

EQUIPMENT SCHEDULE

LOCATION	STN No.	SITE I.D.	EX	REC	IN	SIZE AND DESCRIPTION	COMP ID	CU CODE	QTY	REMARKS
KINSHIP ROAD	1	U12632058		*		1 WAY PILLAR 3 WAY PILLAR + SL	PI1	LVSP9-6SL	-1 1	RECOVER EXISTING PILLAR 3x240LV, 1x4SL
	2	U12709681			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
	4	U12709682			*	2 WAY PILLAR + SL	PI1	LVSP4-6SL	1	2x240LV, 2x4SL USE SPARE LV FUSE FOR SECOND STREETLIGHT
	6	U12709683			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
SORA PLACE	7	U12709684			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV, 1x16LV
	8	U12709685			*	CROSS-ROAD PILLAR + SL	PI1	LVSP12-6SL	1	1x16LV, 1x4SL
	9	U12709686			*	2 WAY PILLAR + SL	PI1	LVSP4-6SL	1	2x240LV, 1x4SL
	11	U12709687			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
KINSHIP ROAD	12	U12709688			*	1 WAY PILLAR + SL	PI1	LVSP2-6SL	1	1x240LV, 1x4SL
	14	U12709689			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV, 1x16LV
	15	U12709690			*	CROSS-ROAD PILLAR	PI1	LVSP12-6	1	1x16LV
	16	U12709691			*	2 WAY PILLAR + SL	PI1	LVSP4-6SL	1	2x240LV, 1x4SL
	18	U12709692			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
	19	U12709693			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
	20	U12709694			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV, 1x16LV
	21	U12709695			*	CROSS-ROAD PILLAR + SL	PI1	LVSP12-6SL	1	1x16LV, 1x4SL
	22	U12709696			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
	23	U12709697			*	2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV
	26	LP12709698			*	2 WAY LINK PILLAR + SL LINK PILLAR MEN EARTHING	PI3	LVSP14-6SL LV4CMENLINK	1 1	2x240LV, 1x4SL
	28	U12630650	*			2 WAY PILLAR 2 WAY TO 3 WAY CONVERT ADDITIONAL FUSE HOLDER - PANEL MOUNTED		LVSPC2W3 1043-1	1 1	CONVERT TO 3 WAY

SUNDRY ITEMS SCHEDULE

SUNDRY SPEC	DESCRIPTION	QUANTITY	REMARKS
LVSPL240	240mm 4 CORE CABLE LV LUG SET	28	

MATERIALS SUMMARY - S0107645

UNDERGROUND			
MODEL No.	QTY	MODEL No.	QTY
1043-1	1	LVSP2-6SL	1
ADE	1	LVSP4-6	10
LV4CMENLINK	1	LVSP4-6SL	3
LVSP12-6	1	LVSP9-6SL	1
LVSP12-6SL	2	LVSPC2W3	1
LVSP14-6SL	1	LVSPL240	28
CABLES			
MODEL No.	QTY	MODEL No.	QTY
SCS820364	559	LVC24PVPV	171
SCS820365	72		
STREET LIGHTING			
MODEL No.	QTY	MODEL No.	QTY
SLEDSY01375	10	SUGSLPIL	10
SLNOS3CI	10		

LABELS

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

PHASING

Transformer - FS#	A	B	C	Total
SC12630622 - FS2	3	2	2	7
SC12630622 - FS3	8	9	9	26
SC12630622 - FS4	6	6	7	19
SC12630622	17	17	18	(52)
SC12632057 - FS1	9	9	10	28
SC12632057 - FS2	5	5	4	14
SC12632057 - FS4	10	10	9	29
SC12632057	24	24	23	(71)

Calculation may include adjacent stages and may not equal final PMT Count.

PROPOSED COMMISSIONING PLAN

Tentative only; subject to amendment by ENERGEX outage coordinator.

SWITCHING ONE

- 1 x LV Switching
- Following a satisfactory site specific risk assessment by the Electrical Contractor, terminate the new 240mm LV cable at the existing **LIVE** LV pillar at Stn 1 (U12632058).
- Carry out commissioning checks and reverse switching.
- Commission LV Circuit 4 of SC12632057.

