

**6.4. DAINTREE MICRO GRID 174 BUCHANAN CREEK ROAD COW BAY**

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<b>DEPARTMENT</b>	Environment and Planning
<b>APPLICATION NO</b>	CA 2023_5496/1
<b>PROPOSAL</b>	<p>Development Permit for a Combined Application for;</p> <ul style="list-style-type: none"> <li>A. Material Change of Use - Renewable Energy Facility and Battery Storage Facility (8MW electrical generation solar station and battery storage facility) and;</li> <li>B. Material Change of Use - Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power).</li> <li>C. Reconfiguring a Lot - creating two lots by lease agreement for a period of more than ten (10) years - Lease Area B and Lease Area C.</li> <li>D. Operational Work - Excavation and Fill over 25m<sup>3</sup>; and;</li> <li>E. Operational Work - Work within an unconstructed local government road between Lease Area B and Lease Area C (installation of underground cables and construction of road access driveway and drainage).</li> </ul>
<b>APPLICANT</b>	<p>Volt Advisory Group Pty Ltd  Level 7, 757 Ann Street  Fortitude Valley Qld 4006</p>
<b>LOCATION</b>	174 Buchanan Creek Road Cow Bay
<b>PROPERTY</b>	Lot 5 on BK157130
<b>PLANNING SCHEME</b>	2018 Douglas Shire Council Planning Scheme Version 1.0
<b>ZONING</b>	Conservation Zone
<b>LEVEL OF ASSESSMENT</b>	Impact
<b>PROPERLY MADE DATE</b>	9 October 2023
<b>STATUTORY ASSESSMENT DEADLINE</b>	28 February 2024
<b>REFERRAL AGENCIES</b>	N/A

## LOCALITY



Figure 1 – Locality Plan

## RECOMMENDATION

That Council approves the Combined development application for a Material Change of Use for a Renewable Energy Facility, Battery Storage Facility and Utility Installation, and Reconfiguring a Lot - creating two lots by lease agreement for a period of more than ten (10) years, and Operational Work - Excavation and Fill over 25m<sup>3</sup> over land described as Lot 5 on BK157130, and Operational Work within an unconstructed local government road subject to the following:

### APPROVED DRAWING(S) AND / OR DOCUMENT(S)

The term 'approved drawing(s) and/or document(s) or other similar expressions means:

Drawing or Document	Reference	Date
Location of Solar Farm (generation site)	Queensland Globe, Council Doc id; 1188772	Submitted with Amended Application on 9 October 2023
Regulated Vegetation and Buffer Setbacks	Queensland Globe, Council Doc id; 1188772	Submitted with Amended Application on 9 October 2023
Site Drainage	Unauthored Drawing, Council Doc id; 1188772	Submitted with Amended Application on 9 October 2023

Drawing or Document	Reference	Date
<b>Survey Plan SP340614, Plan of Leases B &amp; C in Lot 5 on BK157130</b>	<b>Sheets 1 to 3 of 3.</b>	<b>22 February 2023</b>
<b>CGF General Layout, (exc Solar Farm)</b>	<b>Unauthored Drawing, Council Doc id; 1188772</b>	<b>Submitted with Amended Application on 9 October 2023</b>
<b>Central Generation Facility Site Plan</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-ELE-GAR-1001, Sheet 1 of 1 Rev. A</b>	<b>10 May 2023</b>
<b>Central Generation Facility, Contour and Drainage Plan</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-ELE-GAR-1002, Sheet 1 of 1 Rev. B2</b>	<b>10 May 2023</b>
<b>Central Generation Facility Fence Plan</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-ELE-GAR-1003, Sheet 1 of 1 Rev. B2</b>	<b>10 May 2023</b>
<b>Central Generation Facility Road Plan</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-ELE-GAR-1004, Sheet 1 of 1 Rev. B2</b>	<b>10 May 2023</b>
<b>Central Generation Facility Water Tank Details</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1002, Sheet 1 of 1 Rev. B</b>	<b>10 May 2023</b>
<b>Central Generation Facility Gas Tank Details</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1007, Sheet 1 of 1 Rev. B</b>	<b>10 May 2023</b>
<b>Central Generation Facility, Hydrogen Gas Fuel Tank Details</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1008, Sheet 1 of 1 Rev. B</b>	<b>10 May 2023</b>
<b>Central Generation Facility Battery Energy Storage System (BESS) Unit Module Details</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1009, Sheet 1 of 1 Rev. B</b>	<b>10 May 2023</b>
<b>Central Generation Facility Solar Inverter Skid Unit General Arrangement</b>	<b>RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1010, Sheet 1 of 1 Rev. B</b>	<b>10 May 2023</b>

Drawing or Document	Reference	Date
Central Generation Facility Transformer/ Ring Main Unit Module Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1011, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Electrolyser and Skid Module Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1012, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Compressor Module Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1013, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, 22kV Switch Gear Platform General Arrangement	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1014, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Dual Fuel Engine, General Arrangement	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1015, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Fence Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1016, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Switch Room/Control Room Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1017, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, 2.5 MVA 22kV to 0.4kV TX Module Unit Details	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1018, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Typical CCTV Pole, General Arrangement	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1019, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Battery Energy Storage System (BESS) Unit Inverter Module General Arrangement	RPS AAP Consultants Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1020, Sheet 1 of 1 Rev. B	10 May 2023
Central Generation Facility, Drainage Details	Volt Advisory Group Pty Ltd, Project No. ZW2022.11, Drawing No. DRE-CIV-GAR-1021, Sheet 1 of 1 Rev. A	10 May 2023



Drawing or Document	Reference	Date
Daintree Renewable Energy, Indicative Cable Trench Route Design, Central Generation Facility Cow Bay	Volt Advisory Group Pty Ltd, Drawing No. DRE-ELE-GAR-1010_C, Sheet 1 Rev. 2	19 June 2023
Proposed 1000V Four Pole (200mm Wooden Round) Array	Volt Advisory Group, Drawing DRE-LAY-PV-0001	Submitted with Amended Application on 9 October 2023
FNQROC Regional Development Manual Standard Drawing/s for Vehicle Access		
Rural Allotment Access	Standard Drawing S1105 Issue F	27 August 2020

## ASSESSMENT MANAGER CONDITIONS & ADVICES

### CONDITIONS

- A. Conditions applicable to operational work – (over 25m<sup>3</sup> of earthworks) and operational work - work within a local government road)
1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:
    - a. The specifications, facts and circumstances as set out in the application submitted to Council; and
    - b. The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual; and
    - c. Technical reports submitted as part of supporting information.

Except where modified by these conditions of approval.

#### Timing of Effect

2. The conditions of the Development Permit must be effected prior to Commencement of Use, except where specified otherwise in these conditions of approval.

#### Earthworks

3. All earthworks must be carried out in accordance with section CP1.13 and D5 of the FNQROC Development Manual.

All work must be carried out in accordance with the requirements and recommendations of Section 5-Geotechnical Assessment of the Geotechnical Report prepared by WSP, Reference PP141911-WSP-CNS-GEO-PRP-00001(R Rev A), dated March 2023, prepared by Nathan Price.

Such works must be completed to the satisfaction of the Chief Executive Officer prior to the commencement of use.

#### Construction Methodology Plan

4. A Construction Methodology Plan (CMP) must be submitted to Council for endorsement by the Chief Executive Officer prior to the commencement of Operational Work. The Plan must detail;

- a. **Protection/rehabilitation of exposed soil caused by grading or stripping activities in and around the Central Generation Facility (Lease B on SP340614);**
- b. **Local Drainage considerations and how stormwater is managed; and**
- c. **A Traffic Management Plan (TMP) must be prepared by the contractor. The TMP is to address, but is not limited to;**
  - i **Traffic management for Silkwood Road;**
  - ii. **Management of pedestrians traversing Silkwood Road;**
  - iii. **Sequencing of the development;**
  - iv. **Transportation of workers to and from the development site; and**
  - v. **Transportation of materials south of the Daintree River to the development site.**

**The CMP must be endorsed by the Chief Executive Officer prior to the commencement of works on the site.**

#### **Road Condition Survey**

5. **Prior to any works occurring on the site, the applicant is to prepare a road condition report from the intersection of Buchanan Creek Road and Silkwood Road to the development site to identify relevant existing defects or problems with the roadway. On completion of the works, the haul route(s) shall be subject to a joint inspection by the applicant and Council Officers to identify any further damage that has occurred. Where additional damage has occurred, all rectification works shall be at the applicant's expense, to the satisfaction of the Chief Executive Officer.**

#### **Construction Signage**

6. **Prior to the commencement of any Operational Work associated with the development, a sign detailing the project team must be placed on the road frontage of the site and must be located in a prominent position. The sign must detail the relevant project coordinator for the works being undertaken on the site, and must list the following parties (where relevant) including telephone contacts:**
  - a. **Developer;**
  - b **Project Coordinator;**
  - c. **Architect / Building Designer;**
  - d. **Builder;**
  - e. **Civil Engineer;**
  - f. **Civil Contractor;**
  - g. **Landscape Architect**

#### **Hours of Work**

7. **Work involving the operation of construction plant and equipment of any description, shall only be carried out on site during the following times:**
  - a. **7.00am to 6.00pm, Monday to Friday;**
  - b. **7.00am to 1.00pm Saturdays;**
  - c. **No work is permitted on Sundays or Public Holidays.**

**Any variations to the above working hours must be authorised by the Chief Executive Officer, prior to the commencement of such works.**

**Stockpiling and Transportation of Fill Material**

- 8. Soil used for filling or spoil from the excavation is not to be stockpiled in locations that can be viewed from adjoining premises or Silkwood Road for any longer than one (1) month from the commencement of works.**

**Earthworks and Retaining Structures**

- 9. The height of cut and /or fill, whether retained or not, does not exceed 2m in height. All retaining walls greater than 1200mm in height must be structurally certified by an RPEQ.**

**Lawful Point of Discharge**

- 10. All stormwater from the property must be directed to a lawful point of discharge such that it does not adversely affect surrounding properties or properties downstream from the development, all to the requirements and satisfaction of the Chief Executive Officer.**

**Access Crossover**

- 11. Prior to the commencement of use, a vehicle crossover and driveway must be constructed in accordance with the FNQROC Standard Drawing S1105 Issue E for rural properties.**

**Such works must be completed to the satisfaction of the Chief Executive Officer prior to the commencement of use.**

**Storage of Machinery and Plant**

- 12. The storage of any machinery, material and vehicles must not cause a nuisance to surrounding properties, to the satisfaction of the Chief Executive Officer.**

**Dust Emissions**

- 13. Dust emissions or other air pollutants must not extend beyond the boundary of the site and cause a nuisance to surrounding properties.**

**Wildlife**

- 14. Prior to removal of any tree, an inspection must be carried out for any signs of protected wildlife including nests and animal habitat. Should any recent wildlife activity be identified, removal of the tree must not occur until the animal has vacated the area of immediate danger. If the animal does not move from the area of danger, the Queensland Parks and Wildlife Services must be contacted for advice. Important habitat trees should be retained wherever possible.**

**B. Conditions applicable to reconfiguring a lot – creating two lots (lease area b and lease area c) by lease agreement for a period of more than ten 10 years**

- 1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:**
  - a. The specifications, facts and circumstances as set out in the application submitted to Council; and**
  - b. The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual.**

**Except where modified by these conditions of approval.**

**Timing of Effect**

- 2. The conditions of the Development Permit must be effected prior to endorsement of the Survey Plan, except where specified otherwise in these conditions of approval.**

**Limited Approval**

- 3. The Development hereby approved lapses at the expiry of agreement to lease the land from the landowner or entity from which a lease may be attained. Prior to the lapse of the life of the approval the Daintree Micro Grid and all associated infrastructure, buildings, structures and fencing must be decommissioned and removed, and the site reinstated to its original condition to the satisfaction of the Chief Executive Officer. All costs associated with the decommissioning and final removal shall be borne by the Applicant or entity that operates the Daintree Micro Grid at the time of removal, or the registered owner of the land.**

**Decommissioning Plan**

- 4. Within 6 months of the end of the lease agreement, or the end of the operational life of the facility, the site must be decommissioned in accordance with the endorsed Decommissioning Plan to the satisfaction of the Chief Executive Officer.**

**C. Conditions applicable to material change of use (utility instillation, renewable energy facility and battery storage facility)**

- 1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:**
  - a. The specifications, facts and circumstances as set out in the application submitted to Council; and**
  - b. The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual.**

**Except where modified by these conditions of approval.**

**Timing of Effect**

- 2. The conditions of the Development Permit must be effected prior to Commencement of Use, except where specified otherwise in these conditions of approval.**

**Environmental Management Plan.**

- 3. Throughout all stages of the development, the Applicant must ensure all of the requirements and recommendations identified in the Environmental Management Plan (EMP) prepared by Environment Pacific, dated 2023, prepared by Andrew Small, have been implemented. In particular all the requirements and recommendations in the EMP are to be carried out under the direction and supervision of Environment Pacific, or a delegate authorised by Environment Pacific.**

**Setback of Solar Arrays**

- 4. The solar arrays must be setback 20m from the boundary with Silkwood Road.**

**An amended plan must be endorsed by the Chief Executive Officer prior to the issue of a Development Permit for Building Work.**

## **Landscaping**

5. **Submit a Landscape Plan prepared by a suitably qualified person/s that provides a landscape buffer along the full frontage of the site to Silkwood Road to screen the development overtime. Landscaping may extend onto the road reserve, and must incorporate existing mature vegetation and include the introduction of shrubs. The Landscaping Plan must include:**
  - a. **A minimum five (5) metre wide landscaping buffer that incorporates canopy and midstory vegetation;**
  - b. **The species of plants selected for landscaping should provide screening qualities and consist of endemic species. Species chosen should have regard to Council's Planning SC6.7 Landscaping;**
  - c. **Planting densities and pot sizes;**
  - d. **Detail ground preparation and removal of any unsuitable material. The soil must be well prepared (not compacted) and fertilized with organic fertilizers to encourage strong growth;**
  - e. **Landscaping must meet with the entry gates such that there is no break between the landscaping and entry gates;**
  - f. **A Landscape Maintenance Plan detailing weeding, watering, replacement planting and pest management; and**
  - g. **Location of security fencing and entry gates.**

**The Landscape Plan and Landscape Maintenance Plan must be endorsed by the Chief Executive Officer prior to the issue of a Development Permit for Building Work. All landscaping works must be undertaken in accordance with the endorsed plan prior to the Commencement of Use and maintained at all times to the satisfaction of the Chief Executive Officer.**

## **Design of Entry Gates**

6. **The design of the entry gates must be constructed of materials and/or finished in colours that blend with the surrounding natural environment. The entry gates must not provide views internal to the site from Silkwood Road. The design of the gates must be submitted to Council for endorsement prior to the issue of a Development Permit for Building Works.**

**The gates must be installed to the satisfaction of the Chief Executive Officer prior to the commencement of use.**

## **Fencing**

7. **All security mesh fencing for the perimeter of the site must be of a dark colour with a maximum height of 2 metres. Within the perimeter fencing, provide lockable gated access at either end of the unopened local government road. The facility is to be provided with appropriate hazard and warning signs.**

## **Building Height and Solar Panel Height**

8. **The maximum height of any solar panel must not exceed 2.6 m above natural ground level. The maximum height of any building or structure must not exceed 8.5m above natural ground level, excluding antennae.**

## **Colour/s of Buildings and Structures**

9. **The exterior finishes and colours of buildings and structures must be non-reflective and must blend with the natural colours of the surrounding**

environment. Roofs and structures (including Water Tanks) must be of moderately dark to darker shades of green, grey, blue and brown.

Pale Eucalypt Green is not approved for use.

The colours of buildings and structures must be endorsed by the Chief Executive Officer prior to the issue of a Development Permit for Building Work.

#### **Water Storage Tank**

10. The water storage tank must be provided with:

- a. Mosquito-proof screens of brass, copper, aluminium or stainless-steel gauze not coarser than one (1) mm aperture mesh of substantial construction and installed in such manner as not to cause or accelerate corrosion; or
- b. Flap valve at every opening of the tank or other receptacle; or
- c. Other approved means for preventing the ingress or egress of mosquitoes; and
- d. Where a tank or other receptacle is provided with a manhole, the manhole must have a diameter of no more than 40 cm; and
- e. The water tank(s) shall be fitted with a 50 mm ball valve with a camlock fitting.

#### **Slashing of Grass**

11. Slashing or mowing of grass and general maintenance of the site shall only be carried out on site during the following times:
- a. 7.00am to 6.00pm, Monday to Friday;
  - b. 7.00am to 1.00pm Saturdays;
  - c. No work is permitted on Sundays or Public Holidays.

#### **Noise**

12. Noise from the Central Generation Facility must not cause environmental nuisance to any sensitive receptor. In accordance with the Environmental Protection Act 1994, any emission of noise from activities on site must ensure that the emissions are consistent with the Environmental Protection (Noise) Policy 2008.

#### **Lighting**

13. All lighting installed upon the premises must be designed and operated in accordance with the National Light Pollution Guidelines for Wildlife and Australian Standard AS4282-1997 Control of the Obtrusive Effects of Outdoor Lighting.

#### **Maintenance and Upgrades to the Facility**

14. Throughout the life of the facility, the solar arrays, fencing, access crossover and internal roads, drainage infrastructure and Central Generation Facility must be submitted to the satisfaction of the Chief Executive Officer. Should upgrades of the solar panels or ancillary infrastructure be required, the Applicant must provide revised plans to Council for endorsement by the Chief Executive Officer.



## Decommissioning Plan

15. A Decommissioning Plan for the end of the lease agreement, or operational life of the facility must be submitted to the Chief executive Officer. The Decommission Plan must address the following;
  - a. Transportation and disposal of hazardous or potentially hazardous chemicals and materials;
  - b. Demolition, removal, transportation and disposal of plant and equipment; and
  - c. Site Rehabilitation.

The Decommissioning Plan must be endorsed by the Chief Executive Officer prior to the issued of a Development Permit for Building Work.

## ADVICES

1. This approval, granted under the provisions of the *Planning Act 2016*, shall lapse six (6) years from the day the approval takes effect in accordance with sections 85(1)(b) and 71 of the *Planning Act 2016*.
2. This approval does not negate the requirement for compliance with all relevant Local Laws and statutory requirements.
3. All building site managers must take all action necessary to ensure building materials and/or machinery on construction sites are secured immediately following the first potential cyclone warning and that relevant emergency telephone contacts are provided to Council officers, prior to commencement of works.
4. For information relating to the *Planning Act 2016*, log on to [www.dsd.qld.gov.au](http://www.dsd.qld.gov.au) . To access the FNQROC Development Manual, Local Laws and other applicable Policies log on to [www.douglas.qld.gov.au](http://www.douglas.qld.gov.au).
5. The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* applies to action that has, will have or is likely to have a significant impact on matters of national environmental significance. Further information on the EPBC Act can be obtained from the Department of the Agriculture, Water and the Environment, website at <https://www.awe.gov.au/environment/epbc> .

## Prescribed Activity Permit

6. The Applicant will be responsible for obtaining a Prescribed Activity Permit from Council for carrying out Operational Work (trenching and cabling) within Council road reserve. Please log on to log on to [www.douglas.qld.gov.au](http://www.douglas.qld.gov.au). To access a Prescribed Activity Application form.

## Cultural Heritage

7. The *Aboriginal Cultural Heritage Act 2003* and *Torres Strait Islander Cultural Heritage Act 2003* (the Cultural Heritage Acts) require anyone who carries out a land-use activity to exercise a duty of care.

This 'duty of care' means land users must take all reasonable and practicable measures to ensure their activity does not harm Aboriginal or Torres Strait Islander cultural heritage. The duty of care applies to any activity where Aboriginal or Torres Strait Islander cultural heritage is located. This includes cultural heritage located on freehold land and regardless of whether or not it has been identified or recorded in a database.

Consultation with the Aboriginal or Torres Strait Islander party for an area may be necessary if there is a high risk that the activity may harm Aboriginal or Torres Strait Islander cultural heritage. Guidelines have been produced to enable assessment of sites under the Act. These are available from the Queensland Government website and can be downloaded from the following website.

