicable to roads and bridges that must be complied with.</li> </ul> <p>All Heavy vehicles are fully equipped with interactive tracking devices and live monitoring of all truck position will be conducted by operations teams for the Logistics subcontractor</p>
Fatigue and License Requirements (as per NHVL and CoR Regulations)	<p>All drivers should be aware that:</p> <ul style="list-style-type: none"> <li>• a person must not drive a heavy vehicle on a road while impaired by fatigue</li> <li>• managing driver fatigue is a shared responsibility by all parties in the chain</li> <li>• parties must take all reasonable steps to ensure a person does not drive the heavy vehicle on a road while impaired by fatigue.</li> </ul> <p>Drivers shall not be permitted to operate a vehicle or plant equipment when impaired by fatigue. If you suspect that you or someone else is experiencing fatigue, please inform your supervisor.</p> <p>Operators of heavy vehicles shall be aware of the requirements relating to fatigue as outlined in the Heavy Vehicle National Law. Drivers shall also be aware of their adopted fatigue management scheme (shown below) and ensure that they are operating within its requirements.</p> <ol style="list-style-type: none"> <li>Standard Hours of Operation</li> <li>Basic Fatigue Management (BFM)</li> <li>Advanced Fatigue Management (AFM)</li> </ol> <p>All drivers accessing the site must be registered and hold a valid driver's licence for the class of vehicle being operated.</p> <p>Refer to attached Chain of responsibility guideline Fatigue Management.</p>
Vehicle Speeds	<p>Drivers travelling to or from the site shall not be permitted to travel above 80 km/hr along Suntop Road. On all other roads, drivers shall observe the posted speed limit and adjust their vehicle speed as required to suit the road environment and prevailing weather conditions. Vehicle speeds must be appropriate to ensure the safe movements of the vehicle with consideration to the vehicle configuration.</p> <p>Maximum speeds limits within the project site shall be as follows:</p> <ol style="list-style-type: none"> <li>40 km/hr along formed roads.</li> <li>20 km/hr during foggy / dusty conditions. Headlights must be on.</li> <li>10 km/hr when passing pedestrians or any plant equipment.</li> </ol>

Overtaking	Overtaking shall not be permitted within the site unless the intention to overtake has been communicated to the driver of the leading vehicle and consent to overtake granted.
Breakdowns and Incidents	<p><i>Heavy Vehicles</i></p> <p>In the case of a breakdown, the vehicle must be towed to the nearest breakdown point as soon as possible. All breakdowns must be reported to the RMS Transport Management Centre on 131 700 and the vehicle protected in accordance with the Heavy Vehicle Drivers Handbook. The relevant shift manager on site shall also be notified.</p> <p>If a breakdown occurs on-site please remain inside your vehicle, notify the shift manager of your location and await further instruction.</p> <p>If you are involved in an accident, please notify the shift manager immediately and contact emergency services if required.</p> <p><i>Light Vehicles</i></p> <p>In the case of a breakdown, ensure that the vehicle is secure, notify the site manager of your location and await further instruction.</p> <p>If you are involved in an accident, please notify the shift manager immediately and contact emergency services if required.</p>
Signs	Comply with the directions of authorised personnel when operating within the site and obey any relevant signage installed along the internal roads.
Personal Protective Equipment (PPE)	<p>The mandatory Protective Clothing requirement on this site is:</p> <ul style="list-style-type: none"> <li>• Hard Hat</li> <li>• Steel cap work shoes</li> <li>• Safety Glasses</li> <li>• High-Vis clothing</li> <li>• Ear Protection (as required)</li> <li>• Gloves (as required)</li> </ul>
Mobile Phone Usage	<p>A mobile phone is not to be used while operating any vehicle.</p> <p>The use of a mobile phone while operating machinery or undertaking site activities is STRICTLY PROHIBITED. Driving, operating or undertaking high risk activities must be temporarily stopped to take a call.</p> <p>When a call or text message is received while driving and a hands-free kit is not available or the hands free kit is not voice activated, the driver MUST pull to the side of the road when safe to do so prior to taking the call or checking the message.</p> <p>Where a conversation is complex, technical or requires notes to be taken is mandatory to pullover when safe to do so to continue the conversation.</p> <p>Any person contravening this Policy will be subject to the Company's disciplinary procedure which may include termination of Employment/Contractor contract.</p>
Alcohol and Drug Policy	All persons are to be in a "fit for work" state. This means must not be affected by alcohol or other drugs, (including prescription medication if inhibiting ability to operate plant and equipment safely) whilst at work.



