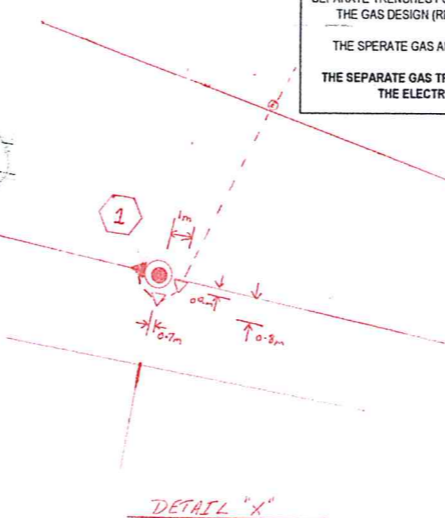


**POWDER COATING OF COLUMNS & OUTREACHES**  
 POWDER COAT COLUMNS & OUTREACHES AT STATIONS 9L 69L, 68L, 67L, 66L, 62L, 64L & 61L.  
 NOTE: LUMINAIRES MUST NOT BE PAINTED.  
 For Powder Coating:  
 Light abrasive blast, followed by powder coating in Dulux Lunar Eclipse (Black)  
 Preferred Powder Coater:  
 Electro Seal  
 5-7 Platinum Street  
 Crestmead QLD 4132  
 Contact Eric Newton

**JOINT USE GAS INSTALLATION**  
 GAS IS TO BE RETICULATED THROUGHOUT THIS PROJECT IN BOTH A JOINT USE TRENCH ARRANGEMENT & ON A SEPARATE ALIGNMENT. THE JOINT USE TRENCH LOCATIONS ARE DETAILED ON THE DRAWING & SEPARATE TRENCHES FOR GAS ARE TO BE TAKEN FROM THE GAS DESIGN (REFER APA PLAN E04510-053).  
 THE SEPARATE GAS ALIGNMENT WILL BE 900-1200.  
 THE SEPARATE GAS TRENCH IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR



AS CONSTRUCTED BY  
 COASTAL ENERGY (07 5456 1800)  
 PRINT Harry Bantell  
 SIGNED [Signature]  
 DATE 16/12/13

**ELECTRICAL CONTRACTOR**

The works detailed on this drawing shall be constructed in accordance with Robin Russell & Associates' General Specification for Installation of Electricity Reticulation and Street Lighting - Issue 'X'.

**CIVIL CONTRACTOR**

The installation of all electrical conduits shall be supervised by the holder of an electrical work licence - Electrical Safety Act 2002.

Energex conduits and transformer site retaining walls shall be installed strictly in accordance with Energex's specifications (see below). They will be inspected for compliance upon completion.

The civil contractor shall install enveloping conduits under retaining walls behind pillars - two 100mm conduits into each lot (one for Electricity, one for Telstra), 600mm deep behind the pillar, near ground level inside the lot.

Relevant specifications in Energex's Underground Distribution Construction Manual are found at -  
 Section C1: Conduits  
 Section C2: Excavation  
 Section C3: Transformer Sites

These sections of the manual can be downloaded from the following Energex web site:  
[http://www.energex.com.au/about\\_energex/asptechical\\_documents.asp](http://www.energex.com.au/about_energex/asptechical_documents.asp)

Civil engineers who have registered for access to the following RRA website may download extracts from Energex's manual at:  
<http://www.robus.com.au>

The civil contractor shall ensure that all conduits have been installed before constructing retaining walls, paths, driveways & water services.

Care! Lighting of new or altered existing roads might not comply with specified standards until new road lighting has been commissioned. The civil contractor shall ensure that necessary warning signs are installed and speed restrictions are applied if necessary.

**ON-SITE SERVICES CHECKS**

Robin Russell & Associates gives no warranty regarding the presence or location of buried services, including newly installed services. "As Constructed" locations may differ from what is drawn on this works plan. Contractors shall be responsible to identify and locate all buried services. Initial identification can be obtained from:

**Diag Before You Dig Service**

Telephone 1100  
 Fax 1300 652 077

On-line enquiries can be made at:  
<http://www.1100.com.au>

Having determined which services may be present, on-site locations should then be arranged with relevant service authorities.

Sewerage and water plans for the subdivision may be obtained on request from the Superintendent.

**BIKE PATH CLEARANCES**

"Austroads Guide to Traffic Engineering Practice: Part 14 - Bicycles" specifies a minimum clearance of 0.5m between a bike path and any obstacle. In order to achieve specified road/path lighting within the specified verge, it has not been possible to satisfy that requirement.

**TELECOMMUNICATIONS INFRASTRUCTURE**

CONDUITS & PITS to be designed by: Telstra's contractor  
 to be installed by: Telstra's contractor  
 to be owned by: Telstra  
 to be provided by: Telstra  
 Telstra AFR: 17314893

**SOURCE DOCUMENTS**

CREATOR	DRAWING	DWG. NO.	REV. NO.	DATE
KN GROUP PTY LTD	CIVIL BASE	x101702base 126604.zp	-	4/9/2012

**LEGEND: ELECTRICAL**

- EXISTING UNDERGROUND CABLE
- PROPOSED UNDERGROUND CABLE
- PROPOSED NBN CONDUIT ON COMMS ALIGNMENT
- BORED CONDUIT
- GAS IN SHARED TRENCH
- ① STATION NUMBER
- ⊙ PADMOUNT TRANSFORMER
- ⊙ PROPOSED POLE TRANSFORMER
- ⊙ METER BOX / LV SWITCHBOARD
- ⊙ PROPOSED SERVICE PILLAR
- ⊙ EXISTING SERVICE PILLAR
- ⊙ FUTURE SERVICE PILLAR
- ⊙ EXISTING LINK PILLAR
- ⊙ PROPOSED C&I PILLAR
- EXISTING OVERHEAD ELECTRICITY MAINS
- PROPOSED OVERHEAD ELECTRICITY MAINS
- HV POLE
- HV + LV POLE
- LV or STREET LIGHT POLE
- ⊙ PROPOSED STREET LIGHT
- ⊙ EXISTING STREET LIGHT
- ⊙ FUTURE UNDERGROUND STREET LIGHT
- ⊙ RECOVER STREET LIGHT
- ⊙ EARTH
- EXISTING RATE 3 STREETLIGHT CABLE
- PROPOSED RATE 3 STREETLIGHT CABLE
- ⊙ EXISTING RATE 3 STREET LIGHT
- ⊙ PROPOSED RATE 3 STREET LIGHT
- EXISTING CONSUMERS OVERHEAD CABLE
- PROPOSED CONSUMERS OVERHEAD CABLE
- EXISTING CONSUMERS UNDERGROUND CABLE
- PROPOSED CONSUMERS UNDERGROUND CABLE
- ⊙ EXISTING CABLE
- ⊙ PROPOSED CABLE
- 32/40mm HD CONDUIT
- 80/100mm LD CONDUIT
- 100mm WHITE ENERGEX COMMS. CONDUIT
- 125mm LD CONDUIT
- CABLE MARKER POST
- △ "ENERGEX ELECTRIC CABLE" MARKER PLATE

**UNDERGROUND CABLE CERTIFICATION**

All cables detailed on this drawing have been checked using the cable locator described below and are, according to measurements taken, on the correct alignment and at correct depths below the finished level, except as marked up. Alignments are subject to the accuracy of survey pegs present at the time of measurement.  
 Make: AMERICAN Model: V2312-1  
 Serial No: 222020572 Date Cables Checked: 1/2/13  
 Name of Person Who Conducted Checks: Road Bantell  
 Certified (signature of checker):  
 Phone No. of checker: 07 5456 1800

**ROAD LIGHTING CERTIFICATE**

Within the bounds of this estate, this road lighting design is certified to comply generally with the nominated categories of AS1158.1-1996, AS/NZS1158.1.1.2005 and/or AS/NZS1158.3.1.2005 for luminaires and lamps supplied under Energex contract 07075 (2010).  
 SWAN RD - CAT P3  
 CRADLE LA - P4  
 NINGALOO DR - P4  
 KALGOORLIE ST - P4  
 BYFIELD ST - P4  
 MARBLE LA - P4  
 STREAKY LA - P4  
 BAW BAW LA - P4  
 COOROO LA - P4  
 ALPINE LA - P4  
 PATHWAYS IN PARK - P4

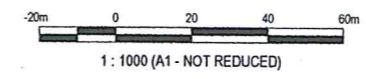
**ROAD LIGHTING MAINTENANCE SCHEDULE**  
 This design assumes maintenance factors of 0.7 for minor road lighting and 0.75 for major road lighting. These maintenance factors are based on the following nominal maintenance schedule, which might not necessarily be adopted by Energex.  
 1. Lamps shall be replaced at 36-month intervals.  
 2. At that time, luminaires shall be cleaned, inspected & maintained.  
 3. Vegetation shall be kept clear of street lights.  
 4. Inspection patrols and spot lamp replacement shall maintain service availability at not less than 95%.  
 5. Luminaires and lamps shall be replaced with exact equivalents.

