



420 Flinders Street, Townsville QLD 4810
PO Box 1090, Townsville QLD 4810
ergon.com.au

29 September 2021

Lighthouse Baptist Church Rockhampton
Attention: Ben Bakss
Via email: bbakss@lhstaff.com.au
pastor@lighthousebaptist.com.au

Cc Rockhampton Regional Council
Attention: Brendan Standen
Via email: DevelopmentAdvice@rrc.qld.gov.au

Dear Ben,

**Referral Agency Response Notice to Missed Referral regarding Development Permit for Educational Establishment (Extension) located at 480 Norman Road, Norman Gardens and described as Lot 3 on SP202189.
Council Ref: D/92-2021
Our Ref: HBD 7555944**

We refer to the above mentioned Development Application, which has been referred to Ergon Energy, pursuant to section 54(1) of the *Planning Act 2016*.

In accordance with Schedule 10, Part 9, Division 2 of the *Planning Regulation 2017*, the application has been assessed against the purposes of the *Electricity Act 1994* and *Electrical Safety Act 2002*. This notice is provided in accordance with section 56 of the *Planning Act 2016*.

Should the Assessment Manager decide to approve the proposed MCU, as an Advice Agency for the Application, Ergon requires that the Assessment Manager impose the following conditions:

1. The development is to be carried out generally in accordance with the Proposed Site Plan – Illustrating the location of the existing Ergon easement, provided 3 Sept 2021. If any changes to the proposal plan occur, further advice should be sought from Ergon;
2. A minimum 8m horizontal clearance must be kept between the existing pad mount transformer, within the Ergon easement, and the outer-most projection of the building extension. As per the attached design guideline, should the proposed building not meet this clearance requirement, then the development will require the appropriate fire rating, prior to Building Approval, and further advice should be sought from a qualified electrical consultant with regards to the impact of Electro Magnetic Fields.

Have you seen our fact sheets?

See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

3. Access to the easement and access along the easement must be available to Ergon Energy personnel, including vegetation crews and regular routine line inspection crews, and heavy equipment, such as Heavy Trucks, Machinery and Cranes for construction, maintenance and emergency services, at all times.
4. Any costs or damages incurred by Energex as a result of the works on the easement are to be met by the property Developer / owner.
5. The conditions of any easements in favour of Ergon must be maintained at all times.
6. Satisfactory clearance from all future structures and works, to the existing electricity wires, must be maintained in accordance with the *Electrical Safety Regulations 2013*.

Any works or fencing should be in accordance with the Electricity Entity Requirements: Working Near Overhead and Underground Electric Lines WP1323.

Should you require further information regarding this matter, feel free to contact the undersigned on 0428 943 997 or email townplanning@ergon.com.au.

Yours faithfully,



Scott Pearson
Senior Town Planner

Have you seen our fact sheets?

See the 'considerations when developing around electricity infrastructure' section of our website www.ergon.com.au/referralagency

PADMOUNTED SUBSTATION INSTALLATION

1 SITE

1.1 General

The padmount substation site shall be to the satisfaction of Ergon Energy and fulfil the requirements of the subsequent clauses including:

- Be sensitive to the local environment
- Be secure from third party and environmental damage
- Be relatively flat and structurally sound
- Not be subject to tidal inundation, storm tide or flooding (1:100 year risk)
- Provide secure access for operational purposes
- Not be an obstruction or public nuisance

Along coastal areas the site must be located as far as possible from the shoreline and sheltered from salt spray.

A site should not be located where impact by traffic is likely and, if at a truncated section of the street alignment or other non-regular shaped site the following shall apply:

- The front edge of the substation plinth shall be 200mm from and as near to parallel as possible to the R.P. Street Alignment.
- The specified rectangular size of the site shall not be reduced.

1.2 Site Size

The minimum area required to accommodate a front entry Padmounted substation shall be:

PADMOUNTED SUBSTATION EARTHING ARRANGEMENT	SITE SIZE (WIDTH x DEPTH)
Common earth locations for flat site (≤ 1000 kVA)	3000 x 2800
Common earth locations community title for flat & sloping sites with retaining walls. all locations	4800 x 5000
Separate earth other than raised padmounted substations for flat & sloping sites with retaining wall	12000 x 7200
Separate earth raised padmounted substations	12000 x 9600

Note: Site size requirements are being reviewed with a view to rationalize the number of options.

