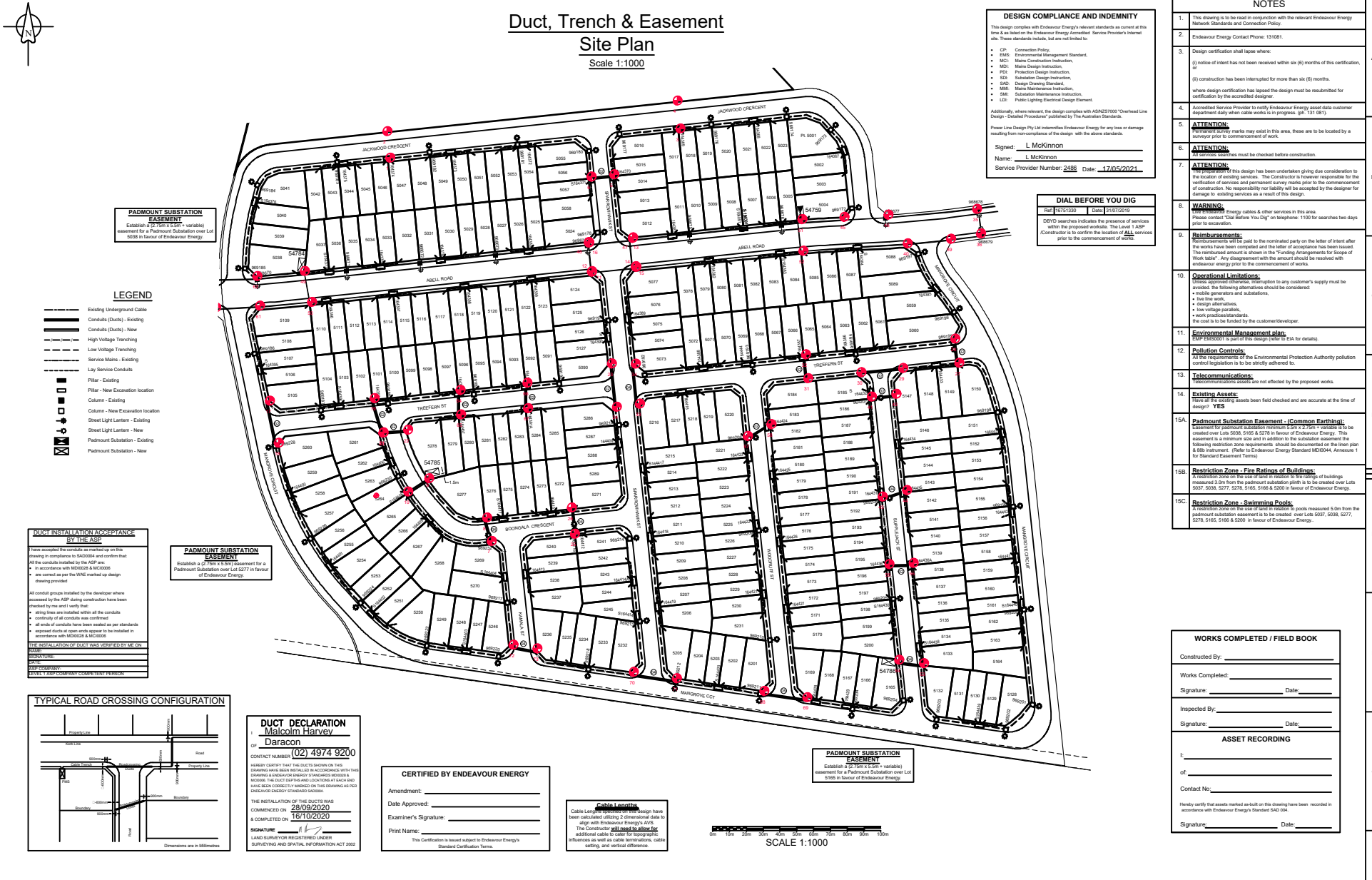


Duct, Trench & Easement Site Plan

Scale 1:1000



DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as covered at the time & as listed on the Endeavour Energy Accounted Service Provider's Internet site. These standards include, but are not limited to:

- CIP: Construction Policy
- EAS: Environmental Management Standard
- MCI: Mains Construction Instructions
- MCI: Mains Design Instructions
- PDI: Protection Design Instructions
- SDI: Substation Design Instructions
- DDI: Design Drawing Standards
- MMI: Mains Maintenance Instructions
- SMI: Substation Maintenance Instructions
- LDI: Public Lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards.