*Robin Russell*  
 Robin Russell RPEQ 1546

LOCATION	STN No.	SITE I.D. (POLE No.)	POLES							CONSTRUCTION					REMARKS						
			NO WIND kN	WIND kN	EXIST	REC	ERECT	SINK	FOOT	ALIGN	EXIST	REC	ERECT	No		KBS	ANG				
YAWALPAH RD	1	P1285281			P14/12					EXIST	11SC/S										
PRIVATE PROPERTY	39	PP						P12.5/8	2.00	MDCF	PRIVATE PROP										
	40	PP						P12.5/8	2.00	MDCF	PRIVATE PROP										
	41	PP						P12.5/8	2.00	MDCF	PRIVATE PROP										
	42	PP						P12.5/8	2.00	MDCF	PRIVATE PROP										
	43	PP						P12.5/8	2.00	MDCF	PRIVATE PROP										

LOCATION	STATIONS		VOLTS	TRANSFER	RECOVER	ERECT	No. OF SPANS	DISTANCE	CABLE TOTAL	TENSION TABLE	M.E.S.	SAG SPAN		SAG (m)		COMMENT
	FROM	TO										FROM	TO	15°	30°	
PRIVATE PROPERTY	39	43	LV			4B35	4	170	180	1200	45	39	40	2.40	2.45	

NOTE:  
 1. OVERHEAD CABLES SHALL BE SUPPLIED BY THE ELECTRICAL CONTRACTOR.



**SITE INFORMATION**

TOTAL NUMBER OF LOTS: 96  
 PROPERTY DESCRIPTION: LOTS 487-518, 541-557 & 619-625 & 1022 - 1028 CANCELLING LOT 903 on SP251867, LOT 2 on SP246472 & LOT 904 on SP257545

**CONSULTANT CONTACTS**  
**ELECTRICAL ENGINEER**  
 ROBIN RUSSELL & ASSOCIATES PTY LTD  
 DESIGNER  
 WILLIAM SCHARDT ph 0419 778 552  
 FIELD OFFICER  
 BERNIE RUSSELL ph 0413 598 690  
**CIVIL ENGINEER**  
 KN GROUP PTY LTD  
 GEOFF GREENHALGH ph 3017 1900  
**SURVEYOR**  
 LANDPARTNERS LTD  
 JOHN DAVIDSON ph 3042 1000

PLAN VIEW  
 SCALE 1:1000

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.
30/7/2012	A	PRELIMINARY ISSUE	R.R.				
28/9/2012	B	GCCC APPROVAL	R.R.				
8/12/2012	C	JU GAS TRENCH ADDED	R.R.				
17/12/2012	D	SPARE CONDUIT ADDED STNS 25-38	R.R.				
4/7/2013	E	SURVEY PLAN DETAILS AMENDED	R.R.				

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 Fax: (07) 3812 2566  
 Email: info@robus.com.au

SUNSHINE COAST:  
 4 Warwick Street,  
 Wooroolie, QLD 4556  
 Tel: (07) 5442 1728  
 Fax: (07) 5442 2758  
 Email: info@robus.com.au

ENERGEX SPECIFICATION	SWP47.1	DESIGNED	W.Schardt
COUNCIL	GOLD COAST	DRAWN	The Drafting Room
COUNCIL REF	OPW201101818	APPROVED BY	ROBIN RUSSELL RPEQ 1546
UBD REF	Map 326 G/C M7	SIGNED	<i>Robin Russell</i>
SCALE	1:1000 @ A1 SIZE	DATE	30/7/2012

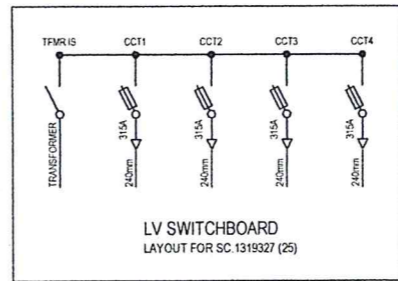
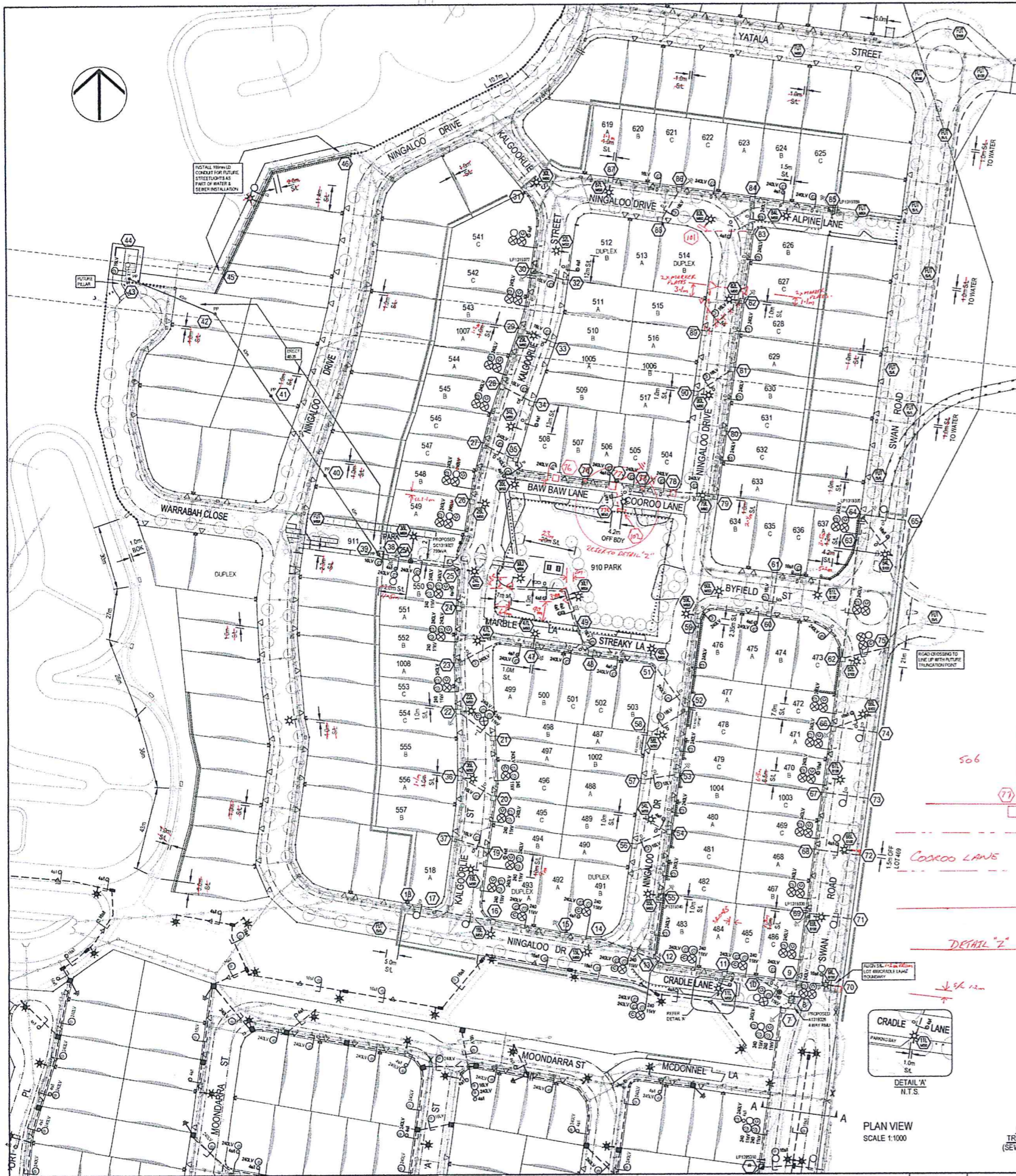
DESCRIPTION  
**ELECTRICAL RETICULATION**  
 CLIENT  
 MIRVAC PACIFIC PTY LTD

