SIGNAL ENERGY
AUSTRALIA PTY LTD

TRAFFIC MANAGEMENT PLAN

Darlington Point Solar Farm – Site Access Upgrade and Development Site

Amendment Record

Date	Description	Prepared by	Reviewed by	Approved by
10/12/2018	Developed for Road Upgrade and Project Site	Chris Stewart	Baker Bell	Chris Stewart
29/01/2019	Updated with Feedback from RMS	Chris Stewart	Baker Bell	Chris Stewart
15/02/2019	Updated with feedback from DPE	Chris Stewart	Baker Bell	Chris Stewart

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1 Acronyms and Abbreviations

Acronym or Abbreviation	Meaning
EPC	Engineering, Procurement and Construction
CEMP	Construction Environmental Management Plan
COA	Conditions of Approval
DPE	NSW Department of Planning and Environment
EMS	Environmental Management Strategy
LGA	Local Government Area
OEH	Office of Environment and Heritage
RMS	NSW Roads and Maritime Services
SEA	Signal Energy Australia
TCAWS	Traffic Control at Work Sites Manual
TCP	Traffic Control Plan

2 Introduction

The Traffic Management Plan (TMP) is a Subplan to the Environmental Management Strategy (EMS) for the Darlington Point Solar Farm (the project).

This TMP has been prepared by Signal Energy Australia (Signal Energy) for the applicant (Edify Energy Pty Ltd) to meet the requirements set out in Item 7 (Schedule 3 - Environmental Conditions – General) of the Development Consent (Application # SSD 8392). Item 7 of the Development Consent *states: -*

Prior to the commencement of any road upgrades required under this consent, 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:

(a) details of the transport route/s to be used for all development-related traffic, including the location of access points;

(b) a protocol for undertaking independent dilapidation surveys to assess the:

- *existing condition of local roads on the transport route/s prior to construction, upgrading or decommissioning activities; and*
- *condition of local roads on the transport route/s following construction, upgrading or decommissioning activities;*

(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

(d) 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:

- *performance criteria, measures and indicators for shuttle bus utilisation and car-pooling in accordance with the commitments in the EIS;*
- *temporary traffic controls, including detours and signage;*
- *notifying the local community about project-related traffic impacts;*
- *procedures for receiving and addressing complaints from the community about development related traffic;*
- *minimising potential for conflict with school buses and other motorists as far as practicable;*
- *scheduling of haulage vehicle movements to minimise convoy length or platoons;*

- *responding to local climate conditions that may affect road safety such as fog, dust and wet weather;*
- *responding to any emergency repair or maintenance requirements; and*
- *a traffic management system for managing over-dimensional vehicles;*

(e) a driver's code of conduct that addresses:

- *travelling speeds;*
- *driver fatigue;*
- *procedures to ensure that drivers adhere to the designated transport route/s; and*
- *procedures to ensure that drivers implement safe driving practices; and*

(f) a flood response plan detailing procedures and options for safe access to the site in the event of flooding.

Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.

This Management Plan also outlines how Signal Energy will meet the requirements set out in Item 1 to 7 (Schedule 3 - Environmental Conditions – General) of the Development Consent (Application # SSD 8392) demonstrated below: -

Number	Development Consent Condition	Relevant section of this Plan
1 and 2 – Over Dimensional and Heavy Vehicle Restrictions	*1. The Applicant must ensure that the:* *(a) development does not generate more than:*	
	• *80 heavy vehicle movements a day during construction, upgrading or decommissioning;*	Section 9.1
	• *15 over-dimensional vehicle movements during construction, upgrading or decommissioning; and*	Section 9.1
	• *10 heavy vehicle movements a day during operations; on the public road network; and*	Section 9.1
	(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres, unless the Secretary agrees otherwise.	Section 9.1
	2. The Applicant must keep accurate records of the number of over-dimensional and heavy vehicles entering and leaving the site each day.	9.1 and Section 9.7

3 – Designated Over-Dimensional and Heavy Vehicle Access Route	*3. All over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Sturt Highway, Donald Ross Drive and the approved site access point (shown in Appendix 1).* *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.*	Section 9.1 and 9.5 Section 9.5
4 - Site Access	*Prior to the commencement of construction, the Applicant must upgrade the site access point off Donald Ross Drive (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 road a minimum of 30 m from its intersection with Donald Ross Drive, in accordance with the Austroads Guide to Road Design (as amended by RMS supplements), to the satisfaction of Council.*	Section 9.1 and 9.5
5 – Operating Conditions	*The Applicant must ensure:* *(a) the internal roads are constructed as all-weather roads;* *(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;* *(c) the capacity of the existing roadside drainage network is not reduced;* *(d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and* *(e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.*	Section 9.5 Section 9.5 Section 9.5 Section 9.5 Section 9.5
6 - Unformed Crown Roads	*The Applicant must ensure any unformed Crown road reserves affected by the development are maintained for future use, unless otherwise agreed with DoI – L&W.*	Section 9.5

7 – Traffic Management Plan	*Prior to the commencement of any road upgrades required under this consent, 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:*	Section 2 (below)
	(a) details of the transport route/s to be used for all development-related traffic, including the location of access points;	Section 9.6
	(b) a protocol for undertaking independent dilapidation surveys to assess the:	Section 10.2
	• *existing condition of local roads on the transport route/s prior to construction, upgrading or decommissioning activities; and*	
	• *condition of local roads on the transport route/s following construction, upgrading or decommissioning activities;*	
	(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; NSW Government Planning and Environment	Section 10.2
	(d) 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:	Section 9.5
	• *performance criteria, measures and indicators for shuttle bus utilisation and car-pooling in accordance with the commitments in the EIS;*	Section 9.5
	• *temporary traffic controls, including detours and signage;*	Appendix 3
	• *notifying the local community about project-related traffic impacts;*	Section 7.2
	• *procedures for receiving and addressing complaints from the community about development related traffic;*	Section 11.2
	• *minimising potential for conflict with school buses and other motorists as far as practicable;*	Section 9.5
	• *scheduling of haulage vehicle movements to minimise convoy length or platoons;*	Section 9.5
	• *responding to local climate conditions that may affect road safety such as fog, dust and wet weather;*	Section 9.5
	• *responding to any emergency repair or maintenance requirements; and*	Section 9.8
	• *a traffic management system for managing over-dimensional vehicles;*	Section 9

	(e) a driver's code of conduct that addresses: • *travelling speeds;* • *driver fatigue;* • *procedures to ensure that drivers adhere to the designated transport route/s; and* • *procedures to ensure that drivers implement safe driving practices; and* *(f) a flood response plan detailing procedures and options for safe access to the site in the event of flooding.* *Following the Secretary's approval, the Applicant must implement the Traffic Management Plan*	Appendix 4 Appendix 5

3 Signal Energy Overview

Signal Energy is an Australian Engineering, Procurement and Construction (EPC) Company specialising in the construction of renewable energy projects.

Headquartered in Sydney, Signal Energy has a highly experienced management team of energy infrastructure, engineering, procurement and construction professionals with specific experience in the construction of utility-scale renewable energy projects in Australia and internationally.

Signal Energy recognises the importance of conducting business operations in an environmentally responsible, sustainable and safe manner. Signal Energy are committed to health and safety, innovation and service excellence, being a responsible business and supporting the communities in which we work.

Signal Energy is committed to providing and reviewing this Management Plan to ensure that traffic, transport and access impacts are minimised, and activities undertaken are within the scope permitted by the Development Consent.

4 Site Location and Surrounding Road Network

The DPSF site is located approximately 10 km south of the township of Darlington Point along Donald Ross Drive (3.5 km south of the Sturt Highway / Donald Ross Drive intersection, see Figure 1). According to the Murrumbidgee Local Environmental Plan 2013 (Murrumbidgee LEP).