Power Line Design Pty Ltd indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards.

Signed: **L McKinnon**
Name: **L McKinnon**
Service Provider Number: **2486** Date: **17/05/2021**

DIAL BEFORE YOU DIG

Call 1100 or **1300 797 797**

Dial 1100 to check the location of services within the proposed worksite. The Level 1 ASP Contractor to confirm the location of ALL services prior to the commencement of work.

PADMOUNT SUBSTATION EASEMENT

Establish a 2P 500V 3.5kV variable easement for a Padmount Substation over Lot 5038 in favour of Endeavour Energy.

LEGEND

	Existing Underground Cable
	Conduits (Ducts) - Existing
	Conduits (Ducts) - New
	High Voltage Trenching
	Low Voltage Trenching
	Service Mains - Existing
	Lay Service Conduits
	Pit - Existing
	Column - New Excavation location
	Column - Existing
	Column - New Excavation location
	Street Light Lantern - Existing
	Street Light Lantern - New
	Padmount Substation - Existing
	Padmount Substation - New

DUCT INSTALLATION ACCEPTANCE BY THE ASP

I have accepted the conduit as installed on this drawing in compliance with S4003.4 and confirm that all the conduit installed by the ASP are:

- in accordance with MCI002 & MCI009
- as covered by the MME marked on design drawing provided

All conduit groups installed by the developer where accepted by the ASP during construction have been checked by me and verify that:

- string lines are installed within all the conduit
- continuity of all conduit is confirmed
- all ends of conduit have been sealed as per standards
- repeated ducts of open ends appear to be installed in accordance with MCI002 & MCI009

THE INSTALLATION OF DUCT WAS VERIFIED BY ME ON:

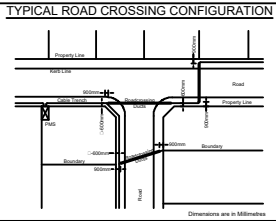
DATE: _____

BY: _____

FOR COMPANY COMPANY COMPANY COMPANY

PADMOUNT SUBSTATION EASEMENT

Establish a 2P 500V 3.5kV variable easement for a Padmount Substation over Lot 5277 in favour of Endeavour Energy.



DUCT DECLARATION

Malcolm Harvey
Daracon

CONTACT NUMBER: **(02) 4974 9200**

I HEREBY CERTIFY THAT THE DUCTS SHOWN ON THIS DRAWING IS IN ACCORDANCE WITH THE RELEVANT STANDARDS AND I AM NOT PROVIDING A DESIGN OR ENGINEERING SERVICE. THE DUCTS SHOWN ON THIS DRAWING HAVE BEEN CORRECTLY MARKED ON THIS DRAWING AS PER ENDEAVOUR ENERGY STANDARDS.

THE INSTALLATION OF THE DUCTS WAS COMMENCED ON: **28/09/2020**
& COMPLETED ON: **16/10/2020**

SIGNATURE: _____

LAND SURVEYOR REGISTRATION NUMBER: _____
SURVEYING AND SPATIAL INFORMATION ACT 2002

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____
Date Approved: _____
Examiner's Signature: _____
Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms.

Cable Lengths

Cable Lengths for this design have been calculated using 2 dimensional data to align with Endeavour Energy A/S. The Contractor shall verify the additional cable in order for topographic influences as well as cable terminations, cable setting and vertical clearance.