	It is prohibited for any person to possess, use, sell or work under the influence of Alcohol or other Drugs.	
Contacts	RMS Transport Management Centre	131 700
	Site Supervisor	_____
	Emergency	000



## ABOUT FATIGUE MANAGEMENT

Driver fatigue or drowsy driving is an important safety hazard for the road transport industry. The main causes of 'drowsy driving' are not enough sleep, driving at night (when you should be asleep) and working or being awake for a long time.

National heavy vehicle driver fatigue laws apply to fatigue-regulated heavy vehicles. The laws cover all aspects of work and rest relating to heavy vehicles including:

- Work and rest hours;
- Recording work and rest times;
- Fatigue management exemptions; and
- Chain of responsibility obligations.

Fatigue and speed laws are based on ensuring drivers return home safely and do not drive while fatigued. At the heart of the laws for fatigue management is a primary duty that a driver must not drive a fatigue-regulated heavy vehicle on a road while impaired by fatigue.

## SYMPTOMS OF FATIGUE

General symptoms/signs of fatigue can include:

- Constant yawning;
- Blurred vision;
- Sore or heavy eyes;
- Poor concentration;

In the event that a driver is suspected of suffering from fatigue then that person should not be permitted to leave site until adequate measures (e.g. rest break) have been identified and implemented.

### 1. FATIGUE MANAGEMENT SYSTEMS

In addition to the general duty to not drive a fatigue-regulated heavy vehicle on a road while fatigued, drivers must comply with certain maximum work and minimum rest limits. Parties in the supply chain have to take all reasonable steps to prevent the drivers from exceeding these limits. This is similar to occupational health and safety laws and means that drivers must be allowed to stop if they are at risk of exceeding the limits and make alternative arrangements.

The Heavy Vehicle National Law (HVNL) sets three work and rest options.

#### Standard Hours

Standard hours are the work and rest hours allowed in the HVNL for all drivers who are not operating under National Heavy Vehicle Accreditation Scheme (NHVAS) accreditation or an exemption.

They are the maximum amount of work and minimum amount of rest possible that can be performed safely without additional safety countermeasures (see Figure 2).

#### Basic Fatigue Management

Those operating under NHVAS with Basic Fatigue Management (BFM) accreditation can operate under more flexible work and rest hours, allowing for (among other things) work of up to 14 hours in a 24-hour period. BFM gives operators a greater say in when drivers can work and rest, as long as the risks of driver fatigue are properly managed.

## MANAGING THE RISKS OF FATIGUE

- Ensure subcontractor/supplier agreements are reasonable and do not contain terms that incentivise drivers to speed or break the law;
- Ensure payment arrangements for deliveries are not structured in a way that applies a penalty for late arrivals where lateness is attributable outside of the driver's control;
- When loading/unloading:
  - honour rostered times or appointments;
  - regularly review loading and unloading times and delays at loading and unloading places on site;
  - so far as possible ensure contingency arrangements are made for late arrivals or delays;
- Where delayed more than 1 hour on site, ensure the driver completes the HV Driver Fatigue Management Declaration Form;
- Manage changes/reschedule appointment times to prevent risk-taking behaviour;
- Limit the number of times a truck is required to move on site;
- Provide rest facilities for drivers (in particular if appointments or waiting time is greater than 30 minutes);
- NB Site amenities or similar should be made available for driver rest breaks;
- Encourage loaders to advise their Supervisor if a driver looks fatigued and ensure contingency arrangements are in place;
- Keep records of where deemed necessary of:
  - when the driver arrived, loading started and loading finished;
  - when the driver started and finished a rest break, or if the loading or unloading was delayed; and
  - where heavy vehicles are driven to and from the project for work, rest breaks should be included on driver daily dockets
- Provide BYCA CoR Introduction Training to key staff, workers and service providers; and
- Have a process in place to complete CoR observations, inspections and compliance audits of service providers.

NOTE: Information contained within this guideline sourced from the National Transport Commission National Heavy Vehicle Regulator Website – Jan 2015.

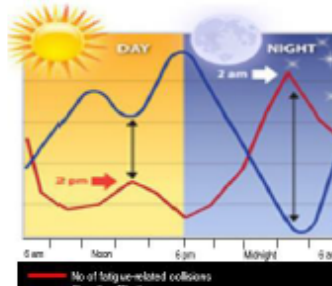


Figure 1. Fatigue-related accidents and the Circadian Rhythm

- Impatience;
- Variations in driving speed;
- Letting vehicle drift out of lanes;
- Difficulty remembering the last few kms; and/or
- Poor gear changing, indicator use or other vehicle controls

Time	Work	Rest
In any period of...	A driver must not work more than a maximum of...	And must have the rest of that period of work with at least a minimum rest break of...
5 1/2 hours	5 1/2 hours work time	15 continuous minutes rest time
8 hours	7 1/2 hours work time	30 min rest time in blocks of 15 continuous mins
11 hours	10 hours work time	60 min rest time in blocks of 15 continuous mins
24 hours	12 hours work time	7 continuous hours stationary rest time*
7 days	72 hours work time	24 continuous hours stationary rest time
14 days	144 hours work time	2 x night rest breaks and 2 x night rest breaks taken on consecutive days

\*Stationary rest time a driver spends out of a heavy vehicle or in an approved sleeper berth of a stationary heavy vehicle.