LOCATION  
**GAINSBOROUGH GREEN ESTATE STAGE 6.3**  
**SWAN RD**  
**PIMPAMA**

DRAWING No  
**A413-01E**  
 ENERGEX PROJECT No  
**S0103997**  
 SHEET No  
**1 of 6**

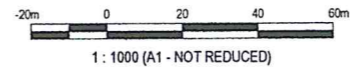
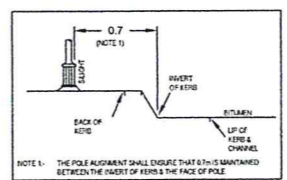
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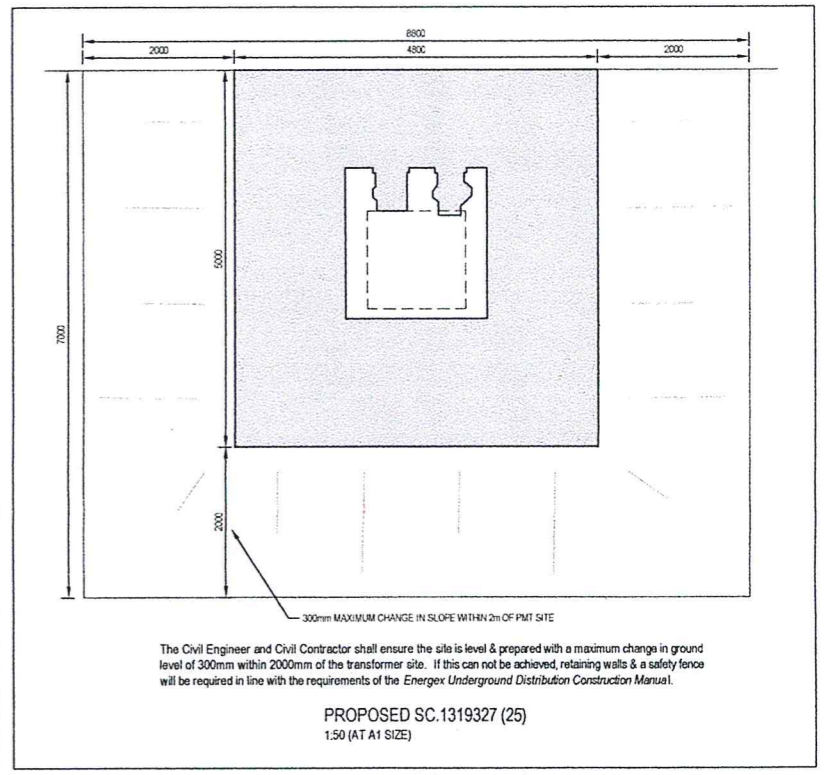
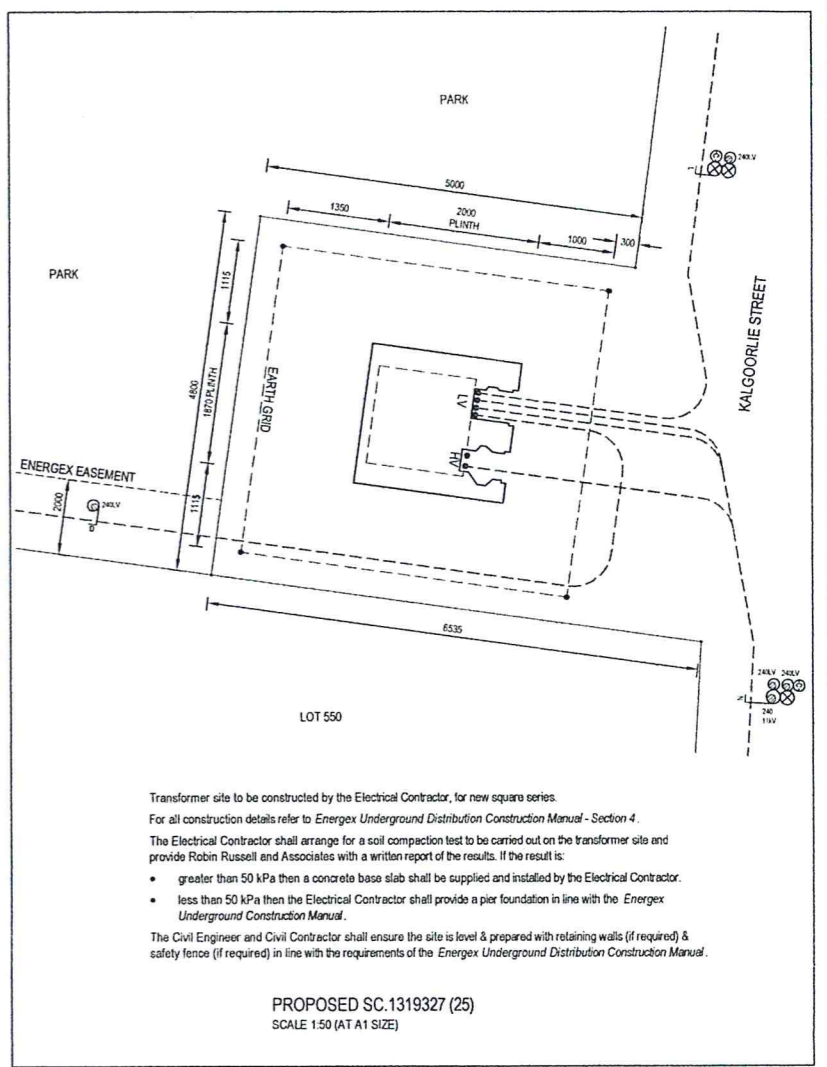


**JOINT USE GAS INSTALLATION**  
 GAS IS TO BE RETICULATED THROUGHOUT THIS PROJECT IN BOTH A JOINT USE TRENCH ARRANGEMENT & ON A SEPARATE ALIGNMENT. THE JOINT USE TRENCH LOCATIONS ARE DETAILED ON THE DRAWING & SEPARATE TRENCHES FOR GAS ARE TO BE TAKEN FROM THE GAS DESIGN (REFER APA PLAN E04510-063)  
 THE SEPERATE GAS ALIGNMENT WILL BE 900-1200.  
 THE SEPERATE GAS TRENCH IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR

AS CONSTRUCTED BY  
 COASTAL ENERGY (07 5456 1800)  
 PRINT *Harry Bantell*  
 SIGNED *Harry Bantell*  
 DATE 15/12/13



**PILLARS ON ZERO LOT BOUNDARY**  
**REQUIREMENTS FOR ELECTRICAL, GAS & COMMUNICATIONS CONTRACTORS**  
 The proposed pillar shall be offset, as indicated, at the zero lot line boundary. The side of the pillar shall be aligned with the lot boundary, to provide at least 1.0m clearance from the future driveway.  
 A proposed streetlight shall be offset 1.0m from the zero lot line boundary, away from the future driveway.  
**COMMUNICATIONS PITS** shall not clash with potential driveway positions indicated.  
**GAS DOMESTIC SERVICE TEE-OFFS** shall be adjusted to remain outside 0.9m pillar exclusion zone if a pillar is offset to align with one side of a survey peg.  
 The side of the Electricity pillar is to be aligned with boundary line.  
 Zero lot RP line indicated on side of boundary with Grey line.  
 Lot No. 49 B  
 Electricity phase  
 NOT TO SCALE



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8/12/2012	C	JU GAS TRENCH ADDED	R.R.				
17/12/2012	D	SPARE CONDUIT ADDED STYS 25-38	R.R.				
4/7/2013	E	SURVEY PLAN DETAILS AMENDED	R.R.				

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 Email: rr@robrus.com.au

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 Woomburra, QLD 4559  
 Tel: (07) 5442 1958  
 Fax: (07) 5442 2796  
 Email: rr@robrus.com.au

ENERGEX SPECIFICATION	SWP47.1	DESIGNED	W.Schardt	DESCRIPTION	ELECTRICAL RETICULATION
COUNCIL	GOLD COAST	DRAWN	The Drafting Room	CLIENT	MIRVAC PACIFIC PTY LTD
COUNCIL REF	OPW201101818	APPROVED BY	ROBIN RUSSELL RPEQ 1546		
UBD REF	Map 326 Circ M7	SIGNED	<i>Robin Russell</i>		
SCALE	1:1000 @ A1 SIZE	DATE	30/7/2012		