PADMOUNT SUBSTATION EASEMENT

Establish a 2P 500V 3.5kV variable easement for a Padmount Substation over Lot 5165 in favour of Endeavour Energy.

NOTES

- This drawing is to be read in conjunction with the relevant Endeavour Energy Network Standards and Connection Policy.
- Endeavour Energy Contact Phone: 130081.
- Design certification shall lapse where:
 - (a) notice of intent has not been received within six (6) months of this certification,
 - (b) construction has been interrupted for more than six (6) months.
 Where design certification has lapsed the design must be reverified for certification by the accredited designer.
- A residential Service Provider is notified Endeavour Energy asset data customer department daily when cable works is in progress. (pH 131 081).
- ATTENTION:**
Permitted survey marks may exist in this area. These are to be located by a surveyor prior to commencement of work.
- ATTENTION:**
All services searches must be checked before construction.
- ATTENTION:**
The Easement for this design has been undertaken giving due consideration to the location of existing services. The Contractor is however responsible for the verification of services and permit survey marks prior to the commencement of construction. No responsibility for liability will be accepted by the designer for damage to existing services as a result of this design.
- WARNING:**
THE Easement Energy cables & other services in this area. Please contact 'Dial Before You Dig' on telephone: 1100 for searches two days prior to excavation.
- Reimbursements:**
The amount to be paid to the nominated party on the letter of intent after the works have been completed and the letter of acceptance has been issued. The reimbursed amount is shown in the 'Funding' arrangements for Scope of Work table. Any disagreement with the amount should be resolved with Endeavour Energy prior to the commencement of work.
- Operational Limitations:**
Unless approved otherwise, interruption to any customer's supply must be avoided. The following alternatives should be considered:
 - mobile generators and substations,
 - low line work,
 - design alternatives,
 - low voltage parallel,
 - work practices/standards.
 The cost to be funded by the customer/developer.
- Environmental Management plan:**
EMP (EM001) is part of this design (refer to EIA for details).
- Pollution Controls:**
All the requirements of the Environmental Protection Authority pollution control legislation is to be strictly adhered to.
- Telecommunications:**
Telecommunications assets are not affected by the proposed works.
- Existing Assets:**
None of the existing assets been field checked and are accurate at the time of design? **YES**
- Padmount Substation Easement - (Common Earthing):**
Easement to padmount substation required 2P 500V 3.5kV variable to be created over Lots 5038, 5165 & 5278 in favour of Endeavour Energy. This easement is a minimum size and in addition to the substation easement the following restriction zone requirements should be documented on the final plan & site instrument. (Refer to Endeavour Energy Standard MCI004, Annexure 1 for Standard Easement Terms)
- Restriction Zone - Fire Ratings of Buildings:**
A restriction zone on the use of land in relation to the range of buildings measured 3.0m from the padmount substation (pH) is to be created over Lots 5037, 5038, 5277, 5278, 5165, 5166 & 5200 in favour of Endeavour Energy.
- Restriction Zone - Swimming Pools:**
A restriction zone on the use of land in relation to pools measured 3.0m from the padmount substation easement is to be created over Lots 5037, 5038, 5277, 5278, 5165, 5166 & 5200 in favour of Endeavour Energy.

