	LEGEND		LEG	SEND
	ELECTRICAL SERVICES SWITCHBOARD.	L1 O	L1:	150W HIGH BAY.
	SWITCHBOARD BY OTHERS.	L2 O	L2:	100W HIGH BAY.
4	SINGLE POWER OUTLET.	L3	L3:	600 LONG IP65 BATTEN.
•	DOUBLE POWER OUTLET.	⊢⊕ ^{L4} I	L4:	1200 LONG IP65 BATTEN C/W NON MAINTAINED EMERGENCY PACK.
USB 🛋	DOUBLE POWER OUTLET C/W INTEGRAL USBA / USBC OUTLETS.	L5	L5:	600 LONG WALL MOUNTED IP65 BATTEN C/W INTEGRAL SENSOR.
Δ	SPECIAL PURPOSE POWER OUTLET.	(i)	L6:	OVERHEAD CUPBOARD LED STRIP LIGHT.
Ø	SINGLE PHASE ISOLATOR.	L7	L7:	300 x 1200 FLAT PLATE TBAR TROFFER.
ø	THREE PHASE ISOLATOR.	L8	L8:	600 x 600 FLAT PLATE TBAR TROFFER.
×	JUNCTION BOX.	L9 O	L9:	RECESSED DOWNLIGHT.
	CONDUIT ROUTE.	S	SMOP POSI	KE ALARM PROVIDED AS PART OF THE FIRE SHUTTER SYSTEM ITIONED IN ACCORDANCE WITH AS1905. 1-2005 CLAUSE 5.6.3.
C-x	× DENOTES CONDUIT TYPE.	\sim	~~~	min
PD	LIGHTING PRESENCE DETECTOR SWITCH.			
5	ONE-WAY LIGHT SWITCH.			
S AS	TWO-WAY LIGHT SWITCH.			
	CIRCUIT LINE.			
~~~	SWITCH LINE.			
DB-x - Py	POWER CIRCUIT DESIGNATION. DENOTES DB AND CIRCUIT.			
PCD	NBN PREMISES CONNECTION DEVICE.			
¥	COMMUNICATIONS OUTLET.			
$\bowtie$	ELECTRICAL EQUIPMENT AS NOTED.			
М	SUPPLY AUTHORITY CODE COMPLIANT LV TARIFF METER.			
	FUSE.			
<i>—/</i> —	SINGLE PHASE.			
	THREE PHASE.			
o₩o	CURRENT TRANSFORMER C/W REMOVABLE LINK.			
$\Box$	FUSE LINK.			
otto	COMBINED FUSE SWITCH.			
∽ ×	CIRCUIT BREAKER.			
0 0	ISOLATOR.			
×	RESIDUAL CURRENT DEVICE.			
0 <u>N0</u> 0	CONTACTOR - NORMALLY OPEN.			
O NC O	CONTACTOR - NORMALLY CLOSED.			
E1 🔂	E1: GENERAL LED EMERGENCY LIGHT.			
E2 EX	E2 EX: JUMBO EMERGENCY LED EXIT LIGHT.			
EX	EX: EMERGENCY LED EXIT LIGHT.			
	Lx: LIGHT FITTING C/W NON-MAINTAINED EMERGENCY BATTERY PACK. TYPE AS NOTED.			CAL PENETRATIONS THROUGH THE ROOF

ALL ELECTRICAL PENETRATIONS THROUGH THE ROOF SHEETING ARE TO BE IN LINE WITH THE STRUCTURAL OR MECHANICAL SERVICES PENETRATIONS TO AVOID DEDICATED FLASHINGS FOR THE ELECTRICAL SERVICES.

ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793 TRADING AS: ELECTRICAL DESIGN GROUP

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USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.	
ALL DIMENSIONS TO BE VERIFIED ONSITE.	

## NOTES

- 1. EXTENT OF WORKS
- THE ELECTRICAL SERVICES SUB-CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: - SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE ELECTRICAL SERVICES. - CO-ORDINATION.