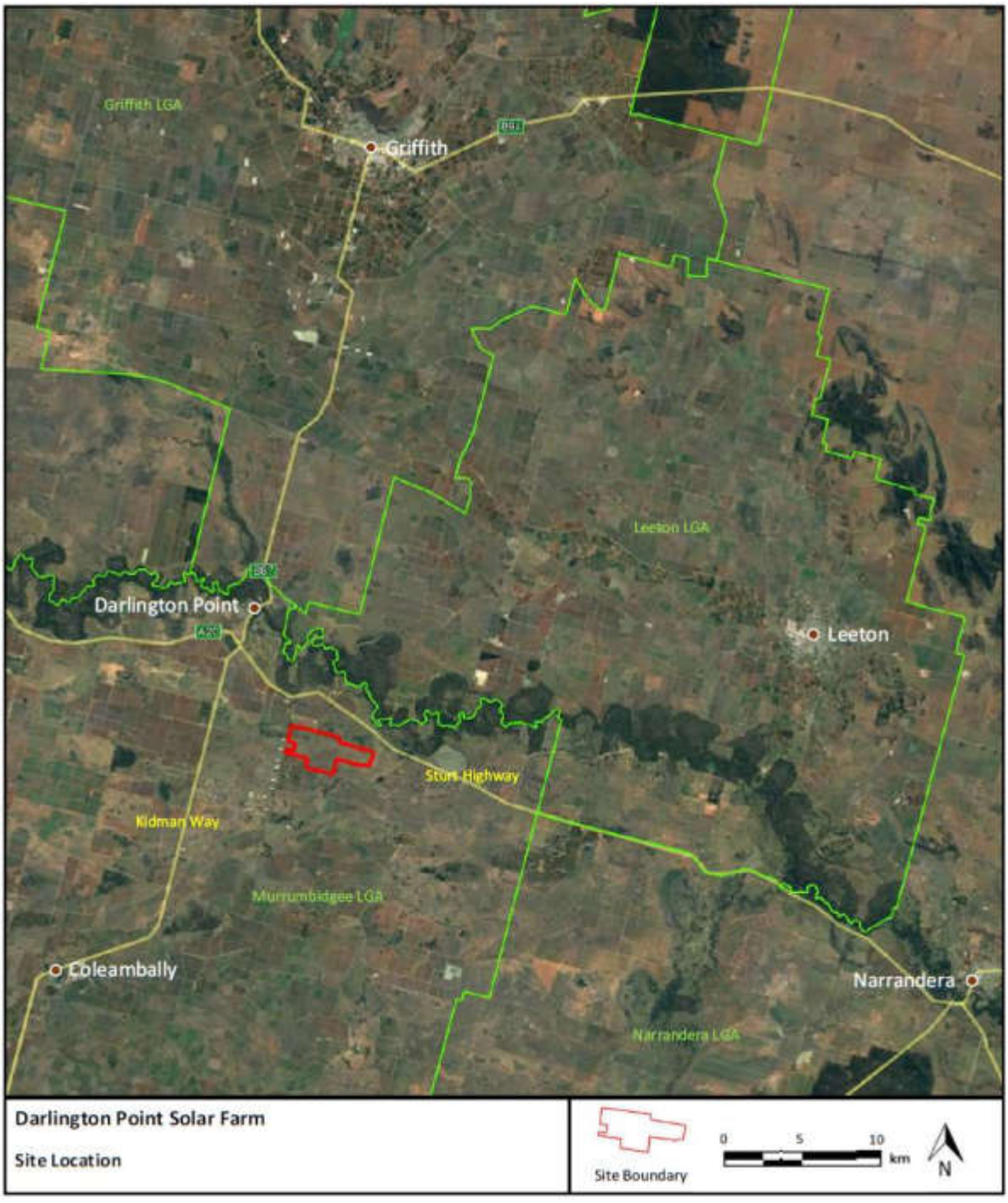


Figure 1 – DPSF Location

Donald Ross Drive is a north-south orientated sealed two-lane local road (posted speed limit of 100 km/h) which can be directly accessed via the Sturt Highway from the north and the Kidman Way / Ringwood Road intersection from the west.

The Sturt Highway is an east-west orientated sealed two-lane national highway with a posted speed limit of 110 km/h. The intersection of Sturt Highway and Donald Ross Drive is a priority-controlled T-intersection. From the east, access to Donald Ross Drive includes a 120 m auxiliary left-turn treatment

(AUL), while from the west a 50 m auxiliary right-turn treatment (AUR) is provided. Please refer to Appendix 1 for photos of this intersection.

Kidman Way is a north-south orientated state-controlled sealed two-lane road. Site access is via the Kidman Way / Ringwood Road priority-controlled T- intersection to the west of Donald Ross Drive. Basic left- (BAL) and right-turn (BAR) treatments are provided for the northern and southern approaches, however as further set out within this TMP, the Kidman Way / Ringwood Road approach will not be used by heavy vehicles to/from site - heavy vehicles will be restricted to the Sturt Highway / Donald Ross Drive approach only.

5 Project Overview

Signal Energy have been engaged by Edify Energy to construct 275 megawatts of solar PV on land to the east of Donald Ross Drive. The Darlington Point Solar Farm (DPSF) project area comprises the existing TransGrid Darlington Point Substation and the proposed DPSF site, which includes:

- Lot 160 of DP 821551 (referred to as 'Anderson property').
- Lots 41, 42 and 64 of DP 750903, Lot 2 of DP 542215, Lots 18, 35 and 36 of DP 750903 and Lot 3 of DP 1148975 (referred to as 'Tubbo Station').
- Lot 2 of DP 628785 (being the TransGrid substation site to which DPSF will connect, which is included within the DA in accordance with TransGrid's connection policy to facilitate any substation augmentation works that may be necessary as part of the development).

The DPSF site and surrounding lands are zoned as RU1 – Primary Production under the Murrumbidgee Local Environmental Plan 2013 (Murrumbidgee LEP), with adjacent properties accommodating farming, agribusiness, poultry farms and a small number of private residences. The DPSF site is used for livestock grazing. A 330 kV and two 132 kV TransGrid overhead transmission lines cross the site from west to east, and a 33 kV Essential Energy overhead transmission line runs north-south near the eastern boundary of the site. Key development and infrastructure components of the DPSF is proposed to include:

- Photovoltaic (PV) solar panels
- Steel mounting frames with piled foundations
- A single-axis tracking system
- Direct current (DC) / alternating current (AC) inverter stations
- Medium voltage (33kV) electrical reticulation network
- A 33/132kV switchyard, including an internal 33kV switch-room
- Internal access tracks for operational maintenance and housekeeping, to be largely located in bushfire set-back zones
- Security perimeter fencing
- Staff car park and small amenities building
- Battery energy storage system facility.

6 Purpose and Objectives

6.1 Purpose

The purpose of this plan is to describe how traffic, transport and access impacts are minimised within the scope permitted by the Development Consent during the construction of DPSF, which will only be accessed by all personnel (employees, contractors and deliveries) via Donald Ross Drive as per Appendix – DPSF General Layout

6.2 Objectives

The key objective of the TMP is to ensure that traffic, transport and access impacts are minimised, and activities undertaken are within the scope permitted by the Development Approval, including

- Complying with Development Consent conditions
- Minimising Traffic Delays
- Maintaining satisfactory property access
- Minimising disturbance to the receiving environment

7 Environmental Requirements

7.1 Relevant Legislation and Guidelines

Legislation and Guidelines relevant to Traffic Management for this project includes:

Regulatory and Other Requirements	Description and Relevance
Roads Act 1993 (NSW)	The Roads Act 1993 (Roads Act) provides a framework for the management of roads in NSW. It provides for the classification of roads and the declaration of the Roads and Maritime Services (RMS) and other public authorities for both classified and unclassified roads. The Roads Act confers fractions on RMS and other roads authorities and allows distribution of such functions between RMS and other roads authorities.
State Environmental Planning Policy (Infrastructure) 2007	The Project site is zoned RU1 Primary Production under the Murrumbidgee Local Environment Plan (LEP) 2013. Under RU1 zoning electricity generating works or solar energy systems are prohibited, however under the State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) development of electricity generation works or solar energy systems is permissible on any land with consent within a 'prescribed rural zone'.
AS1742.3 (Manual of Uniform Traffic Control Devices	Australian Standards AS 1742.3:2009 - *Manual of uniform traffic control* is a nationally agreed standard document outlining the use of traffic control devices on the road network and has been adopted by all jurisdictions.
RMS Traffic Control at Work Sites (TCAWS) Manual	This technical manual has been developed by Roads and Maritime, and must be applied in relation to: • All Roads and Maritime road and bridge work sites • For works involving temporary traffic management being undertaken on behalf of Roads and Maritime (by contractors, local government and public utility bodies or similar)
Transportation Research Board Highway Capacity Manual (HCM 2016)	Utilised to determine the resultant pre and post development Level of Service (LOS) during the peak construction period of the DPSF

7.2 Consultation

The Development Consent requires this plan to be developed in consultation with RMS and Murrumbidgee Council and to the satisfaction of the Secretary.

Following the granting of the Development Consent on 7 December 2018, a meeting was held with Murrumbidgee Council at the Jerilderie office on 18 December 2018 at 1300hrs. A draft of the TMP was sent to Murrumbidgee Council on Thursday 03/01/2019 and it was approved by Murrumbidgee Council on Monday 07/01/2019. The TMP was then submitted to Roads and Maritime Services on the same day (07/01/2019) and provided endorsement after a few minor changes on Tuesday 29/01/2019.

The TMP was then submitted to DPE on Friday 01/02/2019. DPE provided comments on Tuesday 12/02/2019 as per Appendix 6. Appendix 6 also demonstrates how Signal Energy have dealt with the DPE Comments.

A program of consultation will be initiated prior to construction commencing, to ensure residents are fully aware of the activities aligned to the construction of the Darlington Point Solar Farm. This program will include: -

- Specific newsletters and individual letter drop to neighbouring properties to the construction site.
- Update of works provided on the Darlington Point Solar Farm website

Update of works on the website will provide contact details for any complaints or enquiries.

Provision of traffic control and installation of warnings signs relevant to the road works and construction site will be completed to ensure compliance and safety.

7.3 Site Induction

Signal Energy and the engaged Subcontractor for the road upgrade works, will complete formal site inductions that will include but not be limited to the below: -

- Haulage Routes
- Entry and Exit points
- Temporary traffic controls, including detours and signage;
- Responding to any emergency including emergency vehicle access
- As part of the project induction process, Signal Energy have a Safe Driving Program that includes the following: -
    - Defines vehicle and haulage routes
    - Vehicle Maintenance requirements
    - Licences and training required
    - Traveling speed limits for public roads and for the construction site
- Outlines that all drivers must be: -
    - Trained and competent
    - Medically fit
    - Well rested
    - Observant of all speed limits, signs, etc.
    - Not under the influence
- Load requirements including restraints
- The use of Two-Way radios and Mobile phones is prohibited whilst driving
- Reversing vehicles and spotter responsibilities

Signal Energy disciplinary procedures include processes for manage/ment of employees and subcontractors that do not adhere to the Signal Energy Driving Safely Policy. All site delivery drivers will be given exact instructions on haulage routes, speeds, and noise limits. Any driver who is discovered not adhering completely to these regulations will be subjected to the Signal Energy Disciplinary procedures. Please find attached below in Appendix 4 - Signal Energy Driving Safely Policy.

8 Traffic Impact Assessment (As per the Darlington Point Solar Project EIS)

8.1 Existing Traffic Volumes (As per Darlington Point Solar Project EIS)

Traffic volumes for Sturt Highway (April 2017) and Kidman Way (February 2006 - Feb 2011) have been sourced from the Roads and Maritime Services (RMS) online traffic volume viewer service.

A summary of the average daily traffic volumes, including heavy vehicle percentages, for Kidman Way and Sturt Highway are included in Table 1 and Table 2 respectively.