Night rest breaks are 7 continuous hours stationary rest time taken between the hours of 10pm on a day and 6am on the next day (using the time zone of the base of the driver) or a 24 continuous hours stationary rest break.

Figure 2. Standard Hours Solo Driver Work & Rest Requirement

## Purpose and Scope

This Guideline details the considerations and requirements for Chain of Responsibility Fatigue Management.

## Audience

BYCA employees, supervisory, engineering, subcontractor and suppliers.

## Other required information to be communicated:

### Responsibilities

**Consigners / Consignees** are to ensure that they do not place demands on the supply chain that require drivers to exceed permissible working hours, exceed the speed limit or fail to have the minimum rest periods.

**Prime Contractors** are to ensure that they do not schedule work or rosters that require drivers to exceed permissible working hours, exceed the speed limit or fail to have the minimum rest periods.

**Loading Managers / Loaders** are to advise drivers and transport companies of loading/unloading times and delays, and ensure drivers can rest while waiting to be loaded or unloaded.

**Drivers** are to adhere to driving hour regulations and not exceed the legal speed limit.

## Work Diary

A work diary is evidence that a drivers' work and rest hours are compliant with the law and that their fatigue is being managed.

## Record Keeping Requirements

Record keepers for drivers of fatigue-regulated heavy vehicles have very specific obligations under the Heavy Vehicle National Law (HVNL).

These obligations are designed to ensure that driver's activities are able to be monitored, to assist drivers in the execution of their obligations to manage driver fatigue, and help parties in the chain of responsibility (e.g. schedulers) to meet their requirements.

## Electronic Work Diaries

An Electronic Work Diary (EWD) is an electronic device or system to monitor and record the work and rest times of a driver.

## Who must keep a Work Diary?

All drivers of fatigue-regulated heavy vehicles who drive more than 100km from their home base or operate under Basic Fatigue Management (BFM) or Advanced Fatigue Management (AFM) must complete a work diary to record their work and rest times unless they have a work diary exemption (either through a notice or permit).

## Local Area Work (within a 100km radius of driver base)

A driver who is on a journey entirely within a 100km radius from their driver base is not required by law to record activities in a work diary unless they are working under fatigue management accreditation/ exemptions. The employer is responsible for keeping these records.

Drivers working within 100km radius of their base must still meet the maximum work and minimum rest requirements for their work and rest hour options.

## Reference Documents

- Heavy Vehicle National Law
- Heavy Vehicle (Fatigue Management) Regulation

## BYCA GSE Requirements

GSE 12 Fitness for Work

## BYCA Plans & Forms

- CoR Compliance Audit Checklist
- CoR Responsibility Matrix
- HV Driver Fatigue Management Declaration Form

## Other references for more info

- National Heavy Vehicle Regulator
- <https://www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management>

Author	Approval
Logistics Mgr (name)	PM (name)
Signature:	Signature:
Position	Position
Logistics Manager	Project Manager

