

ELECTRICAL CERTIFICATION	
THIS IS TO CERTIFY THAT THE DESIGN OF ENERGEX RETICULATION IS IN ACCORDANCE WITH ENERGEX DESIGN MANUALS AND WORK CATEGORY SPECIFICATION 47.1 & 47.3 WHERE APPLICABLE.	
MD SHIHABUL ISLAM (RPEQ 21373)	<i>Md Shihabul Islam</i>
DATE	30-08-2021

**PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL**

Application No: OPW / 2021 / 1398

Dated: 16 November 2021

**Development shall comply with the
conditions of approval as detailed in the
Decision Notice and Council's Planning
Scheme, Local Laws and Planning Policies**

A detailed locality plan map labeled "LOCALITY PLAN NT.5". The map shows a network of roads including Christensen Rd, Eastern Service Rd, and Maella St. A specific section of Christensen Rd is highlighted with diagonal hatching and labeled "STAGE 1 SITE" with a double-headed arrow above it. Another area further along Christensen Rd is labeled "STAGE 2 SITE". A nearby area is labeled "WORKS AREA". The map also depicts various building footprints and topographical features like contour lines. At the bottom center, the title "LOCALITY PLAN" is underlined, followed by "NT.5".

STREET LIGHT SYMBOL LEGEND

—○— EXISTING M50 (RATE 2)

ENERGEX NON-STANDARD TRENCH DETAILS (NTS)

The diagram shows a cross-section of a trench. At the top left is a street light symbol. Below it are two circles labeled 'TC'. Below those are two circles labeled 'LV'. Below the 'LV' circles are four circles arranged in a 2x2 grid, each labeled 'HV'. To the right of the trench, there is a vertical line with a circle and a line pointing to it from the label 'ETC.'. Below this, the text 'SP1-SL HAS S/L CONDUIT' is written. At the bottom, the text 'DETAIL SP1 & SP1-SL' is underlined.

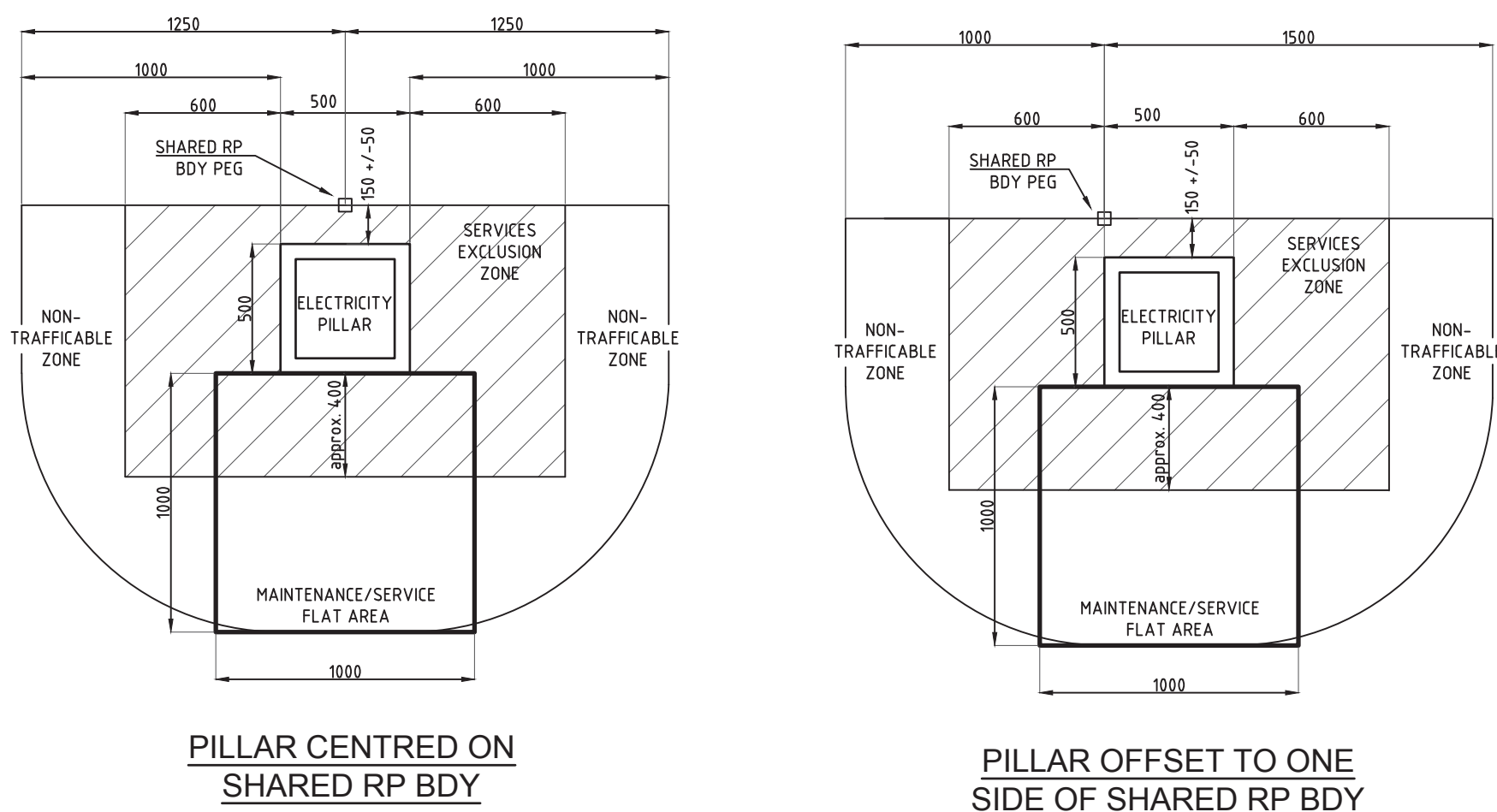
ETC.

SP1-SL HAS S/L CONDUIT

DETAIL SP1 & SP1-SL

**ISSUE FOR ENERGEX &
COUNCIL ACCEPTANCE ONLY
NOT FOR CONSTRUCTION**

This drawing is to be considered preliminary until this disclaimer is removed by Peter Eustace Pty. Ltd.



NOTES

1. PILLARS MAY BE SET CENTRED ON BODY PEG OR OFFSET TO ONE SIDE AS SHOWN.
2. PILLARS TO BE OFFSET 150 (4'-5") FROM RP BODY.
3. SERVICES EXCLUSION ZONE IS FOR ABOVE GROUND SERVICES ONLY. (PITS, MANHOLES ETC). UNDERGROUND PIPES MAY PASS THROUGH THIS AREA AS LONG AS THEY DO NOT CONFLICT WITH ELECTRICITY ASSETS.
4. IF ROADS/DRIVEWAYS ARE WITHIN 1000 OF PILLAR 2 X PROTECTION BOLLARDS WILL BE REQUIRED.
5. FLAT AREA IN FRONT OF PILLAR ARE TO BE MAINTAINED FOR ACCESS AND MAINTENANCE.

DATE	30.08.21
DESCRIPTION	ISSUED FOR ENERGEX & COUNCIL ACCEPTANCE



STREET ADDRESS
POSTAL ADDRESS
TELEPHONE
EMAIL
WEB

U14, 99 Lawrence Dr, Naringind QLD 4211
PO Box 2835, Naringind DC QLD 4211
(07) 5596 1425
mj@petereustace.com.au
petereustace.com.au



20-0209- 01

SITE CONTACT DETAILS	COUNCIL STANDARD ALIGNMENTS	WORKS COORDINATOR	PETER EUSTACE & ASSOCIATES	APPROVED	SHIHABUL ISLAM
NAME ENERGEX OH	ENERGEX OH	PARENT PROJECT NO.			
TBC COMPANY	ENERGEX UG	WORK REQUEST NO.		CHECKED	DAVID PRUSS
- GAS	NBN REFER NBN	LOTS	NIL - EARLY WORKS	DESIGNER PHONE	ABRAHAM IKORO (07) 5596 1425
PHONE -	HP GAS REFER GAS			PLANNER	KRIS BOVEINIS (07) 5596 1425
MOBILE -	WATER REFER CIVIL	CANCELLING LOTS	LOT 501 on SP255994	PHONE	
FAX -	STORMWATER REFER CIVIL	LOCAL AUTHORITY	GOLD COAST CITY COUNCIL	PHONE	
	SEWERAGE OTHER	REFER CIVIL		ISSUE DATE	30 AUGUST 2021
		PEGGED?	YES		