Table 1: Kidman Way average daily traffic volumes

Count Year	Average daily traffic volumes (vpd)		% Heavy vehicles		Annual growth
	Northbound	Southbound	Northbound	Southbound	
2006	503	511	22%	24%	-
2007	521	532	24%	26%	3.8%
2010	530	536	22%	21%	0.4%
2011	477	526	-	-	-5.9%

Table 2: Sturt Highway average daily traffic volumes

Count Year	Average daily traffic volumes (vpd)		% Heavy vehicles		Annual growth
	Westbound	Eastbound	Westbound	Eastbound	
2015	582	578	33%	31%	-
2017	666	660	37%	37%	3.9%

As shown, there is no constant historic growth rate available based on the above data. Therefore, in order to forecast future traffic volumes, a conservative value of 1% annual compound growth rate has been adopted.
No traffic volumes for Donald Ross Drive or Ringwood Road were available. Therefore, in order to estimate the existing traffic volumes on these local roads for the purposes of this assessment, it has been conservatively assumed that the local roads generate up to a maximum of 50% of the major road traffic:

- Donald Ross Drive: 50% of westbound traffic on Sturt Highway
- Ringwood Road: 50% of northbound traffic on Kidman Way.

8.2 Operational Traffic Impact Assessment (As per Darlington Point Solar Project EIS)

During construction it estimated that there will be significantly less vehicles then the amount referenced in the Traffic Impact Assessment of 700 vehicles per day. Therefore, the road Link Analysis provided in the Traffic Impact Assessment and shown below is not changed.

Signal Energy will ensure compliance with Condition 1(a) Schedule 3, SSD 8392 which states that the development does not generate more than:

- 80 heavy vehicle movements a day during construction, upgrading or decommissioning;
- 15 over-dimensional vehicle movements during construction, upgrading or decommissioning; and
- 10 heavy vehicle movements a day during operations; on the public road network; and

(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres, unless the Secretary agrees otherwise.

A Transportation Research Board Highway Capacity Manual (HCM 2016) has been carried out for the key road links of the Sturt Highway and Kidman Way to determine their resultant pre and post development Level of Service (LOS) during the peak construction period.

According to the HCM 2016, at LOS A, motorists experience high operating speeds and little difficulty in passing. At LOS B, passing demand and passing capacity is balanced. Once a road link reaches LOS E, the demand is observed to approach capacity. LOS F exists whenever demand flow in one or both directions exceeds the segment's capacity. Operating conditions are unstable, and heavy congestion exists. According to Austroads Guide to Traffic Management Part 12, it is preferred that new rural road projects operate of LOS A or B at opening.

The LOS results of the road link analysis are highlighted in the Table below

Table 3: Road link analysis result summary (Construction Phase)

Level of Service (LOS)	**AM Peak**		**PM Peak**	
	Pre Development	During Construction Phase	Pre Development	During Construction Phase
Sturt Highway (west of Donald Ross Drive)				
Eastbound	A	A	A	A
Westbound	A	A	A	A
Kidman Way (south of Ringwood Road)				
Northbound	A	A	A	A
Southbound	A	A	A	A

The results show that on both Sturt Highway and Kidman Way, the LOS is anticipated to remain at **LOS-A** even with the addition of the conservative estimate of development construction-related traffic. Therefore, it is noted that the peak construction period is not expected to impact significantly on the operation of the surrounding key road network.

8.3 Operational Traffic Impact Assessment (As per Darlington Point Solar Project EIS)

During operation, up to five staff will be required onsite for operational management and maintenance. The operational staff will access and depart using the Sturt Highway. The resultant impact of development once operational on the external road link is presented in Table 4.

Table 4: Operational Phase Traffic Impact

Road	**2017 AADT**	**Daily development vehicle trips**	**Impact**
Sturt Highway	1326 vpd	10 vpd	0.8%

As shown, the operational traffic impact due to the project is deemed to be insignificant, as the additional levels will be less than 5% of existing daily traffic levels. The level of operational activity is therefore considered to have an insignificant traffic impact on the Sturt Highway in the vicinity of the site

9 Construction Traffic Activities

9.1 Traffic Movement Forecast

During Peak construction period (8 months) there could be up to 385 vehicle movement per day (300 Light Vehicles, 80 Heavy Vehicles and up to 5 Over Dimensional Vehicles with the latter not exceeding 15 in total throughout construction. During Operations a maximum of 10 heavy vehicle movements on the public road network

Peak Construction is programmed to cover an approximate 8-month period during which traffic will be generated from the following sources:

- **Light vehicle movements** (being construction workers and management support vehicles) are anticipated to peak in the order of 200 vehicles per day. It is anticipated that 80% of these vehicle movements will generally in the morning and afternoon as construction workers arrive and leave the site. The majority of workers at the peak of construction will be transported to site using a bus service from Griffith, Darlington Point and other surrounding towns as required
- light vehicle trips will be mostly to / from the township of Darlington Point and Griffith. It has been assumed that 80% of light vehicle trips will therefore access from the Sturt Highway (west of Donald Ross Drive) and 20% from Kidman Way and Ringwood Road then onto Donald Ross Drive from the South
- **Heavy vehicle trips** will be generated from hauling plant and materials from Melbourne Port (Kidman Way and Sturt Highway).
- **All Heavy and Over Dimensional Vehicles** will be restricted to Donald Ross Drive, Sturt Highway and Kidman Way

Please Note the Following: -

- The majority of Light Vehicle movement to and from site will be before 7am in the morning and after 5pm in the afternoon which will alleviate any risk to School Bus Routes as the approved working hours are as per below: -

Monday to Sunday 7am-6pm;
Public Holidays – No Work

- 80km/h speed limit for Heavy Vehicles will be enforced on Donald Ross Drive.
- No access for during school bus times for heavy vehicles. Signal Energy will liaise with the School Bus Coordinator to ensure that timing of buses is confirmed

9.2 Traffic Distribution

Traffic distribution will be as follows:

- The majority of the general construction staff movements will be made to/from site using buses from Griffith, Darlington Point and surrounding areas. This could include circa 350 Personnel at the peak of Construction. This will be in lieu of and significantly alleviating the impacts associated with light vehicle traffic.
- The majority of the construction materials and components are likely to be sourced from overseas due to the specialised nature of the equipment.

- Materials will be transported by road from port facilities in Melbourne in shipping containers.
- Civil materials such as aggregates, and concrete will be sourced from local suppliers.
- It is predicated that the truck deliveries will be distributed evenly across a 10-hr work day consequently not impacting the community differently at certain times of the day.

Signal Energy has collected data on the number of truck deliveries for the Darlington Point Solar Farm by consulting with our preferred subcontractors and suppliers. Signal Energy has supplemented this information based on Signal Energy's experience building similar sized projects.

Signal Energy knows daily deliveries can be highly variable based on factors including, but not limited to, port delays, truck breakdowns, inspection delays, truck availability etc. Signal Energy has tried to mitigate these risks as best as possible while also supporting the construction schedule. As outlined in the mitigation measures in section 9.5 of this Management Plan Signal Energy will liaise/communicate with transport contractors to minimise the risk of large numbers of heavy vehicles arriving at the construction site at the same time potentially causing traffic issues.

After analysing the data Signal Energy has developed an estimated Delivery Schedule below.

Table 4: Estimated Materials (Construction Phase)

Darlington Point Deliveries - Per Month During Construction				
Month	**Civil Materials (Trucks)**	**Material Shipments (Trucks)**	**Work Days**	**# Trucks/Day**
March	1000	250	31	40
April	1000	500	30	50
May	1000	800	31	58
June	1000	800	30	60
July	150	800	31	31
August	150	250	31	13
September	150	250	30	13
October	100	100	31	6
November	100	50	30	5
December	0	50	21	2
Totals	4650	3850	296	

Please Note: -
The operational lifespan of the solar farm will be between 35-50 years. The future decommissioning of the development will require the removal of all above ground infrastructure at the site and rehabilitation activities. This would entail increased workforce requirements and daily traffic movements similar to those produced during the Project construction stage.

9.3 Potential Impacts on Traffic Safety Development Site

The Traffic Impact Assessment completed by ARUP Pty Ltd in March 2018 and updated on 9 August 2018 in response to submissions has demonstrated that the greatest traffic impact of the project will occur during the construction period of the development (up to~12 months). Traffic generated during this phase will consist of construction related heavy vehicle movements and employee transport between the site and accommodation facilities in Darlington Point and Griffith.

The road link assessment and intersection analysis completed for 2018 (peak construction period) indicates that all road links and intersections are expected to operate well within acceptable limits of operation (i.e. LOS A) even with the addition of development related trips. Swept path analysis demonstrates that the existing intersection of Sturt Highway/ Donald Ross Drive can cater for the swept path of a B-Double design vehicle, during the construction and decommissioning phases.

Based on the swept path analysis of the Donald Ross Drive site access Signal Energy will upgrade the site access before initial stages of construction to cater for the swept paths of a B-Double heavy vehicles. The design of this access will accompany this Traffic Management Plan as outlined in Section 9.5 and has already been certified by Murrumbidgee Council.

During the operational phase, the traffic impact due to the project is deemed to be insignificant, as the additional levels will be less than 5% of existing daily traffic levels. The proposed development is not expected to create an overall significant adverse impact on the performance on the development related intersections and road links involving the Sturt Highway, Kidman Way and Donald Ross Drive.

It should be noted that the assessment of the potential distraction from the impacts of glare on passing motorist has been assessed in a separate Visual Impact and Glare Assessment prepared as part of the Environmental Impact Statement (EIS) for this project. Considering the relatively minimal glare reflecting off the photovoltaic solar panels, and their mechanical nature as they follow the sun, the level of visual nuisance or glare resulting from the proposal would have a minimal influence on locally positioned visual receptors and passing motorists

9.4 Potential Impacts on Traffic During Access Upgrades

The largest vehicles anticipated to visit the site for the road upgrade deliveries will be 26m Semitrailer. No over-dimensional vehicles are required for road upgrades or site construction. In the event that this changes, Signal Energy will put a plan that conforms with NHVR and RMS regulations in place for this.

