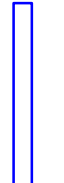

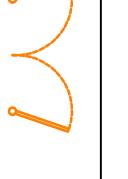








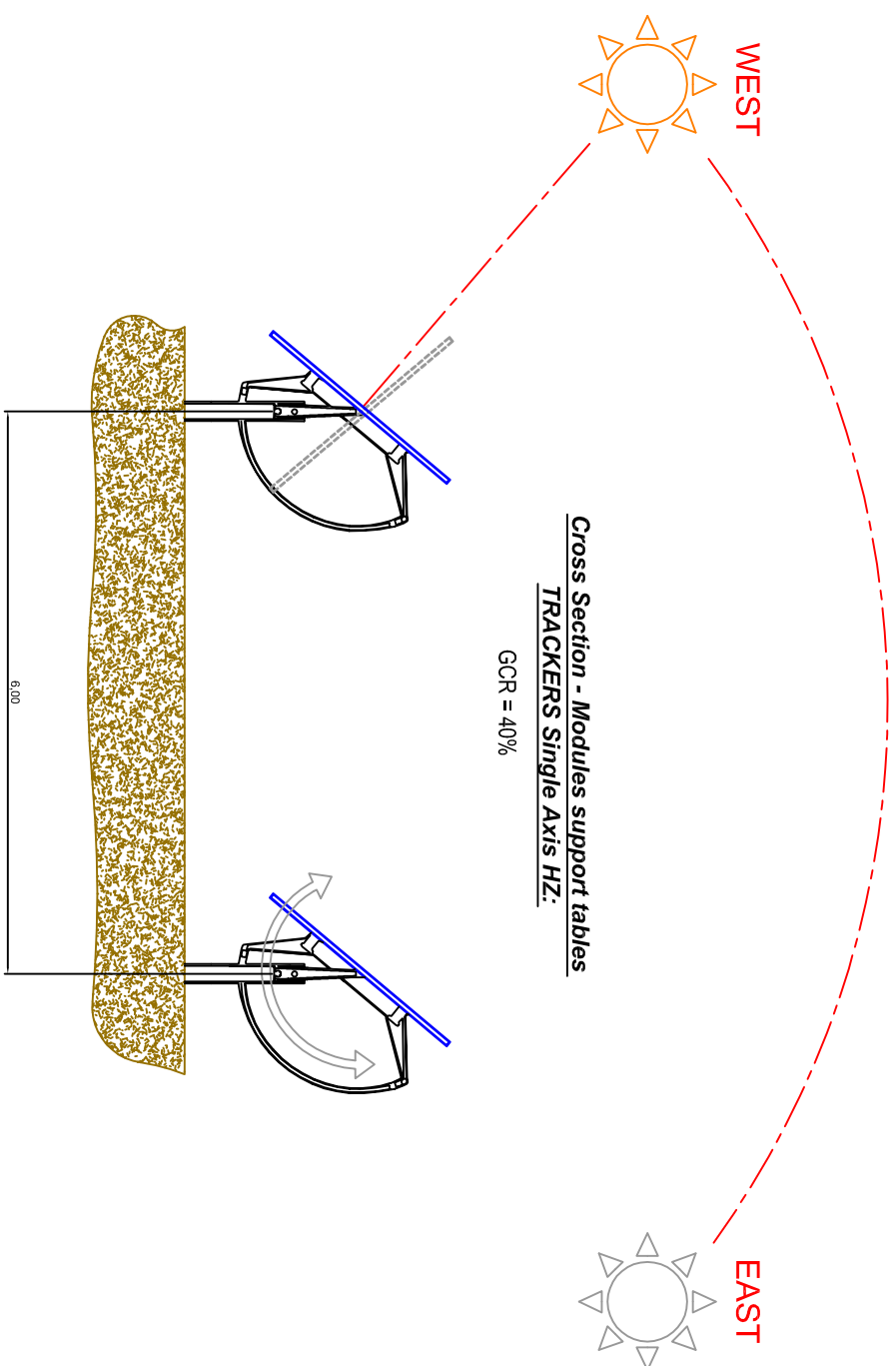


TECHNICAL SPECIFICATIONS - PHOTOVOLTAIC PARK					
DESCRIPTION	TYPE	QUANTITY	POWER		
			Wp	Wp	kVA
Panels	Crystalline PV Modules 72 cells - 1500Vdc	34560	325		
Inverters	MP Power Station - 1500Vdc	4	2250		1kVA
INSTALLED POWER			11232	kWp	
			Total Installed Peak Power	9000	kVA
			Total Installed Agreement Power	9000	kVA
			Cost Ppl	1.50	

