PILLARS ON ZERO LOT BOUNDARY

REQUIREMENTS FOR ELECTRICAL, GAS & COMMUNICATIONS CONTRACTORS

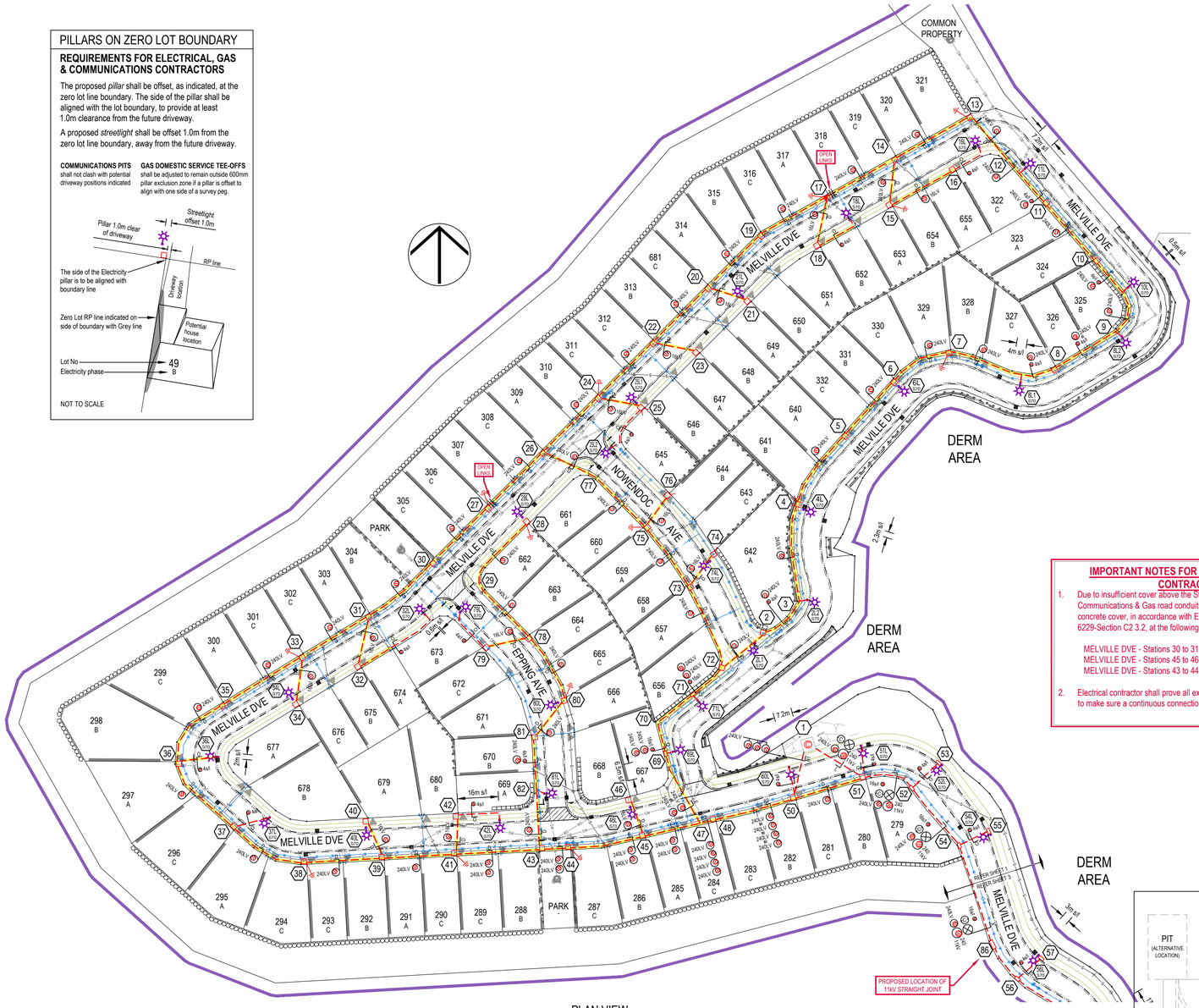
The proposed *pillar* shall be offset, as indicated, at the zero lot line boundary. The side of the pillar shall be aligned with the lot boundary, to provide at least 1.0m clearance from the future driveway.

A proposed *streetlight* shall be offset 1.0m from the zero lot line boundary, away from the future driveway.

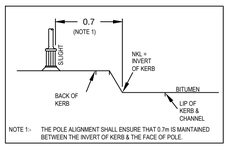
COMMUNICATIONS PITS shall not clash with potential driveway positions indicated

GAS DOMESTIC SERVICE TEE-OFFS shall be adjusted to remain outside 600mm pillar exclusion zone if a pillar is offset to align with one side of a survey peg.

NOT TO SCALE



PLAN VIEW
SCALE 1:1000



GOLD COAST CITY COUNCIL
STREETLIGHT ALIGNMENT DETAIL

NON-STANDARD TRENCH DETAIL B2

NON-STANDARD TRENCH DETAIL B1

-20m 0 20 40 60m

1 : 1000 (A1 - NOT REDUCED)

IMPORTANT NOTES FOR CIVIL & ELECTRICAL CONTRACTOR

1. Due to insufficient cover above the Stormwater Culverts , the Electrical & Communications & Gas road conduits shall be laid FLAT & installed with concrete cover, in accordance with Energex specification drawing 6229-Section C2 3.2, at the following locations:

   MELVILLE DVE - Stations 30 to 31 - 675mm of Cover.
   MELVILLE DVE - Stations 45 to 46 - 761mm of Cover.
   MELVILLE DVE - Stations 43 to 44 - 651mm of Cover.

2. Electrical contractor shall prove all existing conduits prior to installing cable to make sure a continuous connection exists.

ELECTRICAL SUBCONTRACTOR

The works detailed on this drawing shall be constructed in accordance with Robin Russell & Associates' *Technical Specification for Installation of Electricity Reticulation, Street Lighting & Telecommunications Conduits by an Electrical Subcontractor - Issue "A"*.

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.

Where road-crossing conduits are installed deeper than usual (under culverts or pipes) they must rise to a depth of not more than 1200mm at each end. If uncertain, seek advice from RRA Construction Coordinator.

The civil contractor shall install enveloping conduits under retaining walls behind pillars - two 100mm conduits into each lot (one for Electricity, one for Communications), 500mm 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:
https://apps.energex.com.au/service_providers/technical_docs/asp/technical_documents.asp

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

The civil contractor shall ensure that all conduits have been installed before constructing retaining walls, paths, driveways & water services. The civil contractor shall please inform the electrical contractor of any 'as constructed' departures from the civil design.

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:

Dial 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.

INSTALLATION OF RRA DESIGNED TELECOMMUNICATIONS CONDUITS

Telecoms conduits and pits shall be supplied and installed by the civil and electrical contractors as specified on the associated RRA works plan.
In *residential* subdivisions, Telecommunications conduits shall be installed generally in shared trenches, directly above the electrical conduits.
In *commercial* subdivisions or other situations where this is not possible, Telecommunications conduits shall be installed in a separate trench on the specified communications alignment.