SWITCHING TWO

- 1 x LV Switching
- Following a satisfactory site specific risk assessment by the Electrical Contractor, terminate the new 240mm LV cable at the existing **LIVE** LV pillar at Stn 28 (U12630650).
- Carry out commissioning checks and reverse switching.
- Commission LV Circuit 4 of SC12630622.

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

EXISTING AND PROPOSED LV SCHEMATIC

SCALE 1:1500

ALL NEW LV CABLES TO BE 4c 240mm AI XLPE
(UNLESS NOTED OTHERWISE)

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No.: OPW/2024/584

Dated: 29 May 2024

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	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:	COUNCIL	GOLD COAST	DWT REV.	V53-3 20210504	DESCRIPTION	LOCATION	DRAWING No.	REVISION
17/05/2024	A	PRELIMINARY ISSUE	RR							COM/2019/82			ELECTRICITY RETICULATION - RESIDENTIAL	CALLI ESTATE - STAGE 3 COURTNEY DRIVE UPPER COOMERA	F020-02	A
									DESIGNED	W.Schardt	DRAWN	B.Hyland	CLIENT		ENERGEX PROJECT No.	SHEET No.
									CHECKED	D.Lloyd RPEQ 5060	APPROVED	ROBIN RUSSELL RPEQ 1546	HB QLD PTY LTD		S0107645	2 OF 4
									DATE	17/05/2024	SIGNED	RR				
													THIS DOCUMENT IS COPYRIGHT AND THE PROPERTY OF ROBIN RUSSELL & ASSOCIATES PTY LTD AND MUST NOT BE RETAINED, COPIED OR USED WITHOUT AUTHORITY.			
													A1			

URD CONDUIT SCHEDULE - FOOTPATHS - BY ELECTRICAL CONTRACTOR

LOCATION	STATIONS FROM - TO	CONDUIT LENGTH (m)						X-SECTION (m)				DRAW WIRE	KERB MARKERS	REMARKS
		50mm HD	No.	100mm LD	No.	125mm LD	No.	EOL 100mm COMMS MD	PVC CABLE PROTECTION (m)	EXCAV /TAPE	TRENCH DETAIL			
KINSHIP ROAD	2 3			29	1				29	D	31			
	3 4	5	1	5	1				5	P	14			
	3 4L1	5	1						5	O	7			
SORA PLACE	4 5	10	1	10	1				10	P	24			
	5 4L2	4	1						4	O	6			
	5 6			33	1				33	D	35			
	6 7			22	1				22	D	24			
	7 9			32	1				32	D	34			
	8 8L	10	1						10	O	12			
	9 10	17	1	17	1				17	P	38			
	10 9L	4	1						4	O	6			
	10 11			13	1				13	D	15			
	11 12			34	1				34	D	36			
	12 12L	4	1						4	O	6			
	13 14			28	1				28	D	30			
KINSHIP ROAD	14 16			28	1				28	D	30			
	16 17	14	1	14	1				14	P	32			
	17 16L	4	1						4	O	6			
	17 18			11	1				11	D	13			
	18 19			20	1				20	D	22			
	19 20			28	1				28	D	30			
	20 22			23	1				23	D	25			
	21 21L	4	1						4	O	6			
	22 23			22	1				22	D	24			
	23 23L	5	1						5	O	7			
	23 25			24	1				24	D	26			
	26 27			34	1				34	D	36			
	27 28	16	1	16	1				16	P	36			
	27 28L	4	1						4	O	6			
	TOTAL	106m		443m					44m	487m	617m			

- 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, REGARDLESS OF ENERGEX'S REQUIREMENTS.
 - 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.

URD CONDUIT SCHEDULE - ROADWAYS - BY CIVIL CONTRACTOR

LOCATION	STATIONS FROM - TO	CONDUIT LENGTH (m)						X-SECTION (m)				DRAW WIRE	KERB MARKERS	REMARKS
		50mm HD	No.	100mm LD	No.	125mm LD	No.	EOL 100mm COMMS MD	PVC CABLE PROTECTION (m)	EXCAV /TAPE	TRENCH DETAIL			
KINSHIP ROAD	1 2			20	1				20	20	D	22	2	
SORA PLACE	7 8			20	1				20	20	D	22	2	
KINSHIP ROAD	14 15			18	1				18	18	D	20	2	
	20 21			19	1				19	19	D	21	2	
	26 26L	18	1						18	18	O	20	2	
TOTAL		18m		77m					95m	95m		105m	10	

- 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 1200mm.
 - CONDUITS SHALL EXTEND TO WITHIN 900mm OF PROPERTY ALIGNMENT; PVC PROTECTIVE COVER STRIPS SHALL BE LAID ABOVE ALL ROAD-CROSSING CONDUITS.
 - REFER ENERGEX UDC MANUAL SECT. C2 FOR CROSS-SECTION DETAILS.
 - BRASS "E" MARKERS SHALL BE INSTALLED IN KERBS DIRECTLY ABOVE ELECTRICITY CONDUITS.