GENERAL LEGEND	
SYMBOL	DESIGNATION
	Solar arrays
	Medium voltage Power Station
	Access gate (double swing gates)
	Internal track (6m width)
	Fence
	Delivery Station 22kV
	Junction Box
	Trenches
	Vegetation; tree fences - 2 Rows
	Property Limit
	Overhead Lines



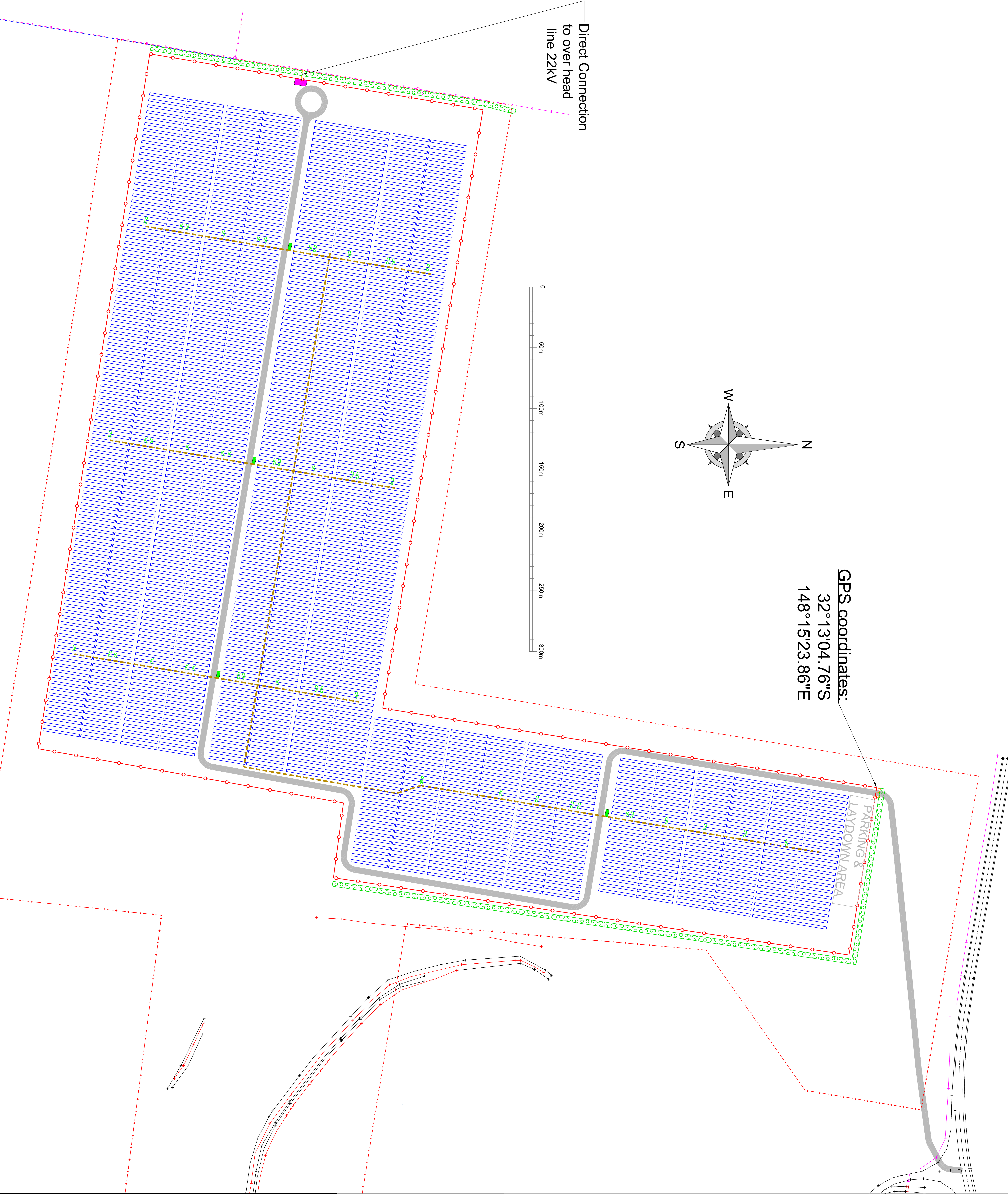
PHOTOVOLTAIC POWER PLANT:

Narromine

Document Title:		Project N°:	-
PROVISIONAL LAYOUT		Doc. Reference:	PL_003_GEN
		Project manager:	-
		Scale:	1/1000
		Format:	A0

Index	Date	Status	Created by	Reviewed by
A	08/04/2016	First Issue	BAD	JUB
B	12/04/2016	Upcoming Plans	BAD	JUB

PHASES	APS/APD	PRO	EKE	DOE
X				



CONDITIONS OF CONSENT

Section 80A of the *Environmental Planning & Assessment Act 1979*

A. ADMINISTRATIVE CONDITIONS

Development Description

- A1. Except as amended by the conditions of this consent, development consent is granted only to carrying out the development as described on the Notice of Determination issued as part of this consent.

