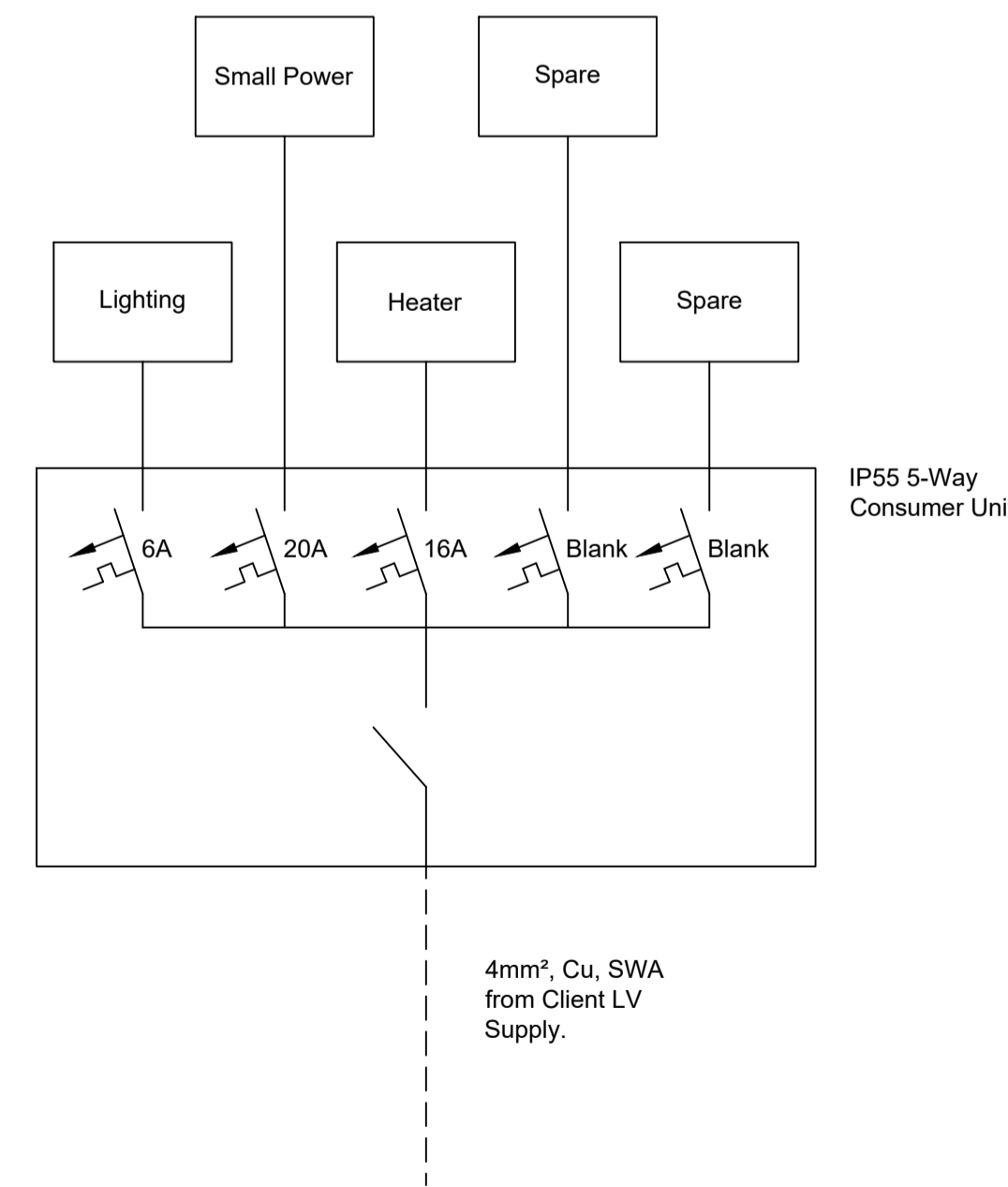


Legend	
	Bulkhead fitting with 2D 4 pin 38W Fluorescent Lamp.
	13A Switched double socket c/w 30mA RCD
	Light switch
	Consumer Unit