- INSPECTIONS.
- TESTING AND COMMISSIONING.
- MAINTENANCE. CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- POWER DISTRIBUTION. LIGHTING.
- COMMUNICATIONS CABLING.

- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE ELECTRICAL SERVICES INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

SUPPLY ALL LABOUR, MATERIALS, EQUIPMENT, AND ALL OTHER ITEMS, WHETHER MENTIONED IN DETAIL OR NOT. REQUIRED FOR THE SATISFACTORY COMPLETION OF THE ELECTRICAL SERVICES INSTALLATION, LEAVING IN FULL WORKING ORDER TO THE SATISFACTION OF THE PROJECT MANAGER.

ACCEPT FULL RESPONSIBILITY FOR LIAISING. ARRANGING AND CO-ORDINATION ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

2. WORKMANSHIP

ENSURE THAT THE WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB CONTRACTOR LICENSE. ENSURE THE INSTALLATION AND ALL COMPONENTS, FIXTURES, FITTINGS, OUTLETS AND CABLES ARE SUPPLIED AND INSTALLED TO A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS. ENSURE ALL MATERIALS AND COMPONENTS OF A SIMILAR TYPE ARE OF THE SAME MANUFACTURER AND INSTALLED IN A UNIFORM MANNER.

IT IS THE ELECTRICAL SUB CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE INSTALLATION IS FIT FOR PURPOSE AND IS PROVIDED AS A COMPLETE WORKING INSTALLATION. IT IS THE ELECTRICAL SUB CONTRACTORS RESPONSIBILITY TO PROVIDE ALL COMPONENTS, FITTINGS, FIXTURES, SYSTEMS, PROGRAMMING ETC IRRESPECTIVE OF THE LEVEL DETAILED IN THE DOCUMENTS SUCH THAT THE INSTALLATION IS PROVIDED AS A COMPLETE WORKING INSTALLATION.

CONCEAL ALL WIRING AND CONDUITS UNLESS APPROVED BY THE ARCHITECT. ENSURE ALL COMPONENTS, EQUIPMENT AND MATERIALS SUPPLIED ARE NEW, UNUSED, DESIGNED AND SELECTED TO ENSURE SATISFACTORY OPERATION UNDER VARYING ATMOSPHERIC. CLIMATIC. HUMID TROPICAL CONDITIONS WITHOUT DISTORTION AND DETERIORATION IN ANY PART AFFECTING EFFICIENCY AND RELIABILITY OF THE SYSTEMS. DESIGN AND SELECT ALL EQUIPMENT TO PROVIDE THE NECESSARY SAFETY TO HUMAN LIFE AND PROPERTY DURING OPERATION AND MAINTENANCE WITH PARTICULAR ATTENTION GIVEN TO ELECTRICAL SAFETY AND SEGREGATION PRECAUTIONS.

CHECK THE FINISHED PAINTWORK AROUND THE AREA OF EACH INSTALLATION AND TOUCH UP ALL DAMAGED PARTS AND FINISHES AFTER THE INSTALLATION OF THE ELECTRICAL SERVICES.

ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDER'S PROGRAM. ENSURE ALL FINAL LOCATIONS OF OUTLETS AND FITTINGS ARE CO-ORDINATED ONSITE WITH THE ARCHITECT AND ALL OTHER SERVICES, TO THE APPROVAL OF THE PROJECT MANAGER. ALLOW TO CO-ORDINATE THE FINAL LOCATION OF ALL EQUIPMENT, FITTINGS, & OUTLETS, SUCH THAT THEY ARE INSTALLED IN ACCORDANCE WITH THE AS3000 RESTRICTED ZONES, AND ARE NOT COVERED INAPPROPRIATELY.

ENSURE THAT ALL METAL SURFACES ARE SUITABLY PROTECTED AGAINST CORROSION, AND THAT ALL PLASTIC MATERIALS ARE UV STABILISED.