Development in Accordance with Plans and Documents

- A2. The applicant shall carry out the development generally in accordance with:
- a) The following drawings, except for as otherwise provided by the conditions of this consent.
 - b) The conditions of this consent

Drawing No.	Issue	Description	Date
N/A	1	Narromine Solar Farm SEE v1.14.04.2016	April 2016
N/A	1	Appendix A – Site Plan	April 2016
N/A	1	Appendix B – SKSF Infrastructure and Layout	April 2016
N/A	1	Appendix C - Plant design	April 2016
N/A	1	Appendix D - Site Access Location	April 2016
N/A	1	Appendix E - Enquiry Response from Essential Energy	April 2016
N/A	1	Appendix F – Aboriginal Due Diligence Assessment	April 2016
N/A	1	Appendix G - Contour Map	April 2016
N/A	1	Appendix H - Community Feedback Form	April 2016
N/A	1	Letter Narromine Solar Farm - Development Application - Additional Info 2016-05-11	11/05/2016
N/A	1	Narromine - DA Additional Info 2016-05-11	11/05/2016

Inconsistency between documents

- A3. If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this consent prevail to the extent of any inconsistency. Where there is an inconsistency between approved elevations and plans, the elevations prevail.

National Construction Code Compliance

- A4. All aspects of the building design shall comply with the applicable performance requirements of the National Construction Code so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the ongoing benefit of the community. Compliance with the performance requirements can only be achieved by:
- a) complying with the deemed to satisfy provisions, or
 - b) formulating an alternative solution which:
 - i) complies with the performance requirements, or
 - ii) is shown to be at least equivalent to the deemed to satisfy provision, or
 - iii) a combination of a) and b).

Development Expenses

- A5. It is the responsibility of the applicant to meet all expenses incurred in undertaking the development, including expenses incurred in complying with conditions imposed under this consent.

Time Limited Consent

- A6. Operation of the solar farm is time limited for a period of not more than 26 years from the date of this consent (allowing 12 months for construction to be completed).

Decommissioning

- A7. The solar farm is to be decommissioned of all solar arrays, above and below ground infrastructure, electrical substations and any other structures or infrastructure in relation to the solar generation works upon the expiration of this development consent set out in condition A6.

NOTE: Nothing in this consent prohibits the submission of a development application to continue to use the site for a solar farm following expiration of this time limited consent.

- A8. A plan outlining the staging and process to be followed for decommissioning of the farm is to be submitted to Council at least one (1) year prior to the expiration of this development consent as set out in condition A6.

B. PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE OR COMMENCEMENT OF CONSTRUCTION
--

Roads and Traffic Management

- B1. A Traffic Management Plan for the development noting construction and post-construction phases is to be prepared by a suitably qualified person conversant with the Roads Act 1993 and submitted to Council prior to works commencing on site.

NOTE: This TMP will not be approved or endorsed by Council; rather it is a requirement that this be submitted and prepared in accordance with the above-mentioned Act and all recommendations made by Roads and Maritime Services.

- B2. The applicant is to comply with the following requirements of Roads and Maritime Services:

-
- (a) A Basic Right (BAR) turn treatment as shown in Figure 7.5 Part 4A *Austroads Guide to Road Design* (copy enclosed) is to be provided in Eumungerie Road at its intersection with the vehicular access servicing the proposed solar farm. The widened shoulder is to be sealed and built for a 100km/h speed environment to provide a reasonable level of safety for traffic turning right into the vehicular access road and to allow following traffic an area to pass the right turning vehicle on the left hand side.
 - (b) A Basic Left (BAL) turn treatment as shown in Figure 8.2 Part 4A *Austroads Guide to Road Design* (copy enclosed) is to be provided in Eumungerie Road at its intersection with the vehicular access. The BAL facility will also need to be sealed and built for a 100km/h speed environment. The intersection is to be designed to accommodate the turning paths of the largest vehicle required to access the site.
 - (c) The access to Eumungerie Road is to be sealed a minimum of forty (40) metres from the edge of Eumungerie Road.
 - (d) Safe Intersection Sight Distance (SISD) requirements outlined in Part 4A *Austroads Guide to Road Design* are to be provided and maintained in both directions at the intersection of the vehicular access and Eumungerie Road.
 - (e) All required road works are to be completed prior to the commencement of construction works for the solar farm.
- B3. Plans detailing the above access requirements are to be submitted to Council for approval prior to commencement of construction.
- B4. The applicant is to submit an application for an 'Authority to Undertake Works on Council Road Reserves' and comply with Council's 'Procedure for Working on Roads and/or Road Reserves by Persons Other than Council and Council Contractors' if the roadworks are not to be performed by Council. The roadworks mentioned in this condition relate to the works specified in condition B2.
- B4. Internal access roads are to be constructed to a minimum of four (4) metres in width.
- B6. If utilizing the existing access to the site from Eumungerie Road, the internal road is to be sealed to the 'parking and laydown area' as noted on the 'Provisional Layout' Plan.
- B7. All accesses to the site are to be sealed from the road shoulder to the property boundary in accordance with the requirements of the RMS.

OLS Aerodrome Requirements

- B8. Council or a PCA is to be supplied with a final construction plan noting the height of the panels at the highest elevation on the site to ensure the Obstacle Limitation Surface of the Narromine Aerodrome is not impeded.

NOTE: The Obstacle Limitation Plan is available from Council's Corporate, Community and Regulatory Services Department.

Landscaping

- B9. A detailed landscaping plan shall be submitted to Council which is generally in accordance with the approved Infrastructure and Layout plan. The plan is to be approved by Council prior to the issue of a construction certificate, and is to contain the following:

- A schedule which indicates the type of plant species (in botanical name), the location and density/spacing of the plantings. The density of tree planting should be enough to provide sufficient screening.
- A variety of Endemic species are to be used.
- The vegetation strips are to be at least 10 metres wide.
- Screening of the Parking and Laydown area facing Eumungerie Road.
- Details of any under-panel plantings
- Distances of the solar farm perimeter fence from adjoining Lot 31 DP 11299.

Planning for Bushfire Protection

- B10. The applicant shall ensure that all development components are designed, constructed and maintained to minimise ignition risks.

To ensure safe access for emergency vehicles to the site, internal roads should be built to the following specifications from *Chapter 4 – Access (2) – Property Access* of PBP:

- Are to maintain the ability to carry a load of 15 tonnes.
- Roads leading into and out of the site area to be a minimum width of four metres.

- B11. An Asset Protection Zone (APZ) of minimum width of 10 metres shall be provided around the Site Maintenance building, transformer compound and the outside perimeter of the PV modules. The APZ shall be provided and maintained in accordance with the requirements of the "Planning for Bush Fire Protection 2006" guidelines for the life of the subject development. Such APZ may be implemented as 'managed land' where by the required minimum width of 10 metres is provided as one or a combination of the following: (a) The existing grassland vegetation is maintained in a low fuel condition by regularly mowing to achieve a nominal height no greater than 100 mm; and/or (b) Maintained lawns. The APZ shall be established prior to the issue of the buildings Occupation Certificate(s). {Reason: Council requirement in consideration of the Planning for Bush Fire Protection 2006 guidelines to assist in the protection of the development's infrastructure from grassland fires}.

- B12. A water storage tank is to be provided on site for fire fighting purposes. The tank shall have a minimum storage of 10,000 litres of water. The water storage tank shall meet the following requirements:

(a) For an under-ground storage tank: (i) Unobstructed access provided directly to the storage for fire-fighting appliances; (ii) A hardened surface for truck access is provided within 4 m of the access hole; (iii) An access hole of at least 200 mm provided in the lid of the storage tank;

(b) For an above-ground storage tank: (i) A 65 mm Storz outlet with a metal gate or ball valve and blanking cap provided at the lowest possible point; (ii) The tank is to be of concrete or metal construction (plastic or fibreglass is not acceptable); (iii) The tank and its Storz outlet must be located so that it is accessible by firefighting units and personnel;

(c) All above-ground water piping external to the building to be metal, including taps; and

(d) The water pressure pump(s) is to be shielded from direct heat and flame contact.

Soil and Water Management

- B13. The applicant is to provide Council with a Soil and Water Management Plan which details both construction and operation stages of the development. All measures intended to reduce soil erosion and manage water throughout the site are to be implemented prior to construction works commencing.
- B14. Runoff from rainfall events up to and including the 5 year ARI event must be contained on site. Controlled runoff measures are to be provided on site for a 1 in 100 year ARI event within overland flow paths. A plan showing how this will be achieved is to be submitted prior to commencement of construction.