LOCATION  
**GAINSBOROUGH GREEN ESTATE STAGE 6.3**  
 SWAN RD  
 PIMPAMA

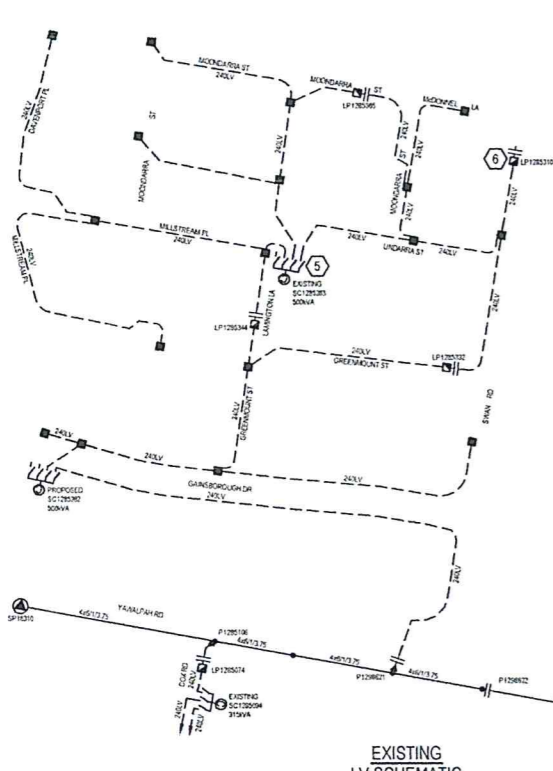
DRAWING No.  
**A413-02E**

ENERGEX PROJECT No.  
**S0103997**

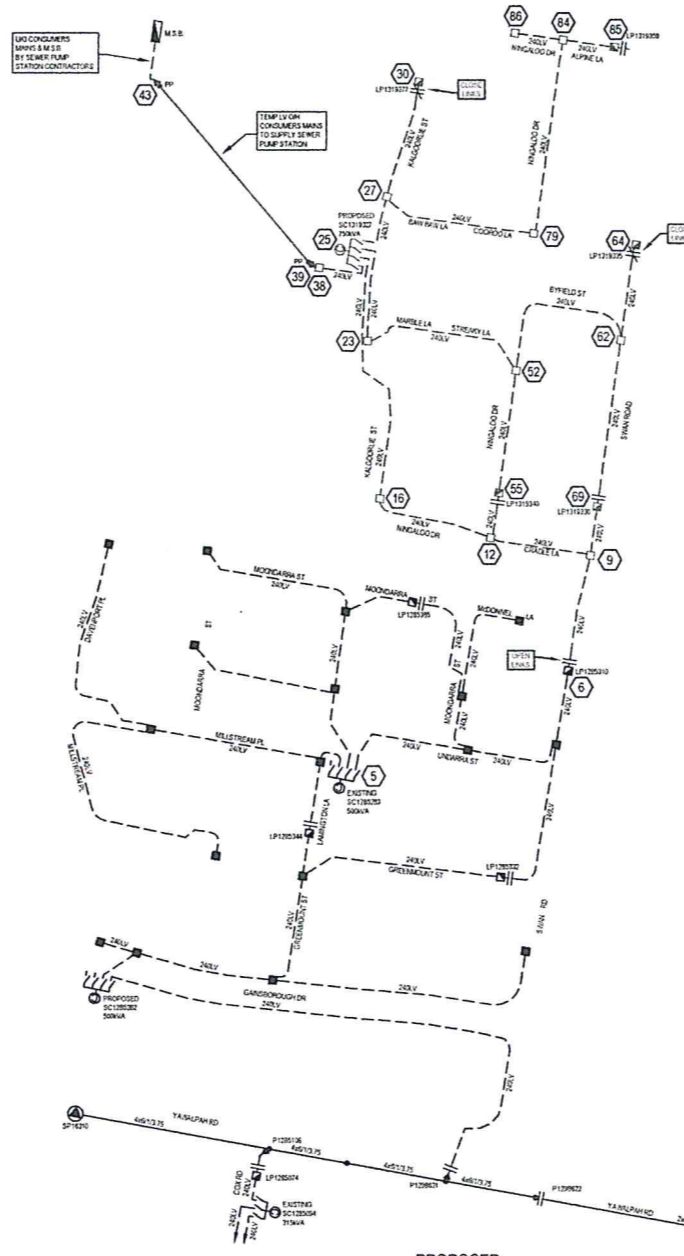
SHEET No.  
**2** of **6**

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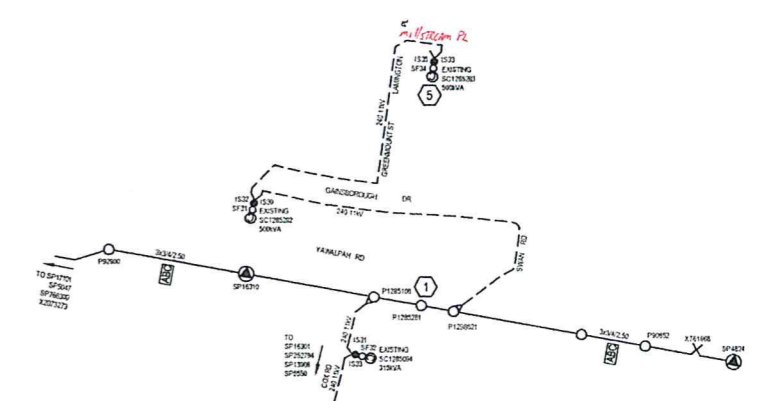




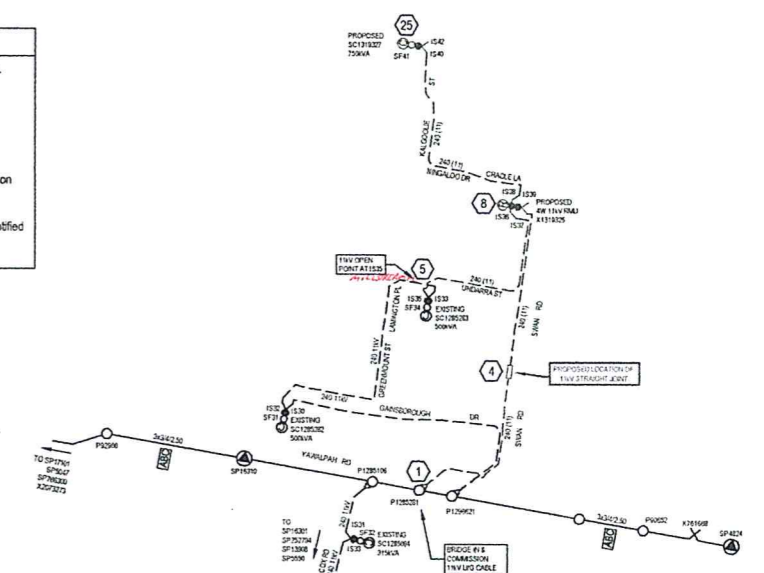
EXISTING  
LV SCHEMATIC  
SCALE 1:2500



PROPOSED  
LV SCHEMATIC  
SCALE 1:2500



EXISTING  
11kV SCHEMATIC  
11kV FEEDER CM9A  
SCALE 1:5000



PROPOSED  
11kV SCHEMATIC  
11kV FEEDER CM9A  
SCALE 1:5000

**PROPOSED COMMISSIONING PLAN**  
Tentative only, subject to amendment by ENERGEX outage coordinator.

Live Line HV & LV Switching x 1

Description of switching:

- Live Line to bridge in & commission 11kV UG cable at P1285281
- Yawalpah Rd
- Electrical contractor to bridge in 11kV cable at spare isolator IS35 on SC1285283 Lamington Place

Where interruptions to existing consumers are required, they shall be notified in line with ENERGEX policies.

**LV SWITCHBOARD LABELS AT KALGOORLIE ST (STN 25) SC1319327**

CIRCUIT No	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
TRANSF ISOLATOR	80x35	WB	6	TRANSFORMER ISOLATOR
1	80x35	WB	5	TO PARK OFF KALGOORLIE ST U1319379 & SERVICES
2	80x35	WB	5	TO NINGALOO DR LP1319340 / SWAN RD LP1319330 / LP1285310 & SERVICES
3	80x35	WB	5	TO NINGALOO DR LP1319340 / SWAN RD LP1319330 / LP1319335 & SERVICES
4	80x35	WB	5	TO KALGOORLIE ST LP1319377 / ALPINE LA LP1319359 & SERVICES

**LV LINK PILLAR LABELS AT SWAN RD (STN 6) LP1285310**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS SOUTH	150x50	WB	5	EXIST
CABLE TOWARDS STN 9	150x50	WB	5	TO SWAN RD LP1319330 / NINGALOO DR LP1319340 / KALGOORLIE ST SC1319327 & SERVICES

**LV LINK PILLAR LABELS AT NINGALOO DR (STN 55) LP1319340**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 52	150x50	WB	5	TO SWAN RD LP1319330 / LP1319335 / KALGOORLIE ST SC1319327 & SERVICES
CABLE TOWARDS STN 12	150x50	WB	5	TO SWAN RD LP1285310 / LP1319330 / KALGOORLIE ST SC1319327 & SERVICES

**LV LINK PILLAR LABELS AT SWAN RD (STN 69) LP1319330**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 62	150x50	WB	5	TO SWAN RD LP1319335 / NINGALOO DR LP1319340 / KALGOORLIE ST SC1319327 & SERVICES
CABLE TOWARDS STN 9	150x50	WB	5	TO SWAN RD LP1285310 / NINGALOO DR LP1319340 / KALGOORLIE ST SC1319327 & SERVICES

**LV LINK PILLAR LABELS AT KALGOORLIE ST (STN 30) LP1319377**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS NORTH	150x50	WB	5	SPARE
CABLE TOWARDS STN 27	150x50	WB	5	TO KALGOORLIE ST SC1319327 / ALPINE LA LP1319359 & SERVICES

**LV LINK PILLAR LABELS AT SWAN RD (STN 64) LP1319335**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS NORTH	150x50	WB	5	SPARE
CABLE TOWARDS STN 62	150x50	WB	5	TO SWAN RD LP1319330 / NINGALOO DR LP1319340 / KALGOORLIE ST SC1319327 & SERVICES

**LV LINK PILLAR LABELS AT ALPINE LA (STN 85) LP1319359**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS EAST	150x50	WB	5	SPARE
CABLE TOWARDS STN 84	150x50	WB	5	TO KALGOORLIE ST LP1319377 / SC1319327 & SERVICES

**11kV POLE LABEL AT YAWALPAH RD (STN 1) P1285281**

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 2	300x100	KOLAH BRONZE	SILVER	AS PER LABELING MANUAL 645044

**11kV RMU LABELS AT MILL STREAM PL AT LAMINGTON PL (STN 5) SC1285283**

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
100x40	WB	15	1535	1523	54 34
150x40	BW	20	TO SWAN RD X1319326 1536	EXIST	TO TRANSFORMER
150x50	BW	10	TO SWAN RD X1319326 1536	EXIST	TO TRANSFORMER
150x50	BW	10	TO SWAN RD X1319326 1536	EXIST	TO TRANSFORMER