TELECOMMUNICATIONS INFRASTRUCTURE

CONDUITS & PITS	to be designed by:	Robin Russell & Associates
	to be installed by:	civil & electrical contractors
	to be owned by:	
TELECOMMUNICATIONS INFRASTRUCTURE	to be provided by:	NBNCo Limited

ROCK EXCAVATION

The **civil contractor** shall:
- rip the rock for all electricity trenches to depth of 1200mm,
- break the rock at street light foundations, to a depth of 1500mm,

The **electrical contractor** shall:
- excavate and remove the excavated rock and replace it with Energex-approved backfill, with a maximum particle size of 75mm

LEGEND: ELECTRICAL

- EXISTING UNDERGROUND CABLE
- PROPOSED UNDERGROUND CABLE
- PROPOSED NBN CONDUIT ON COMMS ALIGNMENT
- COMMS CONDUIT IN SHARED TRENCH
- BORED CONDUIT
- GAS IN SHARED TRENCH
- 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
- PROPOSED CONSUMERS SWITCHBOARD
- 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: _____ Model: _____
Serial No: _____ Date Cables Checked: ____/____/____
Name of Person Who Conducted Checks: _____
Certified (signature of checker): _____
Phone No. of checker: _____

ROAD LIGHTING CERTIFICATE

Within the bounds of this estate, this road lighting design is certified to comply generally with the nominated categories of AS1158.1-1986, AS/NZS1158.1.1:2005 and/or AS/NZS1158.3.1:2005 for luminaires and lamps supplied under Energex contract C10227.

MELVILLE DRIVE - CATEGORY P4
EPPING AVE - CATEGORY P4
PATH - CATEGORY 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 RPEQ 1546

SITE INFORMATION

TOTAL NUMBER OF LOTS
96

PROPERTY DESCRIPTION
LOTS 279-332 & 640-681 CANCELING LOT 11 ON SP270725

- PIT (ALTERNATIVE LOCATION)
- PILLAR EXCLUSION ZONE
- 100mm
- COMMS
- ELECTRICAL
- 400mm TO R.P.
- PILLAR
- RP BOUNDARY
- ELECTRICAL
- 400mm TO R.P.
- COMMS
- 300mm
- PIT (PRIMARY LOCATION)

PLAN VIEW

- RETAINING WALL (ANY TYPE)
- PROVIDE GLUED CAPS TO ENDS OF EXPOSED CONDUITS
- 2000
- 200
- SERVICE CONDUITS ELECTRICITY: 1 x 40mm Ø TO EACH LOT COMMS: 1 x 23mm Ø TO EACH LOT
- RP
- 100mm MIN
- 500mm MIN
- 300mm MIN RADIUS
- 100mm MIN
- ENVELOPING CONDUITS REQUIRED UNDER WALL ELECTRICITY: 1 x 100mm Ø TO EACH LOT COMMS: 1 x 100mm Ø TO EACH LOT
- ENDS OF CONDUITS TO BE TEMPORARILY PLUGGED

SECTIONAL VIEW

NOTES:
- CIVIL CONTRACTOR TO INSTALL ENVELOPING CONDUITS UNDER RETAINING WALLS AND INSTALL AND CAP FINAL CONDUITS **100mm INTO ROAD RESERVE**.
- CONDUITS TO BE CAPPED SECURELY.
- ELECTRICAL CONTRACTOR SHALL EXTEND CONDUITS INTO PILLAR AND PIT.

CONDUITS UNDER RETAINING WALL (BY CIVIL CONTRACTOR)
NOT TO SCALE

CONSTRUCTION CONTACTS

ELECTRICAL ENGINEER
ROBIN RUSSELL & ASSOCIATES PTY LTD
DESIGNER
NICK MAMALIS Ph: 0488 018 806
CONSTRUCTION COORDINATOR
BERNIE RUSSELL Ph: 0413 598 560

CIVIL ENGINEER
KN GROUP PTY LTD
TARA EVANS Ph: 3017 1900

SURVEYOR
LANDPARTNERS LIMITED
0413 777 155

LANDSCAPE ARCHITECT
OPEN SPACE ARCHITECTURE
SAM LONG Ph: 0411 950 868

GAS
APA
PATRICE HOLLAND Ph: 0477 398 905

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-P1-3-01)

THE SPERATE GAS ALIGNMENT WILL BE AS PER GAS DESIGN

THE SEPARATE GAS TRENCH IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR

"AS CONSTRUCTED" DOCUMENTS

The electrical contractor shall email the "as constructed" drawing, test results & closure documents to:
- subdivision@energex.com.au
- as.constructed@robrus.com.au

SOURCE DOCUMENTS

CREATOR	DRAWING	DWG. NO.	REV. NO.	DATE
KN GROUP PTY LTD	CIVIL BASE	x08-133-base-160913	-	13/09/2016
ROBIN RUSSELL & ASSOCIATES	ELECTRICAL	A773	REV B	19/05/2014

DATE	REV	REVISION	APP.
22/09/2016	A	PRELIMINARY DESIGN	R.R.
23/01/2017	B	FINAL DESIGN PACKAGE	R.R.
27/02/2017	C	FINAL DESIGN PACKAGE	R.R.

CURRENT REVISION CHANGES:
Rev C: Final design for issue & construction.

Robin Russell & ASSOCIATES PTY. LTD.
CONSULTING ENGINEERS - ELECTRICAL

SUBDIVISION ELECTRICAL SERVICES
204/6 Balberra Street,
Stafford, QLD 4053
Tel: (07) 3872 5555
Fax: (07) 3872 5566
Email: rr@robrus.com.au
www.robrus.com.au
A.B.N. 78 010 589 661
FS6048839

ENERGEX SPECIFICATION	SWP 47.1	DESIGNED	NICK MAMALIS	DESCRIPTION	**ELECTRICAL RETICULATION**
COUNCIL	GCCC	DRAWN	NICK MAMALIS		
COUNCIL REF	PN341625/03/DA3	APPROVED BY	ROBIN RUSSELL RPEQ 1546	CLIENT	MIRVAC PACIFIC PTY LTD
UBD REF	Map 326 Grid M7	SIGNED			
DWT REV	V33 - 20160401	DATE	27/02/2017		

LOCATION
MELVILLE AVENUE GAINSBOROUGH GREENS PRECINCT 1.3
PIMPAMA Q 4209

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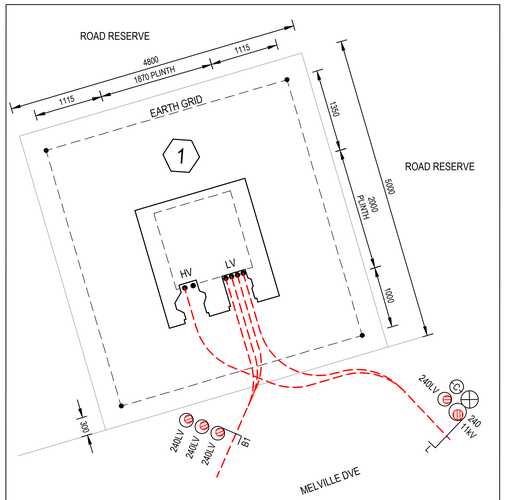
A1