<https://www.qld.gov.au/firstnations/environment-land-use-native-title/cultural-heritage/cultural-heritage-duty-of-care>.

## CONCURRENCE AGENCY CONDITIONS & REQUIREMENTS

The Application did not trigger referral.

## REASONS FOR DECISION

The reasons for this decision are:

1. Sections 60, 62 and 63 of the *Planning Act 2016*:
  - a. to ensure the development satisfies the benchmarks of the 2018 Douglas Shire Planning Scheme Version 1.0; and
  - b. to ensure compliance with the *Planning Act 2016*.
2. Findings on material questions of fact:
  - a. the development application was properly lodged to the Douglas Shire Council on 9 October 2023 under section 51 of the *Planning Act 2016* and Part 1 of the *Development Assessment Rules*;
  - b. the development application contained information from the applicant which Council reviewed together with Council's own assessment against the 2017 State Planning Policy and the 2018 Douglas Shire Planning Scheme Version 1.0 in making its assessment manager decision.
3. Evidence or other material on which findings were based:
  - a. the development triggered assessable development under the Assessment Table associated with the Conservation Zone Code;
  - b. Council undertook an assessment in accordance with the provisions of sections 60, 62 and 63 of the *Planning Act 2016*; and
  - c. the applicant's reasons have been considered and the following findings are made:
    - i. Subject to conditions, the development satisfactorily meets the Planning Scheme benchmarks.

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## EXECUTIVE SUMMARY

Council is in receipt of a Combined Development Application seeking approval for a Material Change of Use- Renewable Energy Facility (8MW electrical generation solar station), Battery Storage Facility and Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power), Reconfiguring a Lot- creating two lots by lease agreement for a period of more than ten (10) years (Lease Area B and Lease Area C), Operational Work- Excavation and Fill over 25m<sup>3</sup>; and Operational Work- work within an unconstructed local government road between Lease Area B and Lease Area C (installation of underground cables and construction of access driveway and drainage).

The proposed development constitutes a solar generation renewable energy facility being referred to as the Daintree Micro Grid. The development will provide electricity to properties from Cow Bay to Cape Tribulation.

Electrical distribution to properties within the reticulated network will be provided via underground cabling. The *Planning Regulation 2017* provides an exemption for cabling for service connection, therefore, underground cabling within the road network does not form part of this Application.

Under the Planning Scheme, the land is located within the Conservation zone and Precinct 5-Low Impact Rural Production and Tourism Enterprise Precinct of the Cape Tribulation and Daintree Coast Local Plan. The site has an area of approximately 57.5 hectares and frontage to Buchanan Creek Road and Silkwood Road. The area of the site proposed for the development is approximately 8.6 hectares.

The Material Change of Use for a Renewable Energy Facility and Battery Storage Facility and Reconfiguring a Lot constitutes impact assessable development and was required to undergo public notification. A total of 29 submissions were received, with 22 being in favour of and 7 opposing the development.

Although, the development does not meet all the outcomes sought for the Conservation zone and Precinct 5- of the Cape Tribulation and Daintree Coast Local Plan, locations north of the Alexandra Range suitable for this type of development that offer the attributes this site has are limited. As the lot has been previously cleared and the existing use of the land for cattle grazing can be retained, the lot is considered suitable for the development. Concerns raised in submissions can be appropriately addressed through conditions of approval, meaning that impacts from the development can be contained to the development site.

In developed nations, electricity supply is considered as an essential service. Should the development proceed, the Daintree Micro Grid will provide a constant and reliable source of power that will significantly increase the resilience of residents, local businesses, and essential services. In addition, the development would contribute to achieving positive environmental outcomes for the region.

## TOWN PLANNING CONSIDERATIONS

### Site and Locality

The site is a corner allotment that has frontage to Buchanan Creek Road to the north and Silkwood Road to the east. To the south, the lot shares a common boundary with National Park, and to the west is an unopened local government road. An unopened local government road also dissects the southeastern corner of the site.

Buchanan Creek traverses the lot from the south to the north-eastern corner, and is lined with riparian vegetation, the balance of the lot is largely cleared of vegetation. The site is improved by pasture used for cattle grazing, a dwelling house and ancillary buildings, and a small portion to the north-west of the lot is under lease for a Telstra telecommunications tower and exchange facility.

The land is rural in nature, while the surrounding land uses include residential lifestyle lots, tourist accommodation and National Park. The proposed Daintree Micro Grid will be sited on 8.6 hectares on the southeastern corner of the lot with access to the site provided via Silkwood Road. The development site is dominated by pasture grass, the perimeter of the site has a border of mature vegetation. The vegetation along Silkwood Road buffers views to the site

from Silkwood Road. The development site is not visible from Buchanan Creek Road, or from scenic vantage points.

## Proposal

The following section provides an overview of the proposed Daintree Micro Grid.

### A. Material Change of Use

1. Renewable Energy Facility- 8MW electrical generation solar station;
2. Battery Storage Facility- battery storage facility;
3. Utility Installation-hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power.

### B. Reconfiguring a Lot

Reconfiguring a Lot to create two lots by lease agreement for a period of more than ten (10) years-Lease Area B (1.438ha) and Lease Area C (7.181ha).

### C. Operational Work

1. Excavation and Fill over 25m<sup>3</sup> for the construction of the solar farm and Central Generation Facility;
2. Excavation and Fill on a local government road for the installation of underground cables, construction of internal access road and drainage work between Lease Area B and Lease Area C.

The site plan details are included in Attachment 1.

## State Planning Requirements

### State Planning Policy

The State Planning Policy ('SPP') was introduced on 3 July 2017 as part of the State's planning system. The SPP defines the Queensland Government's policies about matters of state interest in land use planning and development, providing direction for the preparation of local planning instruments and assessment of development applications. The 2018 Douglas Shire Planning Scheme version 1.0 reflects the applicable State interests to the extent relevant to the proposed development and further assessment against the SPP is unnecessary.

### Far North Queensland Regional Plan 2009-2031

The Far North Queensland Regional Plan 2009-2031 ('FNQ Regional Plan') provides the framework for the sustainable management of growth and development in Far North Queensland. The site is contained within the Regional Landscape and Rural Production Area of the FNQ Regional Plan.

The Planning Regulation 2017 requires the development be assessed against the Regional Plan to the extent that the Regional Plan is not appropriately reflected in the Planning Scheme. The Douglas Shire Planning Scheme has been endorsed by the Minister as appropriately integrating the Regional Plan. Further assessment with respect to these planning considerations is deferred to the assessment of the development against the Strategic Framework of the Planning Scheme.

## DOUGLAS SHIRE PLANNING SCHEME ASSESSMENT

The following benchmarks are applicable to the Material Change of Use- Utility Installation component of the proposed development:

Douglas Shire Planning Locality	Comment
<b>Planning Zone</b>	
Conservation Zone	See comment below
<b>Local Plan Code</b>	
Cape Tribulation and Daintree Coast Local Plan – Precinct 5- Low Impact Rural Production and Tourist Precinct.	See comment below

<b>Overlay Codes</b>	
Acid sulphate soils overlay -(5-20m AHD)	Complies
Hillslopes overlay	Complies
Landscape values overlay- High	Satisfactory through conditions of the approval that address thickening of the existing vegetation buffer along Silkwood Road.
Natural areas overlay	Complies-the footprint of development provides a 20m setback from Category B- Regulated Vegetation and Wildlife Habitat.
Transport network overlay	Complies

<b>Other Development Codes</b>	
Access, parking and servicing code	Satisfactory through conditions of approval
Environmental performance code	Satisfactory through conditions of approval
Infrastructure code	Satisfactory through conditions of approval
Landscaping code	Satisfactory through conditions of approval
Vegetation management code	Complies

## Compliance Issues

### Conservation zone

AO6 of the code requires that the exterior finishes and colours of all development are non-reflective and consist of colours that blend easily with the surrounding native vegetation and view-shed. Due to the reflective nature of solar arrays, the proposal cannot meet with the acceptable outcome. Through conditions of approval requiring thickening of the existing mature vegetation along the Silkwood Road boundary and solid entry gates to buffer views to the development, the development is considered to meet with performance outcome PO6, which requires that development compliments and is subservient to the surrounding environment and is in keeping with the ecological, landscape and scenic values of the area.

AO7.1 of the code requires that for any development, the balance of the site not built upon, including all setback areas must be landscaped/revegetated with dense three tier, endemic planting which is maintained to ensure successful screening is achieved. Due to the functional requirements of solar arrays and the continued use of the lot for cattle grazing, the development cannot meet with the acceptable outcome. As above, through conditions of approval requiring landscaping and gates to buffer the development from viewpoints on Silkwood Road, the proposal is considered to meet with performance outcome PO7, which

requires that development is screened from view from adjoining roads and properties with a dense screen of endemic/native landscape which; (a) is informal in character and complementary to the existing natural environment, (b) provides screening, (c) enhances the visual appearance of the development.

PO12 of the code requires that fencing is designed to not impeded the free movement of native fauna through the site. Fencing of the development is a statutory requirement, therefore, the proposal cannot meet with the acceptable outcome. However, the adjacent riparian zone to the west and vegetated boundary to the east of the site will provide safe passage for fauna moving to areas outside of the National Park.

### **Cape Tribulation and Daintree Coast Local Plan (Precinct 5- Low Impact Rural Production and Tourism Enterprise Precinct)**

AO6.1 of the code requires that the exterior colours of buildings are non-reflective and complement the colours of the surrounding vegetation and environment. Due to the reflective nature of solar arrays, the proposal cannot meet with the acceptable outcome. Through conditions of approval relating to landscaping and gate design, the proposal is considered to meet with performance outcome PO6 of the code, which requires that development is subservient to the surrounding natural environment in scale and intensity and is designed to be functional in a humid tropical rainforest environment.

AO26 of the code requires that the balance area of the development, including any existing areas/s not identified for development is/are revegetated in accordance with a landscape plan. As solar arrays are required to be setback from the shadowing effects of vegetation and due to the continued use of the balance of the land for cattle grazing, revegetation of areas of the site not identified for development is unreasonable.

The following benchmarks are applicable to Operational Work- Excavation and Fill over 25m<sup>3</sup>;

Douglas Shire Planning Locality	Comment
<b>Planning Zone</b>	
Conservation Zone	Satisfactory through conditions of approval
<b>Local Plan Code</b>	
Cape Tribulation and Daintree Cost Local Plan – Precinct 5- Low Impact Rural Production and Tourist Precinct.	Satisfactory through conditions of approval
<b>Other Development Codes</b>	
Environmental Performance code	Complies
Filling and excavation code	Satisfactory through conditions of approval

The following benchmarks are applicable to Operational Work on a local government road;

Douglas Shire Planning Locality	Comment
<b>Planning Zone</b>	
Conservation Zone	Satisfactory through conditions of approval



<b>Local Plan Code</b>	
Cape Tribulation and Daintree Coast Local Plan – Precinct 5- Low Impact Rural Production and Tourist Precinct.	Satisfactory through conditions of approval
<b>Overlay Codes</b>	
Acid sulphate soils overlay	Complies
Hillslopes overlay	Satisfactory through conditions of approval
Natural areas overlay	Complies
<b>Other Development Codes</b>	
Filling and excavation code	Satisfactory through conditions of approval

### Strategic Outcomes

The Battery Storage Facility, Renewable Energy Facility and Reconfiguring a Lot components of the application trigger impact assessable development and these components of the proposal are assessed against the entire Planning Scheme, including the Strategic Framework. The Strategic Framework sets the policy direction for the Planning Scheme and forms the basis for ensuring appropriate development occurs within the Planning Scheme area for the life of the Planning Scheme.

The Strategic Framework is the highest order component of the Planning Scheme and prevails over all other components to the extent of inconsistencies.

Given the nature of the application the assessment against the Strategic Framework is focussed on the following themes.

*Theme 2-Environment and Landscape Values.*

*Theme 6- Infrastructure and Transport*

The proposal is generally consistent with the strategic outcomes presented within the Planning Scheme. Overall, the proposal is consistent with the strategic outcomes relating to Theme 6- Infrastructure and Transport (3.9.2 Element – Energy) in that the development intends to deliver and meet energy needs outside of a designated urban area through the use of a renewable energy source, while at the same time, minimising the impacts on the environment and surrounding community. The outcomes relating to Theme 2 - Environment and Landscape Values are largely achieved.

However, concerns are raised that the outcomes aligned with scenic amenity, particularly those relating to development north of the Daintree River, could be compromised by the development. These concerns are adequately addressed through conditions of the approval.

### Public Notification / Submissions

Public notification was carried out in accordance with section 53 of the *Planning Act 2016* for the proposed development.

A 15-business day public notification period was carried out with 29 submissions received by Council in relation to the proposed development.

Grounds of Properly Made Submissions	Planning Considerations
<p><b>Catchment quality</b></p> <p>Concerns are raised that the application lacks a detailed catchment drainage report, and that during construction and post development, rainfall events will cause erosion, sediments, and pollutants to enter Buchanan Creek.</p>	<p>The footings for the solar arrays and the Central Generation Facility structures require minimal earthworks. As a result, drainage patterns are not expected to be altered greatly from current patterns.</p> <p>The application included an Environmental Management Plan, which will be implemented prior to and throughout construction. In addition, a condition of approval will require a Construction Methodology be submitted to Council which will include rehabilitation of areas of exposed soil in and around the Central Generation Facility and local stormwater drainage management.</p>
<p><b>Visual Amenity Impacts</b></p> <p>The facilities fencing, buildings and structures and the glint and glare radiating from the panels, will impact the visual amenity and character of Silkwood Road and the surrounds. The glint and glare from panels will also cause a "lake effect" to birds flying overhead.</p>	<p>Due to the topography of the site, only small clusters of panels will have the same orientation therefore, reducing the chance of glint and glare causing the "lake effect" disturbing the flight path of birds, or causing the glare phenomenon to be experienced from areas external to the site.</p>
<p>Nocturnal fauna will be impacted by the security lights.</p>	<p>A condition of approval will require that security lighting be designed in accordance with National Light Pollution Guidelines for Wildlife and Australian Standard AS4282-1997 -Control of the Obtrusive Effects of Outdoor Lighting.</p>
<p>The DA does not include provision to restore and enhance degraded areas of the site.</p>	<p>The landscaping along the Silkwood Road boundary is considered to be contributing to the restoration of the site.</p>
<p>There are no plans to buffer the view to the facility through the entry gates.</p>	<p>A condition of approval will require that the entry gate design block the view to the site from Silkwood Road.</p>
<p>Concerns are also raised that the 5m setback for the solar panels from the Silkwood Road boundary will compromise the ability for dense screen planting along the perimeter of the site. The proposed vegetation buffer adjacent to Silkwood Road will take years to establish and will not be permanent due to disease, damage, and lifespan of vegetation.</p>	<p>A condition of approval will require that existing vegetation along the Silkwood Road boundary be thickened, the condition will also address landscaping maintenance throughout the life of the development to ensure the vegetation buffer continues to be effective.</p>

Grounds of Properly Made Submissions	Planning Considerations
<p><b>On and Offsite Impacts</b></p> <p>Traffic to and from the site may act as a vector for invasive species.</p> <p>There is potential for hazardous chemicals, oils, and waste release during the construction and operational phase.</p>	<p>Concerns relating to bio-security risk and the release of hazardous chemicals and oils have been addressed in the Environmental Management Plan which must be implemented through all phases of the development.</p>
<p>The DA does not address the transportation of hydrogen.</p>	<p>The proposal does not include the transportation of hydrogen.</p> <p>Management of the hydrogen stored on site will be addressed through the Fire Management Plan submitted with the Application.</p>
<p>Maintenance slashing of grass and use of the backup generator will cause noise impacts to neighbouring properties.</p>	<p>Noise pollution concerns relating to the generator have been addressed through the Environmental Performance code and the Environmental Management Plan. Construction and maintenance slashing or mowing are addressed through the Environmental Management Plan and through conditions of the approval that restrict the hours these activities can be undertaken to between 6.30am-6pm Monday to Friday and 6.30am – 1.00pm on Saturdays.</p>
<p>Once established, the solar panels may cause the "heat island effect" warming the local micro-climate</p>	<p>The heat island effect is expected to be localised only and should diminish with distance away from the site. As the site is not considered high conservation value, the heat island effect is not considered adversely impact the site's environmental values.</p>
<p><b>Traffic issues</b></p> <p>Transportation of construction materials, and the construction of the facility will cause noise and dust issues and will create excess traffic on local roads and the ferry, causing traffic management issues.</p>	<p>As a condition of approval, a Traffic Management Plan will be required to be submitted for the construction phase of the development</p>
<p><b>Perceived Reduction in CO<sub>2</sub> Emissions</b></p> <p>Concerns are raised as to whether the regions carbon footprint will be reduced because of decreased generator use and subsequent connection to the grid.</p>	<p>Assessment of CO<sub>2</sub> emissions pre and post development are beyond the scope of this assessment.</p>

Grounds of Properly Made Submissions	Planning Considerations
<p><b>Operational Hazards</b></p> <p>The DA does not consider natural hazards such as lightning strikes and bushfire impacting on the proposed development.</p> <p>The storage of LPG and lithium batteries combined with a high voltage system and production of hydrogen, results in a potentially dangerous development and to leave unstaffed for many hours of the day/night is extremely unsafe. There is no maintenance plan for the facility and the HAZMAT plan is insubstantial.</p> <p>In the case of explosion or fire, there are no evacuation plans in place for workers or nearby residents.</p>	<p>A Fire Management Plan was submitted by the Applicant to Council. The Plan provides for non-chemical/electrical external fire risks, fire and fire hazard, battery storage cells, hydrogen and LPG storage components, clearances from LPG tanks and hydrogen infrastructure.</p> <p>The facility will be operated remotely, therefore, there is no Evacuation Plan required for workers. Due to the size of the facility and the distance from the Central Generation Facility to the nearest residents being approximately 200m, which is similar to that of other Utility Installations, an evacuation plan for residents is not deemed to be necessary.</p>
<p>The Development Application does not address chemicals used in pest or weed management.</p>	<p>Chemicals are not proposed to manage weeds and pests; rather, the site will be slashed regularly.</p>
<p><b>Decommissioning Plan</b></p> <p>There is no Decommissioning Plan to handle the potentially dangerous and hazardous materials found in components of the facility.</p>	<p>A condition of approval will require that a Decommissioning Plan be submitted to Council for the end of the operational life of the facility, or the end of the lease.</p>
<p><b>Project design</b></p> <p>The demand for reticulated power and uptake of connection to the grid by residents and businesses is unknown.</p>	<p>The number of consumers willing to connect to the grid is not a Planning consideration.</p>
<p>The proposal will increase social inequality, as it is limited in the number of consumers that can connect to the grid. Those customers who can connect will only be entitled to the amount of electricity they already consume and use. As a result, businesses rather than domestic users will be the main beneficiaries.</p>	<p>The main beneficiaries of the development, is not a Planning consideration.</p>
<p>There is no ability for consumers to feed into the grid from their own standalone solar systems, therefore, customers will not receive power credits and they will be totally reliant on the Micro Grid.</p>	<p>Matters concerning power credits are not a Planning consideration.</p>

Grounds of Properly Made Submissions	Planning Considerations
The project design is unresponsive to local needs and has been designed without any community input into alternate designs.	The operational design of the facility and purported lack of community consultation is not a Planning consideration.
<b>Sustainability and Viability of the Project</b> The proposal is not considered as essential community infrastructure as current standalone systems work well; standalone systems do not require large scale development.	Energy supply is considered as essential community infrastructure.
Demand for power may exceed supply capacity, requiring extension to the proposed Micro Grid or construction of an additional facility.	The Daintree Micro Grid is limited in its capacity to supply power to premises with existing development rights and lots identified in the Planning Scheme as developable, therefore the need to extend or expand the facility is not expected.
Businesses currently utilise gas for cooking, which is efficient, converting to electric appliances will be expensive and will place additional strain on the Micro Grid.	The costs to businesses to convert to power appliances is not a Planning consideration.
Components and design of the Micro Grid are not reliable and will date quickly due to technological advances.	The lifespan of the components of the Daintree Micro Grid is not a Planning consideration. Any upgrades to the facility will require plans be submitted to Council for endorsement.
The Micro Grid may not be a financially viable project due to low uptake by residents and businesses and the short lifespan of the infrastructure.	The financial viability of the project is not a Planning consideration.
<b>Decommissioning Plan</b> DA does not include a decommissioning plan.	A condition of approval will require a Decommissioning Plan be submitted to Council for the end of the facility's life.
<b>Upgrade of Standalone Systems</b> Some residents have indicated that they would not connect to a grid and would prefer the government to allocate money to upgrading standalone power systems which they have already heavily invested in. Standalone power systems are believed to provide cheaper power compared to connection to the grid, be more reliable and have far less impacts on the environment.	The allocation of governmental funding and the cost comparison between standalone power systems and connection to the grid is not a Planning consideration.

