

REPORT



Development Application Assessment

Report: Development Application D16-427 - Solar Energy System (Photovoltaic)
Property: Lot 25 DP 754314 and Lot 70 DP 754328, 65L Mogriguy Road, Dubbo
Applicant: Sunworx Solar Pty Ltd

To: Joint Regional Planning Panel (Western)

From: Senior Planner 1

Date: 14 November 2016

File: D16-427

1. DEVELOPMENT DETAIL

Council is in receipt of a Development Application for a photovoltaic solar energy system (solar farm) approximately 15 km north of the Dubbo urban area. The Application was lodged with Council on 7 September 2016. According to the Statement of Environmental Effects, specific details of the solar farm are as follows:

"The solar arrays would be installed over an area of approximately 29 hectares. The key infrastructure is the solar farm consisting of 290 modules, each housing a 100kW photovoltaic solar array, together with associated infrastructure. Each photovoltaic module uses cadmium telluride (CdTe) thin film technology; each 100KW module will consist of approximately 330 panels each generating 300W. DC current from the PV modules will be converted to AC current using a micro inverter associated with each individual PV module. The micro inverter will be attached to the mounting frame in the immediate vicinity.

The arrays would be installed at a zero degree north azimuth with a fixed tilt from horizontal to 20 degrees. The panels would be mounted on a fixed steel post structure to a depth of approximately 2.0 metres. Racking would be installed on the steel posts that would hold panels. Cabling would be connected beneath the modules and would connect underground with a junction box. A transmission line would connect the proposed substation for onward connection to the 66kV ETL which transverses the western extent of the site."

The total generation of the solar farm is 29 megawatts. Aside from the construction of the solar panels, other construction works include:

- A small substation which is to increase the voltage from 33 kV to 66 kV;

- A prefabricated site office which would include a toilet. The building would be serviced by an adjacent rain water tank for water and a septic tank to treat waste water;
- Security fencing around the perimeter of the development to comprise of chain wire and barbed-wire fencing approximately 2.2 metres in height;
- Landscaping on the eastern side of the development on the inside of the security fencing; and
- A 4 metre wide gravel internal access track from the property boundary on Mogriguy Road to the development as well as throughout the development site. The road would be located within a 20 metre wide access easement connecting Mogriguy Road with Lot 25.

The Applicant has identified that the panels will be fixed-tilt orientated north and not tracked. No lighting is proposed. Plans of the proposed development are included in **Appendix 2**.

The development is for infrastructure provided by a private company and has a capital investment value of \$18 million. Consequently, the Development Application is required to be determined by the Western Joint Regional Planning Panel (JRPP) as the development will be for infrastructure undertaken by a private authority with a capital investment value of more than \$5 million, as per Schedule 4A, Part 6 of the Environmental Planning and Assessment Act, 1979.

2. SITE CHARACTERISTICS

The subject property (Lots 25 and 70) is located on the western side of Mogriguy Road. Combined, the two parcels have an area of 310.9 hectares with a frontage to Mogriguy Road of 671.3 metres. An aerial view of the site and locality is provided in **Figure 1**.

Slope

The location of the solar farm represents a high point on the land with the land falling away in all directions from this point. The greatest slope is to the east and south.

Vegetation

The property is predominantly cleared of native vegetation with the exception of scattered vegetation around the property.

Access

Vehicular access to the property can be obtained via Mogriguy Road.

Drainage

Stormwater conforms to the natural contours of the land. There are no reticulated stormwater services within the vicinity of the property.

Services

The property is not connected to reticulated Council infrastructure (ie water or sewerage services). Electricity and telecommunications infrastructure transects the property.



Figure 1: 65L Mogriguy Road - The red hatched area represents the approximate area of the solar farm; the blue line represents the approximate location of the access road.

Adjoining uses

Adjoining land uses are for primary production purposes. The allotments immediately to the east and south contain a dwelling.

3. SITE HISTORY

Both allotments are original portions and have not been created through a Council-approved subdivision. There are no previous building/development approvals pertaining to either allotment. Neither property contains built features (with the exception of rural fencing) and it appears that each lot has only been used for extensive agricultural uses.

4. LEGISLATIVE REQUIREMENTS S79C(1)(a)

- (i) Do any environmental planning instruments (SEPP, REP or LEP) apply to the land to which the Development Application relates?

State Environmental Planning Policies (SEPPs)

State Environmental Planning Policy No. 55 – Remediation of Land

The property is not listed on Council's Potentially Contaminated Lands Register. Pursuant to Clause 7 of the SEPP, Council must consider whether the land is contaminated and whether the land is suitable for the proposed use.

While noting the land is potentially contaminated given its past use for agricultural purposes, the proposal is considered to be a non-sensitive land use. In this regard, the potential contamination status of the land is considered to not adversely impact on the proposed use or those persons utilising the development. Therefore, no further investigations in relation to contamination/SEPP 55 are required.

State Environmental Planning Policy (Infrastructure) 2007

Part 3 – Division 4 – Electricity Generating Works or Solar Energy Systems

Clauses 33 to 39 of the SEPP relates to development for the purpose of electricity-generating infrastructure including solar energy systems and wind turbines. The subject property, being zoned RU1 Primary Production, is identified as being a prescribed rural zone. However, the development cannot be exempt or complying development due to the size and electricity-generating capacity of the development.

Pursuant to Clause 34(7), development for the purpose of a solar energy system may be carried out by any person with consent on any land. The development is not being undertaken within a residential zone therefore subclause (8) is not applicable. The SEPP does not detail any other assessment or performance criteria to which the development shall conform. Therefore, other than being deemed permissible and requiring development consent, no other assessment against Division 4 can be undertaken.

Part 3 – Division 5 – Electricity Transmission or Distribution

Pursuant to Clause 45 of SEPP (Infrastructure) 2007, the local electricity supply authority (Essential Energy) was notified of the Application due to overhead powerlines which operate in the vicinity of the development site.

Following the receipt of further information relating to the distances of the solar panels from the powerlines, Essential Energy responded on 2 November 2016 confirming that there are overhead powerlines operating in the vicinity of the development. Essential Energy raised no objection to the proposed development subject to conditions. The requirements of Essential Energy can be included as a notation on the consent.

State Environmental Planning Policy (State and Regional Development) 2011

Pursuant to Schedule 1, Clause 20 of the SEPP, the proposal is not State Significant Development as the development will have a capital investment value of less than \$30

million. Consequently, the Western JRPP is the consent authority and not the Minister pursuant to Section 89D of the Environmental Planning and Assessment Act, 1979.

NOTE: While a number of other SEPPs apply to the land, none are specifically applicable to this development.

Dubbo Local Environmental Plan 2011

The following clauses of Dubbo Local Environmental Plan 2011 have been assessed as being relevant and matters for consideration in the assessment of the Development Application.

Clause 1.2 Aims of Plan

The Application conforms to the relevant aims and objectives of the plan.

Clause 2.2 Zoning of Land to Which Plan Applies

The land is zoned RU1 Primary Production.

Clause 2.3 Zone objectives and Land Use Table

While not contrary to the zone objectives, none are specifically applicable in this instance.

The proposed development can be defined as *electricity generating works* under the Dubbo Local Environmental Plan 2011. This is defined as:

“A building or place used for the purpose of making or generating electricity.”

Electricity-generating works are permissible in the RU1 zone and pursuant to Clause 34(1) of State Environmental Planning Policy (Infrastructure) 2007.

Clause 5.10 Heritage Conservation

In accordance with Schedule 5 of the Dubbo Local Environmental Plan 2011 there are no heritage items listed or the vicinity of the property.

Submitted with the Application was an Aboriginal Heritage Due Diligence Assessment dated August 2016. One (1) Aboriginal cultural heritage site was identified during the field survey in the far western portion of Lot 25. The following is an extract from the Assessment :

“The site comprised three stone artefacts manufactured from red silcrete (likely to have been heat treated) and milky quartz, covering an area of twenty by five metres. Soils at the site consisted of predominantly clay B horizon with a light cover of redeposited siliceous sands. A layer of pebble laterite was observed littered on the ground surface. Vegetation was sparse comprising scattered grass patches.

Disturbances included active sheet wash erosion, livestock grazing, previous vegetation clearance and cultivation.”

It is noted that the development has been designed to avoid this site with the site plan clearly outlining the Aboriginal artefact areas. The Assessment subsequently drew the following conclusions and recommendations:

- “1. AHIMS#36-1-0690 (Brocklehurst OS1) should be avoided by the Project and associated proposed works.
 - a. The site should be temporarily fenced to include a 30 metre buffer, with appropriate ‘No-Go’ signage, prior to the commencement of proposed works and should remain in place for the duration of the construction phase.**
- 2. If avoidance cannot be achieved, an Aboriginal Heritage Impact Permit must be obtained from National Parks and Wildlife Services.*
- 3. Staff and contractors involved in the proposed Project works should undergo a cultural heritage induction so they are aware of the legislative protection of all Aboriginal sites and objects.*
- 4, In the unlikely event that unrecorded Aboriginal objects and/or skeletal material is encountered during the proposed works, the Unanticipated Finds Protocol must be followed.”*

It is considered the development proposal adheres to the above recommendations. Noting the assessment and recommendations, Council’s Environmental Control Branch officers provided the following comments:

“The proposed development is well clear of the identified site and will therefore not be impacted by the proposed development.”

The comments provided above are noted. An appropriate condition will be included in the consent that the recommendations as stipulated in the Aboriginal Heritage Due Diligence Assessment by OzArk dated August 2016 be adhered to. A separate condition could also be included on the consent requiring that works are to cease and the National Parks and Wildlife Service (NPWS) be notified should any Aboriginal archaeological material be discovered during earthmoving/construction works.

Clause 7.2 Natural Resource – Biodiversity

Part of the land is identified as having high biodiversity according to the Natural Resource – Biodiversity Map. These areas however are not within close proximity to the development site and have purposely been avoided. Flora and fauna impacts including vegetation removal is discussed elsewhere in this report.

Clause 7.4 Natural Resource – Riparian Land and Waterways

No part of the land is identified as having riparian vegetation according to the Natural Resources – Water Map. It is noted however there are three (3) unnamed natural

watercourses on Lot 25 in close proximity to the development footprint. These water courses appear to be ephemeral and did not contain water at the time of inspection.

Plans have delineated these watercourses with a 40 metre buffer around them. No part of the development is located within these 40 metre buffer areas therefore the development does not require concurrence from the NSW Office of Water pursuant to Section 91 of the Water Management Act, 2000.

Clause 7.7 Airspace Operations

The solar panels would have a maximum height of 1.9 metres above the natural surface level ranging from 308 metres AHD to 318 metres AHD. The Obstacle Limitation Surface (OLS) level of the Dubbo City Regional Airport at this location is 430 metres AHD ensuring the development will be well below the OLS. Therefore it is considered that the development will not have an adverse impact on the operations of the airport.

- (ii) Do any draft environmental planning instruments (SEPP, REP or LEP) apply to the land to which the Development Application relates?

No draft environmental planning instruments apply to the land to which the Development Application relates.

- (iii) Does any Development Control Plan apply to the land to which the Development Application relates?

Dubbo Development Control Plan 2013

An assessment is made of the relevant chapters and sections of this DCP. Those chapters or sections not discussed here were considered not specifically applicable to this application or are discussed elsewhere in this report.

Chapter 2.4 – Rural Development and Subdivisions

Section 2.4.8 – Design Elements and Matters for Consideration

Element 1 – Site Integration

Table 1 within this element provides suggested setbacks for development from property boundaries. For land within the RU1 zone the recommended setback is 50 metres.

The development will be setback 30 metres from the northern and eastern boundaries, 20 metres from the southern boundary, and 600 metres from the western boundary. Three (3) of these setbacks do not comply with the specified DCP setback (50 metres). It is noted however that the specified setbacks predominantly pertain to dwelling houses and ancillary buildings (ie carports, garages etc) which are sensitive land uses and need to be protected from agricultural activities. It is noted the nearest dwelling on adjoining Lot 24 is approximately 320 metres east of the property boundary with Lot 24. Therefore,

and while noting there are no sensitive land uses within close proximity to these boundaries (Lot 25), it is considered the setbacks proposed are suitable in this instance.