In addition, in accordance with RMS guidelines a Traffic Control Plan will be developed and implemented to provide appropriate warning signs highlighting to road users the presence of construction traffic and increased turning movements; this is included with this TMP (Please refer to Appendix 3b). Temporary traffic control arrangements may be required at the site access intersection during the peak stages of construction traffic activity and on days when deliveries by oversize vehicles may be required. If required Signal Energy will ensure enforcement of this requirement.

9.5 Traffic Safety Mitigation Measures

The construction phase of the Darlington Point Solar Farm will result in short-term increase in the volume of traffic movement surrounding Kidman Way, Sturt Highway, and Donald Ross Drive. The primary objective of the traffic management plan is to ensure safe and efficient movement of construction related vehicles onto, off and around the construction site, whilst minimising disruptions/impacts and maintaining a safe environment for vehicular and pedestrian traffic external to the site.

Below is a summary of how Signal Energy intend to comply with the recommendations provided in the Traffic Impact Assessment completed by Arup in March/August 2018.

1. To enable the swept paths of a B-Double to adequately enter and exit the DPSF site, the site access will be upgraded to comply with the Austroads Guide to road Design, in accordance with Condition 4, Schedule 3, SSD 8392. This will occur before construction commences as per the Solar Farm Access Design that will accompany this TMP.
2. This Traffic Management Plan will be developed for the project and implemented during construction (Including the upgrade to the Solar Farm Access)
3. Signal Energy and their engaged Subcontractors will use a Bus Service to transport construction workers to and from the site. A number of options are currently being assessed by Signal Energy

Below are further specific Traffic Control measures to be implemented throughout the project: -

Traffic and Transport Mitigation Measures

Action	Responsibility	Timing
Contact details provided to all surrounding residences so as they can directly contact a Signal Energy Representative (Liaison Person) on-site if they have any issues with Traffic generated during the project.	Construction Manager (SEA)	Project Duration
The Signal Energy Liaison Person will further formally consult with neighbours surrounding the project to ensure they are kept up to date with works programme and ensure that any issues are identified and rectified.	Construction Manager (SEA)	Project Duration
All Heavy and Over Dimensional Vehicles will be restricted to Donald Ross Drive, Sturt Highway and Kidman Way	Construction Manager (SEA)	Project Duration
80km/h speed limit for Heavy Vehicles will be enforced on Donald Ross Drive	Construction Manager (SEA)	Project Duration
No access for Heavy and Over Dimensional Vehicles during school bus times. Signal Energy will liaise with the School Bus Coordinator to ensure that timing of buses is confirmed	Construction Manager (SEA)	Project Duration
Signal Energy will obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.	Logistics Manager (SEA)	Project Duration
All permanent Internal Roads will be constructed as all-weather roads	Construction Manager (SEA)	Project Duration

Action	Responsibility	Timing
The on-site Traffic Control Plan (TCP) will be developed and outline but not limited to the below: - • A Traffic Flow Diagram; • Speed Limits (20km/hr onsite) • Signs of the size and type that comply with Australian Standards • Radio Channels to be used onsite • The requirement for all vehicles to give way to the right • Larger vehicles will have right of way • Laydown areas will always be clockwise direction • All vehicles will require flashing beacons and hazards on at all times whilst driving • Reverse Parking only in parking areas • Emergency Access Plans All Signal Energy employees and Subcontractors must comply with the approved Traffic Control Plan.	Construction Manager (SEA)	Prior to commencement of Construction
Separate site entrance/exit points for pedestrians and vehicles to keep them apart where there is a likely risk of harm	Construction Manager (SEA)	Prior to commencement of Construction
The capacity of the existing roadside drainage network is not reduced or changed by Signal Energy works;	Construction Manager (SEA)	Prior to commencement of Construction
Signs, adequate lighting where required, fences and barricades to be in place to inform drivers and pedestrians of hazards and precautions	Construction Manager (SEA)	Prior to commencement of Construction
Adequate Parking areas will be provided on site for all vehicles, and no parking or staging of delivery vehicles will occur on the public road network in the vicinity of the site	Construction Manager (SEA)	Prior to commencement of Construction

Dust Mitigation Measures onsite will include but not limited to: -
• Contractor will use any practical method of dust suppression on an as needed basis including but not limited to the following:
  ○ Water trucks,
  ○ Sprinklers,
  ○ Surface adhesive compounds,
• Mitigation Measures (when required) shall occur during dry and/or windy conditions throughout the Development Site.
• Dust generating activities shall be limited or stopped during periods of high velocity wind, as determined by the Construction Manager in consultation with the SHEQ Adviser.
	Construction Manager (SEA)	Project Duration

Action	Responsibility	Timing
All deliveries will be coordinated in an efficient and structured manner. All material deliveries will be staggered by at least 30 minutes to minimise convoy length or platoons and will be arranged so that they are each sent to a designated offload point on the site. If possible, Signal Energy will do everything possible to stage early or late arrivals on the jobsite to avoid any disruption to traffic	Construction Manager (SEA)	Project Duration
Details for delivery and storage arrangements to be in place, including clearly defined loading and unloading areas, crane pick areas, distribution routes and methods, and designated storage areas. Any deviation from these procedures, including changing the designated loading and unloading areas, must be planned and conducted in accordance with the requirements for High Risk Activities, with any changes to loading\unloading areas or protocols adequately communicated and signposted;	Logistics Manager (SEA)	Prior to commencement of Construction
An accurate record of the number of over-dimensional and heavy vehicles entering and leaving the site each day will be documented by the use of the Signal Energy Lucidity Platform	Logistics Manager (SEA)	Project Duration
All vehicles will be loaded and unloaded on site, and enter and leave the site in a forward direction	Logistics Manager (SEA)	Project Duration
Controls to be in place to ensure vehicles are appropriately braked and/or chocked and/or stabilised before any unloading or loading occurs;	Signal Energy Subcontractors	Project Duration
Controls to manage reversing to be in place. Where reversing needs to occur, suitable controls include the use of pedestrian exclusion zones, spotters to direct drivers and visibility aids fitted on vehicles, e.g. reversing sensors and mirror systems;	Signal Energy Subcontractors	Project Duration
High visibility reflective clothing to be provided for all persons working adjacent to vehicles and traffic routes.	All on-site Personnel	Project Duration
All Traffic Management requirements to be communicated through the Signal Energy On-site Induction.	SHEQ Adviser (SEA)	Prior to commencement of Construction
Stabilised access points (e.g. rumble grids, rock pad) shall be installed at site entry/exit points.	Construction Manager (SEA)	Prior to commencement of Construction
Development-related vehicles leaving the site will be in a clean condition to minimise dirt being tracked onto the sealed public road network.	Construction Manager (SEA)	Project Duration

Action	Responsibility	Timing
Locals Roads which will primarily include Donald Ross Drive and the Site Access, will be continually monitored for signs of dilapidation. Signal Energy will ensure roads are continually and immediately repaired to ensure safe access for all vehicles and plant (including the public).	Construction Manager (SEA)	Project Duration
Regular checks of the Traffic Flow Diagram to be completed to ensure changes are documented	SHEQ Adviser (SEA)	Project Duration
This project will not impact on any unformed Crown Road reserves, although if for some reason there is an impact: - Signal Energy in consultation with Edify Energy will ensure any unformed Crown road reserves affected by the development are maintained for future use, unless otherwise agreed with DoI – L&W.	Signal Energy and Edify Energy	Project Duration

9.6 Haulage Routes

Port of Melbourne

The long-haul trucks will leave Port of Melbourne and head to City Link, or State Route 43. They will follow SR43 north for roughly 2km and continue onto M2/SR 43 until the Moreland Road Exit. Drivers will take the exit and follow Moreland Road for approximately 50 meters, then take a left onto Coonans Road. After Turning onto Coonans Rd, the trucks will continue to onto Reynolds Parade, and onto York St. They will then take a right onto Ohea St, take a left to Derby St, then a right onto Boundary Road. Once they enter Boundary Road they will then turn left onto State Route 55 or Sydney Road. From Sydney Road they will merge onto Hume Freeway/ Highway M31 towards Seymour/Sydney. After following M31 for 87km the trucks will take the exit to Goulburn Valley Freeway/M39 towards Shepparton for 60km. Trucks will then continue on to National Highway A39 and then take a right onto Katamatite-Shepparton Main Road or C363. Trucks will then continue onto Newell Highway to Kidman Way. From Kidman Way, they will take a right onto Stuart Highway, and then a right onto Donald Ross Drive, which they will follow 3.2 KM until the site entrance where they will take a left-hand hand turn into the jobsite. Please See below: -