WORKS COMPLETED / FIELD BOOK

Constructed By: _____

Works Completed: _____

Signature: _____ Date: _____

Inspected By: _____

Signature: _____ Date: _____

ASSET RECORDING

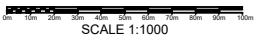
I: _____

of _____

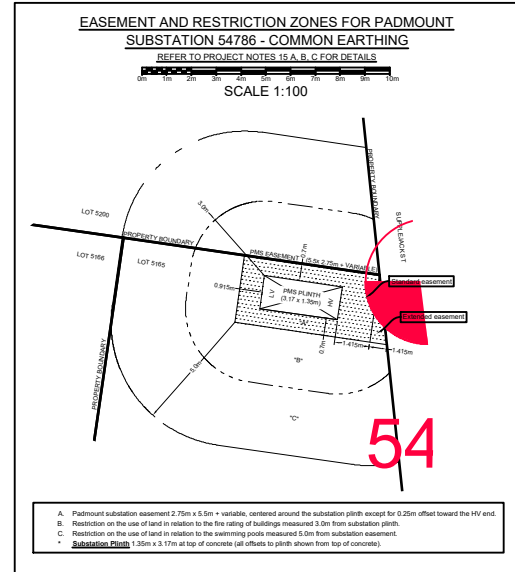
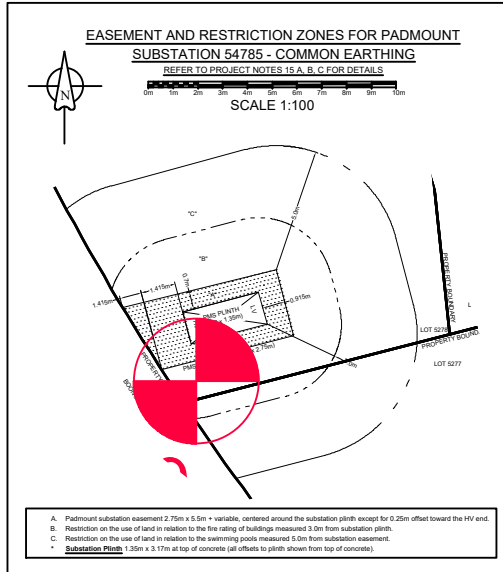
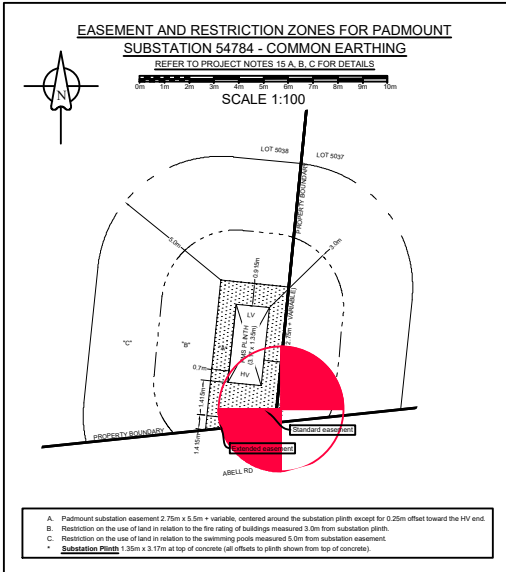
Contact No: _____

Handy note: these assets marked on this drawing have been recorded in accordance with Endeavour Energy's Standard S4D 056.

