

NOTES

1. EXTENT OF WORKS

THE ELECTRICAL SERVICES WORKS 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.
- CABLING, CABLE SUPPORT SYSTEMS AND ACCESS.
- RECONNECTION OF THE ENERGEX SUPPLY INCLUDING SUBMITTING AN EWR AND COORDINATING THE ENERGEX INSTALLATION.
- REMOVAL OF ALL EXISTING CABLING, SWITCHBOARDS AND ELECTRICAL SERVICES THAT BECOME REDUNDANT DUE TO THE WORKS.
- NEW CONSUMERS MAINS.
- NEW MAIN SWITCHBOARD MSB-E.
- OBTAINING ENERGEX APPROVAL OF THE NEW MSB-E SHOP DRAWINGS.
- ARRANGING THE NEW RETAIL METERING WITH ALL OF THE EXISTING ELECTRICITY RETAILERS.
- NEW MAIN DISTRIBUTION BOARD MDB.
- LABELS AND DOCUMENTATION AS PER THE ENERGEX DUAL SUPPLY DISPENSATION.
- NEW SUBMAINS FROM THE MSB TO THE MDB.
- MSB-E TRENCH / PIT C/W SUPPORT STRUCTURE, LID AND AUTOMATIC SUMP PUMP.
- RECONNECTION OF THE FIP TO DB-P.
- RECONNECT THE EXISTING OR EXTEND THE EXITING OUTGOING SUBMAINS TO THE NEW MDB CIRCUIT BREAKERS.
- RECONNECT THE EXISTING OR EXTEND THE EXITING OUTGOING CIRCUITS TO DB-L AND DB-P.
- RECONNECT THE EXISTING OR EXTEND THE EXITING FIP CIRCUITS TO DB-P.
- 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.

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 WHERE POSSIBLE. 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-ORIENTED 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 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 FOR CLARIFICATION PRIOR TO THE PLACING OF ORDERS, FABRICATION OR INSTALLATION OF THE ITEMS/METHODS IN DISCREPANCY.

- NCC BUILDING CODE OF AUSTRALIA 2016.
- ELECTRICITY ACT.
- ELECTRICAL SAFETY ACT.
- QECM V4.
- AS/NZS3000.
- AS3008.
- 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.
- QLD GOVERNMENT, DIVISION OF WORKPLACE, HEALTH AND SAFETY.
- QLD FIRE AND RESCUE AUTHORITY.

NOTES

5. SWITCHBOARDS

PROVIDE THE EASTERN MAIN SWITCHBOARD (MSB-E) AS FOLLOWS:

- PLINTH MOUNTED MECHANICALLY FIXED TO THE WALL.
- NATIONAL ELECTRICITY MARKET (NEM) QECM-V4 COMPLIANT RETAIL METERING.
- 316 STAINLESS STEEL ENCLOSURE AND ESCUTCHEONS.
- ALL SWITCHGEAR TO BE SCHNEIDER OR NHP/ TERASAKI.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.
- ALL COMPONENTS ARE TO BE LABELLED WITH NON-STICK LABELS.
- X 60 ELECTRIC ORANGE ENCLOSURE.
- WHITE ESCUTCHEONS WITH LIFT OFF HINGES AND 1/4 TURN LATCHES TO SECURE THE ESCUTCHEON THAT REMAIN PART OF THE ESCUTCHEON.
- DOORS ON ALL CUBICLES.
- IP66.
- BOTTOM ENTRY ONLY. THE TOP OF THE SWITCHBOARD IS TO BE WELDED SEALED WITHOUT ANY PENETRATIONS.
- SUN / RAIN HOOD.
- DESIGN THE SWITCHBOARD TO OPERATE IN 40 DEG AMBIENT IN DIRECT SUMMER SUNLIGHT.
- ENERGEX PADLOCK ON THE METER CUBICAL.
- TWO ENERGEX PADLOCK KEYS AND TWO 92268 KEYS.
- FORM 3B
- ENSURE ALL CABLE CONNECTIONS CAN BE THERMALLY SCANNED WITHOUT ISOLATING THE POWER.
- EACH CUBICAL CONTAINING SWITCHGEAR IS TO CONTAIN AN AUTOMATIC TEMPERATURE CONTROLLED ANTI CONDENSATION HEATER.
- 600 WIDE X 900 HIGH EMPTY COMPARTMENT WITH A REMOVABLE WHITE MOUNTING PAN FOR FUTURE USE.
- INTEGRAL DB-M PROVIDED AS A 30 POLE THREE PHASE FORM 1 250 AMP VERTICAL DIN CHASSIS C/W A SPARE 600 WIDE HORIZONTAL DIN RAIL FOR FUTURE CONTROLS.