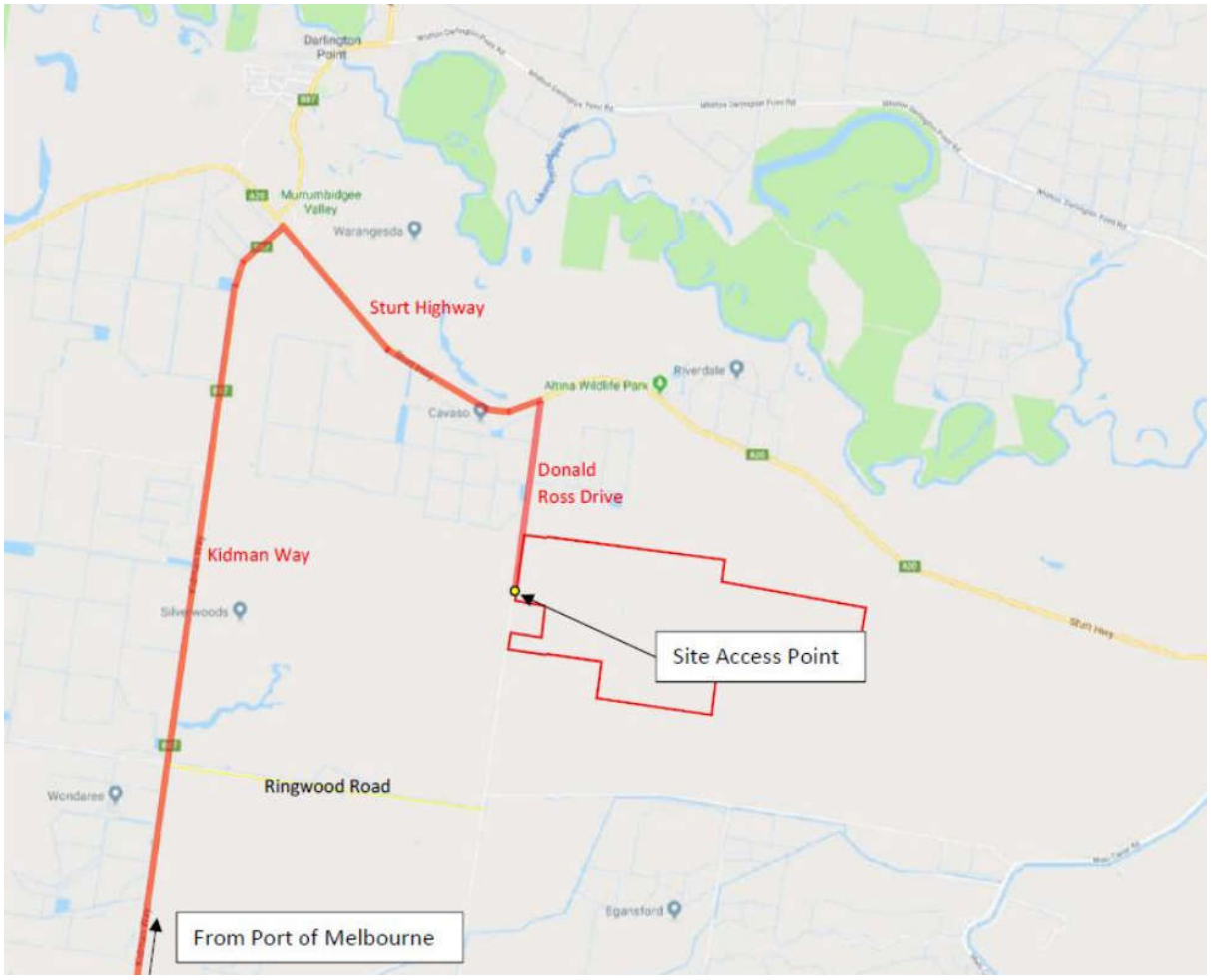


Figure 2 – DPSF Heavy Vehicle Route

Local Deliveries (Civil Materials)

All Local Truck Deliveries no matter where they are sourced from in the Local Area will still be required to access the Project Site from Sturt Highway and then turn into the northern end of Donald Ross Drive.

9.7 Site Deliveries

All Transport Contractors will be issued with a Logistics Plan and Truck Drivers Delivery package that includes but not limited to the following: -

- Designated Haulage Routes
- Fatigue Management Protocols
- Site Entry requirements including: -
  - Site Inductions
  - Communication Protocols
  - PPE requirements

All site entries will be via the above haulage route. The delivery vehicles will only deliver the materials and will not be allowed to park permanently at any time onsite. The below process will be implemented on-site to mitigate the impact of deliveries

- An accurate record of the number of over-dimensional and heavy vehicles entering and leaving the site each day will be documented by the use of the Signal Energy Lucidity Platform.
- The truck is escorted or arrives at the onsite reception/security area.
- Upon arrival onsite, the truck is placed in an offload queue for that particular product being delivered.
- The on-site representative will take custody of the truck from the reception/security area.
- After receiving custody of a truck, the onsite representative collaborates with the appropriate offload representative and keeps the truck driver updated with their advancement in the queue.
- When ready, the onsite representative leads the truck to an offload point that will be located in the staging area or a particular block, and hands over custody to the offload representative.
- The offload representative manages the unloading process as the team conducts product receiving procedures in coordination with the Signal Energy Quality Team.
- Receiving operations include inspection and documentation of product conditions, logging quantities and reporting damage.
- Upon completion of the offload process and proper disposition of the materials, the offload representative closes out the shipment with the truck driver and retains the proper records.
- The onsite representative is also notified of completion and leads the truck offsite so as to confirm safe exit from the site.

9.8 Emergency Vehicle Access

Emergency vehicle access for the project will be provided via the designated site Entry from Donald Ross Drive. A separate Emergency Management Plan will be completed as part of the Construction Environmental Management Plan (CEMP).

10 Traffic Control Plans

Temporary traffic control arrangements will be required at the site access intersection during the road upgrade works.

The primary objective of the traffic management is to ensure safe and efficient movement of construction related vehicles onto, off and around the upgrade to the Solar Farm Access Point, whilst minimising disruptions/impacts and maintaining a safe environment for vehicular and pedestrian traffic along Donald Ross Drive.

Please refer to Appendix 3a for the proposed Traffic Control Plan that has been drawn in accordance with AS1742.3 and the RMS TCAWS. The TCP includes the relevant signage to warn road users and has been prepared by a designer with a current certificate of training as required by the TCAWS.

10.1 Traffic Controllers and Devices

Qualified traffic controllers (TCs) will be required throughout the project lifecycle
Traffic Control Devices meeting the requirements of the TCAWS shall be installed.

Installation of devices shall be completed by trained qualified personnel holding appropriate authorisation, utilising a vehicle equipped with amber beacons to warn of their presence and all other required personal protective equipment.

Removal of devices shall be completed in the reverse order to the installation, with the same precautions being adopted.

Project personnel will be told of the reporting process for hazards that are developing on the road and for reporting known disturbances of Traffic Control devices.

10.2 Road Dilapidation Survey

A Road Dilapidation Report will be produced prior to the commencement of the road upgrade and construction of the Darlington Point Solar Farm. As per the Development Consent the dilapidation survey will document: -

- Existing condition of local roads on the transport route/s prior to construction, upgrading or decommissioning activities; and
- Condition of the transport route/s following construction, upgrading or decommissioning activities;

"Local Roads" are defined as the approved route (Intersection of Sturt Highway and Donald Ross Road and Donald Ross Road)

Roads will be continually monitored and repaired as required to meet road safety requirements. All repairs required under the Dilapidation Survey completed after construction will be performed as per the agreement with Murrumbidgee Shire Council and RMS.

With regards to any emergency repairs required, Signal Energy would contact the relevant authorities and will ensure the road is safe. Repairs will be made in accordance with the relevant authority standard.

11 Compliance Management

11.1 Monitoring and Inspection

Monitoring of the Traffic Management Plan requirements will be performed by the SHEQ Adviser/Manager or another delegated person on a weekly basis. Particular attention will be given to the implementation of the Traffic Control Plan and the safety of personnel working in the vicinity of live traffic. Any non-compliances will constitute an incident and will be reported as per the DPSF Environmental Management Strategy (EMS) and in accordance with Schedule 4 Condition 5 of the Development Consent.

11.2 Complaints Management

Complaints shall be registered, tracked and responded to in accordance with the following timeframes:

- Complaint entered into Lucidity Incident Module
- Initial response provided to the complainant and Client within 24 hours indicating the matter is being addressed; and
- Detailed response including details of the complaint and the action taken / further action planned to alleviate the problem provided to the client within ten working days.

The following details will be recorded as a minimum:

- Date;
- Issue / Complaint;
- Affected Neighbours;
- Activity Date;
- Follow up / complaints – Actions; and

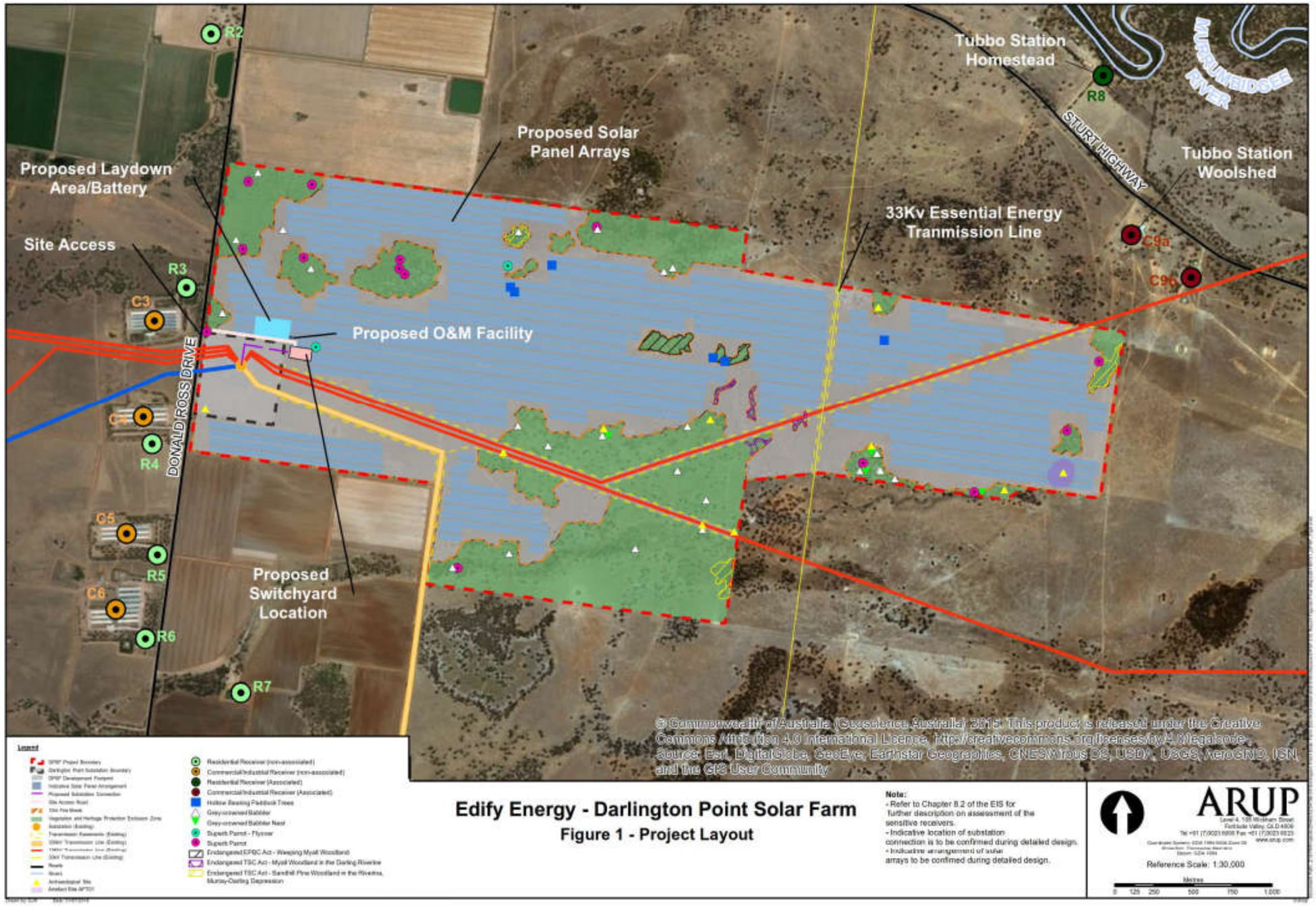
- Follow up / complaints – date.

