

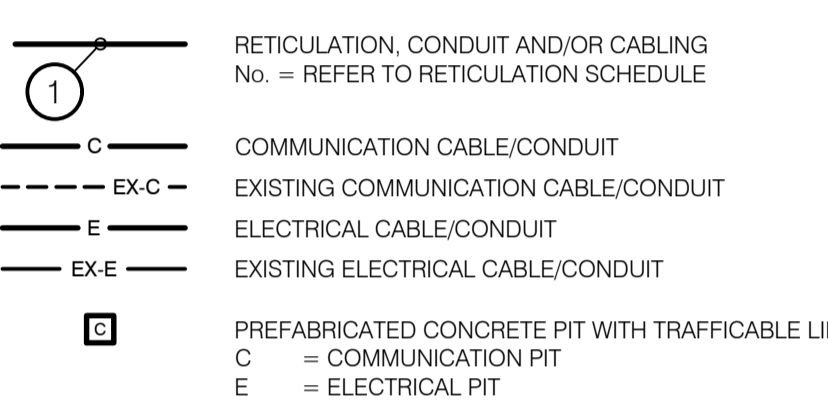
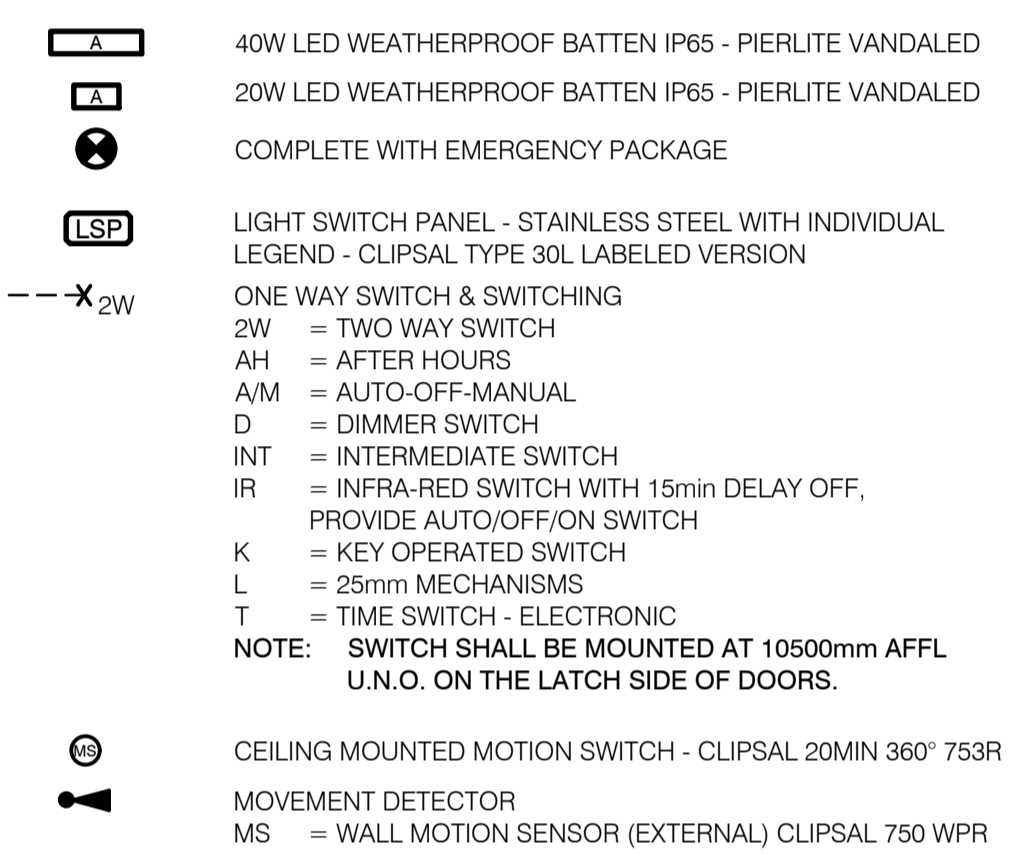
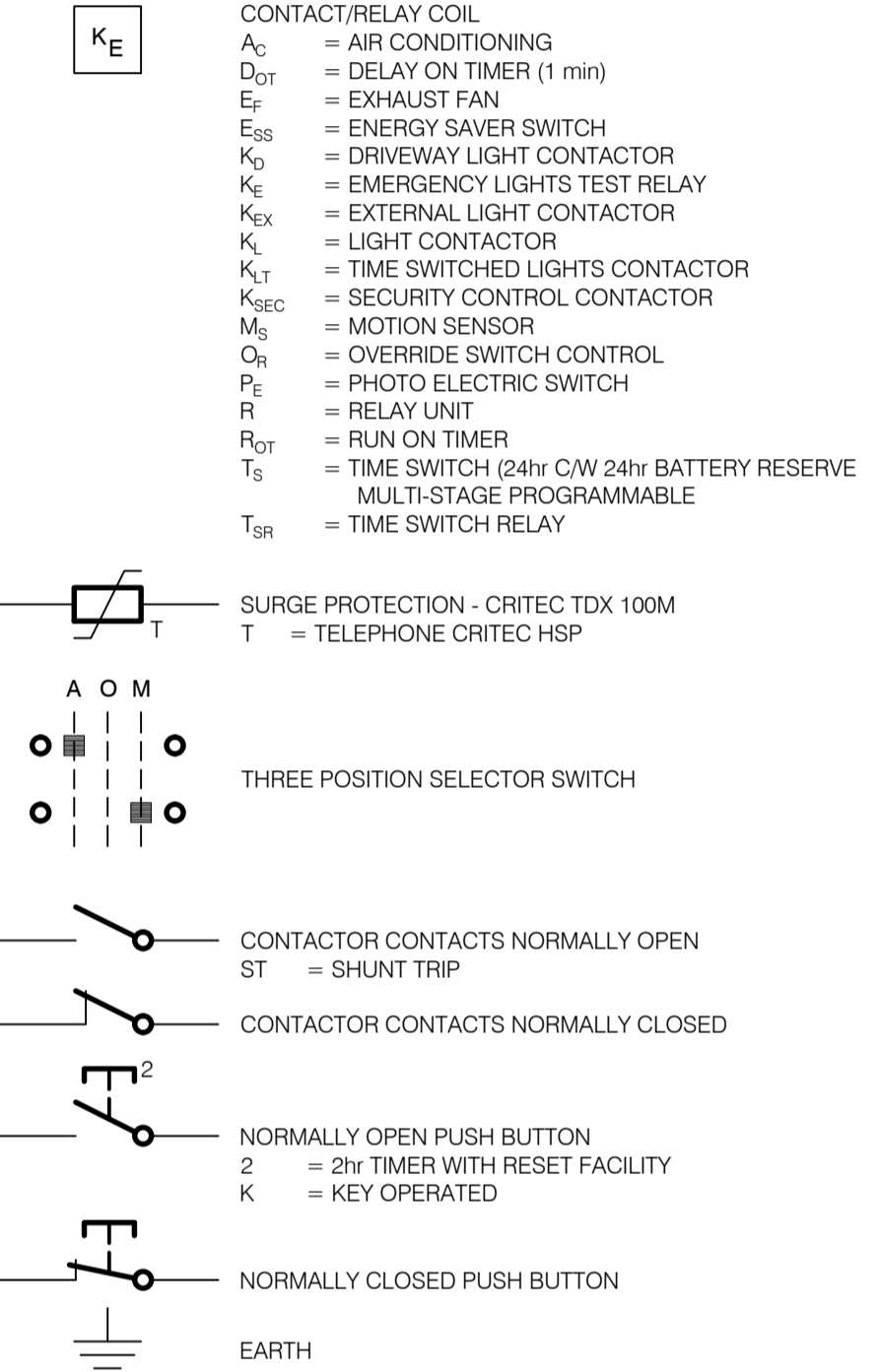
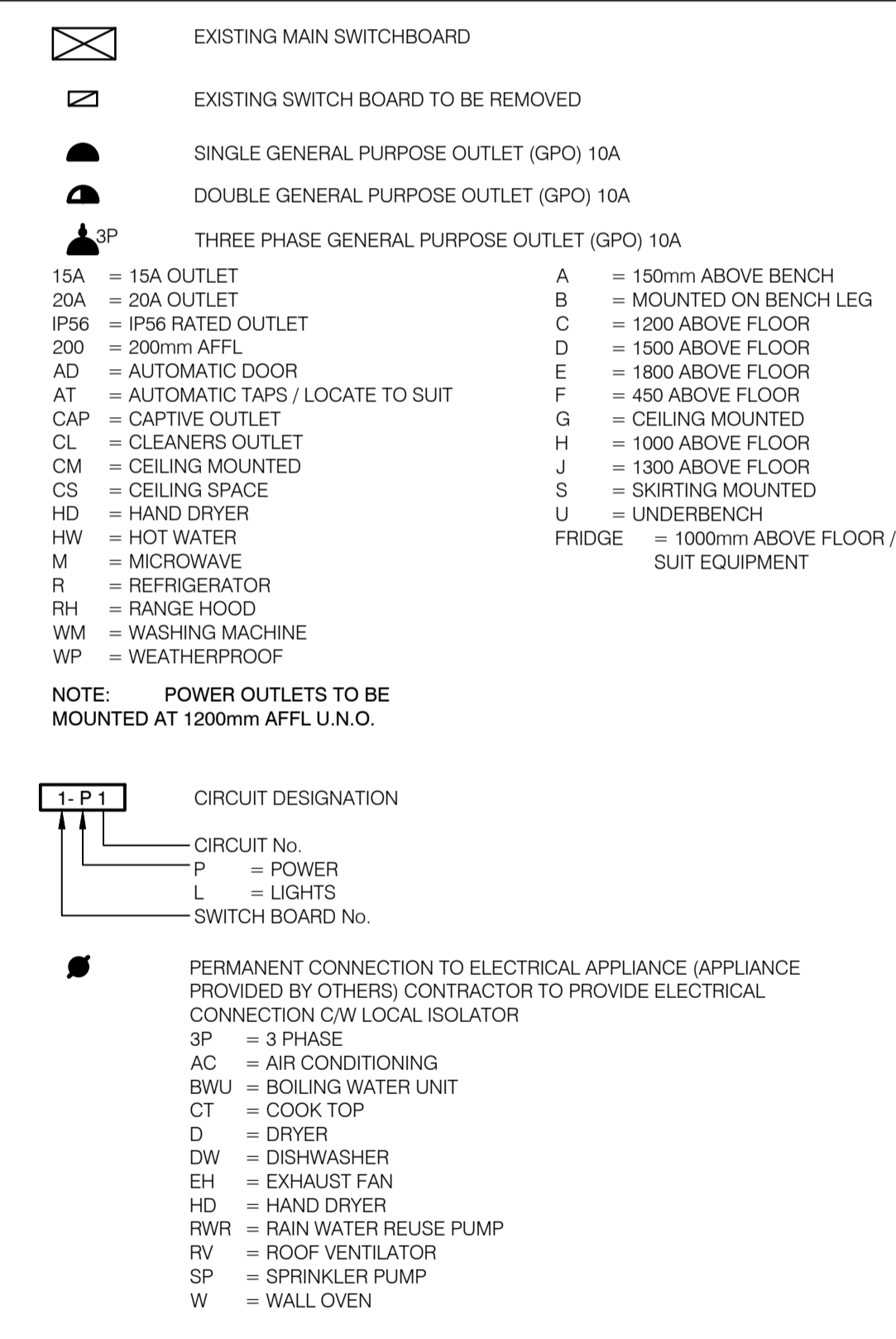
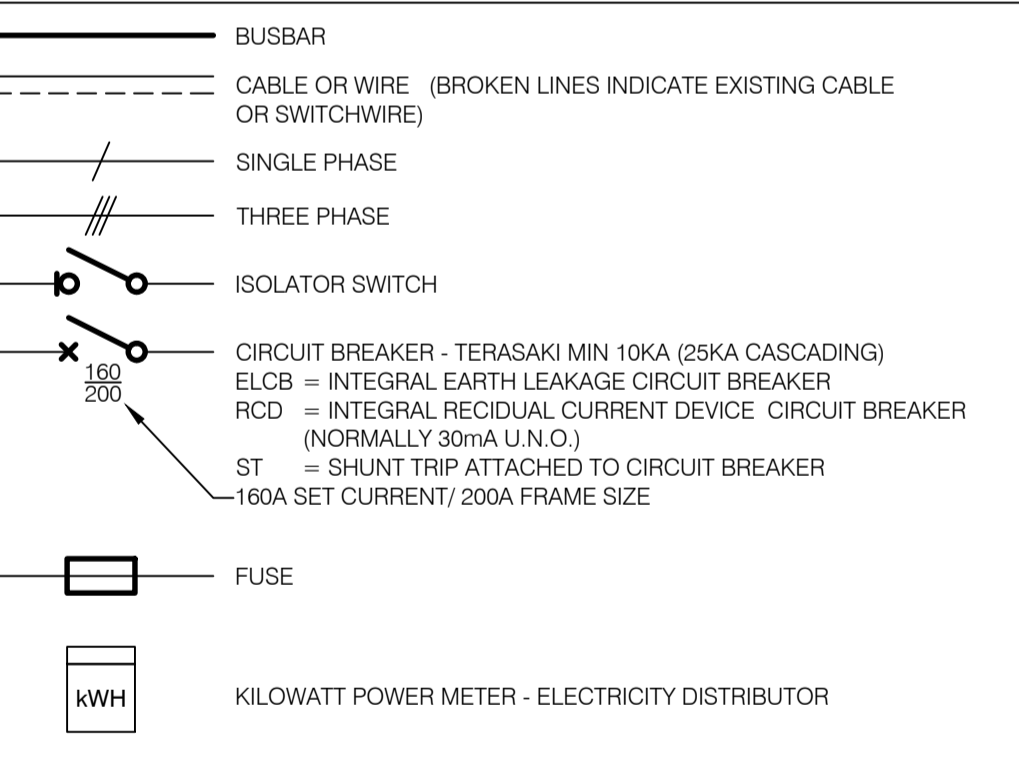
ELECTRICAL SERVICES

FOR BOGGABILLA SPORTS FIELD AMENITIES

DRAWING SCHEDULE:		
E-01	LEGEND, NOTES & DRAWING SCHEDULE	N.T.S
E-02	SITE RETICULATION	1:500
E-03	POWER & LIGHTING LAYOUTS	1:100

LEGEND

NOTE: NOT ALL SYMBOLS USED

RETICULATION	LIGHTING	SINGLE LINE DIAGRAM cont...	NOTES - GENERAL
 <p>RETICULATION, CONDUIT AND/OR CABLING No. = REFER TO RETICULATION SCHEDULE</p> <p>COMMUNICATION CABLE/CONDUIT</p> <p>EXISTING COMMUNICATION CABLE/CONDUIT</p> <p>ELECTRICAL CABLE/CONDUIT</p> <p>EXISTING ELECTRICAL CABLE/CONDUIT</p> <p>PREFABRICATED CONCRETE PIT WITH TRAFFICABLE LID C = COMMUNICATION PIT E = ELECTRICAL PIT</p>	 <p>40W LED WEATHERPROOF BATTEN IP65 - PIERLITE VANDALED</p> <p>20W LED WEATHERPROOF BATTEN IP65 - PIERLITE VANDALED</p> <p>COMPLETE WITH EMERGENCY PACKAGE</p> <p>LIGHT SWITCH PANEL - STAINLESS STEEL WITH INDIVIDUAL LEGEND - CLIPSAL TYPE 30L LABELED VERSION</p> <p>ONE WAY SWITCH & SWITCHING</p> <p>2W = TWO WAY