Element 2 – Services

The Application identifies that the development requires access to electricity services.

Being an electricity generating development, the solar farm will be required to connect into the electricity network. The Applicant has identified that the proposed substation onsite will connect to the existing Dubbo-Gilgandra 66 kV electricity transmission line (ETL). Comments provided by Essential Energy in their SEPP Infrastructure response raised no objection to the proposal from an electricity connection perspective.

Element 3 – Access

The property has frontage to Mogriguy Road, a two (2) lane bitumen sealed roadway. An access driveway is proposed to be constructed to provide vehicular access from Mogriguy Road to the development on Lot 25 through Lot 70. This will involve the construction of a suitable vehicle access point including crossover at Mogriguy Road as there is no crossover at present at the proposed access location.

Plans and documentation state that access through Lot 70 will be via a four (4) metre-wide gravel-sealed access track. The track will be located within a 20 metre-wide easement for access. At present the same landowner owns Lots 25 and 70 however, this may change in the future. It is therefore critical that the access is legalised to ensure access can continue to Lot 25 for the lifetime of the development.

It is noted that Lot 25 is bordered to the north by a Crown Road which runs through to Mogriguy Road. Access could be provided to Lot 25 from Mogriguy Road without having to travel through private property. The Applicant acknowledged the proposed access arrangement was chosen as it would involve the minimal amount of tree removal to provide a suitable means of access. The Crown road area also contains areas of high biodiversity. From an environmental perspective, it was seen as necessary to minimise disturbance to this area. The method of vehicular access proposed was also seen as the most economical method as the cost of constructing a private driveway would be less than that of upgrading a public roadway.

A condition has been recommended by Council's Technical Support Branch officers requiring that vehicular access into the property from Mogriguy Road be provided in the form of a bitumen-sealed, rural culverted access driveway constructed in accordance with Council standards. Such works would include the sealing of the access from the edge of the existing roadway to a distance of 30 metres inside the property boundary of Lot 70. Ordinarily, such works would be required to be completed prior to the issue of the first Occupation Certificate. In this instance the vast majority of vehicle movements would occur during the construction phase, as the solar farm will largely be remotely operated. Such intersection and road works would be required to be completed prior to works on Lot 25 associated with the solar farm commencing.

In addition, the Application has identified that B-Double vehicles will be used during the construction and decommissioning phase of the development to transport materials. Consequently, a condition has been included on the consent that the gates be setback a minimum distance of 25 metres to ensure the largest vehicle to access the site can stand clear of the road reserve while gates are opened or closed.

Element 4 – Design for Access and Mobility

The development will contain a site maintenance building. Under the Building Code of Australia (BCA), Section D3.4 contains concessions for providing disabled access. Given the nature of the development, it is envisaged it could avail itself to such concession. An appropriate notation could be included on any consent advising the Applicant to seek such concession if necessary with the Construction Certificate application.

Element 5 – Flooding

Despite there being ephemeral water courses on the property, Lots 25 and 70 are not considered to be flood-prone and as such there are no flooding considerations with this development.

Element 6 – Waste Management

During construction, solid waste may be generated through waste building materials, packaging and the like. An appropriate condition can be included on any consent requiring that construction waste be disposed of appropriately.

Upon operation, waste will be minimal. The only solid waste anticipated will be waste generated by the maintenance building or other construction waste generated through maintenance of the development. Again an appropriate condition could be included on any consent requiring that such wastes be stored and disposed of through the appropriate means.

Liquid waste will be generated through the use of plumbing fixtures within the maintenance building. With the land not being serviced by reticulated sewerage services, waste water will be required to be disposed of onsite through a waste water treatment system. In this regard, an appropriate condition can be included on any consent requiring that the Applicant make application to Council for approval of an Onsite Sewage Management Facility. Such application must be approved prior to any plumbing and drainage works being undertaken. It is considered there is ample space onsite for the provision of the effluent disposal field that complies with Environment and Health Protection Guidelines.

Liquid trade waste will not be generated by this development.

It is noted that the development will include a substation. No details have been provided as to its construction or operation, specifically whether it will contain oil products. An

appropriate condition should therefore be included on any consent requiring that should the development utilise oil-filled transformers, the transformers shall be appropriately banded to ensure oils are contained and will not pollute the local environment.

Chapter 3.5 Parking

As discussed, vehicular access to the development from the site boundary, as well as throughout the development, will be provided by way of a 4 metre-wide gravel sealed track within a 20 metre wide access easement. The design standard of such is considered appropriate given the infrequent nature of the access to the site, particularly following completion of construction.

No specific parking area is proposed. It is anticipated that vehicles could park adjacent to the maintenance building in an informal manner, of which there is sufficient space to do so. Given the nature of the facility, providing a formal parking area (in terms of line marking of spaces etc) is considered unnecessary in this instance. An appropriate condition could be included on the consent requiring that prior to the completion of the site maintenance building, a suitable parking area be provided adjacent to the maintenance building in accordance with the approved site plan.

- (v) Is there any matter prescribed by the regulations that applies to the land to which the Development Application relates?

No matters prescribed by the Regulations impact determination of the Development Application.

5. LIKELY IMPACTS OF THE DEVELOPMENT S79C(1)(b)

Natural and Built Environment

Has the Seven Part Test under Section 5A of the EP&A Act 1979 been considered to determine whether development is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats?

A review of the Application and an inspection of the site demonstrates the site is highly disturbed and modified through an extensive history of agricultural activities such as grazing and cropping. The Application acknowledges that approximately 29 black Cyprus Pine and white Cypress Pine trees will be required to be removed to enable the development to proceed. The Application also notes that every effort will be made to minimise vegetation removal or damage, particularly the more established trees. One (1) Narrow-leaved Ironbark tree has been noted in the south-eastern extent of the proposed access corridor and will be avoided if possible.

An Ecological Assessment has been undertaken and submitted with the Application. The Assessment drew the following conclusions:

“Field survey of the study area found no threatened species, populations or communities. Assessments of OEH, DPI Fisheries and DoE predicted species list found 10 species with potential to be affected by the proposal. Assessments of significance and seven part tests were applied to these species and found the proposal would not constitute a significant impact to any threatened biota.

Where possible, impact to the environment has been avoided through flexibility of location of the solar energy system. Additional safeguards and mitigation measures have been provided to minimise harm to the environment. If these are implemented then the proposal is unlikely to have a significant impact to species, populations and communities listed under the EPBC, TSC or FM Acts.”

The Assessment was reviewed by Council’s Environmental Control Branch officers who concurred with the findings of the Assessment and raised no concerns with the conclusions. An appropriate condition could be included on the consent that should any threatened species as defined under the Threatened Species Conservation Act, 1995 be observed during the operation, works are to cease and the National Parks and Wildlife Service is to be contacted.

Social/economic

Has the development the potential to have any adverse:

- *Social effect?*
- *Economic effect?*

It is considered the development will not result in any adverse social or economic impacts to the locality. The development will provide positive social and economic impacts to the locality and wider community. The capital investment value of the development is \$18 million and will employ a number of people during construction and one (1) person during operation. There will also be environmental benefits delivered to the region through this alternative energy producer.

6. SUITABILITY OF THE SITE S79C(1)(c)

Context, setting and public domain

- (i) *Will the development have an adverse effect on the landscape/scenic quality, views/vistas, access to sunlight in the locality or on adjacent properties?*

It is not anticipated that the development will have an adverse effect on the landscape or scenic quality of the locality. Further, the development will not reduce access to views or sunlight to neighbouring property.

- (ii) *Is the external appearance of the development appropriate having regard to character, location, siting, bulk, scale, shape, size, height, density, design or external appearance of development in the locality?*

It is considered the external appearance of the development is appropriate having regard to the character of the locality.

- (iii) *Is the size and shape of the land to which the Development Application relates suitable for the siting of any proposed building or works?*

It is considered the size and shape of the land is suitable for the siting of the proposed development.

- (iv) *Will the development proposal have an adverse impact on the existing or likely future amenity of the locality?*

It is considered the development will not have an adverse impact on the existing or likely future amenity of the locality.

Landscaping

- (i) *Has adequate provision been made for the landscaping of the subject land?*

The Application has identified that screen planting will be provided along the inside perimeter of the eastern side security fencing as a means of screening and improving the visual amenity of the development. Plans demonstrate that tree species would be native and range in height from 1 metre to 10 metres. An appropriate condition could be included on any consent requiring that landscaping, endemic to the Dubbo climate, be provided prior to the issue of the Occupation Certificate. As it is envisaged the development will be undertaken in stages, the condition should be worded so that landscaping is progressively undertaken as per the adjacent solar panel construction.

Environmental considerations

- (i) *Is the development likely to adversely impact/harm the environment in terms of air quality, water resources and water cycle, acidity, salinity soils management or microclimatic conditions?*

It is anticipated that the development will not have an adverse impact on the local environment. There are no activities proposed which are expected to cause adverse air, soil or water pollution. Appropriate conditions can be included on the consent to ensure possible environmental impacts are minimised or mitigated.

- (ii) *Is the development likely to cause soil erosion?*

Minor earthworks will be required to be undertaken for the construction of the development. Such works are considered minor with no erosion or sediment control plans required to be implemented. Upon completion of the development, erosion is not considered to be an adverse consequence.

(iii) *Is the development likely to cause noise pollution?*

It is anticipated some noise will be generated during construction of the development. To mitigate potential noise impacts, an appropriate condition should be included on the consent restricting construction work hours. Upon completion of the development, noise generation will be negligible. The solar panels themselves will not generate noise. The only noise generated will be through vehicles accessing the site to perform regular maintenance, cleaning etc, of which noise generation is expected to be minimal. Although minimal noise is expected to be generated, an appropriate condition could be included on the consent requiring that noise from the development shall not exceed the background noise level by more than 5dB(A) when measured at the most affected residence.

Access, transport and traffic

(i) *Has the surrounding road system in the locality the capacity to accommodate the traffic generated by the proposed development?*

The Application identifies that during the construction and decommissioning phases, heavy vehicle movements will be generated (although the daily number has not been specified). Upon completion of the development, access by vehicles will be minimal as the development will largely be operated and monitored remotely. A light vehicle will access the site approximately once per month to undertake these activities.

It is therefore considered that the surrounding road system has the capacity to accommodate traffic generated by the proposed development.

Any other requirements

(i) *Are there any other requirements which should be considered in determining the Application?*

The Application has addressed glare impacts from the solar panels. The Application has undertaken modelling of glare and glint impacts through a ForgeSolar PV Planning and Glare Analysis online tool. The Analysis identifies that the percentage of sunlight reflected by PV solar panels is similar to that of water and less than most other materials. The low reflectivity design of the solar PV panels maximises the absorption of solar energy and minimises the extent of solar energy reflected. The analysis subsequently drew the following conclusions:

"In conclusion, the proposed solar farm will generate low intensity and short duration potential glare hazards at the following observation points:

- *Observation point 2 – Observation point 2 – Residential dwelling 830m east of the solar farm*
- *Observation point 3 – residential dwelling 1km east of the solar farm*
- *Observation point 4 – Mogriguy Road user 1.1km east of the solar farm*

- *Observation point 9 – Railway line 1.4km east of the solar farm.”*

All observation points that may experience potential low intensity short duration glare impacts are located east of the solar farm. Potential impacts for temporary after image glare hazards to surrounding viewpoints will be alleviated by the implementation of a detailed landscaping plan, including landscaping along the eastern boundary of the site, as per the details for visual amenity mitigation and landscaping measures provided in Drawing TP05. On this basis it is considered that the impacts are manageable and can be reduced to an acceptable level.”

Based on the information provided, it is considered the development will not cause adverse glare or distraction impacts to neighbouring property or nearby roadways.