PROVIDE ALL MATERIALS AS NEW, AND OF THE HIGHEST CLASS AVAILABLE FOR THEIR RESPECTIVE TYPES. ENSURE ALL ASPECTS OF THE WORK ARE OF A HIGH STANDARD THROUGHOUT, AND INSTALLED IN A NEAT AND TRADESMAN LIKE MANNER, TO THE CURRENT INDUSTRY STANDARDS.

3. STANDARDS

IRRESPECTIVE OF INFORMATION CONTAINED IN THE ELECTRICAL SERVICES DOCUMENTS OR IN INSTRUCTIONS, IT IS THE ELECTRICAL SUB CONTRACTORS RESPONSIBILITY TO ENSURE ALL ELECTRICAL SERVICES WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE ELECTRICAL SERVICES DOCUMENTS AND INSTRUCTIONS TO THE ARCHITECT FOR CLARIFICATION PRIOR TO THE PLACING OF ORDERS, FABRICATION OR INSTALLATION OF THE ITEMS/METHODS IN DISCREPANCY.

- ELECTRICAL SAFETY ACT.
- AS3000. - AS3008.
- WORKPLACE HEALTH AND SAFETY ACT.
- TELECOMMUNICATIONS ACT. - ACMA REQUIREMENTS.
- 4. AUTHORITIES

ENSURE ALL OF THE ELECTRICAL SERVICES COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AUTHORITIES HAVING JURISDICTION OVER THE SITE INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- ACMA. - LOCAL COUNCIL
- LOCAL SUPPLY AUTHORITY.
- STATE GOVERNMENT DEPARTMENT OF ENVIRONMENT AND HERITAGE. - QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY.
- QLD FIRE AND RESCUE AUTHORITY.

5. CABLES

UNLESS OTHERWISE SPECIFIED, INSTALL AND TERMINATE CABLES IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. DETERMINE THE FINAL ROUTES TO SUIT THE BUILDING STRUCTURE AND SITE CONDITIONS. UNLESS NOTED OTHERWISE, PROVIDE ALL 240 VOLT POWER AND LIGHTING WIRING AS 2.5mm² TWIN & EARTH STRANDED COPPER CONDUCTORS. PVC INSULATED 0.6/1kV V75 GRADE TO AS3174, PROTECTED BY A 20 AMP CIRCUIT BREAKER. ALL CONDUIT AND FITTINGS TO BE RIGID UPVC TO AS2053, UNLESS NOTED OTHERWISE.

## NOTES

6. POWER DISTRIBUTION

- POWER DISTRIBUTION. – EARTHING.
- CIRCUITS.
  - ISOLATORS AND OUTLETS. - TESTING AND COMMISSIONING.

7. LIGHTING

ALL OF THE LIGHT FITTINGS, LAMPS AND ACCESSORIES ARE TO BE PROVIDED AS PART OF THIS CONTRACT. THE LIGHTING COMPONENT OF THIS CONTRACT INCLUDES. BUT IS NOT LIMITED TO THE FOLLOWING EXTENT

- OF WORK: LIGHTING.
- LIGHT FITTINGS AND ACCESSORIES. LAMPS.
- EARTHING OF THE LIGHTING INSTALLATION. - LIGHTING CONTROL
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.

FACILITIES.

PROVIDE EACH EMERGENCY AND EXIT LIGHTING FACILITY AS A SINGLE POINT EMERGENCY LIGHTING SYSTEM THAT COMPLIES WITH THE LATEST ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC INSTALL EMERGENCY LIGHT FITTINGS NOMINATED AS MAINTAINED WITH THE LAMP PERMANENTLY ON SUPPLIED VIA AN UNSWITCHED ACTIVE MAINS SUPPLY WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE. THE LAMP IS TO REMAIN ON SUPPLIED BY THE EMERGENCY PACK. SINGLE LAMP MAINTAINED EMERGENCY LIGHTS ARE NOT SWITCHED WITH THE LOCAL GENERAL AREA LIGHTING. (THE LAMP IS ALWAYS ON.)