SWITCH</p> <p>AH = AFTER HOURS</p> <p>A/M = AUTO-OFF-MANUAL</p> <p>D = DIMMER SWITCH</p> <p>INT = INTERMEDIATE SWITCH</p> <p>IR = INFRA-RED SWITCH WITH 15min DELAY OFF, PROVIDE AUTO/OFF/ON SWITCH</p> <p>K = KEY OPERATED SWITCH</p> <p>L = 25mm MECHANISMS</p> <p>T = TIME SWITCH - ELECTRONIC</p> <p>NOTE: SWITCH SHALL BE MOUNTED AT 1050mm AFFL U.N.O. ON THE LATCH SIDE OF DOORS.</p> <p>CEILING MOUNTED MOTION SWITCH - CLIPSAL 20MIN 360° 753R</p> <p>MOVEMENT DETECTOR</p> <p>MS = WALL MOTION SENSOR (EXTERNAL) CLIPSAL 750 WPR</p>	 <p>CONTACT/RELAY COIL</p> <p>A_c = AIR CONDITIONING</p> <p>D_{OT} = DELAY ON TIMER (1 min)</p> <p>E_F = EXHAUST FAN</p> <p>E_{SS} = ENERGY SAVER SWITCH</p> <p>K_D = DRIVEWAY LIGHT CONTACTOR</p> <p>K_E = EMERGENCY LIGHTS TEST RELAY</p> <p>K_{EX} = EXTERNAL LIGHT CONTACTOR</p> <p>K_L = LIGHT CONTACTOR</p> <p>K_{TS} = TIME SWITCHED LIGHTS CONTACTOR</p> <p>K_{SEC} = SECURITY CONTROL CONTACTOR</p> <p>M_S = MOTION SENSOR</p> <p>O_{IT} = OVERRIDE SWITCH CONTROL</p> <p>P_E = PHOTO ELECTRIC SWITCH</p> <p>R = RELAY UNIT</p> <p>R_{OT} = RUN ON TIMER</p> <p>T_S = TIME SWITCH (24hr C/W 24hr BATTERY RESERVE MULTI-STAGE