

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.
- AS BUILT DRAWINGS.
- MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- POWER DISTRIBUTION.
- SOLAR PV SYSTEM.
- LIGHTING.
- COMMUNICATIONS CABLING.
- PUBLIC ADDRESS SYSTEM.
- ACCESS CONTROL.
- INTRUDER DETECTION.
- FIRE ALARM SYSTEM.
- CORROSION PROTECTION
- ALL WORKS AND MATERIALS TO CREATE A SAFE WORK SITE INCLUDING RESTRICTING ACCESS TO NON-AUTHORISED PEOPLE.
- ALL MACHINERY REQUIRED TO COMPLETE THE INSTALLATION INCLUDING LIFTING AND HOISTING MACHINERY, TRANSPORTATION MACHINERY, WINCHES, FORKLIFTS. SCISSOR LIFTS, HOISTS, BOOMS, CHERRY PICKERS.
- ALL NECESSARY WASTE MANAGEMENT AND WASTE REMOVAL.
- 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 COLLEGE 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 COLLEGE 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.
- AS/NZS 5033:2021.
- AS/NZS 4777.1:2024
- 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.
- SOLAR ACCREDITATION AUSTRALIA.

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 MODIFYING THE EXISTING MSB AND REPLACING THE TWIN OLD MSB WITH A NEW CUBICAL. THE EXISTING MSB IS TO BE KNOWN AS MSB-A AND THE NEW CUBICAL IS TO BE KNOWN ASS MSB-B. THE EXISTING MDB-8 SUBMAIN IS TO BE RELOCATED FROM MSB-A TO MSB-B. THE SPACE IN MSB-A CREATED BY THE RELOCATION OF THE MDB-8 SUBMAIN IS TO BE USED TO SUPPLY A NEW SUBMAIN TO THE NEW MDB-9. THE EXISTING MCCB SUPPLYING THE OLD MSB IS TO BE USED TO SUPPLY MSB-B VIA A NEW UNDERGROUND SUBMAIN. THE EXISTING MDB-5 AND MDB-7 SWITCHBOARDS AND ASSOCIATED SUBMAINS ARE TO BE REMOVED. THE EXISTING UNDERGROUND SUBMAINS FROM MDB-6, MDB-4, MDB-3, MDB-2 AND MDB-1 ARE TO BE REDIRECTED / EXTENDED TO MDB-B. THE MODIFICATIONS TO MSB-A DO NOT NEED TO COMPLY WITH AS61439. MDB-B IS TO CONTAIN A DISTRIBUTION BOARD DB-M. ALL EXISTING CIRCUITS SUPPLIED FROM THE OLD MSB THAT REMAIN ARE TO BE RESUPPLIED FROM DB-M VIA NEW AS3000 COMPLIANT SWITCHGEAR WITH SIMILAR CAPACITY AND FUNCTIONS AS THE EXISTING.

THE NEW MDB-9 IS TO BE USED TO SUPPLY NEW SWITCHBOARDS IN THE LIBRARY / BLOCK P.

TO FACILITATE THE CONSTRUCTION STAGING TEMPORARY SUBMAINS ARE REQUIRED FROM THE EXISTING MDB-7 TO DB-1 AND DB-2. AS PART OF THE MDB-9 WORKS THE TEMPORARY DB-1 AND DB-2 SUBMAINS ARE TO BE REMOVED AND NEW PERMANANT SUBMAINS ARE TO BE PROVIDED FROM MDB-9 TO DB-1 AND DB-2. THE EXISTING MDB-8 IS TO BE MODIFIED TO SUPPLY NEW SWITCHBOARDS IN BLOCK K.

PROVIDE AN ENERGY MONITORING SYSTEM AS PER J9D3 OF THE NCC BCA 2022 THAT COLLATES THE TIME-OF-USE ENERGY DATA TO A SINGLE INTERFACE WHERE IT CAN BE STORED, ANALYSED AND REVIEWED. SUBMIT DETAILS OF THE ENERGY MONITORING SYSTEM FOR APPROVAL.