Signature: _____ Date: _____



AMENDMENTS	The preparation of this design has been undertaken giving due consideration to the existing services. The project contractor is wholly responsible for verifying the exact location of existing services and proposed survey marks and is responsible for ensuring the registration of surveying will be accepted by the designer of this project for design to existing services as a result of this design.	<p>POWER LINE DESIGN PTY LTD PO BOX 338 Mtangah New 2575 PH (02) 4872 1000 Fax (02) 4872 0348 Accredited Designer Number 2486 / ABE 4872 0348</p>	<p>Reference Drawings</p> <table border="1"> <tr> <td>S17798</td> <td>RLT1206 - RETC</td> </tr> <tr> <td>S17849</td> <td>URS20047 - RETC</td> </tr> </table>	S17798	RLT1206 - RETC	S17849	URS20047 - RETC	<p>Work Orders</p> <table border="1"> <tr> <td>General</td> <td></td> </tr> <tr> <td>Overhead</td> <td></td> </tr> <tr> <td>Underground</td> <td></td> </tr> <tr> <td>Substations</td> <td></td> </tr> </table>	General		Overhead		Underground		Substations		<table border="1"> <tr> <td>CAP / SAMP No.</td> <td>URS20047</td> </tr> <tr> <td>ASP Project No.</td> <td>HV Switching</td> </tr> <tr> <td>URD/Penguin Ref No.</td> <td>Map 146, B3</td> </tr> <tr> <td>GIS Map No.</td> <td>U79679</td> </tr> <tr> <td>HV OP Diagram</td> <td>MARSDEN PARK - MS1132</td> </tr> <tr> <td>Local Government Area</td> <td>BLACKTOWN CITY COUNCIL</td> </tr> </table>	CAP / SAMP No.	URS20047	ASP Project No.	HV Switching	URD/Penguin Ref No.	Map 146, B3	GIS Map No.	U79679	HV OP Diagram	MARSDEN PARK - MS1132	Local Government Area	BLACKTOWN CITY COUNCIL	<p>ORIGINAL SCALE 1:1000</p> <p>Drawn: R. Welsh Date: 17/05/2021</p>	<p>DO NOT SCALE DIMENSIONS METRES</p>	<p>ABELL ROAD MARSDEN PARK PRECINCT 5 URS20647 LOT 2, DP 1230408 DUCT TRENCH & EASEMENT</p>	<p>A1 517950 A Sheet No 1 of 2 Sheets</p>
				S17798	RLT1206 - RETC																												
S17849	URS20047 - RETC																																
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Local Government Area	BLACKTOWN CITY COUNCIL																																
<p>Power Line Design Ref: 3345</p>	<p>Checked: M. Baranowski Design: J. Fraser</p>																																



WORKS COMPLETED / FIELD BOOK

Constructed By: _____

Works Completed: _____

Signature: _____ Date: _____

Inspected By: _____

Signature: _____ Date: _____

ASSET RECORDING

I: _____

of: _____

Contact No: _____

Herby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: _____ Date: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

Date Approved: _____





Examiner's Signature: _____

Print Name: _____

The Certification is issued subject to Endeavour Energy's Standard Certification Terms.

AMENDMENTS	Original Issue	The preparation of this design has been undertaken giving due consideration to the existing services. The project contractor is solely responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design.	POWER LINE DESIGN PTY LTD PO BOX 338 MITSINGONG NSW 2575 PH (02) 4812 1030 Fax (02) 4812 1340 Accredited Designer Number 2468 / ADRS 30107 581 848	REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING (NSW)	Reference Drawings		Work Orders		CAP / SAMIP No. URS20647	ORIGINAL SCALE 1:1000	DO NOT SCALE DIMENSIONS IN METRES	ABELL ROAD MARSDEN PARK PRECINCT 5 URS20647 LOT 2, DP 1230408 DUCT TRENCH & EASEMENT		A1 517950 A Sheet No. 2 of 3 Sheets
					517766 PLT1206 - RETIC 517949 URS20647 - RETIC	General Overhead Underground Substations	UBD/Penguin Ref No. Map 446.B3 GIS Map No. U75679 HV OP Diagram MARSDEN PARK - MS1132 Local Government Area BLACKTOWN CITY COUNCIL	Drawn R. Walsh Date 17/05/2021 Checked M. Baranowski Design J. Fraser						