Section 94A Developer Contributions

- B15. The applicant is to pay the required Section 94A development contribution levy in accordance with Council's Section 94A Development Contributions Plan. The current levy payable is \$170,000.

NOTE: Copies of Council's Section 94A Plan are available from Narromine Shire Council.

Construction Certificate

- B16. If footings for the panel frames are to be constructed, plans showing details of the footings are to be submitted to Council or a PCA for approval via a construction certificate. The footing plans are to be signed off by a qualified and practicing structural engineer.

Electricity Connections and the environment

- B17. Any new connections/lines or infrastructure are to be supported by a final route option analysis Review of Environmental Factors (REF) in accordance with Essential Energy's Connection Process for Negotiated High Voltage.

Toilet Facilities

- B18. Before any site works, building or demolition begins the applicant must provide a temporary on-site toilet if access to existing toilets is not adequate and protect the public land or place from obstruction, inconvenience or damage due to the carrying out of development.

C. DURING CONSTRUCTION

Soil erosion

- C1. Soil and erosion control measures are to be established and maintained during the construction phase. These are to be done in accordance with the following:

-
- Landcomm, March 2004, *Managing Urban Stormwater: Soils and Construction Volume 1 - 4th Edition*
 - Department of Environment and Climate Change NSW, 2008, *Managing Urban Stormwater: Soils and Construction - Volume 2A Installation of services*

Heritage

- C2. If any items are uncovered that are or could be an item of heritage, the following procedure is to be followed.
1. *All ground surface disturbance in the area of the finds should cease immediately the finds are uncovered.*
 - a) *The discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted; and*
 - b) *The site supervisor will be informed of the find(s).*
 2. *If there is substantial doubt regarding an Aboriginal origin for the finds, then gain a qualified opinion from an archaeologist as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be archaeological. If a quick opinion cannot be gained, or the identification is positive, then proceed to the next step.*
 3. *Immediately notify the following authorities or personnel of the discovery:*
 - a) *Office of Environment and Heritage; and*
 - b) *Relevant Aboriginal Community Representatives.*
 - c) *Council.*
 4. *Facilitate, in co-operation with the appropriate authorities and relevant Aboriginal community representatives:*
 - a) *The recording and assessment of the finds;*
 - b) *Fulfilling any legal constraints arising from the find(s). This will include complying with OEH directions; and*
 - c) *The development and conduct of appropriate management strategies. Strategies will depend on consultation with stakeholders and the assessment of the significance of the find(s).*
 5. *Where the find(s) are determined to be Aboriginal Objects, any re-commencement of construction related ground surface disturbance may only resume in the area of the find(s) following compliance with any consequential legal requirements and gaining written approval from OEH (as required).*

NOTE: The above protocol is from Appendix 2 of the Aboriginal Due Diligence Assessment with the addition of Council under authorities to be notified.

Waste

- C3. All building rubbish and debris, including that which can be wind blown, shall be contained on site in a suitable container at all times prior to disposal at Council's Waste Management Facility. The container shall be erected on the building site prior to work commencing.

Materials and sheds or machinery to be used in association with the construction shall not be stored or stacked on Council's road reserve or roadway.

Noise

- C4. Operating noise emission levels from the site are to comply with the EPA's NSW Industrial Noise Policy.

Erosion and Sediment Control

- C5. The approved erosion and sediment control facilities are to be provided and maintained throughout the construction of the development.

D. POST CONSTRUCTION**Landscaping**

- D1. Landscaping is to be maintained in accordance with the landscaping plan for a period of at least two years following the completion of the construction phase of the development.

Lighting

- D2. All exterior lighting is to be positioned so as to avoid obtrusive light being cast into neighbouring properties.

NOTE: The development is considered to comply with this condition if the requirements of AS4282.1997 "Control of the Obtrusive Effects of Outdoor Lighting" are met.

Chemical and fuel storage

- D3. Chemicals and fuels are to be stored in a bunded area. This bunded area is to have the following specifications:
- Impervious flooring
 - Sufficient capacity to contain 110% of the largest container stored within the bund, and
 - Designed in accordance with pages 40-44 of the document *Storing and Handling Liquids: Environmental Protections, Participants Manual* published by the Department of Environment and Climate Change NSW.

Address

- D4. A rural addressing number which complies with the NSW Addressing User Manual is to be displayed in a prominent position at the main entrance to the property. This number is to be obtained from Councils Corporate, Community and Regulatory Services Department.

