

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.
- UPDATE THE EXISTING AS BUILT DRAWINGS.
- UPDATE THE EXISTING MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.

POWER DISTRIBUTION.

- LIGHTING.
- COMMUNICATIONS CABLING.
- FIRE ALARM SYSTEM.
- 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 LIASING, ARRANGING AND CO-ORDINATION OF ALL WORKS THAT HAVE AN EFFECT ON OR WILL BE AFFECTED BY THE ELECTRICAL SERVICES.

CONFIRM THE POSITION OF ALL OUTLETS ON SITE WITH THE SCHOOL PRIOR TO ROUGH-IN.

UPDATE THE COLLEGES EXISTING AS BUILT DOCUMENTS AND MAINTENANCE MANUAL TO INCLUDE THE NEW WORKS.

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 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 CONDUITS WILL NEED TO BE INCLUDED WITHIN THE PRECAST PANELS. 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.

ALL WORK IS TO BE UNDERTAKEN IN SUCH A MANNER THAT THE OPERATION OF THE REMAINING SCHOOL AREAS ARE NOT UNDULY EFFECTED BY THE WORKS.

3. STANDARDS

IRRESPECTIVE OF INFORMATION CONTAINED IN THE FIRE ALARM SYSTEM DOCUMENTS OR IN INSTRUCTIONS, IT IS THE FIRE ALARM SYSTEM SUB CONTRACTOR’S RESPONSIBILITY TO ENSURE ALL FIRE ALARM SYSTEM WORKS ARE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOLLOWING. REFER ANY DISCREPANCIES BETWEEN THE REQUIREMENTS OF THE FOLLOWING AND/OR THE FIRE ALARM SYSTEM 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.
- FIRE ENGINEERING REPORT.
- 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 WORKPLACE, HEALTH AND SAFETY AUTHORITY.
- LOCAL 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

THE POWER DISTRIBUTION COMPONENT OF THIS CONTRACT INCLUDES PROVIDING THE EXISTING MSB WITH A NEW MCCB TO SUPPLY THE NEW DISTRIBUTION BOARD DB-12 VIA A NEW UNDERGROUND SUB MAIN. PROVIDE DB-12 WITH MCCBS TO SUPPLY THE NEW DISTRIBUTION BOARD DB-12P AND DB-12L AND THE MECHANICAL SWITCHBOARD MSSB-12. THE ELECTRICAL COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- POWER DISTRIBUTION.
- EARTHING.
- PROVIDE A NEW MCCB IN THE MSB.
- NEW SUBMAINS FROM THE MSB TO DB-12.
- DISTRIBUTION BOARDS DB-12, DB-12P AND DB-12L.
- SUBMAINS FROM DB-10 TO DB-12P, DB-12L AND MSSB-12.
- PROVIDE AN INFRARED SCAN OF THE MSB AND ALL DISTRIBUTION BOARDS PROVIDED AS PART OF THE WORKS ONE WEEK AFTER PRACTICAL COMPLETION. PROVIDE A LOGGING CHART RECORDING OF THE MAINS CURRENT, VOLTAGE, FREQUENCY FOR THE FIRST 14 DAYS FOLLOWING PRACTICAL COMPLETION AND SUBMIT THE THERMOSCAN AND CHART RECORDING AND FOR APPROVAL.
- CIRCUITS.
- ISOLATORS AND OUTLETS.
- TESTING AND COMMISSIONING.
- SWITCHBOARD SHOP DRAWING.

THE POWER SUPPLY TO THE REMAINDER OF THE SCHOOL MUST BE MAINTAINED AT ALL TIMES THE SCHOOL IS OPEN INCLUDING THE AFTER HOURS CARE. ANY INTERRUPTION TO THE POWER SUPPLY MUST BE ADVISED TO THE SCHOOL IN WRITING TWO WEEKS PRIOR.

REFER TO THE POWER SCHEMATIC AND DISTRIBUTION BOARD SCHEDULES FOR ADDITIONAL REQUIREMENTS AND CIRCUIT DETAILS.

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 COLLEGE.