INSTALL EMERGENCY LIGHT FITTINGS NOMINATED AS NON-MAINTAINED AS FOLLOWS: - IF THE FITTING IS NOT BEING SWITCHED, THE LAMP IS TO REMAIN OFF WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE THE LAMP IS TO BE SWITCHED ON SUPPLIED BY THE EMERGENCY PACK. UNSWITCHED SINGLE LAMP NON-MAINTAINED EMERGENCY LIGHTS ARE NOT SWITCHED WITH THE LOCAL GENERAL AREA LIGHTING. (THE LAMP IS ON ONLY WHEN THE MAINS SUPPLY IS NOT AVAILABLE.)

- IF THE FITTING IS BEING SWITCHED, THE LAMP IS TO BE SUPPLIED AND CONTROLLED WITH THE LOCAL GENERAL AREA LIGHTING WHEN THE MAINS SUPPLY IS AVAILABLE. WHEN THE MAINS SUPPLY IS NOT AVAILABLE THE LAMP IS TO BE SWITCHED ON, SUPPLIED BY THE EMERGENCY PACK. (THE LAMP IS ON WHEN TURNED ON WITH THE LOCAL GENERAL LIGHTING OR THE MAIN SUPPLY IS NOT AVAILABLE. )

INSTALL EMERGENCY LIGHTS SUCH THAT THE STATUS INDICATOR L.E.D. IS CLEARLY VISIBLE AND THE TEST BUTTONS ARE READILY ACCESSIBLE. LABEL EACH CIRCUIT BREAKER WHICH CONTROLS THE UNSWITCHED ACTIVE TO EXIT LIGHTS WITH A LABEL FIXED ADJACENT; ENGRAVED PLASTIC LAMINATE, GREEN BACKGROUND WITH WHITE CHARACTERS: -

WARNING INTERRUPTING SUPPLY WILL DISCHARGE EMERGENCY LIGHTING BATTERIES

PROVIDE WRITTEN EVIDENCE OF THE INITIAL COMMISSIONING AND TESTING AND TESTING FOR THE DURATION OF THE MAINTENANCE PERIOD IN ACCORDANCE WITH AS 2293.2.

THIS EVIDENCE IS TO BE IN THE FORM OF A LOG BOOK SIMILAR TO THE GENERAL LIGHTING SERVICE PTY LTD "EMERGENCY LIGHTING MAINTENANCE LOG BOOK AND MANUAL" WHICH IS TO BE PROVIDED BY THE ELECTRICAL SUB-CONTRACTOR AND HAVE ALL ENTRIES FULLY COMPLETED AND BE PRESENTED FOR INSPECTION AT PRACTICAL COMPLETION. THE LOG BOOK IS TO BE RETAINED BY THE ELECTRICAL SUB-CONTRACTOR FOR THE DURATION OF THE MAINTENANCE PERIOD, AND THE SIX MONTHLY TEST AND MAINTENANCE RESULTS ENTERED. THE LOG BOOK IS TO BE PRESENTED FOR APPROVAL AT FINAL COMPLETION (EXPIRY OF THE MAINTENANCE PERIOD) AND WILL BE FORWARDED TO THE OPERATOR FOR THEIR USE.

PROVIDE MAINTENANCE OF THE EMERGENCY AND EXIT LIGHTING INSTALLATION INCLUDING RECORDS IN ACCORDANCE WITH THE LATEST ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC BCA. PROVIDE THE EMERGENCY LIGHTING SYSTEM WITH A SUPPLY SENSING AND TESTING FACILITY IN ACCORDANCE WITH AS 2293. 1.