PROVIDE THE MAIN DISTRIBUTION BOARD (MDB) AS FOLLOWS:

- PLINTH MOUNTED MECHANICALLY FIXED TO THE WALL.
- 316 STAINLESS STEEL ENCLOSURE AND ESCUTCHEONS.
- ALL SWITCHGEAR TO BE SCHNEIDER OR NHP/ TERASAKI.
- PROVIDE SHOP DRAWINGS FOR APPROVAL.
- ALL COMPONENTS ARE TO BE LABELLED WITH NON-STICK LABELS.
- X 60 ELECTRIC ORANGE ENCLOSURE.
- WHITE ESCUTCHEONS WITH LIFT OFF HINGES AND 1/4 TURN LATCHES TO SECURE THE ESCUTCHEON THAT REMAIN PART OF THE ESCUTCHEON.
- DOORS ARE NOT REQUIRED ON THE CUBICLES AS THE MDB IS LOCATED IN A DEDICATED SWITCHROOM.
- IP44.
- FORM 2bi
- ENSURE ALL CABLE CONNECTIONS CAN BE THERMALLY SCANNED WITHOUT ISOLATING THE POWER.
- INTEGRAL DB-L PROVIDED AS A 60 POLE THREE PHASE FORM 1 250 AMP VERTICAL DIN CHASSIS C/W A SPARE 600 WIDE HORIZONTAL DIN RAIL FOR FUTURE CONTROLS.
- INTEGRAL DB-P PROVIDED AS A 84 POLE THREE PHASE FORM 1 250 AMP VERTICAL DIN CHASSIS C/W A SPARE 600 WIDE HORIZONTAL DIN RAIL FOR FUTURE CONTROLS.

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PROVIDE DISTRIBUTION BOARD DB-L WITH THE FOLLOWING SWITCHGEAR WITH AN APPROPRIATE FAULT CURRENT RATING UTILISING CASCADING WITH THE 100 AMP MCCB PROTECTING DB-L:

- AS2293 EMERGENCY LIGHT TESTING FACILITY.
- THREE ESCUTCHEON MOUNTED 240 VOLT ON / OFF / AUTO LIGHTING CONTROL SELECTOR SWITCHES.
- TWO 10 AMP SINGLE PHASE RCBOs.
- TEN 16 AMP SINGLE PHASE RCBOs.
- SEVEN 20 AMP SINGLE PHASE RCBOs.
- THREE 25 AMP SINGLE PHASE RCBOs.
- ONE 20 AMP THREE PHASE RCBO.

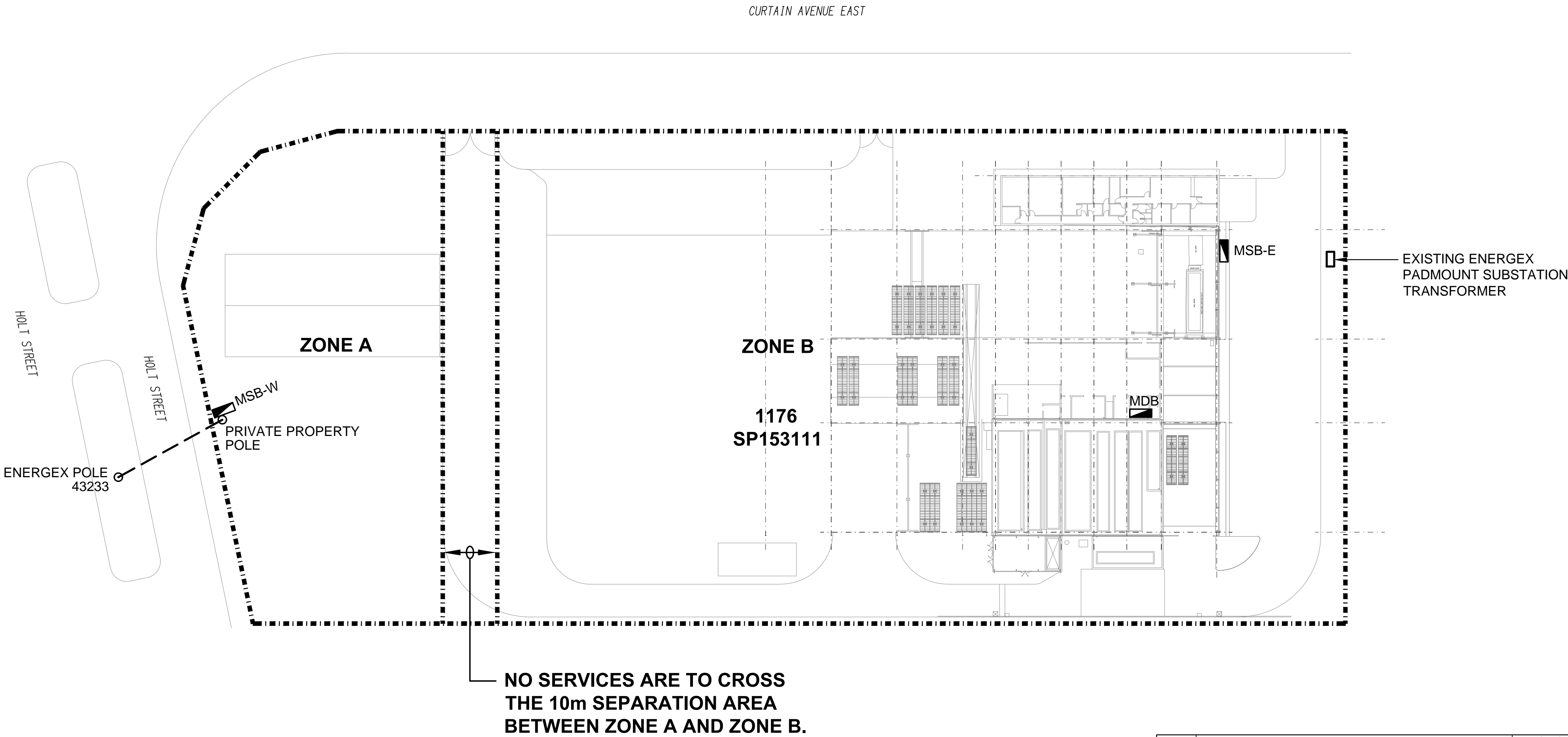
PROVIDE DISTRIBUTION BOARD DB-P WITH THE FOLLOWING SWITCHGEAR WITH AN APPROPRIATE FAULT CURRENT RATING UTILISING CASCADING WITH THE 200 AMP MCCB PROTECTING DB-P:

- EIGHT 16 AMP SINGLE PHASE RCBOs.
- THREE 20 AMP SINGLE PHASE RCBOs.
- SEVEN 20 AMP SINGLE PHASE RCBOs.
- THREE 20 AMP THREE PHASE RCBO.
- TWO 25 AMP THREE PHASE RCBOs.
- SEVEN 32 AMP THREE PHASE RCBO.
- TWO 63 AMP THREE PHASE MCBS.

CONFIRM A MINIMUM 10M SEPARATION BETWEEN THE POWER INSTALLATION ZONE A AND THE POWER INSTALLATION ZONE B IS MAINTAINED WITH NO MAINS POWER ENTERING THE SEPARATION AREA BETWEEN THE TWO ZONES. SUBMIT TO ENERGEX FOR APPROVAL A COMPUTER-AIDED DESIGN (CAD) DIAGRAM WHICH IDENTIFIES ZONES ON THE LOT FOR THE TWO SEPARATE ELECTRICAL INSTALLATIONS WHICH INCLUDES THE FOLLOWING:

- THE LOT NUMBER AND;
- THE NETWORK SUPPLY POINTS WITH NMIs SHOWN;
- BOTH GEOGRAPHICAL AND ELECTRICAL DEMONSTRATION OF THE EXTENT OF THE ZONES;
- THE ZONES SHALL BE NAMED A AND B.
- THE ZONE BOUNDARIES SHOULD BE AS SIMPLE AS POSSIBLE, USING OBVIOUS BOUNDARIES SUCH AS ROADS, FENCES OR WATERWAYS.
- ALL SWITCHBOARDS AS WELL AS ANY EQUIPMENT REMOTE OF A BUILDING (SUCH AS LIGHTING, GATES ETC.) SHALL BE LABELLED ON THE DIAGRAM WITH A UNIQUE IDENTIFIER TO THE PREMISES, WITH THE ZONE LETTER AS PART OF THE NAMING.
- THE ADDRESS OF EACH ENERGEX SUPPLY.

PROVIDE A LAMINATED COPY OF THE EXISTING ENERGEX DUAL POINTS OF SUPPLY DISPENSATION AND THE ABOVE PLAN IN THE NEW MSB AND THE EXISTING WESTERN BOUNDARY MSB-W ADJACENT HOLT STREET.



ELECTRICAL DESIGN GROUP BRISBANE PTY LTD ACN 092 710 793	THE COPYRIGHT OF THIS DRAWING REMAINS THE PROPERTY OF THE ELECTRICAL DESIGN GROUP.	USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE.	ALL DIMENSIONS TO BE VERIFIED ONSITE.	<div><div></div><div>ELECTRICAL DESIGN GROUP</div><div>ELECTRICAL BUILDING SERVICES CONSULTANTS</div><div>BRISBANE</div><div>GOLD COAST</div></div> <div><div>P.O.Box 15, Sherwood Q.4075</div><div>Phone: (07) 3278 4375</div><div>Email: brisbane@edg.net.au</div><div>Web: www.edg.net.au</div></div>	PROJECT: 661 CURTIN AVENUE EAST, PINKENBA	DRAWING: ELECTRICAL SERVICES NOTES & OVERALL SITE PLAN							
					BRISBANE	SCALE: 1:500				AT A1	PROJECT NO: C3712a	DRAWING NO: E01	REVISION: A