Peter Eustace & Associates

INSTALL CONDUITS, CABLES, POLES, PILLARS

EARLY WORKS

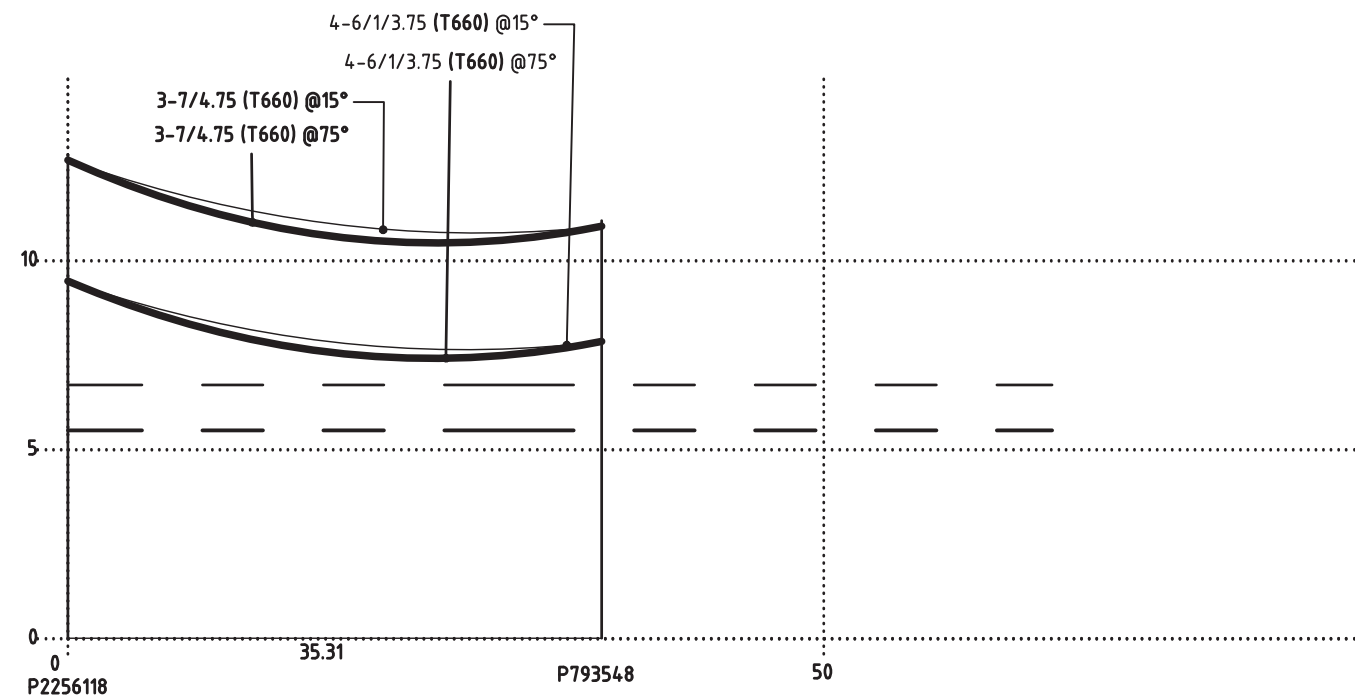
HESTER STAGE 2 -YATALA STAYPLITON JACOBS WELL ROAD

CHRISTENSEN RD YATALA

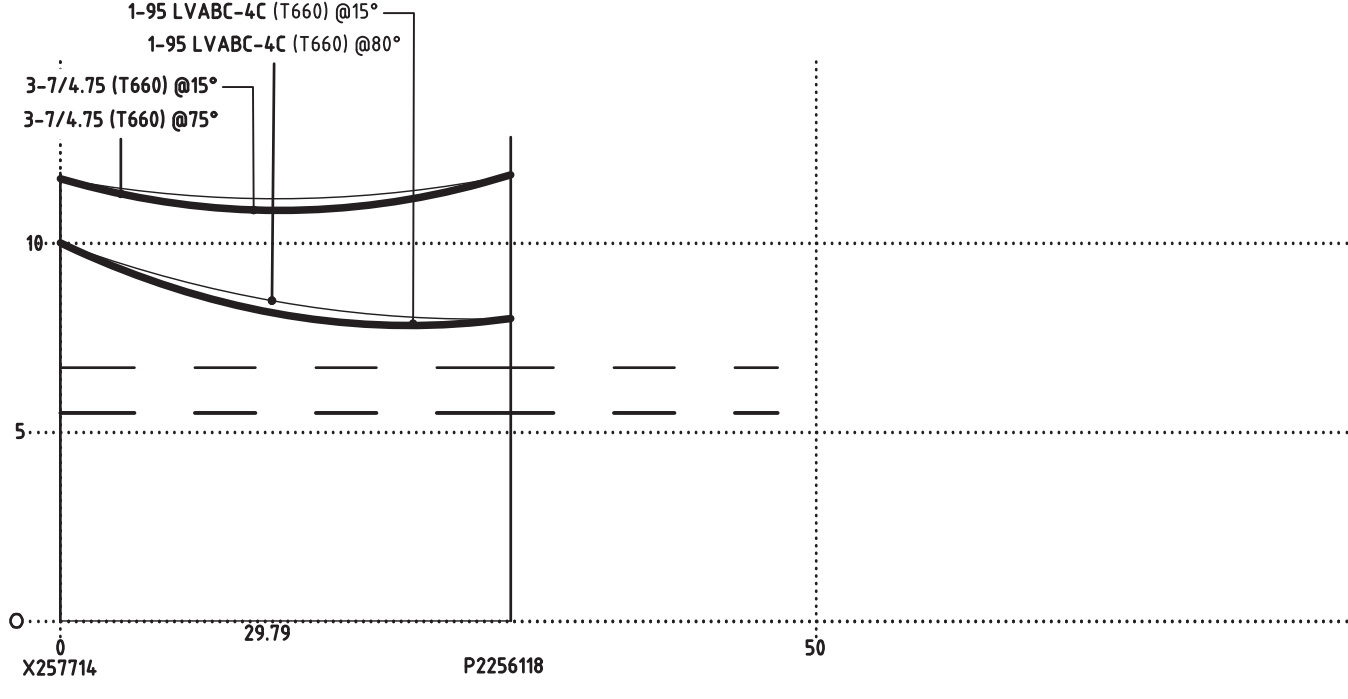
WORKSPLEAN VERSION 5.5
SCALE: 1:500@A1
PROJECT / SUB PROJECT NO.

S1301569

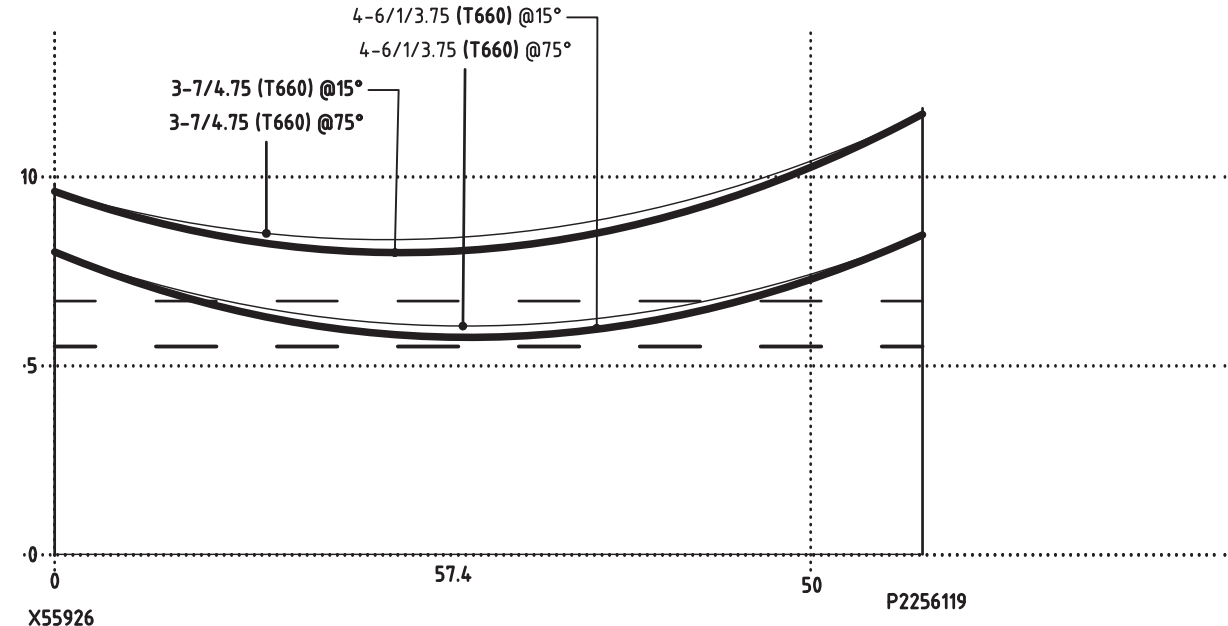
Sheet 1 of 3
ISSUE NO: A



PROPOSED OVERHEAD PROFILE
SCALE: X=150 Y=1250



PROPOSED OVERHEAD PROFILE
SCALE: X=150 Y=1250



PROPOSED OVERHEAD PROFILE
SCALE: X=150 Y=1250

OVERHEAD WORKS SCHEDULE																						
LOCATION	STN No.	SITE I.D (POLE No)	POLES											CONSTRUCTIONS (Note: KBS is top KB to top KB)								REMARKS
			EDT ANG	EDT KN	SST KN	LST KN	EXISTING	RECOVER	ERECT	SINK	FOOT	COMP ID	ALIGN	LCC	EXISTING	RECOVER	ERECT	No	KBS	ANG	LCC	
CHRISTENSEN ROAD	1	X257714	43° 42"	6.76 0.99	2.82 3.09	5.94 5.95	P14/8-14			EX	EX	PO1	EX		11LSPTFFIS 11S LVABC/A SWPBM11B			1 1 1	EX EX			
	2	P793548	99° 94"	3.62	7.54	15.33	P14/12-22			EX	EX	PO1	EX		11PTTRIPXW MEN			1 1 1	EX EX EX			
	3	P2256118	288°	7.2	13.18	26.1			P15.5/20-36	2.7	MDCF	PO1	1.2 BOK			11TC HVTMO 11TC HVTMO SC0020279 PAGE7-54-2 SC0005909 11PTTRIPXW 11BRAL/240XL LVT LVTBA LVABC/T LVABC/DS2 S3B/W LVT240/HV SC0010604 LVBR240/ABC CGEC	1 3 1 3 3 3 6 1 3 1 4 1 1 1 1 1	150 850	32°			1-4B35 SERVICE
	5	P55923	EX	EX	EX	EX	P14/12-22	P14/12-22		EX	EX	PO1	EX		11T 11S LVT LVABC/S S3B/W	11T 11S LVT LVABC/S S3B/W	1 1 1 1	EX EX EX EX				
	6	X55924	EX	EX	EX	EX	P12.5/12-22	P12.5/12-22		EX	EX	PO1	EX		11LSPTFFIS 11S LVS LVABC/T	11LSPTFFIS 11S LVS LVABC/T	1 1 2	EX EX EX				
	6A	SERV POLE	EX	EX	EX	EX	EX	EX		EX	EX	EX	EX		LVABC/T	LVABC/T	2	EX				
	11	SP55925	EX	EX	EX	EX	P14/12-CPT2	P14/12-CPT2		EX	EX	PO1	EX		11TD 11ED03 S21653 LVT LVABC/DS2	11TD 11ED03 S21653 LVT LVABC/DS2	1 1 1					
	13	P2256119	138°	3.62	7.77	16.09			P14/12-22	2.2	MDCF	PO1	1.2 BOK			11TC HVTMO 11PTTRIPXW 11BRAL/240XL PAGE7-54-2 11BRAL/240XL LVT LVTBA S3B/W45 LVBR240/ABC CGEC	1 3 1 3 3 3 1 1 1 1 1	150 1400				
	14	X55926	48° 48"	0.02	1.9	3.44	40FT LG MED			EX	EX	EX	EX		11LSPTFFIS 11SC LVS LVABC/DS2			1 1 1	EX EX			

OVERHEAD CONDUCTOR SCHEDULE																		
LOCATION	STATIONS FROM-TO	VOLTS	EXISTING	TRANSFER	RECOVER	ERECT	No. OF SPANS	DIST (m)	STRING TABLE	M.E.S	SAG SPAN FROM - TO	SAG (m)			CONDUCTOR LENGTH (m)		LCC	REMARKS
												15°	30°		NEW	REC		
CHRISTENSEN ROAD	1 - 3	11KV	3-7/4.75	3-7/4.75			1	30	660	30	STN 1-3	0.58	0.67					
	2 - 3	11KV	3-7/4.75	3-7/4.75			1	36	660	36	STN 2-3	0.82	0.91					
	5 - 11	11KV	3-7/4.75		3-7/4.75		2	120	EX	EX	EX	EX	EX		360			
	13 - 14	11KV	3-7/4.75	3-7/4.75			1	60	660	60	STN 13-14	2.18	2.27					
	1 - 3	LV	1-95 ABC 4C	1-95 ABC 4C			1	30	660	30	STN 2-3	0.59	0.68					
	2 - 3	LV	4-6/1/3.75	4-6/1/3.75			1	36	660	36	STN 1-3	0.82	0.9					
	5 - 11	LV	4-6/1/3.75		4-6/1/3.75		2	120	EX	EX	EX	EX	EX		480			
	6 - 6A	LV	2-95 ABC 4C		2-95 ABC 4C		2	25	EX	EX	EX	EX	EX		50			
	13 - 14	LV	4-6/1/3.75	4-6/1/3.75			1	60	660	60	STN 13-14	2.18	2.26					

LV OVERHEAD SERVICE CONDUCTOR SCHEDULE																		
LOCATION	STN No.	HOUSE No	EXISTING	TRANSFER	RECOVER	ERECT	No OF SPANS	DIST (m)	SAG SPAN	SAG(m)		TOTAL CONDUCTOR LENGTH (m)	FITTINGS					REMARKS
										15'	30"		MAINS BOX	CHANGE P.O.A.	FUSE SIZE	φ	SERVICE FITTING CODE or IIN	
CHRISTENSEN	5	34	4B35	4B35			1	EX	EX	EX	EX	20	EX	N	EX	EX	NOTE 1	TRANSFER SERVICE CABLE TO NEW POLE STN 3
NOTE 1 : CONTRACTOR TO CHECK EXISTING FUSE SIZE																		

!WARNING!
FIRE ANT TERRITORY
THIS SITE IS WITHIN A RED IMPORTED FIRE ANT BIOSECURITY ZONE. CALL 132523 FOR FURTHER INFORMATION.