8. COMMUNICATIONS

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES A NEW UNDERGROUND NBN LEADIN SERVICE TO A NBN PCD AND DROP CONDUITS TO THE CEILING SPACE WITHIN EACH TENANCY AND AN NBN NTD ADJACENT CR-A. ARRANGE WITH THE NBN CO TO INSTALL THE LEAD-IN SERVICE.

PROVIDE A COMMUNICATIONS RACK C/W ALL NECESSARY PATCH PANELS TO SUPPORT THE CAT 6 OUTLETS. THE EXCHANGE SERVICES AND ACTIVE EQUIPMENT WILL BE PROVIDED BY THE OPERATOR. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- NBN LEAD-IN SERVICE.
- NBN PCD. - NBN DROP CONDUITS TO EACH TENANCY.
- NBN_NTD. - COMMUNICATIONS RACK C/W PATCH PANELS.

9. ABBREVIATIONS

- CAT 6 OUTLETS.

Α	_	AMP CURRENT RA
AB	_	MOUNT ABOVE BE
AFFL	_	ABOVE FINISHED
BB	_	MOUNT BELOW BE
BH	_	MOUNT ON BULKH
CEIL	_	MOUNT ON CEILI
CS	_	MOUNT WITHIN C
C/W	_	COMPLETE WITH.
DŴ	-	DISHWASHER.
МСВ		MINIATURE CIRC
MSB	_	MAIN SWITCHBOA
MSSB	_	MECHANICAL SEF
MW	_	MICROWAVE.
Ν	_	NEON / LED INE
NTS	_	NOT TO SCALE.
٥V	_	OVEN.
RCB0	_	CIRCUIT PROTE
INTEG	RAI	
REF	_	REFRIGERATOR.
SUS	_	MOUNT SUSPENDE
UNO	- - -	UNLESS NOTED (
WP	_	WEATHERPROOF 1
	-	
500	_	NUMBER DENOTES

## ROUP

CONSULTANTS SERVICES GOLD COAST **BURNSIDE ROAD, GILBERTON** 

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ELECTRICAL

BRISBANE

BUILDING

AL	DESIG	GN GF
5	FRVICES	CONSI

- NCC BUILDING CODE OF AUSTRALIA.
- ELECTRICITY ACT.

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES THE CONNECTION OF A NEW UNDERGROUND ENERGEX SERVICE TO NEW CONSUMERS MAINS AND A NEW MSB. ARRANGE WITH ENERGEX TO HAVE THE NEW CONSUMERS MAINS CONNECTED. THE NEW MSB IS TO CONTAIN ENERGEX METERING FOR THE COMMON AREA AND EACH OF THE TWO TENANCIES. THE MSB IS TO ALSO CONTAIN A COMMON AREA DISTRIBUTION BOARD DB-M AND SWITCHGEAR TO SUPPLY THE TWO TENANCY DISTRIBUTION BOARD DB-1 AND DB-2. ALL OF THE CIRCUITS AND OUTLETS NECESSARY TO COMPLETE THE INSTALLATION ARE TO BE PROVIDED AS REQUIRED. THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- REMOVAL OF EXISTING REDUNDANT INSTALLATION.

PROVIDE EACH TENANCY AND THE COMMUNAL DISTRIBUTION BOARD WITH EMERGENCY AND EXIT LIGHTING

RATING BENCH. D FLOOR LEVEL. BENCH. HEAD. ING. CEILING SPACE. CUIT BREAKER. RVICES SWITCHBOARD. IDICATOR WHEN ON. ECTED VIA A 30mA RESIDUAL CURRENT DEVICE IT BREAKER. 3-PHASE RCBO TO BE 4-POLE. ED FROM CEILING. OTHERWISE. TO IP56 UNO. S MOUNTING HEIGHT AFFL. D CONSTRUCTION 24/04/2024 REV: DESCRIPTION: DATE: DRAWING **ELECTRICAL SERVICES LEGEND & NOTES REVISION:** C2964a E01 D NOT TO SCALE AT A1