RATE 2 - STREETLIGHT SCHEDULE

LOCATION	STN No.	POLE OR COMPONENTS							LANTERN							OUTREACH BRACKET					MOUNT HT (m)	REMARKS		
		SITE ID (POLE No.)	COMP ID	EX (m)	REC (m)	ER (m)	POLE CODE	ALIGN (mm)	COMP ID	EX	RECOVER		DATE	ERECT		DATE	LUMINAIRE CODE	EX (m)	REC (m)	ER (m)			CU ID	UPCAST ANGLE
KINSHIP ROAD	4L1	P12709699	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
SORA PLACE	4L2	P12709700	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	8L	P12709701	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	9L	P12709702	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	12L	P12709703	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
KINSHIP ROAD	16L	P12709704	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	21L	P12709705	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	23L	P12709706	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	26L	P12709707	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE
	28L	P12709708	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1					L14L2	GCCC		SLEDSY01375					0°	5.1	BLACK AVENUE

- NOTES:
- ALL LIGHTS TO BE CONNECTED ON EQL RATE 2.
 - CHECK CLEAR OF ALL SERVICES BEFORE EXCAVATING.
 - "NKL" ALIGNMENT MEASURED FROM NOMINAL KERB LINE TO FRONT OF POLE.

UNDERGROUND CABLE SCHEDULE

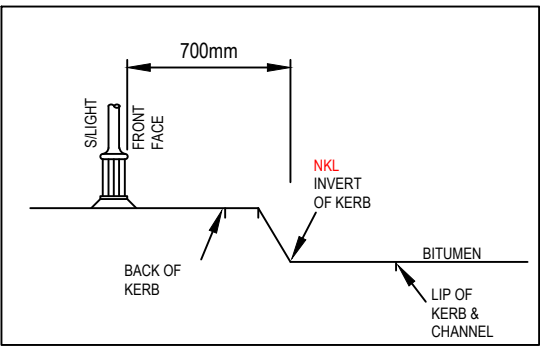
LOCATION	STATIONS FROM - TO	VOLTS	EX	REC	IN	CABLE SIZE/TYPE	CU CODE	CABLE LENGTH (m)		REMARKS
								NEW	REC	
KINSHIP ROAD	1 2	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	23		
	1 14	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	48		
SORA PLACE	2 4	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	38		
	4 4L2	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	19		
	4 4L1	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	16		
	4 6	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	46		
	6 7	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	27		
	7 8	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	25		
	7 9	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	37		
	8 8L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	16		
	9 9L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	26		
	9 11	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	33		
	11 12	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	39		
	12 12L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	10		
KINSHIP ROAD	14 15	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	23		
	14 16	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	33		
	16 16L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	23		
	16 18	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	29		
	18 19	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	25		
	19 20	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	33		
	20 21	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	24		
	20 22	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	28		
	21 21L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	10		
	22 23	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	27		
	23 23L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	5		
	23 26	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	42		
	26 26L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	24		
	26 28	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	51		
	28 28L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	22		
TOTALS (Variance 2%)						240mm² Al 4C XLPE/PVC	SCS820364	559		
						16mm² Cu 4C XLPE/PVC	SCS820365	72		
						4mm² Cu 2C PVC/PVC	LVC24PVPV	171		

- NOTES:
- 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 - TO	CONDUIT LENGTH (m)						X-SECTION (m)				DRAW WIRE	KERB MARKERS	REMARKS
		50mm HD	No.	100mm LD	No.	125mm LD	No.	EOL 100mm COMMS MD	PVC CABLE PROTECTION (m)	EXCAV /TAPE	TRENCH DETAIL			
KINSHIP ROAD	1 13			19	1					19	D	21		
	25 26			16	1					16	D	18		
TOTAL				35m						35m		39m		

- 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, REGARDLESS OF ENERGEX'S REQUIREMENTS.
 - 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.