- Notes:**
- Do not scale from this drawing no variation to the stated dimensions or materials specified will be permitted without prior written consent from UK Power Solutions.
 - All dimensions are in millimeters.
 - The running of heating gas, telecoms, water and other services through or under the substation area is not permitted.
 - Workmanship and materials to conform to the latest edition of the relevant codes of practice or British standard and Eurocodes.
 - All work and testing shall be carried out by suitably competent operatives in accordance with BS 7671.
 - All accessories and accessory mounting boxes or enclosures shall be IP56 surface mounted from the MK Masterseal range or equivalent.
- Distribution Board:**
- The distribution board shall be insulated single-phase and neutral (to BS EN 61439-3) with a minimum of 5 ways and include:
 - A 100A/125A double-pole (phase and neutral) disconnector with 15kA breaking capacity (to BS EN 60947).
 - RCBOS to BS EN 61009-1 and MCBS (to BS EN 60898-2 with 15kA breaking capacity).
 - 16A/20A RCBO for the 13A socket outlet circuit.
 - 6A/10A MCB for lighting circuit.
 - 16A MCB for heating circuit.
 - 6A MCB for each RTU (if installed).
 - Spare ways complete with blanking plate for future use.
 - The distribution board shall be mounted at a height of 1350mm to 1450mm above finished floor level.
- Internal Lighting:**
- The substation shall be a minimum of one light fitting next to the door. If required additional light fittings shall be installed to provide adequate luminance to all areas.
 - The light fittings shall be positioned to avoid shadows when equipment doors are open.
 - All light fittings shall be mounted at a maximum height of 2200mm above finished floor level and be positioned to aid future maintenance. Light fittings shall not be installed above an LV board.
 - Light fittings should be connected via a plug in rose (or similar) to aid future maintenance. A protective conductor shall be connected to the earth terminal of each fitting.
 - A surface mounted light switch with neon indicator shall be positioned adjacent to the substation door.
 - All light switches shall be mounted at 1400mm above finished floor level.
- Power:**
- One double 13A socket outlet incorporating a 30mA residual current device (RCD) to (BS 1363) shall be installed.
 - Any RTU shall be supplied by an unswitched fuse connection unit (to BS 1363) fused at 5A.
 - Radial circuits shall be used for all power circuits.
 - All small power accessories should be mounted at 1000mm above finished floor level.
- Cabling:**
- All cables shall be 6491B LSOH (to BS EN 50525-3-41) and shall comply with BASEC. All insulation shall use phase or neutral colours throughout the length of the conductor in accordance with BS 7871. Note: the use of coloured sleeves to mark conductors is not acceptable.
 - All cables shall use stranded copper conductors with the following minimum cross sectional area:
 - Lighting 1.5mm².
 - small power 4mm².
 - All cables, except armoured cables and cut out tails shall be enclosed in plastic conductor trunking, the types and sizes shall be suitable for the operating conditions.
 - All cables shall be installed without joints other than at

- equipment and terminal fittings.
- Conduit, Trunking and Trays:**
- All cabling shall be installed in minimum 20mm conduit sized in accordance BS 7671.
 - All conduit, boxes and fittings shall be high impact non-flame propagating self-extinguishing, heavy-duty PVC conduit (to BS EN 61386-1). Dimensions shall comply with BS EN 60423.
 - There shall be sufficient junction boxes, draw-in boxes and inspection fittings installed to allow cables to be inspected withdrawn and replaced if necessary. The complete installation shall be arranged using a loop-in type system with joints being carried out at switches, isolators or appliance fittings.
 - All adaptable boxes and accessories shall match the conduit and shall be fitted with earthing terminals.
 - Joints between conduits may be push-fit, compression, mechanical locking or socket-end sealed with PVC adhesive, where a weatherproof or watertight connection is required push-fit arrangement alone is not acceptable.
 - All conduit shall be secured using matching distance saddles spaced at a maximum distance of 75mm and 200mm from any bend, joint or accessory all boxes and accessories shall be secured independently.
- Labeling:**
- All labeling shall comply with BS 7671.
 - All distribution board ways shall be permanently labeled to identify circuit function, cable size and protective device rating.
- Hot Sites:**
- All sockets shall disconnected or removed.
 - All lighting and RTU supplies from auxiliary terminals shall be via an isolation transformer.
- Testing and Certification:**
- Upon completion of the works, the installation shall be tested in accordance with BS 7671, an electrical installation certificate together with a schedule of test results as detailed in BS 7671 shall be forwarded to UK Power Solutions.

REV	DESCRIPTION	DATE	BY
1	Approved for Construction	07/03/2022	MS
0	Preliminary Issue	13/01/2022	MS

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Client: St. Modwen Developments Limited

Project: Locking Parklands - Secondary School (PAR01389)

Title: Construction Details - Small Power & Lighting

Design & Planning Engineer Mohammed Sanusi	Contact No. 08452 577 105
Project Manager TBC	Contact No. TBC
Drawn By MS	Checked By NM
Scale As Shown	Sheet No. 1/1
Original Size A1	Date 13/01/22
Drawing No. PAR01389 - E020001 - DWG102	Rev 1
Client Ref. -	
Drawing Status Approved for Construction	