

LEGEND

- AC Cables  
PV DC Cables  
DC Cables  
Ethernet Cable (RJ45)

GENERAL NOTES

This drawing is issued for Electrical purposes only, and should be read in conjunction with the Electrical Specification. Setting out of Electrical and Electronic accessories are to be as indicated on Architects details.

Refer to Architects and Structural Drawings for all building dimensions, latest building revisions and services.

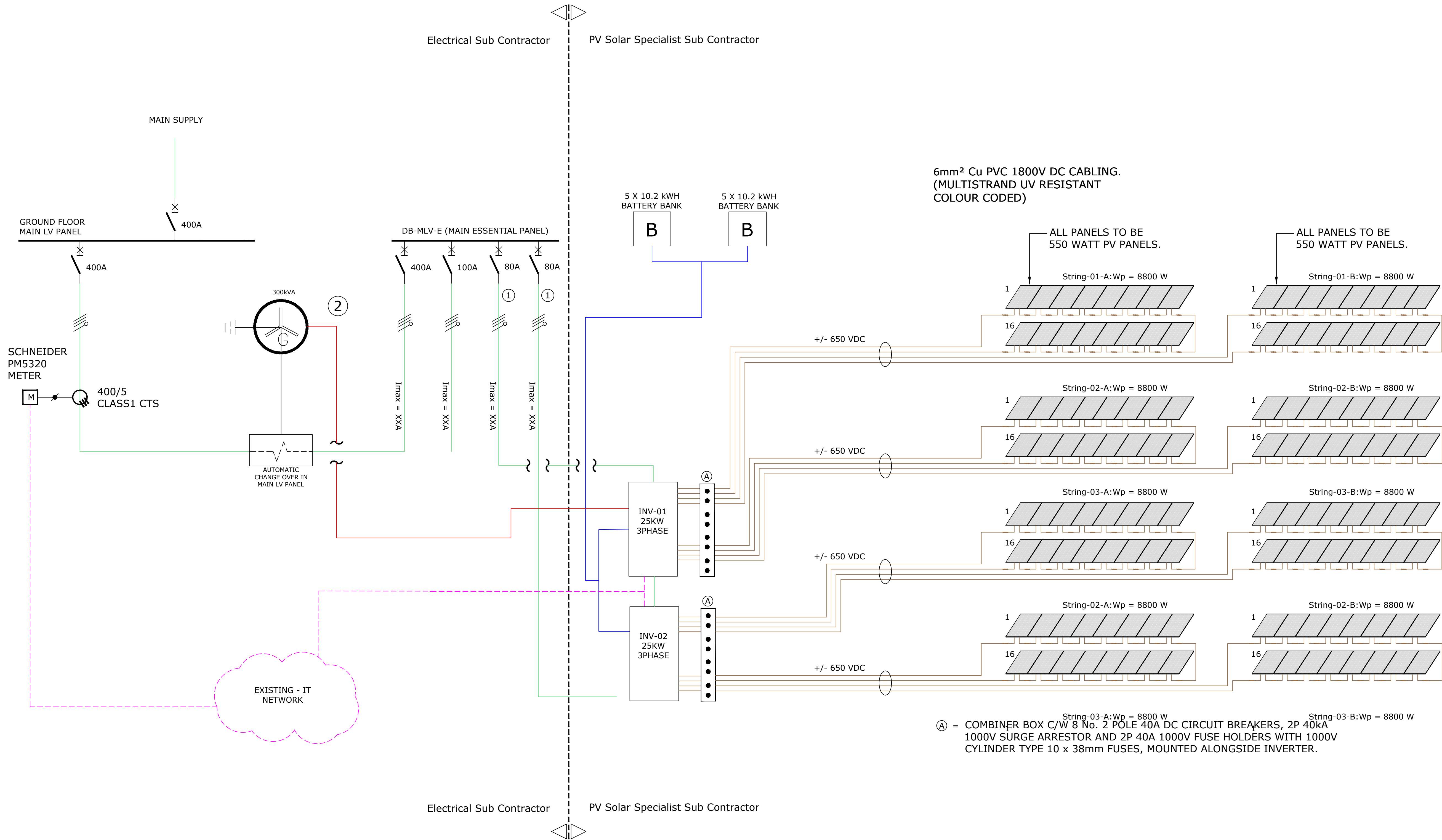
Do not scale this drawing.

All work to comply with relevant Standards, Codes of Practice, Specification and Regulations.

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Drawing Notes

- ① Bi Directional current flow  
② Inverter to Signal Generator to Startup When Inverter battery @ 35% SOC



① = COMBINER BOX C/W 8 No. 2 POLE 40A DC CIRCUIT BREAKERS, 2P 40kA 1000V SURGE ARRESTOR AND 2P 40A 1000V FUSE HOLDERS WITH 1000V CYLINDER TYPE 10 x 38mm FUSES, MOUNTED ALONGSIDE INVERTER.