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NOT FOR CONSTRUCTION
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SYMBOL LEGEND	
○	PROPOSED 40mm S/L
⊙	PROPOSED ENERGEX 100mm COMMS
○	PROPOSED 100mm
⊗	PROPOSED 125mm
○	EXISTING 40mm S/L
⊙	EXISTING ENERGEX 100mm COMMS
○	EXISTING 100mm
⊗	EXISTING 125mm
●	PROPOSED CABLE (AS MARKED)
●	EXISTING CABLE (AS MARKED)
---	PROPOSED UNDERGROUND HV/LV ROUTE
---	EXISTING UNDERGROUND HV/LV ROUTE
---	PROPOSED OVERHEAD HV/LV ROUTE
---	EXISTING OVERHEAD HV/LV ROUTE
---	PROPOSED S/L CABLE
---	EXISTING S/L CABLE
⊕	PADMOUNT TRANSFORMER
⊕	PMT LV GEOGRAPHIC
⊕	PMT HV GEOGRAPHIC
⊕	RING MAIN UNIT
⊕	RMU HV SCHEMATIC
⊕	PROPOSED SUPPLY PILLAR
⊕	EXISTING SUPPLY PILLAR
⊕	PROPOSED LINK PILLAR
⊕	EXISTING LINK PILLAR
⊕	COMMERCIAL PILLAR
⊕	EARTH
⊕	PROPOSED TYPE 4 PIT
⊕	EXISTING TYPE 4 PIT
⊕	RECOVER EQUIPMENT
⊕	11kV STRAIGHT JOINT
⊕	OVERHEAD POLE TRANSFORMER
⊕	OVERHEAD POLE (HV ONLY)
⊕	OVERHEAD POLE (LV ONLY)
⊕	OVERHEAD POLE (HV & LV)
⊕	OVERHEAD HV TERMINATION
⊕	OVERHEAD LV TERMINATION
⊕	AIR BREAK SWITCH (OPEN)
⊕	AIR BREAK SWITCH (CLOSED)
⊕	DISCONNECT LINKS (OPEN)
⊕	DISCONNECT LINKS (CLOSED)
⊕	WATER METER
⊕	SURVEY PEG

STREET LIGHT SYMBOL LEGEND	
⊕	EXISTING M50 (RATE 2)
ENERGEX NON-STANDARD TRENCH DETAILS (NTS)	
DETAIL SP1 & SP1-SL	

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW / 2021 / 1398

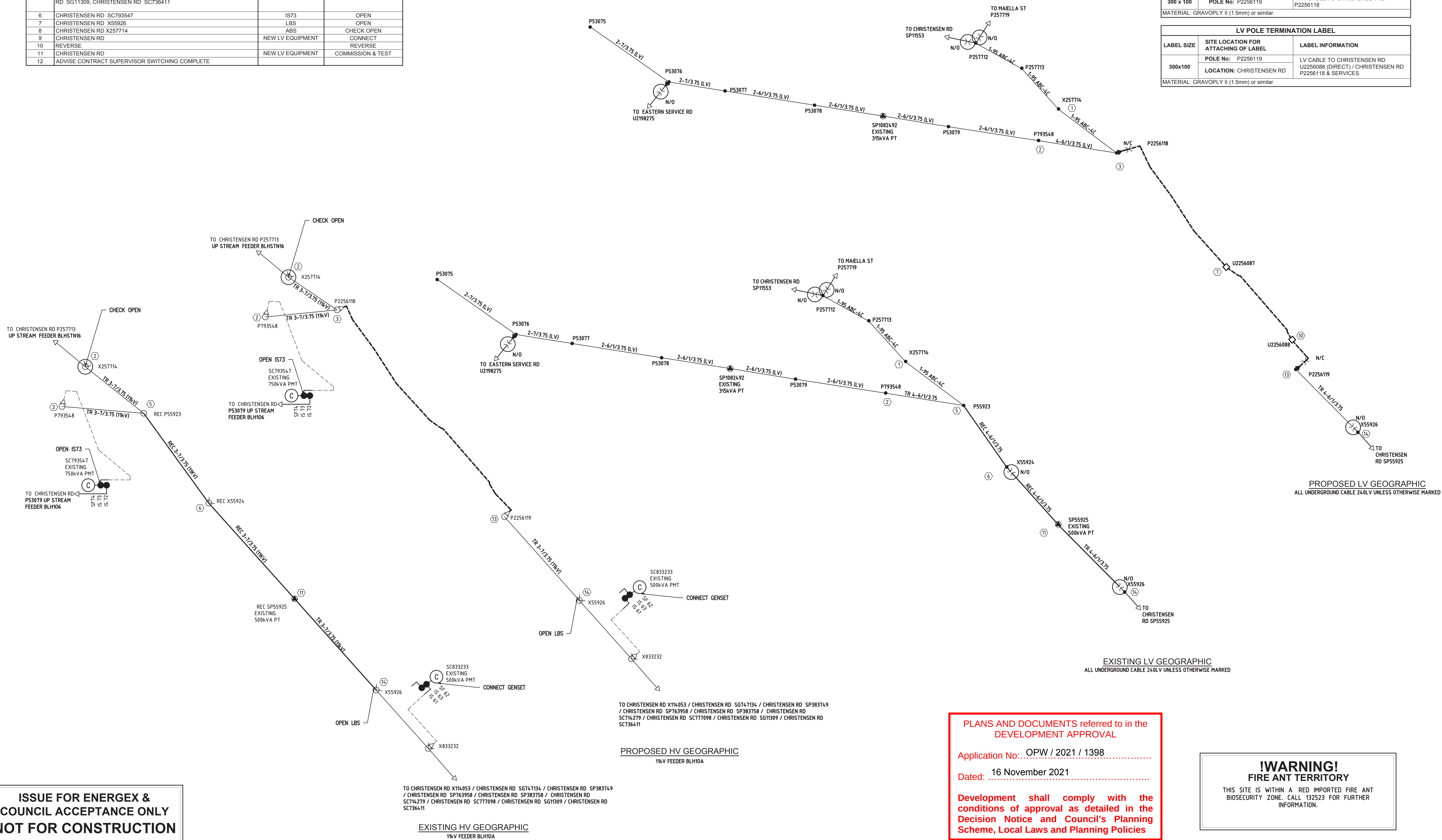
Dated: 16 November 2021

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

DATE	30.08.21		 STREET ADDRESS U14, 39 Lawrence Dr, Naring QLD 4211 POSTAL ADDRESS PO Box 2835, Naring DC QLD 4211 TELEPHONE (07) 5596 1425 EMAIL mail@pece.com.au WEB peter@eustace.com.au	 20-0209- 02	SITE CONTACT DETAILS		COUNCIL STANDARD ALIGNMENTS		WORKS COORDINATOR	PETER EUSTACE & ASSOCIATES		APPROVED	SHIHABUL ISLAM	Peter Eustace & Associates	WORKSPLAN VERSION 5.5
	DESCRIPTION	ISSUED FOR ENERGY & COUNCIL ACCEPTANCE			NAME	Energex OH	Energex UG	PARENT PROJECT NO.		CHECKED	DAVID PRUSS	INSTALL CONDUITS, CABLES, POLES, PILLARS	SCALE: 1:500@A1		
A		TBC	Energex UG	WORK REQUEST NO.				PROJECT / SUB PROJECT NO.							
		COMPANY	NBN	REFER NBN											
		-	GAS	REFER GAS	LOTS										
		PHONE	-	HP GAS	REFER GAS										
		MOBILE	-	WATER	REFER CIVIL	CANCELLING LOTS	LOT 501 on SP285984	DESIGNER PHONE	ABRAHAM IKORO (07) 5596 1425	EARLY WORKS HESTER STAGE 2 - YATALA STAPYLTON JACOBS WELL ROAD CHRISTENSEN RD YATALA	S1301569				
		FAX	-	STORMWATER	REFER CIVIL	LOCAL AUTHORITY	GOLD COAST CITY COUNCIL	PLANNER PHONE	KRIS BOVEINIS (07) 5596 1425						
				SEWERAGE	REFER CIVIL	UGD REF		ISSUE DATE	30 AUGUST 2021						
				OTHER	REFER CIVIL	PEGGED?	YES								

Sheet 2 of 3
ISSUE NO: A

PROPOSED COMMISSIONING SCHEDULE			
TENTATIVE ONLY SUBJECT TO AMENDMENT BY SWITCHING CO-ORDINATOR			
ITEM No	LOCATION	APPARATUS	ACTION
	COMMISSION NEW PMT - LV AND HV SWITCHING		
1	ADVISE CONTRACT SUPERVISOR SWITCHING TO COMMENCE		
2	RECEIVE CLEARANCE FROM WORK CREWS ALL WORK COMPLETED		
3	NOTIFY ALL WORK CREWS TREAT PILLARS AS LIVE		
4	CHRISTENSEN RD	NEW LV EQUIPMENT	MAKE READY
5	CHRISTENSEN RD SC633233, CHRISTENSEN RD SG747134, CHRISTENSEN RD SP383749, CHRISTENSEN RD SP763658, CHRISTENSEN RD SP383758, CHRISTENSEN RD SC714279, CHRISTENSEN RD SC777098, CHRISTENSEN RD SG11309, CHRISTENSEN RD SC736411	GENSET	CONNECT GENSET
6	CHRISTENSEN RD SC793547	IS73	OPEN
7	CHRISTENSEN RD X55926	LBS	OPEN
8	CHRISTENSEN RD X257714	ABS	CHECK OPEN
9	CHRISTENSEN RD	NEW LV EQUIPMENT	CONNECT
10	REVERSE		REVERSE
11	CHRISTENSEN RD	NEW LV EQUIPMENT	COMMISSION & TEST
12	ADVISE CONTRACT SUPERVISOR SWITCHING COMPLETE		



11KV FEEDER DESTINATION LABELS		
LOCATION: CHRISTENSEN RD		
LABEL SIZE	STATION I.D	LABEL INFORMATION
300 x 100	POLE No: P2256118	11KV CABLE TO CHRISTENSEN RD P2256119
MATERIAL: GRAVOPLY II (1.5mm) or similar		

LV POLE TERMINATION LABEL		
LABEL SIZE	SITE LOCATION FOR ATTACHING OF LABEL	LABEL INFORMATION
300x100	POLE No: P2256118	LV CABLE TO CHRISTENSEN RD U2256087 (DIRECT) / CHRISTENSEN RD P2256119 & SERVICES
	LOCATION: CHRISTENSEN RD	

MATERIAL: GRAVOPLY II (1.5mm) or similar

11KV FEEDER DESTINATION LABELS		
LOCATION: CHRISTENSEN RD		
LABEL SIZE	STATION I.D	LABEL INFORMATION
300 x 100	POLE No: P2256119	11KV CABLE TO CHRISTENSEN RD P2256118
MATERIAL: GRAVOPLY II (1.5mm) or similar		

LV POLE TERMINATION LABEL		
LABEL SIZE	SITE LOCATION FOR ATTACHING OF LABEL	LABEL INFORMATION
	POLE No: P2256119	
	LOCATION: CHRISTENSEN RD	
300x100		LV CABLE TO CHRISTENSEN RD U225608 (DIRECT) / CHRISTENSEN RD P2256118 & SERVICES
MATERIAL: GRAVPOY II (1.5mm) or similar		

SYMBOL LEGEND	
	PROPOSED 40mm S/L
	PROPOSED ENERXEX 100mm COMMS
	PROPOSED 100mm
	PROPOSED 125mm
	EXISTING 40mm S/L
	EXISTING ENERXEX 100mm COMMS
	EXISTING 100mm
	EXISTING 125mm
	PROPOSED CABLE (AS MARKED)
	EXISTING CABLE (AS MARKED)
	PROPOSED UNDERGROUND HV/LV ROUTE
	EXISTING UNDERGROUND HV/LV ROUTE
	PROPOSED OVERHEAD HV/LV ROUTE
	EXISTING OVERHEAD HV/LV ROUTE
	PROPOSED S/L CABLE
	EXISTING S/L CABLE
	PADMOUNT TRANSFORMER
	PMT LV GEOGRAPHIC
	PMT HV GEOGRAPHIC
	RING MAIN UNIT
	RMU HV SCHEMATIC
	PROPOSED SUPPLY PILLAR
	EXISTING SUPPLY PILLAR
	PROPOSED LINK PILLAR
	EXISTING LINK PILLAR
	COMMERCIAL PILLAR
	EARTH
	PROPOSED TYPE 4 PIT
	EXISTING TYPE 4 PIT
	RECOVER EQUIPMENT
	11kV STRAIGHT JOINT
	OVERHEAD POLE TRANSFORMER
	OVERHEAD POLE (HV ONLY)
	OVERHEAD POLE (LV ONLY)
	OVERHEAD POLE (HV & LV)
	OVERHEAD HV TERMINATION
	OVERHEAD LV TERMINATION
	AIR BREAK SWITCH (OPEN)
	AIR BREAK SWITCH (CLOSED)
	DISCONNECT LINKS (OPEN)
	DISCONNECT LINKS (CLOSED)
	WATER METER
	SURVEY PEG

STREET LIGHT SYMBOL LEGEND

—○ EXISTING M50 (RATE 2)

ENERGEX NON-STANDARD TRENCH DETAILS (NTS)

The diagram shows a rectangular trench layout. At the top left, there is a symbol consisting of a horizontal line connected to a circle. To the right of the trench, there are labels: "ETC." with a line pointing to a circle symbol, and "SP1-SL HAS S/L CONDUIT" with a line pointing to a circle symbol. Inside the trench, there are several circles: two at the top labeled "T.C.", and a group of six below them. The group of six includes one circle labeled "LV" and five circles labeled "HV".