D. PRESCRIBED CONDITIONS

(1) For the purposes of section 80A (11) of the Act, the following conditions are prescribed in relation to a development consent for development that involves any building work:

(a) that the work must be carried out in accordance with the requirements of the *Building Code of Australia*,

(b) in the case of residential building work for which the *Home Building Act 1989* requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.

(1A) For the purposes of section 80A (11) of the Act, it is prescribed as a condition of a development consent for a temporary structure that is used as an entertainment venue, that the temporary structure must comply with Part B1 and NSW Part H102 of Volume One of the *Building Code of Australia*.

(2) This clause does not apply:

(a) to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4), or

(b) to the erection of a temporary building, other than a temporary structure to which subclause (1A) applies.

(3) In this clause, a reference to the *Building Code of Australia* is a reference to that Code as in force on the date the application is made for the relevant:

(a) development consent, in the case of a temporary structure that is an entertainment venue, or

(b) construction certificate, in every other case.

Note. There are no relevant provisions in the *Building Code of Australia* in respect of temporary structures that are not entertainment venues.

(4) A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

(a) showing the name, address and telephone number of the principal certifying authority for the work, and

(b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and

(c) stating that unauthorised entry to the work site is prohibited.

(5) Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

(6) This clause does not apply in relation to building work, subdivision work or demolition work that is carried out inside an existing building that does not affect the external walls of the building.

(7) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

(8) This clause applies to a development consent granted before 1 July 2004 only if the building work, subdivision work or demolition work involved had not been commenced by that date.

Note. Principal certifying authorities and principal contractors must also ensure that signs required by this clause are erected and maintained (see clause 227A which currently imposes a maximum penalty of \$1,100).

(9) Residential building work within the meaning of the *Home Building Act 1989* must not be carried out unless the principal certifying authority for the development to which the work relates (not being the council) has given the council written notice of the following information:

- (a) in the case of work for which a principal contractor is required to be appointed:
 - (i) the name and licence number of the principal contractor, and
 - (ii) the name of the insurer by which the work is insured under Part 6 of that Act,
- (b) in the case of work to be done by an owner-builder:
 - (i) the name of the owner-builder, and
 - (ii) if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

(10) If arrangements for doing the residential building work are changed while the work is in progress so that the information notified under subclause (2) becomes out of date, further work must not be carried out unless the principal certifying authority for the development to which the work relates (not being the council) has given the council written notice of the updated information.

(11) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

(12) For the purposes of section 80A (11) of the Act, it is a prescribed condition of development consent that if the development involves an excavation that extends below the level of the base of the footings of a building, structure or work (including any structure or work within a road or rail corridor) on adjoining land, the person having the benefit of the development consent must, at the person's own expense:

- (a) protect and support the building, structure or work from possible damage from the excavation, and
- (b) where necessary, underpin the building, structure or work to prevent any such damage.

(13) The condition referred to in subclause (1) does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

7 June 2016

SF2016/092509; WST16/00084

General Manager
Narromine Shire Council
PO Box 115
NARROMINE NSW 2821

Dear Sir

DA80/16: Lot 32 DP 1129935; Eumungerie Road (MR572), Narromine; Solar Farm

Thank you for your letter dated 13 May 2016 referring development application DA80/16 to Roads and Maritime Services for comment.

DA80/16 is for the construction and operation of an 11 megawatt photovoltaic solar farm on the eastern outskirts of Narromine. The subject land has frontage to Yates Road and Eumungerie Road (MR572). Eumungerie Road is a classified road and Yates Road is a local road. Both roads are under the care and control of Narromine Shire Council.

DA80/16 includes vehicular access to the site via an existing property access from Eumungerie Road. The proposal also includes upgrading this access to include Basic Right (BAR) and Basic Left (BAL) turn treatments. As the proposal includes works on Eumungerie Road, DA80/16 has been referred to Roads and Maritime in accordance with section 138(2) of the *Roads Act 1993*.

The existing vehicular access has sight distance deficiencies and in its current configuration does not provide a high level of safety. The proposed upgrade to include a BAR and BAL will improve safety for motorists turning at and driving through the intersection.

Following review of the proposal, Roads and Maritime, pursuant to Section 138(2) of the *Roads Act 1993*, grants its concurrence subject to conditions. In granting its concurrence, Roads and Maritime notes under Clause 101 of *State Environmental Planning Policy (Infrastructure) 2007*, that even though Roads and Maritime has issued its concurrence, before development consent can be granted for the proposed solar farm, as proposed, Council, as the consent authority, must be satisfied that vehicular access to the land cannot be practicably obtained via Yates Road, and, that the safety, efficiency and ongoing operation of Eumungerie Road will not be adversely affected by operation of the development.

