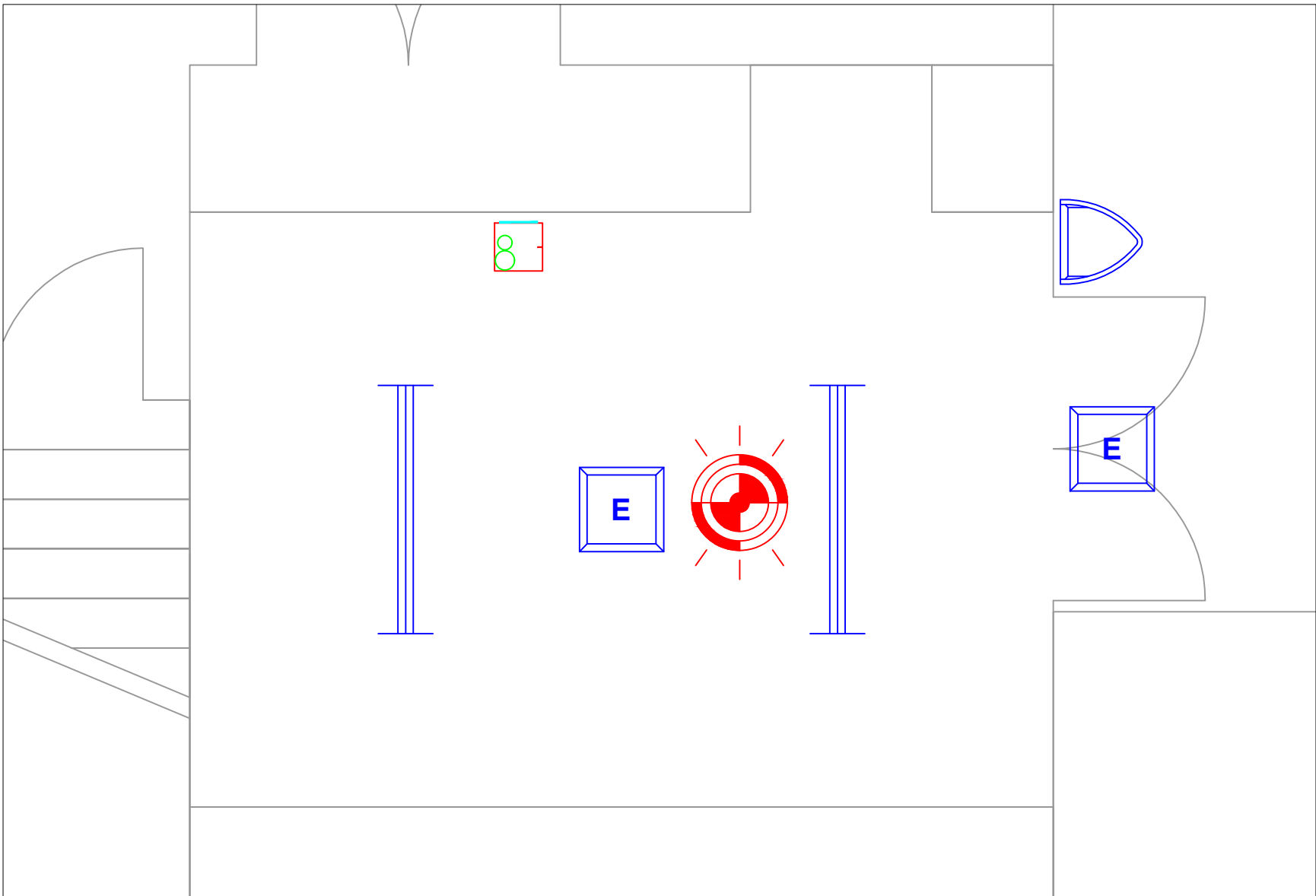
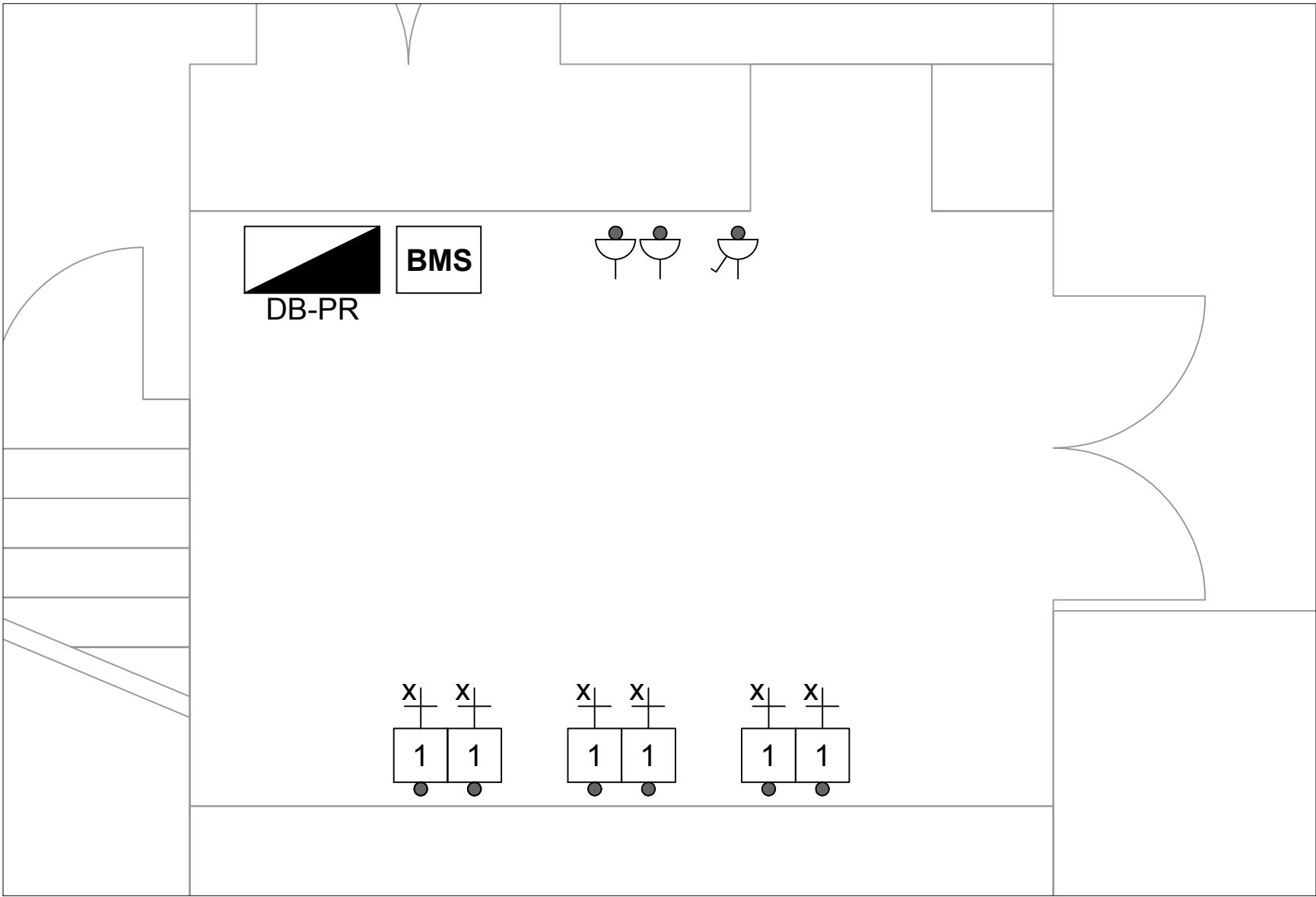