12 Appendix 1 – Sturt Highway and Donald Ross Drive Intersection

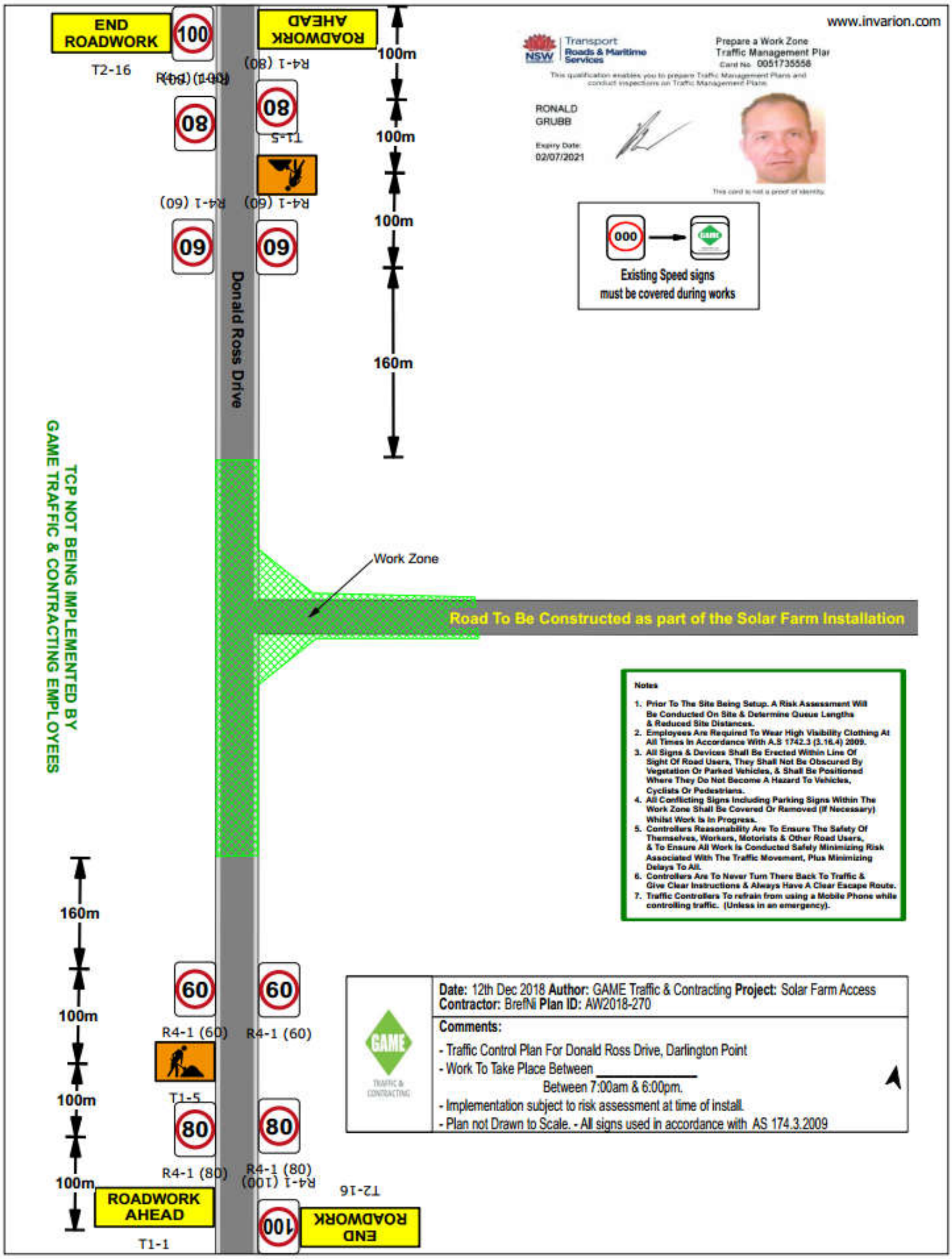
Sturt Highway approaching Donald Ross Drive Travelling East

Sturt Highway approaching Donald Ross Drive Travelling West

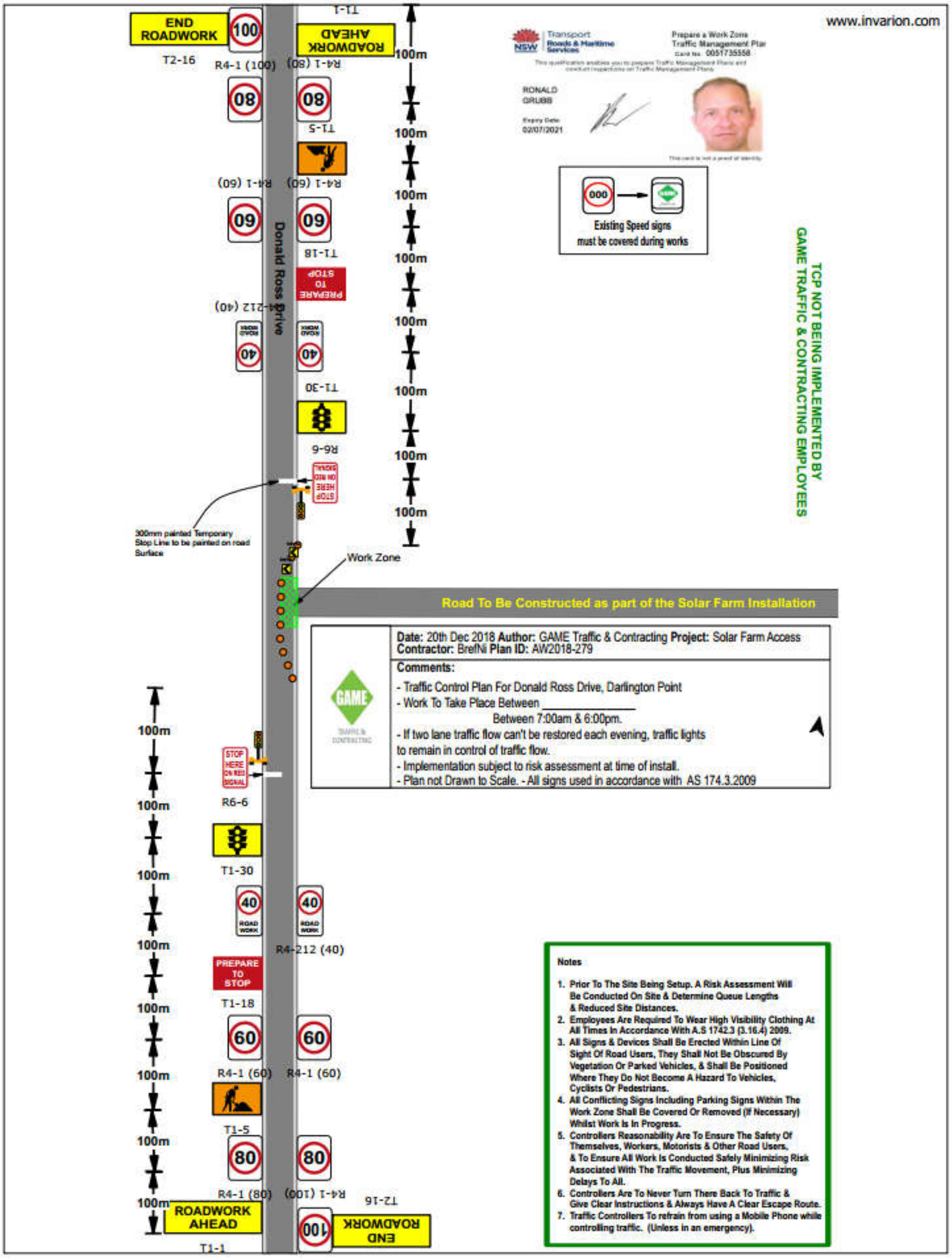
Appendix 2 – DPSF – General Layout



Appendix 3a – TCP Site Access Upgrade



Appendix 3b – TCP Construction Phase



Appendix 4 - DRIVING SAFELY POLICY

1. Purpose

1.1. One of the most dangerous, yet overlooked activities that workers carry out, is driving a motor vehicle. Apart from the devastation due to injury and loss of life, these incidents represent serious economic burden in both direct and indirect costs.