Roads and Maritime's conditions of concurrence are as follows:

- A Basic Right (BAR) turn treatment as shown in Figure 7.5 Part 4A *Austroads Guide to Road Design* (copy enclosed) is to be provided in Eumungerie Road at its intersection with the vehicular access servicing the proposed solar farm. The widened shoulder is to be sealed and built for a 100km/h speed environment to provide a reasonable level of safety for traffic turning right into the

Roads and Maritime Services

vehicular access road and to allow following traffic an area to pass the right turning vehicle on the left hand side.

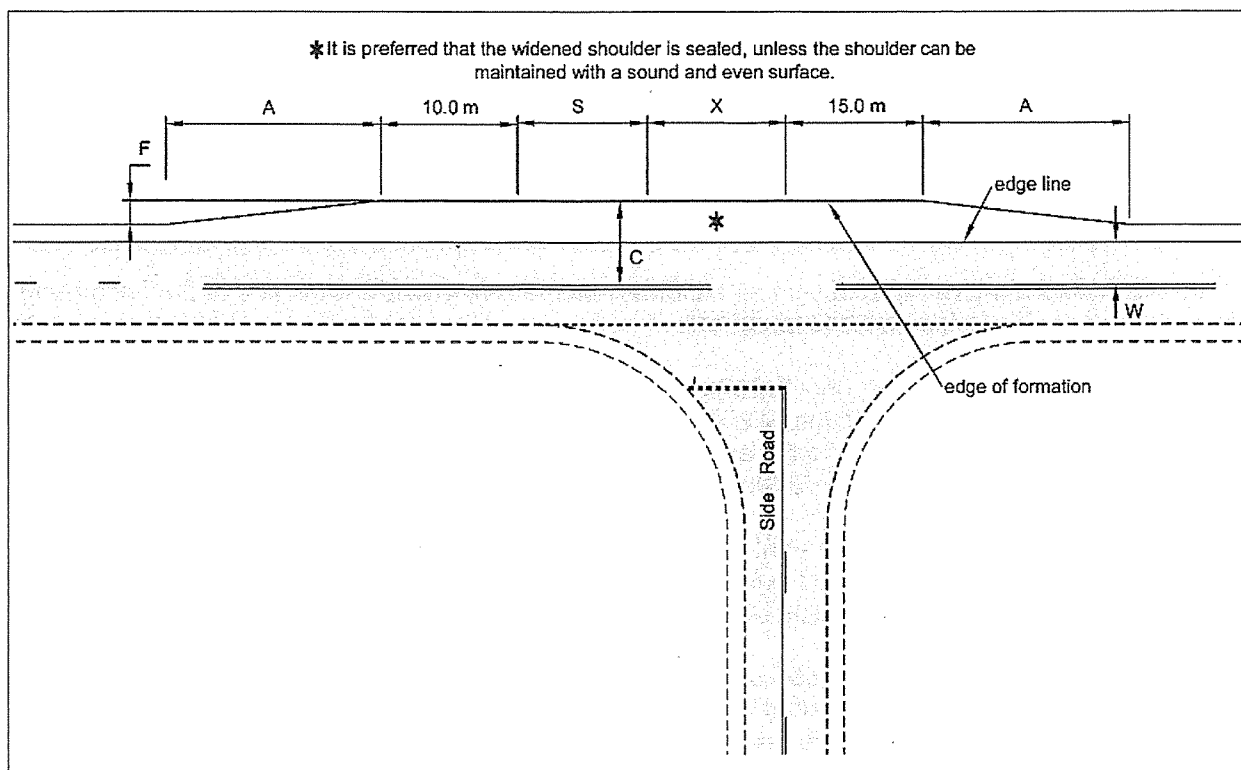
- A Basic Left (BAL) turn treatment as shown in Figure 8.2 Part 4A *Austroads Guide to Road Design* (copy enclosed) is to be provided in Eumungerie Road at its intersection with the vehicular access. The BAL facility will also need to be sealed and built for a 100km/h speed environment. The intersection is to be designed to accommodate the turning paths of the largest vehicle required to access the site.
- The access to Eumungerie Road is to be sealed a minimum of forty (40) metres from the edge of Eumungerie Road.
- Safe Intersection Sight Distance (SISD) requirements outlined in Part 4A *Austroads Guide to Road Design* are to be provided and maintained in both directions at the intersection of the vehicular access and Eumungerie Road.
- All required road works are to be completed prior to the commencement of construction works.