WAE Survey Coordinate Table							
ID	Quality Level	Asset	Property Line	Cover	Easting	Northing	AHD Height
1	A	WAE Duct	1.04	1.51	295922.60	6268727.47	20.28
2	A	WAE Duct	0.50	1.31	295920.91	6268743.24	20.49
3	A	WAE Duct	0.36	1.13	296095.18	6268744.84	21.90
4	A	WAE Duct	0.36	1.52	296093.48	6268761.44	21.50
5	A	WAE Duct	2.00	1.53	296055.84	6268717.60	21.17
6	A	WAE Duct	0.45	1.45	296042.36	6268716.24	21.30
7	A	WAE Duct	0.93	1.37	295982.98	6268499.60	20.77
8	A	WAE Duct	0.93	1.04	295980.22	6268513.53	21.08
9	A	WAE Duct	0.84	1.28	295945.79	6268536.88	21.11
10	A	WAE Duct	0.40	1.18	295933.31	6268528.99	21.24
11	A	WAE Duct	1.13	1.22	296042.63	6268659.69	23.09
12	A	WAE Duct	1.50	1.39	296042.61	6268660.06	22.91
13	A	WAE Duct	1.40	1.17	296066.88	6268679.78	23.17
14	A	WAE Duct	1.70	1.35	296068.62	6268662.96	22.94
15	A	WAE Duct	1.20	1.34	296069.00	6268662.52	22.96
16	A	WAE Duct	1.47	1.42	296040.97	6268677.00	22.92
17	A	WAE Duct	1.08	1.41	295851.05	6268583.00	21.02
18	A	WAE Duct	0.96	1.28	295856.34	6268557.97	20.69
19	A	WAE Duct	0.16	1.35	295913.32	6268584.52	21.44
20	A	WAE Duct	1.03	1.32	295918.50	6268564.00	21.32
21	A	WAE Duct	1.22	1.29	295918.64	6268564.21	21.34
22	A	WAE Duct	0.30	1.43	295933.23	6268565.72	21.23
23	A	WAE Duct	0.95	1.17	296054.43	6268605.14	22.34
24	A	WAE Duct	1.14	1.22	296057.38	6268579.40	22.09
25	A	WAE Duct	0.07	1.14	296032.44	6268503.91	21.32
26	A	WAE Duct	0.24	1.17	296030.60	6268519.50	21.29
27	A	WAE Duct	0.59	1.28	296261.06	6268605.59	22.79
28	A	WAE Duct	0.94	1.30	296258.65	6268619.89	22.77
29	A	WAE Duct	0.94	1.46	296227.66	6268602.44	22.66
30	A	WAE Duct	1.05	1.26	296202.83	6268599.95	22.63
31	A	WAE Duct	0.79	1.33	296171.21	6268596.38	22.68
32	A	WAE Duct	0.96	1.45	296169.86	6268610.57	22.55
33	A	WAE Duct	1.04	1.20	296071.08	6268581.23	22.07
34	A	WAE Duct	0.96	1.48	296068.67	6268605.02	22.00
35	A	WAE Duct	3.00	1.07	296271.65	6268697.06	23.36
36	A	WAE Duct	2.16	1.00	296273.97	6268682.43	23.42
37	A	WAE Duct	3.13	1.05	296362.04	6268708.60	24.00
38	A	WAE Duct	2.00	1.12	296330.63	6268689.56	23.68
39	A	WAE Duct	1.27	1.24	296256.15	6268679.26	23.13
40	A	WAE Duct	1.12	1.45	296230.37	6268676.56	23.20
41	A	WAE Duct	0.62	1.15	296209.05	6268585.46	22.60
42	A	WAE Duct	0.69	1.40	296223.66	6268587.08	22.32
43	A	WAE Duct	0.88	1.02	296215.52	6268526.01	22.57
44	A	WAE Duct	0.33	1.11	296230.01	6268529.84	22.50
45	A	WAE Duct	1.01	1.28	296192.75	6268692.31	23.22
46	A	WAE Duct	1.10	1.31	296218.91	6268693.64	23.14
47	A	WAE Duct	1.10	1.14	296067.03	6268680.11	23.21
48	A	WAE Duct	1.10	1.26	296040.68	6268677.34	23.10
49	A	WAE Duct	0.61	1.38	295871.84	6268660.16	22.81
50	A	WAE Duct	0.60	1.43	295876.09	6268641.72	22.74
51	A	WAE Duct	0.73	1.33	296167.73	6268690.95	23.33
52	A	WAE Duct	0.52	1.16	296168.33	6268672.17	23.47
53	A	WAE Duct	1.03	1.33	296240.08	6268426.92	22.27
54	A	WAE Duct	0.53	1.15	296225.34	6268428.97	22.46
55	A	WAE Duct	0.99	1.50	296233.87	6268486.59	22.19
56	A	WAE Duct	0.62	1.30	296219.47	6268485.91	22.41
57	A	WAE Duct	0.86	1.18	296135.33	6268562.03	22.42
58	A	WAE Duct	0.48	1.38	296149.34	6268569.06	22.21
59	A	WAE Duct	3.78	1.00	296372.64	6268714.03	23.94
60	A	WAE Duct	4.43	1.46	295819.07	6268638.44	22.48
61	A	WAE Duct	1.10	1.50	295845.19	6268639.50	22.34
62	A	WAE Duct	1.15	1.19	295843.58	6268657.10	22.73
63	A	WAE Duct	4.61	1.73	295817.61	6268655.95	22.37
64	A	WAE Duct	0.62	1.38	295964.42	6268589.41	21.75
65	A	WAE Duct	0.87	1.22	295964.72	6268574.85	21.89
66	A	WAE Duct	0.47	1.07	296004.21	6268593.72	22.35
67	A	WAE Duct	0.43	1.20	296004.60	6268578.58	22.20
68	A	WAE Duct	1.20	1.10	296145.10	6268410.45	21.94
69	A	WAE Duct	1.27	1.31	296170.66	6268406.70	21.92
70	A	WAE Duct	1.02	1.20	296065.47	6268421.81	21.24
71	A	WAE Duct	1.14	1.12	296093.09	6268418.00	21.52
72	A	WAE Duct	1.33	1.13	295995.90	6268437.94	20.50
73	A	WAE Duct	0.81	1.14	296010.13	6268435.73	20.56

