From: EAOCAS Admin <eadmin@energy.com.au>
To: <erhan@nsw.meinhardt.com.au>
Date: 9/01/2008 7:28 pm
Subject: EnergyAustralia DBYD Sequence No: 13050236
Attachments: COMN0119 How To Read EA Plans.zip

Underground Cable Location Search Advice

EnergyAustralia ASSETS AFFECTED

To: Mr Erhan Eroksuz
Meinhardt
Level 2 400 Kent ST
Sydney NSW 2000

Fax No: 0293197508

Phone No: 0296993088

Issue Date: 9/01/2008

In response to your enquiry, Sequence No: 13050236
the records of EnergyAustralia disclose that there are
underground cables of EnergyAustralia in the search location
based on the graphical position of the digsite as denoted
in the Dial Before You Dig caller confirmation sheet.

Address . . . : Edward St And Smith St Summer Hill NSW

Intersecting
Streets: Smith ST

Side of Street: B

Map Ref . . . : UbdSyd 254K4,254L4,254K5,254L5,254K6,254L6

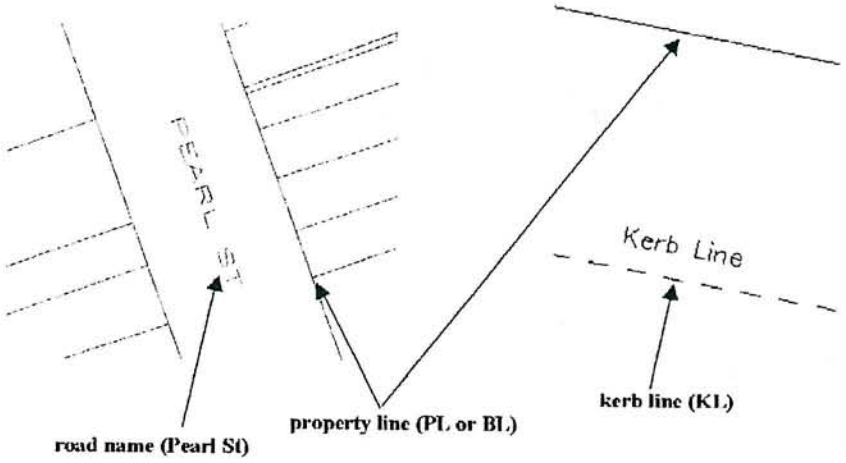
YOUR PLANS HAVE BEEN POSTED. (Please contact the G.I.S office on 02-49510899
if the plans are not received within 3 working days.)
A reference document "How To Read Energy Australia Plans" is attached to this email.

In the interest of conserving natural resources, Energy Australia encourages customers
of the Dial Before You Dig service to consider requesting the relevant information
as an email attachment. When such a request is made, the information is supplied by
Energy Australia as a .pdf (Portable Document Format) attachment. These are easily viewed
with the popular and free Adobe Acrobat Reader software.
IF YOU WISH TO RECEIVE YOUR PLANS VIA EMAIL IN FUTURE - please contact (02)49510899
or email eaocas@energy.com.au
Provide your customer ID number, email address and indicate if you are connected via
dial-up or broadband.

READING ENERGYAUSTRALIA PLANS

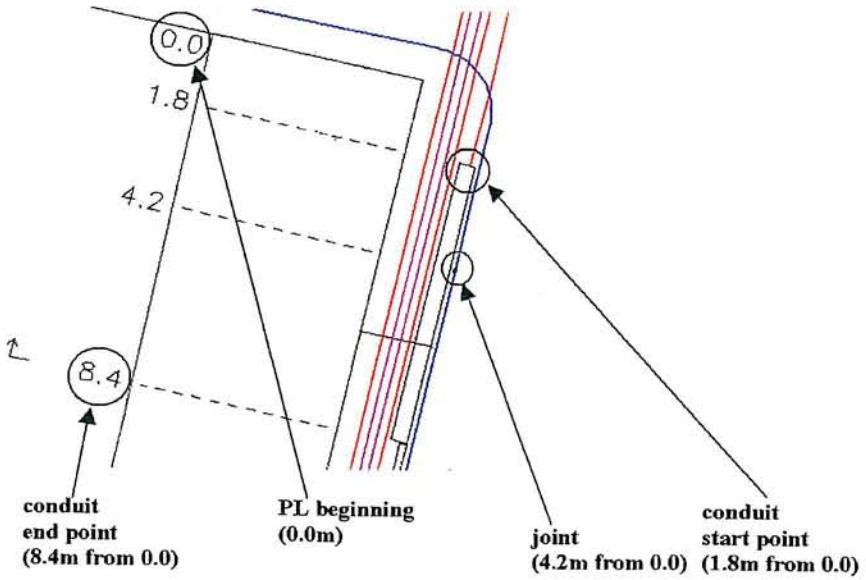
1. Property Lines

- **"property line" (PL)**, sometimes referred to as **"building line" (BL),** is the standard dimensioning reference point on all EA plans and represents property boundaries.
- Typically the **PL** is the boundary between private property & local council's footpath area or nature reserve. Most residential fences and office blocks are erected along the **PL**.
- **"kerb line" (KL)** is less frequently referred to on EA plans, and where used will be identified clearly as **KL**.
- Numbers listed within property boundaries should correspond to recognised **"street numbers"**.



2. Datum References

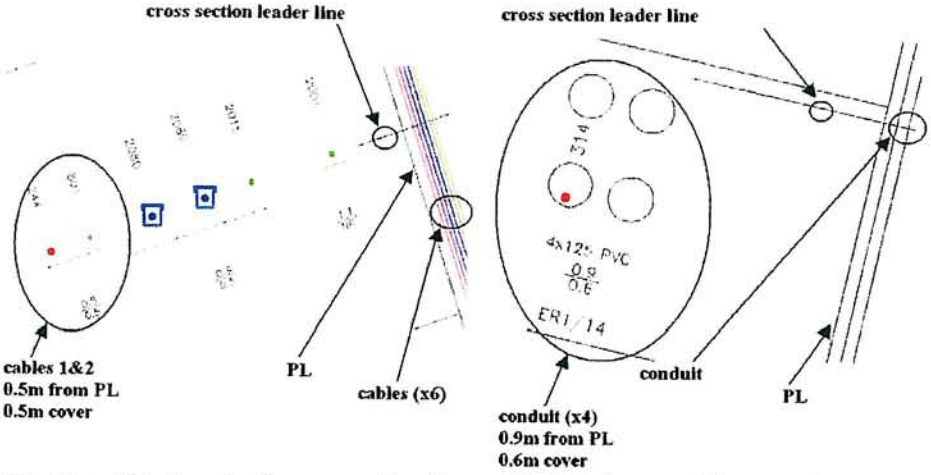
- **"datum references"** identify distances (in metres) from significant features (such as corners of property boundaries) to reference points such as EA assets (eg: **"conduits"**, **"cables"**, **"joints"**).



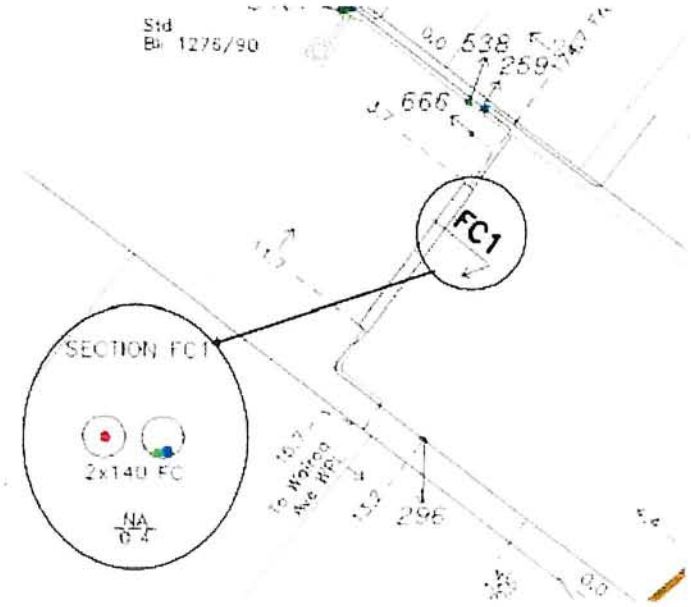
3. Cross Sections

- **"cross sections"** displayed on EA plans detail information relating to the relative position (ie: distance from the "**property line**", and the depth of "**cover**") of EA assets.
- "**cover**" is a term used to refer to the depth of cables underground.
- A "**cross section**" leader line will be drawn indicating the location of the displayed "**cable**" or "**conduit**" information on EA plans.
- The distance from "**property line**" (in metres) and depth of "**cover**" (in metres) references are displayed as; 

(ie: 0.6 metres from **PL** and 0.5 metres underground).
- Where distance and cover are not recorded, they will be clearly marked as "**NR**".
- **Note**: distance and cover where indicated may be different to the actual position of the cables (eg: fill may have been placed at site that has changed the ground level).

