

Electrical Spec Wyifa Power

Distribution

We have allowed for the installation of an 24way 125a 3p+n distribution board with an IP55 rating. The distribution board will also have provision for the installation of 14 single pole devices on a separate DIN rail to allow for lighting and heating control as well as RCD's for the socket outlets. A class 1 + 2 surge protection device will also be installed

110V Transformer

Fed from the main distribution board will be a 10kva IP54 230-110v transformer which in turn feeds a 110v distribution board rated IP55 with 16 outgoing ways populated with 16a RCBO's. The RCBO's may be used for primary and secondary protection.

Lighting

Lighting will be as per attached lighting design average of 300 lux consisting of in the main area 12no 100w high bay fittings, there will be an extra 2 high bay fittings with built in Emergency lighting. Lighting will be controlled by grid box at each personnel door.

Emergency lighting - all exits doors will have internal emergency exit signs, externally each exit will be fitted with a bulkhead fitting.

Floodlights and mounted street lights as shown, these lights will be controlled by a built-in photocell with manual operation capability.

Lighting in the extension shall be controlled by a PIR sensor.

Heating

We have allowed for the installation of 5 x 6 Kw 3 phase intra-red space heaters which will meet a minimum requirement of IP54, controlling the heaters will be a 3 zone transmitter. Behind the bag monitors we will install 3no high energy efficient 700w panel heaters. All zones can be controlled separately.

Ventilation

2no 550plate axial fans will be installed one supply and one extract. These fans will be controlled by a humidstat, we have also allowed for a 24kw heater battery to be installed to bring the fresh air up to 10deg.

Roller Shutter Door

We have allowed for the installation of a 3no 16a 3p+n isolator to a minimum of IP54 at high level adjacent to the RSD, anything beyond the isolator will be the responsibility of the door installation contractor

Fire alarm

We have allowed for smoke and heat detectors to be installed in this facility. Installation will consist of 1no 16 zone panel to be installed next to main distribution board, this will be powered and controlled by a keyed red fire fused spur. All exit doors will be equipped with a callbreak glass. At high level 7no smoke sounder will be installed in the main facility where in the skip area we have allowed for heat detectors due to area be susceptible to dust with doors being regularly opened. Zone chart and logbook will also be supplied.

Power Outlets

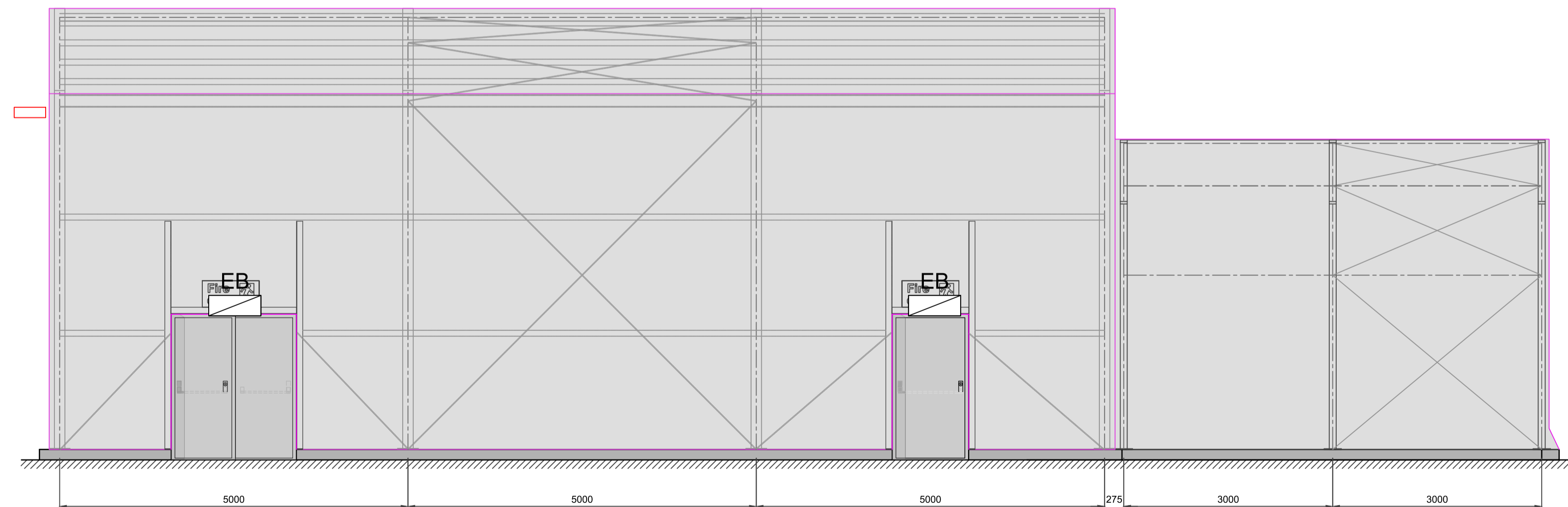
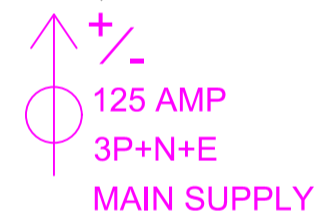
We have allowed for the installation of the following socket outlets
7 x 240v double sockets
12 x 16a 110v with interlocked switch - fed from the transformer.
All socket outlets will have RCD protection.