**11kV RMU LABELS AT KALGOORLIE ST (STN 25) SC1319327**

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
100x40	WB	15	IS40	15 42	54 41
150x40	BW	20	TO SWAN RD X1319326 IS38	SPARE	TO TRANSFORMER
150x50	BW	10	TO SWAN RD X1319326 IS38	SPARE	TO TRANSFORMER

**11kV RMU LABELS AT SWAN RD (STN 8) X1319326**

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
100x40	WB	15	IS36	IS37	IS38
150x40	BW	20	TO SWAN RD X1319326 IS35	TO YAWALPAH RD P1285281	TO KALGOORLIE ST SC1319327 IS40
150x50	BW	10	TO SWAN RD X1319326 IS35	TO YAWALPAH RD P1285281	TO KALGOORLIE ST SC1319327 IS40
150x50	BW	10	TO SWAN RD X1319326 IS35	TO YAWALPAH RD P1285281	TO KALGOORLIE ST SC1319327 IS40

AS CONSTRUCTED BY  
COASTAL ENERGY (07 5456 1800)  
PRINT *Harry Bowden*  
SIGNED *[Signature]*  
DATE 16/12/13

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.
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17/12/2012	D	SPARE CONDUIT ADDED STNS 25-38	R.R.				
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4 Wardsley Drive,  
Woombye, Q.L.D. 4559  
Tel: (07) 5442 1756  
Fax: (07) 5442 2756  
Email: info@robinrus.com.au

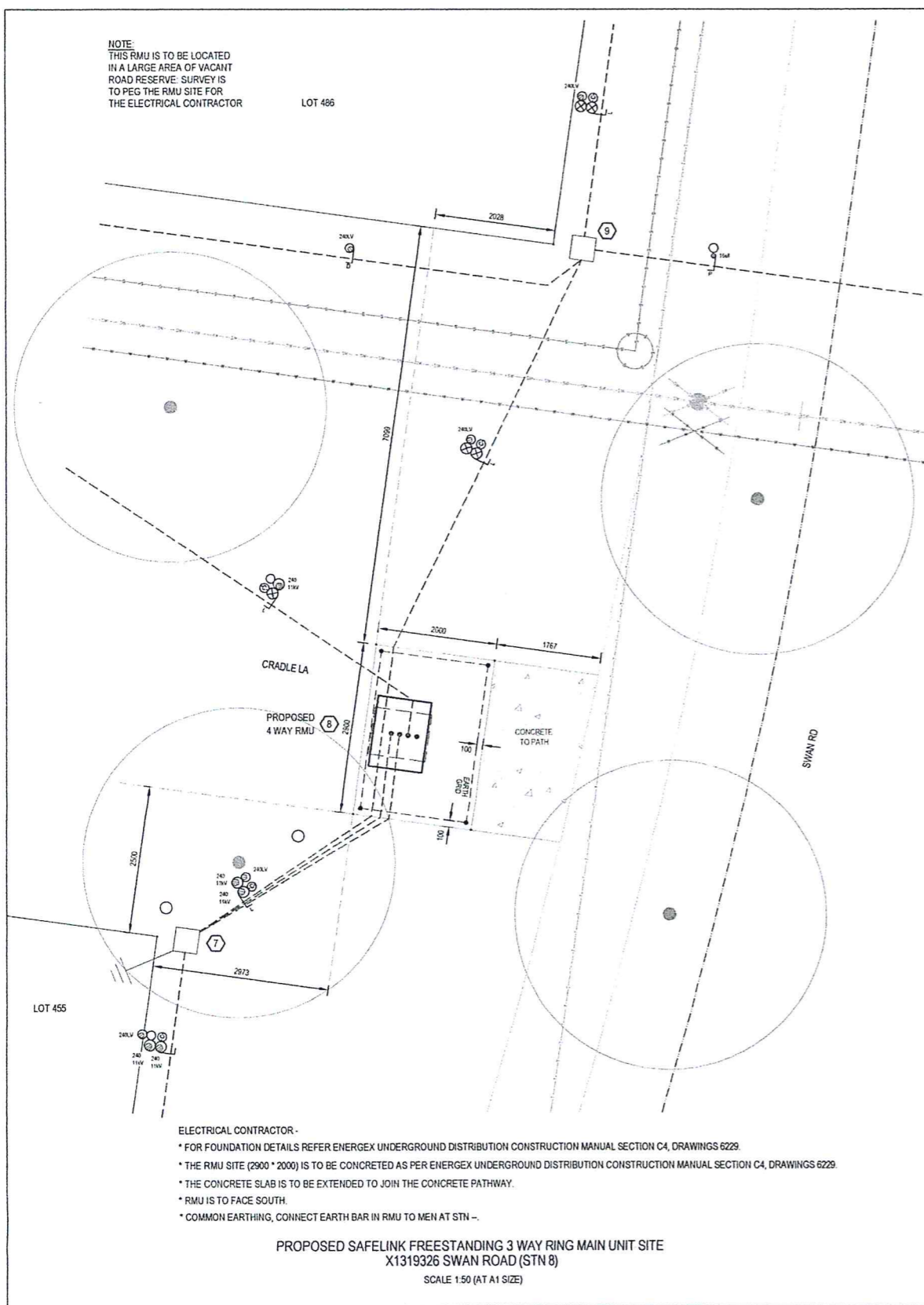
ENERGEX SPECIFICATION	SWP47.1	DESIGNED	W. Schardt
COUNCIL	GOLD COAST	DRAWN	The Drafting Room
COUNCIL REF	OPW201101818	APPROVED BY	ROBIN RUSSELL RPEQ 15446
UBD REF	Map 328 Gnd M7	SIGNED	<i>[Signature]</i>
SCALE	N.T.S. @ A1 SIZE	DATE	30/7/2012

DESCRIPTION	ELECTRICAL RETICULATION
CLIENT	MIRVAC PACIFIC PTY LTD

LOCATION	GAINSBOROUGH GREEN ESTATE STAGE 6.3 SWAN RD PIMPAMA
DRAWING No	A413-03E
ENERGEX PROJECT No	S0103997

DATE	REV	REVISION	APP.
30/7/2012	A	PRELIMINARY ISSUE	R.R.



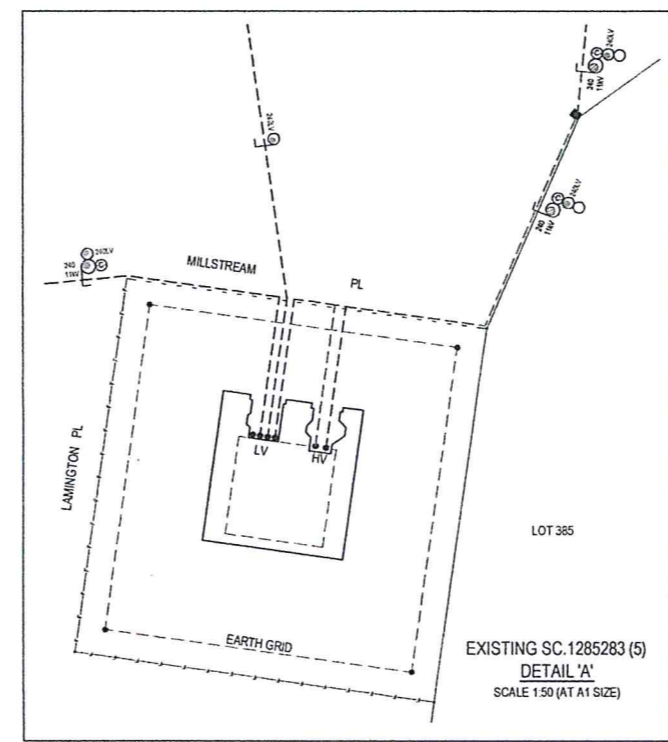


NOTE  
THIS RMU IS TO BE LOCATED  
IN A LARGE AREA OF VACANT  
ROAD RESERVE. SURVEY IS  
TO PEG THE RMU SITE FOR  
THE ELECTRICAL CONTRACTOR

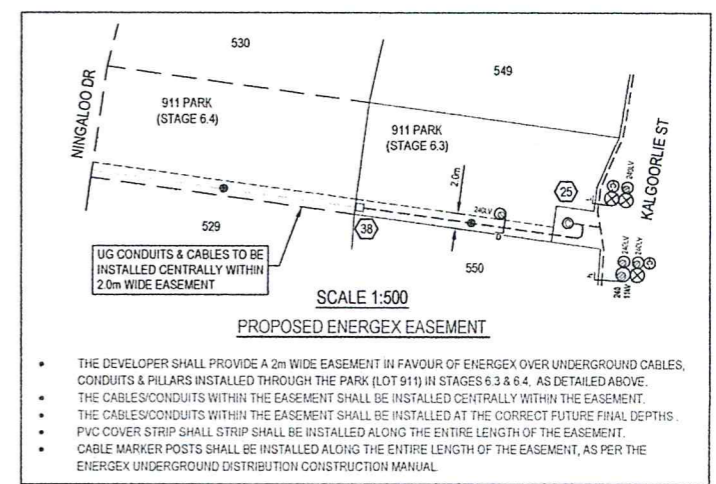
ELECTRICAL CONTRACTOR -  
\* FOR FOUNDATION DETAILS REFER ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL SECTION C4, DRAWINGS 6229.  
\* THE RMU SITE (2900 \* 2000) IS TO BE CONCRETED AS PER ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL SECTION C4, DRAWINGS 6229.  
\* THE CONCRETE SLAB IS TO BE EXTENDED TO JOIN THE CONCRETE PATHWAY.  
\* RMU IS TO FACE SOUTH.  
\* COMMON EARTHING, CONNECT EARTH BAR IN RMU TO MEN AT STN -.