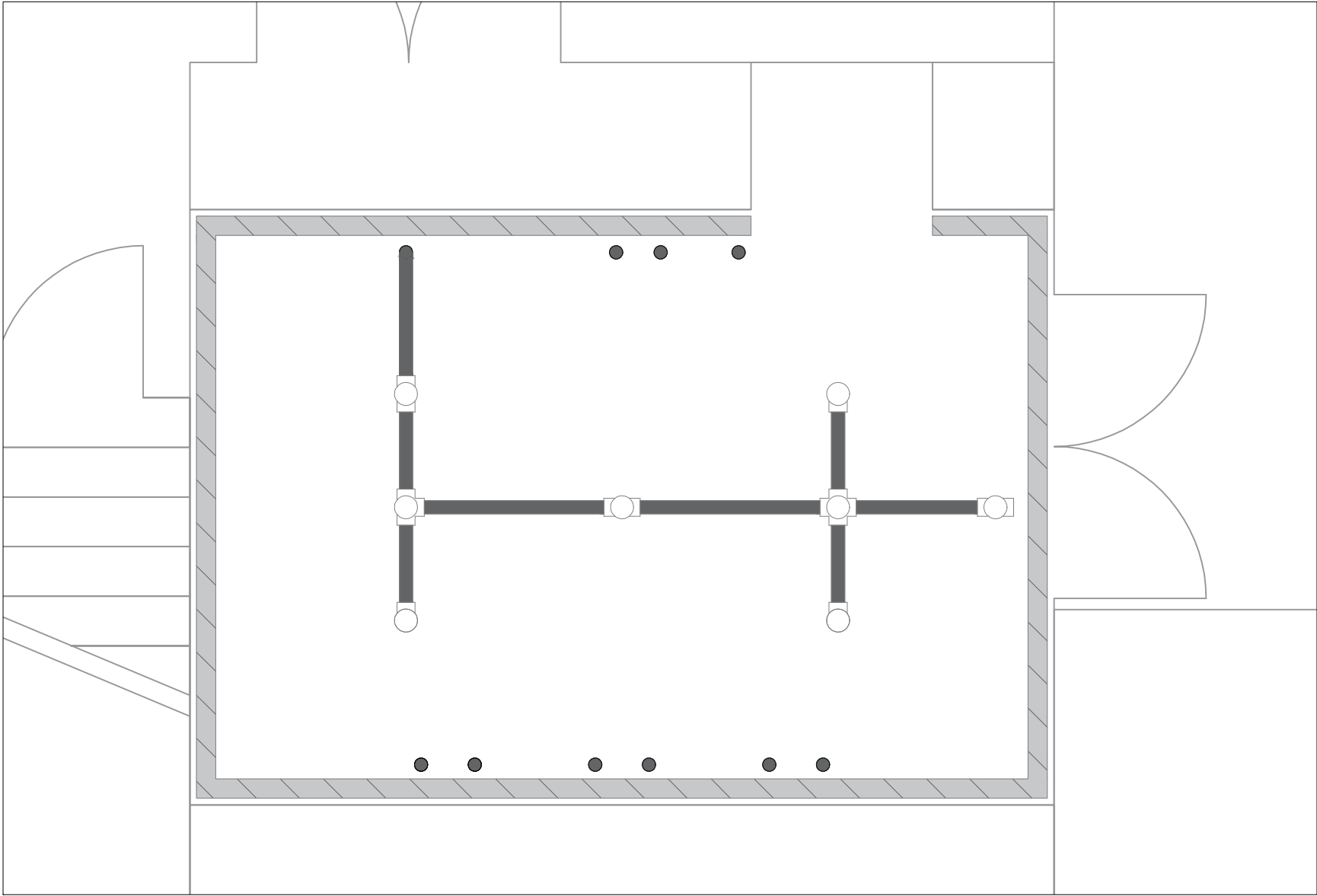