DETAIL SP1 & SP1-SL

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COUNCIL ACCEPTANCE ONLY
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DATE	30.08.21
R DESCRIPTION	ISSUED FOR ENERGY & COUNCIL ACCEPTANCE
A	



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(08) 9421 1422
mail@pece.com.au
petereustace.com.au



20-0209- 03

SITE CONTACT DETAILS		COUNCIL STANDARD ALIGNMENTS	WORKS COORDINATOR	PETER EUSTACE & ASSOCIATES	APPROVED	SHIHABUL ISLAM
NAME	-	Energex OH	Energex OH	PARENT PROJECT NO.		
TBC	-	Energex UG	Energex UG	WORK REQUEST NO.		
COMPANY	-	NBN	REFER NBN		CHECKED	DAVID PRUSS
	-	GAS	REFER GAS	LOTS		
PHONE	-	HP GAS	REFER GAS		DESIGNER PHONE	ABRAHAM IKORO (07) 5596 1425
MOBILE	-	WATER	REFER CIVIL	CANCELLING LOTS	PLANNER PHONE	KRIS BOVEINS (07) 5596 1425
FAX	-	LOCAL AUTHORITY	REFER CIVIL	LOT 501 on SP295994		
	-	SEWERAGE	REFER CIVIL	GOLD COAST CITY COUNCIL		
	-	OTHER	REFER CIVIL	PEGGED?	YES	30 AUGUST 2021

INSTALL CONDUITS, CABLES, POLES, PILLARS

EARLY WORKS
HESTER STAGE 2 - YATALA STAPTYLTON JACOBS WELL ROAD
CHRISTENSEN RD YATALA

WORKS PLAN VERSION 5.5
SCALE: N.T.S.
PROJECT / SUB PROJECT NO.

S1301569

Sheet 3 of 3
ISSUE NO: A

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Note all Electrical & Street Lighting works not in the public road reserve must come off a metered supply.



THIS IS TO CERTIFY THAT THE DESIGN OF ENERGEX RETICULATION IS IN ACCORDANCE WITH ENERGEX DESIGN MANUALS AND WORK CATEGORY SPECIFICATION 47.1 & 47.3 WHERE APPLICABLE.

ROAD LIGHTING CERTIFIED TO COMPLY WITH AS/NZS 1158 FOR 'V' & 'P' CATEGORY LIGHTING FOR ROADS & PUBLIC SPACES SUPPLIED UNDER ENERGEX CONTRACT. THE LIGHTING DESIGN IS BASED UPON THE FOLLOWING MAINTENANCE SCHEDULE:

ROAD LIGHTING CERTIFIED TO COMPLY WITH AS/NZS 1158 FOR 4 AND 8 " P CATEGORY LIGHTING FOR ROADS & PUBLIC SPACES SUPPLIED UNDER ENERGEN CONTRACT.

THE LIGHTING DESIGN IS BASED UPON THE FOLLOWING MAINTENANCE SCHEDULE.

- * LED LAMP REPLACEMENT AT 88000 HOUR INTERVALS INC. CLEANING & INSPECTION OF LUMINAIRE EVERY 48 MONTHS.
- * LAMP REPLACEMENT AT 6 MONTH INTERVALS INC. CLEANING & INSPECTION OF LUMINAIRE.
- * VEGETATION TO BE KEPT CLEAR OF LUMINAIRES.
- * INSPECTION PATROLS & SPOT LAMP REPLACEMENT TO MAINTAIN SERVICE AVAILABILITY AT MIN 95%.
- * LUMINAIRES & LAMPS TO BE REPLACED WITH EXACT EQUIVALENTS.

STREET NAME	LIGHTING CATEGORY
FAIRWAY ST , COASTLINK CRT, HIGHLANDS ST	P3
CHRISTENSEN RD	V5

MD SHIHABUL ISLAM (RPEQ 21373) *Md Shihabul Islam*

DATE 31-08-2021

Maintenance Factor Assumed: The maintenance factor assumed in the calculations is as follows:

Maintenance Factor Assumed: The maintenance factor assumed in the calculations is as follows:

- * Luminaire Maintenance Factor (refer AS 1158 1.1:2005 APPENDIX E).
- * Lamp Lumen Depreciation Factor (Refer Lamp Manufacturer's "Lamp Lumen Depreciation Curves").

Maintenance Factor Calculated	0.75
-------------------------------	------

0.75

Schedule of Maintenance: This road lighting design is based on the following maintenance schedule:

*LED lamp replacement carried out at 88000 hrs intervals. Cleaning regime every 4 months.

*All other luminaires lamp replacement & cleaning carried out at 36 month intervals.

At this time the following shall also occur:

- * All optical surfaces, both internal and external, of the luminaires shall be cleaned.
- * All gaskets shall be checked for deterioration and replaced where necessary.
- * Damaged/weathered visors shall be replaced.
- * All accessible screws, nuts etc. shall be checked for tightness.
- * A visual check shall be made of the electrical components and wiring for signs of overheating.
- * If required, the luminaire shall be realigned/adjusted to the design specification.

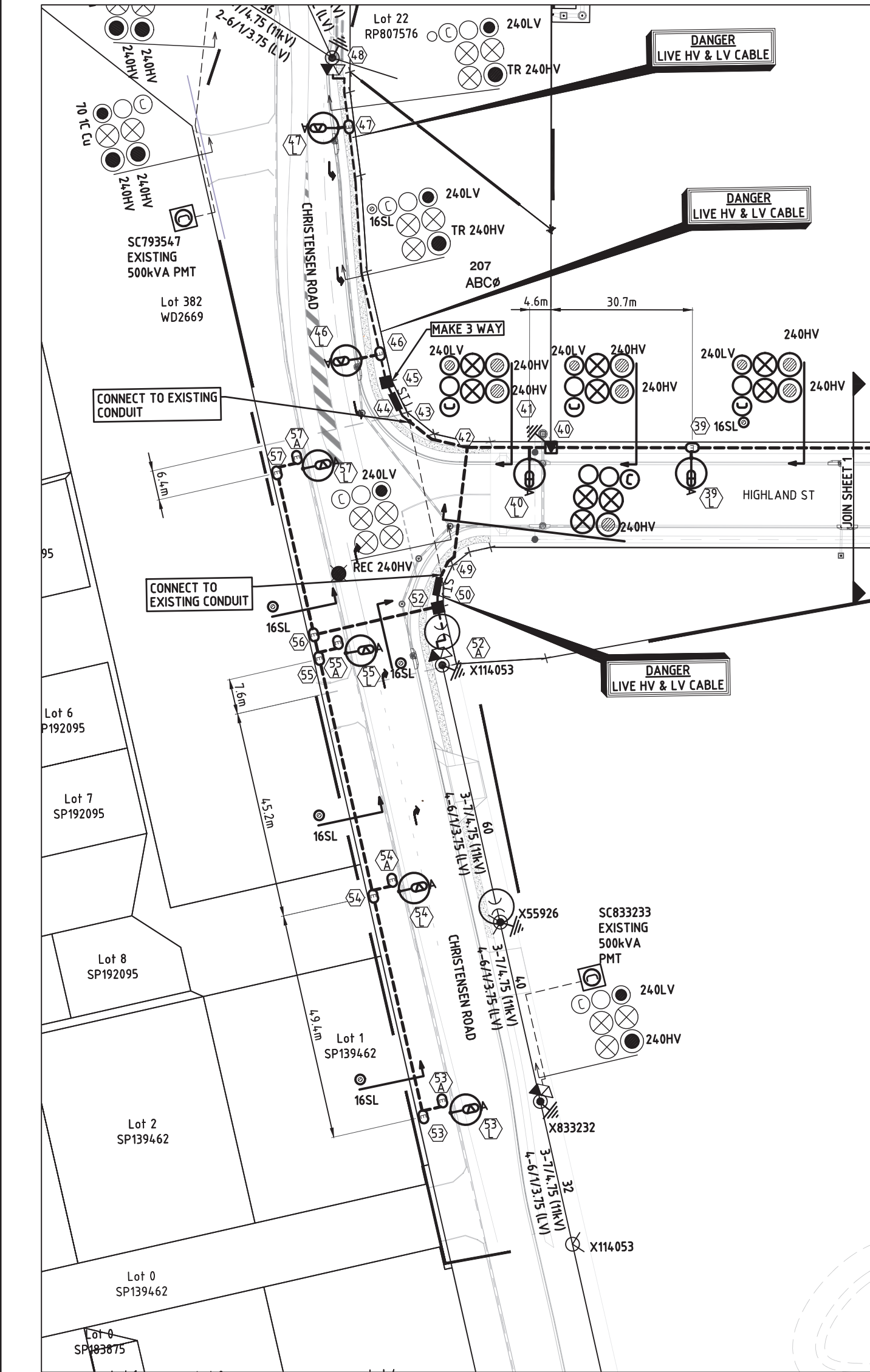
THIS SITE IS WITHIN A RED IMPORTED FIRE ANT
BIOSECURITY ZONE. CALL 132523 FOR FURTHER
INFORMATION.

SYMBOL LEGEND	
	PROPOSED 50mm S/L
	PROPOSED 50mm X 100mm COMMS
	PROPOSED 100mm
	PROPOSED 125mm
	EXISTING 40mm S/L
	EXISTING EXISTING 100mm COMMS
	EXISTING 100mm
	EXISTING 125mm
	PROPOSED CABLE (AS MARKED)
	EXISTING CABLE (AS MARKED)
	PROPOSED UNDERGROUND HV/LV ROUTE
	EXISTING UNDERGROUND HV/LV ROUTE
	PROPOSED OVERHEAD HV/LV ROUTE
	EXISTING OVERHEAD HV/LV ROUTE
	PROPOSED S/L CABLE
	EXISTING S/L CABLE
	PADMOUNT TRANSFORMER
	PMT LV GEORGAPHIC
	PMT HV GEORGAPHIC
	RING MAIN UNIT
	RMU HV SCHEMATIC
	PROPOSED SUPPLY PILLAR
	EXISTING SUPPLY PILLAR
	PROPOSED LINK PILLAR
	EXISTING LINK PILLAR
	COMMERCIAL PILLAR
	EARTH
	PROPOSED TYPE 4 PIT
	EXISTING TYPE 4 PIT

- PROPOSED L50 (RATE 2)
- EXISTING L50 (RATE 2)
- PROPOSED L90 (RATE 2)
- EXISTING L90 (RATE 2)
- EXISTING M50 (RATE 2)

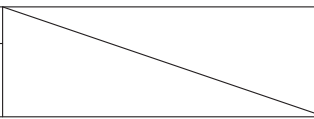
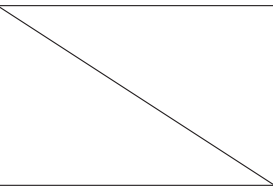
Diagram illustrating the structure of a SP1-SL device. The structure consists of layers labeled TC, LV, and HV. A central region is labeled ETC. and SP1-SL HAS S CONDU.