DRAWING No.
C023 - 01C

ENERGEX PROJECT No.
S0105633

SHEET No.
1 OF 5



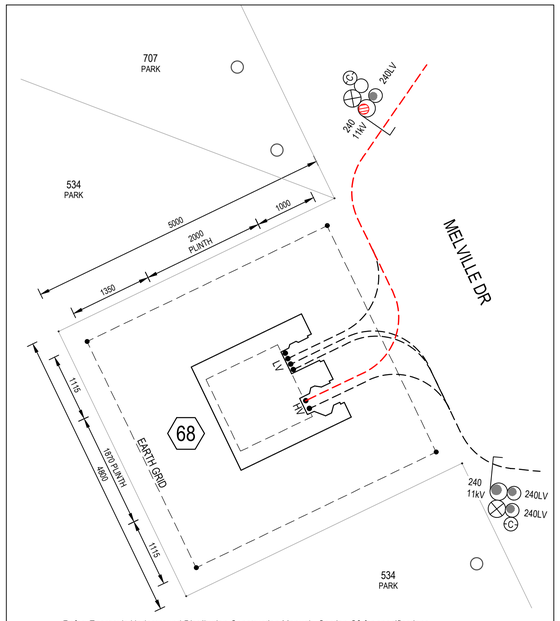
Refer: Energex's Underground Distribution Construction Manual - Section C3 for specifications.

The **Civil Contractor** shall prepare a level site. If the ground level changes by more than 300mm within 2m of the transformer site, then a retaining wall will be required, as specified in Energex's Manual. If the wall height exceeds 300mm, a safety fence will be required.

The **Electrical Contractor** shall construct the transformer foundations. The **Electrical Contractor** shall arrange for a test of the bearing capacity of the excavated ground at the transformer site. If it appears to be less than 50 kPa (i.e. easily penetrated by thumb), cease construction and notify the Contract Superintendent immediately. A new foundation design may be required.

PROPOSED SC.2145725 (STN 1)

SCALE 1:50 (AT A1 SIZE)



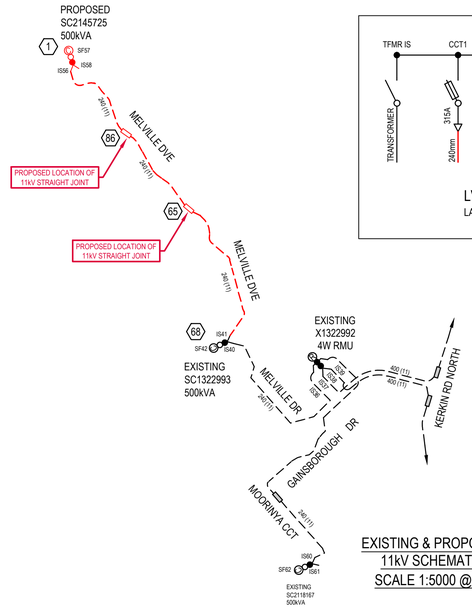
Refer: Energex's Underground Distribution Construction Manual - Section C3 for specifications.

Existing Padmount Transformer & 4 Way Ring Main Unit Combined Site.

The **Electrical Contractor** shall re-instate concrete surround back to original position once new circuits have been installed.

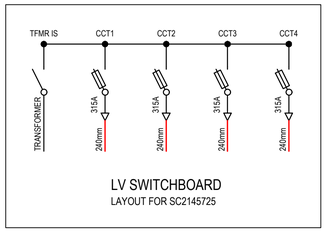
EXISTING SC.1322993 (STN 68)

SCALE 1:50 (AT A1 SIZE)



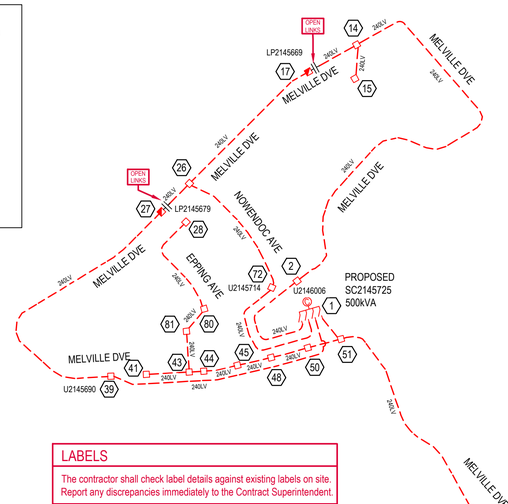
EXISTING & PROPOSED 11kV SCHEMATIC

SCALE 1:5000 @ A1



LV SWITCHBOARD

LAYOUT FOR SC2145725



LABELS

The contractor shall check label details against existing labels on site. Report any discrepancies immediately to the Contract Superintendent.

PROPOSED COMMISSIONING PLAN

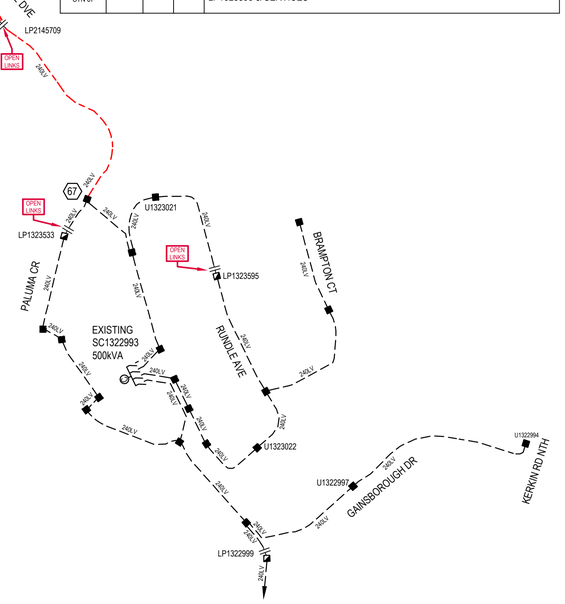
Tentative only; subject to amendment by ENERGEX outage coordinator.