1.3 Substation Orientation

Front entry padmounted substations shall be oriented such that the LV and HV panels are easily accessible from the dedicated footpath.

1.4 Fire Risk Zone

Protection shall be provided against fire initiated or propagated by any part or element of the padmount substation. The site selection shall provide for the protection of -

- Each building adjacent to or near a padmount substation from the fire hazard originating at the padmount substation.
- Padmount substations from the fire hazards originating in the building adjacent or near the installation.

The below provides the minimum distances required for the separation of padmount substations and buildings.

- Residential buildings (BCA class 1 or 10) - 3.0m
- All other buildings - 6.0m

Drawing 5335 sh 1 & sh 2 show the fire risk zone around a padmount substation.

The separations given are the minimum and any additional separation required by the building owner or local authority shall apply.

Where the separation distance cannot be met between padmount substations and buildings, a barrier with FRL 120/120/120 shall be provided. Where a building or building surface within the fire risk zone has a minimum FRL 120/120/120 no additional barrier is required. The minimum dimensions for fire barrier is shown on drawing 5335 sh 3.

The separation required between the padmount substation and a barrier of fire rated building is 1.0m

A	ORIGINAL ISSUE
C	7.3.08
D	20.06.13
E	02.06.15
F	10.01.17

HARD COPY
UNCONTROLLED



APPROVED	C. Noel
DATE	3/2/03
PASSED	A. Bletchly
DRAWN	T. Borg

UNDERGROUND DISTRIBUTION	
11kV PADMOUNTED SUBSTATIONS	
FRONT ENTRY TYPE	
INSTALLATION	
FILE: 5 55 5000 1	Dwg 5000 Sh 1
	F

1 SITE (CONT'D)

1.5 EMF

The table below lists the separation distance between padmounted substations and buildings for which human occupation can be expected for significant periods of time.

SUBSTATION SIZE	RESIDENTIAL	COMMERCIAL / INDUSTRIAL	SCHOOLS
315 kVA	3m	4m	4.5m
500 kVA	4.5m	5m	5.5m
750 kVA	-	6m	7m
1000 kVA	-	7m	8m
1500 kVA	-	8m	-

1.6 URD

The developer shall provide a padmounted substation site(s) as required by Ergon Energy at no cost to Ergon Energy. The site shall be included in the road reserve, or located on freehold property. No padmounted substations are to be located in Trustee Reserves.

Where the developer required the padmount to be included:

a) In the Road Reserve:-

The Developer shall obtain all necessary approvals from the Department of Transport or the Local Authority.

b) On Freehold property (including residential or parkland):-

The Developer shall provide Ergon Energy with a registered easement at no cost to Ergon Energy.

1.7 Commercial and Industrial or Landscaped Areas

Whether the padmounted substation is for the sole use of that complex, or is required as part of the distribution network, the owner is required to grant Ergon Energy an easement for the padmounted site, access and cabling.

1.8 Parklands - for other than URD

Obtain the necessary approval for an easement to accommodate the padmounted substation, cabling and access to site.

1.9 Cabling and Access Requirement

Cabling and Access

A 3.0m wide easement, or road reserve, from the front of the site is required for cabling and access.

Cabling Only

Should the cabling route not be available in conjunction with access, a 1.0m wide cable easement is required to the front of the padmount. Additionally 2.0m x 3.0m (padmount site width) is required immediately in front to allow spreading of cables for entry to the padmount and also include the buried earth cable.

2 SITE PREPARATION

Sites shall be prepared in accordance with the included construction drawings.

3 CONSTRUCTION OF RETAINING WALLS

Retaining walls shall be constructed around the perimeter of a padmounted substation site where:

- A change in ground level of 300mm or more occurs within 2.0m of the boundary of the padmounted substation site.