[illegible]



URD CIVIL WORKS SCHEDULE (ROAD CROSSINGS)																							
LOCATION	STATIONS FROM-TO	CONDUIT LENGTH (m)								BENDS (°/No)								X-SECTION (m)			DRAW WIRE	KERB MARK	REMARKS
		50	No	100C	No	100	No	125	No	50	No	100C	No	100	No	125	No	EXCAV/ TAPE	COVER STRIP	TRENCH DETAIL			
FAIRWAY ST	17 - 20	35	1															35	O	35	2		
	24 - 31				30	1	30	2	30	4								30	SP1	210	2		
	25 - 31				45	1	45	2	45	4								45	SP1	315	2		
COASTLINK CRT	27 - 30	45	1															45	O	45	2		
HIGHLANDS ST	32 - 33	35	1															35	O	35	2		
	42 - 49				30	1	30	2	30	4								30	SP1	210	2		
CHRISTENSEN RD	52 - 56	30	1															30	O	30	2	OPEN CUT TRENCHING	
TOTALS		145		105		210		420										250		880	14		

URD CIVIL WORKS SCHEDULE (ALONG FOOTPATHS)																									
LOCATION	STATIONS FROM-TO	CONDUIT LENGTH (m)								BENDS (°/No)								X-SECTION (m)		DRAW WIRE	KERB MARK	REMARKS			
		50	No	100C	No	100	No	125	No	40	No	100C	No	100	No	125	No	EXCAV/ TAPE	COVER STRIP				TRENCH DETAIL		
FAIRWAY ST	16 - 20				55	1	55	2	55	4								55		SP1	385				
	20 - 22	85	1		85	1	85	2	85	4								85		SP1-SL	680				
	22 - 23				55	1	55	2	55	4								55		SP1	385				
	23 - 24	10	1		10	1	10	2	10	4								10		SP1-SL	80				
	17 - 20L	30	1															25	5	O	30				
	21 - 21L	5	1															5		O	5				
	22 - 22L	5	1															5		O	5				
	24 - 23L	5	1															5		O	5				
	24 - 26				70	1	70	2	70	4								70		SP1	490				
	26 - 28	80	1		80	1	80	2	80	4								80		SP1-SL	640				
COASTLINK CRT	28 - 29				45	1	45	2	45	4								45		SP1	315				
	26 - 26L	5	1															5		O	5				
	27 - 27L	5	1															5		O	5				
	30 - 30L	5	1															5		O	5				
	31 - 33				15	1	15	2	15	4								15		SP1	105				
	33 - 35	100	1	100	1	100	2	100	4									100		SP1-SL	800				
HIGHLANDS ST	35 - 36				55	1	55	2	55	4								55		SP1	385				
	36 - 39	120	1	120	1	120	2	120	4									120		SP1-SL	960				
	39 - 41	40	1	40	1	40	2	40	4									40		SP1-SL	320				
	41 - 43				30	1	30	2	30	4								30		SP1	210				
	32 - 32L	10	1															5	5	O	10				
	34 - 34L	5	1															5		O	5				
	35 - 35L	5	1															5		O	5				
	37 - 37L	5	1															5		O	5				
	38 - 38L	5	1															5		O	5				
	39 - 39L	5	1															5		O	5				
CHRISTENSEN RD	40 - 40L	5	1															5		O	5				
	49 - 50				5	1	5	2	5	4								5		SP1	35				
	53 - 57	145	1															145		O	145				
	46 - 46L	5	1															5		O	5				
	47 - 47L	5	1															5		O	5				
	53 - 53L	5	1															5		O	5				
	54 - 54L	5	1															5		O	5				
	55 - 55L	5	1															5		O	5				
	57 - 57L	5	1															5		O	5				
	TOTALS			680		765		1530		3060									970	40		6035			

DESIGN DOCUMENTATION IN ACCORDANCE WITH THE REQUIREMENTS OF COMPLIANCE OF AS/NZS 1158		
* Refer AS1158.1:2005 Appendix D for information regarding V category * Refer AS1158.3.1:2005 Appendix E for information regarding P category * PerfectLite 5.06 computer software used		
ITEM	PROJECT SPECIFICATION	
LIGHTING CATEGORY		
Road Name	CHRISTENSEN RD	FAIRWAY ST, COASTLINK CRT , HIGHLANDS ST
Nominated Lighting Category	V5	P3
Road Surface Reflection Characteristic	R3	R3
INSTALLATION GEOMETRY		
Road Reserve Lighting Design Width	14m	20m
Mounting Height	10.5m	9m
Overhang	2m	0.7m
Lighting Arrangement	ARR1/ARR3	ARR1/ARR3
Pole Setback	1.0 BOK	0.8 BOK
Upcast Angle	5	5
LUMINAIRE/LAMP 1 DETAILS		
Lamp Type / Wattage	L90A	L50A
Luminaire Identification	Philips RoadFlair	Philips RoadFlair
Lamp Flux (Lumens)	10800	6000
I-Table Number (.cie)	BRP392 LED108NW 90W DWV	BRP391 LED60NW 50W DWV
Lighting Tariff	2	2
Power Factor	HPF (> 0.95)	HPF (> 0.95)
Start/Run Currents (Amps)	0.375	0.223
IP Rating	IP66	IP66
LUMINANCE BASED DESIGN - CATEGORY V LUMINAIRE/LAMP 1 TECHNICAL PARAMETER COMPLIANCE		
Spacing (m)	59m / 35m	59m
Traffic Direction	Normal	Oncoming
Average carriageway luminance (L_a) cd/m ²	0.49 / 0.80	0.46
Overall uniformity (U_o)	0.38 / 0.43	0.37
Longitudinal Uniformity (U_l)	0.64 / 0.51	0.51
Upward wasted light ratio ($UWLR$) %	0.04 / 0.04	0.04
Threshold increment (TI) %	8.22 / 10.31	15.1
Surround verge illuminance (E_v) %	72.7 / 66.02	61.17
Complies with standard	YES	YES
ILLUMINANCE BASED DESIGN - CATEGORY V TECHNICAL PARAMETER COMPLIANCE - "design area" ie. intersection of x and x roads		
Point Horizontal Illuminance (E_h)	3.5	
Illuminance (Horizontal Uniformity) Cat V (U_h)	8	
CATEGORY Px LUMINAIRE/LAMP 1 MAXIMUM SPACING CALCLS		
Average Horizontal Illuminance (E_h)		≥1.75 lx
Minimum Point Horizontal Illuminance (E_m)		≥0.30 lx
Illuminance Uniformity (U_h)		≥10
Upward wasted light ratio ($UWLR$) %		≤0.0%
Road Reserve Lighting Design Width (m)		Maximum Spacing (m)
23		60

SYMBOL LEGEND	
○	PROPOSED 50mm S/L
⊙	PROPOSED ENERGEX 100mm COMMS
⊗	PROPOSED 125mm
○	EXISTING 40mm S/L
⊙	EXISTING ENERGEX 100mm COMMS
⊗	EXISTING 125mm
●	PROPOSED CABLE (AS MARKED)
●	EXISTING CABLE (AS MARKED)
---	PROPOSED UNDERGROUND HV/LV ROUTE
---	EXISTING UNDERGROUND HV/LV ROUTE
---	PROPOSED OVERHEAD HV/LV ROUTE
---	EXISTING OVERHEAD HV/LV ROUTE
---	PROPOSED S/L CABLE
---	EXISTING S/L CABLE
⊕	PADMOUNT TRANSFORMER
⊕	PMT LV GEOGRAPHIC
⊕	PMT HV GEOGRAPHIC
⊕	RING MAIN UNIT
⊕	RMU HV SCHEMATIC
⊕	PROPOSED SUPPLY PILLAR
⊕	EXISTING SUPPLY PILLAR
⊕	PROPOSED LINK PILLAR
⊕	EXISTING LINK PILLAR
⊕	COMMERCIAL PILLAR
⊕	EARTH
⊕	PROPOSED TYPE A PIT
⊕	EXISTING TYPE A PIT
⊕	RECOVER EQUIPMENT
⊕	11kV STRAIGHT JOINT
⊕	OVERHEAD POLE TRANSFORMER
⊕	OVERHEAD POLE (HV ONLY)
⊕	OVERHEAD POLE (LV ONLY)
⊕	OVERHEAD POLE (HV & LV)
⊕	OVERHEAD HV TERMINATION
⊕	OVERHEAD LV TERMINATION
⊕	AIR BREAK SWITCH (OPEN)
⊕	AIR BREAK SWITCH (CLOSED)
⊕	DISCONNECT LINKS (OPEN)
⊕	DISCONNECT LINKS (CLOSED)
⊕	WATER METER
⊕	SURVEY PEG

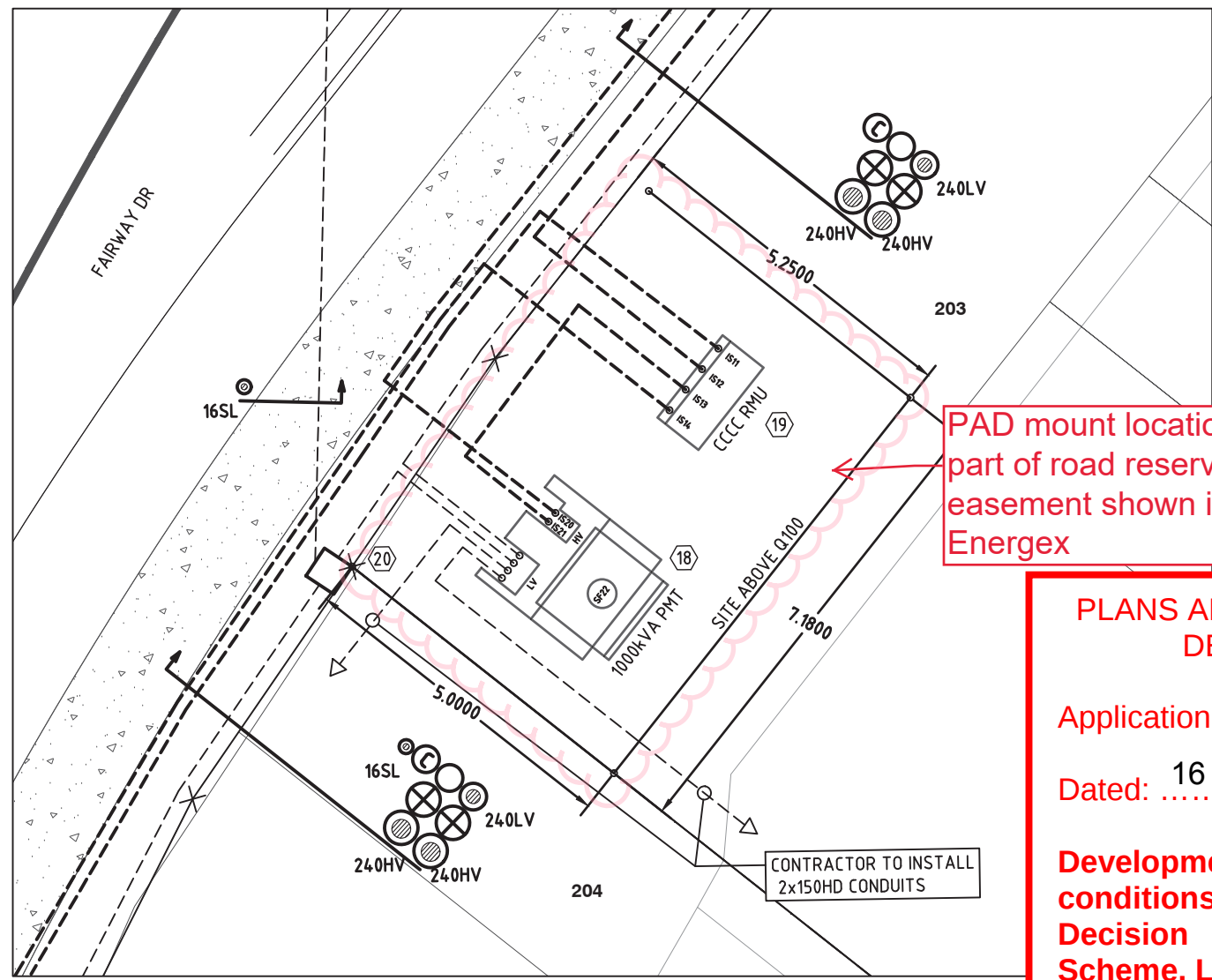
STREET LIGHT SYMBOL LEGEND	
⊕	PROPOSED L50 (RATE 2)
⊕	EXISTING L50 (RATE 2)
⊕	PROPOSED L90 (RATE 2)
⊕	EXISTING L90 (RATE 2)
⊕	EXISTING M50 (RATE 2)
ENERGEX NON-STANDARD TRENCH DETAILS (NTS)	