HV & LV Switching x1 ONLY

Description of switching:

BRIDGE IN , TEST AND COMMISSION NEW 500kVA PMT
BRIDGE IN , TEST AND COMMISSION NEW 11Kv CABLES & JOINTS
BRIDGE IN , TEST AND COMMISSION NEW LV CABLES & PILLARS

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



EXISTING & PROPOSED LV SCHEMATIC

SCALE 1:2500

LV SWITCHBOARD LABELS — AT MELVILLE DVE (STN 1) SC2145725

CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
TRANSF. ISOLATOR	80x35	WB	6	TRANSFORMER ISOLATOR
1	80x35	WB	5	TO MELVILLE DVE U214006 DIRECT THEN LP2145669 & SERVICES
2	80x35	WB	5	TO NOWENDOC AVE U2145714 DIRECT THEN MELVILLE DVE LP2145669 / LP2145679 & SERVICES
3	80x35	WB	5	TO MELVILLE DVE U2145690 DIRECT THEN LP2145679 & SERVICES
4	80x35	WB	5	TO MELVILLE DVE LP2145709 / EPPING AVE & SERVICES

LV LINK PILLAR LABELS — AT MELVILLE DVE (STN 60) LP2145709

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 51	150x50	WB	5	TO MELVILLE DVE SC2145725 / EPPING AVE & SERVICES
CABLE TOWARDS STN 67	150x50	WB	5	TO MELVILLE DVE SC1322993 / PALUMA CR LP1323533 / RUNDLE AVE LP1323595 & SERVICES

11kV RMU LABELS — AT MELVILLE DVE (STN 1) SC2145725

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION			LABEL LOCATION	LABEL DESCRIPTION
100x40	WB	15	IS56	IS58	SF57	NEAR ISOLATOR	ISOLATOR IDENTIFICATION
150x40	BW	20				FRONT	FEEDER IDENTIFICATION
150x50	BW	10	TO MELVILLE DVE SC1322993 IS41	[SPARE FOR FUTURE]	TO TRANSFORMER	CABLE BOX	CABLE DESTINATION
150x50	BW	10	TO MELVILLE DVE SC1322993 IS41	[SPARE FOR FUTURE]	TO TRANSFORMER	INSIDE SIDE WALL	CABLE DESTINATION

LV LINK PILLAR LABELS — AT RUNDLE AVE LP1323595

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN _	150x50	WB	5	[EXISTING]
CABLE TOWARDS STN 67	150x50	WB	5	TO MELVILLE DVE LP2145709 / SC1322993 / PALUMA CR LP1323533 & SERVICES

11kV RMU LABELS — AT MELVILLE DVE (STN 68) SC1322993

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION			LABEL LOCATION	LABEL DESCRIPTION
100x40	WB	15	IS40	IS41	SF42	NEAR ISOLATOR	ISOLATOR IDENTIFICATION
150x40	BW	20				FRONT	FEEDER IDENTIFICATION
150x50	BW	10	[EXISTING]	TO MELVILLE DVE SC2145725 IS56	TO TRANSFORMER	CABLE BOX	CABLE DESTINATION
150x50	BW	10	[EXISTING]	TO MELVILLE DVE SC2145725 IS56	TO TRANSFORMER	INSIDE SIDE WALL	CABLE DESTINATION

LV LINK PILLAR LABELS — AT PALUMA CR LP1323533

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN _	150x50	WB	5	[EXISTING]
CABLE TOWARDS STN 67	150x50	WB	5	TO MELVILLE DVE LP2145709 / SC1322993 / RUNDLE AVE LP1323595 & SERVICES

LV SWITCHBOARD LABELS — AT MELVILLE DVE (STN 68) SC1322993

CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
TRANSF. ISOLATOR	80x35	WB	6	TRANSFORMER ISOLATOR
1	80x35	WB	5	[EXISTING]
2	80x35	WB	5	[EXISTING]
3	80x35	WB	5	TO MELVILLE DVE LP2145709 / RUNDLE ST LP1323595 / PALUMA CR LP1323533 & SERVICES
4	80x35	WB	5	[SPARE FOR FUTURE]

LV LINK PILLAR LABELS — AT MELVILLE DVE (STN 27) LP2145679

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 17	150x50	WB	5	TO MELVILLE DVE SC2145725 / LP2145669 / NOWEDOC AVE & SERVICES
CABLE TOWARDS STN 39	150x50	WB	5	TO MELVILLE DVE SC2145725 & SERVICES

LV LINK PILLAR LABELS — AT MELVILLE DVE (STN 17) LP2145669

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
CABLE TOWARDS STN 14	150x50	WB	5	TO MELVILLE DVE SC2145725 & SERVICES
CABLE TOWARDS STN 26	150x50	WB	5	TO MELVILLE DVE LP2145679 / SC2145725 / NOWENDOC AVE & SERVICES.

CONDUIT BENDING RADIUS (mm)

LOCATION	40mm Ø	100mm Ø	125mm Ø
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		

DATE	REV	REVISION	APP.
22/09/2016	A	PRELIMINARY DESIGN	R.R.
23/01/2017	B	FINAL DESIGN PACKAGE	R.R.
27/02/2017	C	FINAL DESIGN PACKAGE	R.R.

CURRENT REVISION CHANGES: Rev C: Final design for issue & construction.

Robin Russell & ASSOCIATES PTY. LTD.
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SUBDIVISION ELECTRICAL SERVICES
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Tel: (07) 3872 5555
Fax: (07) 3872 5566
Email: rr@robrus.com.au
www.robrus.com.au
A.B.N. 78 010 589 661
FS6044839

ENERGEX SPECIFICATION	SWP 47.1	DESIGNED	NICK MAMALIS
COUNCIL	GCCC	DRAWN	NICK MAMALIS
COUNCIL REF	PN341625/03/DA3	APPROVED BY	ROBIN RUSSELL RPEQ 1546
UBD REF	Map 326 Grid M7	SIGNED	
DWT REV	V33 - 20160401	DATE	27/02/2017