PROVIDE A REINFORCED MASONRY INSITU PIT / TRENCH UNDER MSB-B AS PER THE MSB-B TRENCH DETAIL. PROVIDE AS PART OF THE ELECTRICAL WORKS THE SWITCHBOARD AND LID SUPPORT SYSTEM AND THE TRENCH LIDS. PROVIDE THE TRENCH LIDS AND STRUCTURAL SUPPORT SYSTEM AS HOT DIPPED GALVANISED STEEL. PROVIDE THE TRENCH LIDS WITH LIFTING HOLES CHECKER PLATE R10 ANTI SLIP PATTERNING WITH EACH PART NO HEAVIER THAN 20 kg. FIX THE LIDS IN PLACE SUCH THAT A TOOL IS REQUIRED TO REMOVE THEM. PROVIDE THE TRENCH WITH AN AUTOMATIC SUMP PUMP TO DRAIN TO THE STORMWATER SYSTEM. PROVIDE CABLE SUPPORTS WITHIN THE TRENCH TO ENSURE THAT THERE ARE NO CABLES WITHIN 50MM OF THE TRENCH FLOOR.

THE EXISTING ART MSB IS TO REMAIN AS IS.

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

- POWER DISTRIBUTION.
- EARTHING.
- MSB-A MODIFICATIONS.
- NEW MSB-B.
- REMOVAL OF THE OLD MSB.
- NEW UNDERGROUND PIT AND CONDUIT SYSTEM.
- NEW SUBMAINS FROM THE MSB-A TO MDB-9.
- REDIRECTION / EXTENSION OF THE EXISTING SUBMAINS FROM THE OLD MSB SUPPLYING EXISTING MDBS THAT REMAIN TO MSB-B.
- NEW MAIN DISTRIBUTION BOARD MDB-9.
- ENERGY MONITORING SYSTEM.
- DISTRIBUTION BOARDS.
- SUBMAINS FROM MDB-8 AND MDB-9 TO THE ASSOCIATED DISTRIBUTION BOARDS, SOLAR INVERTERS AND THE MSSBS.
- 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 DB-A 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.
- EMERGENCY SHUT OFFS.
- TESTING AND COMMISSIONING.
- SWITCHBOARD SHOP DRAWING.

PROVIDE THE MAIN SWITCHBOARD (MSB-B) AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- PLINTH MOUNTED FREE STANDING.
- 92268 KEY LOCKABLE IP66 316 STAINLESS STEEL FINISHED TO MATCH THE EXISTING MSB-A FINISH.
- INTERNAL TEMPERATURE CONTROLLED ANTI CONDENSATION HEATERS IN EACH CUBICAL.
- ENSURE MSB-B IS DESIGNED TO OPERATE IN DIRECT SUNLIGHT WITH AN AMBIENT TEMPERATURE OF 40 DEGREES.
- WHITE ESCUTCHEON.
- BOTTOM ENTRY CABLE ACCESS ONLY.
- SUN / RAIN HOOD.
- 36 POLE 250A 3 PHASE VERTICAL DIN STYLE CHASSIS DISTRIBUTION BOARD DB-M INTEGRAL TO THE MSB-B.
- TWO 600 WIDE HORIZONTAL DIN RAILS.
- DOORS ON ALL CUBICLES WITH 3 POINT 92268 KEY LOCKABLE HANDLES.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.
- TWO 92268 KEYS.

PROVIDE THE MDB-9 AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- PLINTH MOUNTED FREE STANDING.
- IP44 MILD STEEL LIGHT GRAY ENCLOSURE.
- WHITE ESCUTCHEON.
- BOTTOM ENTRY CABLE ACCESS ONLY.
- SUN / RAIN HOOD.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.

PROVIDE THE DISTRIBUTION BOARDS AS FOLLOWS:

- REFER TO THE POWER SCHEMATIC.
- REFER TO THE DISTRIBUTION BOARD SCHEDULES.
- WALL MOUNTED.
- 92268 KEY LOCKABLE.
- IP44 MILD STEEL LIGHT GRAY ENCLOSURE.
- WHITE ESCUTCHEON.
- LIFT OFF HINGES ON ALL DOORS AND ESCUTCHEONS.
- 1/4 TURN LATCHES AND D HANDLES ON ALL ESCUTCHEONS.
- ALL SWITCHGEAR TO BE NHP/TERASAKI.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.