GOLD COAST CITY COUNCIL
STREETLIGHT ALIGNMENT DETAIL
NTS

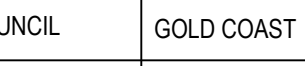
CONDUIT BENDING RADIUS (mm)			
LOCATION	50mm Ø	100mm Ø	125mm Ø
HORIZONTAL BEND	600	1830	1830
PILLAR - MAIN CABLE	-	1200	-
PILLAR - X-ROAD CABLE	-	450	-
PILLAR - STREET LIGHT CABLE	600	-	-
STREET LIGHT	300	-	-
POLE TERMINATION	300	1200	1830
TRANSFORMER	no bends required		

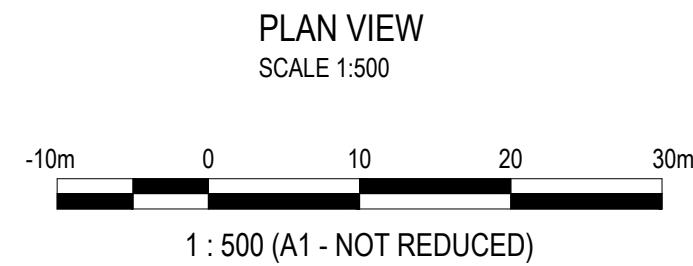
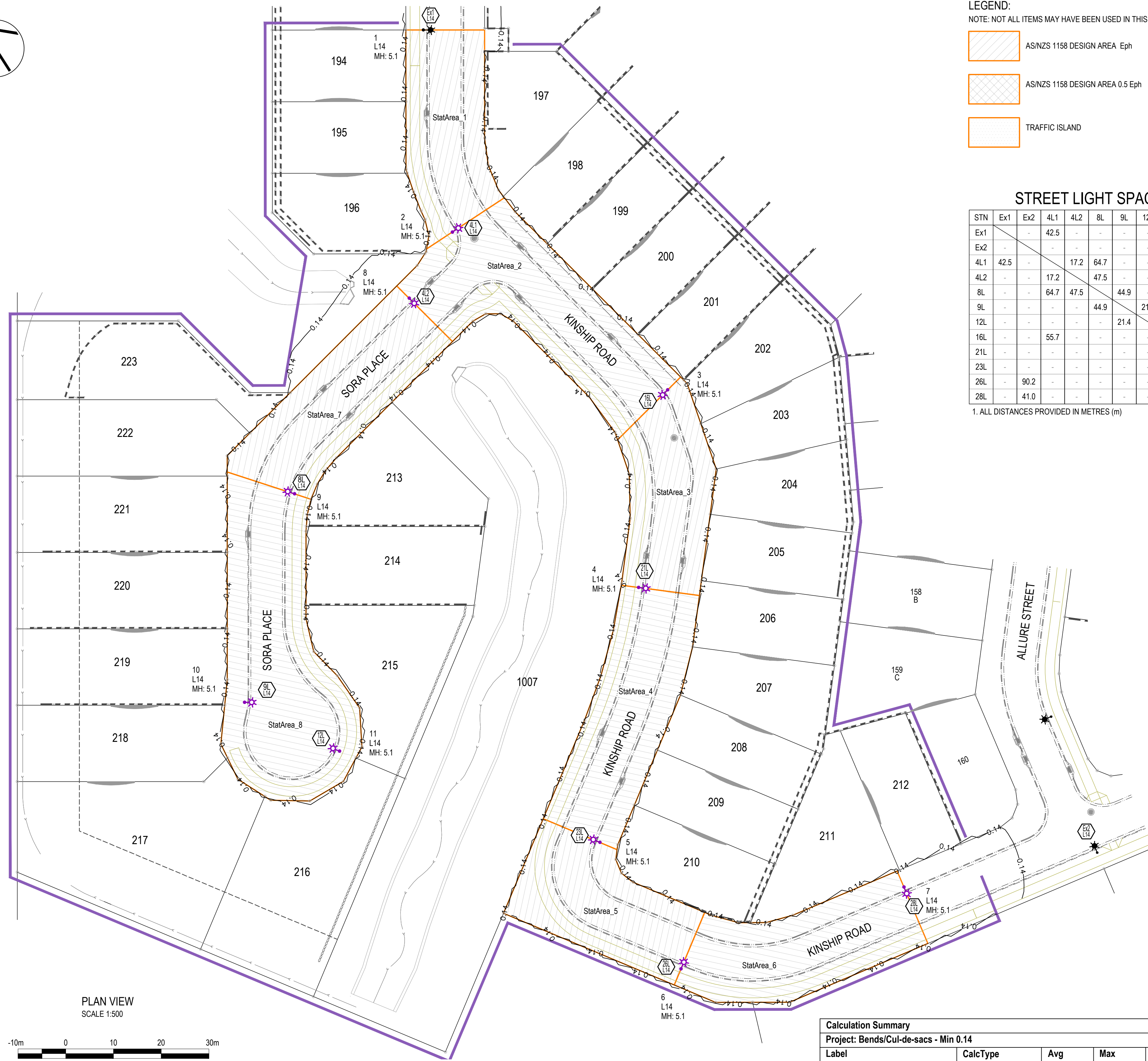
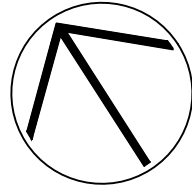
PLANS AND DOCUMENTS referred to in the
DECISION APPROVAL