PROGRAMMABLE)</p> <p>T_{SR} = TIME SWITCH RELAY</p> <p>SURGE PROTECTION - CRITEC TDX 100M</p> <p>T = TELEPHONE CRITEC HSP</p> <p>THREE POSITION SELECTOR SWITCH</p> <p>CONTACTOR CONTACTS NORMALLY OPEN</p> <p>ST = SHUNT TRIP</p> <p>CONTACTOR CONTACTS NORMALLY CLOSED</p> <p>NORMALLY OPEN PUSH BUTTON</p> <p>2 = 2hr TIMER WITH RESET FACILITY</p> <p>K = KEY OPERATED</p> <p>NORMALLY CLOSED PUSH BUTTON</p> <p>EARTH</p>	<ol style="list-style-type: none"> NOT ALL SYMBOLS ON LEGEND ARE NECESSARILY USED. SWITCHES ADJACENT TO DOORS ARE TO BE MOUNTED ON LOCKSIDE OF DOOR. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH: <ul style="list-style-type: none"> AS3000, AS1670, AS2293, AS3080, AS2220, AS3439, AS/NZS 4251.1, TEMPEST/IEC 6100-6-1, AS 5000.1, AS 3947.2, AS/NZS 60598.1, AS/NZS 60929, AS/NZS 60928, AS/NZS 60921, AS/NZS 60925, AS/NZS 61048 BUILDING CODE OF AUSTRALIA SERVICES & INSTALLATION RULES AUSTRALIAN GOVERNMENT INFORMATION & COMMUNICATIONS TECHNOLOGY SECURITY MANUAL ACS:33, ISM & AUSTRALIAN COMMUNICATION AUTHORITY ALLOW FOR ALL COSTS ASSOCIATED WITH CONNECTION OF POWER & COMMUNICATION. DRAWINGS ARE DIAGRAMMATIC, REFER TO ARCHITECTURAL