RATE 2 STREETLIGHT SCHEDULE																				
LOCATION	STN NO	SITE ID (POLE NO)	POLE or COMPONENTS						LANTERN						OUTREACH BRACKET				MOUNT HEIGHT (m)	REMARKS
			COMP ID	EXIST (m)	REC (m)	ERECT (m)	SLM or IIN	ALIGN (m)	COMP ID	EXIST	RECOVER LUMIN	CUST	DATE DE-ENERG	ERECT LUMIN	CUST	DATE ENERG	SLM or IIN	EXIST (m)		
FAIRWAY ST	20L	P2256073	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	21L	P2256074	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	22L	P2256075	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
COASTLINK CRT	23L	P2256076	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	26L	P2256077	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	27L	P2256078	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
HIGHLANDS ST	30L	P2256079	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	32L	P2256080	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	34L	P2256081	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
CHRISTENSEN RD	35L	P2256082	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	37L	P2256083	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	38L	P2256084	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
CHRISTENSEN RD	39L	P2256085	PO 1			7.0 BPM	SB90115UCI	0.8 BOK	SL 1				L50AL2	GCOC		SLEDPH0509A	1.5	-	9	
	40L	P2256086	PO 1			9.0 SBM	SB105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
	46L	P2256267	PO 1			9.0 SBM	SB105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
CHRISTENSEN RD	47L	P2256268	PO 1			9.0 SBM	SB105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
	53L	P2256269	PO 1			9.0 SBM	SS105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
	54L	P2256270	PO 1			9.0 SBM	SS105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
CHRISTENSEN RD	55L	P2256271	PO 1			9.0 SBM	SS105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
	57L	P2256272	PO 1			9.0 SBM	SS105130UCI	1.0 BOK	SL 1				L90AL2	GCOC		SLEDPH0912A	3.0	-	10.5	NOTE 1
NOTE 1: CHRISTENSEN RD LIGHT POLES TO PEGGED BY A SURVEYOR PRIOR TO CONSTRUCTION																				

UNDERGROUND CABLE SCHEDULE												
LOCATION	STATIONS FROM-TO	VOLTS	EXIST	TRF	REC	INSTALL	CABLE SIZE/TYPE	MODEL ID	ROUTE LENGTH (m)	CABLE LENGTH (m)	LOC	REMARKS
FAIRWAY ST	6 - 7	11kV	*		*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	2			
	6 - 18	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	92	95	5	
	7 - 19	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	97	100		
	19 - 36A	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	317	320		
	19 - 36B	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	317	320		
	1 - 4	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	202	205		
	4 - 5	LV			*		185mm ² 4 x 1C Cu PVC	SC0007181	2	5		
	5 - 9	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	42	45		
	9 - 11	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	52	55		
	9 - 18	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	77	80		
	18 - 20	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	7	10		
	20 - 23	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	137	140		
	2 - 3	SL	*		*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	3 - 8	SL	*		*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	3 - 4	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	27		30	
	20 - 21	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	27		30	
	21 - 22	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	9 - 9L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	20 - 20L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	47		50	
	21 - 21L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
HOMESTEAD DR	22 - 22L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	23 - 23L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	17		20	
	11 - 14	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	197	200		
	14 - 15	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	87	90		
	11 - 13	SL	*		*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	37		40	
	10 - 11	SL	*	*			16mm ² 2C Cu PVC/PVC	LVC216PVPV				
	23 - 28	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	152	155		
	26 - 27	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	27 - 28	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	17		20	
	26 - 26L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
COASTLINK CRT	27 - 27L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	27 - 30L	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	47		50	
	36B - 50	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	212	215		
	36A - 44	11kV			*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	217	220		
	23 - 36	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	197	200		
	36 - 40	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	162	165		
	40 - 45	LV			*		240mm ² 4C AI XLPE	LVA4240XPV	42	45		
	33 - 34	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	37		40	
	34 - 35	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	62		65	
	36 - 37	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	12		15	
HIGHLANDS ST	37 - 38	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	62		65	
	33 - 32L	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	42		45	
	34 - 34L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	35 - 35L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	37 - 37L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	38 - 38L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	38 - 39L	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	40 - 40L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	17		20	
	44 - 50	11kV	*		*		240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH	37	40		
	45 - 46	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	7		10	
CHRISTENSEN RD	46 - 47	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	52		55	
	52 - 56	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	22		25	
	53A - 54A	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	52		55	
	54A - 55A	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	57		60	
	55A - 56	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	7		10	
	56 - 57A	SL			*		16mm ² 2C Cu PVC/PVC	LVC216PVPV	37		40	
	46 - 46L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	47 - 47L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	53A - 53L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	54A - 54L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
TOTALS	55A - 55L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
	57A - 57L	SL			*		4mm ² 2C Cu PVC/PVC	LVC24PVPV	2		5	
							240mm ² 3 x 1C AI XLPE TRIPLEX	11AT240XSH		1310		
							240mm ² 4C AI XLPE	LVA4240XPV		1390		
							185mm ² 4 x 1C Cu PVC	SC0007181		5		
							16mm ² 2C Cu PVC/PVC	LVC216PVPV		765	160	
							4mm ² 2C Cu PVC/PVC	LVC24PVPV		165	30	

**ISSUE FOR ENERGEX & COUNCIL ACCEPTANCE ONLY
NOT FOR CONSTRUCTION**

This drawing is to be considered preliminary until this disclaimer is removed by Peter Eustace Pty. Ltd.



SC2256279 TRANSFORMER & X2256280 RMU DETAIL
1100@A1

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW / 2021 / 1398

Dated: 16 November 2021

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

Note all Electrical & Street Lighting works not in the public road reserve must come off a metered supply.

EQUIPMENT SCHEDULE												
LOCATION	STN No	SITE I.D.	EXIST	REC	INSTALL	SIZE & DESCRIPTION	IIN	COMP ID	PLANT No.	MODEL ID	QTY	REMARKS
EASTRIDGE ST	1	U2226598	*			SERV PILLAR 240 LUG SET		EX		EX LVSP4-6S	EX 1	MAKE 2-WAY
FAIRWAY ST	4	LP2256273			*	LINK PILLAR (240-240 7F)		LP1		LVSP14-6 ASSY801-1 ASSY1043-3 LVSP185 ASSY1037-1	1 1 1 1 1	MAINTAIN 600mm SEPARATION TO STN 5
	5	U2256274			*	C + I PILLAR SIL FUSE SIL FUSE HOLDER 185 LUG SET EARTH		CI1		LVLP400CFS ASSY801-1 ASSY1043-3 LVSP185 ASSY1037-1	1 1 1 1 1	MAINTAIN 600mm SEPARATION TO STN 4
	6	U2256275			*	11kV STRAIGHT JOINT [240-240]		SJ1		11ST24/24X	1	
	7	U2256276			*	11kV PARALLEL BUTT JOINT [240-240]				2JXC2A24XACA24	1	
	8		*	*		SIL PIT & LID (TYPE 4)		EX		EX	1	
	9	U2256277			*	SUPPLY PILLAR (240-240 7F)		PI1		LVSP9-6S	1	
	18	SC2256279			*	1000kVA PADMOUNT TRANSFORMER CULVERT & BASE PMT INSTALLATION PMT COMMISSION HV FUSES LV FUSES HV TERMINATIONS LV TERMINATIONS COMMON EARTHING		TR1		S25120 C & B PMTINSTALL PMTCOM DSHV10SLK DSLVF31 2DBSTA24D LTSA24D DSSQPMCEG	1 1 1 1 2 2 2 2 1	
	19	X2256280			*	ABB SAFELINK 2 'C'CCC' RMU - OUTDOOR OUTDOOR ENCLOSURE CONCRETE PLYNTH BASE SLAB FOR UNICULVERT BOX CULVERT FOUNDATION STEEL SUPPORT CHANNELS EARTH GRID EARTH TAILS TO RMU 11kV TERMINATION		RM1		34142 20732 20735 19960 19566 18434 DSGT4EGS DSRMEGT 1SGTFM9524XG	1 1 1 1 1 3 1 1 4	
	20	U2256283			*	SUPPLY PILLAR (240-240 7F)		PI1		LVSP9-6S	1	
	23	U2256282			*	SIL FUSE HOLDER		PI1		LVSP9-6S ASSY801-1 ASSY1043-3	1 1 1	MAKE PILLAR 8-FUSE TYPE
	17A				*	SIL PIT & LID (TYPE 4)		PT1		ASSY833-1	1	
HOMESTEAD DR	21,22				*	SIL PIT & LID (TYPE 4) JUNCTION BOX KIT LINK PILLAR (240-240 7F)		PT1		ASSY833-1 ASSY833-5 LVSP14-6	1 1 1	
					*	SIL FUSE SIL FUSE HOLDER EARTH		LP1		ASSY801-1 ASSY1043-3 ASSY1037-1	1 1 1	
	14	U2256281			*	MEN PILLAR (240-240 NF)		PI1		LVSP4-6NF	1	
	15	U2226605			*	EARTH				ASSY1011-2	1	
COASTLINK CRT	28	U2256284			*	SERV PILLAR 240 LUG SET		EX		EX LVSP4-6S	EX A/R	MAKE 2-WAY
					*	C + I PILLAR FUSES SIL FUSE SIL FUSE HOLDER EARTH		CI1		LVLP400CFS ASSY801-1 ASSY1043-3 ASSY1037-1	1 A/R A/R 1	
	26,27				*	SIL PIT & LID (TYPE 4) JUNCTION BOX KIT		PT1		ASSY833-1 ASSY833-5	1 1	
	30				*	SIL PIT & LID (TYPE 4)		PT1		ASSY833-1	1	
HIGHLANDS ST	36A	U2256285			*	11kV STRAIGHT JOINT [240-240]		SJ1		11ST24/24X	1	
	36B	U2256286			*	11kV STRAIGHT JOINT [240-240]		SJ1		11ST24/24X	1	
	36	U2256287			*	C + I PILLAR SIL FUSE SIL FUSE HOLDER EARTH		CI1		LVLP400CFS ASSY801-1 ASSY1043-3 ASSY1037-1	1 1 1 1	MAKE PILLAR 8-FUSE TYPE
	33	U2256297			*	SUPPLY PILLAR (240-240 7F)		PI1		LVSP4-6S ASSY801-1 ASSY1043-3	1 1 1	
CHRISTENSEN RD	40	U2256288			*	C + I PILLAR SIL FUSE SIL FUSE HOLDER EARTH		CI1		LVLP400CFS ASSY801-1 ASSY1043-3 ASSY1037-1	1 1 1 1	
	32,39				*	SIL PIT & LID (TYPE 4)		PT1		ASSY833-1	1	
	34, 35,37,38				*	JUNCTION BOX KIT		PT1		ASSY833-5	1	
	44	U2256289			*	11kV STRAIGHT JOINT [240-240]		SJ1		11ST24/24X	1	
	45	U2256087	*			SERV PILLAR SIL FUSE SIL FUSE HOLDER 240 LUG SET		EX		EX ASSY801-1 ASSY1043-3 LVSP4-6S	EX 1 1 1	MAKE 2-WAY
	50	U2256290			*	11kV STRAIGHT JOINT [240-240]		SJ1		11ST24/24X	1	
	52	U2256088	*			SERV PILLAR SIL FUSE SIL FUSE HOLDER		EX		EX ASSY801-1 ASSY1043-3	EX 1 1	
	53A,54A,55A,57A				*	SIL PIT & LID (TYPE 4) & FUSED J/BOX (SSM)		PT1		ASSY833-1	1	
	53,54,55,57				*	SIL PIT & LID (TYPE 4)		PT1		ASSY833-1	1	
	56				*	SIL PIT & LID (TYPE 4) JUNCTION BOX KIT		PT1		ASSY833-1 ASSY833-5	1 1	