PROPOSED ELECTRICAL CONTAINMENT

- Containment installation shown indicates Stage 3 design intent only. Final sizing, routing and coordination shall be undertaken by the Contractor.
 - All plant room containment shall be galvanised steel.
 - Containment shall be coordinated with mechanical, BMS, public health and fire alarm services.
 - Segregate LV, ELV, fire alarm and data cabling in accordance with BS 7671 and relevant British Standards.
 - Containment shall be installed to permit safe maintenance access and future replacement of plant.
 - All containment supports and fixings shall be metallic and suitable for the installation environment.
 - Fire stopping shall be reinstated around all penetrations.
- Provide fire-rated cable supports to prevent premature collapse in the event of fire.

PROPOSED ELECTRICAL SMALL POWER

- Provide new plant room distribution arrangement. Equipment shall include RCBO protection, SPD protection and minimum 25% spare capacity.
- Provide new general purpose twin socket outlets within the plant room for maintenance purposes.
- Socket outlets and isolators shall generally be metal clad or heavy duty industrial type suitable for plant room environments.
- Final quantity and exact locations shall be coordinated with the final mechanical plant arrangement.
- Socket outlet circuits shall be RCBO protected. Contractor shall assess the requirement for Arc Fault Detection Devices (AFDDs) as per the Electrical Performance Specification, during the detailed design.
- All accessories shall be labelled with circuit references.
- Local isolators shall be provided adjacent all mechanical plant equipment and installed within visible and safe reach of the equipment served.
- Isolators shall be engraved to identify associated equipment.
- Final circuit ratings and cable sizes shall be determined by Contractor design.
- Contractor shall verify the existing earthing and bonding installation and provide supplementary bonding to all incoming services, mechanical pipework and exposed conductive parts associated with the plant room installation.
- Emergency switching and gas safety interlock arrangements shall be coordinated with the Mechanical, BMS and Fire Alarm Contractors.