Grounds of Properly Made Submissions	Planning Considerations
<p><b>Costs of Connection to the Grid and Costs of Supply</b></p> <p>Submitters are concerned that rewiring a house to make it compliant to connect to the grid, and grid connection itself will be costly. Concerns are also raised that the cost per KWH is unknown.</p>	<p>The costs associated with rewiring buildings, connection to the grid and electricity supply are not a Planning consideration.</p>
<p><b>Costs of the Development</b></p> <p>Concerns are raised that there will be insufficient funding to complete the project should the projected costs exceed the budget, or should the project require modification.</p>	<p>The costs associated with the development are not a Planning consideration.</p>
<p><b>Promotion of Further Development</b></p> <p>The proposal development will promote and facilitate further development and development intensity in the region and increase visitor numbers.</p>	<p>Planning controls are in place that limit development North of the Daintree River. In addition, the Daintree Micro Grid is limited in its capacity to supply power to premises with existing development rights and developable lots only.</p>
<p><b>Impacts on Ecology, Biodiversity and Conservation Values</b></p> <p>The proposed Micro-Grid will stimulate energy demand and become a catalyst for further expansion of the Micro Grid and promote general development of the region which will undermine the region's ecological and biodiversity values.</p>	<p>As above, Planning controls are in place that limit development North of the Daintree River and the Daintree Micro Grid is limited in its capacity to supply. Therefore, the proposal is not expected to place additional pressures on the regions ecological and biodiversity processes.</p>
<p>The fencing of the development will hinder the free movement of fauna from the adjacent National Park through the development site.</p>	<p>Fencing of the development site excludes riparian vegetation and existing mature vegetation along the western and eastern boundary respectively, thereby allowing the free movement of fauna from the National Park though native habitat to areas outside of the National Park.</p>
<p>Construction, daily operation, and risks associated with the operation of the facility will all impact the regions' ecological function, biodiversity, and conservation values.</p>	<p>The development's construction will be undertaken in accordance with an Environmental Management Plan that will address environmental risks.</p>
<p><b>Suitability of the Site</b></p> <p>The site and lease area are not appropriate as it cannot accommodate an expansion of the facility or provide landscaping to buffer the development.</p>	<p>Due to the development's limited capacity to supply power to properties with existing development rights and to lots identified as developable under the current Planning Scheme, expansion of the facility is not expected.</p>



Grounds of Properly Made Submissions	Planning Considerations
<p>The proposed development is not low intensity, Silkwood Road should remain a Rural - Residential area. Other sites that can internalise the impacts are more suitable for the proposed development.</p>	<p>The existing use of the land for cattle grazing will remain, only a portion of the site will be utilised for the proposed development.</p> <p>Impacts that have the potential to extend beyond the development site, such as, visual amenity, dust, noise, traffic, sediment and erosion, stormwater runoff will also be addressed through conditions of approval and the Environmental Management Plan submitted with the Application.</p>
<p><b>Inadequate Research</b></p> <p>Outdated, inadequate, flawed data sets and research have been used and misinterpreted to justify the project.</p>	<p>The information used to validate the development is not a Planning consideration.</p>
<p><b>Other Matters</b></p> <p>DA contains inconsistencies and omissions; the proposal does not comply with the Conservation zone's intent or Precinct 5 of the Cape Tribulation and Daintree Coast Local Plan (Low Impact Rural Production and Tourism Enterprise Precinct).</p>	<p>Council's assessment of the development is limited to the supporting documentation submitted with the Application.</p> <p>Noncompliance with Local Plans and codes are addressed through conditions of approval that address impacts from the development.</p>
<p>No reduction to the 20m setback should be permitted.</p>	<p>A condition of approval will require that all structures be setback 20m from the road boundary.</p>
<p>Walking tracks from the cul de sac of Silkwood Road through to the National Park adjacent to the development site should not be permitted.</p>	<p>Walking tracks do not form part of the Development Application.</p>
<p>The proposal is not a Micro Grid, rather it is a solar hydrogen powered renewable energy grid which will be used as a marketing tool for the Applicant.</p>	<p>Whether or not the Applicant uses the development as a marketing tool, is not a Planning consideration.</p>
<p>The Development Application does not address or make provision for sanitary services post construction</p>	<p>The facility will be operated remotely; therefore, ablution facilities are not required.</p>

### Referral Agency Requirements

The State Assessment and Referral Agency issued a pre-lodgement response (SARA Ref; 2208-30357 SPL). The Daintree Micro Grid did not require referral to SARA.

### Internal Referrals

Advice was received from the following internal departments:

Department	Comments
Water Reticulation	Not applicable
Waste Water	Not applicable
Open Spaces	Should vegetation be planted on the boundary of Silkwood Road I suggest only low endemic native species such as <i>ficus congesta</i> and/or <i>Melastoma affine</i> would be appropriate for the location and not impact the solar panels.
Environmental Health	Not applicable

### ADOPTED INFRASTRUCTURE CHARGES

Given the use is similar to a substation and other public utility services which do not attract infrastructure charges, no charges are applicable to the development.

### COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following area outlines where Council has a clear responsibility to act:

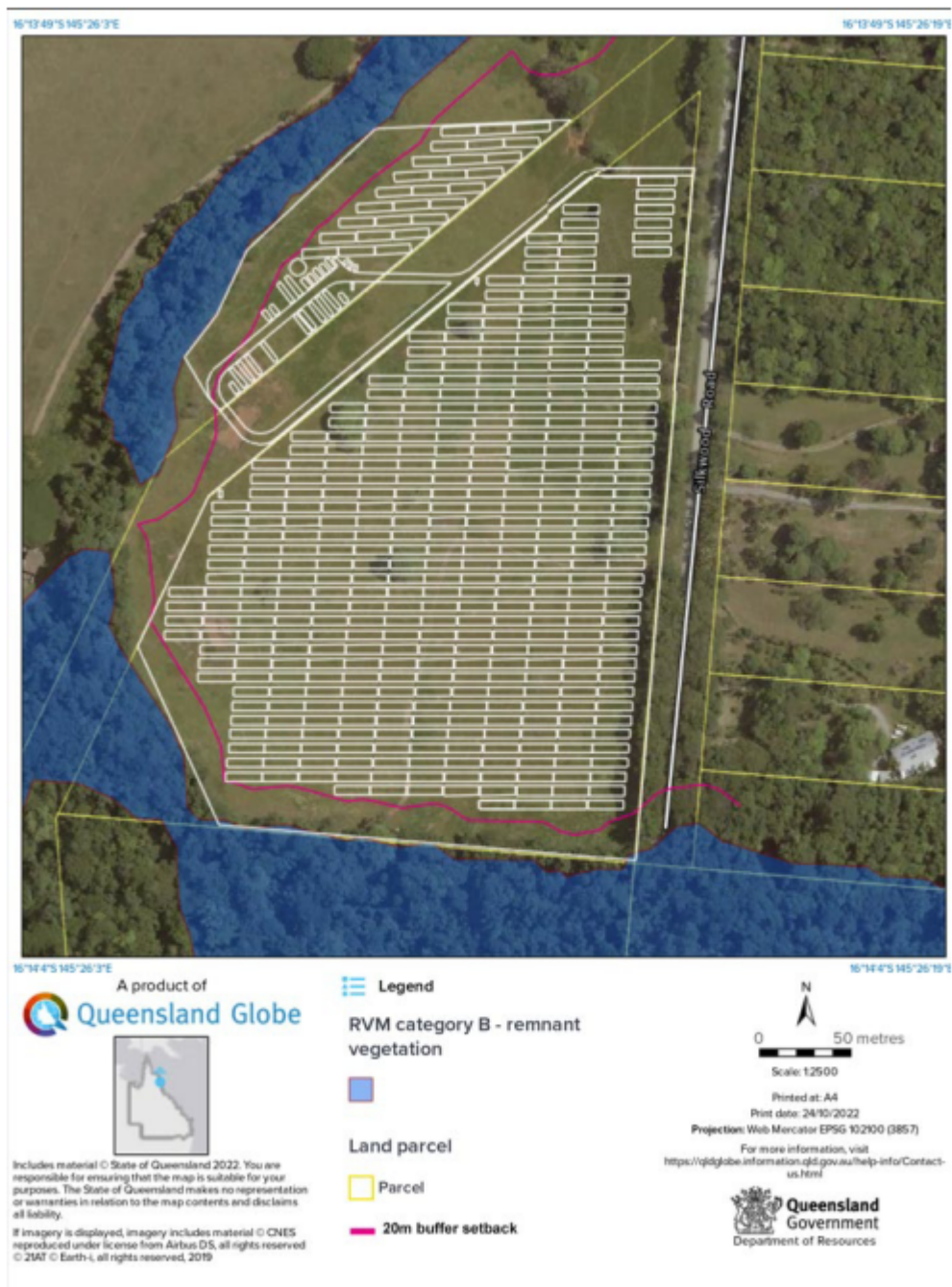
**Regulator:** Council has a number of statutory obligations detailed in numerous regulations and legislative Acts. Council also makes local laws to ensure that the Shire is well governed. In fulfilling its role as regulator, Council will utilise an outcomes based approach that balances the needs of the community with social and natural justice.

Under the *Planning Act 2016* and the *Planning Regulation 2017*, Council is the assessment manager for the application.

### ATTACHMENTS

1. Attachment 1 Proposal Plans [6.4.1 - 29 pages]

**Figure 2 Location of solar farm (generation site)**

**Figure 3 Regulated vegetation and buffer set backs**



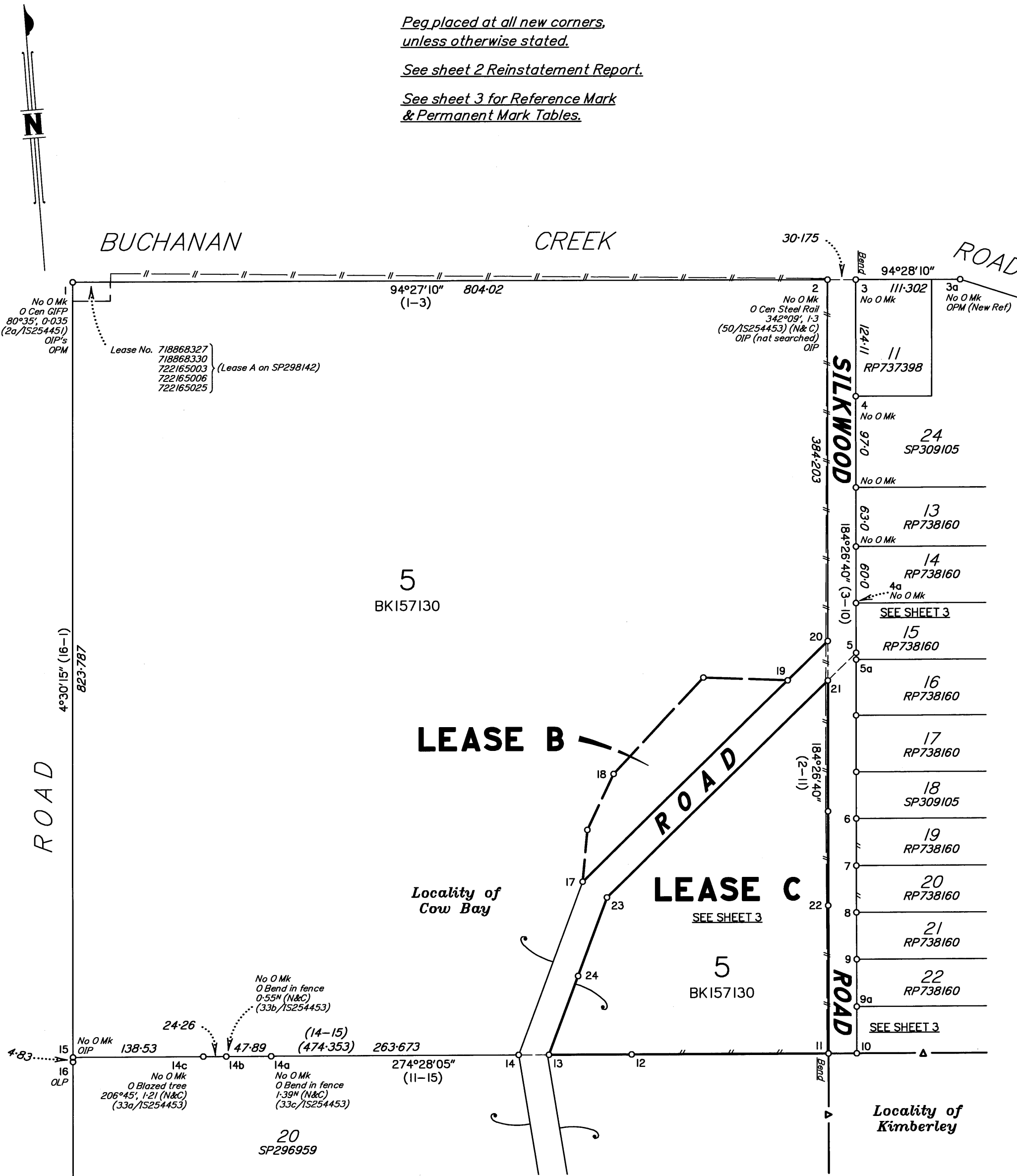
**Figure 4 Site drainage**

Note: solar panel layout is indicative only

Peg placed at all new corners,  
unless otherwise stated.

See sheet 2 Reinstatement Report.

See sheet 3 for Reference Mark  
& Permanent Mark Tables.





**WARNING : Folded or Mutilated Plans will not be accepted.**  
**Plans may be rolled.**  
**Information may not be placed in the outer margins.**

(Dealing No.)

4. Lodged by

(Include address, phone number, email, reference, and Lodger Code)

I. Existing		Created		
Title Reference	Description	New Lots	Road	Secondary Interests
21117005	Lot 5 on BK157130			Leases B & C

Leases B & C do not affect any of the leases lodged or registered against CT 21117005 dated 20/02/2023.

Reinstatement Report

Plans Searched: RP739768, IS254453, IS254451, RP738160, BK157130, BK157131 & RP737398.

Datum of survey is from stations 1–2 fixed by reference marks at these stations and resulting in distance in agreement with IS254453 (0.652m shortage compared to BK157130). This fix of station 2 being confirmed by connection to OPM at station 3a (reverse bearing error noted and checked from IS254453).

The boundary from stations 3 – 10 has been fixed by OIP at station 10 (which appeared to be undisturbed) resulting in angle down 0°0'30" at station 3 compared to deed plan BK157130 and 0.786 shortage compared to BK157130 & RP738160 & RP737398. The fix of station 10 via the OIP supported by reasonable agreement to adjacent star picket remains off 10 & 11. Steel star pickets were used as corner marker posts throughout the majority of Cow Bay subdivision surveys. In addition, the occupation from station 11 – 12 agrees well with the fix of station 10.

We note that whilst 0.786 shortage has been observed from 3–10, deed distance can be left in the front of all lots fronting Silkwood Road as the southernmost lot (23 on RP738160) has been cancelled and absorbed into the balance lot 20 on SP296959.

From review of occupation from stations 5a–10 and OP at station 5a, it appears that the shortage lies between stations 9 & 10 thus deed distance has been maintained from stations 3–5.

The bearing from stations 5–23 has been fixed by maintaining deed angle at station 21. The fix of station 20 and bearing to station 17 has been fixed by maintaining 150link road width.

The boundary from stations 10–11 has been fixed by maintaining RP738160 angle & distance & resulting in parallel road frontage of Silkwood Road from stations 11–2.

The boundary from stations 11–15 has been fixed by OIP at station 15 & O Line Peg at station 16. This fix resulting in angle up 0°01'25" and 0.2m excess compared to deed plan BK157130.

Station 14 has been fixed by maintaining deed distance from station 11. The boundary from station 14–17 has been fixed by maintaining deed angle at station 17 resulting in 0.787m shortage compared to BK157130. The resulting boundary from stations 17–20 being 0.227m excess compared to deed BK157130.

The boundaries from stations 13–23–21 have been fixed by maintaining fixed 150 link road width.

The observed bearing from stations 15–1 being in agreement with IS254453. The distance from station 15–1 measured 0.487m excess compared to IS254453 and 1.404m shortage compared to BK157130.

Lots	Orig
------	------

2. Orig Grant Allocation :

3. References :

Dept File :  
Local Govt :  
Surveyor : AU213008233

5. Passed & Endorsed :

By : RPS AAP Consulting Pty Ltd  
Date : 22/02/2023  
Signed : Solomon  
Designation : Cadastral Surveyor

6. Building Format Plans only.

I certify that :  
\* As far as it is practical to determine, no part of the building shown on this plan encroaches onto adjoining lots or road;  
\* Part of the building shown on this plan encroaches onto adjoining\* lots and road

Cadastral Surveyor/Director\* Date  
\*delete words not required

7. Lodgement Fees :

Survey Deposit \$ .....  
Lodgement \$ .....  
.....New Titles \$ .....  
Photocopy \$ .....  
Postage \$ .....  
TOTAL \$ .....

8. Insert Plan Number  
**SP340614**

REFERENCE MARKS

STN	TO	ORIGIN	BEARING	DIST
1	OIP	2a/RP739768	4°21'	1.0
1	Screw in Concrete		333°55'15"	18.518
1	OIP	32/IS254453	183°29'	51.45
2	OIP not searched (under rock stockpile)	50/IS254453	229°09'10"	45.68
2	OIP	50/IS254453	264°30'50"	47.877
3	Spike in Bitumen		304°28'	13.723
5	Pin		308°26'40"	23.013
10	OIP	30a/RP738160	94°27'20"	0.992
11	Pin		55°30'	14.81
12	Pin		24°23'	2.345
13	Pin		213°46'30"	6.505
13	ORT gone	7a/BK157130	200°00'05"	6.84
14	Pin		138°0'	5.208
14	ORT gone	7/BK157130	201°34'05"	6.035
14a	Pin		309°59'	19.624
15	OIP	33/IS254453	216°58'	17.95
17	Pin		350°08'	1.091
17	ORT gone	6/BK157130	37°26'40"	6.035
18	Pin		100°24'30"	17.572
19	Pin		95°32'	1.055
21	Pin		19°18'	1.885
23	Pin		301°09'	1.206
23	ORT gone	6a/BK157130	109°11'40"	2.655
24	Pin		138°33'	1.336

PERMANENT MARKS

PM	ORIGIN	BEARING	DIST	NO	TYPE
1-OPM	32/IS254453	295°15'30"	32.5	71626	
3a-OPM	24/RP737398	312°32'20"	1.7	74788	

N&C  
New Ref, N&C



SEE SHEET I

Peg placed at all new corners,  
unless otherwise stated.