DESCRIPTION: **ELECTRICAL RETICULATION**

CLIENT: MIRVAC PACIFIC PTY LTD

LOCATION: **MELVILLE AVENUE GAINSBOROUGH GREENS PRECINCT 1.3** PIMPAMA Q 4209

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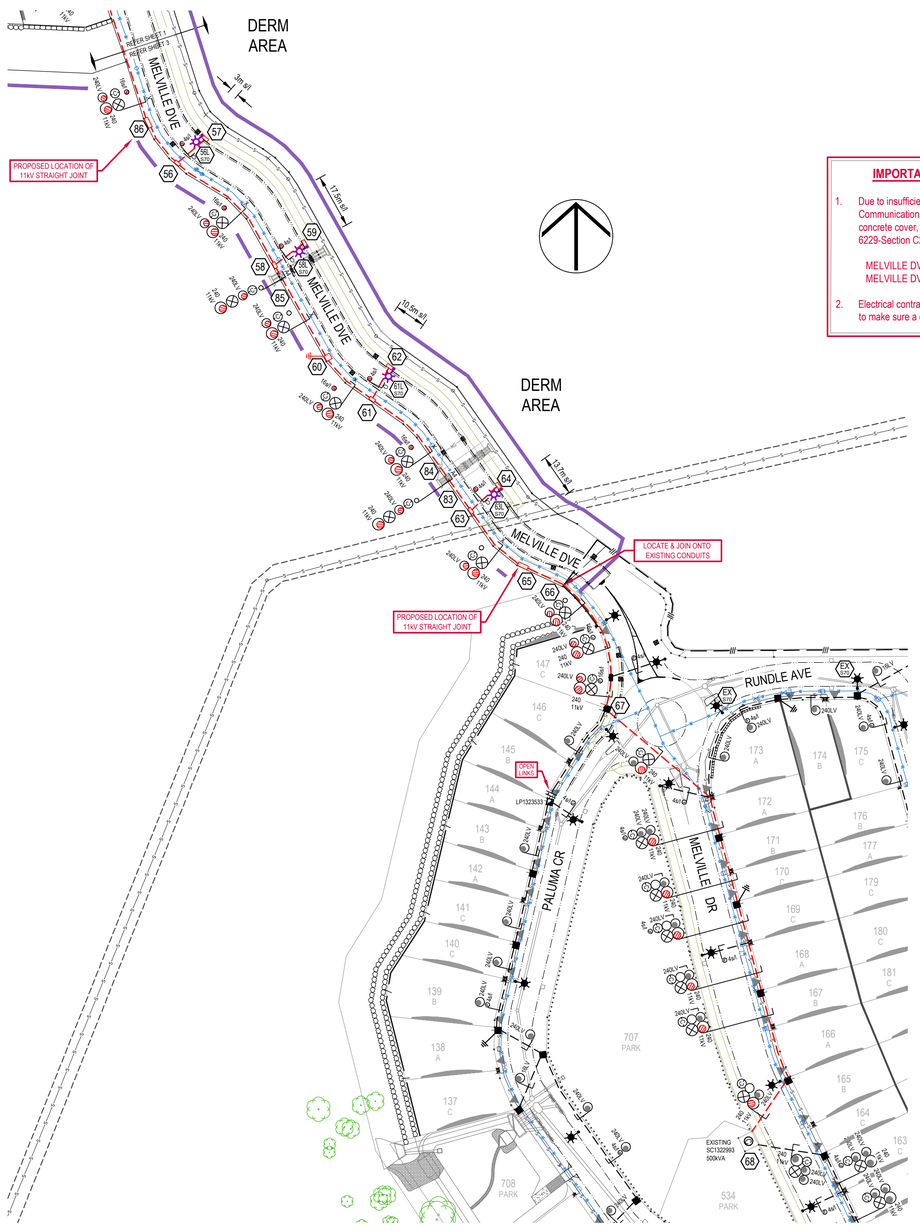
A1

DRAWING No. **C023 - 02C**

ENERGEX PROJECT No. **S0105633**

SHEET No. 2 OF 5



PLAN VIEW
SCALE 1:1000

IMPORTANT NOTES FOR CIVIL & ELECTRICAL CONTRACTOR

1. Due to insufficient cover above the Stormwater Culverts , the Electrical & Communications & Gas road conduits shall be laid FLAT & installed with concrete cover, in accordance with Energex specification drawing 6229-Section C2 3.2, at the following locations:

   MELVILLE DVE - Stations 83 to 84 - 652mm of Cover.
   MELVILLE DVE - Stations 58 to 85 - 610mm of Cover.

2. Electrical contractor shall prove all existing conduits prior to installing cable to make sure a continuous connection exists.

RP

1 x 40 HD UPVC ST/LGHT
1 x 100 MD UPVC COMMS
1 x 100 LD UPVC
2 x 125 LD UPVC

NON-STANDARD TRENCH DETAIL A4

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-P1-3-01)

THE SPERATE GAS ALIGNMENT WILL BE AS PER GAS DESIGN

THE SEPARATE GAS TRENCH IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR

ROCK EXCAVATION

The **civil contractor** shall:
- rip the rock for all electricity trenches to depth of 1200mm,
- break the rock at street light foundations, to a depth of 1500mm,

The **electrical contractor** shall:
- excavate and remove the excavated rock and replace it with Energex-approved backfill, with a maximum particle size of 75mm

"AS CONSTRUCTED" DOCUMENTS

The electrical contractor shall email the "as constructed" drawing, test results & closure documents to:
- subdivision@energex.com.au
- as.constructed@robrus.com.au

-20m 0 20 40 60m

1 : 1000 (A1 - NOT REDUCED)

URD CONDUIT SCHEDULE - ROADWAYS - BY CIVIL CONTRACTOR

LOCATION	STATIONS FROM	TO	CONDUIT LENGTH (m) 40mm HD	No	100mm LD	No	125mm LD	No	ENERGEX 100mm Comms MD	PVC CABLE PROTECTION (m)	X-SECTION (m) EXCAV/ TAPE	TRENCH DETAIL	KERB MARK 'E'	REMARKS	TRENCH BY CIVIL
MELVILLE DRIVE	12	13			23	1				23	23	D	2		23
	14	15			18	1				18	18	D	2		18
	17	18			17	1				17	17	D	2		17
	20	21			16	1				16	16	D	2		16
	22	23			18	1				18	18	D	2		18
	24	25			16	1				16	16	D	2		16
	26	77			23	1				23	23	D	2		23
	31	32			19	1				19	19	D	2		19
	33	34			17	1				17	17	D	2		17
	36	36L	16	1						16	16	O	2		16
	37	37L	15	1						15	15	O	2		15
	39	40			14	1				14	14	D	2		14
	41	42			15	1				15	15	D	2		15
	43	82			26	1				26	26	D	2		26
	45	46			16	1				16	16	D	2		16
	47	69			24	2				24	24	E	2		24
	50	50L	12	1						12	12	O	2		12
	51	51L	12	1						12	12	O	2		12
	52	53	13	1						13	13	O	2		13
	54	55	13	1						13	13	O	2		13
	56	57	12	1						12	12	O	2		12
	58	59	12	1						12	12	O	2		12
	61	62	11	1						11	11	O	2		11
	63	64	12	1						12	12	O	2		12
	1	51			21	1	21	2	21	21	21	L	2		21
	1	50			17	4				17	17	B2	2		17
NOWENDOC AVE	2	72			23	1				23	23	D	2		23
	73	74			14	1				14	14	D	2		14
	75	76			13	1				13	13	D	2		13
EPPING AVENUE	78	79			18	1				18	18	D	2		18
	80	81			16	1				16	16	D	2		16
TOTAL			**128**		**459**		**42**		**21**	**512**	**512**		**62**		**512**

NOTES
1. ROAD CROSSING CONDUITS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE ENERGEX *UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL*.
2. 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 **1200mm**.
3. 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.
4. REFER ENERGEX *UDC MANUAL* V.5 SECT. C2 FOR CROSS-SECTION DETAILS.
5. BRASS "E" MARKERS SHALL BE INSTALLED IN KERBS DIRECTLY ABOVE ELECTRICITY CONDUITS.
6. **CAUTION: DO NOT CONSTRUCT RETAINING WALLS, CONCRETE PATHS OR WATER SERVICES UNTIL FOOTPATH CONDUITS HAVE BEEN INSTALLED.**

