



DBYD SYMBOLOLOGY LEGEND

	Cross Bonding Link Box - Critical		Planned Cross Bonding Link Box - New/Updated
	Disconnect Box - Critical		Planned Cross Bonding Link Box - Remove
	Ring Main Unit		Planned Disconnect Box - New/Updated
	Distribution Pad Substation		Planned Disconnect Box - Remove
	Earth		Planned Distribution Pad Substation - New/Updated
	Remote Earth		Planned Distribution Pad Substation - Remove
	Cable Marker		Planned Distribution Ground Substation - New/Updated
	Handhole		Planned Distribution Ground Substation - Remove
	Manhole		Planned Ring Main Unit - New/Updated
	Commercial Industrial Pillar		Planned Ring Main Unit - Remove
	Distribution Cabinet		Planned Earth - New/Updated
	Link Pillar		Planned Earth - Remove
	Service Pillar		Planned Cable Marker - New/Updated
	Feeder Pillar		Planned Cable Marker - Remove
	Pole		Planned Remote Earth - New/Updated
	Streetlight Column		Planned Remote Earth - Remove
	Communication Junction Pillar		Planned Underground Warning Post - New/Updated
	Communication Pit		Planned Underground Warning Post - Remove
	Fibre Patch Panel		Planned Pilot Cubicle - New/Updated
	Pilot Cubicle		Planned Pilot Cubicle - Remove
	Underground Asset 33kV and above		Planned Fibre Patch Panel - New/Updated
	Underground Asset below 33kV		Planned Fibre Patch Panel - Remove
	Underground Conduit with or without cable		Planned Commercial Industrial Pillar - New/Updated
	Pit		Planned Commercial Industrial Pillar - Remove
	Communication Boundary		Planned Distribution Cabinet - New/Updated
	Reserve (RE)		Planned Distribution Cabinet - Remove
	Water Resource (WR)		Planned Link Pillar - New/Updated
	Cadastral Parcels		Planned Link Pillar - Remove
	Planned Jointing Pit - New/Updated		Planned Service Pillar - New/Updated
	Planned Jointing Pit - Remove		Planned Service Pillar - Remove
	Planned Communication Boundary - New/Updated		Planned Pole - New/Updated
	Planned Communication Boundary - Remove		Planned Pole - Remove
	Planned Tunnel/Trench/Bore - New/Updated		Planned Manhole - New/Updated
	Planned Tunnel/Trench/Bore - Remove		Planned Manhole - Remove
			Planned Streetlight Column - New/Updated
			Planned Streetlight Column - Remove
			Planned Handhole - New/Updated
			Planned Handhole - Remove
			Planned Communication Junction Pillar - New/Updated
			Planned Communication Junction Pillar - Remove

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Responsibilities – (When Working in the Vicinity of Energex Electrical Equipment)

Extreme care must be taken during non-mechanical or mechanical excavation as damage to Energex underground electrical equipment can lead to injury or death of workers or members of the public. Electrical equipment includes underground cables, conduits and other associated underground electrical equipment used for controlling, generating, supplying, transforming or transmitting electricity.

A person conducting a business or undertaking (PCBU) must ensure the person's business or undertaking is conducted in a way that is electrically safe. This includes:

- a) ensuring that all electrical equipment used in the conduct of the person's business or undertaking is electrically safe;
- b) if the person's business or undertaking includes the performance of electrical work, ensuring the electrical safety of all persons and property likely to be affected by the electrical work; and
- c) if the person's business or undertaking includes the performance of work, whether or not electrical work, involving contact with, or being near to, exposed parts, ensuring persons performing the work are electrically safe.

In addition, a PCBU at a workplace must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an underground electric line.