5  
BK157130

**LEASE B**  
1.438 ha

**ROAD**

**LEASE C**  
7.181 ha

Locality of  
Cow Bay

**SILKWOOD**

**ROAD**

14  
RP738160

15  
RP738160

16  
RP738160

17  
RP738160

18  
SP309105

19  
RP738160

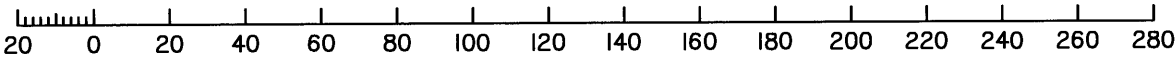
20  
RP738160

21  
RP738160

22  
RP738160

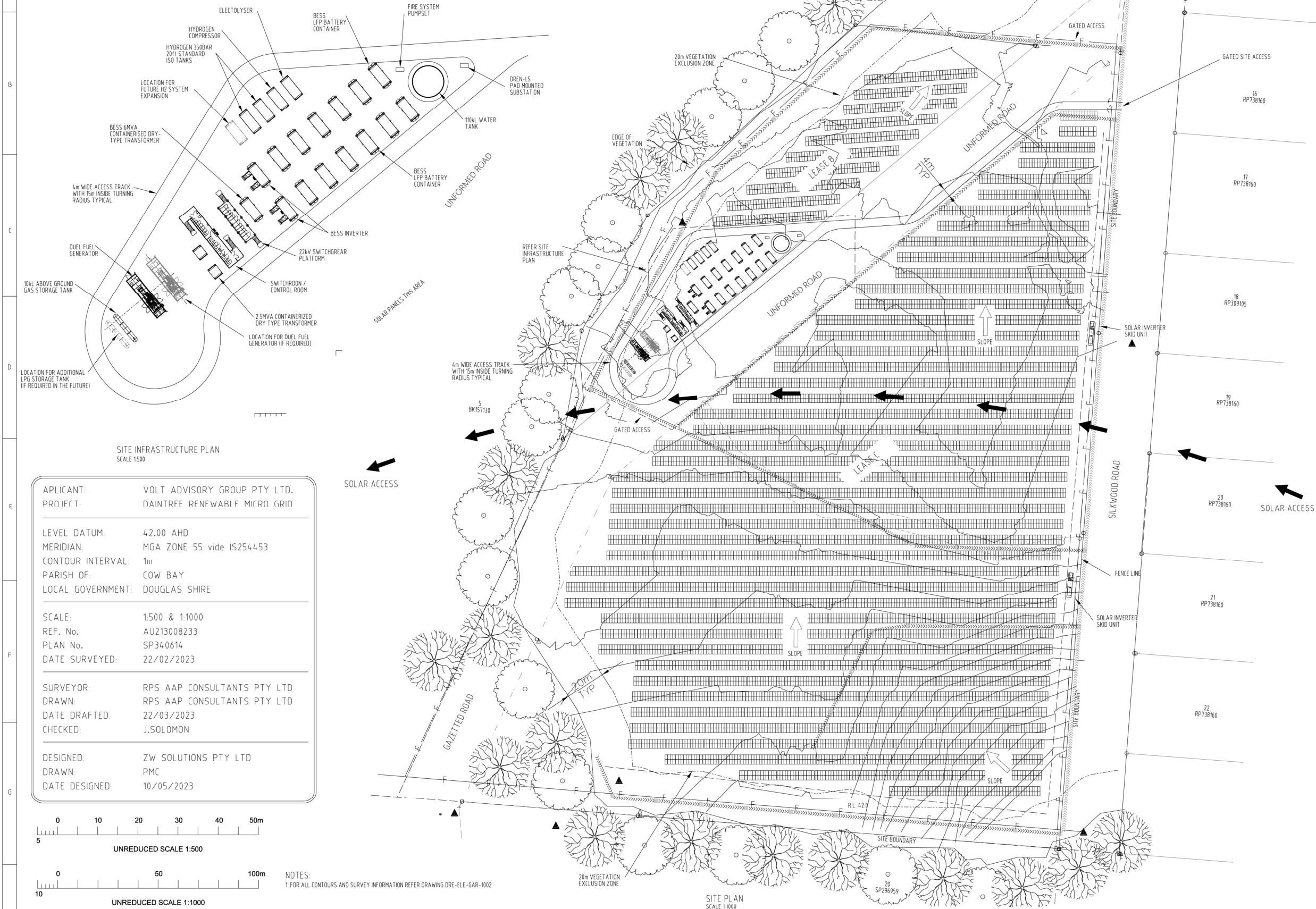
Locality of  
Kimberley

Scale 1:2000 - Lengths are in metres.



State copyright reserved.

Insert  
Plan  
Number  
**SP340614**



APPLICANT: VOLT ADVISORY GROUP PTY LTD.  
PROJECT: DAINTRIE RENEWABLE MICRO GRID

LEVEL DATUM: 42.00 AHD  
MERIDIAN: MGA ZONE 55 vide IS254453  
CONTOUR INTERVAL: 1m  
PARISH OF: COW BAY  
LOCAL GOVERNMENT: DOUGLAS SHIRE

SCALE: 1:500 & 1:1000  
REF. No. AU213008233  
PLAN No. SP340614  
DATE SURVEYED: 22/02/2023

SURVEYOR: RPS AAP CONSULTANTS PTY LTD  
DRAWN: RPS AAP CONSULTANTS PTY LTD  
DATE DRAFTED: 22/03/2023  
CHECKED: J.SOLOMON

DESIGNED: ZW SOLUTIONS PTY LTD  
DRAWN: PMC  
DATE DESIGNED: 10/05/2023

NOTES:  
1. FOR ALL CONTOURS AND SURVEY INFORMATION REFER DRAWING DRE-ELE-GAR-1002

INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

							DRE-ELE-GAR-1004	INTERNAL SERVICE TRACK PLAN
							DRE-ELE-GAR-1003	FENCE PLAN
A REV	10/05/23 DATE	ISSUED FOR COUNCIL APPROVAL DETAILS	PMC DRAWN	PZ CHECKD	SC APPRVD		DRE-ELE-GAR-1002 DRAWING No.	CONTOUR AND DRAINAGE P.LAN REFERENCE DRAWING TITLE

Ordinary Council Meeting - 27 February 2024



CERTIFICATION: <i>P. ZAJAC</i>	
RPEQ No: 10395      21-11-22	
Document No:	
DESIGNED	<i>P. ZAJAC</i>
DRAWN	<i>ZWS</i>
CHECKED	<i>P. ZAJAC</i>
APPROVED	<i>S. CROSS</i>

DAINTREE RENEWABLE  
ENERGYCENTRAL GENERATION FACILITY  
SITE PLAN

PROJECT No.: ZW2022.11
------------------------

DRAFTING NUMBER

DRE-ELE-GAR-1001

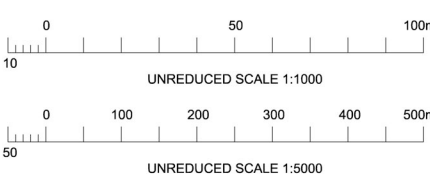
SHEET 1 OF 1      REVISION **A**

SCALE :	AS SHOWN	A1
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APPLICANT:	VOLT ADVISORY GROUP PTY LTD.
PROJECT:	DAINTREE RENEWABLE MICRO GRID
LEVEL DATUM:	42.00 AHD
MERIDIAN:	MGA ZONE 55 vide IS254453
CONTOUR INTERVAL:	1m
PARISH OF:	COW BAY
LOCAL GOVERNMENT:	DOUGLAS SHIRE
SCALE:	1:500 & 1:1000
REF. No.	AU213008233
PLAN No.	SP340614
DATE SURVEYED:	22/02/2023
SURVEYOR:	RPS AAP CONSULTANTS PTY LTD
DRAWN:	RPS AAP CONSULTANTS PTY LTD
DATE DRAFTED:	22/03/2023
CHECKED:	J.SOLOMON
DESIGNED:	ZW SOLUTIONS PTY LTD
DRAWN:	PMC
DATE DESIGNED:	10/05/2023

NOTES:  
DETAILS REFER TO DRAWING DRE-CIV-GAR-1021



INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

B2	3/8/23	ISSUED FOR CONCEPT APPROVAL	PMC	DRE-ELE-GAR-1004	INTERNAL SERVICE TRACK PLAN
B1	2/8/23	ISSUED FOR CONCEPT APPROVAL	PMC	DRE-ELE-GAR-1003	FENCE PLAN
A	10/05/23	ISSUED FOR COUNCIL APPROVAL	PMC	DRE-ELE-GAR1001	SITE PLAN
REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD
					DRAWING No.
					REFERENCE DRAWING TITLE

Ordinary Council Meeting - 27 February 2024



CERTIFICATION:	P. ZAJAC
RPEQ No.	10395
Document No.	21-11-22
DESIGNED:	P. ZAJAC
DRAWN:	ZWS
CHECKED:	P. ZAJAC
APPROVED:	S. CROSS

DAINTREE RENEWABLE ENERGY
CENTRAL GENERATION FACILITY CONTOUR AND DRAINAGE PLAN

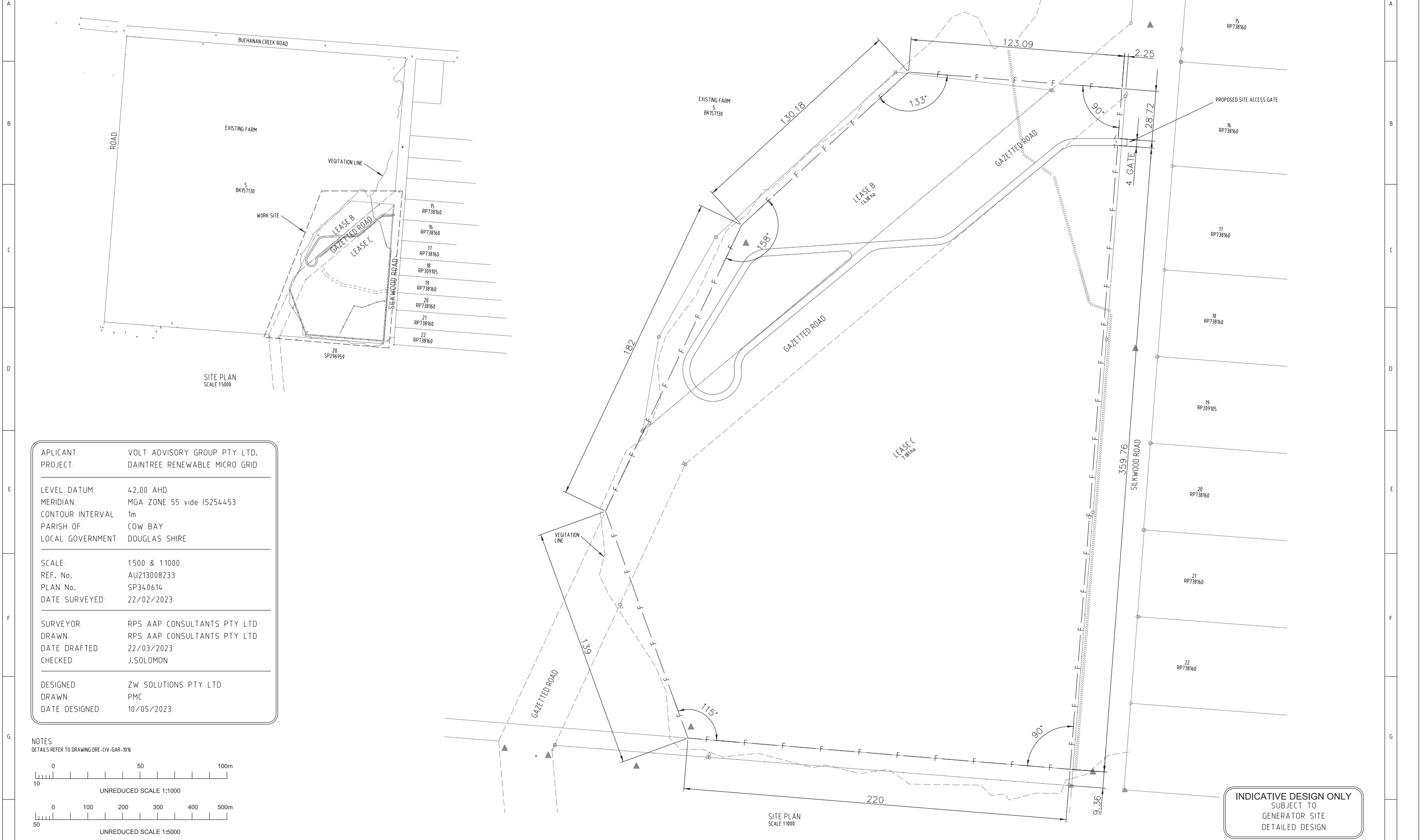
PROJECT No.:	ZW2022.11
DRAWING NUMBER	DRE-ELE-GAR-1002
SHEET 1 OF 1	REVISION B2
SCALE:	AS SHOWN
	A1



# Attachment 6.4.1

LOT 5 BK157130  
BUCHANAN CREEK ROAD  
COW BAY QLD 4873

156 of 187



APPLICANT: VOLT ADVISORY GROUP PTY LTD.  
PROJECT: DAINTREE RENEWABLE MICRO GRID

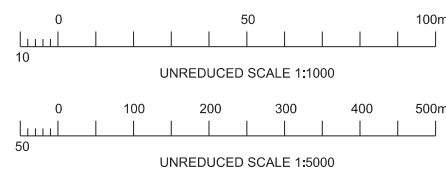
LEVEL DATUM: 42.00 AHD  
MERIDIAN: MGA ZONE 55 vide IS254453  
CONTOUR INTERVAL: 1m  
PARISH OF: COW BAY  
LOCAL GOVERNMENT: DOUGLAS SHIRE

SCALE: 1:500 & 1:1000  
REF. No. AU213008233  
PLAN No. SP340614  
DATE SURVEYED: 22/02/2023

SURVEYOR: RPS AAP CONSULTANTS PTY LTD  
DRAWN: RPS AAP CONSULTANTS PTY LTD  
DATE DRAFTED: 22/03/2023  
CHECKED: J.SOLOMON

DESIGNED: ZW SOLUTIONS PTY LTD  
DRAWN: PMC  
DATE DESIGNED: 10/05/2023

NOTES:  
DETAILS REFER TO DRAWING DRE-CIV-GAR-1016



INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD	DRAWING No	REFERENCE DRAWING TITLE
B2	3/8/23	ISSUED FOR CONCEPT APPROVAL	PMC			DRE-ELE-GAR-1004	INTERNAL SERVICE TRACK PLAN
B1	2/8/23	FOR CONCEPT APPROVAL	PMC			DRE-ELE-GAR-1002	CONTOUR AND DRAINAGE PLAN
A	10/05/23	ISSUED FOR COUNCIL APPROVAL	PMC	PZ	SC	DRE-ELE-GAR-1001	SITE PLAN

Ordinary Council Meeting - 27 February 2024



CERTIFICATION: P. ZAJAC  
RPEQ No: 10395 21-11-22  
Document No:  
DESIGNED: P. ZAJAC  
DRAWN: ZWS  
CHECKED: P. ZAJAC  
APPROVED: S. CROSS

DAINTREE RENEWABLE  
ENERGY

CENTRAL GENERATION FACILITY  
FENCE PLAN

PROJECT No: ZW2022.11  
DRAWING NUMBER

DRE-ELE-GAR-1003

SHEET 1 OF 1 REVISION B2  
SCALE: AS SHOWN A1





Attachment 6.4.1

LOT 5 6057130  
BUCHANAN CREEK ROAD  
COW BAY QLD 4873

157 of 187

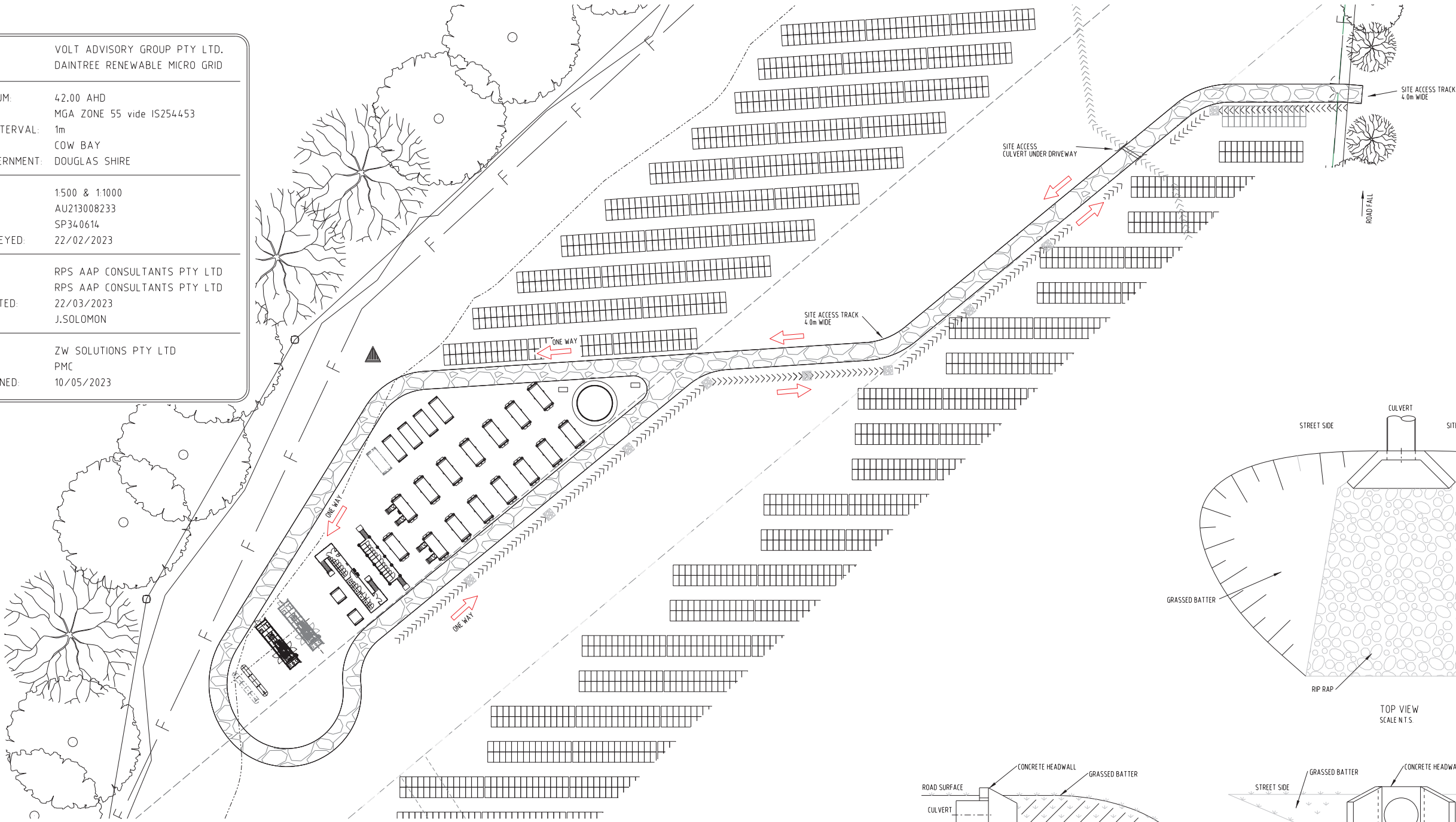
APPLICANT: VOLT ADVISORY GROUP PTY LTD.  
PROJECT: DAINTREE RENEWABLE MICRO GRID

LEVEL DATUM: 42.00 AHD  
MERIDIAN: MGA ZONE 55 vide IS254453  
CONTOUR INTERVAL: 1m  
PARISH OF: COW BAY  
LOCAL GOVERNMENT: DOUGLAS SHIRE

SCALE: 1500 & 1:1000  
REF. No. AU213008233  
PLAN No. SP340614  
DATE SURVEYED: 22/02/2023

SURVEYOR: RPS AAP CONSULTANTS PTY LTD  
DRAWN: RPS AAP CONSULTANTS PTY LTD  
DATE DRAFTED: 22/03/2023  
CHECKED: J.SOLOMON