7. SUBMISSIONS S79C(1)(d)

Pursuant to Section 1.2.11 of the Dubbo Development Control Plan, ‘electricity-generating works’ in the RU1 zone require advertising in the local newspaper as well as notification letters to landowners in the general locality. The Application was subsequently advertised in the Daily Liberal on 15 September 2016 advising the exhibition period for the Application as being from 15 September 2016 to 29 September 2016. Landowners in the locality were also advised in writing of the Application. During the exhibition period, three (3) written submissions were received. Copies of these submissions are included in **Appendix 3** of this report. The key matters raised in the submissions are discussed below.

- *Landscaping should be on the outside of fencing*

Comment:

The submission writer owns the property to the east of the development site. The writer notes the landscaped buffer however has requested it be located on the outside of the security fence rather than on the inside. Having landscaping on the outside is considered to screen the ‘non-rural’ view of the man-proof fencing as well as the panels. Council raises no objection to this proposal. Similar solar farms have contained the landscaping on the outside of the fencing. Accordingly, an appropriate condition will be included on the consent that the landscaping shall be located on the outside of the security fencing. Other than amending the location of the landscaping, all other aspects of landscaping such as species and heights proposed shall remain as proposed.

- *Inadequate neighbour consultation*

Comment:

The submission writer expressed concern that during the pre-lodgement phase they were not consulted with by the developer/landowner, despite being a neighbouring property owner. Prelodgement consultation is undertaken at the discretion of the developer. Council only undertakes neighbour notification after an Application has been lodged in accordance with the requirements of the Dubbo Development Control Plan 2013.

- *Watercourse identification*

Comment:

The submission writer sought clarification as to how water courses and buffer zones were identified. The water courses on plans have been cross-checked with water courses as identified on NSW Office of Water mapping. This mapping shows the water courses in the same location as that shown on the development plans. The plans are therefore considered accurate. Scaling the plans demonstrates the accuracy of the 40 metre buffer around the water courses, with no works proposed within the 40 metre buffer area.

- *Water for landscaping*

Comment:

The submission writer sought clarification as to where water for landscaping will be sourced. The Landscaping Plan identifies that species chosen will be native plantings ensuring irrigation for the plants would be minimal. However, regular watering would still be required at establishment. It has not been identified how water will be sourced however it is noted that there are a number of dams on the property. Water could be sourced from these for irrigation purposes.

An appropriate condition has been included on the consent requiring that landscaping be installed prior to the issue of the Occupation Certificate, and maintained for the life of the project. This will provide sufficient capacity for Council to enforce the objective of providing screening vegetation and ensure it is appropriately maintained.

- *Inadequate fencing*

Comment:

The submission writer identified that there is no fencing proposed along the northern boundary of Lot 25. A review of plans however demonstrates that the proposed security fencing, being chainwire and barbed wire fencing to a height of 2-2.4 metres, will be provided along the northern boundary of Lot 25. An appropriate condition will be included on the consent that the entire security fencing be completed prior to the issue of the first Occupation Certificate.

- *Legality of access corridor*

Comment:

In order to provide vehicular access to the development on Lot 25, an access track is proposed through Lot 70. A 'Right of Access' easement 20 metres wide would encompass this access track. Lot 25 will be benefitted by such easement with Lot 70 burdened. This will ensure legal access to the development can be obtained even if either property is sold. An appropriate condition will be included on the consent that prior to the issue of the first Occupation Certificate, the easement is to be registered with the NSW Department of Land and Property Information (LPI).

- *Duration of operation – decommissioning*

Comment:

The Application states that the estimated operating life of the system is 25 years. It further states that following project completion the solar farm would be decommissioned and all above-ground infrastructure reused, including rehabilitation of the site to return for use as primary production. Prior to works associated with the decommissioning of the solar farm, a Decommissioning Plan is to be prepared and supplied to Council for approval. It will be the responsibility of the operator at the time to prepare the Decommissioning Plan and undertake the works it entails.

- *No impacts to the adjoining Medway Road crown road*

Comment:

The submission writer requested that the development not impact on Medway Road (Crown road) by way of obstructing access along this roadway in any way. The writer utilises this road as the only means of access to his property. A review of plans has demonstrated that the development will not encroach on this Crown road. This includes the security fencing which will also be included within the property boundaries.

- *Dispersal of stormwater onto Medway Road*

Comment:

The submission writer notes that there is an approval to divert stormwater from the undeveloped portion of Lot 25 onto Medway Road via a series of contour banks. Concerns were raised that stormwater may also be diverted off the development onto Medway Road. It is considered that the design of the development will not result in any additional run-off from the development onto Medway Road to what presently occurs. Further, it is considered the development will not alter the location or function of any contour banks located across the Crown road.

Further, any previous approvals for works within this roadway or for the construction of the contour banks as issued by Council, LPI, Department of Trade and Investment or Crown Lands are not relevant to this Application as the development is not altering these or their functions. Any dispute regarding these contour banks across Medway Road is a private matter and is not relevant to this development assessment.

8. PUBLIC INTEREST S79C(1)(e)

There are no matters other than those discussed in this assessment that would be considered to be contrary to the public interest.

9. SECTION 64/94 DEVELOPER CONTRIBUTIONS

a) *Water Supply Headworks Contributions Policy (Section 64)*

The property is not connected to reticulated water services. The Application states that water for the maintenance building will be trucked in and stored in tanks onsite. Further, even if the development was utilising Council water, daily water usage is considered to be minimal and be less than the 1 ET equivalent of 5,000 L per day. Therefore, water supply headworks contributions are not applicable in this instance.

b) *Sewerage Supply Headworks Contributions Policy (Section 64)*

The property is not connected to reticulated sewerage services. The Application states that sewage from the site will be disposed of via an onsite septic system. Therefore, sewerage supply headworks contributions are not applicable in this instance.

c) *Open Space and Recreation Facilities Contributions Policy (Section 94)*

As the development is not residential development, open space contributions are not applicable.

d) *Urban Stormwater Drainage Headworks Contributions Policy (Section 94)*

The property is located outside the stormwater catchment area and therefore contributions are not applicable.

e) *Urban Roads Contributions Policy (Section 94)*

The property is located outside the urban area as identified in the Policy and therefore any development on this property does not incur urban roads contributions. Nevertheless, even if the property was subject to potential contributions, the Application identifies that upon completion of the development, a vehicle will only be required to access the site approximately once per month for maintenance, cleaning etc. This is well below the credit of 11 daily trips and therefore urban roads contributions are not applicable.

10. INTERNAL REFERRALS

Building Assessment

Council's Building Services Supervisor (BSS) in their report dated 14 September 2016 did not raise any significant issues that require further investigation or that would prevent the Application from being granted consent subject to conditions. The conditions and notations recommended by the BSS have been included in **Appendix 1** to this report.

The BSS identified that although part of the property within and adjacent to the development site is not designated as being Bushfire Prone Land under the NSW RFS Commissioners map, the land is bushfire-prone by reason of the grassland hazard present on the rural land. On

review of the requirements of the *Planning for Bushfire Protection Guideline 2006*, it is recommended that an Asset Protection Zone (APZ) be provided around development as well as a dedicated 20,000 L water supply for bushfire purposes. Appropriate conditions in this regard will be included on the development consent.

Engineering Assessment

Council's Development Engineer in their report dated 10 October 2016 did not raise any significant issues that require further investigation or that would prevent the Application from being granted consent subject to conditions. The conditions recommended by the Development Engineer have been included in the recommended conditions included in **Appendix 1**.

Environment and Health Assessment

Council's Senior Environment and Health Officer (SEHO) in their report dated 27 September 2016 did not raise any significant issues that require further investigation or that would prevent the Application from being granted consent subject to conditions. The conditions and notations recommended by the SEHO have been included in **Appendix 1** to this report.

11. SUMMARY

The Applicant is seeking development consent to undertake a solar energy system (photovoltaic) and associated infrastructure at Lot 25 DP 754314 and Lot 70 DP 754328, 65L Mogriguy Road, Brocklehurst (**Appendix 2**).

The proposed development is not considered likely to have any significant negative impacts upon the environment or upon the amenity of the locality.

The proposed development is consistent with the objectives of the applicable Environmental Planning Instruments, Development Control Plans and Council policies and is therefore recommended for approval subject to the conditions of consent provided in **Appendix 1**.

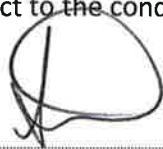
12. RECOMMENDATION

Having considered the matters raised and discussed in the assessment of the Application proposal, the subject Development Application D16-427 for a solar energy system (photovoltaic) at Lot 25 DP 754314 and Lot 70 DP 754328, 65L Mogriguy Road, Brocklehurst is recommended for approval subject to the conditions included here as **Appendix 1**.



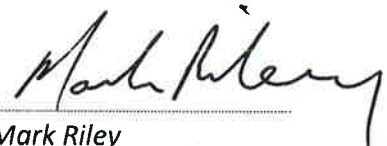
Shaun Reynolds
Senior Planner 1

Date: 15/11/16



Stephen Wallace
Director Environmental Services

Date: 15.11.16



Mark Riley
Interim General Manager

Date:

CONDITIONS

- (1) The development shall be undertaken generally in accordance with the Statement of Environmental Effects and stamped approved plans detailed as follows except where modified by any of the following conditions:

Drawing Title: Proposed Site Layout
Drawing Number: TP03 of TP08
Dated: 30/09/2016
Revision: A

Drawing Title: Solar Module Detail
Drawing Number: TP04 of TP08
Dated: 30/09/2016
Revision: A

Drawing Title: Landscaping Plan
Drawing Number: TP05 of TP08
Dated: 30/09/2016
Revision: A

Drawing Title: Fencing Plan
Drawing Number: TP06 of TP08
Dated: 30/09/2016
Revision: A

Drawing Title: Access Corridor Alignment
Drawing Number: TP07 of TP08
Dated: 30/09/2016
Revision: A

Drawing Title: Indicative Site Elevations
Drawing Number: TP08 of TP08
Dated: 30/09/2016
Revision: A

{Reason: To ensure that the development is undertaken in accordance with that assessed}

- (2) Prior to works commencing the Applicant shall ensure that a sign is erected on the work site in a prominent position at the front of the property showing:
- (a) The name, address and telephone number of the Principal Certifying Authority (PCA) for the work;
 - (b) The name of the principal contractor for the building work and a telephone number on which that person may be contacted outside of working hours; and
 - (c) Stating that unauthorised entry to the work site is prohibited.

Such sign must be maintained on the site during the course of the building work and not be removed until the work has been completed.

{Reason: Statutory condition imposed by clause 98A of the EP&A Regulation 2000}

- (3) The person having the benefit of this Development Consent must unless that person is the principal contractor, ensure that the principal contractor has been notified of the critical stage inspections and any other inspections that are specified by the appointed Principal Certifying Authority (PCA) to be carried out.

Note: The 'principal contractor' is the person responsible for the overall coordination and control of the carrying out of the building work.

{Reason: Statutory requirement imposed by the EP&A Act 1979}

- (4) The drainage and plumbing installation shall comply with the provisions of the Local Government (General) Regulation, 2005 and the requirements of Council as the delegated regulatory authority.

{Reason: Statutory and Council requirement}

- (5) The sanitary drainage associated with the proposed Site Office building requires the separate approval of Council prior to being installed. In this regard a Sewage Management Facility Application form is available from Council, and must be completed and returned to Council with all associated design, installation details and fees. No drainage must be installed until Council has approved the proposed treatment and disposal method for the site and issued an approval to install the intended sewage management facility.

{Reason: Council and statutory requirement of Section 68 Local Government Act 1993}

- (6) All sanitary plumbing and drainage work associated with the sewage management facility shall be carried out by a licensed plumber and drainer.

{Reason: Council requirement to ensure installation is performed by an appropriately qualified person}

- (7) The top of the Site Office building's overflow (relief) gully shall be a minimum 150 mm below the building's lowest sanitary fixture.

The building's overflow (relief) gully shall also:

- (a) Be a minimum 75 mm above the finished surrounding ground level; or
- (b) Where the overflow (relief) gully is located in a path or paved area which is finished such that surface water cannot enter it and is graded away from the building, it may be finished level with such path or paved area.