Workers and other persons must also take reasonable care for their own and other person's electrical safety. This includes complying, so far as is reasonably able, with any reasonable instructions given by Energex to ensure compliance with the [Electrical Safety Act 2002](#)

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The following matters must be considered when working near Energex electrical equipment:

The PCBU must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an underground electric line (see section 68 of the [Electrical Safety Regulation 2013](#))

1. It is the responsibility of the architect, consulting engineer, developer, and head contractor in the project planning stages to design for minimal impact and protection of Energex electrical equipment.
2. It is the constructor's responsibility to:
 - a) Anticipate and request plans of Energex electrical equipment for a location at a reasonable time before construction begins.
 - b) Visually locate Energex electrical equipment by hand or vacuum excavation where construction activities may damage or interfere with Energex electrical equipment.
 - c) To notify Energex if the information provided is found to be not accurate or assets are found on site that are not recorded on the Energex DBYD plans.
 - d) Read and understand all the information and disclaimers provided.

Note: A constructor may include but not limited to a PCBU, Designer, Project Manager, Installer, Contractor or a Civil Contractor

3. Comply with applicable work health and safety and electrical safety codes of practice including but not limited to:
 - a) Working near overhead and underground electric lines – [Electrical safety codes of practice 2020](#)
 - b) Managing electrical risk in the workplace – [Electrical safety code of practice 2013](#)
 - c) Managing the risks of plant in the workplace – [Electrical safety code of practice 2013](#)
 - d) Excavation work – [Electrical safety code of practice 2013](#)

IMPORTANT NOTES:

- As the alignment and boundaries of roadways with other properties (and roads within roadways) frequently change, the alignments and boundaries contained within Energex plans and maps will frequently differ from present alignments and boundaries “on the ground”. Accordingly, in every case where it appears that alignments and boundaries have shifted, or new roadways have been added, the constructor should obtain confirmation of the actual position of Energex cables and pipelines under the roadways. In no case should the constructor rely on statements of third parties in relation to the position of Energex cables and pipelines. It is the applicant's responsibility to accurately locate all services as part of the design and/or prior to excavation.
- Energex does not provide information on private underground installations, including consumers' mains that may run from Energex mains onto private property. Assets located on private property are the responsibility of the owner for identification and location.
- Energex plans are circuit diagrams or pipe indication diagrams only and indicate the presence of plant in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty; as such levels can change over time.
- All underground conduits are presumed to contain asbestos. Refer to “Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)] - https://www.safeworkaustralia.gov.au/system/files/documents/1702/codeofpracticeformanagementcontrolofasbestosintheworkplace_nohsc2018-2005
- Plans provided by Energex do not show the presence of any Overhead Network
- In addition to underground cables marked on attached plan there maybe underground Earth Conductors in the vicinity of the nominated work area(s) that are not marked on the plans.
- There may also be other buried assets such as tanks for fluid filled cables that do not appear on GIS plots but are shown on detailed as constructed drawings.
- Being aware of your obligations in [s 304] Excavation work— underground essential services information under the [Work Health and Safety Regulation 2011](#) , Chapter 6 Construction work, Part 6.3 Duties of person conducting business or undertaking. This includes but is not limited to taking reasonable steps to obtain the current information & providing this information to persons engaged to carry out the excavation work. For further information please refer to: - <http://www.legislation.qld.gov.au/LEGISLTN/SL/2011/11SL240.pdf>
- Energex plans are designed to be printed in colour and as an A4 Landscape orientation

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Conditions – (When Working in the Vicinity of Energex Electrical Equipment)

Records:

The first step before any excavation commences is to obtain records of Energex plant in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by Energex must be made available to all construction groups on site. Where plant information is transferred to plans for the proposed work, care must be exercised to ensure that important detail is not lost in the process.

Plans and or details provided by Energex are current for four weeks from the date of dispatch and should be disposed of by shredding or any other secure disposal method after use. A new DBYD enquiry must be made for proposed works/activities to be undertaken outside of the four-week period.

Energex retains copyright of all plans and details provided in connection with your request. Energex plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose. On receipt of DBYD plans and before commencing excavation work or similar activities near Energex's plant, check to see that it relates to the area you have requested and carefully locate this plant first to avoid damage. If you are unclear about any information contained in the plan, please contact Energex on the General Enquiries number listed above for further advice.

Energex, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Energex against any claim or demand for any such loss or damage.