DESIGNED: ZW SOLUTIONS PTY LTD  
DRAWN: PMC  
DATE DESIGNED: 10/05/2023

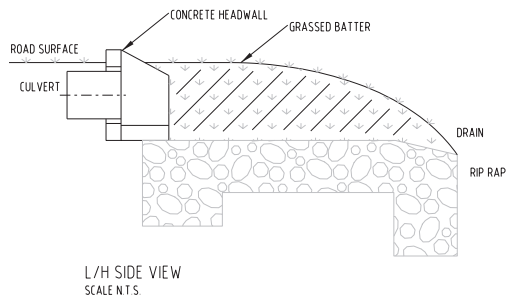


ROAD PLAN  
SCALE 1500

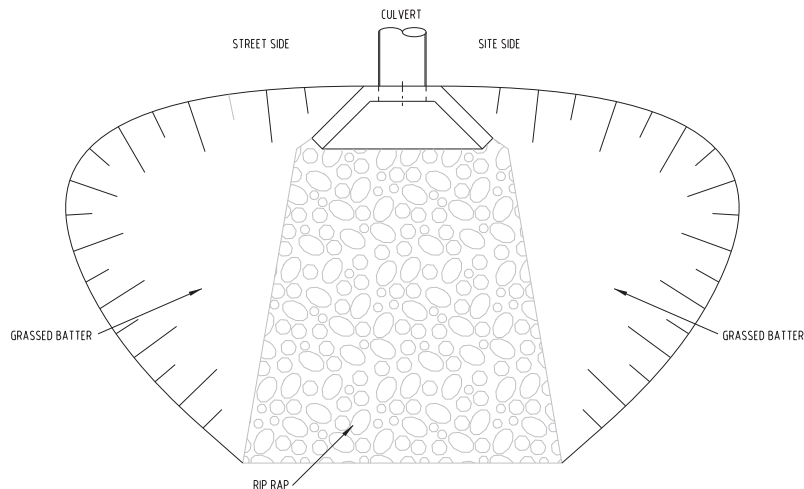
NOTES:

- SERVICE VEHICLE TURNING PATHS BASED UPON A PRIME MOVER VEHICLE LENGTH OF 25m WITH A TURNING RADIUS OF 15m AS PER AUSTRALIAN DESIGN VEHICLE AND TURNING PATH TEMPLATES GUIDE 2013
- FOR ROAD DETAILS REFER TO DRAWING DRAINAGE DETAIL DRE-CIV-GAR-1021

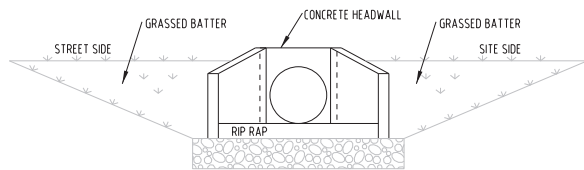
MINIMUM REQUIREMENTS FOR ROAD DESIGN	
ITEM	MINIMUM REQUIREMENT
LOAD TO BE SUPPORTED	100 TONNES
CONCRETE EDGING (BITUMEN ROAD)	N/A
MAXIMUM ACCESS ROAD GRADIENT	1:15 OR 4 DEG
MINIMUM ACCESS ROAD TURNING	15m INSIDE RADIUS



L/H SIDE VIEW  
SCALE N.T.S.



TOP VIEW  
SCALE N.T.S.



FRONT VIEW  
SCALE N.T.S.

INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD	DRAWING No	REFERENCE DRAWING TITLE
B2	3/8/23	ISSUED FOR CONCEPT APPROVAL	PMC			DRE-ELE-GAR-1001	SITE PLAN
B1	2/8/23	ISSUED FOR CONCEPT APPROVAL	PMC			DRE-ELE-GAR-1003	FENCE PLAN
A	10/05/23	ISSUED FOR COUNCIL APPROVAL	PMC	PZ	SC	DRE-ELE-GAR-1002	CONTOUR AND DRAINAGE PLAN

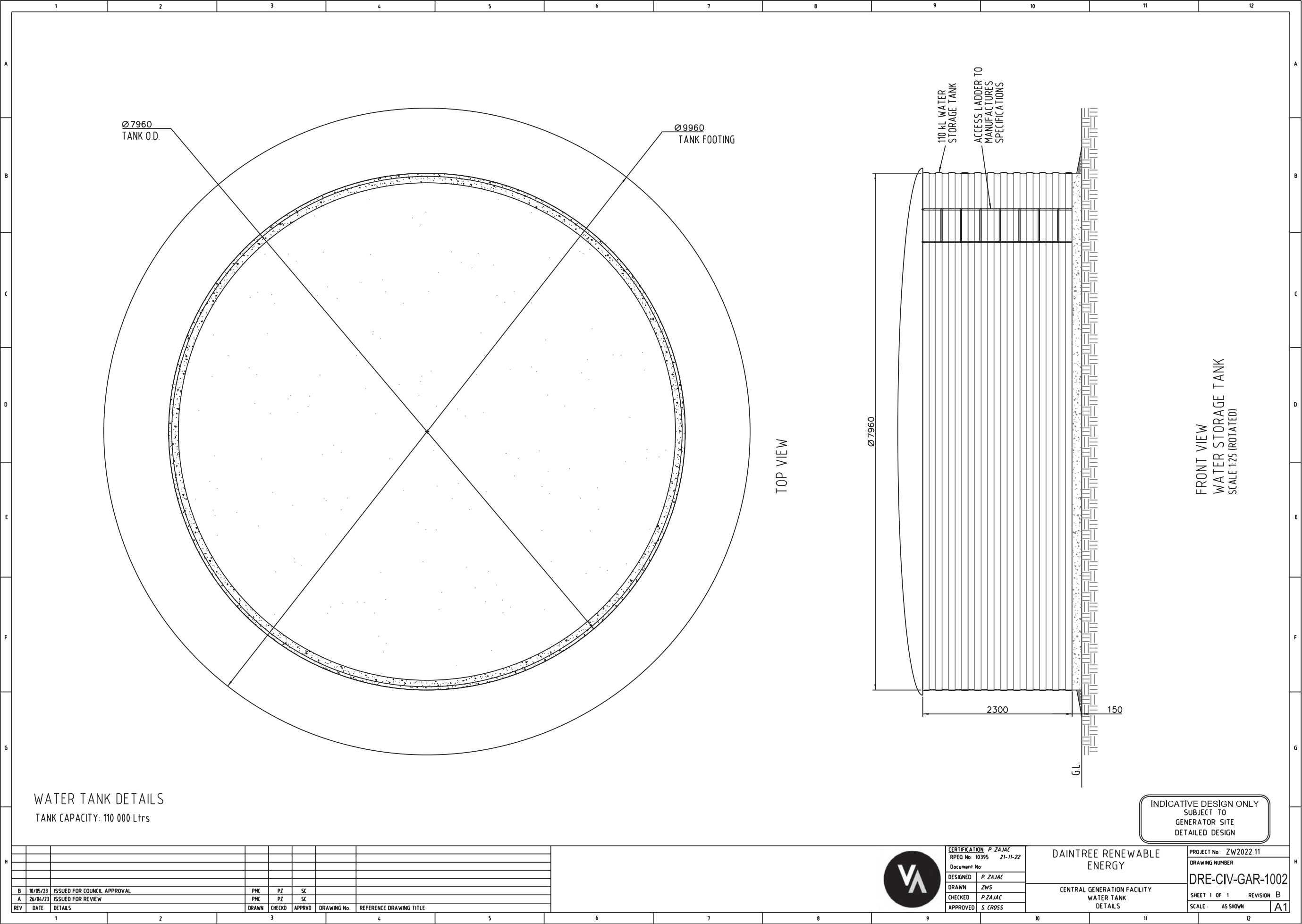
Ordinary Council Meeting - 27 February 2024



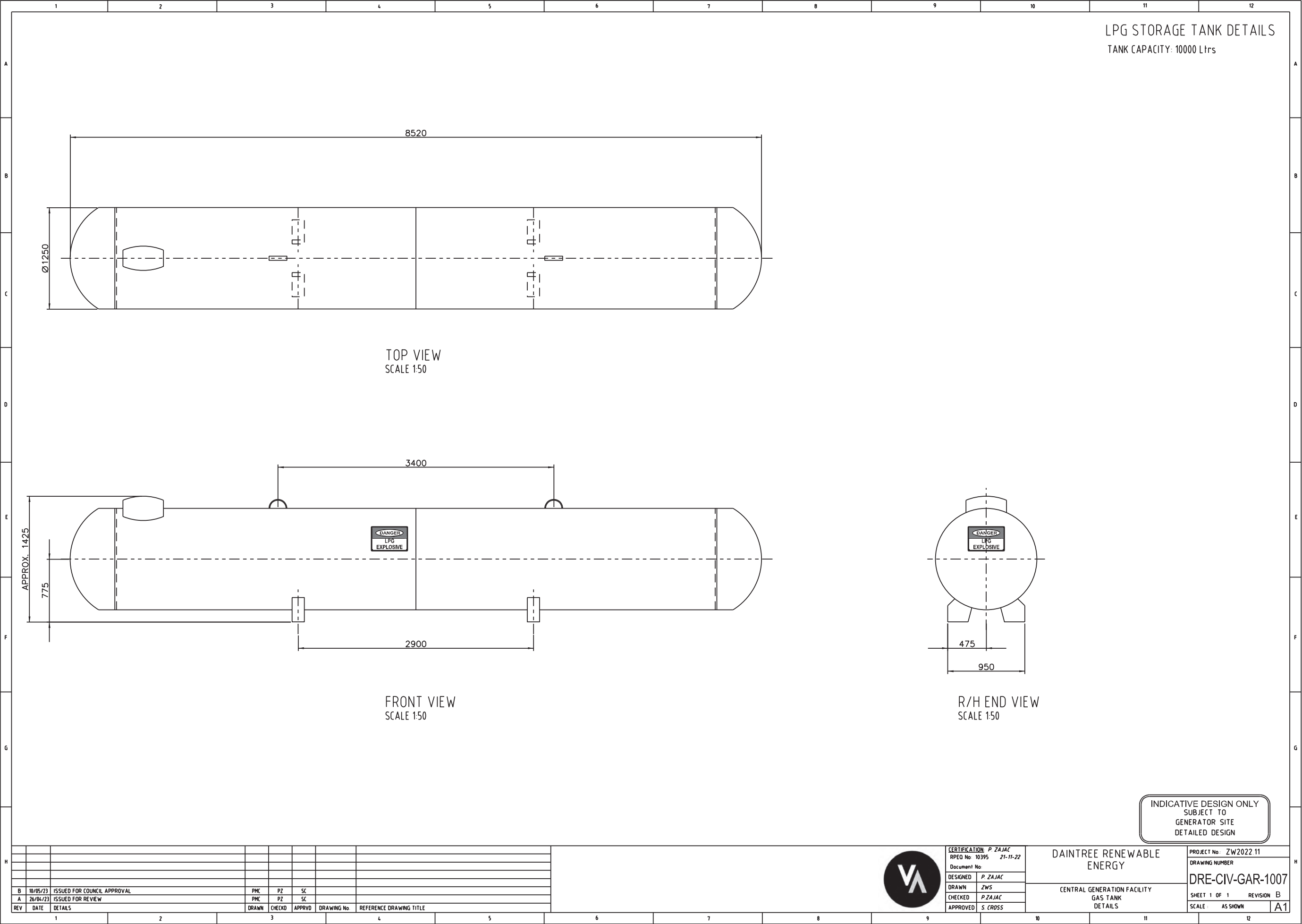
CERTIFICATION: P. ZAJAC	RPEQ No: 10395	21-11-22
Document No:		
DESIGNED: P. ZAJAC		
DRAWN: ZWS		
CHECKED: P. ZAJAC		
APPROVED: S. CROSS		

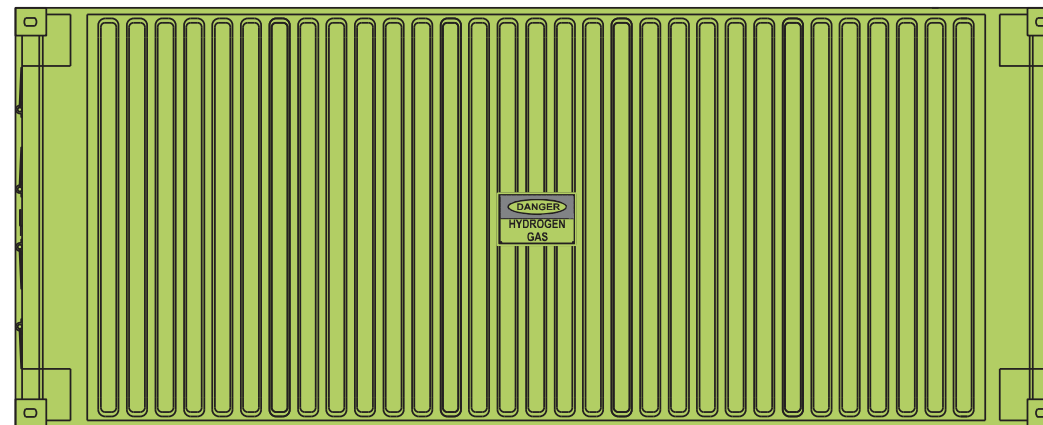
DAINTREE RENEWABLE  
ENERGY  
CENTRAL GENERATION FACILITY  
ROAD PLAN

PROJECT No: ZW2022.11	DRAWING NUMBER
DRE-ELE-GAR-1004	
SHEET 1 OF 1	REVISION B2
SCALE: AS SHOWN	A1

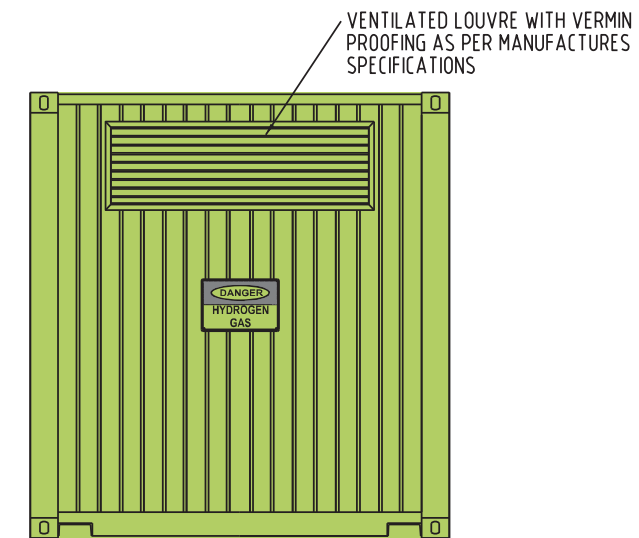




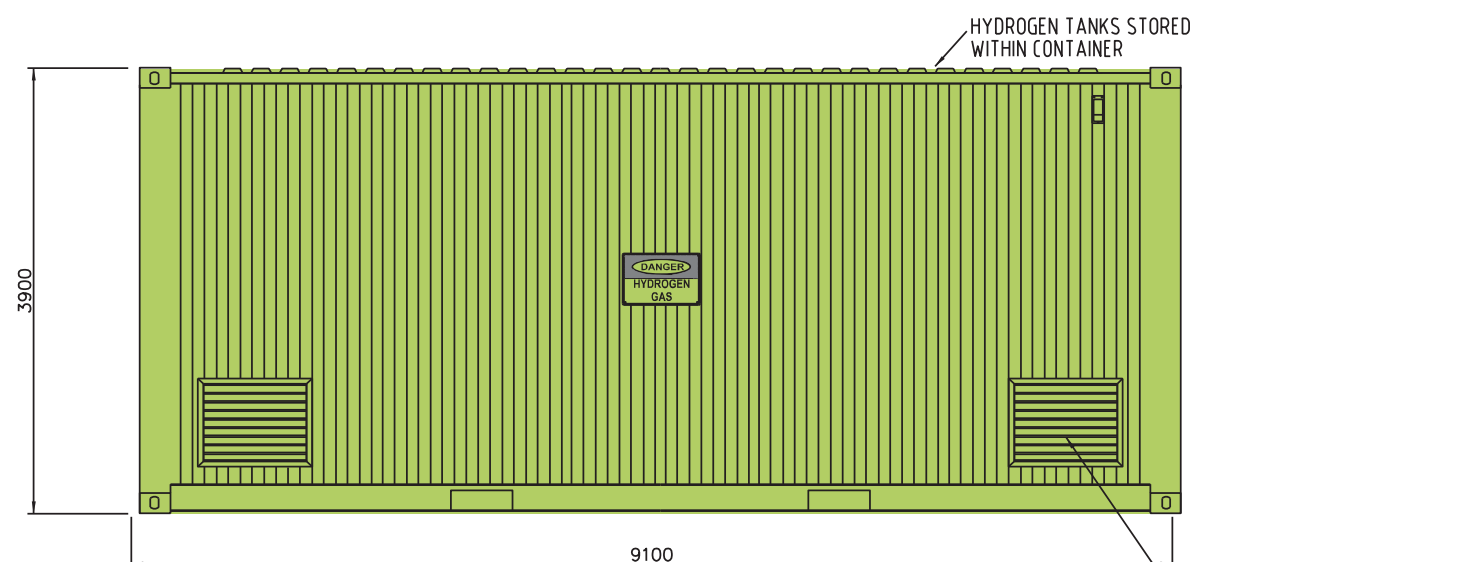




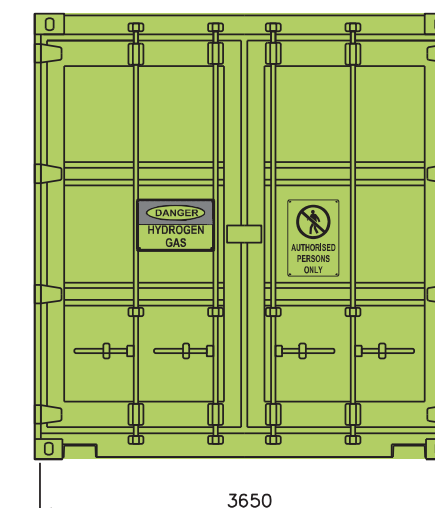
TOP VIEW



END VIEW



FRONT VIEW  
HYDROGEN GAS TANK STORAGE UNIT  
SCALE 1:20



END VIEW

B	10/05/23	ISSUED FOR COUNCIL APPROVAL		PMC	PZ	SC			
A	26/04/23	ISSUED FOR REVIEW		PMC	PZ	SC			
REV	DATE	DETAILS	DRAWN	CHECKD	APPYRD	DRAWING No.	REFERENCE DRAWING TITLE		

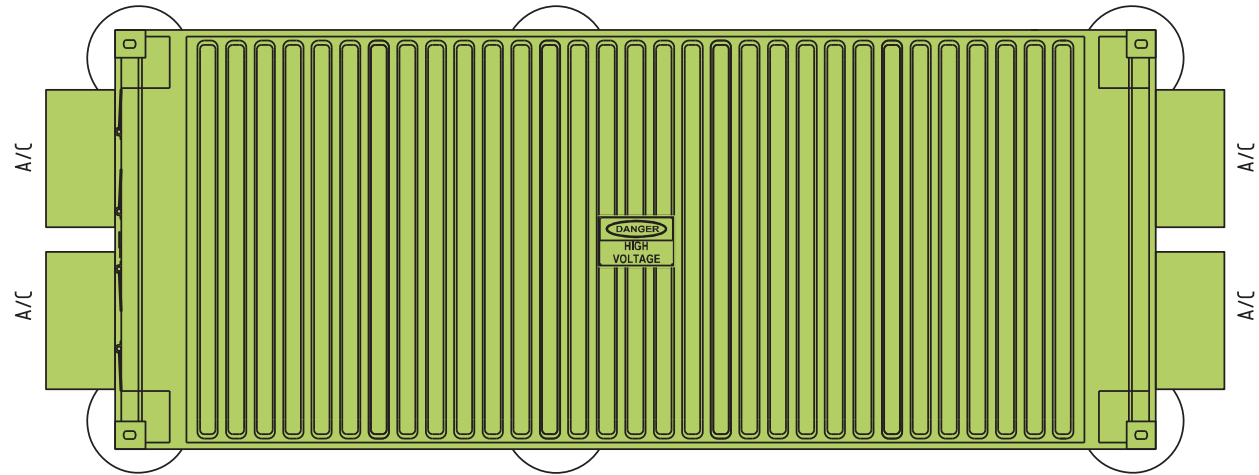


<b>CERTIFICATION:</b> P ZAJAC RPEQ No: 10395      21-11-21 Document No:	
DESIGNED	P. ZAJAC
DRAWN	ZWS
CHECKED	P. ZAJAC
APPROVED	S. CROSS