PROPOSED SAFELINK FREESTANDING 3 WAY RING MAIN UNIT SITE  
X1319326 SWAN ROAD (STN 8)  
SCALE 1:50 (AT A1 SIZE)

AS CONSTRUCTED BY  
COASTAL ENERGY (07 5456 1800)  
PRINT *Henry Bowtell*  
SIGNED *[Signature]*  
DATE *11/12/13*



EXISTING SC.1285283 (5)  
DETAIL 'A'  
SCALE 1:50 (AT A1 SIZE)



SCALE 1:500  
PROPOSED ENERGEX EASEMENT

- THE DEVELOPER SHALL PROVIDE A 2m WIDE EASEMENT IN FAVOUR OF ENERGEX OVER UNDERGROUND CABLES, CONDUITS & PILLARS INSTALLED THROUGH THE PARK (LOT 911) IN STAGES 6.3 & 6.4. AS DETAILED ABOVE.
- THE CABLES/CONDUITS WITHIN THE EASEMENT SHALL BE INSTALLED CENTRALLY WITHIN THE EASEMENT.
- THE CABLES/CONDUITS WITHIN THE EASEMENT SHALL BE INSTALLED AT THE CORRECT FUTURE FINAL DEPTHS.
- PVC COVER STRIP SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE EASEMENT.
- CABLE MARKER POSTS SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF THE EASEMENT, AS PER THE ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL.

STREET LIGHT SCHEDULE - RATE 2

LOCATION	STN No.	SITE I.D.	POLE OR COMPONENTS										OUTREACH BRACKET				MOUNT HT (m)	REMARKS	SL CABLE (m)				
			COMP I.D.	EXIST (m)	REC (m)	ERECT (m)	POLE TYPE	CU/SC	ALIGN	COMP I.D.	EXIST	RECOVER LANTERN	ERECT LANTERN	CU/SC	EXIST (m)	REC (m)			ERECT (m)	CU/SC	4SL	16SL	
SWAN RD	75L	P1319385	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		19
	69L	P1319386	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		8
	68L	P1319387	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		19
	67L	P1319388	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		15
	66L	P1319389	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		19
	62L	P1319390	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		8
	64L	P1319391	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		25
	61L	P1319392	P01			7	BPM	SLM5637	900 BOK	SL1			S100L2	GCCC	S21576			1.5	SLM5734	9	POWDER COAT POLE & OUTREACH BLACK		25
BYFIELD ST	60L	P1319393	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		30	
	11L	P1319394	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		16	
CRADLE LA	15L	P1319395	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		16	
	16L	P1319396	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	55L	P1319397	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	54L	P1319398	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		16	
	58L	P1319399	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M8003L2	GCCC	S21535				5.1	BLACK AVENUE		25	
	59L	P1319400	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M8003L2	GCCC	S21535				5.1	BLACK AVENUE		9	
	76L	P1319401	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M8003L2	GCCC	S21535				5.1	BLACK AVENUE		6	
	90L	P1319402	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	82L	P1319403	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	83L	P1319404	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		22	
ALPINE LA	87L	P1319405	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	84L	P1319406	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		16	
COOROO LA	77L	P1319407	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		25	
BAW BAW LA	35L	P1319408	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		11	
STREAKY LA	48L	P1319409	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		32	
MARBLE LA	47L	P1319410	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
PARK OFF KALGOORLIE ST	50L1	P1319411	P01			5	HINGED	SLM20070	500 BEHIND PATH	SL1			M50AL2	GCCC	S21522			0.5	INTEGRAL	5.1	BLACK HINGED POLE		14
	50L2	P1319412	P01			5	HINGED	SLM20070	500 BEHIND PATH	SL1			M50AL2	GCCC	S21522			0.5	INTEGRAL	5.1	BLACK HINGED POLE		50
KALGOORLIE ST	19L	P1319413	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		16	
	36L	P1319414	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	22L	P1319415	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	47L	P1319416	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		26	
	24L	P1319417	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		21	
	26L	P1319418	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	34L	P1319419	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		19	
	29L	P1319420	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		6	
	32L	P1319421	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		18	
	30L	P1319422	P01			4.5	ESTATE	SLM14770	900 BOK	SL1			M5003L2	GCCC	S21531				5.1	BLACK AVENUE		18	
	38L	P1319422	P01			5	HINGED	SLM20070	500 BEHIND PATH	SL1			M50AL2	GCCC	S21522			0.5	INTEGRAL	5.1	BLACK HINGED POLE		22

- NOTES  
1. ALL LIGHTS TO BE CONNECTED ON ENERGEX RATE 2.  
2. CHECK CLEAR OF ALL SERVICES BEFORE EXCAVATING.

POWDER COATING OF COLUMNS & OUTREACHES  
LIGHT ABRASIVE BLAST, FOLLOWED BY POWDER COATING IN:  
DULUX LUNAR ECLIPSE (BLACK)

RECOMMENDED POWDER COATER:  
ELECTRO SEAL (Eric Newton)  
5-7 Platinum Street  
Crestmead Q 4132

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.
30/7/2012	A	PRELIMINARY ISSUE	R.R.				
28/9/2012	B	GCCC APPROVAL	R.R.				
8/12/2012	C	JU GAS TRENCH ADDED	R.R.				
17/12/2012	D	SPARE CONDUIT ADDED STNS 25-38	R.R.				
4/7/2013	E	SURVEY PLAN DETAILS AMENDED	R.R.				

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ENERGEX SPECIFICATION SWP47.1 DESIGNED W Schardt DESCRIPTION ELECTRICAL RETICULATION LOCATION GAINSBOROUGH GREEN ESTATE STAGE 6.3 SWAN RD PIMPAMA DRAWING No. A413-04E

COUNCIL GOLD COAST DRAWN The Drafting Room COUNCIL REF OPW201101818 APPROVED BY ROBIN RUSSELL RPEQ 1546 CLIENT MIRVAC PACIFIC PTY LTD

UBD REF Map 328 Grc M7 SIGNED *[Signature]* SCALE N.T.S. @ A1 SIZE DATE 30/7/2012

ENERGEX PROJECT No. S0103997 SHEET No. 4 OF 6

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URD CONDUIT SCHEDULE - ROADWAYS - BY CIVIL CONTRACTOR

LOCATION	STATIONS FROM - TO		CONDUIT LENGTH (m)					PVC CABLE PROTECTION (m)	X-SECTION (m)			REMARKS	TRENCH BY CIVIL					
			40mm HD	No	100mm LD	No	125mm LD		No	ENERGEX 100mm Comms MD	EXCAV/ TAPE			TRENCH DETAIL	KERB MARK 'E'			
																6	1	6
SWAN RD	7	8			6	1	6	2	6	6	L	2	6					
	8	9			9	1	9	2	9	9	L	2	9					
	8	10			18	1	18	2	18	18	L	2	18					
	9	70	20	1	20	1			20	20	P	2	20					
	69	71			20	1			20	20	D	2	20					
	68	72	20	1	20	1			20	20	P	2	20					
	67	73			20	1			20	20	D	2	20					
	66	74			20	1			20	20	D	2	20					
	66	66L	18	1					18	18	O	2	18					
	62	75			22	1	22	2	22	22	L	2	22					
	62	63			53	1	53	2	53	53	L	2	53					
	64	64L	22	1					22	22	O	2	22					
	64	65			20	1			20	20	D	2	20					
CRADLE LA	11	11L	12	1					12	12	O	2	12					
NINGALOO DR	13	14			25	1	25	2	25	25	L	2	25					
	16	17			28	1			28	28	D	2	28					
KALGOORLIE ST	19	37			17	1			17	17	D	2	17					
	20	36			19	1			19	19	D	2	19					
	21	22			21	1	21	2	21	21	L	2	21					
	23	47L			20	1			20	20	D	2	20					
	27	35			18	1			18	18	D	2	18					
	28	34			17	1			17	17	D	2	17					
	29	33			17	1			17	17	D	2	17					
	30	32			17	1			17	17	D	2	17					
NINGALOO DR	51	52			25	1			25	25	D	2	25					
	52	58			21	1			21	21	D	2	21					
	53	57			17	1			17	17	D	2	17					
	54	54L	14	1					14	14	O	2	14					
	54	56			18	1			18	18	D	2	18					
	78	79			18	1			18	18	D	2	18					
	81	90			21	1			21	21	D	2	21					
	82	89			22	1			22	22	D	2	22					
	83	84			16	1			16	16	D	2	16					
	83	83L	21	1					21	21	O	2	21					
	86	88			17	1			17	17	D	2	17					
COOROO LA	76A	76L	11	1					11	11	O	2	11					
STREAKY LA	48	49			16	1			16	16	D	2	16					
BYFIELD ST	60	61			19	1			19	19	D	2	19					
<b>TOTAL</b>					<b>138</b>		<b>637</b>		<b>308</b>				<b>154</b>	<b>735</b>	<b>735</b>		<b>76</b>	<b>735</b>
ENERGEX TOTAL																		