URD CONDUIT SCHEDULE - FOOTPATHS - BY **ELECTRICAL** CONTRACTOR

LOCATION	STATIONS FROM	TO	CONDUIT LENGTH (m) 40mm HD	No	100mm LD	No	125mm LD	No	ENERGEX 100mm Comms MD	PVC CABLE PROTECTION (m)	X-SECTION (m) EXCAV/ TAPE	TRENCH DETAIL	KERB MARK 'E'	REMARKS	TRENCH
MELVILLE DRIVE	2	3	18	1	18	1					18	P			18
	4	8L1			118	1					118	D			118
	8L1	8L2	43	1	43	1					43	P			43
	10	11			30	1					30	D			30
	11	11L	16	1	16	1					16	P			16
	11L	12			8	1					8	D			8
	13	41			528	1					528	D			528
	41	47			96	2					96	E			96
	47	50			40	4					40	B2			40
	50	51			28	1					28	D			28
	15	16			28	1					28	D			28
	16	16L	12	1							12	O			12
	18	18L	15	1							15	O			15
	25	25L2	17	1							17	O			17
	28	29			30	1					30	D			30
	32	32L	33	1							33	O			33
	42	42L	16	1							16	O			16
	47	42L	17	1							17	O			17
	51	58	164	1	164	1	164	2	164		164	X			164
	58	85	7	1	7	1	7	2	7		7	A4		**LAY FLAT & CONCRETE ENCASE**	7
	85	84	82	1	82	1	82	2	82		82	X			82
	84	83	7	1	7	1	7	2	7		7	A4		**LAY FLAT & CONCRETE ENCASE**	
	83	66	51	1	51	1	51	2	51		51	X		**JOIN ONTO EXISTING CONDUITS**	51
	69	70	20	1	20	2					20	Q			20
NOWENDOC AVE	72	77			90	1					90	D			90
EPPING AVENUE	29	80			60	1					60	D			60
	79	79L	14	1							14	O			14
	81	82	22	1	22	1					22	P			22
ALL STREETS	AT PILLARS & POLES		112	1						112	112	O		PVC COVER STRIP AT PILLARS AND TO LIGHT POLES	112
TOTAL			**666**		**1722**		**622**		**311**	**112**	**1722**				**1715**
ENERGEX TOTAL															

NOTES
1. **CONDUITS SHALL BE INSTALLED WITHIN A CORRIDOR 300-900mm FROM PROPERTY ALIGNMENT, IN ACCORDANCE WITH ENERGEX *UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC)* MANUAL.**
2. FOOTPATH CONDUITS SHALL HAVE MINIMUM 750mm COVER, REGARDLESS OF ENERGEX'S REQUIREMENTS.
3. CONNECT EXISTING CONDUITS, INCLUDING ROAD CROSSING CONDUITS, TO NEW FOOTPATH CONDUITS
4. **TELECOMMUNICATION CONDUITS SHALL BE INSTALLED ABOVE THE ENERGEX CONDUITS IN A JOINT USE TRENCH ARRANGEMENT.**
5. **GAS MAINS WILL BE INSTALLED IN JOINT USE ELECTRICITY TRENCH, WHERE HIGHLIGHTED IN YELLOW ON LAYOUT DRAWING.**

DATE	REV	REVISION	APP.
22/09/2016	A	PRELIMINARY DESIGN	R.R.
23/01/2017	B	FINAL DESIGN PACKAGE	R.R.
27/02/2017	C	FINAL DESIGN PACKAGE	R.R.

CURRENT REVISION CHANGES: Rev C: Final design for issue & construction.

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ENERGEX SPECIFICATION	SWP 47.1	DESIGNED	NICK MAMALIS
COUNCIL	GCCC	DRAWN	NICK MAMALIS
COUNCIL REF	PN341625/03/DA3	APPROVED BY	ROBIN RUSSELL RPEQ 1546
UBD REF	Map 326 Grid M7	SIGNED	
DWT REV	V33 - 20160401	DATE	27/02/2017

DESCRIPTION: ELECTRICAL RETICULATION
CLIENT: MIRVAC PACIFIC PTY LTD

LOCATION: MELVILLE AVENUE GAINSBOROUGH GREENS PRECINCT 1.3 PIMPAMA Q 4209

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A1

DRAWING No. C023 - 03C
ENERGEX PROJECT No. S0105633
SHEET No. 3 OF 5

UNDERGROUND CABLE SCHEDULE

LOCATION	STATIONS FROM	STATIONS TO	VOLTS	EX	REC	IN	CABLE SIZE/TYPE	MODEL ID	ROUTE LENGTH (m)	CABLE LENGTH (m) NEW	CABLE LENGTH (m) REC	REMARKS
MELVILLE DRIVE	1	68	11kV			*	240mm² Al 3x1C TRIPLEX XLPE/SCR/HDPE	11AT240XSH	550	580		
	1	17	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	540	575		
	2	2L2	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	20	24		
	8	8L1	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14	18		
	8	8L2	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	27	31		
	10	10L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	17	21		
	11	11L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	16	20		
	14	15	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	20	23		
	15	16	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	28	31		
	16	16L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	12	16		
	17	18	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	21	24		
	18	18L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	15	19		
	20	21	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	17	20		
	17	27	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	182	200		
	22	23	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	19	22		
	24	25	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	19	22		
	25	25L2	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	16	20		
	28	29	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	33	35		
	31	32	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	21	24		
	32	32L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	34	38		
	33	34	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	20	23		
	27	1	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	436	462		
	36	36L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	18	22		
	37	37L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14	18		
	39	40	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	18	21		
	41	42	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	17	20		
	42	42L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	16	20		
	45	46	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	17	20		
	50	50L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	51	51L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	51	67	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	347	353		
	51	60	SL			*	16mm² Cu 2C PVC/PVC	LVC216PVPV	150	166		
	52	53	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14	18		
	54	55	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14	18		
	56	57	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	58	59	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	60	63	SL			*	16mm² Cu 2C PVC/PVC	LVC216PVPV	69	78		
	61	62	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	63	64	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13	17		
	1	72	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	134	158		
	1	51	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	22	30		
	51	41	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	160	175		
NOWENDOC AVE	73	74	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	15	18		
	75	76	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	16	19		
	72	26	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	112	112		
EPPING AVENUE	43	29	LV			*	240mm² Al 4C XLPE/PVC	LVA4240XPV	120	132		
	78	79	LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV	18	21		
	79	79L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14	18		
	81	81L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	22	26		
	72	69	SL			*	16mm² Cu 2C PVC/PVC	LVC216PVPV	47	53		
ALL STREETS	AT PILLARS		LV			*	16mm² Cu 4C XLPE/PVC	LVC416XPV		108		BRIDGING
	STREETLIGHTS		SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV		116		
VARIANCE	**5 %**											
TOTALS							**240mm² Al 3x1C TRIPLEX XLPE/SCR/HDPE**	**11AT240XSH**		**609**		
							240mm² Al 4C XLPE/PVC	**LVA4240XPV**		**2368**		
							16mm² Cu 4C XLPE/PVC	**LVC416XPV**		**413**		
							16mm² Cu 2C PVC/PVC	**LVC216PVPV**		**312**		
							4mm² Cu 2C PVC/PVC	**LVC24PVPV**		**594**		