Application No: OPW/2024/584

Dated: 29 May 2024

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	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:	 Robin Russell & ASSOCIATES PTY. LTD. CONSULTING ENGINEERS - ELECTRICAL	SUBDIVISION ELECTRICAL SERVICES 20416 Babara Street, Stafford, QLD 4053 Tel: (07) 3872 5555 Fax: (07) 3872 5566 Email: m@robruss.com.au www.robruss.com.au A.B.N. 78 010 589 661 THIS IS A UDC GENERATED DESIGN	COUNCIL	GOLD COAST	DWT REV.	V53-3 20210504	DESCRIPTION ELECTRICITY RETICULATION - RESIDENTIAL	LOCATION CALLI ESTATE - STAGE 3 COURTNEY DRIVE UPPER COOMERA	DRAWING No. F020-03	REVISION A
17/05/2024	A	PRELIMINARY ISSUE	RR								COUNCIL REF	COM/2019/82						
											DESIGNED	W.Schardt	DRAWN	B.Hyland		CLIENT HB QLD PTY LTD	ENERGEX PROJECT No. S0107645	SHEET No. 3 OF 4
											CHECKED	D.Lloyd RPEQ 5060		APPROVED ROBIN RUSSELL RPEQ 1546				
											DATE	17/05/2024		SIGNED <i>RR</i>		 THIS DOCUMENT IS COPYRIGHT AND THE PROPERTY OF ROBIN RUSSELL & ASSOCIATES PTY LTD AND MUST NOT BE RETAINED, COPIED OR USED WITHOUT AUTHORITY.	A1	



Luminaire Schedule					
Qty	Configuration	Description	MF	Filename	Arm
11	Single	SYLVANIA Nostalgia2 T2 L14 4K (Avenue)	0.750	AVENUE II 4K 14W V2 210729PH.ies	0.535

Calculation Summary					
Project: Bends/Cul-de-sacs - Min 0.14					
Label	CalcType	Avg	Max	Min	Max/Avg (UE2)
StatArea_1	Illuminance	1.81	9.39	0.24	5.19
StatArea_2	Illuminance	1.67	9.01	0.15	5.40
StatArea_3	Illuminance	1.71	9.03	0.14	5.28
StatArea_4	Illuminance	1.30	9.03	0.15	6.95
StatArea_5	Illuminance	1.76	8.95	0.17	5.09
StatArea_6	Illuminance	1.42	8.97	0.17	6.32
StatArea_7	Illuminance	1.46	8.82	0.17	6.04
StatArea_8	Illuminance	2.13	9.08	0.26	4.26

LEGEND:

NOTE: NOT ALL ITEMS MAY HAVE BEEN USED IN THIS DESIGN

	AS/NZS 1158 DESIGN AREA Eph
	AS/NZS 1158 DESIGN AREA 0.5 Eph
	TRAFFIC ISLAND

Isolines	
Linetype	Value (Lux)
—0.07—	0.07
—0.14—	0.14
—1.75—	1.75
—3.5—	3.5
—3.75—	3.75
—7.5—	7.5