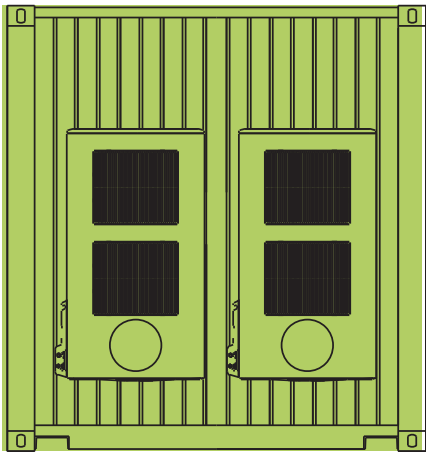
DAINTREE RENEWABLE  
ENERGY

### CENTRAL GENERATION FACILITY HYDROGEN GAS FUEL TANK DETAILS

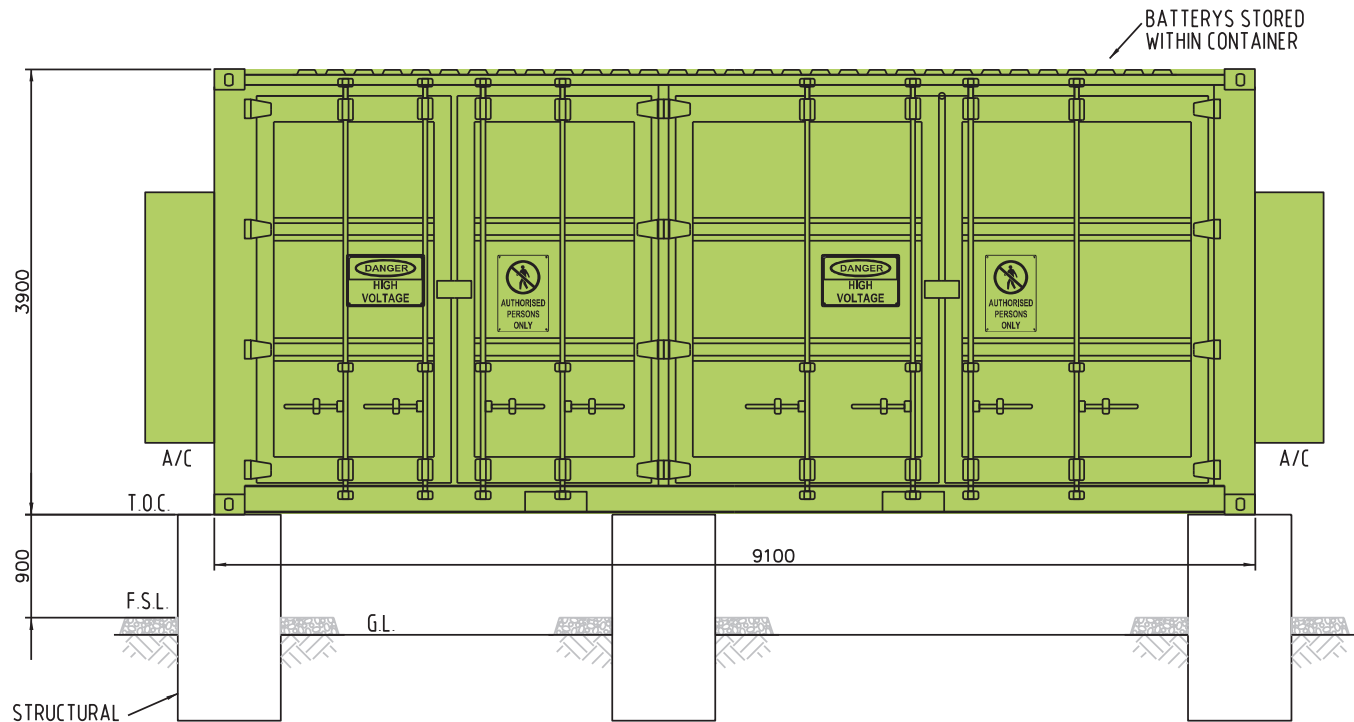
PROJECT No. : ZW2022.11	H
DRAWING NUMBER	
DRE-CIV-GAR-1008	
SHEET 1 OF 1      REVISION B	
SCALE : AS SHOWN	A1



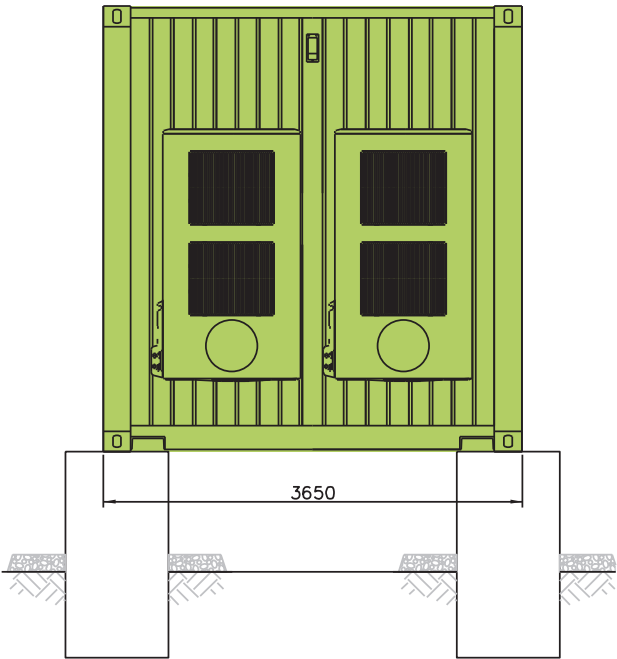
TOP VIEW



END VIEW



FRONT VIEW  
BATTERY ENERGY STORAGE SYSTEM (BESS) UNIT  
SCALE 1:20



END VIEW

INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD	DRAWING No	REFERENCE DRAWING TITLE
B	10/05/23	ISSUED FOR COUNCIL APPROVAL	PMC	PZ	SC		
A	26/04/23	ISSUED FOR REVIEW	PMC	PZ	SC		

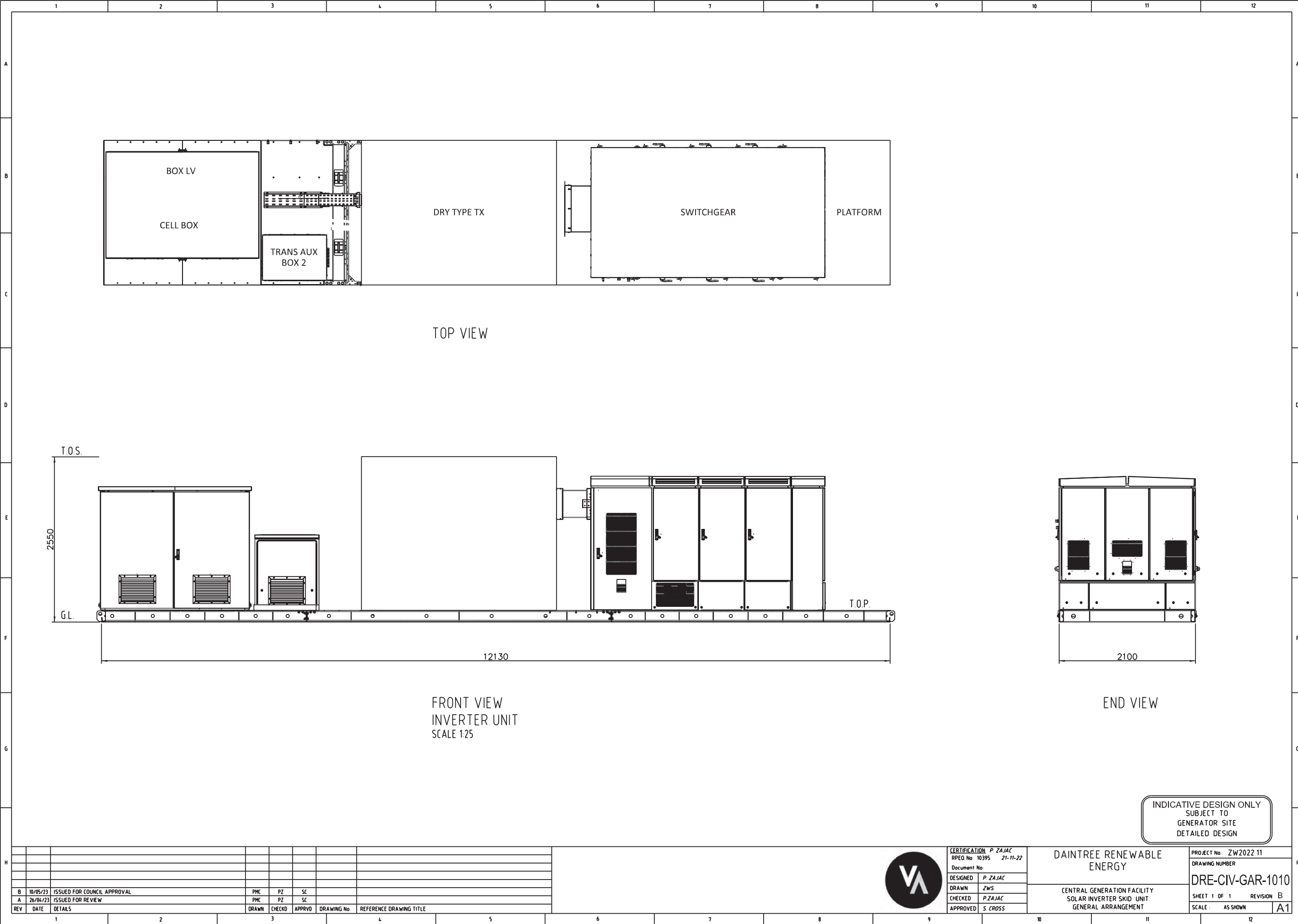


CERTIFICATION	P ZAJAC
RPEO No	10395
Document No	21-11-22
DESIGNED	P ZAJAC
DRAWN	ZWS
CHECKED	P ZAJAC
APPROVED	S CROSS

DAINTREE RENEWABLE  
ENERGY  
  
CENTRAL GENERATION FACILITY  
BATTERY ENERGY STORAGE SYSTEM (BESS) UNIT  
MODULE DETAILS

PROJECT No	ZW2022 11
DRAWING NUMBER	DRE-CIV-GAR-1009
SHEET 1 OF 1	REVISION B
SCALE	AS SHOWN

A1



REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD	DRAWING No	REFERENCE DRAWING TITLE
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A	26/04/23	ISSUED FOR REVIEW	PMC	PZ	SC		



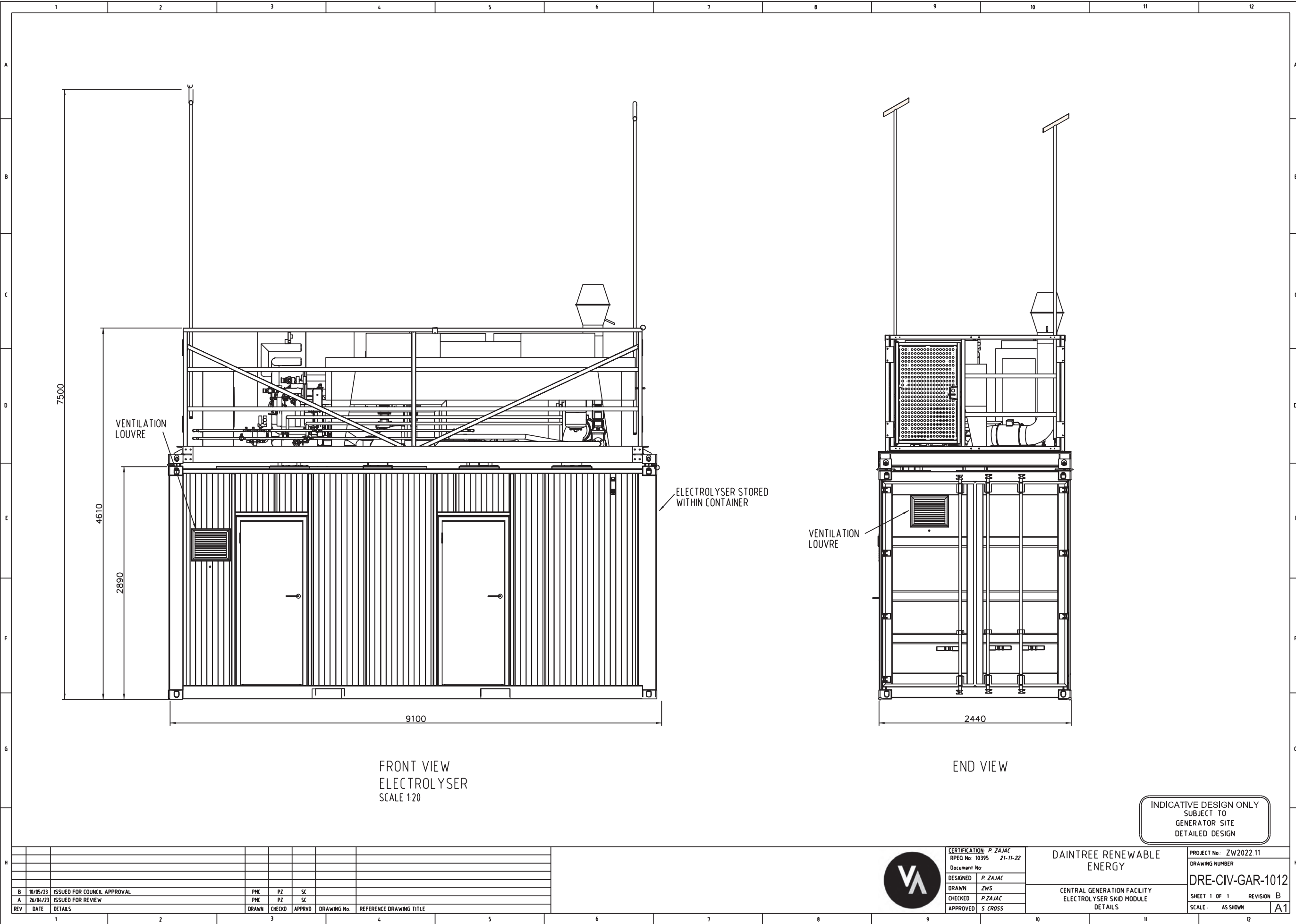
CERTIFICATION	P ZAJAC
RPEO No:	10395
Document No:	21-11-22
DESIGNED	P ZAJAC
DRAWN	ZWS
CHECKED	P ZAJAC
APPROVED	S CROSS