PROPOSED SL GEOGRAPHIC
MAX ALLOWABLE EFLI = 1024Ω
MAX ALLOWABLE VDrop = 9V

16mm 2C
4mm 2C

NEW STYLE LINK PILLAR					LOCATION:	HOMESTEAD DR	STATION:	LP2256278
CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION				
1 (LHS)	150x50	WB	5	TO HOMESTEAD DR SC2226680 / HOMESTEAD DR U2226606 & SERVICES				
2 (RHS)	150x50	WB	5	TO FAIRWAY ST SC2256279 / FAIRWAY ST LP2256273 & SERVICES				
MATERIAL: GRAVOPLY II (1.5mm) or similar								

NEW STYLE LINK PILLAR					LOCATION:	FAIRWAY ST	STATION:	LP2256273
CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION				
1 (LHS)	150x50	WB	5	TO FAIRWAY ST SC2256279 / FAIRWAY ST LP2256278 & SERVICES				
2 (RHS)	150x50	WB	5	TO HOMESTEAD DR SC2226594 & SERVICES				
MATERIAL: GRAVOPLY II (1.5mm) or similar								

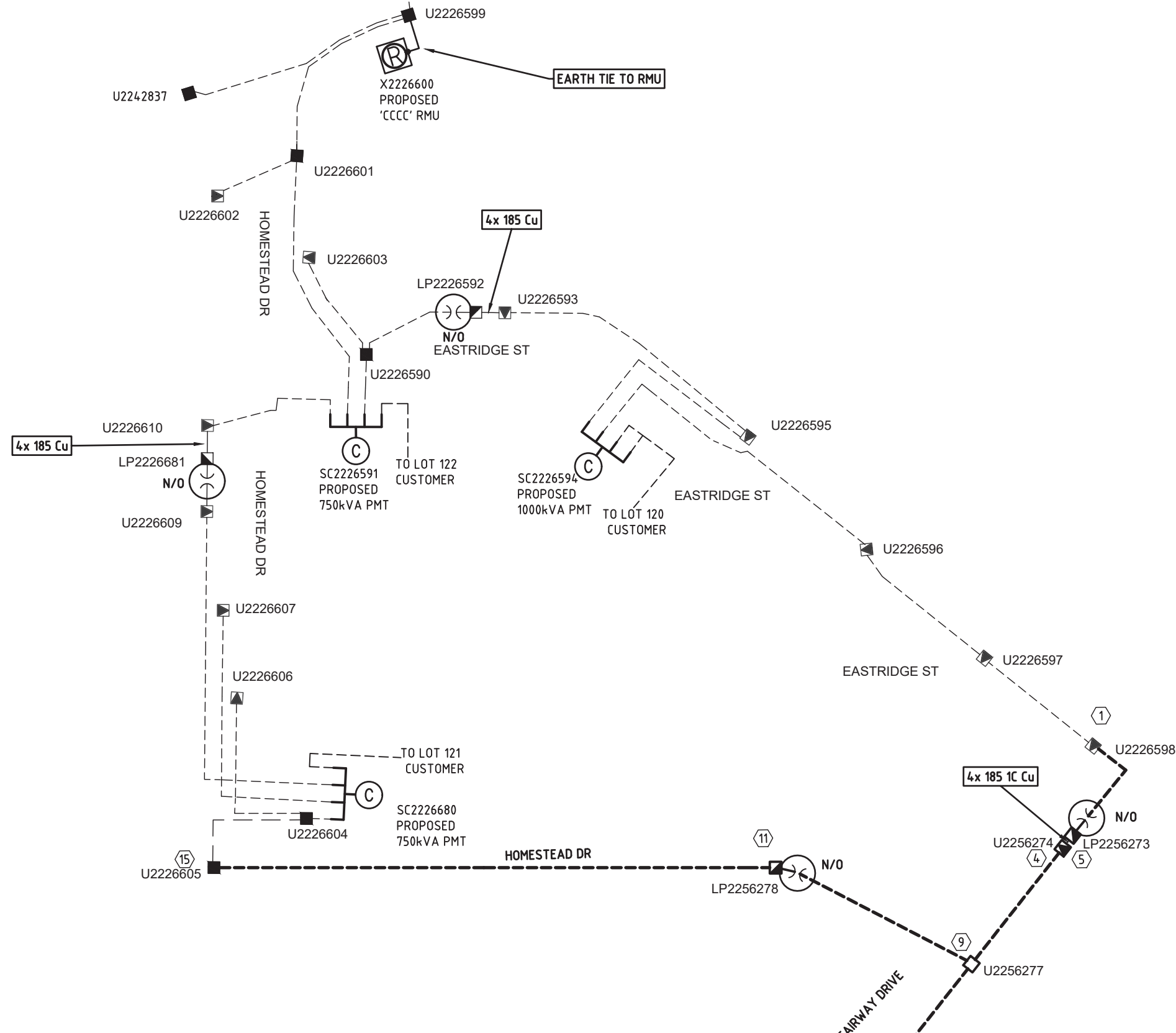
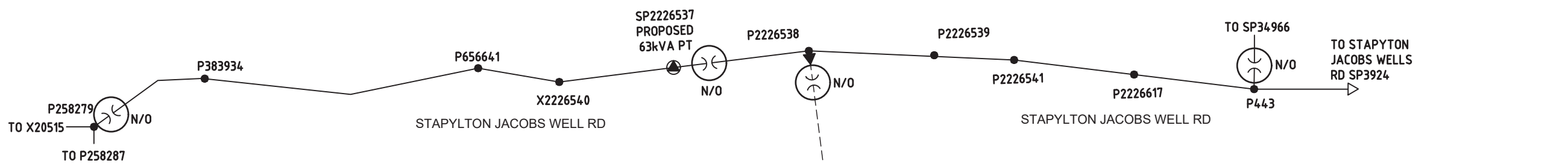
LV POLE TERMINATION LABEL		
LABEL SIZE	SITE LOCATION FOR ATTACHING OF LABEL	LABEL INFORMATION
300x100	POLE No: P2256118	LV CABLE TO CHRISTENSEN RD P2256119 / COASTLINK CRT U2256284 / FAIRWAY ST SC2256279 & SERVICES
	LOCATION: CHRISTENSEN RD	
MATERIAL: GRAVOPLY II (1.5mm) or similar		

LV POLE TERMINATION LABEL		
LABEL SIZE	SITE LOCATION FOR ATTACHING OF LABEL	LABEL INFORMATION
300x100	POLE No: P2256119	LV CABLE TO CHRISTENSEN RD P2256118 / COASTLINK CRT U2256284 / FAIRWAY ST SC2256279 & SERVICES
	LOCATION: CHRISTENSEN RD	
MATERIAL: GRAVOPLY II (1.5mm) or similar		

PMT LV SWBD - SWITCH FUSE CIRCUITS					LOCATION:	FAIRWAY ST	STATION:	SC2256279
CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION				
TFMR ISOLATOR	80 x 35	WB	6	TRANSFORMER				
1	80 x 35	WB	5	TO FAIRWAY ST U2256277 (DIRECT) / HOMESTEAD DR LP2256278 / FAIRWAY ST LP2256273 & SERVICES				
2	80 x 35	WB	5	TO FAIRWAY ST U2256283 (DIRECT) / COASTLINK CRT U2256284 / CHRISTENSEN RD P2256118 / CHRISTENSEN RD P2256119 & SERVICES				
3	80 x 35	WB	5	SPARE				
4	80 x 35	WB	5	SPARE				
MATERIAL: GRAVOPLY II (1.5mm) or similar								

PMT LV SWBD - SWITCH FUSE CIRCUITS					LOCATION:	EASTRIDGE ST	STATION:	SC2226594
CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION				
TFMR ISOLATOR	80 x 35	WB	6	TRANSFORMER				
1	80 x 35	WB	5	EXISTING				
2	80 x 35	WB	5	TO EASTRIDGE ST U2226596 (DIRECT) / FAIRWAY ST LP2256273 & SERVICES				
3	80 x 35	WB	5	EXISTING				
4	80 x 35	WB	5	EXISTING				
MATERIAL: GRAVOPLY II (1.5mm) or similar								