STREET LIGHT SPACING MATRIX													
STN	Ex1	Ex2	4L1	4L2	8L	9L	12L	16L	21L	23L	26L	28L	
Ex1	-	-	42.5	-	-	-	-	-	-	-	-	-	-
Ex2	-	-	-	-	-	-	-	-	-	-	90.2	41.0	-
4L1	42.5	-	-	17.2	64.7	-	-	55.7	-	-	-	-	-
4L2	-	-	17.2	-	47.5	-	-	-	-	-	-	-	-
8L	-	-	64.7	47.5	-	44.9	-	-	-	-	-	-	-
9L	-	-	-	-	44.9	-	21.4	-	-	-	-	-	-
12L	-	-	-	-	-	21.4	-	-	-	-	-	-	-
16L	-	-	55.7	-	-	-	-	-	41.4	95.3	-	-	-
21L	-	-	-	-	-	-	-	41.4	-	53.9	-	-	-
23L	-	-	-	-	-	-	95.3	53.9	-	-	31.6	-	-
26L	-	-	90.2	-	-	-	-	-	-	31.6	-	49.4	-
28L	-	41.0	-	-	-	-	-	-	-	-	49.4	-	-

1. ALL DISTANCES PROVIDED IN METRES (m)

ROAD LIGHTING INFORMATION

Design documentation in accordance with the requirements of : AS/NZS 1158.3.1:2020 Appendix C				
ARRANGEMENT / GEOMETRY				
Category	Road Name(s)			
PR5	KINSHIP ROAD, SORA PLACE			
Arrangement	Height (m)	Outreach (m)	Uppcast	Offset (m)
Single Sided	5.1	0.535	0°	4.185
LUMINAIRE / LAMP DETAILS				
Type / Wattage	Lumens	IP Rating	Origin of Data	
14W LED	1969	66	SYLVANIA SCHREDER	
Luminaire Type	Avenue L14 T2 Black			
I Table No.	AVENUE II 4K 14W V2 210729PH.cie			
TECHNICAL PARAMETERS				
Average Horizontal Illuminance	(E _h)	≥0.85		
Min Point Horizontal Illuminance	(E _{ph})	≥0.14		
Illuminance Uniformity	(U _{e2})	≤10		
Upward Waste Light Ratio %	(UWLR)	≤1		
Road Reserve Lighting Design Width	(m)	16.5		
Perfect Lite Maximum Spacing	(m)	57		

GENERAL NOTES:

CALCULATIONS WITHIN THIS DESIGN ARE SUBJECT TO THE TOLERANCES OUTLINED IN AS/NZS 1158.2 & AS/NZS 3827.1.

ILLUMINANCE CALCULATION FIELDS USE A 1m X 1m HORIZONTAL GRID ARRAY.

SETTINGS HAVE BEEN ADJUSTED TO ENSURE ALL CALCULATIONS ARE UNDERTAKEN TO A MINIMUM OF 2 DECIMAL PLACES.

LINEAR ILLUMINANCE ARRAYS CREATED HAVE BEEN SET UP WITH A MAXIMUM SPACING OF 2.0m.

ISOLUX VALUES, WHERE SHOWN ON DIAGRAMS, HAVE BEEN ROUNDED TO 2 DECIMAL PLACES TO ENSURE CLARITY.

LUMINAIRES MAY BE MOVED BY UP TO 200mm IN EITHER DIRECTION Laterally, AND/OR AWAY FROM THE PATHWAY, WHILE REMAINING COMPLIANT.

AS PER S4.4.3.1 (1158.1.1:2022) & S4.1.1 (1158.3.1:2020), BLOCKING OBJECTS HAVE BEEN EMPLOYED IN ORDER TO EXCLUDE LIGHT THAT MAY CROSS PROPERTY BOUNDARIES.

DEFINITIONS:

OFFSET: THE HORIZONTAL DISTANCE BETWEEN THE PHOTOMETRIC CENTRE OF A LUMINAIRE AND THE RP BOUNDARY OR EDGE OF PATH.

OVERHANG: THE HORIZONTAL DISTANCE BETWEEN THE PHOTOMETRIC CENTRE OF A LUMINAIRE AND THE ADJACENT KERB OR CARRIAGEWAY EDGE.