{Reason: Statutory requirement}

- (8) Any hot water delivered to the outlet of the Site Office building's hand-basin shall not exceed 50°C.

{Reason: Statutory requirement of Plumbing and Drainage Act}

- (9) All excavations associated with the erection of the buildings and installation of associated services must be properly guarded and protected to prevent them from being dangerous to life or property.

{Reason: Council requirement for protection of public and tradesmen}

- (10) All building work must be carried out in accordance with the provisions of the Building Code of Australia.

{Reason: Prescribed statutory condition under EP&A Act}

- (11) The following applicable works shall be inspected and passed by an officer of Council, irrespective of any other inspection works undertaken by an accredited certifier, prior to them being covered. In this regard, at least 24 hours notice shall be given to permit such inspections to be performed. When requesting an inspection please quote Council's reference number (located in the top left hand corner of this page).

Advanced notification for an inspection should be made by emailing enviroadmin@dubbo.nsw.gov.au or by telephoning Council's Environmental Services Division on 6801 4612.

- Internal and external sanitary plumbing and drainage under hydraulic test.
- The development's sewage management facility installation and disposal field.
- Final inspection of the installed sanitary fixtures and sewage management facility upon the building's completion prior to its occupation or use.

{Reason: Statutory provision and Council requirement being the sewage regulatory authority}

- (12) The Site Office building's roof water shall be discharged at least 3 m clear of the building without detriment to any adjoining structures.

{Reason: To ensure appropriate drainage disposal without adverse impact}

- (13) A site rubbish container shall be provided on the site for the period of the construction works prior to commencement of any such work.

{Reason: Council requirement to prevent pollution of the environment by wind-blown litter}

- (14) An Asset Protection Zone (APZ) of minimum width of 10 metres shall be provided around the Site Office building, Substation 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 m 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 applicable to each structure shall be established prior to the issue of that building's 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}

- (15) The water storage tank servicing the proposed Site Office building shall have a minimum storage of 20,000 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 fire-fighting 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.
{Reason: Council requirement & implementation of 'Planning for Bush Fire Protection 2006' guidelines for adequate water supply for fire-fighting}

- (16) Noise from the development (L_{Aeq}) shall not exceed the background (L_{A90}) by more than 5dB(A) at any time including any allowance for impulsiveness and tonal characteristics, when measured at the most affected residence.

{Reason: Council requirement to prevent the generation of a noise nuisance}

- (17) Construction work shall only be carried out within the following time:

Monday to Friday: 7:00 am to 6:00 pm

Saturday: 8:00 am to 1:00 pm

Sunday and public holidays: No construction work permitted

{Reason: Council requirement to reduce likelihood of noise nuisance}

- (18) If any threatened species as defined under the Threatened Species Conservation Act 1995 are observed during the operation, work is to cease and the National Parks and Wildlife Service is to be contacted.

{Reason: To protect and preserve the existing native vegetation and conserve the habitat for local flora and fauna and a requirement of the National Parks and Wildlife Service}

- (19) The development shall adhere to the recommendations of the Aboriginal Heritage Due Diligence Assessment prepared by OzArk Environmental and Heritage Management, dated August 2016. This shall include avoiding the Aboriginal artefact site as identified in the Assessment and shown on the approved site plan, unless prior approval has been sought.

{Reason: To ensure the protection and preservation of Aboriginal sites and artefacts}

- (20) In the event of any Aboriginal archaeological material being discovered during earthmoving/construction works, all work in that area shall cease immediately and the Office of Environment and Heritage (OEH) notified of the discovery as soon as practicable. Work shall only recommence upon the authorisation of the OEH.

{Reason: Council and statutory requirement to protect Aboriginal heritage}

- (21) Should any contaminated, scheduled, hazardous or asbestos material be discovered before or during construction works, the applicant and contractor shall ensure the appropriate regulatory authority (eg Office of Environment and Heritage (OEH), WorkCover Authority, Council, Fire and Rescue NSW etc) is notified, and that such material is contained, encapsulated, sealed, handled or otherwise disposed of to the requirements of such Authority.

Note: Such materials cannot be disposed of to landfill unless the facility is specifically licensed by the EPA to receive that type of waste.

{Reason: Council requirement to prevent the contamination of the environment}

- (22) All solid waste from construction and operation of the proposed development shall be assessed, classified and disposed of in accordance with the *Department of Environment and Climate Change - Waste Classification Guidelines*. Whilst recycling and reuse are preferable to landfill disposal, all disposal options (including recycling and reuse) must be undertaken with lawful authority as required under the Protection of the Environment Operations Act.
{Reason: Council requirement to require compliance with the POEO Act}
- (23) Waste construction materials including soil arising from the development, must be disposed of at an appropriately licensed waste facility.
{Reason: To ensure environmentally safe disposal}
- (24) Prior to the release of any Construction Certificate the beneficiary of the consent shall provide a complete Construction Environment Management Plan (CEMP) to Council for approval.
{Reason: To ensure appropriate environmental mitigation measures are provided to the site during the construction phase.}
- (25) Prior to the release of any Occupation Certificate the beneficiary of the consent shall provide a complete Operation Environment Management Plan (OEMP) to Council for approval.
{Reason: To ensure environmental protection throughout the operation of the development.}
- (26) The proposed substation shall be provided with appropriate bunding of similar containment systems with a capacity that will exceed the oil storage volume of the transformers.
{Reason: To prevent water or land contamination from potential spills or leaks from the transformers within the substation.}
- (27) Prior to construction works associated with the solar panels and associated infrastructure/buildings commencing, the provision by and at full cost to the Developer of a bitumen sealed rural culverted access driveway constructed generally in accordance with Council's standard STD 1264 for the proposed solar energy system development, including sealing of the proposed right of carriageway for a minimum length of 30 metres. Such access shall be constructed along Mogriguy Road at location which provided adequate site distance in either direction (i.e. minimum 250m in both directions).

The pipe culverts and headwalls are not to be located within 5 metres of the outer edge of the through travel lane of Mogriguy Road with such culverted access also being constructed at a minimum level grade height as that of the existing bitumen sealed roadway. This work may require reshaping of the existing road table drain. Additionally, the property access gateways should be located with a setback such that all vehicles proposed to enter and/or exit the proposed allotment and subject land are able to stand clear of the through travel lanes of Mogriguy Road whilst opening and/or closing the property gateway.

Should Council's Development Engineer (or his representative) not undertake the required inspections as detailed in the abovementioned Council standard, then a detailed

list of inspections undertaken by an accredited private certifier verifying compliance with the abovementioned Council standard will be required to be lodged with Council prior to construction works commencing.

Inspections required:

Council's Development Engineer (or his representative) shall be given at least 48 hours' notice prior to any inspections. Inspections shall be obtained at the following stages:

- Site inspection prior to any construction works commencing;
- Prior to backfill of pipe culverts;
- Prior to placement of (or pouring of cast-in-situ) headwalls; and
- Prior to bitumen sealing of the gravel pavement.

Prior to ANY works commencing on the vehicular cross over along Mogriguy Road, the Applicant/Developer is required to make a **separate** 'Driveway Inspection Application' with Council's Technical Services Division, plus payment of the appropriate fee(s).

{Reason: To provide a satisfactory means of access from the roadway to the boundary of the subject land}

- (28) Under no circumstances are any construction works or activities to commence on or within the road reserve area (which includes the footpath area) until such time as a 'Road Opening Application' has been lodged with and approved by Council. As part of the proposed works encroaches onto Mogriguy Road (and/or road) areas, a separate 'Road Opening Application' (Section 138 Application under the Roads Act 1993) will be required to be made to Council's Technical Services Division, plus payment of any appropriate fee(s).

Prior to the issue of the Occupation Certificate for the proposed development, the Developer/Applicant is to provide the Principal Certifying Authority (PCA) with written evidence/confirmation that the required S138 Application was lodged with Council, and that any relevant condition(s) have been complied with.

{Reason: Implementation of Council's Policy and Section 138 of the Roads Act}

- (29) Any alteration/damage to the road or road shoulder including utility services, shall be repaired/restored at full cost to the Developer and in accordance with Council's adopted AUS-SPEC #1 Development Specification Series - Construction standards.

{Reason: Implementation of Council policy}

- (30) Prior to construction works of the solar farm and associated structures commencing, the creation by the Developer under Section 88B of the Conveyancing Act of a Right of Carriageway having a minimum width of 20 metre through Lot 70 DP 754328 in favour of Lot 25 DP 754314. Evidence of registration of such easement shall be provided to Council prior to these works commencing.

{Reason: To achieve a satisfactory means of access to the proposed development}

- (31) The construction by the Developer (at their own expense) of a 4 metre wide access driveway to be centrally located within and for the full length of the 20 metre wide Right of Carriageway within Lot 70 DP 754328 to the satisfaction of Council. The access driveway shall be constructed of an all-weather surface that is suitable for the proposed traffic loadings. A passing bay shall be provided every 200 metres to allow heavy vehicles to pass each other.

{Reason: To achieve a satisfactory means of access to the proposed development}

- (32) No vehicles larger than a "B-double 26.0m in length" (utilising the Austroads design templates) are permitted to access the subject land and development proposal.

{Reason: Mogriguy Road at this location is only gazetted to carry B-Double vehicles}

- (33) All loading and unloading of goods related to the development proposal shall be carried out within the confines of the allotment's boundary. Under **no** circumstances will the loading or unloading of goods on the public roadway system be permitted.

{Reason: Requirement of Council so as not to create adverse traffic conditions}

- (34) No materials, goods, plant or vehicles associated with the proposed development shall be stored, displayed or placed for advertising purposes outside the allotment's boundary.

{Reason: Implementation of Council's policy codes}

- (35) The access gateway(s) associated with the perimeter fencing with the Mogriguy Road road reserve are to be "set-back" at the proposed entry and exit location(s), such that at a bare minimum a 26.0 metre B-double vehicle is able to "stand clear" and be totally contained within the subject lands allotment boundaries and not at any stage overhang onto the road reserve area whilst the operator of such vehicle may be required to lock and/or unlock the access gateway(s).

{Reason: To provide safety for the travelling public utilising the public road system}

- (36) The proposed landscaping shown on the approved Landscaping Plan (Drawing No. TP05 dated 30/09/2016 – Revision A) shall be established and maintained to at least the standard specified on the approved development plans (as amended in red).

The landscaping shall have a minimum mature height of 3 m utilising deep rooted, water tolerant, native plant species endemic to the Dubbo local area. The landscaping shall be provided along the outside (eastern side) of the proposed security fence along the eastern side of the development site and be maintained for the life of the project. Council's Parks and Landcare Division should be consulted on the type of species chosen.

Such landscaping shall at a minimum be undertaken progressively in stages to correlate with the construction of adjacent solar panel(s). In this regard, landscaping shall be completed prior to the issue of the Occupation Certificate for the adjacent solar panel(s).