Wiring and Containment

Containment will consist of medium duty mild steel galvanised cable tray affixed to the fabric of the building structure. Cable will be 90 degree XLPE/SWALSZH designed to a maximum of 70 degrees.

Wiring shall comply with the 18 Edition wiring regulations, support and containment regulations.

Electronic copies shall be provided for the following - OEM Manuals, Test and Completion Certificates, as built drawings and operating instructions.



SYMBOL LEGEND

- DB** MAIN DISTRIBUTION BOARD
- TR** TRANSFORMER
- A** LED MULTI WATTAGE CIRCULAR HIGH BAY SET TO 60W, 4000K
- E1** LED HIGH OUTPUT EMERGENCY BULK
- B** LED LINEAR 6FT TWIN IP65 LINEAR
- BE** LED EMERGENCY 6FT LINEAR
- EB** LED EMERGENCY BULKHEAD
- Fire exit** LED EMERGENCY EXIT SIGN
- EXA** LED ASYMMETRIC 100W FLOODLIGHT
- BG** EMERGENCY BREAK GLASS
- SW** REMOTE SWITCH
- HEAT 1** HEATER 1 - SIDE PANEL 1.5KW POWER
- HEAT 2** HEATER 2 - OVERHEAD 2x HEATERS POSITIONED DIAGONALLY A3K2 400v 3kW POWER
- HEAT 3** HEATER 3 - OVERHEAD HEATER A3K2 400v 3kW POWER
- 240v DOUBLE SKT** 240V DOUBLE SOCKET
- 110v DOUBLE SKT** 110V DOUBLE SOCKET
- Heating SW** HEATING CONTROL SWITCH
- RSD CTRL** ROLLER SHUTTER DOOR EXTERNAL CONTROL PANEL
- EXB** LED STREET LIGHT MOUNTED ON THE WALL AT 5.5m USING 300mm LONG 60mm DIAMETER OUTREACH ARM

PRELIMINARY

REV	MODIFICATION	CLASS	BY	DATE
5	Rear elevation and lighting note added	D.O	LW	03.04.24
4	External lights updated	D.O	LW	02.04.24
3	req'd mains supply symbol added	D.O	LW	06.02.24
2	updated to suit comments	D.O	LW	31.01.24
1	electrical specification added	D.O	LW	18.01.24

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TITLE Electrical Layout For new mono-pitch structure and modifications to existing building		CLIENT - Magnox Ltd CO Wyifa Power Station	
DRN BY LW 12/01/2023		CHD BY AK 12/01/2023	
O/Nr. 11163		SCALE @ A1 N.T.S	
DRG No. 67602		REV 5 SHEET 1 of 1	