OUTREACH: THE HORIZONTAL DISTANCE BETWEEN THE PHOTOMETRIC CENTRE OF A LUMINAIRE, TO—

(a) THE CENTRE OF THE POLE (E.G. STANDALONE STREET LIGHT POLES); OR

(b) THE FACE OF POLE FOR BRACKET ARMS (E.G. TIMBER POWER POLES).

PROJECT SPECIFIC DETAILS:

THIS DESIGN IS COMPLIANT WITH AND PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF:
AS/NZS 1158.3.1:2020 APPENDIX C
AS DETAILED BELOW

LIGHTING SUBCATEGORIES:
KINSHIP ROAD, SORA PLACE - PR5

APPLICABLE CLAUSES:
P CATEGORY
S4.2(c) FOR CURVED SECTIONS OF ROAD AND BENDS.
S4.3 T-INTERSECTIONS (e)(iii)/FIGURE 4.2(iii)
S4.3.3 CUL-DE-SACS

DESIGN METHODS:
SPACING TABLES AND DESIGN RULES FOR ROADWAYS & INTERSECTIONS.
NB! ALL LUMINAIRES WITHIN THIS DESIGN ARE WITHIN THE MAXIMUM ALLOWABLE SPACING FOR THEIR CATEGORY.

ILLUMINANCE DESIGN FOR CUL-DE-SAC & CURVES/BENDS.

ROAD SURFACE REFLECTION CHARACTERISTICS:
R3

COMPUTER PROGRAM DETAILS
Name of Computer Program - Perfect Lite v5.06 & AGI32 v21.3.0.23
Source of program - Constant Energy & Lighting Analysts
Compliance - AS/NZS 1158.2:2005

NON-CONFORMANCES:
NIL

ROAD LIGHTING MAINTENANCE SCHEDULE:
THE MAINTENANCE FACTOR AND THE MAINTENANCE REGIME ARE THE RESPONSIBILITY OF THE ASSET OWNER (ENERGY QUEENSLAND).

THIS DESIGN UTILISES A MAINTENANCE FACTOR OF 0.75 BASED ON THE IP RATING OF 6X & 0.7 BASED ON THE IP RATING OF 5X AS SPECIFIED BY ENERGY QUEENSLAND.

NOTE: THIS CERTIFICATION IS ONLY APPLICABLE IF LUMINAIRES ARE REPLACED WITH EXACT EQUIVALENTS AND MAINTENANCE IS UNDERTAKEN AS SPECIFIED.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/584

Dated: 29 May 2024

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

Luminaire Location Summary				
LumNo	Description	Orient (°)	Tilt (°)	MH (m)
1	SYLVANIA Nostalgia2 T2 L14 4K	327.319	0	5.1
2	SYLVANIA Nostalgia2 T2 L14 4K	0.63	0	5.1
3	SYLVANIA Nostalgia2 T2 L14 4K	192.319	0	5.1
4	SYLVANIA Nostalgia2 T2 L14 4K	319.732	0	5.1
5	SYLVANIA Nostalgia2 T2 L14 4K	124.522	0	5.1
6	SYLVANIA Nostalgia2 T2 L14 4K	34.522	0	5.1
7	SYLVANIA Nostalgia2 T2 L14 4K	260.274	0	5.1
8	SYLVANIA Nostalgia2 T2 L14 4K	282.319	0	5.1
9	SYLVANIA Nostalgia2 T2 L14 4K	129.328	0	5.1
10	SYLVANIA Nostalgia2 T2 L14 4K	327.214	0	5.1
11	SYLVANIA Nostalgia2 T2 L14 4K	124.903	0	5.1

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:	COUNCIL		GOLD COAST	DWT REV.	V53-3 20210504	DESCRIPTION	LOCATION	DRAWING No.	REVISION
17/05/2024	A	PRELIMINARY ISSUE	RR						ROBIN RUSSELL & ASSOCIATES PTY. LTD.		20465 Salwana Street, Stafford, QLD 4053			ROAD LIGHTING DESIGN	CALLI ESTATE - STAGE 3 COURTNEY DRIVE UPPER COOMERA	F020-04	A
									DESIGNED		W.Schardt	DRAWN	B.Hyland	CLIENT	HB QLD PTY LTD	ENERGEX PROJECT No.	SHEET No.
									CHECKED		D.Lloyd RPEQ 5060	APPROVED	ROBIN RUSSELL RPEQ 1546			S0107645	4 OF 4
									DATE		17/05/2024	SIGNED	RR				