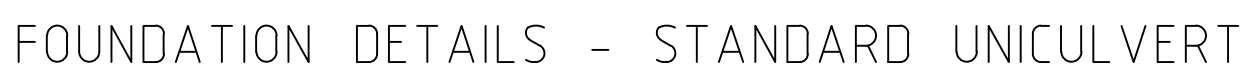




NOTE:

1. ENERGE's padmount clearance zone shall be levelled and surrounding area graded to ensure no water ponding.
2. No services other than the ENERGE's electric cables shall pass through this substation site.
3. Clear access to the transformer shall be maintained for ENERGE's personnel and heavy equipment.
4. After installation is complete the site surface is to be finished with a concrete slab, refer C3-2.5.
5. Mature landscaping (including trees, sprinklers etc.) shall not encroach onto the substation site.
6. Cut and fill levels greater than 150mm will require a Civil RPED certified design to ensure levels, compaction standards, drainage have been considered. Sites requiring retaining walls shall be designed in accordance with C3-2.6.



- NOTES:

1. Foundation design details are as follows:
 - Unstable soils are soft clay to sandy gravel with a soil undrained shear strength 50 - 150 kPa. These soil types REQUIRE a base slab as shown.
 - Stable soils are very stiff clay to shale/clay with soil undrained shear strength of 150kPa or higher. These soil types DO NOT require a base slab.
2. Lift uncured and base slab separately with 4 x 131 Reel Swiflift tifting eyes.
3. Position top face of Uncicurler at finished ground level.(refer Civil Constructors drawings)
4. Installed Uncicurler shall be level.
5. If deep excavation is required under transformer cabinet and in front of foundation plinth front edge shall be propped while excavation remains open.
6. Foundation Components:
 - 1 x Uncicurler (Stock Code 19559)
 - 2 x End Walls (Stock Code 19559)
 - 1 x Base Slab (Stock Code 19660)
7. Uncicurler and end walls come assembled with a Layer of preformed sealant to the perimeter of the uncicurler and between the mating surfaces.
8. Only remove minimum knockout area required to pass conduits.
(Max. conduit 150mm nom. dia.) or cables through uncicurler void by tapping out concrete.
9. Seal between conduits/cables and concrete end wall at uncicurler interface by grouting with high strength sand cement grout after conduit installation to prevent entry of moisture and backfilling ingress to the uncicurler void.
10. Excavate to property boundaries to facilitate installation of earth grid.
11. Consumers mains (where present) shall not cross HV mains or run back under transformer.



Cable conduit shall be of the following type;
125mm Dia UPVC Light Duty Rigid Pressure pipe to AS/NZS2053. Conduit bends shall have a Minimum radius of 1830mm.

The conduits shall be laid in a straight line with sealed joints. Should any deviation be required in conduit route, 1830mm radius bends shall be used. Bends shall not be greater than 30 degrees. Cable pits shall be used for greater deviations. Refer to ENERGEX Planner for details.

The conduits shall have 50mm minimum cover and shall be bedded on compacted sand or fine granular soil free of rocks. The socket ends of conduits shall finish 150mm beyond the R.P. alignment and shall have 750mm min cover below finished footpath level at the R.P. alignment.

A beltmouth shall be provided where the conduits terminate in the substation wall or wall of a substation trench. A 2.5mm plastic coated steel draw wire or 6mm braided Polypropylene Rope "BORAL KA10850" shall be installed in each conduit (1Kn min. breaking strength).

Because of the physical distortion likely in large groups of buried UPVC conduits, High Density conduits shall be used for groups of more than 6 conduits. Conduits shall be 125mm or 150mm as specified by ENERGEX and shall be supplied and installed by the developer. Conduits shall be securely sealed by builder to prevent ingress of dirt until cable installation by ENERGEX and then resealed by ENERGEX.

ENERGEX may need to install an earth wire and earth rods in conduit trenches from the substation site.

Electricity Supply Conduits and Cables shall have polymeric cable protection covers placed 100mm above the top conduit face of the electricity supply conduits and cables. Cable protection cover strips shall be lapped when placed together; 100mm minimum along the longitudinal axis, 40mm minimum along the traverse axis and shall extend 40mm minimum past the external edges of the conduit/cable bank.

Polymeric cable protection cover shall be a minimum of 5mm thick as described in Australian Standard: AS/NZS 4702 for Polymeric Cable Protection Covers.



- NOTE**
1. INSTALL A NEW COMMUNICATIONS CONDUIT OF MINIMUM SIZE, 100mm LD PVC WHITE CONDUIT,

TYPICAL TRENCH CROSS SECTION FOR ENERGEX CONDUITS IN PRIVATE PROPERTY



NOTES:

1. Backfill excavated area with crusher dust/deco or bedding material and compact in place. Ensuring that only bedding material is used around cables.
2. Reinforced concrete surround slab:
 - a. 100 / 125mm thick slab;
 - b. F62 mesh reinforcement in centre of slab;
 - c. 25 MPa grade concrete;
 - d. Finish by wood float or by nylon broom.
3. The top face of the concrete surround slab shall be 25mm above the final surface level (when turf is laid)
4. The concrete slab is to slope away from plinth falling at a slope of 1 in 25.
5. Cable apertures through the precast concrete plinth shall be backfilled to 50mm from the top of the plinth, using bedding material.
6. The surface of the surround slab may be finished with a stencil pattern surface to match the surrounding pavements of the development.
(Use textcrete or equivalent product. Construct to supplier's specifications.