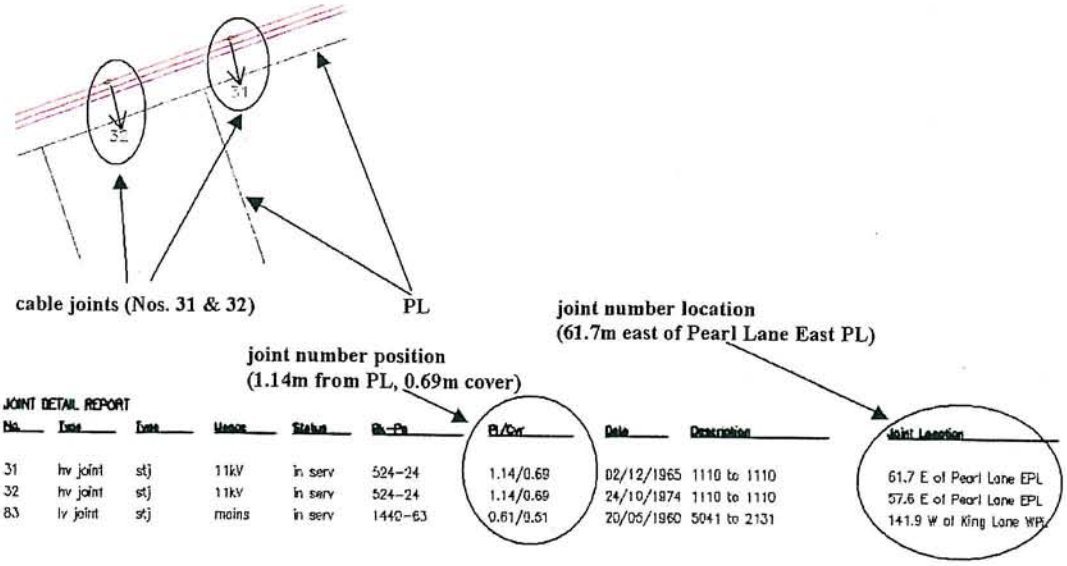


- On some A3 plans the **"cross sections"** may also be shown with a specific number (eg: **FC1**). This number will have an arrow pointing in the direction you will need to look for the cross-section detail. (as shown in picture below)



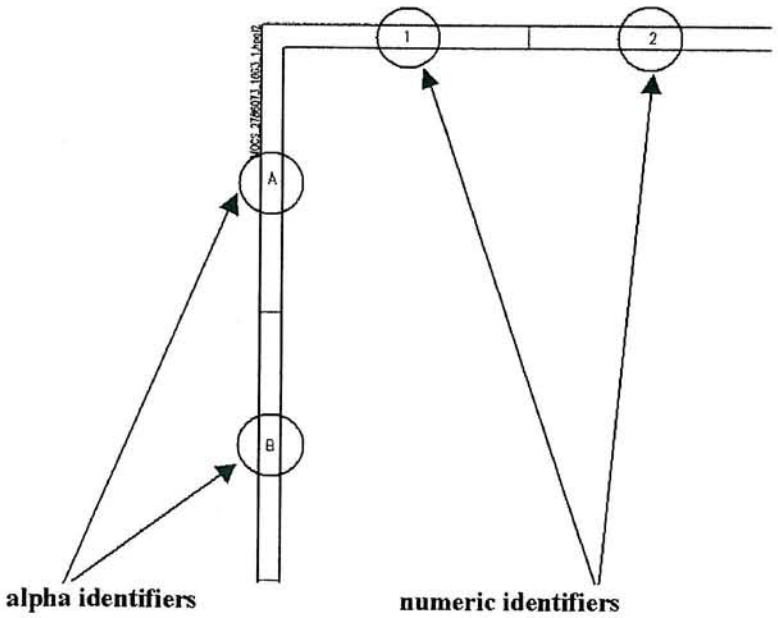
4. Cable Joints and Joint Reports

- "cable joints" (numbered individually) and "joint reports" (attached to EA plans) can provide information relating to the relative position of EA assets, distance from the "property line" (in metres), and the depth of "**cover**" (in metres).

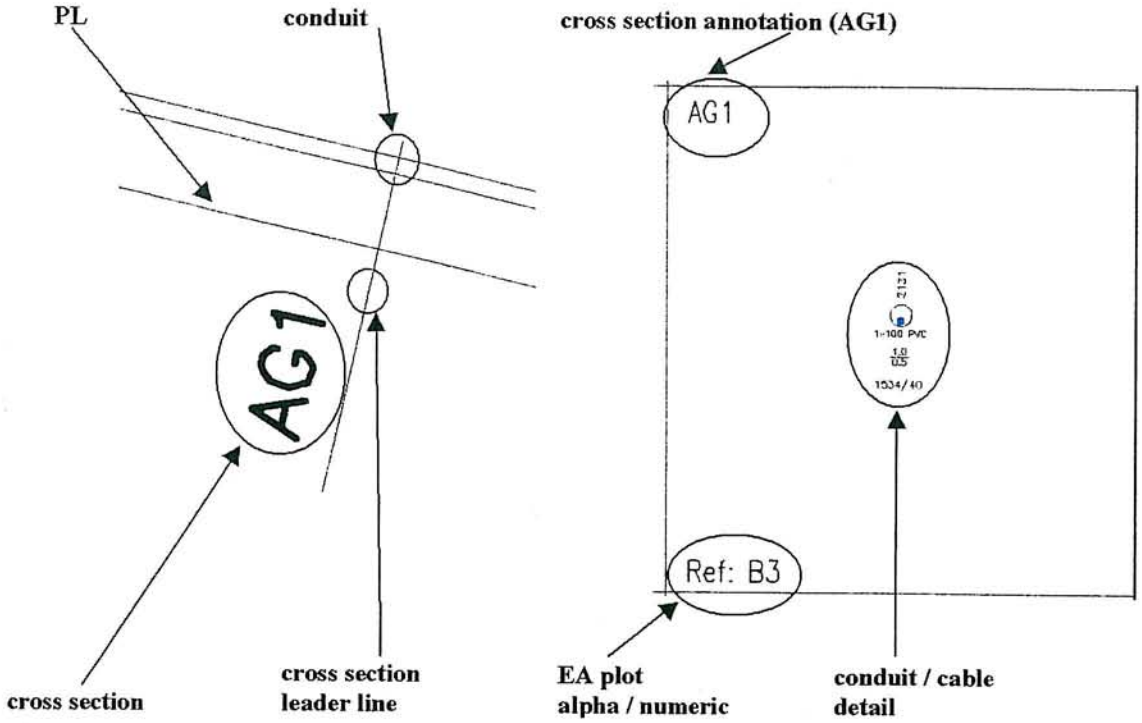


5. Cross Section Detail Boxes

- "**cross section**" detail boxes on the sides of an EA plot are used when there is insufficent room to display "**cable**" and / or "**conduit**" information on the EA plot.
- EA plans are bordered by numeric identifiers along the top and bottom borders and alpha identifiers along the side borders.

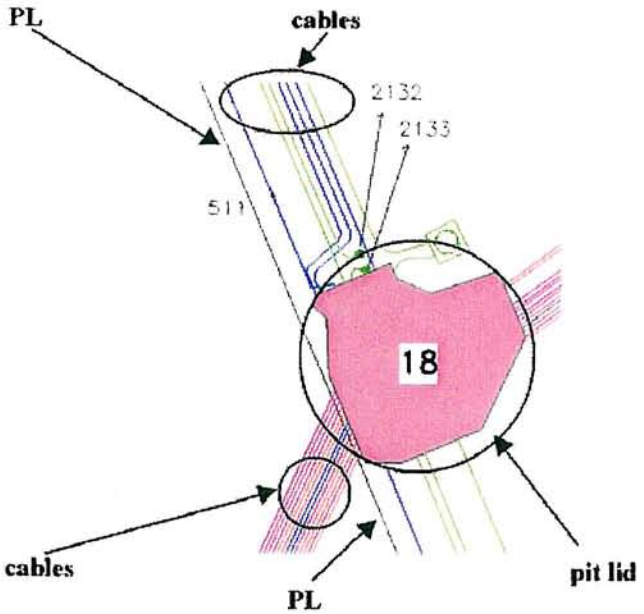


A "**cross section**" leader line and annotation is drawn on the EA plot for a reference to "**cable**" and/or "**conduit**" information in the "**cross section**" detail boxes.