PROPOSED LIGHTING & FIRE ALARM

- Provide new LED lighting installation throughout the plant room.
- Lighting design shall comply with BS EN 12464-1 and achieve suitable illuminance for plant maintenance activities.
- Emergency lighting shall comply with BS 5266 and provide minimum 3-hour duration.
- Emergency lighting shall be stand-alone self-testing type unless noted otherwise.
- Existing fire alarm detection and alarm devices affected by the works shall be modified, repositioned or renewed as necessary.
- Fire alarm systems shall remain operational throughout the works unless agreed temporary isolation procedures are implemented.
- Fire alarm cabling shall be fire resistant and installed in accordance with the Electrical Performance Specification and BS 5839-1.
- Final detector / VAD and luminaire locations shall be coordinated with the final mechanical services installation.

PROPOSED INSTALLATION DRAWING NOTES

This drawing shall be read in conjunction with the Electrical Performance Specification, Mechanical Performance Specification, BMS Specification and all associated contract documentation.

This drawing indicates Stage 3 design intent only. The Contractor shall undertake full detailed design responsibility for the electrical installation.

All works shall comply with BS 7671, Building Regulations and all relevant British Standards and statutory requirements.

The Contractor shall provide a complete and coordinated installation including all containment, supports, cabling, controls interfaces, testing and commissioning.

Verify existing upstream supply capacity, earthing arrangement and prospective fault current prior to installation.

Existing retained services outside the plant room refurbishment scope shall remain operational unless agreed otherwise with the Client/Contract Administrator.

New distribution equipment include RCBO protection, SPD protection and minimum 25% spare capacity.

All fixed wiring cables shall comply with CPR requirements and achieve minimum classification Cca-s1b,d1,a1 unless noted otherwise.

Install galvanised steel containment systems throughout plant areas and segregate LV, ELV, fire alarm and data cabling.