THE POWER SUPPLY TO THE REMAINDER OF THE COLLEGE MUST BE MAINTAINED AT ALL TIMES THE COLLEGE IS OPEN INCLUDING THE AFTER HOURS CARE. ANY INTERRUPTION TO THE POWER SUPPLY MUST BE ADVISED TO THE COLLEGE 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.

NOTES

7. SOLAR PV SYSTEM

PROVIDE A 200KW SOLAR PV INSTALLATION AS FOLLOWS:

- UNDERTAKEN BY AN INSTALLER WITH SOLAR ACCREDITATION AUSTRALIA (SAA) DESIGN AND INSTALLATION ACCREDITATION.
- ENERGEX APPROVALS, FEES AND CHARGES.
- RPEQ ENGINEERING AND DESIGN.
- SUPPLY AND INSTALLATION OF ALL COMPONENTS FORMING PART OF THE SOLAR SYSTEM INSTALLATION.
- ALL CABLING MUST BE COPPER.
- PROVIDE A ALUMINIUM OR HOT DIPPED GALVANIZED PV PANEL SUPPORT SYSTEM.
- PROVIDE THE SOLAR SYSTEM DC AND AC CABLING THAT HAS A LESS THAN COMBINED LOSS LESS THAN 3%.
- PROVIDE SHOP DRAWINGS AND TECHNICAL DETAILS OF EACH SOLAR SYSTEM INCLUDING ALL COMPONENTS AND THE PV PANEL LAYOUTS FOR APPROVAL.
- PROVIDE A HARD COPY OF THE ENTIRE SYSTEM DESIGN AND ALL INFORMATION ASSOCIATED WITH EACH SOLAR SYSTEM IN A PERMANENT DOCUMENT HOLDER ADJACENT EACH SYSTEM INVERTER.
- SIGNAGE AND LABELS.
- AC AND DC CABLING.
- AC AND DC ISOLATORS.
- PROVIDE THE INVERTER WITH NETWORK PROTECTION INTERFACED TO THE SITES EXISTING WIRELESS NETWORK PROTECTION SYSTEM.

8. 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.
- INTERFACE THE INTERNAL LIGHTING TO THE SECURITY SYSTEM SUCH THAT WHEN THE SECURITY SYSTEM IS ARMED THE INTERNAL LIGHTS ARE DISABLED / OFF.
- 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.

9. COMMUNICATIONS CABLING

THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES A NEW COMMUNICATION RACK CR-P TO SUPPORT CAT 6A RJ45 OUTLETS CABLED TO MODULAR PATCH PANELS IN THE COMMUNICATIONS RACK CR-A VIA CAT 6A UTP CABLING. PROVIDE THE FOLLOWING THE EXISTING RACKS CRHS, CRO6 AND THE NEW RACK CR-P WITH 12 CORE OS2 OPTICAL FIBRE CABLES FULLY TERMINATED WITH LC CONNECTORS RUN BACK TO THE EXISTING SERVER RACK. THE COMMUNICATIONS CABLING IS TO BE MOLEX.

THE LIBRARY AND BLOCK P COMMUNICATIONS OUTLETS ARE TO BE CABLED BACK TO CR-P.

THE BLOCK K COMMUNICATIONS OUTLETS ARE TO BE CABLED BACK TO THE EXISTING RACK CR-K.

PROVIDE THE COMMUNICATIONS SYSTEM AS A PROPRIETY MOLEX STRUCTURED CABLING SYSTEM WITH A COMPONENT MANUFACTURERS 25-YEAR WARRANTY OVER THE COMMUNICATIONS INSTALLATION. INCLUDE A COPY OF THE PROPRIETY STRUCTURED CABLING SYSTEM MOLEX MANUFACTURERS WARRANTY IN THE OPERATIONS AND MAINTENANCE MANUAL.

THE CCTV UTP CABLING IS TO BE WIRED TO DEDICATED CCTV PATCH PANELS.

PROVIDE A DIGITAL FREE TO AIR TELEVISION ANTENNA ON THE LIBRARY SERVICING A TV OUTLET IN THE EXISTING SERVER RACK.

