

NOTES

1. EXTENT OF WORKS

THE EXISTING ENERGEX SUPPLY TO THE SITE IS LIMITED TO 200 AMPS PER PHASE AND FOLLOWING EXTENSIVE NEGOTIATIONS WITH ENERGEX IT HAS BEEN ESTABLISHED THAT IT IS UNFEASIBLE TO UPGRADE THE ENERGEX SUPPLY. THE HOMESTEAD BUILDING IS CURRENTLY BEING SUPPLIED VIA A GENERATOR.

- PROVIDE A NEW MAIN DISTRIBUTION BOARD DB-T ADJACENT TO THE TOMWIN STREET ENTRY.
- PROVIDE A NEW UNDERGROUND SUBMAIN FROM THE SITE MSB TO DB-T VIA A NEW UNDERGROUND PIT AND CONDUIT SYSTEM.
- PROVIDE A NEW UNDERGROUND SUBMAIN FROM DB-T TO THE HOMESTEAD DISTRIBUTION BOARD DB-A VIA THE EXISTING UNDERGROUND CONDUIT SYSTEM.
- PROVIDE A NEW UNDERGROUND SUBMAIN FROM DB-T TO DB-WB VIA AN EXTENSION TO THE EXISTING UNDERGROUND CONDUIT SYSTEM.
- PROVIDE A NEW UNDERGROUND SUBMAIN FROM DB-T TO DB-WI VIA AN EXTENSION TO THE EXISTING UNDERGROUND CONDUIT SYSTEM.
- RESUPPLY ALL OF THE REMAINING EXISTING DB-SHELKIE CIRCUITS FROM DB-T VIA NEW UNDERGROUND CONDUITS.
- REMOVE THE EXISTING DISTRIBUTION BOARD DB-SHELKIE AND ALL ASSOCIATED CABLING.
- PROVIDE A PROGRAMMABLE ELECTRICITY SUPPLY MONITORING AND CONTROL SYSTEM.
- PROVIDE A SOLAR PV SYSTEM ON THE HOMESTEAD BUILDING.
- PROVIDE A BATTERY SYSTEM THAT IS CHARGED BY THE ENERGEX SUPPLY WHEN THERE IS SPARE CAPACITY AND THEN SUPPLEMENTS THE ENERGEX SUPPLY WHEN THE DEMAND EXCEEDS A PREDEFINED CURRENT.
- RELOCATE THE HOMESTEAD GENERATOR AND PROVIDE IT WITH A BUMP LESS TRANSFER SYSTEM TO AUTOMATICALLY PROVIDE POWER UPON MAINS FAILURE OR WHEN THE DEMAND IS SUCH THAT IT CAN NOT BE ACCOMMODATED BY ENERGEX AND THE BATTERY.
- UNDERTAKE ALL NECESSARY NEGOTIATIONS AND CERTIFICATIONS WITH / REQUIRED BY ENERGEX TO FACILITATE THE CONNECTION OF THE SOLAR PV SYSTEM, THE BATTERY AND THE BUMP LESS TRANSFER OF THE GENERATOR.
- UNDERTAKE ALL NECESSARY MODIFICATIONS TO THE EXISTING SITE MAIN SWITCHBOARD AS REQUIRED BY ENERGEX TO FACILITATE THE CONNECTION OF THE SOLAR PV SYSTEM, THE BATTERY AND THE BUMP LESS TRANSFER OF THE GENERATOR.

IN ADDITION TO THE ABOVE 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.
- AS CONSTRUCTED DOCUMENTS.
- TEMPORARY WORKS.
- 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 EXCAVATION MACHINERY, 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.

INSPECT THE EXISTING INSTALLATION AND ALLOW TO ACCOMMODATE ALL EXISTING SERVICES AND CONDITIONS.

IN ADDITION TO THE INITIAL COMMISSIONING AND THE COMMISSIONING REQUIRED BY ENERGEX, ALLOW TO ATTEND SITE ON THE FOLLOWING OCCASIONS TO INSPECT AND TEST THE ENTIRE INSTALLATION TO ENSURE IT IS OPERATING CORRECTLY. IN ADDITION TO ENSURING THE SYSTEM IS OPERATING CORRECTLY ALLOW TO ADJUST ALL TIMES AND SET POINTS IN CONSULTATION WITH THE CLIENT.

- ONE MONTH AFTER PRACTICAL COMPLETION.
- TWO MONTHS AFTER PRACTICAL COMPLETION.
- SIX MONTHS AFTER PRACTICAL COMPLETION.
- ONE YEAR AFTER PRACTICAL COMPLETION.
- TWO YEARS AFTER PRACTICAL COMPLETION.

PROVIDE APPROPRIATE WARNING LABELS ON ALL PLANT THAT ARE SUBJECT TO RECEIVING MULTIPLE SOURCES OF POWER.

PROVIDE CORROSION AND ENVIRONMENTAL PROTECTION AS NECESSARY TO ENSURE THE INSTALLATION IS SUITABLY PROTECTED FOR 10 YEARS. THE CORROSION AND ENVIRONMENTAL PROTECTION INCLUDES THOUGH IS NOT LIMITED TO:

- ALL EXPOSED STEEL IS TO BE HOT DIPPED GALVANIZED.
- ALL METALLIC FIXINGS EXPOSED TO THE WEATHER ARE TO BE MARINE GRADE 316.
- ALL PLASTIC EXPOSED TO WEATHER MUST BE UV STABILISED.

THE POWER SUPPLY MUST BE MAINTAINED FROM ONE HOUR BEFORE THE CURRUMBIN WILDLIFE SANCTUARY OPENS TO THE PUBLIC UNTIL ONE HOUR AFTER IT CLOSES TO THE PUBLIC. ANY INTERRUPTION TO THE POWER SUPPLY MUST BE ADVISED TO THE CURRUMBIN WILDLIFE SANCTUARY IN WRITING TWO WEEKS PRIOR.