DRAWINGS, INTERNAL ELEVATIONS, &/OR INSTRUCTIONS FOR FINAL LOCATIONS. ANY VARIANCE FROM NOMINATED BRANDS SHALL BE CLEARLY STATED IN TENDER WITH RESPECTIVE SAVINGS. CABLES SHALL BE MULTI STRANDED CONDUCTORS OF THE FOLLOWING MINIMUM SIZES: <ul style="list-style-type: none"> LIGHTING 2.5mm² POWER 2.5mm² ALL OTHER CABLING SHALL BE RATED TO PROTECTIVE CIRCUIT BREAKER, NEUTRAL TO BE EQUAL TO CROSS SECTIONAL AREA OF PHASE CONDUCTORS UNLESS NOTED OTHERWISE. LABEL ALL OUTLETS WITH FLEXIBLE LAMINATED LABELS EQUAL TO BROTHER P TOUCH TZ TAPES INDICATING CIRCUIT NUMBERS/DETAILS. ALL MAINS, SUB MAINS & CONTROL CABLES HAVE NUMBERS ATTACHED TO EACH END TO IDENTIFY CABLE. ALL WORKS TO BE STAGED TO SUIT BUILDING WORKS, ALSO REFER TO ARCHITECTURAL DOCUMENTS & CO-ORDINATE WITH EARLY/INFRASTRUCTURE WORKS FOR STAGING. PROVIDE TEST CIRCUITS FOR EMERGENCY LIGHTS. BEFORE PRACTICAL COMPLETION, THE CONTRACTOR IS TO PROVIDE:- <ul style="list-style-type: none"> * AS INSTALLED DRAWINGS OF ALL THE SERVICES * BOUND MANUALS WITH DETAILS OF ALL SUPPLIED EQUIPMENT & COMPONENTS. * EXIT & EMERGENCY LIGHTS TEST BOOK. ELECTRICAL CONTRACTOR TO FIRE SEAL ALL PENETRATIONS & CONDUITS NECESSARY FOR ALL POWER, LIGHTING & COMMS POINTS IN ALL WALLS & CEILINGS - SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED WALLS & CEILINGS. CO-ORDINATE WITH OTHER TRADES (PAY ALL COSTS). PROVIDE ALL NECESSARY SUPPLY & CONNECTION LEADS TO ALL MECHANICAL & HYDRAULIC EQUIPMENT FOR A FULLY FUNCTIONAL SYSTEM UPON COMPLETION. PROVIDE ALL NECESSARY CABLE & EQUIPMENT TO CONNECT KITCHEN APPLIANCES. INCLUDING CONNECTION BETWEEN ISOLATOR & EQUIPMENT. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS, OR ANY ECONOMIC LOSS SUFFERED AS A RESULT OF DAMAGES TO SERVICES, SHALL BE REPAIRED OR REMEDIED BY THE CONTRACTOR UNDER THE DIRECTION OF THE AUTHORISED PERSON FOR THE PRINCIPAL, AND NO COST TO THE PRINCIPAL. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR ADJUSTMENT IF REQUIRED OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS. PROVIDE ALL NECESSARY DEMOLITION WORKS TO ACHIEVE NEW LAYOUT. PRIOR TO COMMENCEMENT TO ANY WORKS THE CONTRACTOR SHALL GAIN WRITTEN APPROVAL FROM THE PRINCIPAL FOR ALL DEMOLITION, THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY. CONTRACTOR TO CO-ORDINATE WITH BUILDER & PRINCIPAL