# **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.

### INSPECTIONS.

- TESTING AND COMMISSIONING.

- MAINTENANCE.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- POWER DISTRIBUTION. LIGHTING.
- COMMUNICATIONS CABLING.
- FIRE ALARM SYSTEM.
- AS CONSTRUCTED DOCUMENTS.
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE ELECTRICAL SERVICES INSTALLATION SUCH THAT IT IS HANDED

PRIOR TO COMMENCING WORK CONSULT SITE MANAGEMENT FOR ANY HAZARDOUS MATERIAL AND OR ASBESTOS REGISTERS AS WELL AS UNDERTAKE A THOROUGH INSPECTION OF THE SITE TO IDENTIFY ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS. ADVISE THE CONTRACTOR OF ANY POTENTIAL HAZARDOUS MATERIALS, ASBESTOS AND HEALTH OR SAFETY RISKS IF IDENTIFIED AND DO NOT COMMENCE WORK UNTIL AN APPROPRIATE

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

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

REFER TO THE EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS

MANAGEMENT PLAN HAS BEEN DEVELOPED AND AGREED TO BY ALL PARTIES.

OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

#### 2. WORKMANSHIP

ENSURE THAT THE ELECTRICAL WORK IS PERFORMED BY THE HOLDER OF A CURRENT ELECTRICAL SUB CONTRACTOR LICENSE AND THE SERVICES COVERED BY THE ACMA IS PERFORMED BY THE HOLDER OF THE APPROPRIATE CURRENT ACMA LICENSE. ENSURE THE INSTALLATION AND ALI COMPONENTS, FIXTURES, FITTINGS, OUTLETS AND CABLES ARE SUPPLIED AND INSTALLED TO 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 CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE INSTALLATION IS FIT FOR PURPOSE AND IS PROVIDED AS A COMPLETE WORKING INSTALLATION. IT IS THE ELECTRICAL SUB CONTRACTOR'S 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. EXPOSED CABLING OR CONDUITS ARE GENERALLY NOT ACCEPTABLE. IT IS NOTED THAT CHASING AND REINSTATEMENT WILL BE REQUIRED. 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 CONTRACTOR'S 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. - NCC BUILDING CODE OF AUSTRALIA.
- ELECTRICITY ACT.
- ELECTRICAL SAFETY ACT.
- AS/NZS3000. - AS3008.
- AS1670.1
- 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.

VERIFIED ONSITE.

- QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY.
- QLD FIRE AND EMERGENCY SERVICES.

## **NOTES**

#### 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.

#### 6. POWER DISTRIBUTION

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES THE REMOVAL OF THE EXISTING DISTRIBUTION BOARD DB-3 INCLUDING ALL ASSOCIATED COMPONENTS, THE SUPPLY SUBMAIN AND THE MSB CIRCUIT BREAKER.

PROVIDE A NEW DISTRIBUTION BOARD DB-3 AS PER THE SCHEDULE AND FOLLOWING POINTS. SUPPLY THE NEW DB-3 FROM A NEW 250 AMP CIRCUIT BREAKER WITHIN THE MSB VIA A NEW 4 X 1C X 95mm<sup>2</sup> Cu + 35mm<sup>2</sup> E TREFOIL SUBMAIN.

THE EXISTING DB-3 CIRCUITS THAT REMAIN ARE TO BE RECONNECTED TO THE NEW DB-3 WITH NEW SWITCHGEAR AND CONTROLS.

THE EXISTING GAMING SWITCHBOARD DB-1 IS TO BE UPGRADED AS NECESSARY TO ACCOMMODATE THE ADDITIONAL DB-1 CIRCUITS AND DYNALITE CONTROLS.

ALL OF THE EXISTING SWITCHBOARDS, CIRCUITS, CABLING AND OUTLETS THAT BECOME REDUNDANT ARE TO BE REMOVED.

ANY INTERRUPTION TO THE POWER SUPPLY TO ANY SERVICES OUTSIDE OF THE AREA OF WORKS MUST BE RESTRICTED TO OUTSIDE OF THE CLUBS OPERATING HOURS AND MUST BE ADVISED TO THE OPERATOR IN WRITING TWO WEEKS PRIOR.