The constructor is responsible for all plant damages when works commence prior to obtaining Energex plans, or failure to follow agreed instructions, or failure to demonstrate all reasonable measures were taken to prevent the damage once plans were received from Energex. Energex reserves all rights to recover compensation for loss or damage caused by interference or damage, including consequential loss and damages to its cable network, or other property.

NOTE: Where your proposed work location contains Energex 33kV or greater Underground cables please access the [Energex Working Near Underground Cables 33kV or Higher web page](#) for more information.

Location of Cables:

Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to them. The exact location of plant likely to be affected shall be confirmed by use of an electronic cable and pipe locator followed by **careful hand or vacuum excavation to the level of cable protection cover strips or conduits**. When conducting locations, please be aware that **no** unauthorised access is permitted to Energex Assets– including Pits, Low Voltage Disconnection Boxes, Low Voltage Pillars or High Voltage Link Boxes.

Hand or vacuum excavation must be used in advance of excavators. In any case, where any doubt exists with respect to interpretation of cable records, contact Energex on the General Enquires number listed above for further advice.

If the constructor is unable to locate Energex underground assets within 5 metres of nominal plan locations, they should contact the Energex General Enquires number listed above for further advice.

If unknown cables or conduits (i.e. not shown on issued DBYD plans) are located during excavation:

1. Call the ELECTRICITY EMERGENCIES number listed above
2. Treat cables as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged plant should cease and the area should be vacated until a clearance to continue work has been obtained from an Energex officer.

Electrical Cable Installation Methods:

Energex cables are installed with a variety of protection devices including:

- | | |
|---|---------------------------------------|
| 1. Clay paving bricks or tiles marked "Electricity" or similar (also unmarked) | 2. Concrete or PVC cover slabs |
| 3. PVC, A/C or fibro conduit, fibre reinforced concrete, iron or steel pipe | 4. Concrete encased PVC or steel pipe |
| 5. Thin plastic marker tape | 6. Large pipes housing multiple ducts |
| 7. Multiple duct systems, including earthenware or concrete 2-, 4-, and 6-way ducts and shamrocks | |

Note: Some cables are known to be buried without covers and cables may change depth or alignment along the route.

Excavating Near Cables:

For all work within 2.5 m of nominal location, the constructor is required to hand or vacuum excavate (pothole) and expose the plant, hence proving its exact location before work can commence.

Cable protection cover strips shall not be disturbed. Excavation below these cover strips, or into the surrounding backfill material is not permitted.

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Excavating Parallel to Cables:

If construction work is parallel to Energex cables, then hand or vacuum excavation (potholing) at least every 4 m is required to establish the location of all cables, hence confirming nominal locations before work can commence. *Generally, there is no restriction to excavations parallel to Energex cables to a depth not exceeding that of the cable. **Note: Cable depths & alignment may change suddenly.***

Separation from Cables:

Any service(s) must be located at the minimum separation as per the tables below:

Table 1. Minimum Separation Requirements for Underground Services Running Parallel with Energex Assets

(Minimum Separation required in mm)							
Voltage Level	Gas	Communication or TV	Water		Sanitary drainage		Storm Water
			≤DN 200	>DN200	≤DN 200	>DN 200	
LV	250	100	500	*1000	500	1000	500
HV		300					
*Contact Energex/council to obtain specific separation distances							

Table 2. Minimum Separation Requirements for Underground Services Crossing Energex Assets

(Minimum Separation required in mm)					
Voltage Level	Gas	Communication or TV	Water	Sanitary drainage	Storm Water
LV & HV	100	100	300	300	100

Where the above table does not list a separation requirement for a particular underground service then 300mm shall be used.

Excavating Across Cables:

The standard clearance between services shall be maintained as set down in Table 2 above. If the width or depth of the excavation is such that the cables will be exposed or unsupported, then Energex shall be contacted to determine whether the cables should be taken out of service, or whether they need to be protected or supported. In no case shall a cable cover be removed without approval. A cable cover may only be removed under the supervision of an Energex authorised representative. Protective cover strips when removed must be replaced under Energex supervision. Under no circumstances shall they be omitted to allow separation between Energex cables and other services.