{Reason: To maintain and improve the aesthetic quality of the development}

- (37) A separate application for any proposed onsite advertising/signage shall be submitted to Council if such signage does not comply with Part 2, Division 2 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

{Reason: To ensure onsite advertising/signage is appropriate for the site and the locality}

- (38) Prior to the issue of any Construction Certificate an Emergency Management Plan (EMP) for the development shall be submitted to and approved by Council. The EMP shall address emergency management procedures associated with fire risk as a consequence of the built features of the development (i.e. solar panels, electrical wiring, substations etc), including containment of any contaminants on-site.
{Reason: To ensure the protection of human life, the environment and adjoining property in the event of fire or other emergency generated by the development}
- (39) Security fencing around the perimeter of the development site as shown on the approved Fencing Plan (Drawing No. TP06 dated 30/09/2016 – Revision A) shall be completed prior to the issue of the first Occupation Certificate.
{Reason: To ensure appropriate security is provided around the development site}
- (40) Prior to the issue of the Occupation Certificate for the site office/amenities building a suitable vehicle parking area shall be provided adjacent to the building.
{Reason: To ensure the development provides suitable off-street car parking for those utilising the development}

NOTES:

- (1) A separate application is required to be submitted to either Council or an accredited certifier to obtain a Construction Certificate to permit the erection of the proposed structures.
- (2) The proposed structures shall not be occupied or used until the appointed Principal Certifying Authority (PCA) has first issued an Occupation Certificate.
- (3) If Council is engaged to act as the Certifying Authority for the Construction Certificate application(s) the following shall be included with such application(s):

Site Office Building

- (a) Type and location of required portable fire extinguishers;
- (b) Specifications detailing the proposed building's compliance with the relevant provisions of Section J *Energy Efficiency* of the BCA;
- (c) Details demonstrating the provision of disabled access to and within the subject Site Office building as required by the BCA and Access Code; (if deemed-to-satisfy solution utilised); or otherwise any exemption relied upon under clause D3.4, or a performance solution prepared under Part A0 of the BCA to address the applicable Performance Requirements under the BCA and Access Code;
- (d) Details demonstrating that a continuous accessible path of travel for disabled persons is provided from the allotment boundary at a point of entry from Mogriguy Road, to the doorway at the entrance floor and through the principle pedestrian entrance of the Site Office building (if deemed-to-satisfy solution utilised). Otherwise, details of any exemption relied upon under clause D3.4, or a

- performance solution prepared under Part A0 of the BCA to address the applicable Performance Requirements under the BCA and Access Code;
- (e) Details demonstrating the provision of a unisex disabled accessible toilet to the Site Office building (if deemed-to-satisfy solution utilised); or otherwise any exemption relied upon under clause D3.4, or a performance solution prepared under Part A0 of the BCA to address the applicable Performance Requirements under the BCA and Access Code;
- (f) Plans indicating compliance with AS 1428.1-2009 as adopted by the BCA and Access Code with respect to the applicable design of the Site Office building and any required disabled accessible sanitary compartment. Attention should also be given to the following aspects under the BCA and AS 1428.1-2009, and be appropriately detailed where required, in any submitted plans/specifications:
- Doors having a clear unobstructed width of at least 850 mm (clause 13.2, AS 1428.1). Note: designers should take particular care with respect to the nominal door width that is specified, as council has observed some 920 mm doors fail to achieve compliance;
 - Door controls (clause 13.5, AS 1428.1);
 - Luminance contrast at doorways (clause 13.1, AS 1428.1);
 - Luminance contrast to vision strips on glazed doors and side panels (clause 6.6, AS 1428.1);
 - Luminance contrast to toilet seats (clause 15.2.3, AS 1428.1);
 - Floor and ground surfaces having tolerances as specified under section 7, AS 1428.1;
 - Tactile ground surface indicators (TGSIs) under BCA clause 3.8 and provided with a luminance contrast as specified under clause 2.2 of AS/NZS 1428.4.1;
 - Signage as specified under section 8 AS1428.1 and BCA clause D3.6;
 - Electrical switches (clause 14.2, AS 1428.1);
- (g) All structural details including specifications and design drawings and statement(s)/certificate(s) by the design engineer stipulating the Australian Standards specified under Part B of the BCA that the design complies with, including its design wind load parameters and site reactivity classification and design;
- (h) Submission of a list of all proposed essential fire safety measures applicable to the building; and
- (i) Details of the water storage tank servicing the Site Office building.

PV Module Structures

- (j) All structural details including specifications and design drawings and statement(s)/certificate(s) by the design engineer stipulating the Australian Standards that the module support structure and footing design complies with, including its design wind load parameters.
- (4) Offensive noise as defined under the Protection of the Environment Operations Act 1997 shall not be emitted from the proposed development.

Air impurities as defined under the Protection of the Environment Operations Act 1997 shall not be released or emitted into the atmosphere in a manner which is prejudicial to the health and safety of occupants, the surrounding inhabitants or the environment.

- (5) The Development shall be carried out in accordance with Essential Energy's correspondence dated 2 November 2016 (copy attached).
- (6) Any exterior lighting associated with the development shall be designed and installed so that no obtrusive light will be cast onto any adjoining property and the emittance of light to the night sky will be minimised.

RIGHT OF REVIEW AND APPEAL:

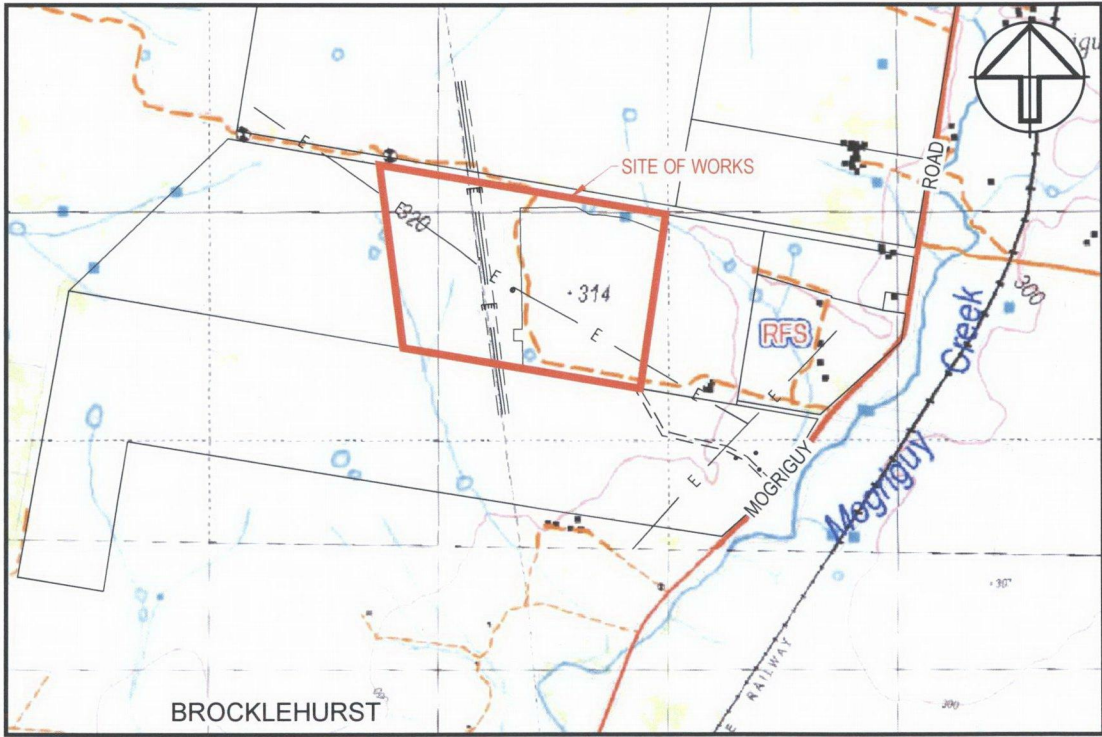
Right of Review: Section 82A of the Environmental Planning and Assessment Act 1979 confers the right for an applicant to make a request to the Council for it to review its determination, within six months after the date on which the applicant received this notice. Any requests for a review are required to be accompanied by a fee as set in Council's revenue policy.

Note: Pursuant to s82A(4) a Council is not obligated to accede to a request for review.


Right of Appeal: Section 97 of the Environmental Planning and Assessment Act 1979 confers the right for an applicant who is dissatisfied with Council's determination to appeal to the Land and Environment Court within six months after the date on which you receive this Notice.

PROPOSED SOLAR FARM
65 MOGRIGUY ROAD, BROCKLEHURST
SUNWORX SOLAR PTY LTD
PROPOSED SOLAR FARM LAYOUT

SCHEDULE OF DRAWINGS	
DRAWING	TITLE
TP01	TITLE SHEET
TP02	EXISTING SITE
TP03	SOLAR MODULE LAYOUT
TP04	SOLAR MODULE DETAIL
TP05	LANDSCAPING PLAN
TP06	FENCING PLAN
TP07	ACCESS CORRIDOR ALIGNMENT
TP08	INDICATIVE SITE ELEVATIONS



SITE LOCALITY
NOT TO SCALE

**GEOLYSE**
ORANGE
154 PEISLEY STREET
P.O. BOX 1963
ORANGE, NSW 2800
orange@geolyse.com
www.geolyse.com

154 PEISLEY STREET
P.O. BOX 1963
ORANGE, NSW 2800
Ph: (02) 6393 5000
Fx: (02) 6393 5050

REV.	DATE	DFTD	APPD.	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW

DRAWING SCALE

DO NOT SCALE FROM THESE DRAWINGS. ALL MEASUREMENTS SHALL BE
CONFIRMED ON SITE AND WITH GEOLYSE PTY LTD. PRIOR TO CONSTRUCTION.

APPROVAL AUTHORITY

WESTERN PLAINS REGIONAL COUNCIL

CLIENT

SUNWORX SOLAR PTY LTD

PROJECT

65 MOGRIGUY ROAD, BROCKLEHURST
PROPOSED SOLAR FARM

DRAWING

TITLE SHEET

PROJECT NUMBER 216060 DRAWING FILE 216060_01A_TP01-TP08.dwg ORIGINAL

DATA SOURCE - A1

IMAGE SOURCE - SET

STATUS FOR REVIEW SHEET TP01 OF TP08 01A



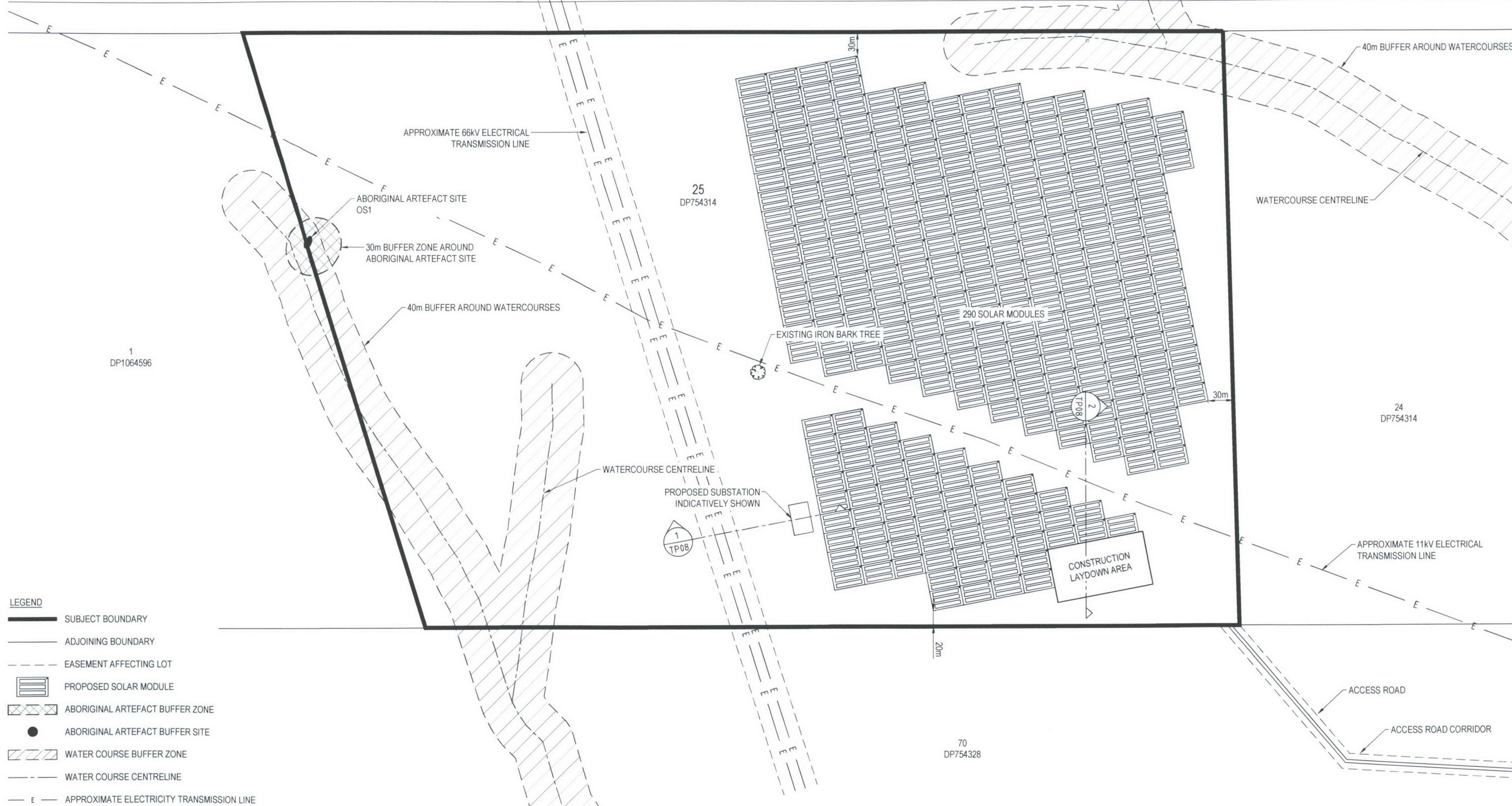
12
DP233319

2
DP233319

25
DP754314

24
DP754314

70
DP754328



- LEGEND**
- SUBJECT BOUNDARY
 - ADJOINING BOUNDARY
 - EASEMENT AFFECTING LOT
 - PROPOSED SOLAR MODULE
 - ABORIGINAL ARTEFACT BUFFER ZONE
 - ABORIGINAL ARTEFACT BUFFER SITE
 - WATER COURSE BUFFER ZONE
 - WATER COURSE CENTRELINE
 - APPROXIMATE ELECTRICITY TRANSMISSION LINE