DAINTREE RENEWABLE ENERGY
CENTRAL GENERATION FACILITY
SOLAR INVERTER SKID UNIT
GENERAL ARRANGEMENT

PROJECT No:	ZW2022 11
DRAWING NUMBER	DRE-CIV-GAR-1010
SHEET 1 OF 1	REVISION B
SCALE:	AS SHOWN

A1







# DAINTREE RENEWABLE ENERGY

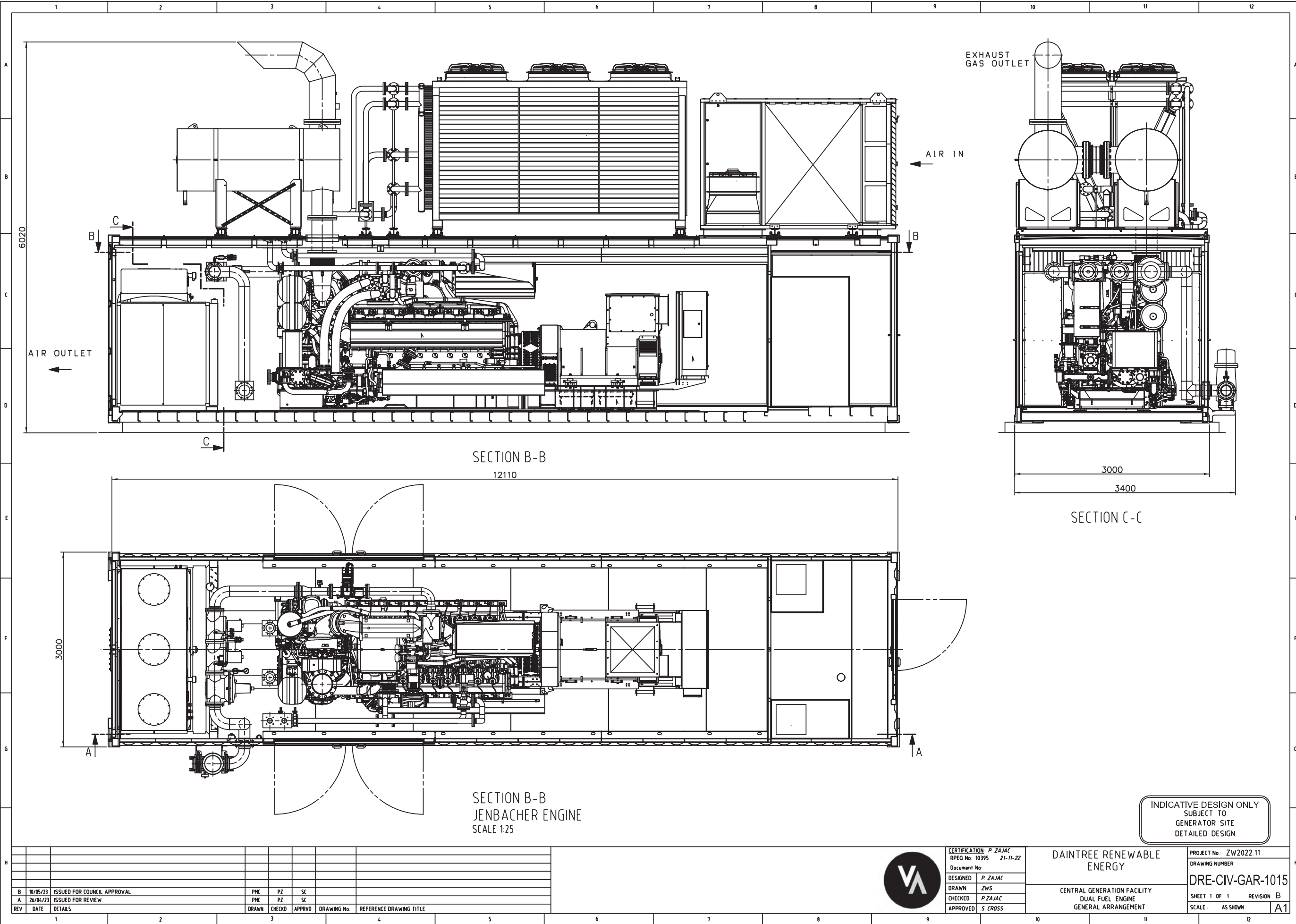
## CENTRAL GENERATION FACILITY COMPRESSOR MODULE DETAILS

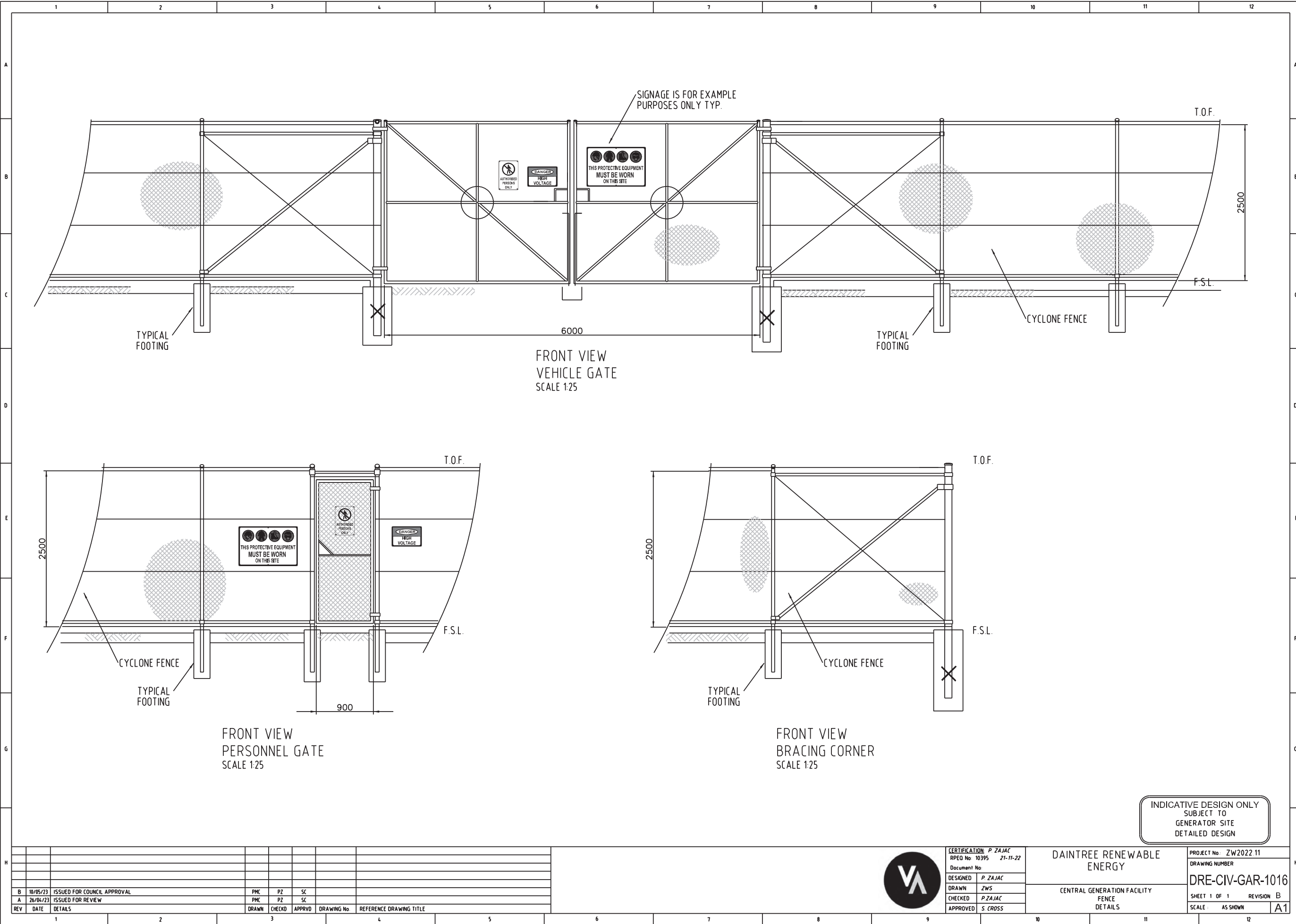
PROJECT No. ZW2022.11
DRAWING NUMBER
DRE-CIV-GAR-1013
SHEET 1 OF 1 REVISION B
SCALE : AS SHOWN

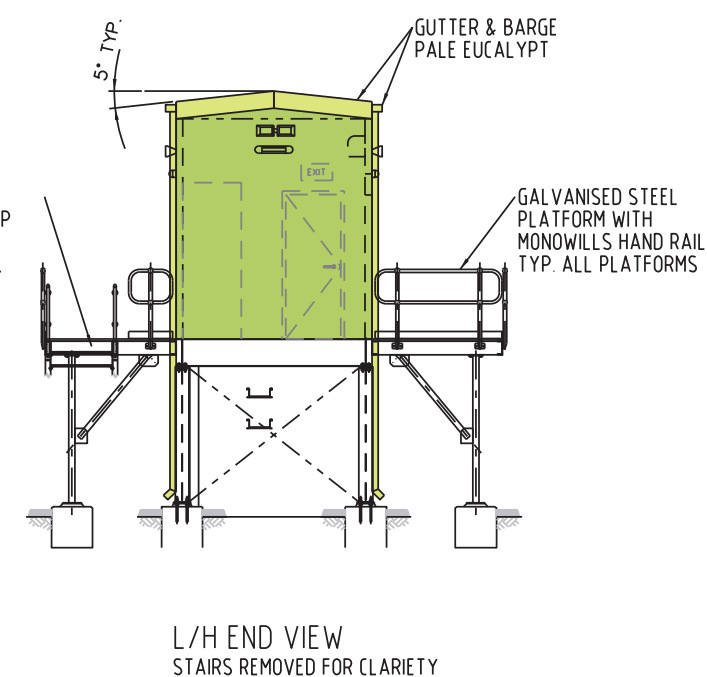
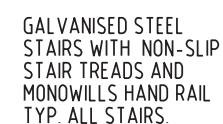
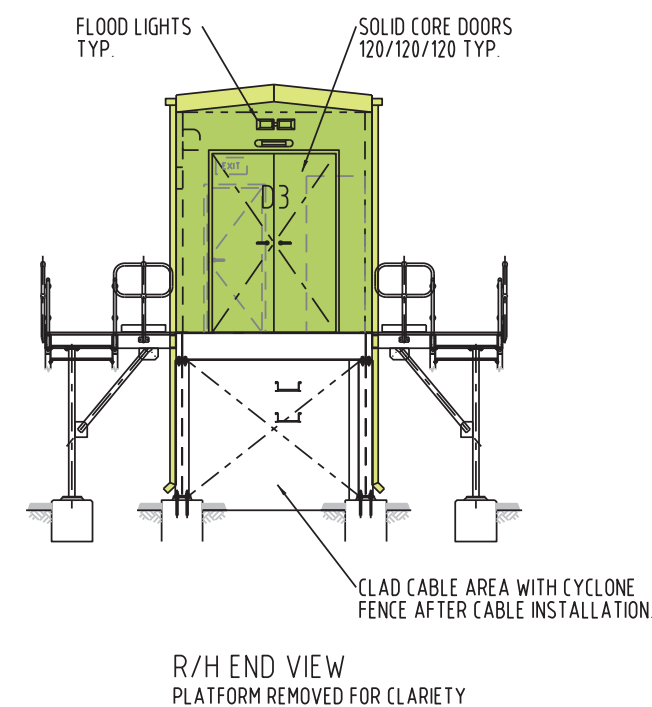




PROJECT No: ZW2022.11	H
DRAWING NUMBER	
DRE-CIV-GAR-1014	
SHEET 1 OF 1 REVISION B	
SCALE : AS SHOWN	A1







DOOR SCHEDULE:

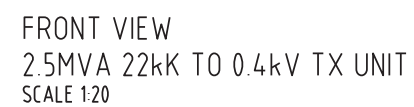
D1 - 2600H X 1600W SOLID CORE FRL 120/120/120, EXTERNAL
D2 - 2100H X 920W SOLID CORE FRL 120/120/120, INTERNAL
D3 - 2600H X 1600W SOLID CORE FRL 120/120/120, EXTERNAL

[illegible]

<b>CERTIFICATION:</b> P. ZAJAC	
RPEQ No: 10395	21-11-22
Document No:	
DESIGNED	P. ZAJAC
DRAWN	ZWS
CHECKED	P. ZAJAC
APPROVED	S. CROSS

### CENTRAL GENERATION FACILITY SWITCHROOM / CONTROL ROOM DETAILS

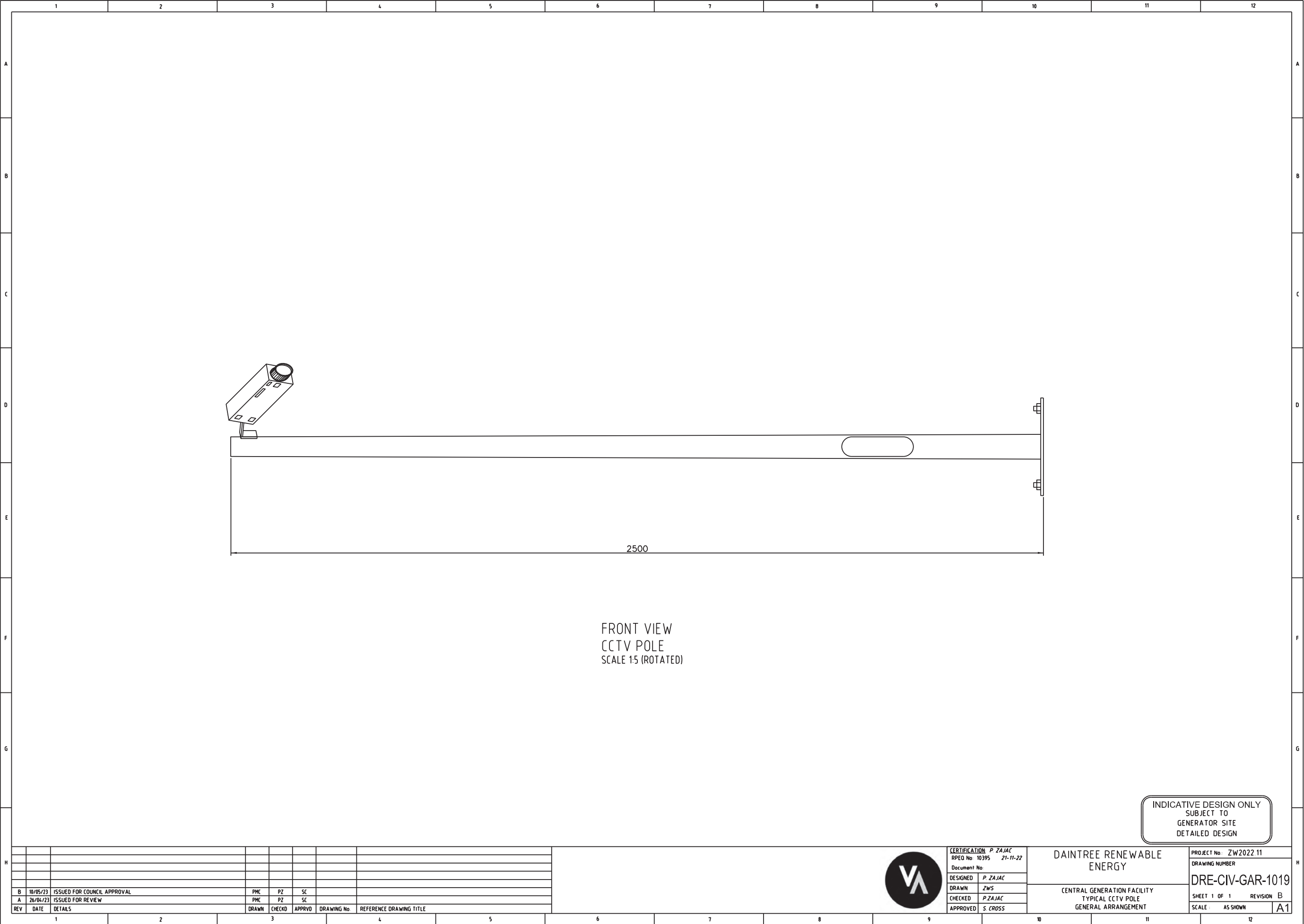
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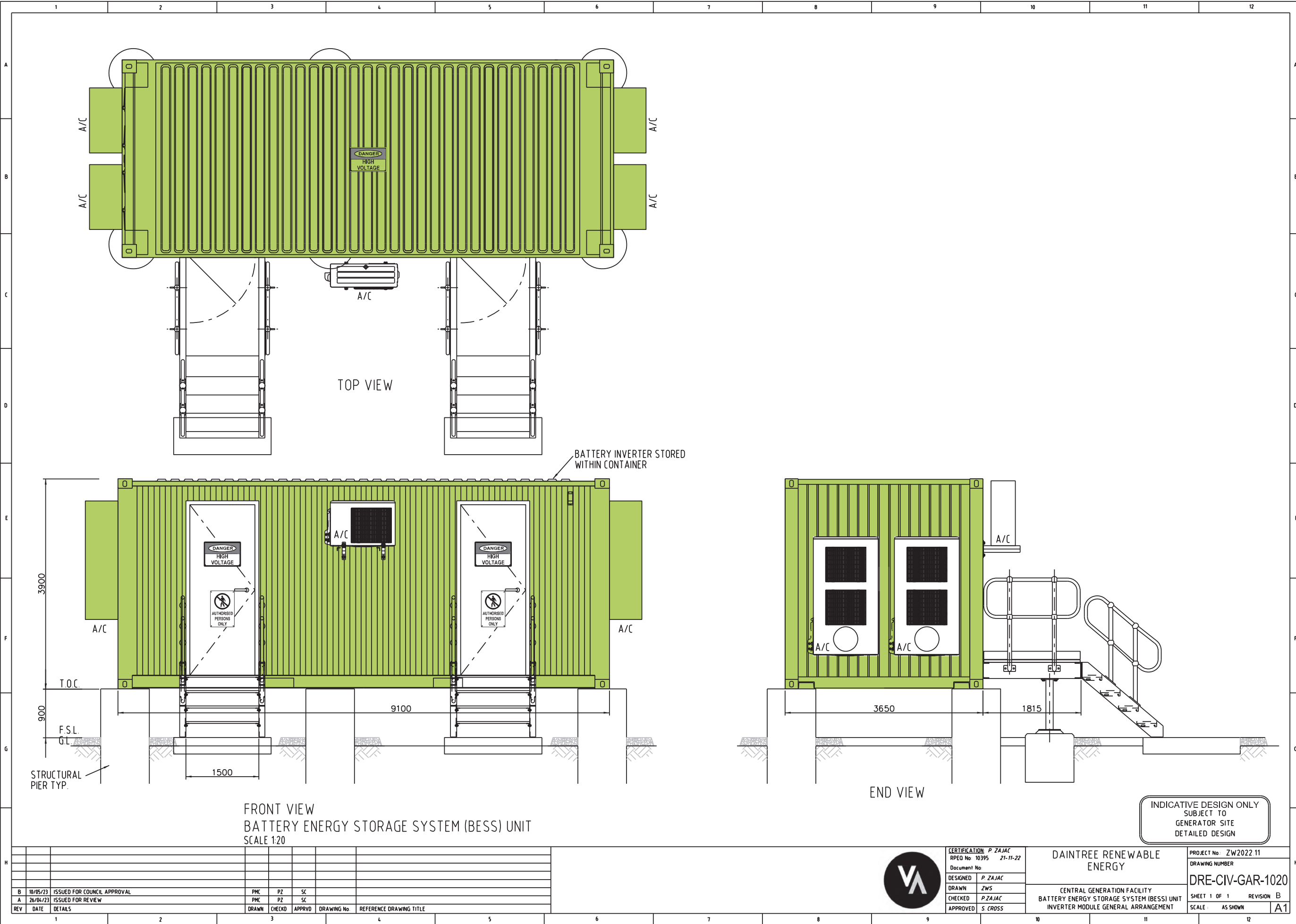


<b>CERTIFICATION</b> <i>P. ZAJAC</i> RPEQ No: 10395      21-11-22 Document No:	
DESIGNED	<i>P. ZAJAC</i>
DRAWN	<i>ZWS</i>
CHECKED	<i>P. ZAJAC</i>
APPROVED	<i>S. CROSS</i>

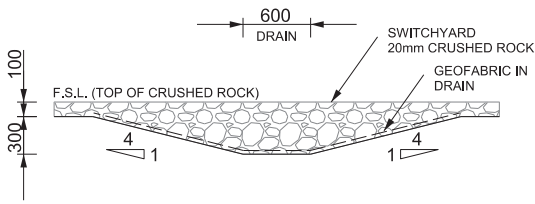
CENTRAL GENERATION FACILITY  
2.5MVA 22kV TO 0.4kV TX MODULE UNIT  
DETAILS

PROJECT No. ZW2022.11	H
DRAWING NUMBER	
DRE-CIV-GAR-1018	
SHEET 1 OF 1 REVISION B	
SCALE : AS SHOWN	A1

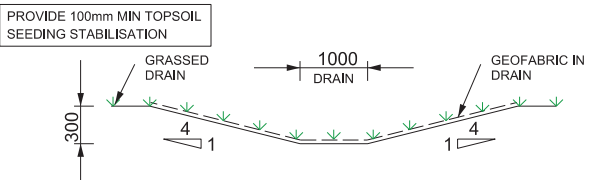




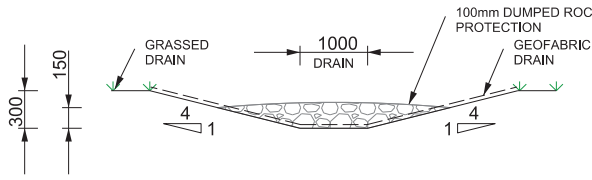




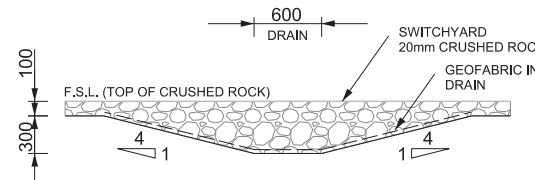
FORMED IN GROUND DRAIN



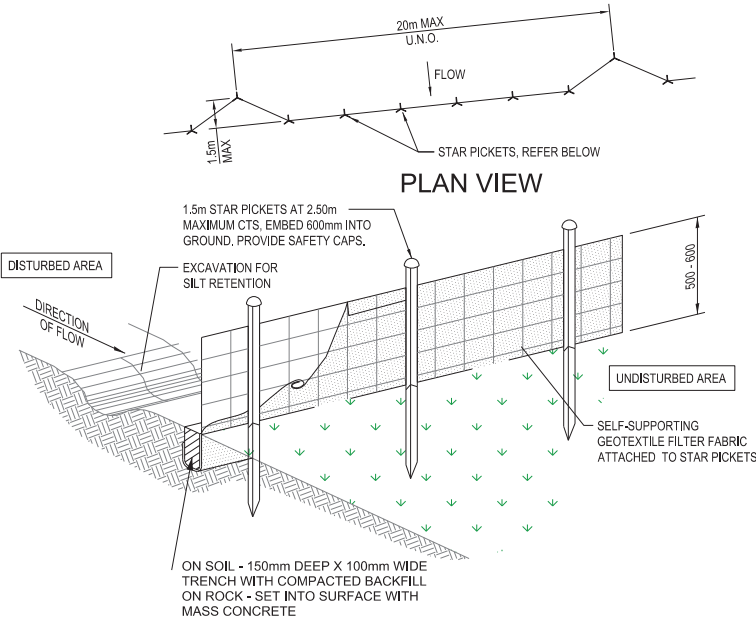
FORMED IN GROUND DRAIN  
(BATTER / BENCH INTERFACE)



FORMED IN GROUND DRAIN  
(DUMPED ROCK)