NOTES:

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

URD CONDUIT SCHEDULE - FOOTPATHS - BY **CIVIL** CONTRACTOR

LOCATION	STATIONS FROM	STATIONS TO	CONDUIT LENGTH (m) 40mm HD	No	100mm LD	No	125mm LD	No	ENERGEX 100mm Comms MD	PVC CABLE PROTECTION (m)	X-SECTION (m) EXCAV/ TAPE	X-SECTION (m) TRENCH DETAIL	KERB MARK 'E'	REMARKS	TRENCH
MELVILLE DRIVE	3	4			40	1					40	D		**RETAINING WALL**	40
	9	10L			20	1					20	D		**RETAINING WALL**	20
	10L	10	17	1	17	1					17	P		**RETAINING WALL**	17
PATH	70	72	32	1	32	2					32	Q		**RETAINING WALL**	32
ALL STREETS	AT PILLARS & POLES													PVC COVER STRIP AT PILLARS	
TOTAL			**49**		**141**						**109**				**109**
ENERGEX TOTAL															

NOTES

1. **CONDUITS SHALL BE INSTALLED WITHIN A CORRIDOR 300-900mm FROM PROPERTY ALIGNMENT, IN ACCORDANCE WITH ENERGEX *UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL* V.5.0 SECT. C.2.**
2. FOOTPATH ELECTRICITY CONDUITS SHALL HAVE MINIMUM 750mm COVER.
3. CONNECT EXISTING CONDUITS, INCLUDING ROAD CROSSING CONDUITS TO NEW FOOTPATH CONDUITS
4. **TELECOMMUNICATION CONDUITS SHALL BE INSTALLED ABOVE THE ENERGEX CONDUITS IN A JOINT USE TRENCH ARRANGEMENT.**
5. GAS MAINS WILL BE INSTALLED IN JOINT USE ELECTRICITY TRENCH, WHERE HIGHLIGHTED IN YELLOW ON LAYOUT DRAWING.

EQUIPMENT SCHEDULE - SERVICE PILLARS

LOCATION	STN NO.	SITE I.D.	EX	REC	IN	SIZE AND DESCRIPTION	COMP I.D.	CU/SC/ CONST. CODE	QTY	REMARKS
MELVILLE DRIVE	2	U2146006			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	4	U2145658			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	5	U2145659			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	6	U2145660			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	7	U2145661			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240
	8	U2145662			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	10	U2145663			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	11	U2145664			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	13	U2145665			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240
	14	U2145666			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1	3x240
	15	U2145667			*	1 WAY PILLAR, MEN & S/L	PI1	LVSP2-6SL 1011-2	1 1	1x240, 1x16
	16	U2145668			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	17	**LP2145669**			*	2 WAY LINK PILLAR, MEN & S/L (L) LETTER	PI1	LVSP14-6 1037-1 S17319	1 1 1	2x240, 1x16
	18	U2145670			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	19	U2145671			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	20	U2145672			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	21	U2145673			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	22	U2145674			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	23	U2145675			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	24	U2145676			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240, 1x16
	25	U2145677			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	26	U2145678			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1	3x240
	27	**LP2145679**			*	2 WAY LINK PILLAR, MEN & S/L (L) LETTER	PI1	LVSP14-6 1037-1 S17319	1 1 1	2x240
	28	U2145680			*	1 WAY PILLAR, MEN & S/L	PI1	LVSP2-6SL 1011-2	1 1	1x240
	30	U2145681			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	31	U2145682			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	32	U2145683			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	33	U2145684			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240, 1x16
	34	U2145685			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	35	U2145686			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	36	U2145687			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	37	U2145688			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	38	U2145689			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240
	39	U2145690			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240, 1x16
	40	U2145691			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	41	U2145692			*	1 WAY PILLAR, MEN & S/L	PI1	LVSP2-6SL 1011-2	1 1	1x240, 1x16
	42	U2145693			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	43	U2145694			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1	3x240
	44	U2145695			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240
	45	U2145696			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	46	U2145697			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	48	U2145698			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	50	U2145699			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	51	U2145700			*	3 WAY PILLAR & S/L	PI1	LVSP9-6SL	1	3x240
	52	U2145701			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	53	U2145702			*	No.4 PIT & LID		833-1	1	
	54	U2145703			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	55	U2145704			*	No.4 PIT & LID		833-1	1	
	56	U2145705			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	57	U2145706			*	No.4 PIT & LID		833-1	1	
	58	U2145707			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	59	U2145708			*	No.4 PIT & LID		833-1	1	
	60	**LP2145709**			*	2 WAY LINK PILLAR, MEN & S/L (L) LETTER	PI1	LVSP14-6 1037-1 S17319	1 1 1	2x240
	61	U2145710			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	62	U2145711			*	No.4 PIT & LID		833-1	1	
	63	U2145712			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	64	U2145713			*	No.4 PIT & LID		833-1	1	
	67	U1323018	*		*	1/2 WAY - 3 WAY PILLAR CONVERSION		LVSPC2W3	1	
NOWENDOC AVE	72	U2145714			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
	73	U2145715			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	74	U2145716			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	75	U2145717			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240, 1x16
	76	U2145718			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
EPPING AVENUE	78	U2145719			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240, 1x16
	79	U2145720			*	CROSS-ROAD PILLAR & S/L	PI1	LVSP12-6SL	1	1x16
	80	U2145721			*	2 WAY PILLAR, MEN & S/L	PI1	LVSP4-6SL 1011-2	1 1	2x240, 1x16
	81	U2145722			*	2 WAY PILLAR & S/L	PI1	LVSP4-6SL	1	2x240
PATH	69	U2145723			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
	71	U2145724			*	No.4 PIT, LID & J/BOX (FUSED)		SUG SL SBM PIT	1	
VARIOUS LOCATIONS						SL SERVICE DIRECT FROM PILLAR (FUSE)		SUG SL PIL	27	
						ADDITIONAL EARTH		ADE	15	
						240mm² Al LUGSET (x4)		LVSPL240	4	
						TAPE SET		1038-1	4	

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:
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23/01/2017	B	FINAL DESIGN PACKAGE	R.R.					
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ENERGEX SPECIFICATION	SWP 47.1	DESIGNED	NICK MAMALIS
COUNCIL	GCCC	DRAWN	NICK MAMALIS
COUNCIL REF	PN341625/03/DA3	APPROVED BY	ROBIN RUSSELL RPEQ 1546
UBD REF	Map 326 Grid M7	SIGNED	
DWT REV	V33 - 20160401	DATE	27/02/2017