A	ORIGINAL ISSUE
C	3.7.08
D	12.05.14
E	03.06.15
F	14.03.17

HARD COPY
UNCONTROLLED



Ergon Energy Corporation Ltd
ABN 50 087 646 062

APPROVED	<i>C. Noel</i>
DATE	<i>3/2/03</i>
PASSED	<i>A. Bletchly</i>
DRAWN	<i>T. Borg</i>

UNDERGROUND DISTRIBUTION
11kV PADMOUNTED SUBSTATIONS
FRONT ENTRY TYPE
INSTALLATION

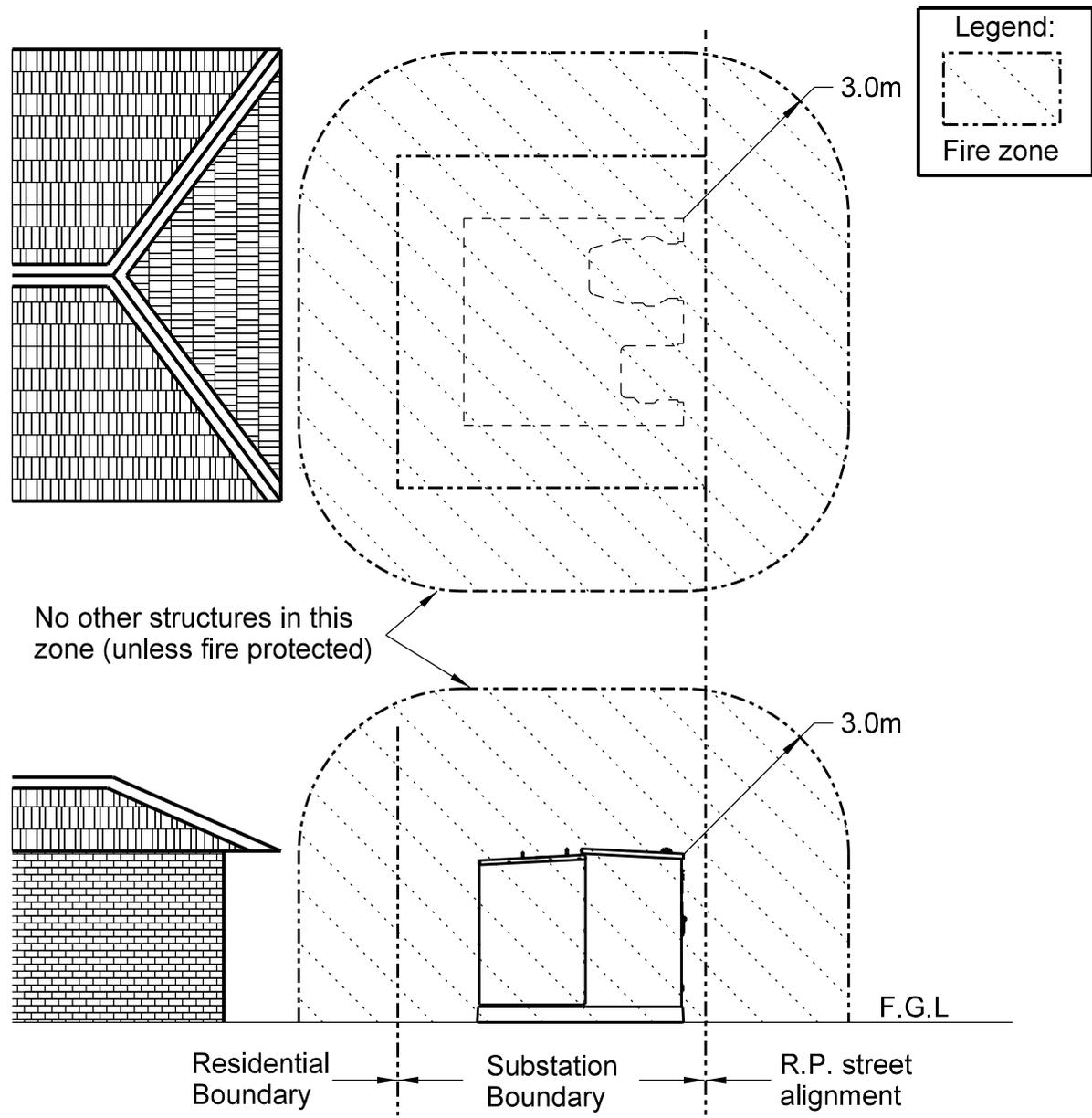
FILE: 5 55 5000 2

Dwg 5000 Sh 2

F

NOTES:

1. The fire risk zone shown applies to the following padmount substation constructions:
 - 315 kVA
 - 500 kVA
 - 750 kVA
 - 1000 kVA
2. The fire risk zone shown applies to Building Code of Australia (BCA) class 1 & 10 buildings.
3. This drawing is indicative only. The fire risk zone extends 3.0m from the outer point of the padmount substation.
4. Easement details shown on this drawing are indicative only, actual easement size will depend on earthing arrangement and padmount substation location.