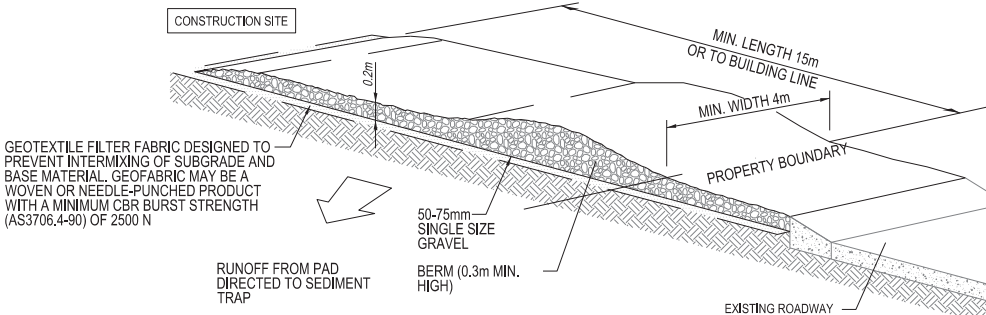


FORMED IN GROUND DRAIN



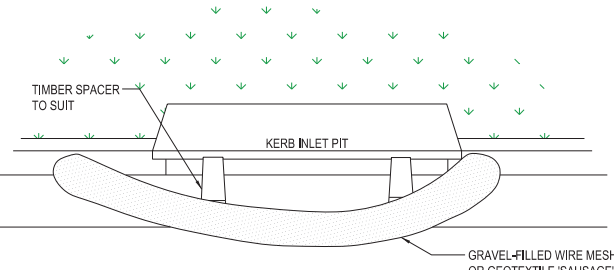
PLAN VIEW

SEDIMENT CONTROL FENCE DETAIL



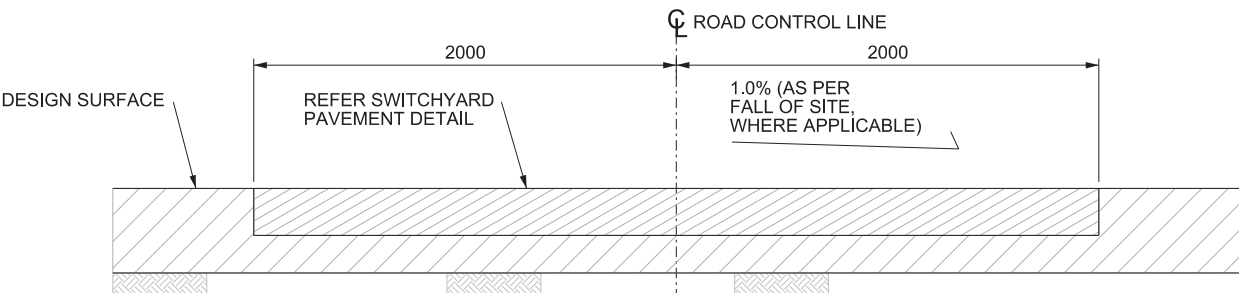
STABILISED SITE ACCESS DETAIL

IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-14 STABILISED SITE ACCESS

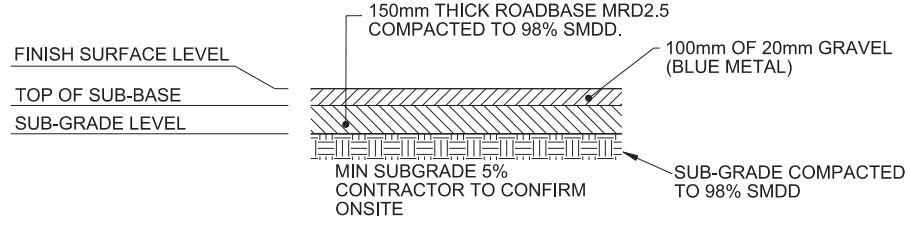


MESH AND GRAVEL INLET DETAIL

IN ACCORDANCE WITH LANDCOM 'BLUE BOOK' SD6-11 MESH AND GRAVEL INLET FILTER

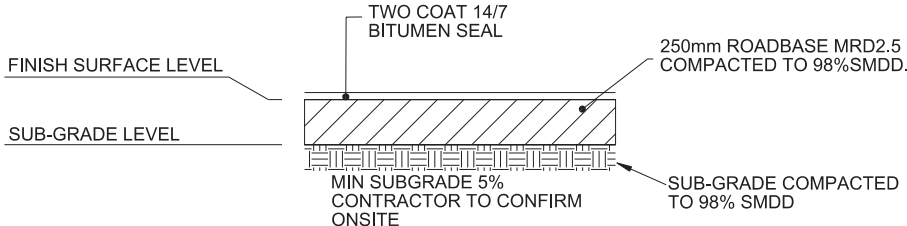


TYPICAL INTERNAL ROAD (UNSEALED PAVEMENT)



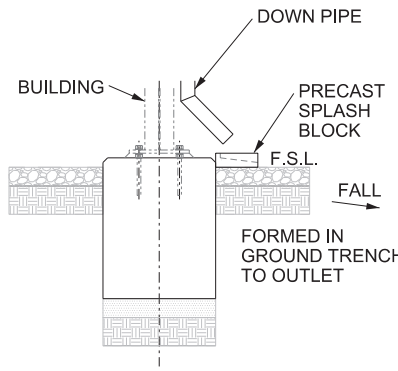
SWITCHYARD PAVEMENT

SCALE N.T.S.



INTERNAL ROAD

SCALE N.T.S.



TYPICAL SPLASH BLOCK DETAIL

SCALE: N.T.S.

INDICATIVE DESIGN ONLY  
SUBJECT TO  
GENERATOR SITE  
DETAILED DESIGN

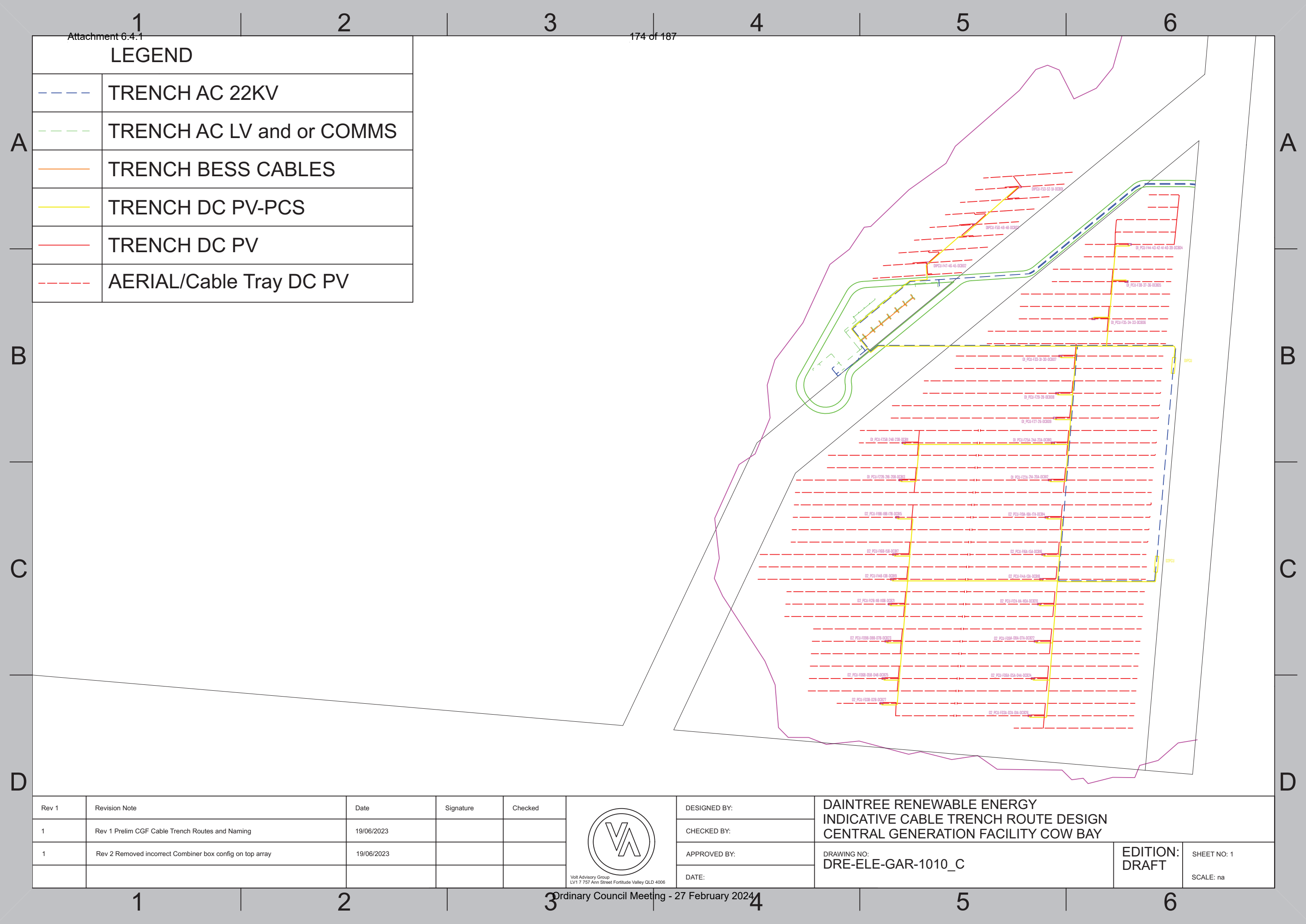
REV	DATE	DETAILS	DRAWN	CHECKD	APPRVD	DRAWING No.	REFERENCE DRAWING TITLE
A	10/05/23	ISSUED FOR COUNCIL APPROVAL	PMC	PZ	SC	DRE-GAR-ELE-1004	INTERNAL SERVICE TRACK PLAN
						DRE-ELE-GAR-1002	CONTOUR AND DRAINAGE PLAN
						DRE-ELE-GAR-1001	SITE PLAN




CERTIFICATION: P. ZAJAC
RPEQ No: 10395 21-11-22
Document No:
DESIGNED: P. ZAJAC
DRAWN: ZWS
CHECKED: P. ZAJAC
APPROVED: S. CROSS

DAINTREE RENEWABLE  
ENERGY  
CENTRAL GENERATION FACILITY  
DRAINAGE DETAILS

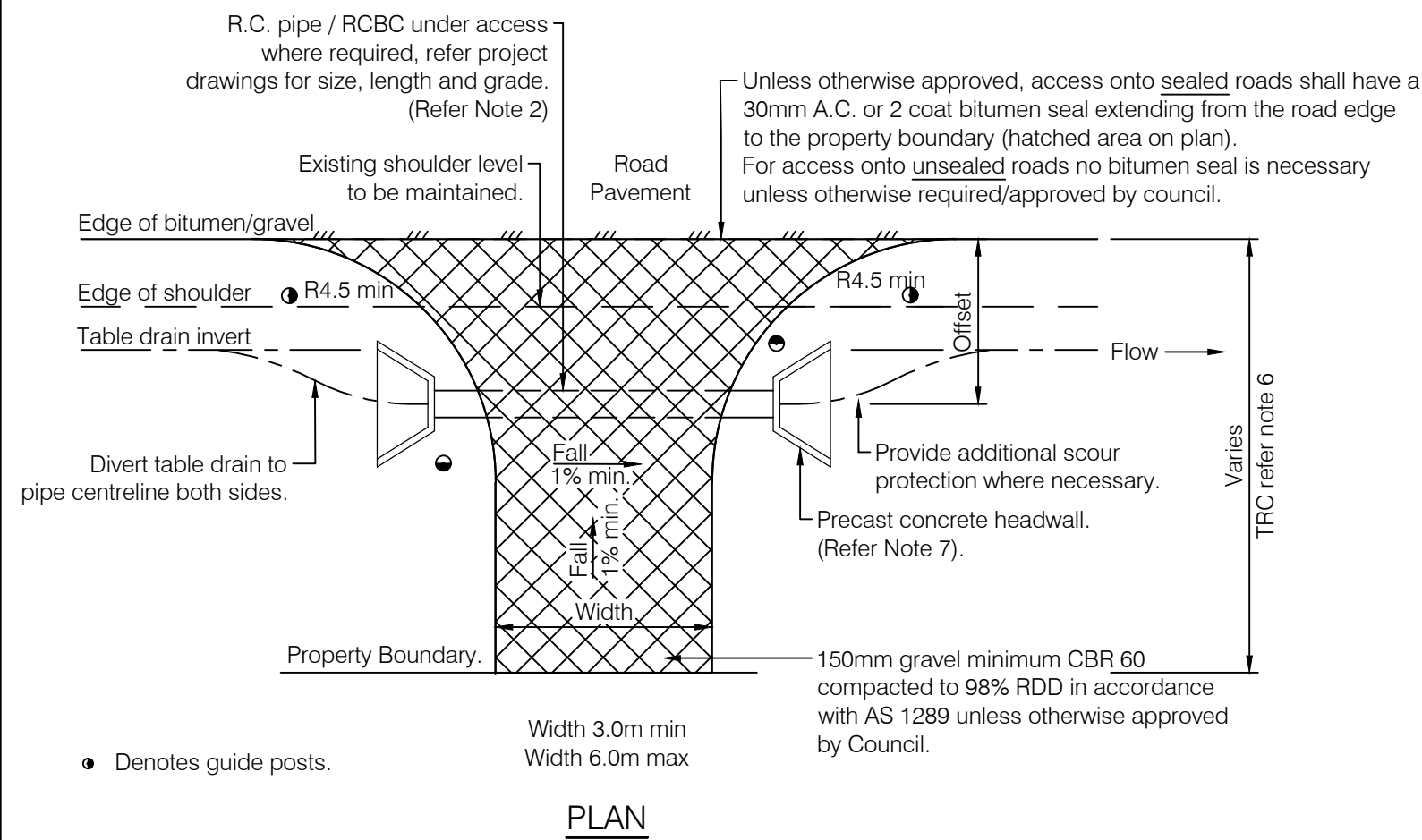
PROJECT No: ZW2022.11
DRAWING NUMBER
DRE-CIV-GAR-1021
SHEET 1 OF 1 REVISION A
SCALE: AS SHOWN



LEGEND	
<div></div>	TRENCH AC 22KV
<div></div>	TRENCH AC LV and or COMMS
<div></div>	TRENCH BESS CABLES
<div></div>	TRENCH DC PV-PCS
<div></div>	TRENCH DC PV
<div></div>	AERIAL/Cable Tray DC PV

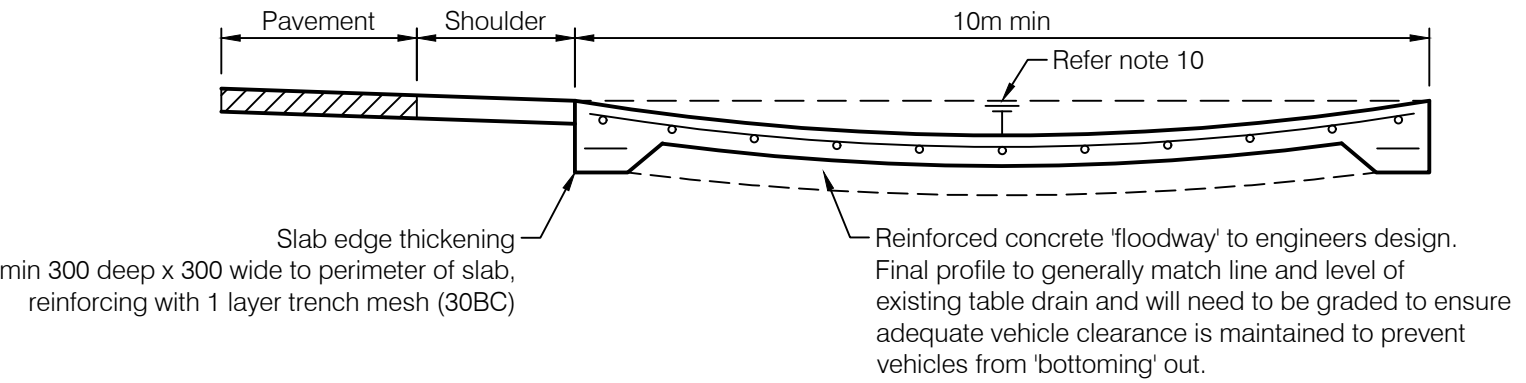
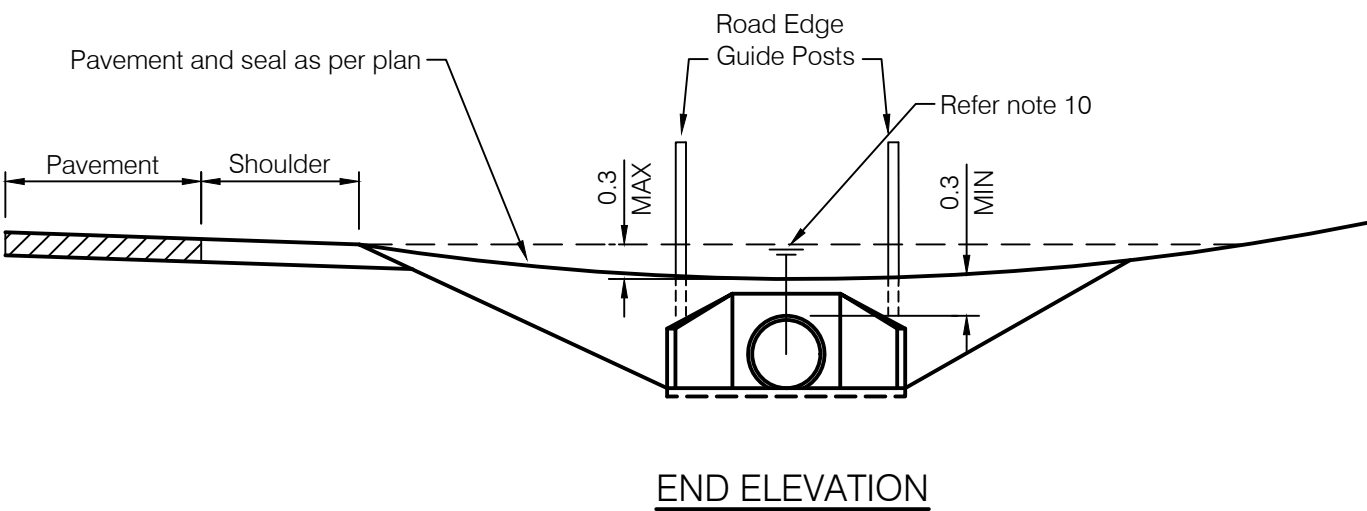
Rev 1	Revision Note	Date	Signature	Checked	<div> <div>Volt Advisory Group LV1 7 757 Ann Street Fortitude Valley QLD 4006</div></div>	DESIGNED BY:	DAINTREE RENEWABLE ENERGY INDICATIVE CABLE TRENCH ROUTE DESIGN CENTRAL GENERATION FACILITY COW BAY		
1	Rev 1 Prelim CGF Cable Trench Routes and Naming	19/06/2023				CHECKED BY:			
1	Rev 2 Removed incorrect Combiner box config on top array	19/06/2023				APPROVED BY:	DRAWING NO: DRE-ELE-GAR-1010_C	EDITION: DRAFT	SHEET NO: 1
						DATE:			SCALE: na





NOTES

- 1. Minimum length of culvert shall be 4.8m for single access, 7.2m for double access.
- 2. Minimum pipe size shall be Ø375. Minimum RCBC to be 300mm high.
- 3. Minimum RC pipe / RCBC gradient shall be 1:100.
- 4. Where cover to RC pipes is less than 260mm pipe shall have 100mm concrete encasement or bridging slab per S1015.
- 5. Drainage from access must not flow over the through road. All stormwater runoff shall be directed to the table drain.
- 6. Maximum 10 metres from edge of bitumen seal or where grade is steeper than 6% the bitumen seal shall extend from the road edge to the property boundary unless otherwise approved.
- 7. Precast sloping headwalls shall be used when :
  - a) the through road has a signposted speed of 80km/hr or greater.
  - b) the through road has a signposted speed of 60km/hr and the offset distance from the traffic lane to the culvert is less than 4.5m.
- 8. Concrete shall be grade N25 in accordance with AS 1379 and AS 3600.
- 9. All dimensions are in millimetres.
- 10. Hydraulic capacity of pipe and access to match the capacity of the table drain. This may require the use of multiple pipes.
- 11. Minimum sight distances at accesses should comply with "Sight Distance at Property Entrances" Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.
- 12. In instances where the detail/s shown on this drawing cannot be achieved due to existing constraints, Council shall be contacted to achieve an acceptable alternative.



TYPICAL ALTERNATIVE FLOODWAY TYPE ACCESS  
(Where approved by Council)

E	MINOR AMENDMENTS	26/11/14
D	COMBINED PLAN DETAIL AND ADDED SECTIONS	28/11/12
C	VARIOUS MINOR AMENDMENTS	13/01/06
F	MINOR AMENDMENTS	27/08/20
REVISIONS		DATE

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RURAL ALLOTMENT ACCESSSES

Standard Drawing S1105				
F	C	D	E	