|                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                        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| NOTES: (1) – Contractor to ensure max distance between draw boxes 20 metres notwithstanding anything to contrary.                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (2) – Draw boxes required after every second 90 deg. bend or 180 deg. total of slow bends.                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                  | (3) – All unwired conduits to be provided with draw wires. These will be withdrawn and checked at random.                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | (4) – Cast in conduits to be spaced 35mm. minimum.                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                |
| 100x100 CONDUIT BOX.<br>100x100 CONDUIT BOX AT 500AFTL.<br>100x100 CONDUIT BOX AT 1400AFTL.<br>100x50 CONDUIT BOX.<br>100x50 CONDUIT BOX AT 300AFTL.<br>100x50 CONDUIT BOX AT 1400AFTL.<br>ROUND CONDUIT BOX.<br>CLUSTER BOX (SIZE AS NOTED). |  DM<br>CAM<br>DM – DOOR MONITOR<br>CAM – CAMERA<br>AA – ACCESS ALARM<br>AC – ACCESS CONTROL<br>CR – CARD READER<br>COM – COMMUNICATION/INTERCOM<br>BGM – BACK GROUND MUSIC<br>EL – ELECTRIC LOCK/STRIKE<br> CONDUIT TURNED UP (°) FOR DOWN<br> DOWN CONDUCTOR TO EARTH OR EARTH TIE. | ROUND CONDUIT BOX FOR:<br>DM – DOOR MONITOR<br>CAM – CAMERA<br>AA – ACCESS ALARM<br>AC – ACCESS CONTROL<br>CR – CARD READER<br>COM – COMMUNICATION/INTERCOM<br>BGM – BACK GROUND MUSIC<br>EL – ELECTRIC LOCK/STRIKE<br> SURF<br>TWIN AND EARTH<br>CABLE ROUTE | 20mm. DIA. CONDUIT.<br>25mm. DIA. CONDUIT.<br>32mm. DIA. CONDUIT.<br>50mm. DIA. CONDUIT.<br>SECTION OF CONDUIT OMITTED FOR CLARITY.<br> SURF<br>TWIN AND EARTH<br>CABLE ROUTE | OVERHEAD CAST-IN<br>OVERHEAD ON SURFACE OR LAID ON CEILING.<br>FLOOR SLAB CAST-IN.<br>FLOOR SURFACE (IN FLOOR VOID).<br>POWER SKIRTING<br>TRUNKING<br>CABLE SLEEVE.<br>CABLE TRAY/LADDER |  100 SQUARE GALV. STEEL DRAW TRAY SIZE AS SHOWN.<br> TELEPHONE JUNCTION BOX.<br> INTERCOM JUNCTION BOX.<br> DATA/COMMS JUNCTION BOX.<br> SECURITY, ETC. JUNCTION BOX<br> DISTRIBUTION BOARD POSITION.<br>DB – BOARD DESIGNATION NUMBER. | 16A SANS 164-1 SWITCHED SOCKET OUTLET (SSO).<br>16A SANS 164-1 DOUBLE SSO.<br>16A SANS 164-1 SSO ON PEDESTAL.<br>16A SANS 164-2 3 PIN SSO.<br>16A SANS 164-1 & 164-2 COMBINATION SSO.<br>16A SANS 164-4 RED SSO (OF SHAVED EARTH PIN).<br>16A SANS 164-4 RED SSO ON PEDESTAL.<br>3 PHASE C-FORM SSO.<br>2 POLE ISOLATOR<br>3 POLE ISOLATOR<br>4 POLE ISOLATOR | 6A SANS 164-3 U/S SOCKET OUTLET.<br>SINGLE LEVER ONE WAY LIGHT SWITCH.<br>INTERMEDIATE LIGHT SWITCH<br>TWO WAY LIGHT SWITCH<br>MOTION SENSOR<br>LIGHT SWITCH WITH MOTION SENSOR |  LINEAR LUMINAIRE<br> BULKHEAD/DOWNLIGHTER, ETC.<br> WALL MOUNTED LUMINAIRES<br> POLE MOUNTED LUMINAIRE. |  TELEPHONE POINT.<br> TELEPHONE POINT ON PEDESTAL.<br> DIRECT OUTSIDE LINE TELEPHONE POINT (CALL BOX).<br> TV OUTLET.<br> DATA/COMMS OUTLET. |  BELL PUSH.<br> BELL OUTLET.<br> SIGN POINT.<br> CLOCK OUTLET.<br> PHOTOCELL. |  REFERENCE TO QUANTITY I.e. 3No.<br> REFERENCE TO A DETAIL I.e. DETAIL 2.<br> REFERENCE TO AN ELECTRICAL NOTE I.e. NOTE 4.<br> REFERENCE TO A STANDARD DRAWING I.e. STANDARD DRAWING No.34 |  CABLE NUMBER – REFER CABLE SCHEDULE FOR DETAILS.<br> LUMINAIRE TYPE "B" – REFER LUMINAIRE SCHEDULE. |

| REV       | DATE     | BY | DESCRIPTION              | CHK |
|-----------|----------|----|--------------------------|-----|
| B         | 10/07/24 | MH | Change over Detail added |     |
| A         | 15/05/24 | SV | General Revision         |     |
| 0         | 10/05/24 | SV | Original Issue           |     |
| REVISIONS |          |    |                          |     |



**IBU PROJECTS**  
EMPOWERING DEVELOPMENT

BLOCK D  
ESSEX PARK  
46 ESSEX TERRACE  
WESTVILLE  
P.O. BOX 1692  
WANDSBECK 3631  
TEL: +27 (0)11 2667831  
FAX: +27 (0)11 2667831  
E-mail: buya@buaya.co.za

|                                                  |             |          |          |        |
|--------------------------------------------------|-------------|----------|----------|--------|
| PROJECT/SERVICES                                 |             |          |          |        |
| Ikageng Police Station                           |             |          |          |        |
| TITLE                                            |             |          |          |        |
| Grid Tied Photovoltaic System - System Schematic |             |          |          |        |
| ENGINEER:                                        | DRAWN BY:   | DATE:    | CHECKED: | SCALE: |
| S Nzama                                          | MH          | 10/05/24 |          | NTS    |
| PROJECT No:                                      | DRAWING No: | SHEET:   | REV:     |        |
| 23029                                            | 701         |          | B        |        |
| FILE: LAYERS:                                    |             |          |          |        |