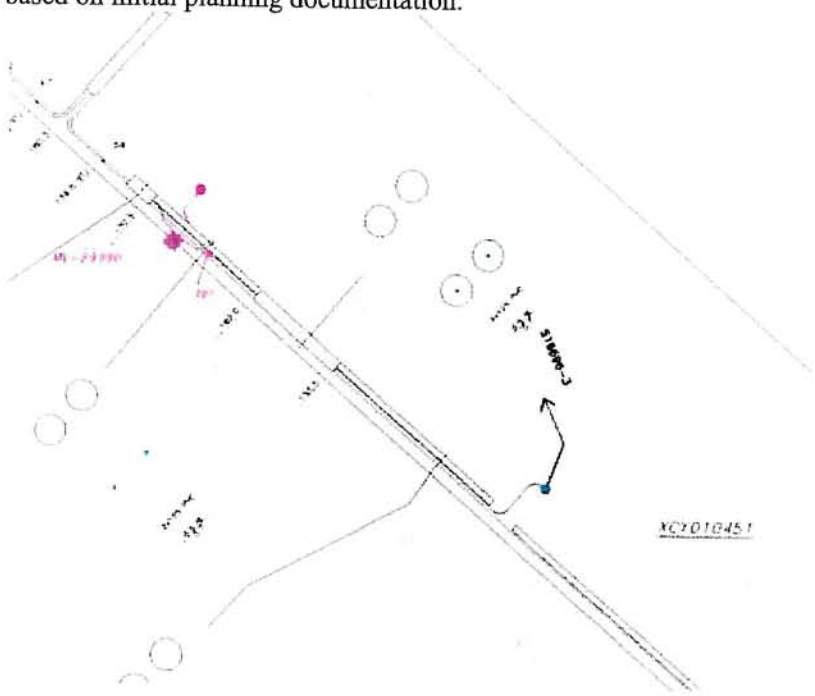
6. Pits

- Underground "**pits**" are numbered on EA plans, positioned relative to the "**property line**" (**PL**), and can be found on either the footpath (nature strip) or the road.

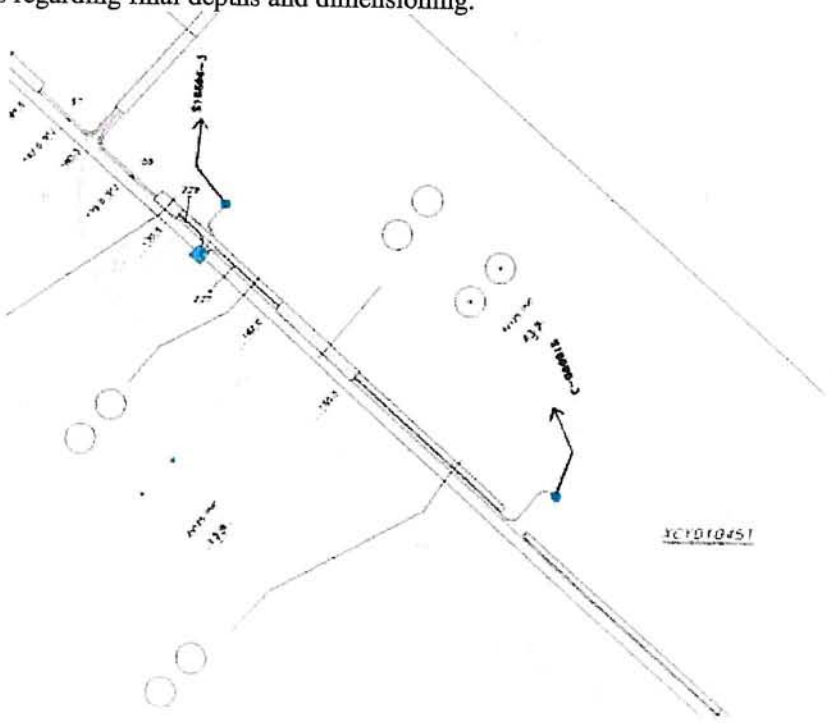


7. Proposal Areas

- There are areas where underground work may have been issued for construction by EA, but details are not yet completely displayed on EA plans. In such cases a shaded **"proposal area"** is displayed on the EA plan, indicating underground work may have commenced in the vicinity but is not yet complete.
- In some instances cables and other assets within the shaded **"proposal area"** will be shown in a **bright magenta** colour , indicating that the proposed new work displayed within the shaded area is based on initial planning documentation.



- In other instances the shaded "**proposal area**" itself may be shown as a **blue** colour, indicating that the new work displayed within the shaded area on the EA plan is yet to include details regarding final depths and dimensioning.

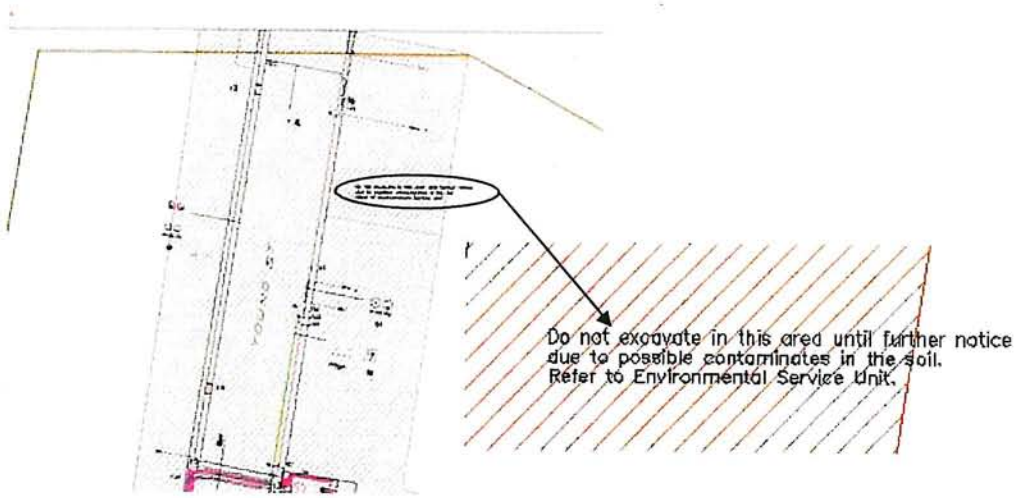


- **Please note**: in cases where these shaded **"proposal areas"** are displayed on EA plans; *"EnergyAustralia's design plans showing the proposed position of its underground cables, overhead lines and structures have been prepared solely for EnergyAustralia's own planning use. They show the proposed position of such underground cables, overhead lines and structures as proposed at the time of planning and have not necessarily been corrected to take into account any changes to road widths, road levels, fences and buildings subsequent to proposed installation. Actual installations may vary from proposed installations as it may be necessary to take account of unforeseen above ground or subterranean constructions. Therefore, EnergyAustralia does not hold out that the design plans show more than the proposed presence or absence of its underground cables, overhead lines and structures in the street and will accept no liability for inaccuracies in the information shown on such design plans from any cause whatsoever."*

- Any further information regarding information displayed for **"proposal areas"** can be obtained by contacting the EnergyAustralia One Call Automation (EAOCAS) office at the number indicated on the response to your DBYD enquiry for further information.

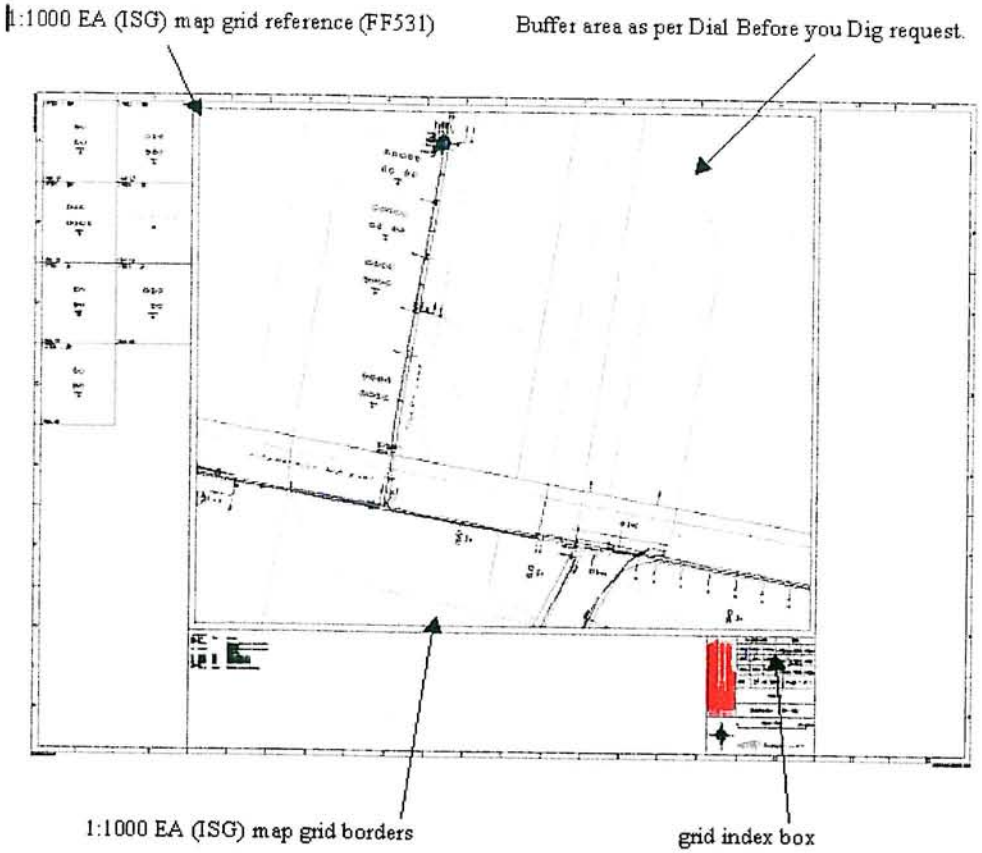
- If you notice an **orange shaded** area on your plan, **DO NOT PROCEED** with excavation.