1.2. Although the risk to drivers can never be completely eliminated, it is the intent of this policy to significantly reduce the associated hazards presented to site personnel and the general public through education and the application of this policy.

2. Management/Employee Responsibilities

2.1. The Signal Energy Construction Manager is responsible for overseeing all facets of this program and has full authority to make decisions necessary to ensure its success.

2.2. All project employees are required to comply with the restrictions and limitations imposed upon them through this policy.

3. Scope

3.1. This safe driving program is applicable to all personnel, vehicles, or other motorized mobile equipment on the project site or used in furtherance of the project, unless otherwise noted herein.

4. Vehicles

4.1. Privately owned vehicles are not permitted beyond the employee parking lot. Only site compliant vehicles are permitted in the construction areas.

4.2. Site compliant vehicles must have signage on both sides of the vehicle indicating company name.

4.3. Site Compliant vehicles must have a rotating yellow beacon that is visible from 360 degrees.

5. Vehicle Maintenance

5.1. Each vehicle employed on the project shall be fit for the intended purpose and maintained in a safe working condition. Operators must conduct a pre-operation inspection and project vehicles will be periodically inspected for safety purposes. The following is a non-exhaustive list of mandatory pre-operation inspection items.

5.1.1. Individual seat belts shall be installed and functional.

5.1.2. All lights (including headlights, taillights, brake lights, back-up lights, turn signals and rotating lights) shall be functional.

5.1.3. Horn shall be functional

5.1.4. Windshields (as well as other windows) shall not be cracked or distorted such that they obstruct or distort the drivers view.

5.1.5. Windshield wipers and washers must be functional. Wiper blades must be maintained in such a manner that they provide a clear view.

5.1.6. Tyres shall be maintained with adequate tread and air pressure.

5.1.7. Vehicles with body damage such that the damaged components present a projection or laceration hazard shall not be used.

5.1.8. Truck or trailer beds/decks shall be solid with no holes or rotted areas.

5.1.9. All bi-directional equipment (exclusive of passenger vehicles) will be equipped with a functioning back-up alarm.

6. Motorcycles, ATVs, and Similar Vehicles

6.1. Motorcycles used by employees to commute to and from the project will not be permitted on the project property, beyond the designated employee parking area.

6.2. In general, the use of off road vehicles such as dirt bikes, quads, three-wheeled ATVs, and similar vehicles will not be permitted on the project property.

Exception:

6.2.1. Signal Energy has determined, due to the narrow spacing between piles, panels, and arrays, that the use of four-wheeled utility type vehicles for towing/hauling equipment and moving personnel about the project presents a safer mode of transportation than conventional vehicles. As such, the use of these vehicles is permitted with the following restrictions:

6.2.1.1. Employees must receive documented training in the safe operation of the equipment prior to operating the equipment. The training will include:

6.2.1.2. Review of the manufacturers safe operating video or literature;

6.2.1.3. Review of the manufacturer's operator manual; and,

6.2.1.4. Review of this policy.

6.2.2. A legible copy of the manufacturer's operator's manual must be present in each unit.

6.2.3. The off-road vehicles will be used only as designed, permitted, and suggested by the manufacturer.

6.2.4. Operators must hold a valid government issued driver's license.

6.2.5. Off road vehicles will undergo a documented daily safety inspection prior to the vehicle being operated.

6.2.6. The off-road vehicles will not be operated on public roads.

6.2.7. The off-road vehicles are limited to a maximum speed of 20km/hr. This speed shall be decreased when operating in tight or populated areas or where the construction speed limit prohibits such speed.

6.2.8. The off-road vehicles will be equipped with manufacturer installed roll-over protection.

6.2.9. All personnel operating or riding in an off-road vehicle must have their seat belt fastened before the vehicle is set in motion.

6.2.10. Employees operating or riding in the off-road vehicle must keep their limbs inside the vehicle any time that it is in motion.

6.2.11. Horseplay, racing, stunt driving, etc. is strictly prohibited.

6.2.12. Violations pertaining to the unsafe operation or use of the off-road vehicles will result, at a minimum, in the violator losing his/her privileges to operate or ride an off road vehicle for the duration of the project.

7. Passengers

7.1. The number of passengers Must not exceed the manufacturer's specifications for the vehicle.

7.2. The number of passengers Must not exceed the number of functional seat belts in the vehicle.

7.3. No passenger shall be permitted to ride in the bed of a pick-up, flat-bed, or similar vehicles.

7.4. No passenger shall be permitted to ride on heavy equipment, unless such equipment is equipped with a passenger seat and seat belt.

8. Cargo/Loads

8.1. Vehicles shall not be loaded in excess of the manufacturer's specification.

8.2. All loads (including that of pick-up trucks) shall be secured to prevent displacement.

8.3. In general, loads should not extend beyond the perimeter of the vehicle. When this is not possible, the extending portion of the load shall be adequately flagged or lighted and a pilot vehicle or ground guide employed to prevent accidental collision with persons or objects.

9. Drivers

9.1. Drivers must be licensed, trained, medically fit, and well rested to operate a vehicle on the project.

9.1.1. For the purposes of this policy, the term "licensed" as it applies to vehicles/equipment that could also be operated on public roads, means that the operator holds the appropriate license as required to operate a vehicle on public roads.

9.2. Drivers must check all four sides of any vehicle or equipment before driving / operating.

9.3. It is the driver's responsibility to ensure that passengers are in compliance with the requirements of paragraph 6 of this section.

10. Equipment Operators

10.1. All equipment operators must be trained and qualified to operate any mobile equipment on the project. Such training/qualification, with the exception of a state issued driver's license for passenger vehicles and utility vehicles, must be on file with Signal Energy prior to operation.

11. Seat Belts

11.1. Seat belts shall be worn by the driver, as well as all passengers, any time that the vehicle is in motion.

11.2. The driver is responsible to ensure that all passengers have engaged their seat belts, prior to moving the vehicle.

11.3. Drivers are excused from the seat belt requirement when they are required to open and close gates. The distance driven through the gate does not require seat belt use if the driver must exit the vehicle to close the gate.

12. Fatigue Management

Fatigue management shall be carried out in accordance with Signal Energy procedures and a fatigue management plan shall be developed for the project.

Signal Energy is aware that fatigue can result from long or arduous work, little or poor sleep, the time of day when the work is performed and the amount of sleep obtained. It can be influenced by health and emotional issues or by several of these factors in combination of Fatigue indicators include, but are not limited to:

- Not feeling refreshed after sleep;
- A greater tendency to fall asleep while at work;
- More frequent naps during leisure hours;
- Feelings of fatigue or sleepiness;
- Extended sleep during days off; and
- Increased errors and loss of concentration at work.

Employees have considerable responsibilities for fatigue management. They are the persons who will suffer directly if they do not fulfil the obligations of their 'Duty of Care' to themselves.

All Workers are responsible for the following prior to and during each work day or shift:

- Ensuring their own fitness for work;
- Looking out for their work-mates to ensure their fitness for work; and
- Notifying their Supervisor immediately of any Workers that are not be fit for work

There are many reasons why a person may not be fit for work. The Signal Energy Construction Manager and or their delegate provides the opportunity and support mechanisms which allow any Project Personnel to discuss any lifestyle, health, or medical condition they may have, with their Manager or the Signal Energy Manager and or their delegate.

13. Mobile Phones and Other Two-Way Communication Devices

13.1. Drivers shall not use a mobile phone or any other two-way communication device while driving or operating any equipment on the project property or in furtherance of the project.

13.2. Drivers are prohibited from texting while driving or operating any equipment on the project property or in furtherance of the project. For the purposes of this policy, texting is defined as reading from or entering data into a hand-held or other electronic device.

14. Drugs And Alcohol

14.1. No person shall drive a vehicle on the project or, in furtherance of the project, while under the influence of drugs or alcohol. This is inclusive of legally obtained prescriptions or over-the-counter substances that could impair their ability to safely operate the vehicle.

15. Parking

15.1. “Back-In” or “pull-through parking is required in all project areas, including but not limited to employee parking and office areas.

15.2. Unattended vehicles will not be left running.

15.3. When parking or any time the vehicle is exited by the driver, even for short durations, the vehicle must be turned off, placed in park (for automatic transmissions) or the lowest ratio gear (for standard or manual transmissions), and parking brake set.

16. Journey Management

16.1. Any project related required or permitted travel that involves more than 2.5 hours of continuous driving (one way) requires a documented Journey Management Plan (JMP). The JMP shall identify the following at a minimum:

16.1.1. They type of vehicle required for the journey;

16.1.2. The routes, types of roads, and anticipated road conditions;

16.1.3. The weather forecast for the planned routes / travel times;

16.1.4. Travel companions as relief drivers;

16.1.5. Minimizing driving after dark whenever possible; and,

16.1.6. Any other perceived or potential hazards associated with the planned journey.

16.2. Time between rest stops shall be planned to the extent possible to not exceed 2.5 hours.

16.3. Intermediate rest stops shall be scheduled for no less than 30 minutes before resuming driving.

16.4. Drivers shall be well rested at the beginning of the journey. If the journey begins at some point during the driver’s work day, the JMP shall take into consideration the

hours already worked that day, and schedule the final stop for not more than 10.5 hours after the driver started work.

Example: *A driver works for 5 hours in Melbourne prior to beginning his / her journey to Melbourne. His / her final stop for the day shall be scheduled not more than 5.5 hours after beginning the journey.*

16.5. Daily rest stops shall be scheduled for no less than 8 hours before resuming driver duties.

16.6. For the purposes of this policy, passengers covered under the JMP are considered to be working to the extent that intermediate and daily rest requirements shall not be circumvented by replacing a driver with a passenger.