Please forward a copy of Council's determination of the development application to Roads and Maritime at the same time it is sent to the applicant. Should you require further information please contact Andrew McIntyre, Manager Land Use Assessment, on 02 6861 1453.

Yours faithfully



Susie Mackay
Network & Safety Manager
Western



Notes:

1. This treatment applies to the right turn from a major road to a minor road.

2. The dimensions of the treatment are defined thus:

W = Nominal through lane width (m) (including widening for curves). Width to be continuous through the intersection.

C = On straights – 6.5 m minimum

7.0 m minimum for Type 1 & Type 2 road trains

On curves – widths as above + curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle).

$$A = \frac{0.5VF}{3.6}$$

Increase length A on tighter curves (e.g. those with a side friction demand greater than the maximum desirable). Where the design through vehicle is larger than or equal to a 19 m semi-trailer the minimum speed used to calculate A is 80 km/h.

V = Design speed of major road approach (km/h).

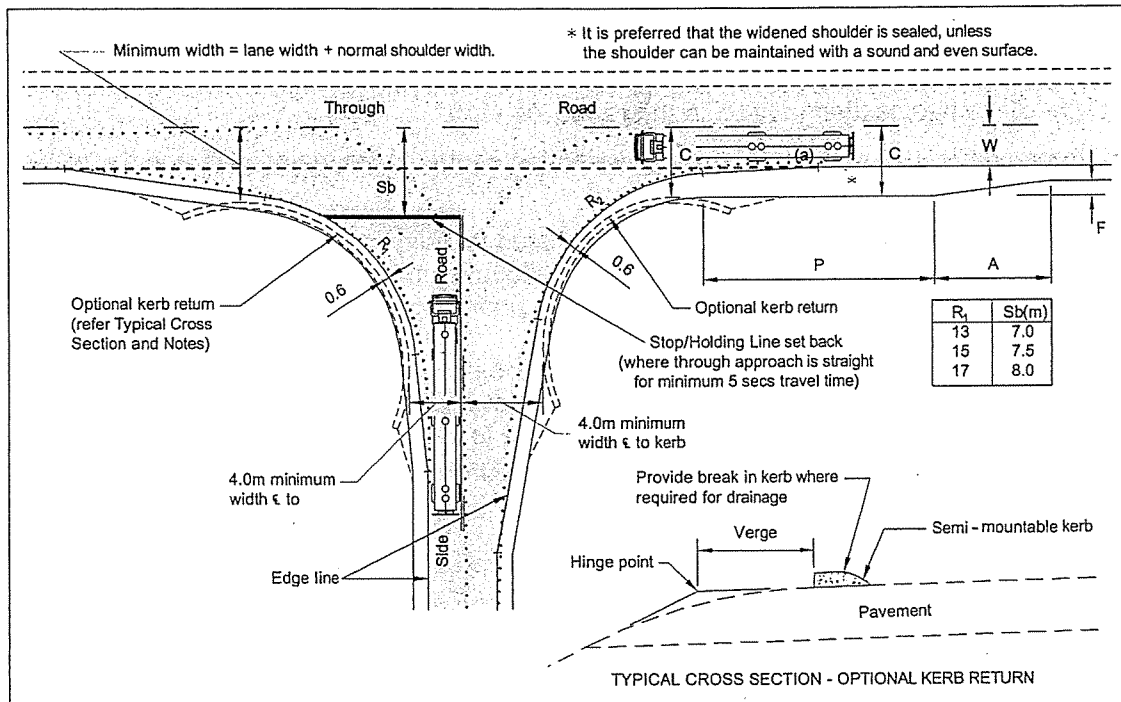
F = Formation/carriageway widening (m).

S = Storage length to cater for one design turning vehicle (m) (minimum length 12.5 m).

X = Distance based on design vehicle turning path, typically 10–15 m.

Source: QDMR (2006).

Figure 7.5: Basic right (BAR) turn treatment on a two-lane rural road



Notes:

1. R₁ and R₂ are determined by the swept path of the design vehicle.

2. The dimensions of the treatment are defined thus:

W = Nominal through lane width (m) (including widening for curves).

C = On straights – 6.0 m minimum.

On curves – 6.0 m plus curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle).

A =
$$\frac{0.5VF}{3.6}$$

V = Design speed of major road approach (km/h).

F = Formation/carriageway widening (m).

P = Minimum length of parallel widened shoulder (Table 8.1).

Source: QDMR (2006).

Figure 8.2: Rural basic left-turn treatment (BAL)