- You will need to contact the EnergyAustralia One Call Automation (EAOCAS) office at the number indicated on the response to your DBYD enquiry and arrange for assistance. (see sample below)



8. EA (ISG) Map Grid

- The pale grey line indicates the **1:1000 EA (ISG) map grid** border.
- The pale grey annotation located in the corners of the EA plot window, indicates the **1:1000 EA (ISG) map grid** reference.

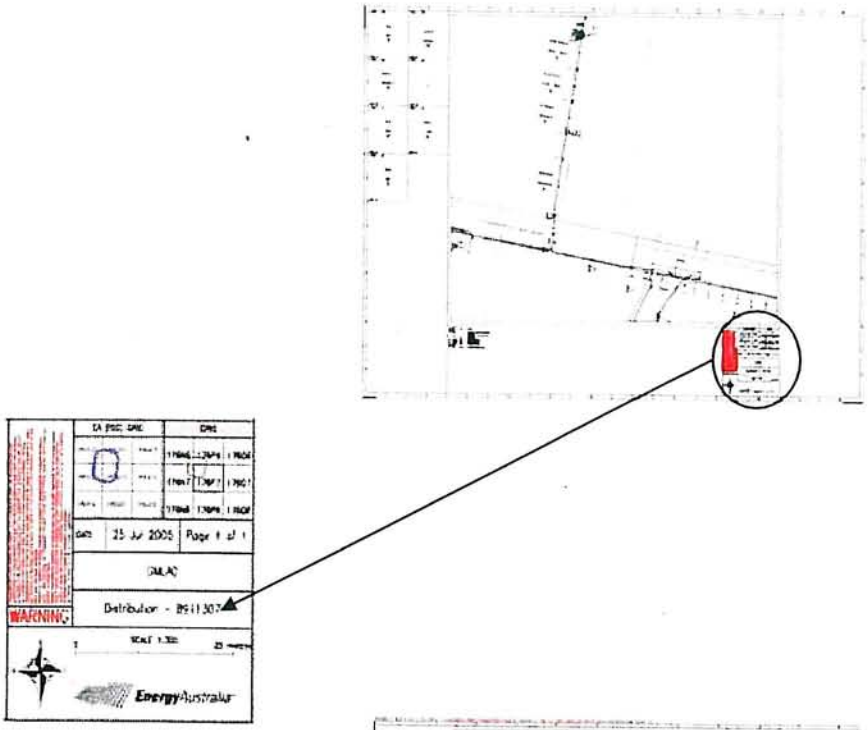


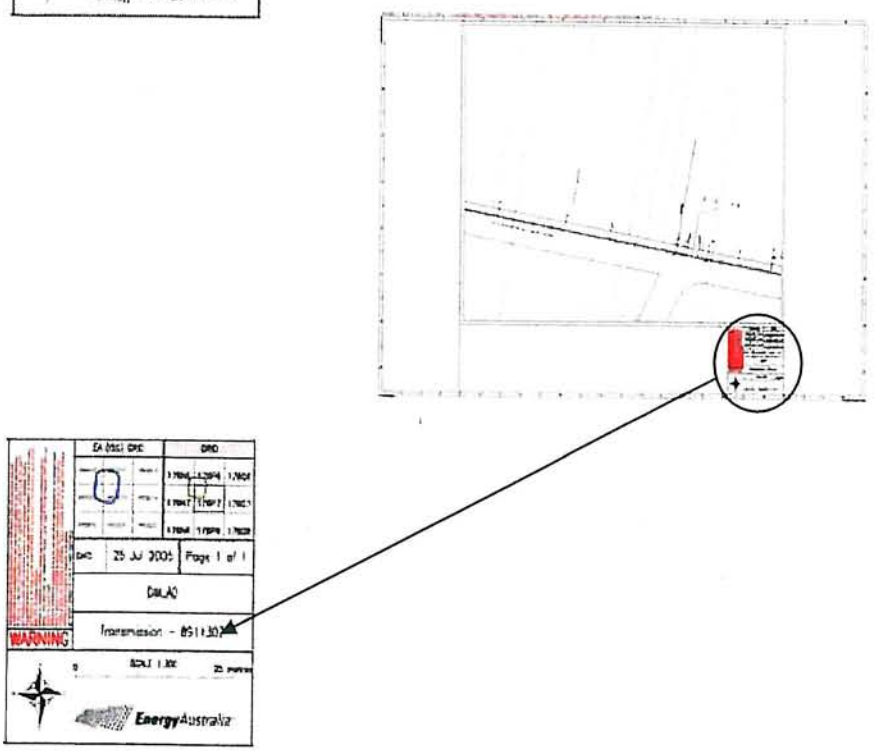
- The **1:1000 EA (ISG) map grid** border and reference on EA plans should be used when reading the "**joint report**" (see part 4 of this document for more detail) to accurately locate underground cables.
- The buffer area shown on the plan should relate to the area requested on the original Dial Before you Dig request.
- The **grid index box** can be used for reference where necessary (located in the bottom right corner of the EA plans), and will also indicate the buffer area shown on the plan.

EA (ISG) GRID			GRID		
FF53122	FF53211	FF53212	176N6	176P6	176Q6
FF53121	FF53213	FF53214	176N7	176P7	176Q7
FF53142	FF53231	FF53232	176N8	176P8	176Q8

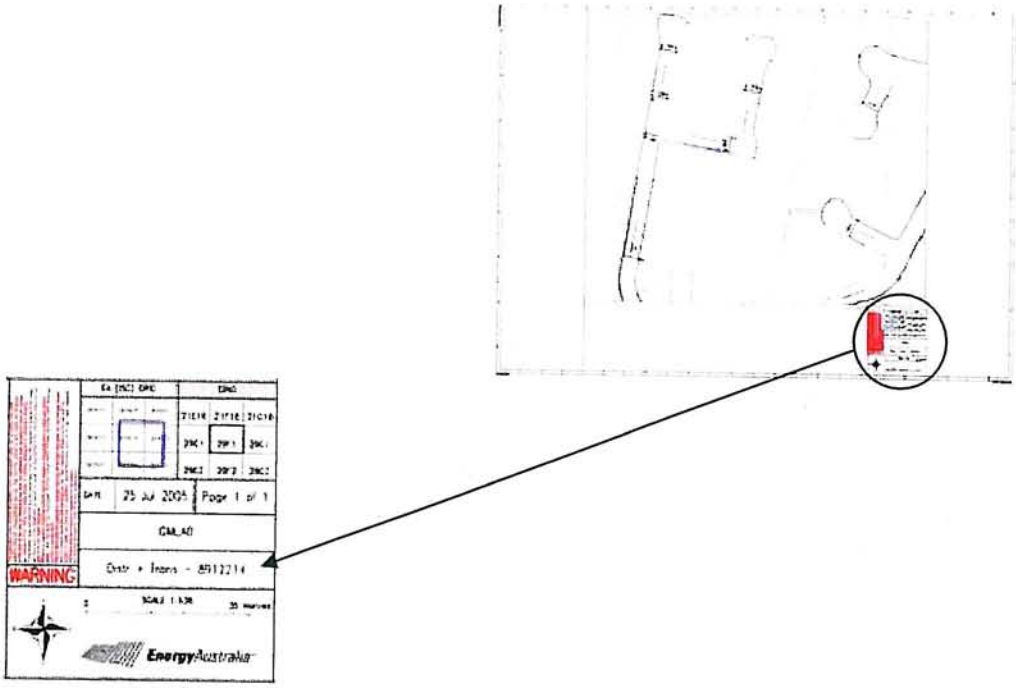
9. EA "Distribution" and "Transmission" Plots

- The **EA plans** supplied may identify both "**distribution**" and "**transmission**" voltage assets for the area defined in the DBYD request.
- In the Sydney region, the **EA plans** are separately labelled as "**Distribution – nnnnnnn**" & "**Transmission – nnnnnnn**", where "nnnnnnn" refers to the DBYD sequence number quoted.