A ORIGINAL ISSUE

HARD COPY
UNCONTROLLED



Ergon Energy Corporation Ltd
ABN 50 087 646 062

APPROVED	<i>C. Noel</i>
DATE	20/08/15
PASSED	<i>A. Bletchly</i>
DRAWN	<i>T. Borg</i>

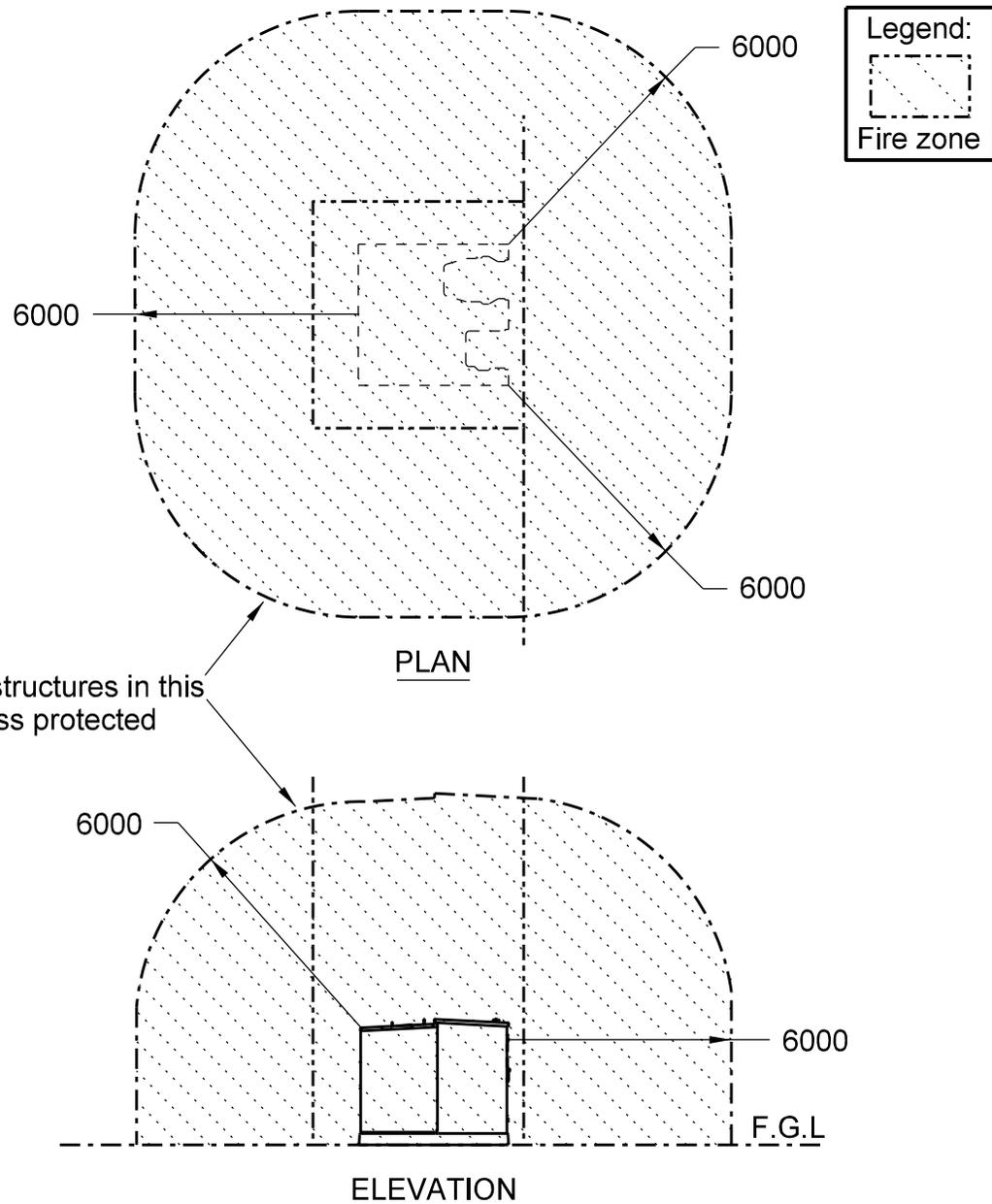
UNDERGROUND DISTRIBUTION
11kV PADMOUNTED SUBSTATIONS
FRONT ENTRY TYPE
FIRE RISK ZONE - RESIDENTIAL