AMENDMENTS A Original Issue	<p>The preparation of this design has been undertaken giving due consideration to the existing services. The project contractor is solely responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design.</p>  <p>POWER LINE DESIGN PTY LTD PO BOX 338 MtSiding NSW 2975 PH (02) 4872 1930 Fax (02) 4872 1940 Approved Designer Number 2468 / Adv. 2010 581 846</p>	Reference Drawings	Work Orders	CAP / SAMP No. URS20647	 ORIGINAL SCALE 1:1000  DO NOT SCALE DIMENSIONS IN METRES	<p>ABELL ROAD MARDSDEN PARK PRECINCT 5 URS20647 LOT 2, DP 1230408 WAE DUCT TRENCH & EASEMENT Co-ord Table</p>	 Endeavour Energy <p>A1 517950 A</p>																																		
		<table border="1"> <tr><td>517766</td><td>PLT1206 - RETIC</td><td>General</td></tr> <tr><td>517949</td><td>URS20647 - RETIC</td><td>Overhead</td></tr> <tr><td></td><td></td><td>Underground</td></tr> <tr><td></td><td></td><td>Substations</td></tr> </table>	517766	PLT1206 - RETIC				General	517949	URS20647 - RETIC	Overhead			Underground			Substations	<table border="1"> <tr><td></td><td>AM Project No.</td><td>URS20647</td></tr> <tr><td></td><td>HY Switching</td><td></td></tr> <tr><td></td><td>UBD/Penguin Ref No.</td><td>Map 146.B3</td></tr> <tr><td></td><td>GIS Map No.</td><td>U75979</td></tr> <tr><td></td><td>HY OP Diagram</td><td>MARDSDEN PARK - MS132</td></tr> <tr><td></td><td>Local Government Area</td><td>BLAKETOWN CITY COUNCIL</td></tr> </table>		AM Project No.	URS20647		HY Switching			UBD/Penguin Ref No.	Map 146.B3		GIS Map No.	U75979		HY OP Diagram	MARDSDEN PARK - MS132		Local Government Area	BLAKETOWN CITY COUNCIL	<table border="1"> <tr><td>Drawn</td><td>R. Walsh</td></tr> <tr><td>Date</td><td>17/05/2021</td></tr> <tr><td>Checked</td><td>M. Baranowski</td></tr> <tr><td>Design</td><td>J. Fraser</td></tr> </table>	Drawn	R. Walsh	Date	17/05/2021
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