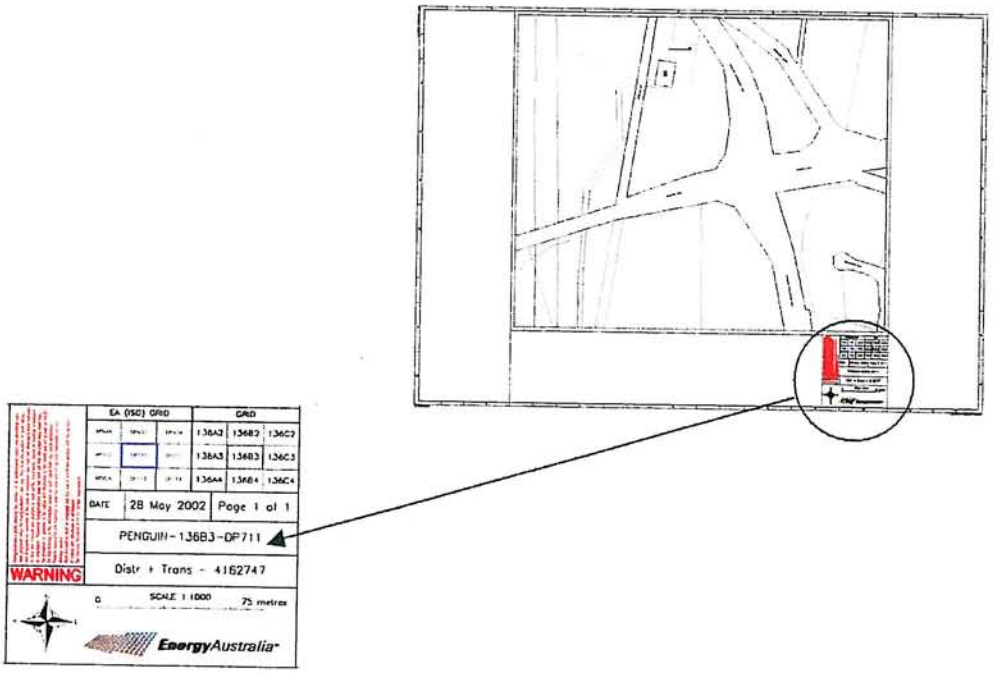




- In the Hunter region, the **EA plans** show combined "**distribution**" and "**transmission**" voltage assets, and are clearly labelled as "**Distr + Trans – nnnnnnn**" where "nnnnnnn" refers to the DBYD sequence number.

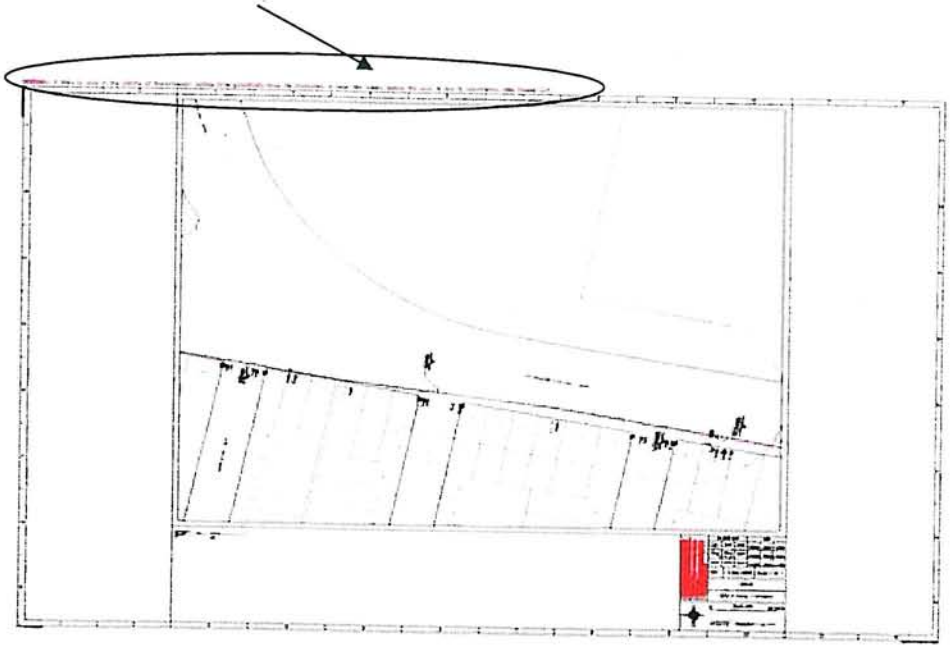


- In the Hunter region, some DBYD requests are covered by PENGUIN grid references.
- In such cases, the **EA Plans** show the grid quoted with a cross-reference to a corresponding EA (ISG) map grid (eg: PENGUIN 136B3 – DP711, where DP711 is the EA (ISG) grid) to optimise the legibility of plans due to PENGUIN grid scale.



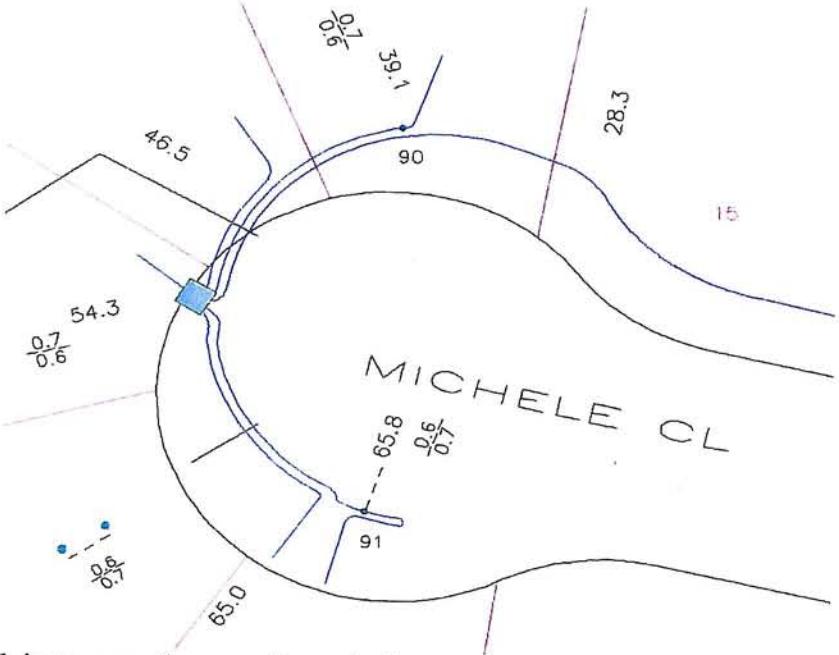
Some Hunter plans may have transmission cables in the area, when these cables are present there will be a warning printed at the top of the plan supplied:

WARNING: If there is work in the vicinity of transmission cables, EnergyAustralia must be contacted at least two weeks before the work is due to commence (See Clause 2.3)



10. "Shifting Land Base" On EA Distribution and Transmission Plots

- In some instances, the plans supplied may indicate road or property outlines that appear to have shifted in relation to the EA assets displayed.



In such instances, <u>always refer</u> to the "**property line**" (in metres) and depth of "**cover**" (in metres) references displayed on the nearest relevant "**cross sections**" to obtain EA asset location information (see Appendix C *Reading EnergyAustralia Plans*, section 3, Cross Sections for more detail).

If further information is required, please contact:
EnergyAustralia GIS Operations
Phone: (02) 4951 0899
Fax: (02) 4951 0729

EnergyAustralia™

Emergency Phone Number 131388

Job No.
10 JAN 2008
Signed
Distribute

Underground Cable Location Search Advice

-- EnergyAustralia Assets Affected --

This search is based on the graphical position of the digsite as denoted in the Dial Before You Dig caller confirmation sheet.