FILE: 5 55 5335 1

Dwg 5335 sh 1

NOTES:

1. The fire risk zone shown applies to the following padmount substation constructions:
 - 315 kVA
 - 500 kVA
 - 750 kVA
 - 1000 kVA
2. This drawing is indicative only.
The fire risk zone extends 6.0m from the outer point of the padmount substation.
3. No buildings shall be in the fire risk zone unless they meet the requirements of a fire resistance surface.
Refer sheet 3 for details.
4. Easement details shown on this drawing are indicative only, actual easement size will depend on earthing arrangement and padmount substation location.



A ORIGINAL ISSUE

HARD COPY
UNCONTROLLED



Ergon Energy Corporation Ltd
ABN 50 087 646 062

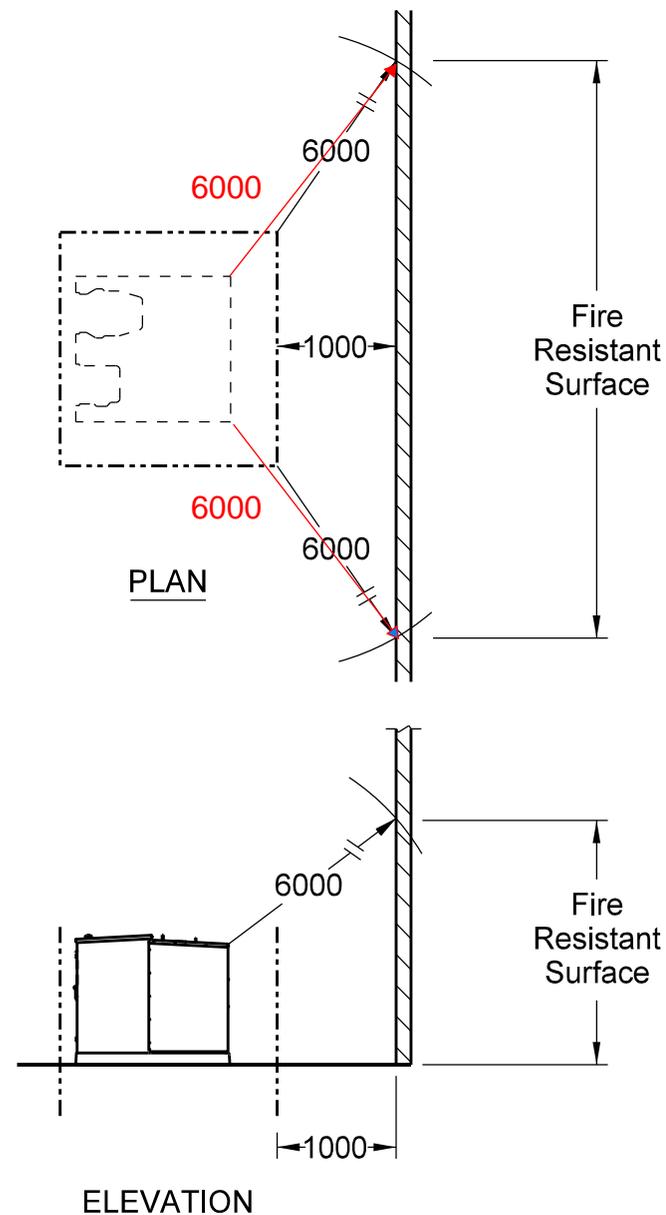
APPROVED	<i>C. Noel</i>
DATE	20/08/15
PASSED	<i>A. Bletchly</i>
DRAWN	<i>L. Burton</i>

UNDERGROUND DISTRIBUTION
11kV PADMOUNTED SUBSTATIONS
FRONT ENTRY TYPE - FIRE RISK ZONE

FILE: 5 55 5335 2 Dwg 5335 Sh 2

NOTES:

1. The fire risk zone shown and barrier requirements apply to the following padmount substation constructions:
 - 315 kVA
 - 500 kVA
 - 750 kVA
 - 1000 kVA
2. Fire resistance surface is a barrier or building surface having a minimum FRL 120/120/120.
3. This drawing is indicative only. The minimum size required for the fire resistant surface shall extend 6.0m from the outer point of the padmount.
4. Easement details shown on this drawing are indicative only, actual easement size will depend on earthing arrangement and padmount substation location.