16.7. JMP Process and Document Maintenance

16.7.1. The driver researches the necessary information and enters it into the JMP document;

16.7.2. The driver's supervisor (or another manager at the starting location) reviews the JMP for accuracy and compliance;

16.7.3. A copy of the JMP is maintained at the starting point;

16.7.4. The driver maintains a copy of the JMP throughout the duration of the journey; and

16.7.5. A copy of the JMP is retained at the destination point for a period of not less than 30 days after the journey.

Appendix 5 – FLOOD RESPONSE PLAN

1. Flooding

All personnel at the project (including employees) may be required to cross low water crossings in order to access and leave the project. It is imperative to follow the local authorities warning and ensure that ***"if it is flooded, forget it". DO NOT CROSS FLOODED AREAS***. Conditions that could lead to flash flooding are monitored via the Bureau of Meteorology web site and local media. In the event of a flash flood warning specific to the project area, employees would be alerted to leave the site via the weather alert system (radio) and advised, as possible, as to the safest possible route(s) away from the project area. All employees are advised not to attempt to drive through flooded areas, during the site safety Induction. All governmental evacuation orders will be followed.

2. Darlington Point Solar Farm - Specific Items

The flood assessment completed during the development of the DPSF EIS, consisted of a desktop hydraulic analysis based on historical flood evidence sourced from the Murrumbidgee River Flood Atlas and existing ground survey of the site to estimate flood levels and velocities. The flood depth across the site for a 90-year Average Recurrence Interval (ARI) flood event based on the 1974 flood event found that the flood depth across the DPSF site for the existing case was generally less than 0.25 metres, with the maximum depth noted to the south of the site reaching 0.75 metres. This area of maximum depth is outside of the footprint of the Solar Farm.

The detailed design of the solar farm facilities including the substation and O&M facility will meet relevant design criteria, including flood immunity. The substation and O&M facility location is located outside the flood prone area. As such, these areas are deemed flood free in a 90-year ARI flood.

For the 1% AEP event post development, flooding within the town of Darlington Point and other inhabited areas on the broader Murrumbidgee River floodplain is typically classed as hazard category H1 or H2 and is indicative of relatively benign flow conditions that would not pose a significant flood risk to people, animals and vehicles.

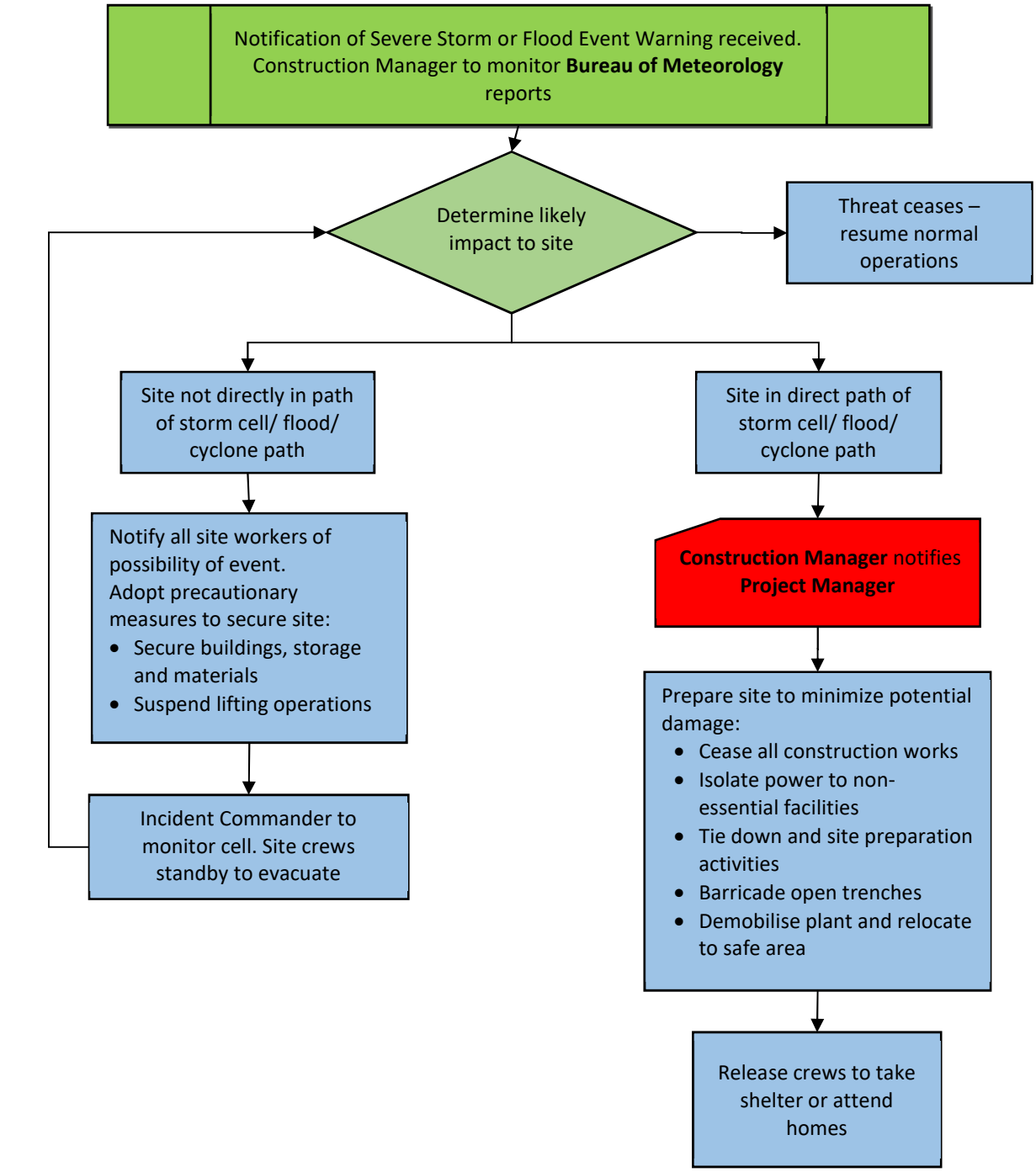
Employee safety and construction schedules can both be affected by severe weather and geological events. This section is intended to serve as standard practice instruction when these events occur.

3. Management/Employer/Employee Responsibilities

- The Signal Energy Construction Manager is responsible for overseeing all facets of any severe weather impact and has full authority to make decisions necessary to ensure success.
- All employers and employees are required to comply with the restrictions and limitations imposed upon them through the Signal Energy Severe Weather Policy.

Signal Energy will continually manage a threat of a severe weather event as per below: -

FLOOD / SEVERE STORM / CYCLONE WARNING



Appendix 6 – DPE Comments and Signal Response

Section of TMP	Comment	Signal Energy Close-out Information
Section 2	The requirements of Condition 7, Schedule 3, SSD 8392 need to be included in the table in Section 2 of the TMP.	The table in section 2 has been updated to include Condition 7, Schedule 3, SSD 8392
Section 2	Condition 5 in the table has been incorrectly labelled as condition 4.	This has been rectified – Please refer to Section 2
Section 7.2	Section 7.2 of the TMP needs to outline when consultation was undertaken with RMS and Council, the feedback received and how this was addressed in the management plan.	Section 7.2 has been updated to reflect the actual consultation timeframes.
Section 8	Section 8 "Operational Traffic Impact Assessment" discusses construction traffic and not operational traffic.	Section 8.3 has been added to discuss the "Operational Traffic Impact Assessment."
Section 8	Include in Section 8 the maximum number of heavy vehicles permitted during operations, in accordance with Condition 1(a), Schedule 3, SSD 8392.	Section 8.2 of this Management Plan has been updated to reflect heavy vehicles permitted as per Condition 1 (a)
Section 9.1	Include in Section 9.1 the maximum number of heavy vehicle and over-dimension vehicle movements permitted during upgrading and decommissioning, in accordance with Condition 1(a), Schedule 3, SSD 8392.	Section 9.1 now reflect the maximum heavy vehicle movement during operations.
Section 9.5	Please confirm in Section 9.5 that the upgrade to the Donald Ross Drive will comply with the Austroads Guide to road Design, in accordance with Condition 4, Schedule 3, SSD 8392.	Wording has been added to section 9.5

Section of TMP	Comment	Signal Energy Close-out Information
Figure 1	The figure needs to include a north arrow and indicate what townships are in the greater region, as well as roadways.	Revised figure has been included that has a north arrow.
Appendix 2	Include the project layout figure in Appendix 2 in Section 5, and include it in a format such that the key and notes are readable when the map is zoomed in.	An updated General Layout drawing will accompany this Management Plan as a separate document.
Park-and-Ride System	Include in the TMP measures and indicators for shuttle bus utilisation and car-pooling, in accordance with Condition 7(d), Schedule 3, SSD 8392.	Section 9.1 outlines the requirement for use of a shuttle bus.
Driver's Code of Conduct	Appendix 4 must address travelling speeds, driver fatigue and procedures to ensure drivers adhere to designated transport routes, in accordance with the requirements of Condition 7(e), Schedule 3, SSD 8392.	Fatigue has been added to section 12 of Appendix 4. Section 16 of Appendix 4, also deals with Journey Management and Fatigue. Mitigation measures outlined in section 9.5 include the adherence to transport routes. That will be documented and delivered in the site-specific Induction.
Flood Response Plan	The TMP needs to include a Flood Response Plan detailing procedures and options for safe access to the site in the event of flooding, in accordance with Condition 7(f), Schedule 3, SSD 8392.	A Flood Response Plan has been added as per Appendix 5
General	Please remove ambiguous language from the TMP, including "may", "should" and "where possible".	Section 9.4 still has may be required, although have enforced that is Traffic Management is required it "will" be enforced. All "Should" comments in Appendix 4 have been changed to "Shall."

Section of TMP	Comment	Signal Energy Close-out Information
		Have moved the reference to "Where Possible from Appendix 4."