To:	Mr Erhan Eroksuz	Fax No:	0293197508
	Meinhardt	Phone No:	0296993088
	Level 2 400 Kent ST	Issue Date:	9/01/2008
	Sydney NSW 2000	No. of Pages:	3

In response to your enquiry, Sequence No: 13050283
the records of EnergyAustralia disclose that there are underground cables of EnergyAustralia in the search location (described by the map reference below):

Address:	Lyons Rd And Great North Rd Five Dock NSW 2046
Intersecting Streets:	Great North RD
Side of Street:	B
Ref:	UbdSyd 234E7,234F7,234G7,234E8,234F8,234G8

Details of EnergyAustralia's plans supplied : Distr GML

These plans are (mark "X" in appropriate box):-

- [ ] Attached.
- [ ] Following immediately by Fax.
- [ ] Held at .....G.I.S office for collection by your courier/agent as per your instructions.
- [X] Posted. (Please contact the G.I.S office number indicated above if the plans are not received within 3 working days.)

ALL INFORMATION PROVIDED TO YOU IS ONLY VALID FOR 28 DAYS FROM THE DATE OF ISSUE.

YOU MUST READ AND UNDERSTAND THE IMPORTANT INFORMATION ON PAGE 2 OF THIS ADVICE.

IMPORTANT INFORMATION

YOU MUST BE AWARE THAT:

1. There may be underground cables owned by other utilities, in the vicinity of your work, about which EnergyAustralia has no information.

2. EnergyAustralia does not usually keep plans of privately owned underground cables or its underground service cables on private property. (Refer NS 0156 Clause 2.1 for further information.)

YOU MUST MAKE YOUR OWN ENQUIRIES IN RESPECT OF THESE CABLES.

YOU MUST UNDERSTAND THAT:

1. EnergyAustralia takes all reasonable care in providing details of its underground cables. However, owing to changes in road and footway alignments and levels, and the age and incompleteness of some records, it is not possible to conclusively specify the location of all of EnergyAustralia's underground cables. The accuracy and completeness of the information provided to you cannot be guaranteed. It is intended to be indicative only. It must not be **solely** relied upon when undertaking underground works.

2. Except to the extent that liability may not be capable of lawful exclusion, EnergyAustralia, its servants and agents will be under no liability whatsoever to any person for loss or damage (including indirect or consequential loss or damage) however caused (including without limitation, for breach of contract, negligence and breach of statute) which may be suffered or incurred from or in connection with the advice provided.

3. Due to the inherent dangers associated with excavation in the vicinity of underground cables, precautions must always be taken when undertaking any underground works. EnergyAustralia's Network Standard NS 0156 specifies standards for working in the vicinity of underground cables. It is deemed to be part of this Advice, and it must be read by you.

YOU MUST READ NETWORK STANDARD NS 0156 (AS AMENDED BY LATEST NSA 1289 MAY 2007), *WORKING NEAR OR AROUND UNDERGROUND CABLES.* IT IS PART OF THIS ADVICE.

ENERGYAUSTRALIA CHECKLIST FOR WORK NEAR OR AROUND UNDERGROUND CABLES

It is the responsibility of the Constructor to ensure that underground pits, ducts and cables are not damaged as a result of construction work. It is also your duty to protect your workers from harm or injury. This Checklist is intended to be used as a guide to what Constructors should do to make sure they have satisfied the **minimum requirements** to minimise damage to underground networks.

PLANS, LOCATION and NOTIFICATIONS	Done
Have you obtained all relevant utilities plans by calling "1100" – Dial Before You Dig service? (Allow at least 5 working days for plans).	
Have you examined the plans and assessed all possible impacts on EnergyAustralia's network?	
Do you have **both Underground Distribution & Transmission Plans (if applicable), on site at all times?**	
Have **all** cables and conduits shown on the EnergyAustralia plans been **located** and **marked on the ground?**	
If you are planning to use a **BORE**, have you ensured that the equipment is calibrated?	
Have you obtained a current copy and understood the requirements of EnergyAustralia's Network Standard **NS 0156** ***Working Near or Around Underground Cables***, as amended by NSA 1289 on 28/02/03? For a copy of NS0156 phone EA on (02) 4951 0899 or visit EA's Web Site at http://www.energy.com.au/energy/ea.nsf/Content/Safety+Dial+before+you+dig	
Where specified by NS 0156, have you notified EnergyAustralia, and complied with requirements? Contact numbers are (02) 9962 4558 for sub-transmission cables in Sydney and Central Coast areas, and the G.I.S. office number (02) 4951 0899 for all other cases.	

SUPERVISION OF WORK	
Where the proposed work is near or around* any sub-transmission cable, is the EnergyAustralia representative on site to supervise the work before you start? (*Refer NS 0156, as amended.)	
Where the proposed work is near or around* cables other than sub-transmission and/or conduits, are any requirements specified by EnergyAustralia's representative clearly understood and ready to be applied before you start the work? (*Refer NS 0156, as amended.)	

PROTECTION	
Have you checked that **all** people on-site have been made aware of the presence & location of **ALL EnergyAustralia** underground cables and/or conduits; especially boring, drilling and trenching machine operators?	
Have you checked for the presence of any **asbestos or asbestos containing material** in EnergyAustralia's underground network assets?	
Have you checked for the presence of any **Organo-Chloride Pesticides (OCP)** in sub-transmission trenches?	
Is the site supervisor monitoring **all machine** operators working near or around EnergyAustralia's underground cables and/or conduits?	
Are the requirements specified by EnergyAustralia's representative being followed?	
Are EnergyAustralia's requirements in place for any exposed cables and/or conduits to be supported and protected?	
Have you marked **all exposed underground cables and/or conduits** with flags that are clearly visible from within all machinery used on-site?	
Have safety barriers, fencing or para-webbing been erected to protect staff and the public as well underground cables and/or conduits in areas that are at risk?	

In the event of DAMAGE to EnergyAustralia's cables or conduits, call 131388 immediately.

PROCEED – with CAUTION

It is **your responsibility** to protect EnergyAustralia's cables and conduits from damage and **your Duty of Care to protect your workers from harm or injury**.

Signed _____ Date ___ / ___ / ___

LE532 - IE1

Ref: D8

LE532 - II1

Ref: E9

JOINT DETAIL REPORT

Map: LE532

No.	[illegible]	[illegible]	Joint Location
[illegible]	[illegible]	[illegible]	[illegible]

WARNING

[illegible]

[illegible]	[illegible]	[illegible]	EA (ISG) GRID
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
254J4	254K4	254L4	GRID
254J5	254K5	254L5	
254J6	254K6	254L6	