A ORIGINAL ISSUE

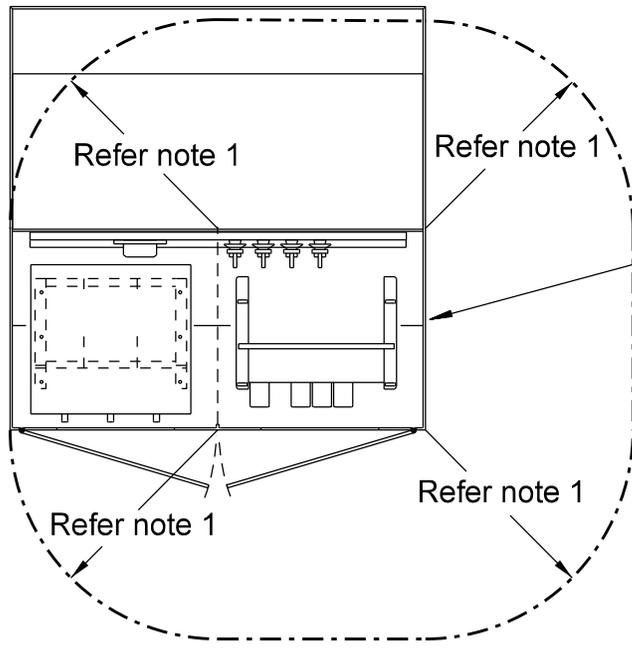
HARD COPY
UNCONTROLLED



APPROVED	<i>C. Noel</i>
DATE	20/08/15
PASSED	<i>A. Bletchly</i>
DRAWN	<i>L. Burton</i>

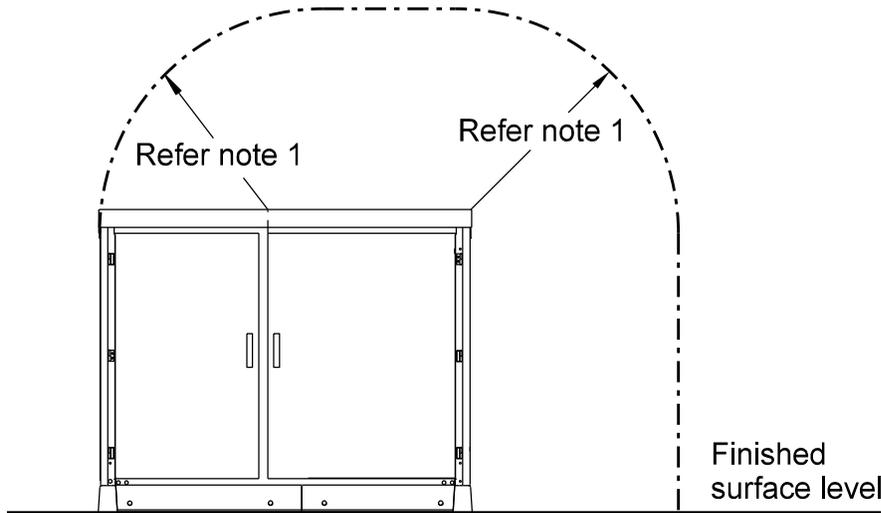
UNDERGROUND DISTRIBUTION
11kV PADMOUNTED SUBSTATIONS
FIRE PROTECTION BETWEEN PADMOUNT AND BUILDING - FIRE RISK ZONE

FILE: 5 55 5335 3 Dwg 5335 sh 3



LV Switchgear Compartment

PLAN



ELEVATION

Finished surface level

NOTES:

1. Clearance radius is taken from the LV enclosure. Refer table in clause 1.5 of drawing 5000 sh 2 for required distance.

A ORIGINAL ISSUE

HARD COPY
UNCONTROLLED



Ergon Energy Corporation Ltd
ABN 50 087 646 062

APPROVED *C. Noel*

DATE *24/08/15*

PASSED *A. Bletchly*

DRAWN *T. Borg*

UNDERGROUND DISTRIBUTION
11kV PADMOUNTED SUBSTATIONS
FRONT ENTRY TYPE
EMF CLEARANCE RADIUS

FILE: 5 55 5336 1

Dwg **5336** Sh **1**