7. LIGHTING

THE LIGHTING COMPONENT OF THIS CONTRACT INCLUDES INTERNAL LIGHTING TO ALL AREAS OF THE BUILDING, EXTERNAL LIGHTING, GENERAL LIGHTING CONTROL, EMERGENCY AND EVACUATION LIGHTING AND THE LIGHTING SUB CIRCUIT WIRING. ALL OF THE LIGHT FITTINGS AND ACCESSORIES ARE TO BE PROVIDED AS PART OF THIS CONTRACT. ALL LIGHT SOURCES ARE TO BE SOLID STATE LED WITH A 5-YEAR MANUFACTURERS WARRANTY. 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:

- INTERNAL AND EXTERNAL LIGHTING.
- EMERGENCY AND EXIT LIGHTING.
- EARTHING OF THE LIGHTING INSTALLATION.
- LIGHTING CONTROL.
- LIGHTING SUBCIRCUITS.
- TESTING AND COMMISSIONING.

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: -

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.

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.

8. COMMUNICATIONS CABLING

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES A NEW COMMUNICATION RACK CR-12 TO SUPPORT CAT 6 RJ45 OUTLETS CABLED TO MODULAR PATCH PANELS IN THE COMMUNICATIONS RACK CR-12 VIA CAT 6 UTP CABLING. PROVIDE A NEW 12 CORE OS1 GEL FILLED UNDERGROUND OPTICAL FIBRE CABLE FROM THE EXISTING COMMUNICATIONS RACK CR-4 TO A NEW FIBOT IN CR-12. THE COMMUNICATIONS CABLING IS TO BE OF THE SAME EXISTING STRUCTURED CABLING SOLUTION USED AND BE PROVIDED WITH A MANUFACTURERS 15 YEAR WARRANTY.

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

- CAT 6 COMMUNICATIONS OUTLETS.
- CAT 6 CABLING.
- COMMUNICATIONS RACK CR-12.
- PATCH PANELS.
- FIBOT.
- OPTICAL FIBRE CABLE CONNECTION CR-4 TO CR-12.
- LABELLING.
- TESTING AND COMMISSIONING.

ALL COMMUNICATIONS CABLING IS TO BE UNDERTAKEN BY AN ACMA LICENCE HOLDER. THE PATCH LEADS, FLY LEADS, POE SWITCH AND UPS WILL BE PROVIDED BY THE SCHOOL.

NOTES

9. FIRE ALARM

THE FIRE ALARM COMPONENT OF THIS CONTRACT INCLUDES A STANDALONE NON BRIGADE MONITORED FIRE ALARM SYSTEM WITH SPACE AND CAPACITY TO DOUBLE THE QUANTITY OF DETECTORS, SPEAKERS AND INTERFACES PROVIDED AS PART OF THE INITIAL CONSTRUCTION AS THE FIP WILL BE USED TO ACCOMMODATE THE FUTURE EXPANSION OF BUILDING 12.

THE FIRE ALARM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- THE PROVISION OF A STAND ALONE AS1670.1 2018 FIRE DETECTION AND ALARM SYSTEM.
- SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE FIRE ALARM SERVICES.
- CO-ORDINATION.
- INSPECTIONS.
- LOG BOOK.
- TESTING AND COMMISSIONING.
- MAINTENANCE.
- AS CONSTRUCTED DOCUMENTS INCLUDING DRAWINGS DETAILING THE LOOP PATH AND EACH COMPONENT ADDRESS.
- OPERATION AND MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- FIP INCORPORATING THE FDCIE AND EWCIE.
- SYSTEM INTERFACE DIAGRAM.
- MANUAL CALL POINT ON THE FDCIE.
- DETECTORS.
- SPEAKERS AND HORNS.
- DOOR MAGNETIC HOLDERS AND RELEASE PUSH BUTTONS.
- INTERFACES TO THE SECURITY SYSTEM.
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE FIRE ALARM SYSTEM INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

ALL COMPONENTS PROVIDED AS PART OF THE FIRE ALARM SYSTEM MUST BE GENERIC IN THAT THEY CAN BE EXPANDED UPON AND MAINTAINED BY ANY CONTRACTOR WHO HOLDS THE REQUIRED QBCC AND FIRE PROTECTION CONTRACTORS REGISTRATION BOARD OF QUEENSLAND INC REGISTRATIONS. ALL SUCH COMPONENTS MUST NOT BE LOCKED INTO A SINGLE MANUFACTURER OR LIMITED BY A LICENSING AGREEMENT.