9 Jan 2008 Page 1 of 1

LE5323GMLA0

Distribution - 13050235

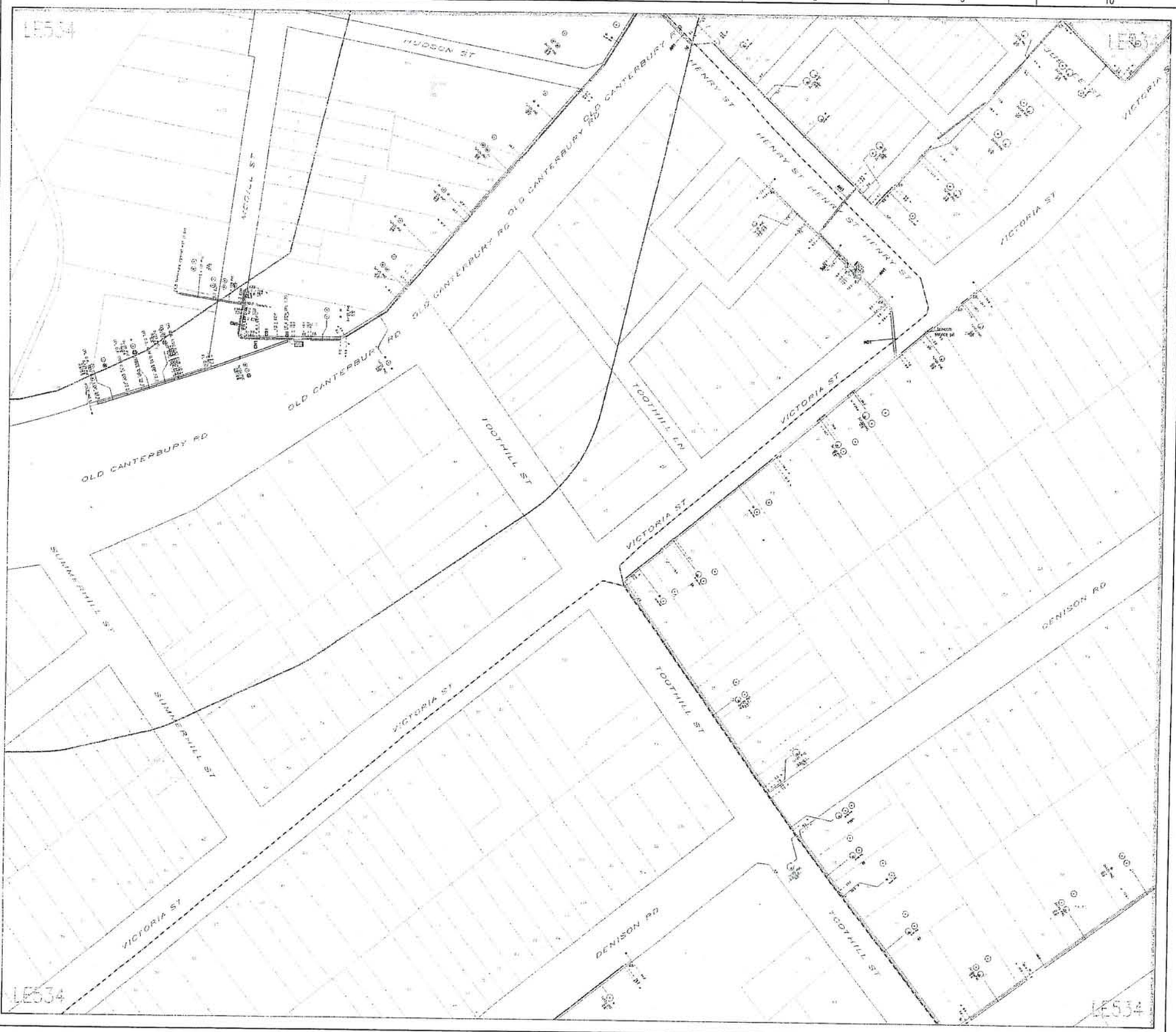
N

SCALE 1:502

0 30 metres

EnergyAustralia

	1	2
A	LE534 – AR1 Ref: A7	LE534 – CI1 Ref: C5
B	LE534 – CL1 Ref: B4	LE534 – CM1 Ref: C4
C	LE534 – CN1 Ref: C4	LE534 – CO1 Ref: C4
D		
E		
F		
G		
H		



WARNING

LE537	LE532	LE541
LE533	LE534	LE543
LE544	LE542	LE531

GRID (250)

254K5	254L5	254M5
254K6	254L6	254M6
254K7	254L7	254M7

GRID

9 Jan 2008 Page 1 of 1

LE5342GMLA0

Distribution – 13050235

SCALE 1:502 0 30 metres

EnergyAustralia

WARNING. If there is work in the vicinity of transmission cables, EnergyAustralia must be contacted at least two weeks before the work is due to commence (see Clause 2.3).

WARNING

254K5	254L5	254M5
254K6	254L6	254M6
254K7	254L7	254M7

EA (GS) GRID

GRID

9 Jan 2008 Page 1 of 1

LE5342GMLA0

Transmission – 13050235

SCALE 1:502

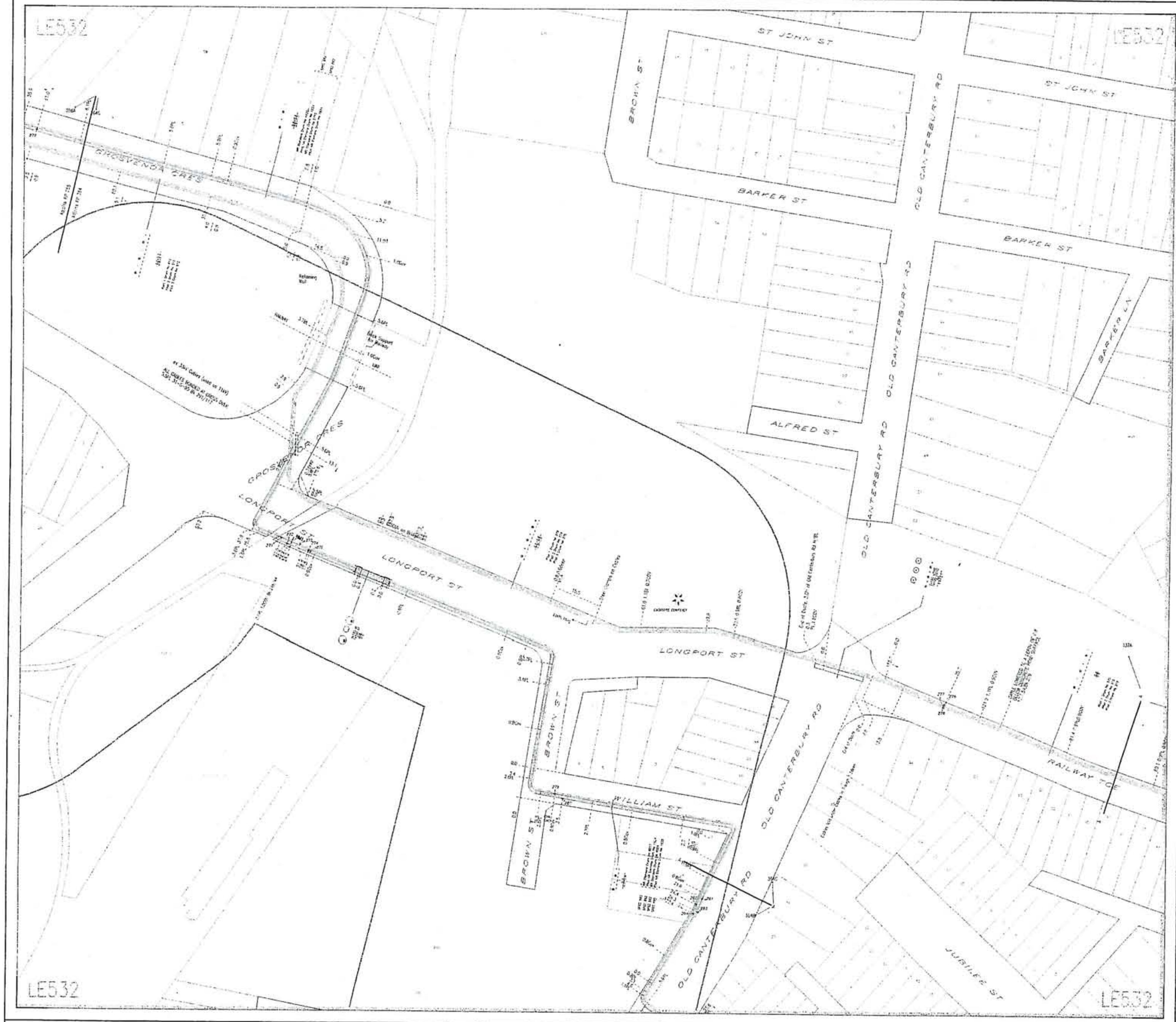
0 30 metres

EnergyAustralia

WARNING: If there is work in the vicinity of transmission cables, EnergyAustralia must be contacted at least two weeks before the work is due to commence (see Clause 2.3).