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

IDENTIFY ALL EXISTING UNDERGROUND SERVICES WITHIN THE SCOPE OF THE WORKS PRIOR TO UNDERTAKING ANY EXCAVATION. 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.

NOTES

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 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 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 ON SITE 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.
- ENERGEX REQUIREMENTS.
- THE QUEENSLAND ELECTRICITY CONNECTION MANUAL V4 (QECM).
- NATIONAL METERING INSTALLATION REGULATIONS (NMIR).
- AS/NZS3000.
- AS3008.
- WORKPLACE HEALTH AND SAFETY ACT.
- TELECOMMUNICATIONS ACT.
- ACMA REQUIREMENTS.
- QUEENSLAND FIRE DEPARTMENT.

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 EMERGENCY SERVICES.

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.

PROVIDE A NEW 4 x 1C x 240mm² Cu XLPE/PVC + 95mm² E SUBMAIN PROTECTED BY A 200 AMP MCCB FROM THE MSB TO DB-T VIA THE NEW CONDUIT AND PIT SYSTEM.

PROVIDE A NEW 4 x 1C x 240mm² Cu XLPE/PVC + 95mm² E SUBMAIN PROTECTED BY A 160 AMP MCCB FROM DB-T TO THE HOMESTEAD DB-A VIA THE EXISTING CONDUIT SYSTEM.

PROVIDE A NEW 4 x 1C x 95mm² Cu XLPE/PVC + 25mm² E SUBMAIN PROTECTED BY A 100 AMP MSB FROM DB-T TO THE WILD BURGER DISTRIBUTION BOARD DB-WB.

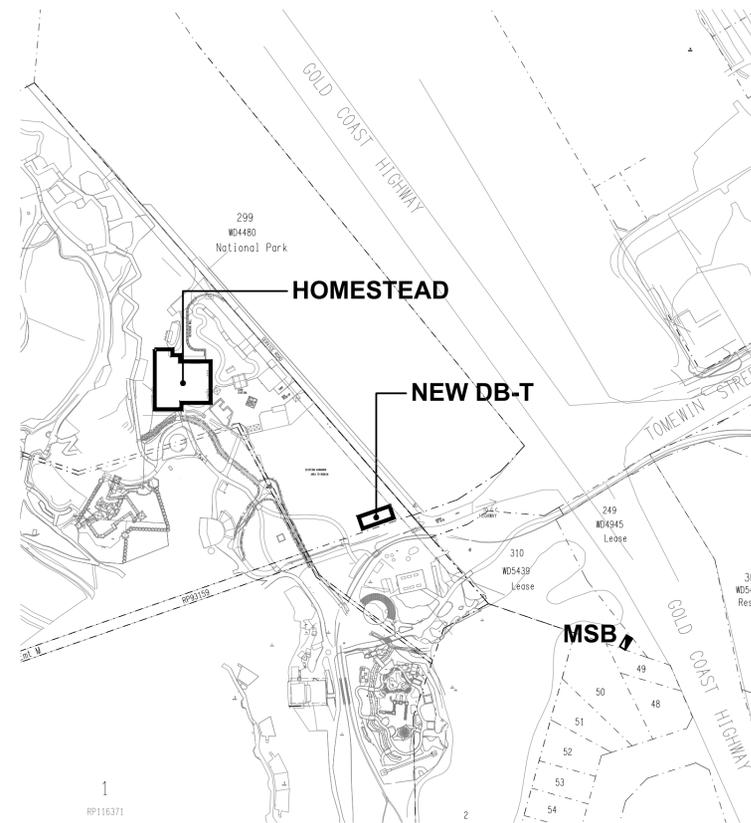
PROVIDE A NEW 4 x 1C x 35mm² Cu XLPE/PVC + 25mm² E SUBMAIN PROTECTED BY A 32 AMP MCB FROM DB-T TO THE WILD ISLAND DISTRIBUTION BOARD DB-WI.

LEGEND

-  ELECTRICAL SWITCHBOARD.
-  ELECTRICAL CONTROL PANEL BY OTHERS.
-  CIRCUIT BREAKER.
-  LOAD BREAK NON-AUTO ISOLATOR.
-  CONTACT.
-  SINGLE PHASE.
-  THREE PHASE.
-  MCCB MOTOR CONTROL.
-  REVENUE METER.
-  DEMAND OUTPUT TO THE GENERATOR CONTROLLER.
-  DEMAND OUTPUT TO THE GENERATOR CONTROLLER.

LEGEND

-  ISOLATOR.
-  IP54 10A SINGLE POWER OUTLET.
-  IP54 10A DOUBLE POWER OUTLET.
-  IP56 ONE-WAY LIGHT SWITCH C/W NEON / LED INDICATOR WHEN LIGHTS ARE ON.
-  IP65 CEILING MOUNTED 1200 LONG BATTEN C/W NON-MAINTAINED EMERGENCY PACK AND SENSOR. GAMMA ILLUMINATION STORM 1558-CCT-36W 4000K MS.
-  IP65 1200 LONG BATTEN C/W NON-MAINTAINED EMERGENCY PACK MOUNTED ON THE WALL AT HIGH LEVEL GAMMA ILLUMINATION STORM 1558-CCT-36W 4000K.



LOCATION PLAN
SITE MSB
SCALE 1:2000



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PROJECT:
**CURRUMBIN WILDLIFE SANCTUARY
SUPPLY UPGRADE**

28 TOMWIN STREET, CURRUMBIN, QUEENSLAND

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