TO INCORPORATE STAGING TO SUIT PRINCIPAL. SUBMIT STAGING PLAN FOR APPROVAL PRIOR TO TENDERING. ENSURE ALL CIRCUIT BREAKERS ARE CASCADING. CONTRACTOR TO ENGAGE A SWITCHBOARD MANUFACTURER TO CONDUCT A CURVE STUDY WHERE REQUIRED. THE CONTRACTOR SHALL REMOVE ALL EXISTING REDUNDANT SERVICES INCLUDING BUT NOT LIMITED TO CABLING AND CABLE LADDER. <p>EXISTING SERVICES & FEATURES</p> <p>NOTES:</p> <ol style="list-style-type: none"> THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING SERVICES THAT ARE TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS. ANY AND ALL DAMAGE TO THESE SERVICES AS A RESULT OF THESE WORKS, OR ANY ECONOMIC LOSS SUFFERED AS A RESULT OF DAMAGES TO SERVICES, SHALL BE REPAIRED OR REMEDIED BY THE CONTRACTOR UNDER THE DIRECTION OF THE AUTHORISED PERSON FOR THE PRINCIPAL, AND NO COST TO THE PRINCIPAL. THE CONTRACTOR SHALL ALLOW IN THE PROGRAM FOR ADJUSTMENT IF REQUIRED OF EXISTING SERVICES IN AREAS AFFECTED BY WORKS. PRIOR TO COMMENCEMENT TO ANY WORKS SHALL GAIN WRITTEN APPROVAL FROM THE PRINCIPAL FOR THE RELOCATION AND/OR CONSTRUCTION OF NEW/TEMPORARY SERVICES AND FOR ANY ASSOCIATED INTERRUPTION OF SUPPLY.