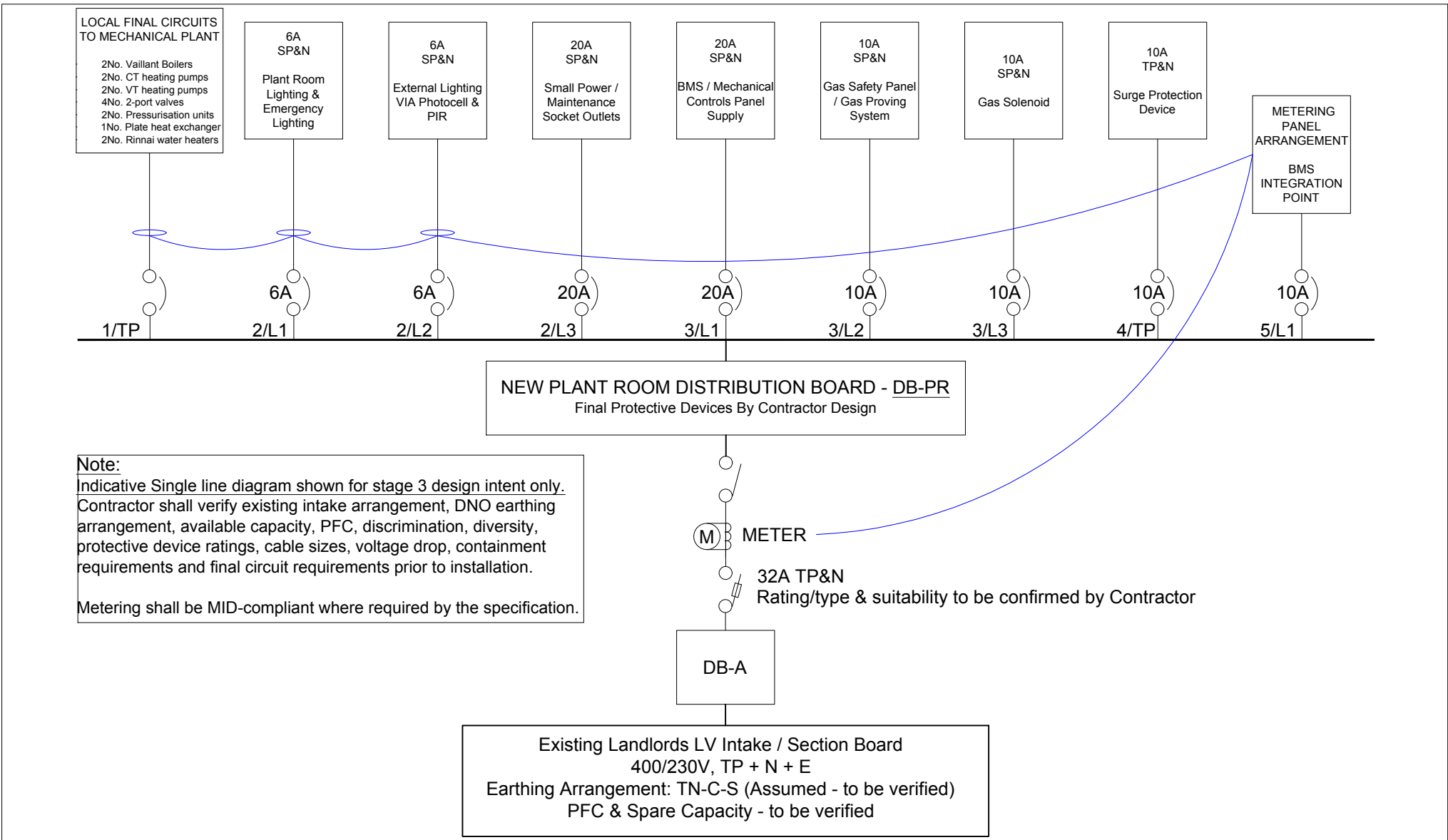
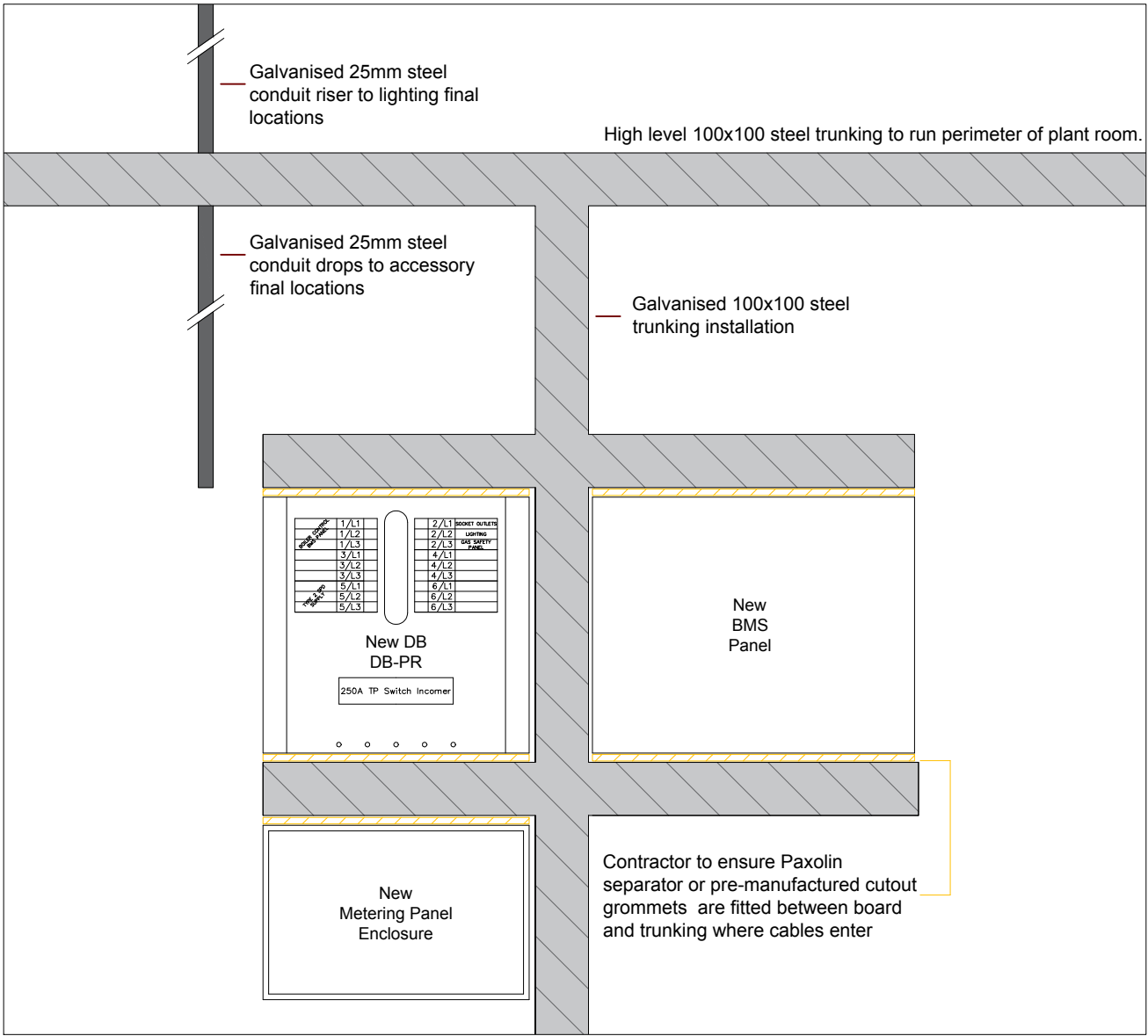
Provide new power supplies and local isolation for all mechanical plant and associated equipment.