AS PART OF THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT PROVIDE CAT 6 RJ45 CCTV AND VAPE SENSOR PLUGS. THE COMMUNICATIONS CABLING COMPONENT OF THIS CONTRACT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- COMMUNICATIONS OUTLETS AND CABLING.
- CCTV AND VAPE PLUGS AND CABLING.
- COMMUNICATIONS RACK CR-P.
- PATCH PANELS.
- FIBROT.
- OPTICAL FIBRE CABLES.
- TV ANTENNA AND OUTLET.
- ACCESS CONTROL CABLING.
- LABELLING.
- CABLE ACCESS WAYS.
- TESTING AND COMMISSIONING.

ALL COMMUNICATIONS CABLING IS TO BE UNDERTAKEN BY AN ACMA LICENCE HOLDER. THE PATCH LEADS, FLY LEADS, UPS, VAPE SENSORS, CCTV CAMERAS AND ACTIVE COMMUNICATIONS EQUIPMENT WILL BE PROVIDED BY THE COLLEGE.

NOTES

10. PUBLIC ADDRESS SYSTEM

THE PUBLIC ADDRESS SYSTEM COMPONENT OF THIS CONTRACT INCLUDES MULTI TAP 100V SPEAKERS AND HORNS CABLED TO POWER AMPLIFIERS MOUNTED WITH IN THE TOP OF COMMUNICATIONS RACKS CR-P AND CR-K. PROVIDE FOUR AMPLIFIERS IN CR-P CONFIGURED AS SEPARATE ZONES BEING EXTERNAL AND ONE ZONE FOR EACH LEVEL. PROVIDE TWO AMPLIFIERS IN CR-K CONFIGURED AS SEPARATE ZONES BEING EXTERNAL AND INTERNAL. PROVIDE A TEMPORARY MUSIC SOURCE TO AIM / BALANCE THE SPEAKERS AND HORNS ON SITE AS DIRECTED BY THE COLLEGE.

THE PUBLIC ADDRESS SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- SPEAKERS AND HORNS.
- RACK MOUNTED AMPLIFIERS.
- CO-ORDINATION.
- TESTING, COMMISSIONING AND BALANCING.
- MAINTENANCE.
- AS CONSTRUCTED DOCUMENTS INCLUDING DRAWINGS DETAILING THE LOOP PATH OF EACH SPEAKER CABLE.
- OPERATION AND MAINTENANCE MANUAL.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- ALL MINOR COMPONENTS AND INCIDENTAL WORKS NOT SPECIFICALLY REFERRED TO, HOWEVER NECESSARY TO COMPLETE THE PUBLIC ADDRESS SYSTEM INSTALLATION SUCH THAT IT IS HANDED OVER COMPLETE, OPERATIONAL AND FIT FOR THE INTENDED USE.

ALL PUBLIC ADDRESS SYSTEM WORKS MUST BE UNDERTAKEN BY AN ACMA LICENCE HOLDER. THE AUDIO / IP CONVERTERS, THE CONNECTION OF THE AMPLIFIERS TO THE AUDIO / IP CONVERTERS AND PATCH LEADS WILL BE PROVIDED BY THE COLLEGE.

PROVIDE COMPREHENSIVE DETAILS OF THE PROPOSED EQUIPMENT AND COMPONENTS OF THE PA SYSTEM FOR APPROVAL.

11. SECURITY

QUEENSLAND ASSET PROTECTION SERVICES. DANIEL.SPREADBOROUGH@437.677.213. DANIEL@APSERVICES.COM.AU IS TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO UNDERTAKE THE SUPPLY, INSTALLATION AND ALL WORKS ASSOCIATED WITH THE SECURITY INTRUDER DETECTION SERVICES.

THE SECURITY SYSTEM COMPONENT OF THIS CONTRACT INCLUDES THE EXPANSION OF THE COLLEGES EXISTING INNER RANGE INTEGRITY SECURITY SYSTEM INTO THE RENOVATED BUILDINGS AND NEW BUILDING TO PROVIDE INTRUDER DETECTION AND ACCESS CONTROL. PROVIDE THE BMS PANEL WITH A LOW-LEVEL SIGNAL TO INDICATE THE ARMING STATUS OF THE SECURITY SYSTEM TO THE BMS. COORDINATE THE CONNECTION WITH THE BMS CONTRACTOR ON SITE.