LE532 – HM1

Ref: D5



WARNING

254K4	254L4	254M4	GRID
254K5	254L5	254M5	
254K6	254L6	254M6	

EA (ISG) GRID

9 Jan 2008 Page 1 of 1

LE5324GMLA0

Transmission – 13050235

SCALE 1:502

0 30 metres

N

EnergyAustralia

WARNING

9 Jan 2008 Page 1 of 1

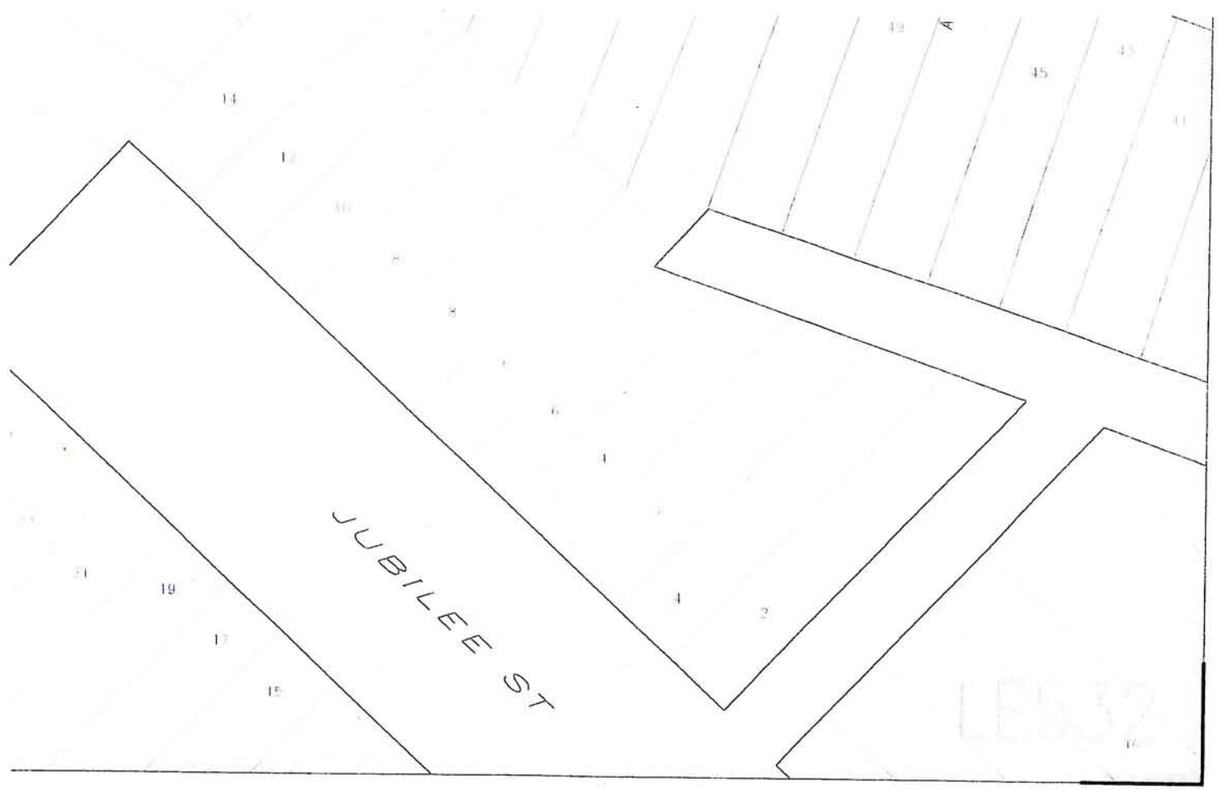
LE5341GMLA0

Distribution – 13050235

SCALE 1:502 0 30 metres

254J5	254K5	254L5
254J6	254K6	254L6
254J7	254K7	254L7

EnergyAustralia



WARNING

EnergyAustralia's plans showing the location of its network have been prepared solely for EA's use. They show the position of such assets at the time of installation and may not account for subsequent changes to road alignments, fences or buildings. EA advises that the plans show no more than the presence or absence of it's assets in the street and will accept no liability for inaccuracies in the information shown. PERSONS WORKING NEAR ELECTRICITY NETWORKS MUST EXERCISE CARE AND WILL BE HELD RESPONSIBLE FOR ANY DAMAGE CAUSED.

Only hand or vacuum excavation shall be employed until the location of EA assets is established. Vacuum excavation must not be used where asbestos-containing material is suspected to be present.

UNDERGROUND: Asbestos or asbestos-containing material may be present in EnergyAustralia's underground network. Some sub-transmission trenches contain Organo-Chloride pesticides (OCPs) which are harmful to human health.

Note that some low voltage cables may have cracked insulation and could result in electric shock during nearby excavation work.

OVERHEAD: Do not excavate near poles or towers until the stability of the foundation has been assessed by EA. Cables or earth conductors may be present close to substations, poles or towers. Workers must maintain safe approach distances and follow applicable WorkCover Codes of Practice.

See Network Standard NS 156 for further details and requirements.

9 Jan 2008 Page 1 of 1

LE5324GMLA0

Transmission – 13050235

INFORMATION ON THIS PLAN ONLY
VALID FOR 28 DAYS FROM ISSUE DATE

N

SCALE 1:502

0 30 metres

EnergyAustralia

9 10

LE5323 GMLAO

DISTRIBUTION.

LE5323

EDWARD ST

SMITH ST

EDWARD ST

SUB BRICK WALL 0.0

SUB WALL 2.0

SUB WALL 5.1

SUB BRICK WALL 6.7

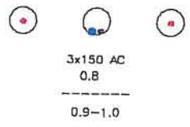
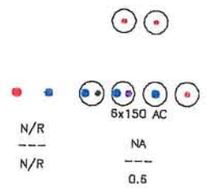
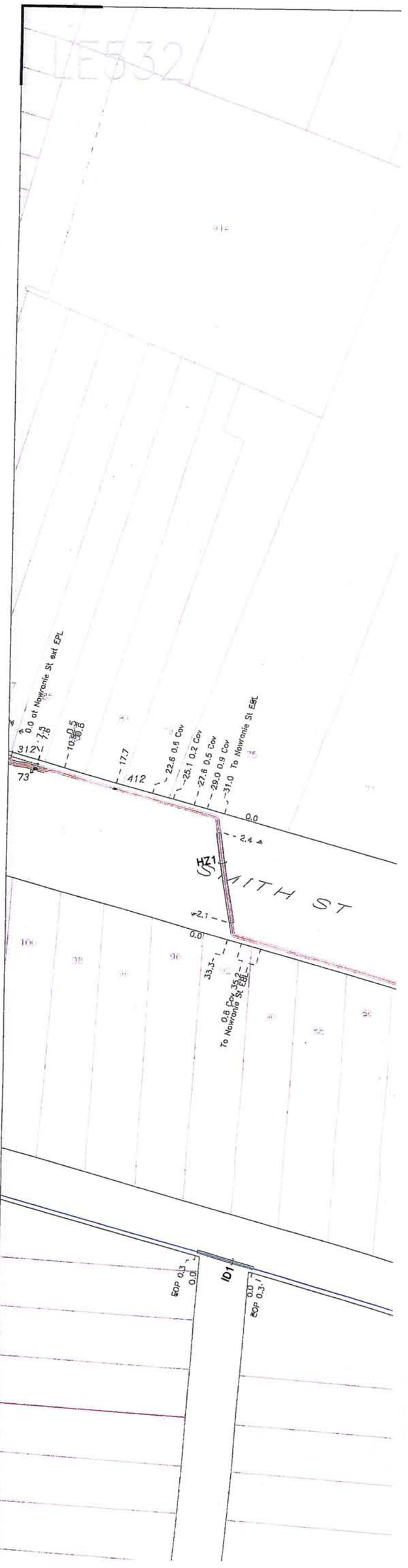
(Private cables)

N

E

S

LE532

1	2	3
LE532 – IE1	LE532 – II1	
		
Ref: D8	Ref: E9	

LE 5324

LONGPORT ST

BROWN ST

KERB LINE

WILLIA

LOT 1

DISTRIBUTION.

LE532

LONGPORT ST

0.6PL 1.0COV BK.248/44

0.9Cov

0.9PL

Earth Plug

Steel Clamps on Cables

61.0 1.1BL 0.7COV

15.5

91.4

0.8 0.6deep

Pilot 1
Pilot 2
Pilot 3

0.0
0.4
0.2
0.0
0.9PL

2x150 GI
1x150 GI

LOT 1

0.9Cov

0.9PL

2.7PL

3.1PL

BROWN ST

0.9Cov

0.0

3.4
2.6PL

279

280

WILLIA

BROWN ST

0.0
2.8PL
6.5
0.0
0.8
0.9Cov
3.5
2.7PL

0.8Cov

NR Standard Drum No 6017
Pilot NR Sterm

SPEC 862
SPEC 862
SPEC 869

0.0
0.8PL
5.1
4.6
1.1PL

TRANSMISSION

LE532

LE534

DISTRIBUTION
LE5342GMLAO

LE5342.

HUDSON ST

MCGILL ST

OLD CANTERBURY RD

OLD CANTERBURY RD

OLD CANTERBURY RD

TOOTHILL

21.5 Terminate against wall of bld

2 x 125 PVC

3x125 PVC

1x125 PVC

2x125 PVC

CL1

CM1

CO1

CN1

10.0 Trench

28.2

52.0

55.3

61.0

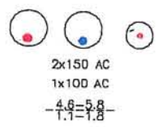
CABLE END 22.7

POLE 40.1

1 2 3

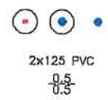
A

LE534 – AR1



Ref: A7

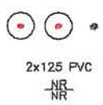
LE534 – CI1



Ref: C5

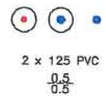
B

LE534 – CL1



Ref: B4

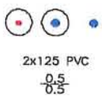
LE534 – CM1



Ref: C4

C

LE534 – CN1



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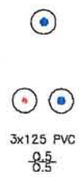
LE534 – CO1



Ref: C4

D

3 4 5 6

LE534

TRANSMISSION

LE5342

HUDSON ST

SECTION AE5

0.0

3.4

2x150 FC
1x100 FC

6.0
1.2

MCGILL ST

OLD CANTERBURY RD

OLD CANTERBURY RD OLD CANTERBURY RD OLD CANTERBURY RD

OLD CANTERBURY RD

TOOT

-Y RD

LE5341.
DISTRIBUTION

WELLESLEY ST

EDWARD ST