Heavy Machinery Operation Over Cables:

Where heavy "Crawler" or "Vibration" type machinery is operated over the top of cables, a minimum cover of 450 mm to the cable protective cover mains must be maintained using load bearing protection whilst the machinery is in operation. For sensitive cables (i.e. 33 and 110kV fluid and gas filled cables), there may be additional constraints placed on vibration and settlement by Energex.

Directional Boring Near Cables:

When boring parallel to cables, it is essential that trial holes are carefully hand or vacuum excavated at regular intervals to prove the actual location of the conduits/cables before using boring machinery. Where it is required to bore across the line of cables, the actual location of the cables shall first be proven by hand or vacuum excavation. A trench shall be excavated one metre from the side of the cables where the auger will approach to ensure a minimum clearance of 500mm above and below all LV, 11kV, 33kV & 110/132kV cables shall be maintained.

Explosives:

Explosives must not be used within 10 metres of cables, unless an engineering report is provided indicating that no damage will be sustained. Clearances should be obtained from Energex's Planning Engineer for use of explosives in the vicinity of Energex cables.

Damage Reporting:

All damage to cables, conduits and pipes must be reported no matter how insignificant the damage appears to be. Even very minor damage to cable protective coverings can lead to eventual failure of cables through corrosion of metal sheaths and moisture ingress.

If any Damaged conductor is found:

1. Call the ELECTRICITY EMERGENCIES number listed above
2. Treat cables as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged plant should cease and the area should be vacated until a clearance to continue work has been obtained from an Energex officer.

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Plant Solutions and Assistance:

If plant location plans or visual location of Energex plant by hand or vacuum excavation reveals that the location of Energex plant is situated wholly or partly where the developer or constructor plans to work, then Energex shall be contacted to assist with your development of possible engineering solutions.

If Energex relocation or protection works are part of the agreed solution, then payment to Energex for the cost of this work shall be the responsibility of the principal developer or constructor. Energex will provide an estimated quotation for work on receipt of the developer's or constructor's order number before work proceeds.

It will be necessary for the developer or constructor to provide Energex with a written Work Method Statement for all works in the vicinity of or involving Energex plant. This Work Method Statement should form part of the tendering documentation and work instruction.

Vacuum Excavations (Hydro Vac)

When operating hydro vac equipment to excavate in vicinity of underground electrical assets (cables/conduits):

Fitted with:

- Nonconductive (neoprene rubber or equivalent) vacuum (suction) hose.
- Oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 psi.

Maintain a minimum distance of 200mm between end of pressure wand and underground electrical assets. DO NOT insert the pressure wand jet directly into subsoil.

Ensure pressure wand is not directly aimed at underground electrical assets (cables/conduits).

Safety Notices (Underground Work)

There is no exclusion zone applicable for underground electrical assets – conduits, cables (unless cable is damaged, or conductors or terminations have been exposed) therefore there is **no requirement for a written Safety Advice** to be obtained provided the work location does not contain overhead electric lines or other exposed live parts.

Further information on Working Safely around Energex assets:

https://www.energex.com.au/_data/assets/pdf_file/0010/211231/Working-near-OH-UG-lines-BS001405R107ver2.pdf

Thank you for your interest in maintaining a safe and secure Electricity Distribution network. Energex welcomes your feedback on this document via email to dbyd@energex.com.au.

General enquiries (7:00am - 5:30pm Mon to Fri)	13 12 53
DBYD enquiries (7:00am - 3:30pm Mon to Fri)	(07) 3664 5400
Life threatening emergencies only triple zero (000) or	13 19 62

E: custserve@energex.com.au

E: dbyd@energex.com.au

W: energex.com.au/lualmap

ABN: 40 078 849 055

To re-submit or change the nominated search area please visit **www.1100.com.au**



All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62

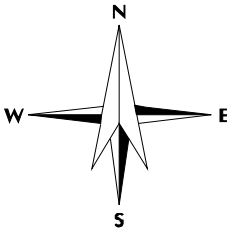


DBYD

Sequence: 210212782
Date: 11/04/2022
Scale: 1:500
Tile No: 1

For a full list of Map
Symbols, please
refer to the supplied
DBYD Symbolgy
Legend page

AS5488 Category "D" Plan



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This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.