- NOTES
- ROAD CROSSING CONDUITS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL.
  - ROAD CROSSING CONDUITS SHALL HAVE A MINIMUM COVER OF 800mm AT ALL PLACES UNDER THE ROAD, EXCEPT UNDER STATE-CONTROLLED "MAIN" ROADS, WHERE CONDUITS SHALL HAVE A MINIMUM COVER OF 1250mm.
  - CONDUITS SHALL EXTEND TO WITHIN 900mm OF PROPERTY ALIGNMENT; PVC PROTECTIVE COVER STRIPS SHALL BE LAID ABOVE ALL ROAD-CROSSING CONDUITS FOR THEIR FULL LENGTH.
  - REFER ENERGEX UDC MANUAL V.5 SECT. C2 FOR CROSS-SECTION DETAILS.
  - BRASS "E" MARKERS SHALL BE INSTALLED IN KERBS DIRECTLY ABOVE ELECTRICITY CONDUITS.
  - CAUTION DO NOT CONSTRUCT RETAINING WALLS, CONCRETE PATHS OR WATER SERVICES UNTIL FOOTPATH CONDUITS HAVE BEEN INSTALLED.
  - GAS MAINS WILL BE INSTALLED IN JOINT USE ELECTRICITY TRENCH, WHERE HIGHLIGHTED IN YELLOW ON LAYOUT DRAWING.

CONSUMER'S CONDUIT SCHEDULE - BY ELECTRICAL CONTRACTOR

LOCATION	STATIONS FROM - TO		ELECTRICAL CONDUIT (m)	COMMS. CONDUIT (m)	X-SECTIONS (m)			KERB MARK 'E'	REMARKS	
					65mm HD	32mm MD	EXCAV/ TAPE			TRENCH DETAIL
SEWER PUMP STATION	43	44								
<b>TOTAL</b>			<b>10</b>	<b>10</b>	<b>10</b>					

- NOTES
- CONSUMER'S CONDUITS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF DRIVEWAY.
  - ELECTRICAL CONDUIT SHALL BE ORANGE, HEAVY DUTY TO AS/NZS 2053:2001, AT MINIMUM DEPTH OF 500MM.
  - COMMUNICATIONS CONDUIT SHALL BE WHITE, MEDIUM DUTY TO AS/NZS 2053:2001, AT MINIMUM DEPTH OF 300MM.
  - MINIMUM CLEARANCE OF 100MM SHALL BE MAINTAINED BETWEEN ALL SERVICES.
  - MARK THE END OF ALL CONSUMERS CONDUITS, BY EXTENDING THE WARNING TAPE UP TO GROUND LEVEL.
  - TEST, SEAL, INSTALL DRAW ROPE IN ALL CONDUITS.

CONSUMER'S MAINS CABLE SCHEDULE  
ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL

LOCATION	STATIONS FROM - TO		EX	REC	INSTALL	CABLE SIZE/TYPE				REMARKS
						16mm <sup>2</sup> 2C Cu/PVC V-75	16mm <sup>2</sup> 4C Cu/PVC V-75	25mm <sup>2</sup> 2C Cu/PVC V-75	25mm <sup>2</sup> 4C Cu/PVC V-75	
PRIVATE PROPERTY	38	39			*					
SEWER PUMP	43	44			*					
<b>SUB TOTAL</b>										<b>40</b>
<b>CABLE VARIATION (+5%)</b>										<b>2</b>
<b>TOTAL</b>										<b>42</b>

- NOTES
- ELECTRICAL CONTRACTOR SHALL CONFIRM CONSUMERS CABLE LENGTHS ON SITE.
  - SUPPLY AND INSTALL FROM PROPOSED SERVICE PILLAR TO CONSUMERS MAIN SWITCHBOARD.

URD CONDUIT SCHEDULE - FOOTPATHS - BY ELECTRICAL CONTRACTOR

LOCATION	STATIONS FROM - TO		CONDUIT LENGTH (m)					PVC CABLE PROTECTION (m)	X-SECTION (m)			REMARKS	TRENCH			
			40mm HD	No	100mm LD	No	125mm LD		No	ENERGEX 100mm Comms MD	EXCAV/ TAPE			TRENCH DETAIL	KERB MARK 'E'	
																11
SWAN RD	2	-											EXCAVATE EARTH PIT AS REQUIRED			
	3	-											EXCAVATE EARTH PIT AS REQUIRED			
	4	-											EXCAVATE EARTH PIT AS REQUIRED			
	9	67			83	1	83	2	83		83	L		83		
	67	67L	7	1	7	1	7	2	7		7	X		7		
	67L	62			52	1	52	2	52		52	L		52		
	63	64			11	1	11	2	11		11	L		11		
CRADLE LA	9	10			18	1					18	D		18		
	10	12			42	1	42	2	42		42	L		42		
	12	13			6	2	6	2	6		6	N		6		
NINGALOO DR	14	15L			5	1	5	2	5		5	L		5		
	15L	15	11	1	11	1	11	2	11		11	X		11		
	15	16			32	1	32	2	32		32	L		32		
	17	18			10	1	10	2	10		10	L		10		
KALGOORLIE ST	16	19L			26	1	26	2	26		26	L		26		
	19L	19	10	1	10	1	10	2	10		10	X		10		
	19	21			48	1	48	2	48		48	L		48		
	22	23			20	1	20	2	20		20	L		20		
	23	24			25	2	25	2	25		25	N		25		
	24	24L	16	1	16	2	16	2	16		16	Z		16		
	24L	25			10	2	10	2	10		10	N		10		
	25	27			55	2	55	2	55		55	N		55		
	27	30			78	1	78	2	78		78	L		78		
	30	31	32	1	32	1	32	2	32		32	X		32		
	32	32L	12	1						4	12	O		12		
	34	34L	13	1						4	13	O		13		
BAW BAW LA	35	35L	5	1	5	1					5	P		5		
	35L	76			30	1					30	D		30		
	76	76A	13	1	13	1					13	P		13		
COOROO LA	76A	78			25	1					25	D		25		
MARBLE LA	47L	47	17	1	17	1					17	P		17		
	47	48			25	1					25	D		25		
STREAKY ST	48	51	26	1	26	1					26	P		26		
PARK OFF MARBLE LA	49	50L1	12	1						12	12	O		12		
	49	50L2	48	1						48	48	O		48		
PARK OFF KALGOORLIE ST	25	25A			20	2					20	E		20		
	25A	38L	9	1							9	O		9		
	25A	39	15	1	15	2					15	Q		15		
PATHWAY BEHIND FUTURE LOTS	45	46			85	1					85	D		85		
NINGALOO DR	12	59			150	1					150	D		150		
	59	59L	2	1	2	1					2	P		2		
	59L	60L			9	1					9	D		9		
BYFIELD ST	60L	60	24	1	24	1					24	P		24		
	60	62			46	1					46	D		46		
	61	61L	18	1						4	18	O		18		
NINGALOO DR	79	83			116	1					116	D		116		
	84	87			62	1					62	D		62		
	84	84L	15	1	15	1					15	P		15		
	84L	85			19	1					19	D		19		
ALL STREETS AT PILLARS & POLES													PVC COVER STRIP AT PILLARS			
<b>TOTAL</b>					<b>305</b>		<b>1448</b>		<b>1158</b>		<b>579</b>		<b>116</b>	<b>1413</b>		<b>1413</b>
ENERGEX TOTAL																

- NOTES
- CONDUITS SHALL BE INSTALLED WITHIN A CORRIDOR 300-900mm FROM PROPERTY ALIGNMENT, IN ACCORDANCE WITH ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL.
  - FOOTPATH CONDUITS SHALL HAVE MINIMUM 700mm COVER.
  - CONNECT EXISTING CONDUITS, INCLUDING ROAD CROSSING CONDUITS, TO NEW FOOTPATH CONDUITS
  - TELECOMMUNICATION CONDUITS SHALL BE INSTALLED ABOVE THE ENERGEX CONDUITS IN A JOINT USE TRENCH ARRANGEMENT.
  - GAS MAINS WILL BE INSTALLED IN JOINT USE ELECTRICITY TRENCH, WHERE HIGHLIGHTED IN YELLOW ON LAYOUT DRAWING.

CONDUIT BENDING RADIUS

LOCATION	40mm DIA	100mm DIA	125mm DIA
horizontal bend	600	1830	1830
pillar - main cable	-	1200	-
pillar - x-road cable	-	450	-
pillar - street light cable	600	-	-
street light	300	-	-
pole termination	300	1200	1830
transformer	no bends required		

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8/12/2012	C	JU GAS TRENCH ADDED	R.R.				
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4/7/2013	E	SURVEY PLAN DETAILS AMENDED	R.R.				