GEOLYSE
ORANGE
154 PEISLEY STREET
P.O. BOX 1963
ORANGE, NSW 2800
Ph: (02) 6393 5000
Fx: (02) 6393 5050
orange@geolyse.com
www.geolyse.com

REV	DATE	DFTD	APPD	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW

DRAWING SCALE

SCALE 1:2500 (A1)

0 50 100 150 200

SCALE 1:5000 (A3)

0 50 100 150 200

DO NOT SCALE FROM THESE DRAWINGS. ALL MEASUREMENTS SHALL BE CONFIRMED ON SITE AND WITH GEOLYSE PTY LTD. PRIOR TO CONSTRUCTION.

APPROVAL AUTHORITY

WESTERN PLAINS REGIONAL COUNCIL

CLIENT

SUNWORX SOLAR PTY LTD

PROJECT

65 MOGRIGUY ROAD, BROCKLEHURST
PROPOSED SOLAR FARM

DRAWING

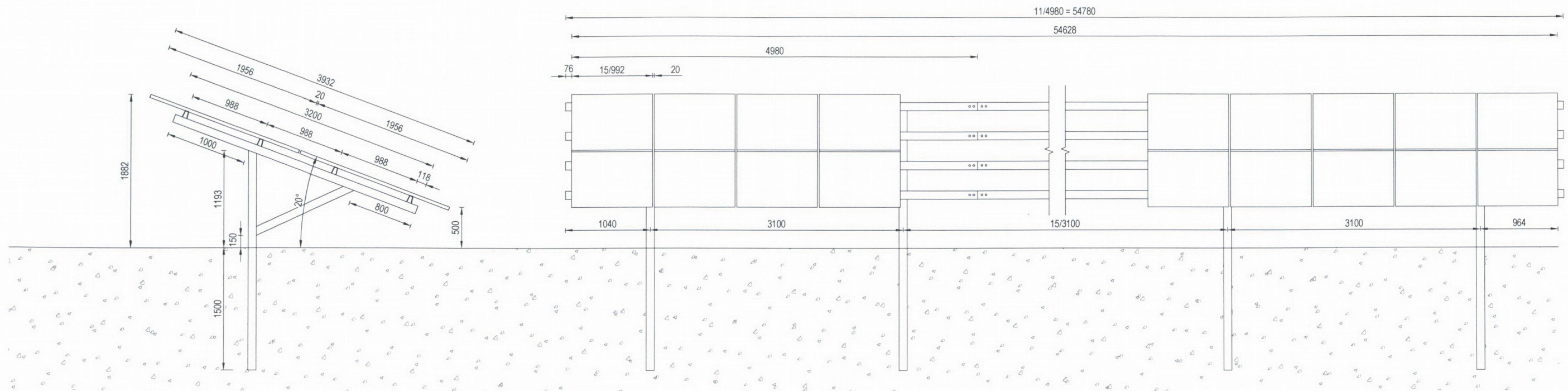
PROPOSED SITE LAYOUT

PROJECT NUMBER 216060 DRAWING FILE 216060_01A_TP01-TP08.dwg ORIGINAL A1

DATA SOURCE - SET

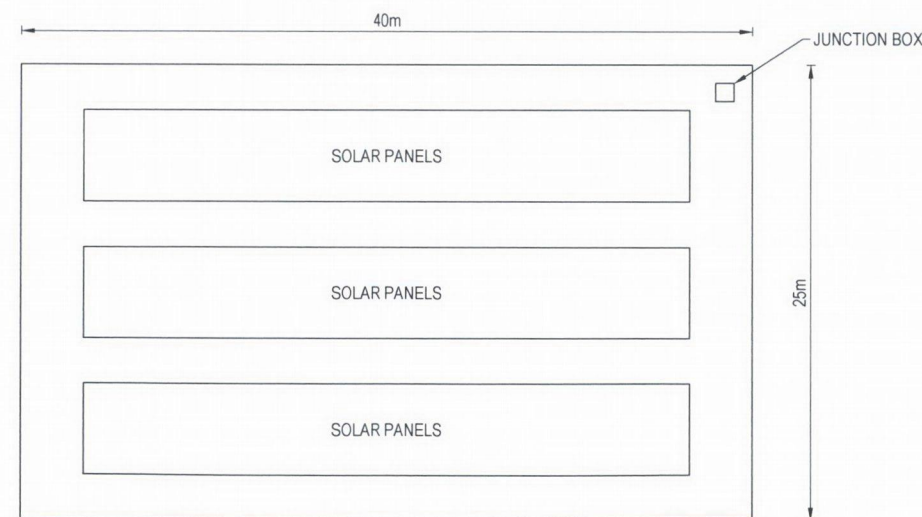
IMAGE SOURCE -

STATUS FOR REVIEW SHEET TP03 OF TP08 01A

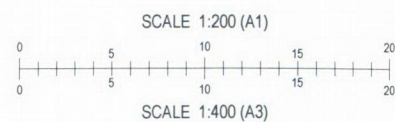


TYPICAL SOLAR MODULE
SIDE ELEVATION
SCALE 1:25 (A1)
SCALE 1:50 (A3)

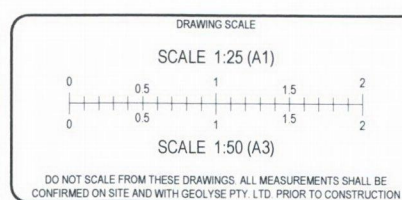
TYPICAL SOLAR MODULE
FRONT ELEVATION
SCALE 1:25 (A1)
SCALE 1:50 (A3)

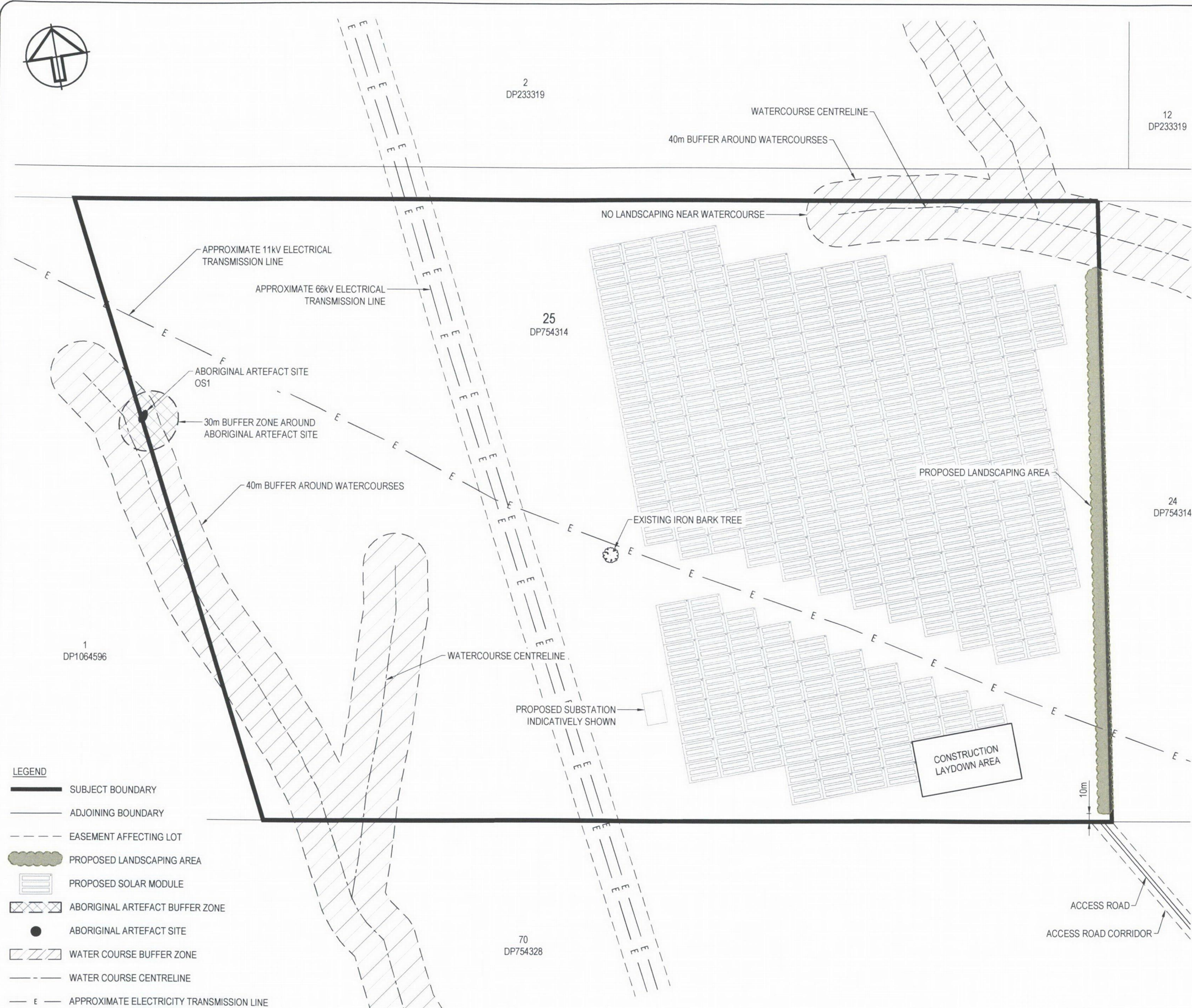


TYPICAL SOLAR MODULE PLAN
100kW MODULE
SCALE 1:200 (A1)
SCALE 1:400 (A3)



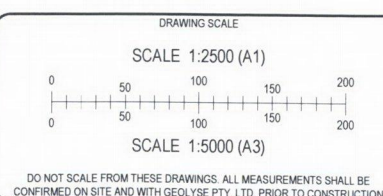
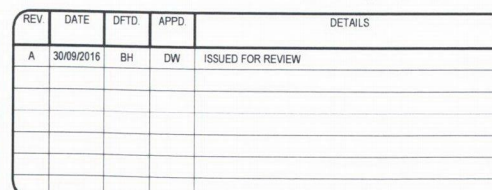
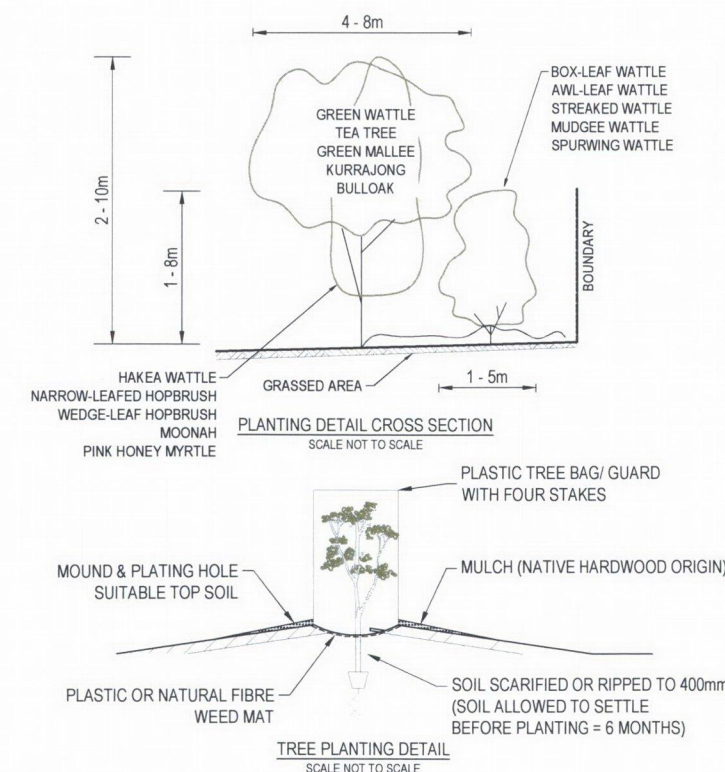
REV	DATE	DFTD	APPD	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW





SHRUBS AND TREES WOULD BE PLANTED INTO A 400mm DEEP RIPPED LINE (ALLOWED TO SETTLE) AND PROTECTED WITH TREE GROW-BAGS, WEED MAT AND MULCH (NATIVE HARDWOOD ORIGIN). STOCK FENCING WOULD BE ERECTED IF NECESSARY. IT IS RECOMMENDED THAT WATERING IS CARRIED OUT DURING DRYER PERIODS DURING ESTABLISHMENT, PARTICULARLY IF THE PLANTING PERIOD IS CARRIED OUT DURING LATE WINTER/EARLY SPRING AS OPPOSED TO LATE AUGUST PLANTINGS.

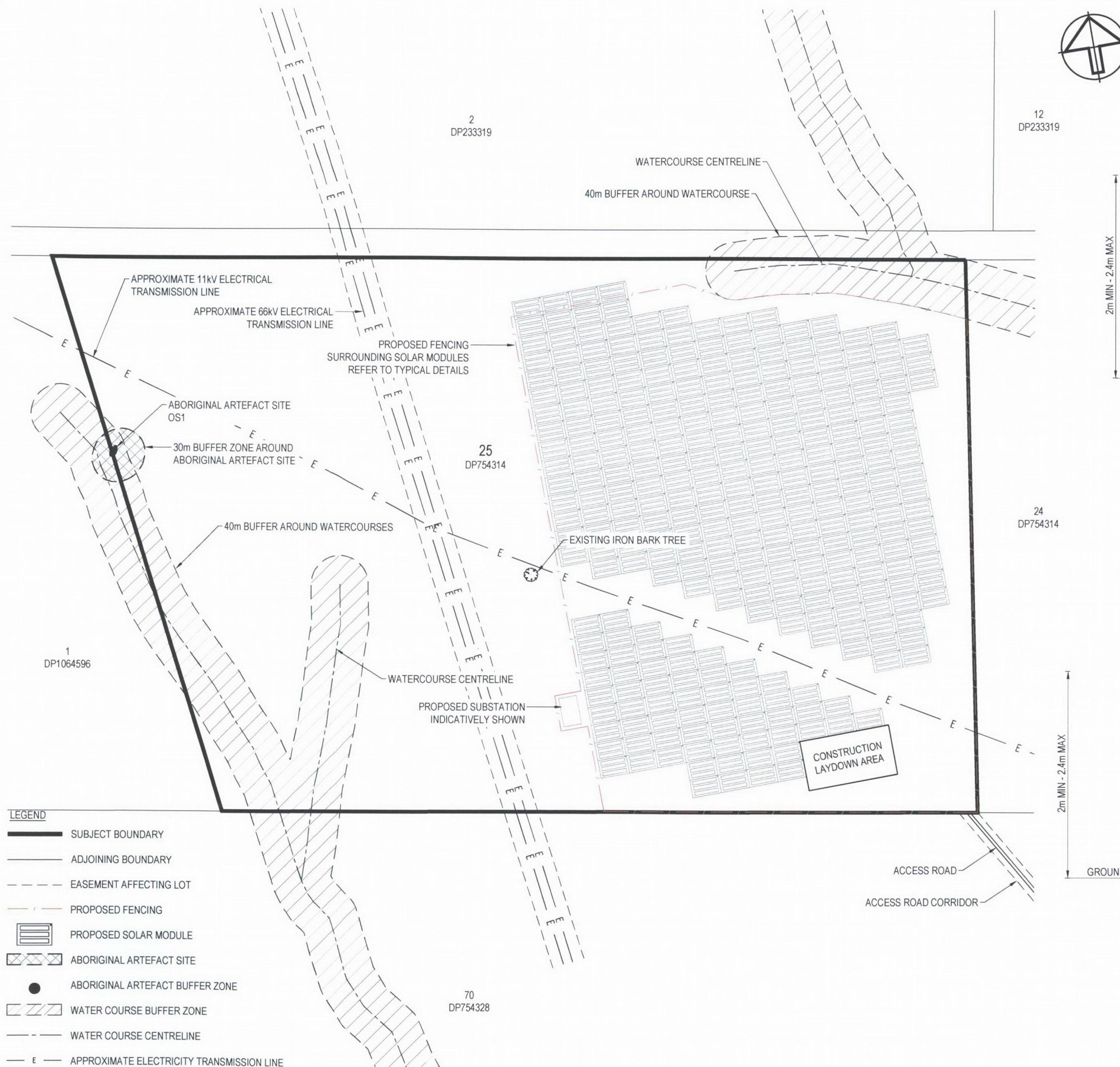
Common Name	Scientific Name	Form	Height	Width	Notes
Green Wattle	<i>Acacia deanei</i>	Tree	6m	4m	Drought resistant, Frost resistant
Box-leaf Wattle	<i>Acacia buxifolia</i>	Shrub	3m	2m	Drought resistant, Very frost resistant
Awl-leaf Wattle	<i>Acacia subulata</i>	Shrub	3m	2m	Drought resistant, Frost resistant
Streaked Wattle	<i>Acacia lineata</i>	Large shrub	6m	4m	Moderate drought resistant, Moderate frost resistant
Mudgee Wattle	<i>Acacia spectabilis</i>	Shrub	5m	3m	Drought resistant, Frost resistant
Spurwing Wattle	<i>Acacia triptera</i>	Shrub	3m	2m	Drought resistant, Moderate frost resistant
Hakea Wattle	<i>Acacia hakeoides</i>	Large shrub	8m	5m	Drought resistant, Moderate frost resistant
Narrow-leaved Hopbush	<i>Dadonea viscosa ssp. angustissima</i>	Shrub	4m	3m	Drought resistant, Frost resistant
Wedge-leaf Hopbush	<i>Dadonea viscosa ssp. cuneata</i>	Shrub	2m	2m	Drought resistant, Frost resistant
Tea Tree	<i>Leptospermum divaricatum</i>	Tree	11m	7m	Drought resistant, Frost resistant
Moonah	<i>Melaleuca lanceolata</i>	Shrub	5m	3m	Drought resistant, Moderate frost resistant
Pink Honey Myrtle	<i>Melaleuca erubescens</i>	Low shrub	1m	1m	Drought resistant, Moderate frost resistant
Green Mallee	<i>Eucalyptus viridis</i>	Tree	7m	5m	Very drought resistant, Frost resistant



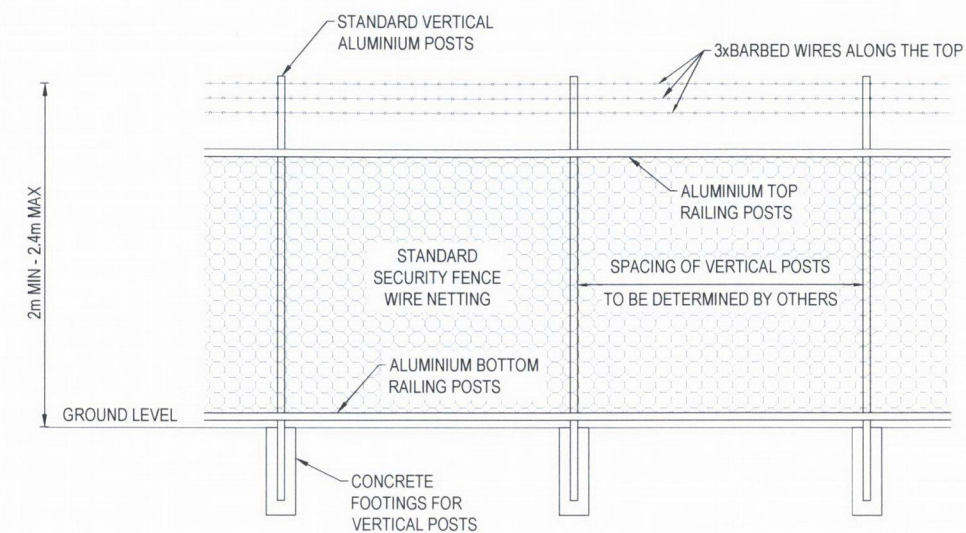
CLIENT

SUNWORX SOLAR PTY LTD

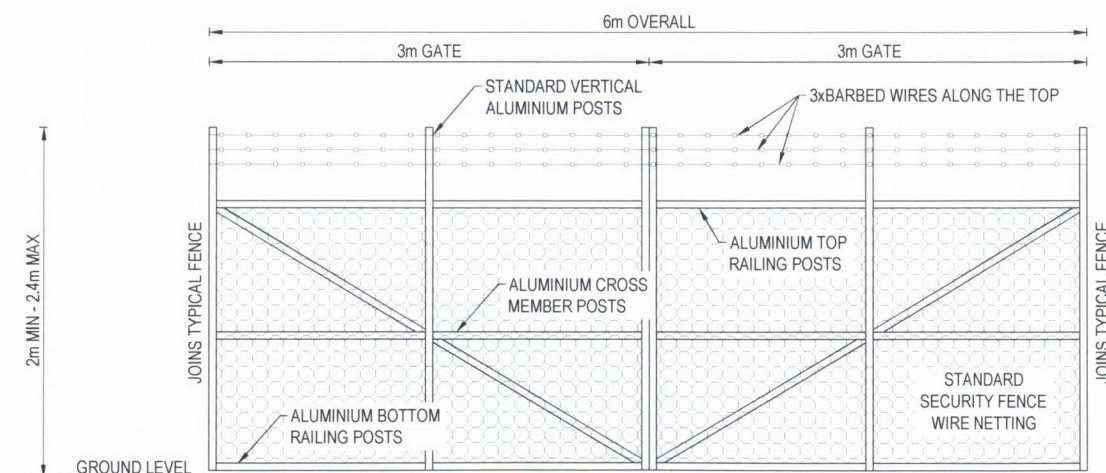
DRAWING		LANDSCAPING PLAN	
PROJECT NUMBER	216060	DRAWING FILE	216060_01A_TP01-TP08.dwg
DATA SOURCE		ORIGINAL	
IMAGE SOURCE		A1	
STATUS FOR REVIEW		SHEET TP05 OF TP08	
		SET 01A	



- LEGEND**
- SUBJECT BOUNDARY
 - ADJOINING BOUNDARY
 - EASEMENT AFFECTING LOT
 - PROPOSED FENCING
 - PROPOSED SOLAR MODULE
 - ABORIGINAL ARTEFACT SITE
 - ABORIGINAL ARTEFACT BUFFER ZONE
 - WATER COURSE BUFFER ZONE
 - WATER COURSE CENTRELINE
 - APPROXIMATE ELECTRICITY TRANSMISSION LINE