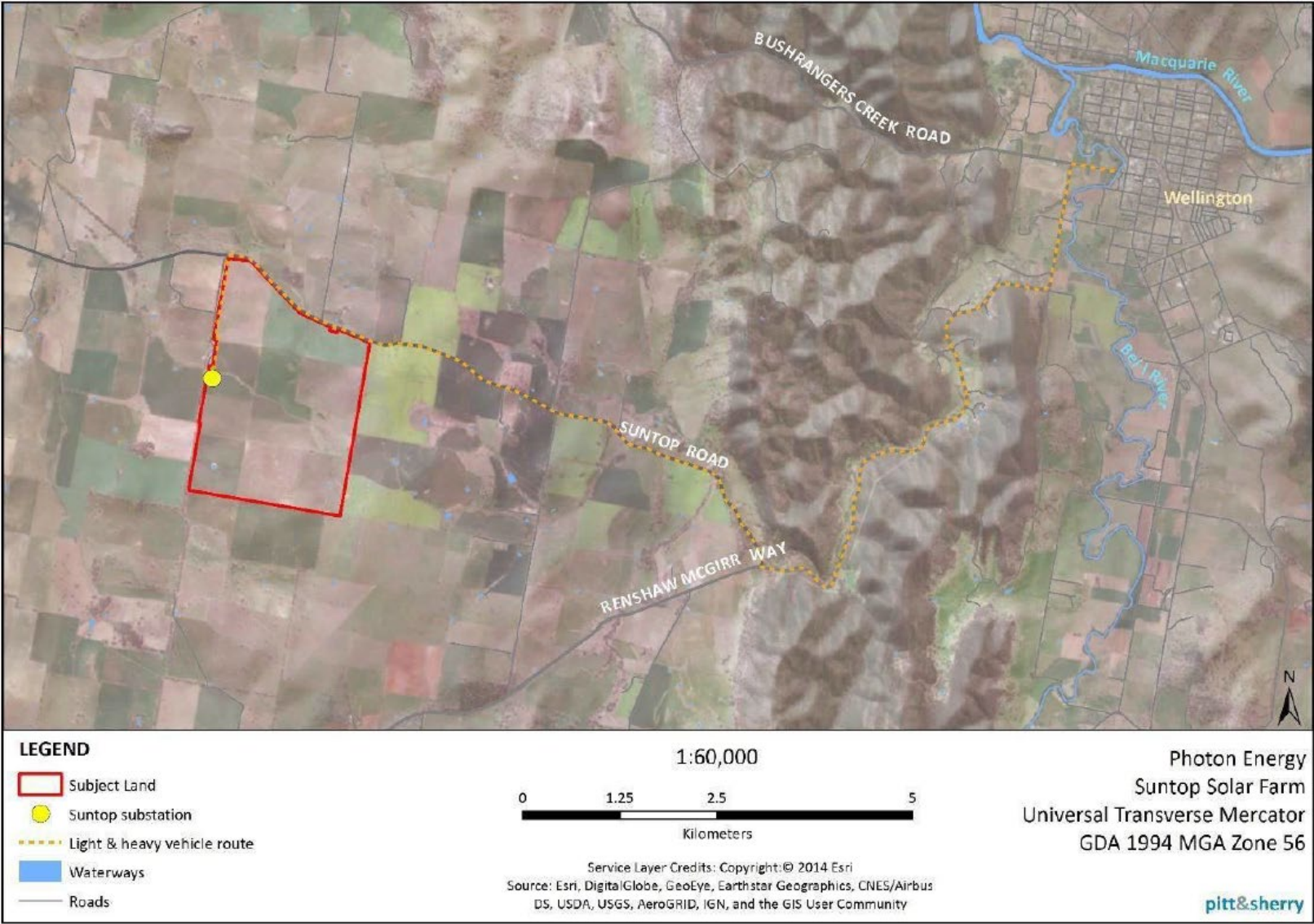


Figure 1 - Heavy Vehicle Route

## Driver Declaration

I, the undersigned, hereby agree to abide by this Driver Code of Conduct for the transport of equipment, product or personnel to / from Suntop Solar Farm and the associated external works areas. I have read and understand the requirements outlined in the attached document and will, to the best of my ability, comply and assist with their implementation, requirements or ongoing administration.

The subject document to which this declaration relates is included as part of this overall document and signing of this declaration confirms that the signee has read and understood their requirements as outlined throughout.

## Driver Details

Full Name	
Organisation	
Signature	
Date	

## Representative of:

Full Name	
Signature	
Date	

Disciplinary action will be taken against drivers who do not adhere to this Code of Conduct.

## Appendix E. Consultation with Ogden Coaches

*(Email dated Monday 9<sup>th</sup> March 2020)*

Dear,

Following our phone conversation this morning, please note that this email serves the purpose to inform you of Bouygues Construction Australia's intent to undertake the following works regarding the project of Suntop Solar Farm Construction in Wellington (NSW):

- From March 2020 to May 2020: Renshaw McGirr way and Suntop Road intersection upgrade. In order to undertake these works, we might need to close a circulating lane, using traffic lights and/or Stop Go Lollipop Signs. A traffic control plan explaining the different stages of the works will be sent to you shortly within a separate email. Please find attached the Traffic Management Plan (P1631 Suntop Solar Farm TMP Draft) that we are in a process to get approved by relevant Authorities.
- From April 2020 to December 2020: Up to 45 units of 19m-long trucks will use the Renshaw McGirr Way (from Wellington) and Suntop Road in order to operate various deliveries on a daily basis.

Please note that we found the attached very useful timetables on your website (<https://www.ogdenscoaches.com.au/timetables/>) showing the different routes of school buses.

It would be greatly appreciated that you sent us, by return to this email, your acknowledgement of receipt of this information.

Also, please note that from June to November 2020, Bouygues Construction Australia will need 4 shuttle buses to transport the Manpower to the project in the morning and from the project in the evening. We will contact you very shortly with more accurate information to discuss about the technical and financial modalities to perform this together.

Yours sincerely,

**Remi RIBET.**

**Sr Project Engineer – Solar Farm – Civil scope**

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