<h3>POWER</h3>  <p>EXISTING MAIN SWITCHBOARD</p> <p>EXISTING SWITCH BOARD TO BE REMOVED</p> <p>SINGLE GENERAL PURPOSE OUTLET (GPO) 10A</p> <p>DOUBLE GENERAL PURPOSE OUTLET (GPO) 10A</p> <p>THREE PHASE GENERAL PURPOSE OUTLET (GPO) 10A</p> <p>15A = 15A OUTLET</p> <p>20A = 20A OUTLET</p> <p>IP56 = IP56 RATED OUTLET</p> <p>200 = 200mm AFFL</p> <p>AD = AUTOMATIC DOOR</p> <p>AT = AUTOMATIC TAPS / LOCATE TO SUIT</p> <p>CAP = CAPTIVE OUTLET</p> <p>CL = CLEANERS OUTLET</p> <p>CM = CEILING MOUNTED</p> <p>CS = CEILING SPACE</p> <p>HD = HAND DRYER</p> <p>HW = HOT WATER</p> <p>M = MICROWAVE</p> <p>R = REFRIGERATOR</p> <p>RH = RANGE HOOD</p> <p>WM = WASHING MACHINE</p> <p>WP = WEATHERPROOF</p> <p>NOTE: POWER OUTLETS TO BE MOUNTED AT 1200mm AFFL U.N.O.</p> <p>CIRCUIT DESIGNATION</p> <p>CIRCUIT No.</p> <p>P = POWER</p> <p>L = LIGHTS</p> <p>SWITCH BOARD No.</p> <p>PERMANENT CONNECTION TO ELECTRICAL APPLIANCE (APPLIANCE PROVIDED BY OTHERS) CONTRACTOR TO PROVIDE ELECTRICAL CONNECTION C/W LOCAL ISOLATOR</p> <p>3P = 3 PHASE</p> <p>AC = AIR CONDITIONING</p> <p>BWU = BOILING WATER UNIT</p> <p>CT = COOK TOP</p> <p>D = DRYER</p> <p>DW = DISHWASHER</p> <p>EH = EXHAUST FAN</p> <p>HD = HAND DRYER</p> <p>RWR = RAIN WATER REUSE PUMP</p> <p>RV = ROOF VENTILATOR</p> <p>SP = SPRINKLER PUMP</p> <p>W = WALL OVEN</p>	<h3>SINGLE LINE DIAGRAM</h3>  <p>BUSBAR</p> <p>CABLE OR WIRE (BROKEN LINES INDICATE EXISTING CABLE OR SWITCHWIRES)</p> <p>SINGLE PHASE</p> <p>THREE PHASE</p> <p>ISOLATOR SWITCH</p> <p>CIRCUIT BREAKER - TERASAKI MIN 10KA (25KA CASCADING)</p> <p>ELCB = INTEGRAL EARTH LEAKAGE CIRCUIT BREAKER</p> <p>RCD = INTEGRAL RESIDUAL CURRENT DEVICE CIRCUIT BREAKER (NORMALLY 30mA U.N.O.)</p> <p>ST = SHUNT TRIP ATTACHED TO CIRCUIT BREAKER 160A SET CURRENT/ 200A FRAME SIZE</p> <p>FUSE</p> <p>KILOWATT POWER METER - ELECTRICITY DISTRIBUTOR</p>		



Date	Issue	Reason for Issue
20.8.18	2	TENDER ISSUE
19.7.18	1	FOR REVIEW

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