CONNECT THE BUILDING SECURITY EQUIPMENT TO THE EXISTING SYSTEM VIA THE COLLEGES ETHERNET NETWORK VIA A COLE ETHERNET BRIDGE. THE ETHERNET SETTINGS ARE TO BE COORDINATED WITH THE COLLEGES IT STAFF.

PROVIDE ACCESS CONTROL BY EXPANDING THE COLLEGES EXISTING SALTO ACCESS CONTROL SYSTEM TO THE NOMINATED DOORS AND THE LIFT.

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

- INTRUDER DETECTION SYSTEM POWER SUPPLY AND DISTRIBUTION.
- EARTHING.
- MOVEMENT DETECTORS.
- PIEZO ALARMS.
- KEY PANELS.
- ZONE EXPANDERS.
- CABLING.
- CABLE ACCESS WAYS.

12. ACCESS CONTROL

SPL SECURITY SOLUTIONS VINCE.TODARELLO.0402.356.351.VINCET@SPL.COM.AU IS TO BE ENGAGED AS A NOMINATED SUB-CONTRACTOR TO UNDERTAKE THE SUPPLY, INSTALLATION AND ALL WORKS ASSOCIATED WITH THE ACCESS CONTROL SYSTEM.

THE ACCESS CONTROL SYSTEM COMPONENT OF THIS CONTRACT INCLUDES THE EXPANSION OF THE COLLEGES EXISTING SALTO SYSTEM INTO THE RENOVATED BUILDINGS AND NEW BUILDING.

CONNECT THE ACCESS CONTROL SYSTEM TO THE EXISTING SYSTEM VIA THE COLLEGES ETHERNET NETWORK. THE ETHERNET SETTINGS ARE TO BE COORDINATED WITH THE COLLEGES IT STAFF.

PROVIDE ACCESS CONTROL BY EXPANDING THE COLLEGES EXISTING SALTO ACCESS CONTROL SYSTEM TO THE NOMINATED DOORS AND THE LIFT.

THE ACCESS CONTROL SYSTEM COMPONENT OF THIS CONTRACT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING EXTENT OF WORK:

- SALTO DOOR CONTROLLERS.
- AUTO DOOR INTERFACES.
- LIFT INTERFACE.
- GATEWAYS.
- NODES.

THE CABLING REQUIRED BY THE ACCESS CONTROL SYSTEM IS TO BE PROVIDED AS PART OF THE COMMUNICATIONS SCOPE.

13. FIRE ALARM SYSTEM.

REMOVE THE EXISTING LIBRARY FIRE ALARM SYSTEM AND PROVIDE A NEW NON-BRIGADE MONITORED AS1670.1 COMPLIANT ADDRESSABLE FIRE ALARMS SYSTEM THROUGHOUT THE LIBRARY AND BLOCK B.

THERE ARE NO FIRE ALARM SYSTEM REQUIREMENTS IN BLOCK K.

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

- FIRE INDICATOR PANEL INCORPORATING THE EWCIE AND FDCIE
- DETECTORS.
- SPEAKERS AND HORNS.
- DOOR INTERFACES.
- CABLING.
- CABLE ACCESS WAYS.

AS2053, UNLESS NOTED OTHERWISE.								D 90% ISSUE		27/07/2026	
								REV: DESCRIPTION:		DATE:	
ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793		THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP.		 ELECTRICAL DESIGN GROUP ELECTRICAL BUILDING SERVICES CONSULTANTS BRISBANE GOLD COAST		PROJECT: CANTERBURY COLLEGE SENIOR SCHOOL TALNGAI PRECINCT		DRAWING: ELECTRICAL SERVICES NOTES		SCALE: NOT TO SCALE AT A1	
TRADING AS: ELECTRICAL DESIGN GROUP		USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.									
ALL DIMENSIONS TO BE VERIFIED ONSITE.				P.O.Box 15, Sherwood Q.4075 Phone: (07) 3278 4375 Email: brisbane@edg.net.au Web: www.edg.net.au		182 OLD LOGAN VILLAGE ROAD, WATERFORD		PROJECT NO: C3631a		DRAWING NO: E02	
								REVISION: D			