ALL COMPONENTS PROVIDED AS PART OF THE FIRE ALARM SYSTEM MUST BE LISTED ON THE CSIRO.AU/ACTIVEFIRE WEB SITE AND BE PROVIDED WITH A CURRENT CERTIFICATE OF CONFORMITY. INCLUDE A COPY OF EACH CERTIFICATE OF CONFORMITY IN THE MANUAL.

ENSURE ALL AS1670.1:2018 WORKS ARE UNDERTAKEN BY, OR UNDER THE DIRECTION OF A SUITABLY QUALIFIED AND EXPERIENCED FIRE ALARM SYSTEM INSTALLER WHO HOLD THE REQUIRED QBCC AND FIRE PROTECTION CONTRACTORS REGISTRATION BOARD OF QUEENSLAND INC REGISTRATIONS. INCLUDE A COPY OF ALL THE ABOVE REGISTRATIONS AND LICENCES IN THE MANUAL

PRIOR TO PRACTICAL COMPLETION CERTIFY THE INSTALLATION ON A FORM 12 AS COMPLYING WITH THE RELEVANT CODES AND STANDARDS AND INCLUDE A COPY OF THE CERTIFICATION IN THE MANUAL.

IN ADDITION TO THE DETECTORS DETAILED ON THE DRAWINGS, ALLOW FOR THE FOLLOWING PROVISIONAL ADDITIONAL DETECTORS TO BE LOCATED ON SITE:

- 6 SMOKE DETECTORS.
- 2 THERMAL DETECTORS.
- 4 CONCEALED SPACE DETECTORS INCLUDING ACCESS BRACKETS.

10. ABBREVIATIONS

A - AMP CURRENT RATING
AB - MOUNT ABOVE BENCH.
AFFL - ABOVE FINISHED FLOOR LEVEL.
BB - MOUNT BELOW BENCH.
BH - MOUNT ON BULKHEAD.
CEIL - MOUNT ON CEILING.
CS - MOUNT WITHIN CEILING SPACE.
C/W - COMPLETE WITH.
DW - DISHWASHER.
HP - HOT PLATE.
MCB - MINIATURE CIRCUIT BREAKER.
MCCB - MOUNDED CASE CIRCUIT BREAKER.
MSB - MAIN SWITCHBOARD.
MSSB - MECHANICAL SERVICES SWITCHBOARD.
MW - MICROWAVE.
N - NEON / LED INDICATOR WHEN ON.
NTS - NOT TO SCALE.
OV - OVEN.
RCBO - CIRCUIT PROTECTED VIA A 30mA RESIDUAL CURRENT DEVICE INTEGRAL TO THE CIRCUIT BREAKER.
REF - REFRIGERATOR.
UNO - UNLESS NOTED OTHERWISE.
WP - WEATHERPROOF TO IP56 UNO.
500 - NUMBER DENOTES MOUNTING HEIGHT AFFL.

ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793		THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP.		PROJECT: KINGS CHRISTIAN COLLEGE CHAMBERS FLAT, SENIOR SCHOOL CHA12		A PRELIMINARY18/12/2025	
						REV: DESCRIPTION:	DATE:
TRADING AS: ELECTRICAL DESIGN GROUP		USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.		P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au		DRAWING: ELECTRICAL SERVICES NOTES	
		ALL DIMENSIONS TO BE VERIFIED ONSITE.		38-112 ANZAC AVENUE, CHAMBERS FLAT		SCALE: NOT TO SCALE AT A1	PROJECT NO: C3474a DRAWING NO: E03 REVISION: A