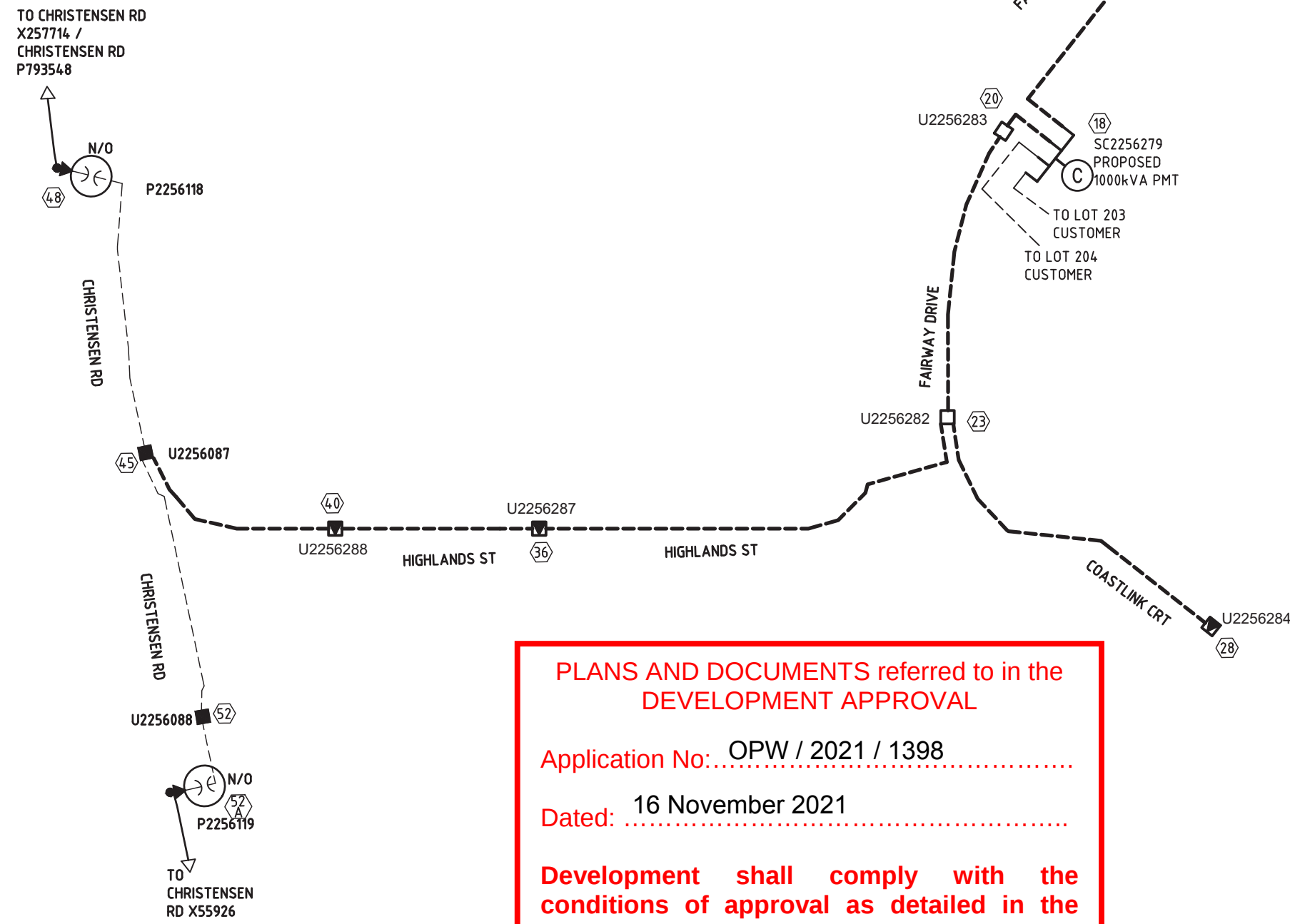
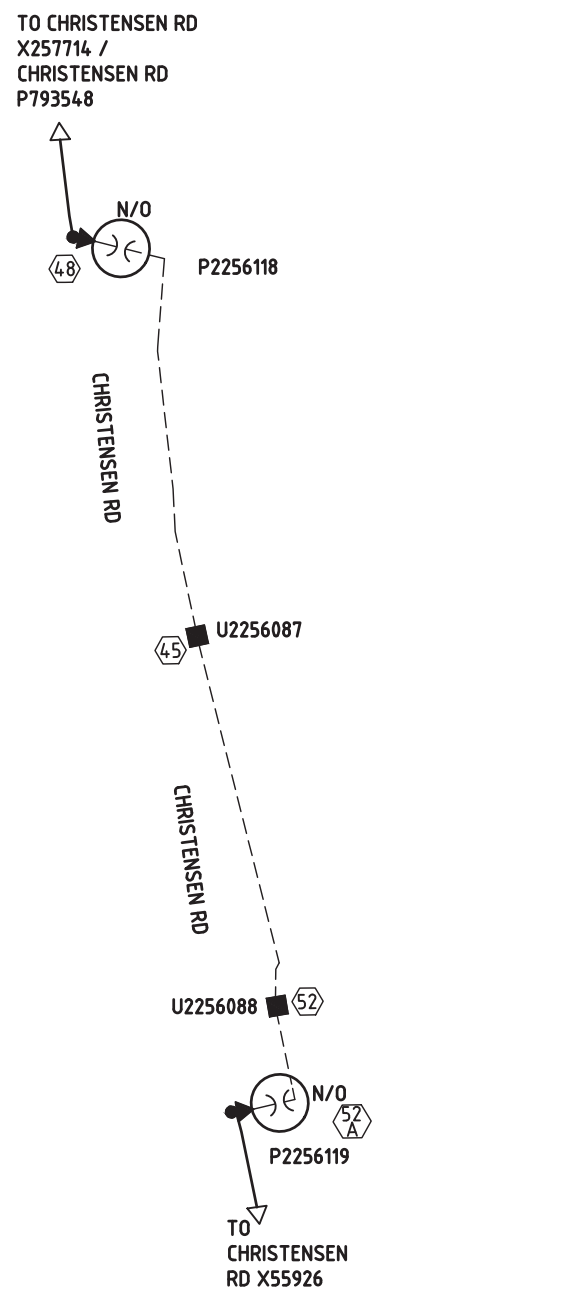
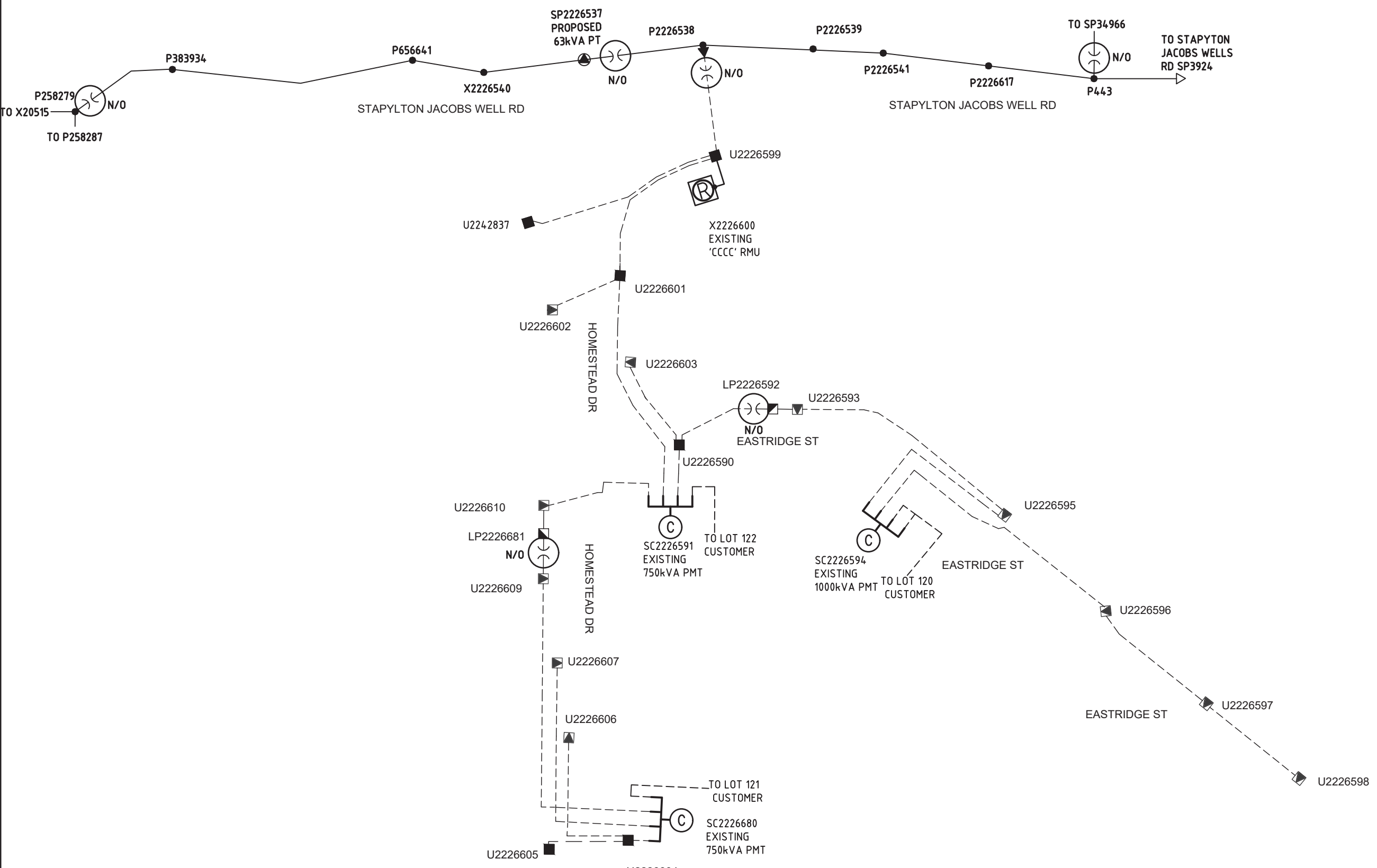
PMT LV SWBD - SWITCH FUSE CIRCUITS					LOCATION:	HOMESTEAD DR	STATION:	SC2226680
CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION				
TFMR ISOLATOR	80 x 35	WB	6	TRANSFORMER				
1	80 x 35	WB	5	EXISTING				
2	80 x 35	WB	5	EXISTING				
3	80 x 35	WB	5	EXISTING				
4	80 x 35	WB	5	TO HOMESTEAD DR U2226604 (DIRECT) / HOMESTEAD DR U2226606 / HOMESTEAD DR LP2256278 & SERVICES				
MATERIAL: GRAVOPLY II (1.5mm) or similar								



SYMBOL LEGEND	
	PROPOSED 50mm S/L
	PROPOSED 100mm
	PROPOSED 125mm
	EXISTING 40mm S/L
	EXISTING ENERGEX 100mm COMMS
	EXISTING 100mm
	EXISTING 125mm
	PROPOSED CABLE (AS MARKED)
	EXISTING CABLE (AS MARKED)
	PROPOSED UNDERGROUND HV/LV ROUTE
	EXISTING UNDERGROUND HV/LV ROUTE
	PROPOSED OVERHEAD HV/LV ROUTE
	EXISTING OVERHEAD HV/LV ROUTE
	PROPOSED S/L CABLE
	EXISTING S/L CABLE
	PADMOUNT TRANSFORMER
	PMT LV GEOGRAPHIC
	PMT HV GEOGRAPHIC
	RING MAIN UNIT
	RMU HV SCHEMATIC
	PROPOSED SUPPLY PILLAR
	EXISTING SUPPLY PILLAR
	PROPOSED LINK PILLAR
	EXISTING LINK PILLAR
	COMMERCIAL PILLAR
	EARTH
	PROPOSED TYPE 4 PIT
	EXISTING TYPE 4 PIT
	RECOVER EQUIPMENT
	11kV STRAIGHT JOINT
	OVERHEAD POLE TRANSFORMER
	OVERHEAD POLE (HV ONLY)
	OVERHEAD POLE (LV ONLY)
	OVERHEAD POLE (HV & LV)
	OVERHEAD HV TERMINATION
	OVERHEAD LV TERMINATION
	AIR BREAK SWITCH (OPEN)
	AIR BREAK SWITCH (CLOSED)
	DISCONNECT LINKS (OPEN)
	DISCONNECT LINKS (CLOSED)
	WATER METER
	SURVEY PEG

STREET LIGHT SYMBOL LEGEND	
	PROPOSED L50 (RATE 2)
	EXISTING L50 (RATE 2)
	PROPOSED L90 (RATE 2)
	EXISTING L90 (RATE 2)
	EXISTING M50 (RATE 2)

ENERGEX NON-STANDARD TRENCH DETAILS (NTS)	
	ETC.
DETAIL SP1 & SP1-SL	



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW / 2021 / 1398

Dated: 16 November 2021

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

ISSUE FOR ENERGEX & COUNCIL ACCEPTANCE ONLY

NOT FOR CONSTRUCTION

This drawing is to be considered preliminary until this disclaimer is removed by Peter Eustace Pty. Ltd.

EXISTING LV GEOGRAPHIC
ALL UNDERGROUND CABLE 240LV UNLESS OTHERWISE MARKED

EXISTING LV GEOGRAPHIC
ALL UNDERGROUND CABLE 240LV UNLESS OTHERWISE MARKED

PROPOSED LV GEOGRAPHIC
ALL UNDERGROUND CABLE 240LV UNLESS OTHERWISE MARKED

DATE	31.08.21	 STREET ADDRESS: U14, 39 Lawrence Dr, Naring, QLD 4211 POSTAL ADDRESS: PO Box 2835, Naring DC QLD 4211 TELEPHONE: (07) 5596 1425 EMAIL: mail@pece.com.au WEB: peterustace.com.au		SITE CONTACT DETAILS	COUNCIL STANDARD ALIGNMENTS	WORKS COORDINATOR	PETER EUSTACE & ASSOCIATES	APPROVED	SHIHABUL ISLAM	Peter Eustace & Associates INSTALL CONDUITS, CABLES, TRANSFORMER, STREETLIGHTS, PILLARS 7 LOT SUBDIVISION HESTER STAGE 2 - YATALA STAPYLTON JACOBS WELL ROAD YATALA	WORKS/PLAN VERSION 5.5
R DESCRIPTION	A			NAME	Energex OH	Energex OH	PARENT PROJECT NO.	CHECKED	DAVID PRUSS		SCALE: N.T.S.
				TBC	Energex UG	Energex UG	WORK REQUEST NO.	DESIGNER	ABRAHAM IKORO		PROJECT / SUB PROJECT NO.
				COMPANY	NBN	REFER NBN	LOTS	PLANNER	KRIS BOVEINIS		S1301568
				PHONE	-	REFER GAS	LOT 201 - 207	PHONE	(07) 5596 1425		Sheet 4 of 5
				MOBILE	-	REFER GAS	LOT 501 on SP298984	PHONE	(07) 5596 1425		ISSUE NO: A
				FAX	-	REFER CIVIL	GOLD COAST CITY COUNCIL	PHONE			
					SEWERAGE	REFER CIVIL	UBD REF	ISSUE DATE	31 AUGUST 2021		
					OTHER	REFER CIVIL	PEGGED?				