WITHIN TWO WEEKS OF BEING AWARDED THE CONTRACT UNDERTAKE AN AUDIT OF THE EXISTING ROOF MOUNTED MECHANICAL SERVICES SWITCHBOARD MSSB-4 AND PROVIDE A SHORT FORM REPORT IDENTIFYING THE FOLLOWING:

- THE SUPPLY SOURCE. - THE OVERLOAD CURRENT RATING OF THE SUPPLY SOURCE PROTECTIVE DEVICE.
- DETAILS OF THE SUPPLY SOURCE PROTECTIVE DEVICE.
- THE TYPE, SIZE AND CONFIGURATION OF THE SUPPLY CABLE.
- THE NUMBER OF PHASES AND OVERLOAD RATING OF EACH OUTGOING CIRCUIT.
- THE NAMEPLATE DETAILS (MODEL AND WATTS) OF EACH ITEM CONNECTED TO THE OUTGOING CIRCUITS.

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- POWER DISTRIBUTION. - REMOVAL OF THE EXISTING DB-3 AND ALL ASSOCIATED WORKS.
- DISTRIBUTION BOARD DB-3, SUBMAIN AND MSB CIRCUIT BREAKER.
- DB-1 UPGRADE.
- MSSB-4 AUDIT CABLE ACCESS WAYS.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING.
- REMOVAL OF ALL EXISTING REDUNDANT SERVICES.
- RECONNECTION OF ALL EXISTING SERVICES THAT REMAIN.

### PROVIDE DISTRIBUTION BOARD DB-3 AS FOLLOWS:

- WALL MOUNTED. - IP44 FORM 2bi
- LIGHT GREY ENCLOSURE WHITE ESCUTCHEON
- 3 POINT LOCKABLE HANDLES ON ALL DOORS.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS. - ALL SWITCHGEAR TO BE SCHNEIDER OR NHP/ TERASAKI.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.
- ALL COMPONENTS ARE TO BE LABELLED WITH NON-STICK LABELS.

ENSURE ALL THREE PHASE CIRCUITS ARE PROVIDED WITH CORRECT PHASE ROTATION.

ENSURE ALL OUTLETS AND ISOLATORS ARE POSITIONED SUCH THAT THEY ARE NOT COVERED BY THE EQUIPMENT. THE FINAL POSITION OF ALL OUTLETS AND ISOLATORS ARE TO BE CONFIRMED ON SITE BY THE TENANTS REPRESENTATIVE.

ALL PENDANT OUTLETS ARE TO BE PROVIDED WITH A CHAIN RESTRAINT FROM THE CEILING.

DO NOT USE CORRUGATED CONDUIT UNDER ANY BARS, SERVERIES, OR IN THE KITCHEN.

REFER TO THE DISTRIBUTION BOARD SCHEDULE FOR ADDITIONAL REQUIREMENTS AND CIRCUIT DETAILS.

# **NOTES**

### 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:

**NOTES** 

10. ABBREVIATIONS

AMP CURRENT RATING

AFFL - ABOVE FINISHED FLOOR LEVEL.

CS - MOUNT WITHIN CEILING SPACE.

MCB - MINIATURE CIRCUIT BREAKER.

MSSB - MECHANICAL SERVICES SWITCHBOARD.

NEON / LED INDICATOR WHEN ON.

500 - NUMBER DENOTES MOUNTING HEIGHT AFFL.

RCBO - CIRCUIT BREAKER C/W AN INTEGRAL 30mA RESIDUAL CURRENT DEVICE.

RCD - CIRCUIT PROTECTED VIA A 30mA RESIDUAL CURRENT DEVICE.

QDC - QUEENSLAND DEVELOPMENT CODE.

UNO - UNLESS NOTED OTHERWISE.

WP - WEATHERPROOF TO IP56 UNO.

AB - MOUNT ABOVE BENCH.

BB - MOUNT BELOW BENCH.

BH - MOUNT ON BULKHEAD

CEIL - MOUNT ON CEILING.