DESCRIPTION: **ELECTRICAL RETICULATION**

CLIENT: MIRVAC PACIFIC PTY LTD

LOCATION: **MELVILLE AVENUE GAINSBOROUGH GREENS PRECINCT 1.3** PIMPAMA Q 4209

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DRAWING No. **C023 - 04C**

ENERGEX PROJECT No. **S0105633**

SHEET No. 4 OF 5

STREET LIGHT SCHEDULE - RATE 2

LOCATION	STN No.	SITE I.D.	POLE OR COMPONENTS									LANTERN								OUTREACH BRACKET					MOUNT HT (m)	REMARKS	SL CABLE (m)
			COMP I.D.	EXIST (m)	REC (m)	POLE + O/R CODE	ACTION	ERECT (m)	POLE TYPE	ASSY	ALIGN	COMP I.D.	EXIST	RECOVER		LUMINAIRE CODE	ACTION	ERECT		ASSY	EXIST (m)	REC (m)	ACTION	ERECT (m)	ASSY			
														LANTERN	CUST.			LANTERN	CUST.									
MELVILLE DRIVE	2L2	P2145728	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	4L	P2145729	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	6L	P2145730	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	8L1	P2145731	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	8L2	P2145732	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	10L	P2145733	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	11L	P2145734	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	16L	P2145735	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	18L	P2145736	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	21L	P2145737	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	25L1	P2145738	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	28L	P2145739	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	32L	P2145740	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	34L	P2145741	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	36L	P2145742	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	37L	P2145743	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	40L	P2145744	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	42L	P2145745	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	46L	P2145746	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	50L	P2145747	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	51L	P2145748	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	52L	P2145749	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	54L	P2145750	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	56L	P2145751	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	58L	P2145752	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	61L	P2145753	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	63L	P2145754	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	74L	P2145755	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
NOWENDOC AVE	2L1	P2145756	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	25L2	P2145757	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
EPPING AVENUE	79L	P2145758	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	80L	P2145759	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
	81L	P2145760	P01			SL NOS 3 CI	INST	4.5	ESTATE	814-3	900 BOK	SL1				SL N 6 S70D	INST	S70D L2	GCCC	843-6					5.1	**Black Avenue**	
PATH	69L	P2145761	P01			S B 50 H 3 105 CI	INST	5.0	HINGED	858-3	900 BOK	SL1				SL HPS 0002	INST	S70DA L2	GCCC	817-7					5.0	**Black Hinged Pole**	
	71L	P2145762	P01			S B 50 H 3 105 CI	INST	5.0	HINGED	858-3	900 BOK	SL1				SL HPS 0002	INST	S70DA L2	GCCC	817-7					5.0	**Black Hinged Pole**	

TOTAL 0

NOTES

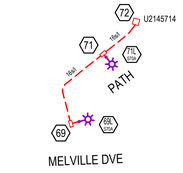
1. ALL LIGHTS TO BE CONNECTED ON ENERGEX RATE 2.
2. CHECK CLEAR OF ALL SERVICES BEFORE EXCAVATING.

TOTALS

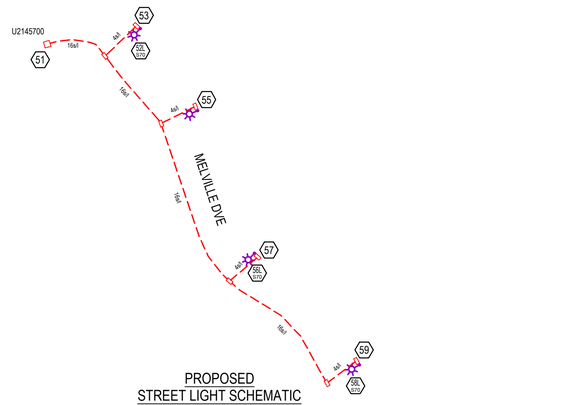
SL NOS 3 CI x 33 SL N 6 S70D x 33

EQUIPMENT SCHEDULE - TFMR & JOINT

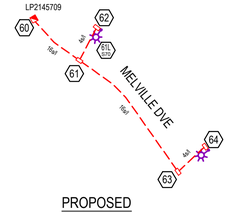
LOCATION	STN NO.	SITE I.D.	EX	REC	IN	SIZE & DESCRIPTION	COMP I.D.	CU/SC	QTY	REMARKS
MELVILLE DRIVE	1	**SC2145725**			*	500kVA PADMOUNT HV FUSE LINK	TR1	S21660 DSHVF5SLK	1 1	
					*	240mm² 11kV CFC TERM IN PADMOUNT HEATSHRINK CAP 25-55mm		2DBSTA24D S06614	1 3	KIT CONTAINS 3x ELBOWS
					*	240mm² LV PADMOUNT TERM		LVPT4C240	4	
					*	315A LV FUSE		DSLVF31	4	
					*	EARTH GRID - COMMON ADDITIONAL EARTH		DSSQPMEG DSPMTEGSA	1 1	
					*	UNICULVERT & BASE			1	CONTRACTOR SUPPLY
					*	CONCRETE SURROUND			1	CONTRACTOR SUPPLY
	-					GALVANISED PIPE BOLLARD		1350-1	4	AS REQUIRED
	68	SC1322993	*		*	240mm² 11kV CFC TERM IN PADMOUNT HEATSHRINK CAP 25-55mm		2DBSTA24D S06614	1 3	KIT CONTAINS 3x ELBOWS
					*	CONCRETE SURROUND			1	**CONTRACTOR TO CUT & REINSTATE AS REQUIRED**
	65	U2145726			*	11kV S/JOINT 240 Al TPX / 240 Al TPX HEATSHRINK CAP 25-55mm	CJ1	11ST24/24X S06614	1 6	
	86	U2145727			*	11kV S/JOINT 240 Al TPX / 240 Al TPX HEATSHRINK CAP 25-55mm	CJ1	11ST24/24X S06614	1 6	



PROPOSED
STREET LIGHT SCHEMATIC
SCALE 1:1000 @ A1



PROPOSED
STREET LIGHT SCHEMATIC
SCALE 1:1000 @ A1



PROPOSED
STREET LIGHT SCHEMATIC
SCALE 1:1000 @ A1

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22/09/2016	A	PRELIMINARY DESIGN	R.R.					Rev C: Final design for issue & construction.
23/01/2017	B	FINAL DESIGN PACKAGE	R.R.					
27/02/2017	C	FINAL DESIGN PACKAGE	R.R.					

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ENERGEX SPECIFICATION	SWP 47.1	DESIGNED	NICK MAMALIS
COUNCIL	GCCC	DRAWN	NICK MAMALIS
COUNCIL REF	PN341625/03/DA3	APPROVED BY	ROBIN RUSSELL RPEQ 1546
UBD REF	Map 326 Grid M7	SIGNED	
DWT REV	V33 - 20160401	DATE	27/02/2017

DESCRIPTION
ELECTRICAL RETICULATION

CLIENT
MIRVAC PACIFIC PTY LTD

LOCATION
MELVILLE AVENUE
GAINSBOROUGH GREENS PRECINCT 1.3
PIMPAMA Q 4209

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DRAWING No.
C023 - 05C

ENERGEX PROJECT No.
S0105633

SHEET No.
5 OF 5