Provide lighting and emergency lighting installations in accordance with BS EN 12464 and BS 5266 respectively.

Provide all power supplies, containment and cabling associated with the BMS and controls installation.

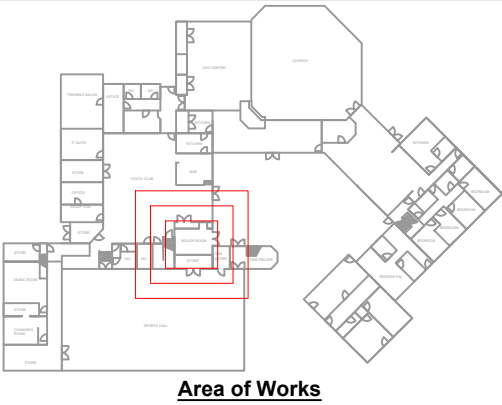
Reinstate all fire stopping around services penetrations.

Provide full testing, commissioning, certification, as-installed drawings and O&M documentation on completion.



NOTES

Any Site, Block or Location Plan (or map) included in this drawing and reproduced from Ordnance Survey material is done so with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Ordnance Survey Licence No 100019668. Figured dimensions only shall be used. No dimensions shall be scaled from this drawing without reference to the Contract Administrator/Engineer. All dimensions to be checked on the before work commences or is put in hand, and any discrepancy to be notified to the Contract Administrator/Engineer/Contract Administrator/Engineer to be notified of any discrepancies between the drawing and any other, including those issued by Consultants, Nominated Sub-contractors, or other Suppliers before commencing work. The location of any existing underground or overhead services are to be verified before commencing work.



Stage 3 Design Intent

Drawing to be read in conjunction with "VBS-0126 L5 3PE 2.1 Electrical Performance Specification"

LEGEND	
	DISTRIBUTION BOARD
	SWITCHED DOUBLE SOCKET OUTLET
	FUSED CONNECTION UNIT
	ISOLATOR X = CURRENT RATING N = NUMBER OF POLES
	100mmx100mm GALVANISED STEEL TRUNKING CONTAINMENT
	25mm dia. STEEL CONDUIT CONTAINMENT
	New BMS Panel
	Fire Alarm Heat Detector / VAD
	Fire Alarm Interface
	Proposed LED Light Fitting Location
	Proposed Stand-Alone Self-Testing LED Emergency Light Fitting
	Proposed External LED Light Fitting Location

01	Draft	-/-	ddmmyy	ddmmyy
Version	Amendment	Drawn & Date	Checked & Date	Approved & Date
E-mail				
-				
Internal Project Number				
L5-3PE-ZZ-SC				
Client				
Shrewsbury House Youth Centre				
Project Name				
Plant Room Emergency Replacement				
Drawing Title				
L5-3PE-ZZ-SC-E-5002				
Plant Room Electrical Installation				
Scale	Original Size	RIBA 2020 Stage		
NTS	A1	Stage 3		
Date of first issue	Author	Checked	Approved	
-/-/-	DP	-	-	
L5-3PE-ZZ-SC-E-5002				YY 01
Project - Originator - System - Level - Type - Discipline - Number				Subsidiary Revision