MSB - MAIN SWITCHBOARD.

C/W - COMPLETE WITH.

DW - DISHWASHER.

HP - HOT PLATE.

MW - MICROWAVE.

OV – OVEN.

NTS - NOT TO SCALE.

REF - REFRIGERATOR

- LIGHTING.
- LIGHT FITTINGS AND ACCESSORIES. EMERGENCY AND EXIT LIGHTING.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL
- PHILIPS DYNALITE LIGHTING CONTROL SYSTEM.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.
- RECONNECTION OF THE EXISTING LIGHTING THAT REMAINS. - REMOVAL OF ALL EXISTING REDUNDANT LIGHTING SERVICES.

PROVIDE A SINGLE POINT EMERGENCY LIGHTING SYSTEM THAT COMPLIES WITH THE LATEST ISSUE OF ALL PARTS AS2293 AND THE RELEVANT PARTS OF THE NCC BCA. 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: -

## 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 MOUNTED IN DB-3 IN ACCORDANCE WITH AS 2293.1.

# 8. COMMUNICATIONS CABLING

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES ADDITIONAL CAT 6 OUTLETS, CABLING AND PATCH PANELS NECESSARY TO FACILITATE THE WORKS.

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- PATCH PANELS AS NECESSARY. - CAT 6 COMMUNICATIONS OUTLETS AND CABLING.
- CABLE ACCESS WAYS.
- TESTING AND COMMISSIONING. - REMOVAL OF ALL EXISTING COMMUNICATIONS CABLING MADE REDUNDANT BY THE WORKS.

### 9. FIRE ALARM SYSTEM

THE FIRE ALARM SYSTEM COMPONENT OF THIS CONTRACT INCLUDES MODIFYING AND EXTENDING THE EXISTING AS1670.1 COMPLIANT DETECTION AND ALARM SERVICES THROUGHOUT THE AREA OF THE WORKS. THE EXISTING FIP IS TO BE RETAINED AND UPGRADED AS NECESSARY TO FACILITATE THE CHANGES AND ADDITIONS. REPLACE THE FIP ZONE INDICATION PLAN AS NECESSARY. ALL OF THE EXISTING SPEAKERS, DETECTORS, AND CABLING THAT BECOME REDUNDANT ARE TO BE REMOVED. ANY INTERRUPTION TO THE FIRE ALARM SYSTEM TO ANY SERVICES OUTSIDE OF THE AREA OF WORKS MUST BE RESTRICTED TO OUTSIDE OF THE CLUBS OPERATING HOURS AND MUST BE ADVISED TO THE OPERATOR IN WRITING TWO WEEKS PRIOR.

ALL EXISTING CONCEALLED SPACE DETECTORS WITHIN THE SCOPE OF THE WORKS ARE TO BE REINSTATED.

THE FIRE ALARM SYSTEM COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- UPGRADING THE EXISTING FIP.
- NEW EXTERNAL VISUAL INDICATOR. - DETECTORS AND SPEAKERS.
- CABLE ACCESS WAYS.
- CABLING.
- TESTING AND COMMISSIONING. - REMOVAL OF ALL EXISTING REDUNDANT SERVICES.

**GOLD COAST** 

- RECONNECTION OF ALL EXISTING SERVICES THAT REMAIN

B | TENDER 15/05/2024 REV: DESCRIPTION: DATE:

**ELECTRICAL SERVICES NOTES** 

C3204a E02

**ELECTRICAL DESIGN GROUP BRISBANE** THE COPYRIGHT OF THIS DRAWING PTY LTD ACN 092 710 793 REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP. TRADING AS: **USE FIGURED DIMENSIONS** ELECTRICAL DESIGN GROUP IN PREFERENCE TO SCALE. ALL DIMENSIONS TO BE

ELECTRICAL DESIGN GROUP ELECTRICAL BUILDING SERVICES CONSULTANTS

P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au

BRISBANE

ANSON ROAD, WELLINGTON POINT, QUEENSLAND

**REDLANDS SPORTING CLUB** 

REFURBISHMENT

NOT TO SCALE AT A1