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ENERGEX SPECIFICATION	SWP47.1	DESIGNED	W Schardt	DESCRIPTION	ELECTRICAL RETICULATION	LOCATION	GAINSBOROUGH GREEN ESTATE STAGE 6.3 SWAN RD PIMPAMA	DRAWING No.	A413-05E
COUNCIL	GOLD COAST	DRAWN	The Drafting Room	CUSTOMER	MIRVAC PACIFIC PTY LTD	ENERGEX PROJECT No.	S0103997	SHEET No.	5 OF 6
COUNCIL REF	OPW201101818	APPROVED BY	ROBIN RUSSELL RPEQ 1546	SCALE	N.T.S. @ A1 SIZE	DATE	30/7/2012	THIS DOCUMENT IS COPYRIGHT AND THE PROPERTY OF ROBIN RUSSELL	



UNDERGROUND CABLE SCHEDULE

LOCATION	STATIONS FROM - TO	VOLTS	EX	REC	IN	CABLE SIZE / TYPE					REMARKS
						11kV	LV	LV	LV	LV	
YAWALPAH RD / SWAN RD	1 4	11kV			*	270					
SWAN RD	4 8	11kV			*	251					
MULLOCKAM PL / SWAN RD	5 8	11kV			*	311					
SWAN RD / KALGOORLIE ST	8 25	11kV			*	298					
SWAN RD	6 9	LV			*		93				
	9 64	LV			*		230				
CRADLE LA	9 12	LV			*		68				
NINGALOO DR	12 16	LV			*		88				
	12 59	LV			*		176				
	54 56	LV			*			22			
	53 57	LV			*			21			
	52 58	LV			*			25			
	79 84	LV			*		153				
	84 87	LV			*		70				
	86 88	LV			*			21			
	82 89	LV			*			27			
	81 90	LV			*			24			
ALPINE LA	84 85	LV			*		38				
BYFIELD ST	59 62	LV			*		90				
	60 61	LV			*			23			
STREAKY LA / MARBLE LA	52 23	LV			*		127				
	48 49	LV			*			19			
KALGOORLIE ST	16 25	LV			*		186				
	23 25	LV			*		56				
	19 37	LV			*			21			
	20 36	LV			*			23			
	25 30	LV			*		160				
	27 35	LV			*		20				
	28 34	LV			*			20			
	29 33	LV			*			20			
	30 32	LV			*			20			
BAW BAW LA / COOROO LA	35 79	LV			*		98				
PARK OFF KALGOORLIE ST	25 38	LV			*		40				
ALL STREETS	AT PILLARS	LV			*						BRIDGING
	STREETLIGHTS	SL			*				138	470	
SUB-TOTAL						1130	1693	286	138	470	
VARIANCE	5 %					57	85	15	7	24	
TOTAL						1187	1778	301	145	494	00TRENCH 2128m

NOTES:  
1. THE CONTRACTOR SHALL MEASURE ACTUAL CABLE LENGTHS REQUIRED, AFTER INSTALLATION OF CONDUITS, THEN ORDER CABLE ACCORDINGLY.

EQUIPMENT SCHEDULE - SERVICE PILLARS

LOCATION	STN NO.	SITE I.D.	EX	REC	IN	SIZE AND DESCRIPTION	COMP I.D.	CU/SC	QTY	REMARKS	
SWAN RD	6	LP1285310	*		*	240 mmsq LV TERMINATION	CJ1	LVSP1240	1		
	7	U1319328			*	2 WAY PILLAR, S/L & RMU (MEN)	PI1	LVSP4-6SL 1011-2	1	RMU (MEN) AT THIS PILLAR	
	9	U1319329			*	3 WAY PILLAR & S/L	PI1	LVSP7-6SL	1		
	69	LP1319330			*	2 WAY LINK PILLAR, S/L & MEN (L) LETTER	PI1	LVSP14-6SL 1037-1 S17319	1		
	68	U1319331			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	67	U1319332			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	66	U1319333			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1		
	62	U1319334			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1		
	64	LP1319335			*	2 WAY LINK PILLAR, S/L & MEN (L) LETTER	PI1	LVSP14-6SL 1037-1 S17319	1		
	CRADLE LA	11	U1319336			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	
	12	U1319337			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1		
NINGALOO DR	15	U1319338			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1		
	16	U1319339			*	2 WAY PILLAR & S/L	PI1	LVSP7-6SL	1	FUTURE 3 WAY PILLAR	
	55	LP1319340			*	2 WAY LINK PILLAR, S/L & MEN (L) LETTER	PI1	LVSP14-6SL 1037-1 S17319	1		
	54	U1319341			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	56	U1319342			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	53	U1319343			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1		
	57	U1319344			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	52	U1319345			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1		
	58	U1319346			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	59	U1319347			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
ALPINE LA	79	U1319348			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	80	U1319349			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	81	U1319350			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	90	U1319351			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	82	U1319352			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1		
	89	U1319353			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	83	U1319354			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	84	U1319355			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1		
	86	U1319356			*	1 WAY PILLAR, S/L & MEN	PI1	LVSP2-6SL 1011-2	1		
	87	U1319357			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
BYFIELD ST	88	U1319358			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	85	LP1319359			*	2 WAY LINK PILLAR, S/L & MEN (L) LETTER	PI1	LVSP14-6SL 1037-1 S17319	1		
	60	U1319360			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	61	U1319361			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	KALGOORLIE ST	19	U1319362			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	
		37	U1319363			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	
		20	U1319364			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	
		36	U1319365			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	
		21	U1319366			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	
		22	U1319367			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1	
23		U1319368			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
24		U1319369			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
26		U1319370			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
27		U1319371			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1		
PARK OFF KALGOORLIE ST	35	U1319372			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	28	U1319373			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	34	U1319374			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	29	U1319375			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
	33	U1319376			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	30	LP1319377			*	2 WAY LINK PILLAR, S/L & MEN (L) LETTER	PI1	LVSP14-6SL 1037-1 S17319	1		
	32	U1319378			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
	38	U1319379			*	1 WAY PILLAR, S/L & MEN	PI1	LVSP2-6SL 1011-2	1		
	MARBLE LA	47	U1319380			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1	
		48	U1319381			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	
49		U1319382			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1		
76		U1319463			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1		
77		U1319464			*	2 WAY PILLAR, S/L & MEN	PI1	LVSP4-6SL 1011-2	1		
VARIOUS LOCATIONS							SL FUSES		S04434	40	
							CABLE MARKER POSTS		WSP1	2	
		COOROO LA	78	U1319511		*	2 WAY PILLAR	PI1	LVSP4-6SL	1	
		SWAN RD	70	U1331950		*	CROSS ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	
		NINGALOO DR	101	U1331951		*	#4 PILLAR	PI1	P.T.4	1	
	COOROO LA	102	U1331952		*	#4 PILLAR	PI1	P.T.4	1		

EQUIPMENT SCHEDULE - TFMR & JOINT

LOCATION	STN NO.	SITE I.D.	EX	REC	IN	SIZE & DESCRIPTION	COMP I.D.	CU/SC	QTY	REMARKS
SWAN RD	4	U1319325			*	11KV S/J JOINT 240ATR / 240ATR HEATSHRINK CAP	CJ1	11ST24/24X S06614	2	
LAMINGTON LA	5	SC1285283			*	240 mmsq AL 11KV CFC TERM HEAT SHRINK CAP		2DBSTA24D S06614	3	
SWAN RD	8	X1319326			*	INVERT BOX CULVERT & SUPPORT CHANNELS			1	CONTRACTOR SUPPLY
					*	CONCRETE SURROUND			1	CONTRACTOR SUPPLY
					*	4 WAY RMU	RM1	S19656	1	
					*	11KV SHROUD		S21511	3	
					*	240 mmsq AL 11KV CFC TERM HEAT SHRINK CAP		1SGTPM9524XG S06614	9	
KALGOORLIE ST	25	SC 1319327			*	EARTH GRID		DSSQPMEG	1	
					*	ADDITIONAL EARTH		DSPMTEGSA	1	
					*	UNICULVERT & BASE	TR1	S21661	1	CONTRACTOR SUPPLY
					*	CONCRETE SURROUND			1	CONTRACTOR SUPPLY
					*	750KVA PADMOUNT HV FUSE LINK		DSHV7SLK	1	
				*	240 mmsq AL 11KV CFC TERM HEAT SHRINK CAP		2DBSTA24D S06614	3		
				*	240mmsq LV TERMINATION		LVPT4C240	4		
				*	315A LV FUSE		DSLVF31	4		
				*	EARTH GRID - COMMON		DSSQPMEG	1		
				*	ADDITIONAL EARTH		DSPMTEGSA	1		

AS CONSTRUCTED BY  
COASTAL ENERGY (07 5456 1800)  
PRINT *Harry Lambell*  
SIGNED *Harry Lambell*  
DATE 16/12/13

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