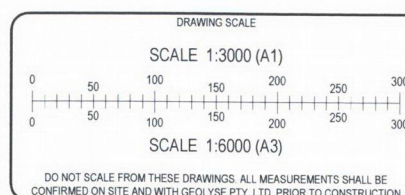


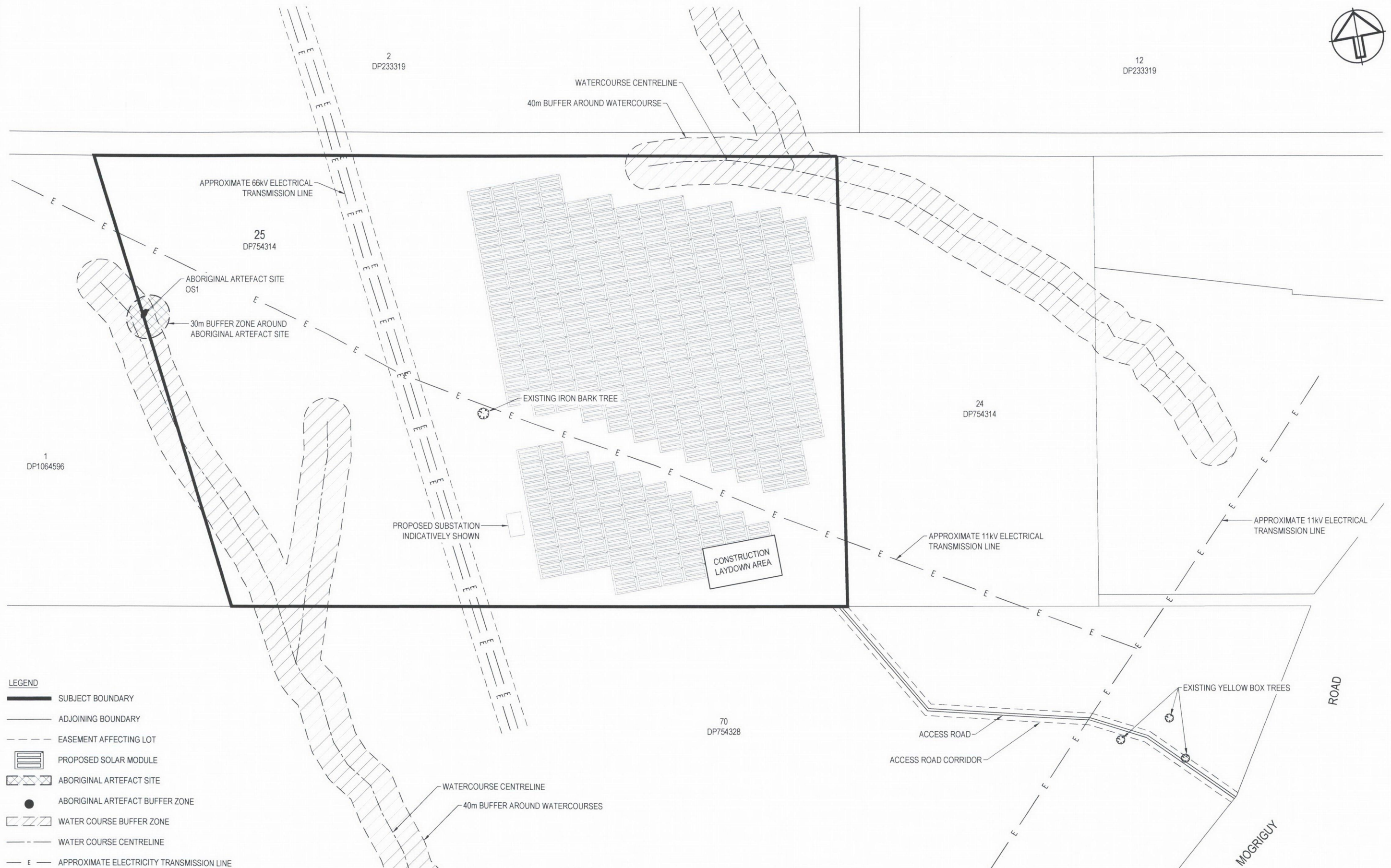
FENCING TYPICAL DETAIL
SCALE 1:25 (A1)
SCALE 1:50 (A3)



SECURITY GATE DETAIL
SCALE 1:25 (A1)
SCALE 1:50 (A3)

REV	DATE	DFTD	APPD	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW

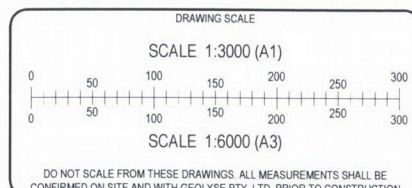




- LEGEND**
- SUBJECT BOUNDARY
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 - EASEMENT AFFECTING LOT
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GEOLYSE
ORANGE
154 PEISLEY STREET
P.O. BOX 1963
ORANGE, NSW 2800
Ph: (02) 6393 5000
Fx: (02) 6393 5050
orange@geolyse.com
www.geolyse.com

REV.	DATE	DFTD.	APPD.	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW

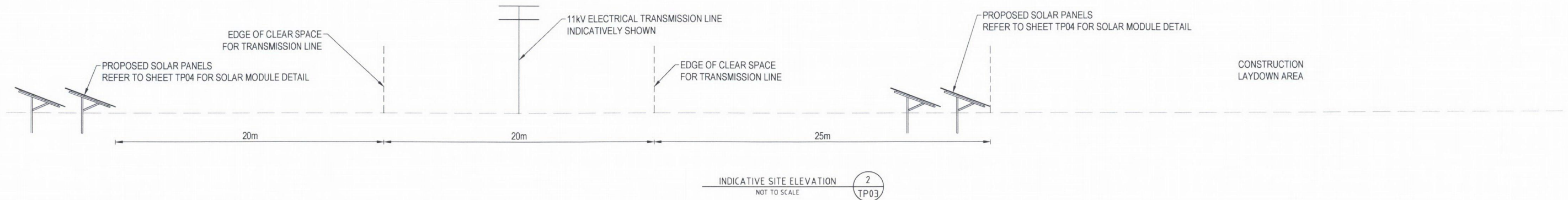


APPROVAL AUTHORITY
WESTERN PLAINS REGIONAL COUNCIL

CLIENT
SUNWORX SOLAR PTY LTD

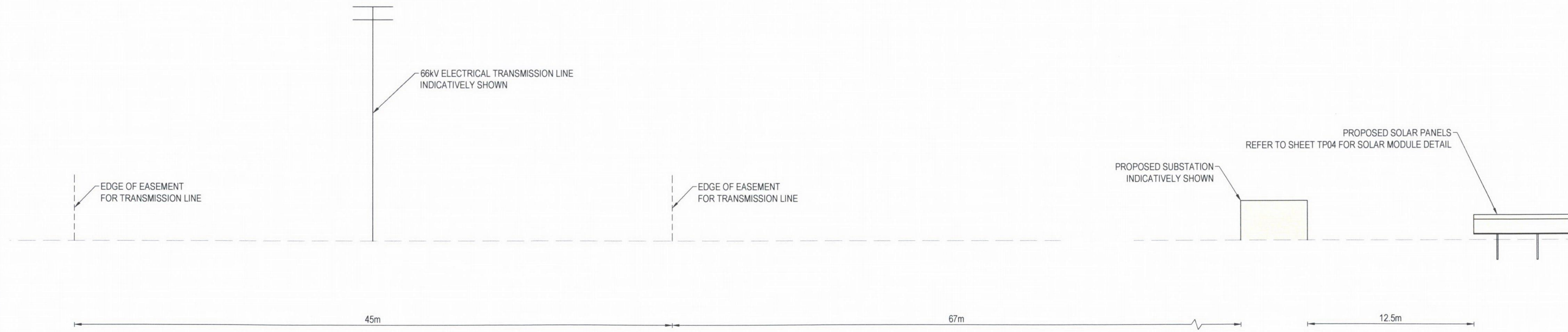
PROJECT
65 MOGRIGUY ROAD, BROCKLEHURST
PROPOSED SOLAR FARM

DRAWING		
ACCESS CORRIDOR ALIGNMENT		
PROJECT NUMBER 216060	DRAWING FILE 216060_01A_TP01-TP08.dwg	ORIGINAL
DATA SOURCE -		A1
IMAGE SOURCE -		SET
STATUS FOR REVIEW	SHEET TP07 OF TP08	01A



INDICATIVE SITE ELEVATION
NOT TO SCALE

2
TP03



INDICATIVE SITE ELEVATION
NOT TO SCALE

1
TP03

GEOLYSE
ORANGE

154 PEISLEY STREET
P.O. BOX 1963
ORANGE, NSW 2800
Ph: (02) 6393 5000
Fx: (02) 6393 5050
orange@geolyse.com
www.geolyse.com

REV	DATE	DFTD	APPD	DETAILS
A	30/09/2016	BH	DW	ISSUED FOR REVIEW

DRAWING SCALE

DO NOT SCALE FROM THESE DRAWINGS. ALL MEASUREMENTS SHALL BE CONFIRMED ON SITE AND WITH GEOLYSE PTY LTD. PRIOR TO CONSTRUCTION.

APPROVAL AUTHORITY

WESTERN PLAINS REGIONAL COUNCIL

CLIENT

SUNWORX SOLAR PTY LTD

PROJECT

65 MOGRIGUY ROAD, BROCKLEHURST
PROPOSED SOLAR FARM

INDICATIVE SITE ELEVATIONS			
PROJECT NUMBER 216060	DRAWING FILE 216060_01A_TP01-TP08.dwg	ORIGINAL	A1
DATA SOURCE -		SET	
IMAGE SOURCE -			
STATUS FOR REVIEW	SHEET TP08 OF TP08	01A	

Our Ref: RM: TD:244404:DA
Your Ref: SPR:MLM

2 November 2016

By email: dcc@dubbo.nsw.gov.au

Shaun Reynolds
Planning & Development
Dubbo City Council
PO Box 81
Dubbo NSW 2830

Dear Sir,

Dubbo City Council Development Application number D2016/427 – Solar energy system (photovoltaic)

Property: 65L Mogriguy Road, Brocklehurst more particularly described as Lot 25 in DP754314 & Lot 70 DP754328 (the Property)

We refer to the above matter and to your correspondence seeking comment from Essential Energy in relation to the proposed development at the above property.

Strictly based on the documents submitted, Essential Energy has no objection to this development at this time, provided:

1. If the proposal changes, Essential Energy would need to be informed for further comment; and
2. Any existing encumbrances in favour of Essential Energy (or its predecessors) noted on the titles of the Property are complied with.
3. Essential Energy's records indicate there is electricity infrastructure located within the Property. In this regard, we comment as follows:
 - a) Appropriate clearances to the infrastructure and access by Essential Energy is to be maintained at all times.
 - b) Whilst Essential Energy's preference is that easements for the overhead powerlines are created for the existing electrical infrastructure located within the Property, the infrastructure has protection under section 53 *Electricity Supply Act 1995* (NSW) and an easement is not necessarily required. However, the creation of a registered easement also helps safeguard the public and property owners by clearly highlighting and restricting activities that may cause danger, interfere with the infrastructure or hinder access to the infrastructure. The cost for creation of easements is at the landowners expense.

If easements are to be created, Essential Energy's requirement would be the easements for overhead powerlines, using Essential Energy's standard easement terms current at the

time of registration of the plan of subdivision. Currently, reference should be made to Part A of Memorandum AG189384.

As there is electricity infrastructure located within the Property, any activities within this location must be undertaken in accordance with the latest industry guideline currently known as *ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Infrastructure*.

Prior to carrying out any works, a "Dial Before You Dig" enquiry must be undertaken in accordance with the requirements of *Part 5E (Protection of Underground Electricity Power Lines)* of the *Electricity Supply Act 1995* (NSW).

Given there is electricity infrastructure on the property, it is the responsibility of the person/s completing any works around powerlines to understand their safety responsibilities. SafeWork NSW (www.safework.nsw.gov.au) has publications that provide guidance when working close to electricity infrastructure. These include the *Code of Practice – Work near Overhead Power Lines/Underground Assets*.

If you have any queries, please contact Therese Daly on telephone (02) 6588 4677 or via email conveyancingteam@essentialenergy.com.au.

Yours sincerely



Raelene Myers
Conveyancing Team Leader