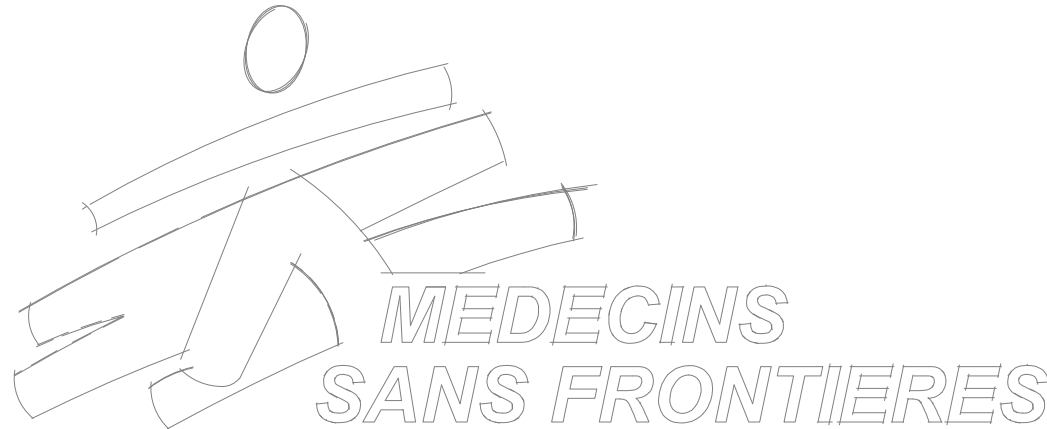


Ad Dahi Hospital



(Ad-Dahi Hospital Laboratory Building)

ELECTRICAL



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	PROJECT TITLE :	YE115 C001 BUILDING NAME : Laboratory sterilization and X-Ray CODE CAM : CNSTR HMAT XXX	DRAWING TITLE :	HQ stamp : 	N° Date Issue _____ _____ _____ _____ _____	BUDGET CODE SUB-PROJ. YE115 C001	Sheet N° :
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P.No.	SHEET NO.	TITLE
1	E0	COVER
2	E1-1	ELECTRICAL LIST OF DRAWINGS
3	E1-2	ELECTRICAL GENERAL NOTES
4	E1-3	ELECTRICAL GENERAL NOTES
5	E1-4	ELECTRICAL GENERAL NOTES
6	E1-5	ELECTRICAL LEGEND
7	E1-6	ELECTRICAL DETAILS
8	E1-7	ELECTRICAL DETAILS
9	E1-8	ELECTRICAL DETAILS
10	E1-9	ELECTRICAL DETAILS
11	E1-10	ELECTRICAL DETAILS
12	E1-11	ELECTRICAL DETAILS
13	E2-1	GROUND FLOOR PLAN – LIGHTING SYSTEM
14	E2-2	GROUND FLOOR PLAN –LIGHTING SYSTEM EMERGNCEY
15	E3-1	GROUND FLOOR PLAN – USP POWER SYSTEM
16	E3-2	GROUND FLOOR PLAN – NORMAL POWER SYSTEM

P.No.	SHEET NO.	TITLE
17	E3-3	GROUND FLOOR PLAN – HVAC (AC) POWER SYSTEM
18	E4-1	GROUND FLOOR PLAN – LOW CURRENT SYSTEM
19	E5-1	GROUND FLOOR PLAN – FIRE ALARM SYSTEM
20	E5-2	GROUND FLOOR PLAN – FIRE EXTINGUISHER
21	E5-3	GROUND FLOOR PLAN –Blood Refrigerator Alarm Circuit
22	E6-1	GROUND FLOOR PLAN – EARTHING SYSTEM
23	E7-1	GROUND FLOOR PLAN – MAIN CABLE ROUTING
24	E8-1	SING LINE DIAGRAM– N-DB SLD
25	E8-2	SING LINE DIAGRAM – AC-DB SLD
26	E8-3	SING LINE DIAGRAM – X-Ray-DB SLD
27	E8-4	SING LINE DIAGRAM – UPS-DB SLD
28	E8-5	SING LINE DIAGRAMI – MDB SLD
29	E8-6	Load Schedule Calculation Sheet
30	E9-1	Electrical Distribution Panel N-DB
31	E9-2	Electrical Distribution Panel UPS-DB
32	E9-3	Electrical Distribution Panel AC-DB
33	E9-4	MAIN DISTRIBUTION BOARD– MDB



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
ELECTRICAL LIST OF DRAWINGS

FILE NAME : 04-Electrical Design, August 11.dwg



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GENERAL NOTES:

- 01- THE ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL, MECHANICAL AND INTERIOR DESIGN DRAWINGS AND SPECIFICATIONS.
- 02- DO NOT SCALE FROM THE ELECTRICAL DRAWING LAYOUTS, WORK ACCORDING TO ARCHITECTURAL AND ELECTRICAL DETAILS.
- 03- CONDUIT SIZES SHALL BE SELECTED IN ACCORDANCE WITH THE RELEVANT B.S REGULATIONS AND LOCAL REGULATIONS.
- 04- MINIMUM CONDUIT SIZE TO BE Ø20MM.
- 05- ALL OUTLETS, SWITCHES, BOXES, ISOLATING SWITCHES AND FITTINGS IN PLANT ROOMS AND/OR EXPOSED TO EXTERNAL ENVIRONMENT SHALL BE WEATHER PROOF.
- 06- ALL SOCKET OUTLETS SHALL BE 3-PIN SWITCHED COMBINED TYPE WITH INDICATION LAMP UNLESS OTHERWISE INDICATED.
- 07- ALL SOCKET OUTLETS SHALL BE MINIMUM OF 15 AMPERE RATED UNLESS OTHERWISE INDICATED.
- 08- ALL CONCEALED RISING CONDUITS SHALL RUN IN THE WALLS OR COLUMNS, CONDUITS SHALL NOT RUN IN PLASTER, ALL RECESSED CONDUITS SHALL BE PVC TYPE ALL SURFACE / EXPOSED CONDUITS SHALL BE GI TYPE.
- 09- EXACT LOCATION OF ALL MECHANICAL / HVAC EQUIPMENT AND ASSOCIATED DISCONNECTING SWITCHES AND OUTLETS SHALL BE COORDINATED WITH THE MECHANICAL DRAWINGS.
- 10- CONTRACTOR SHALL ESTABLISH EXACT LOCATION OF LIGHTING FIXTURES, SMOKE DETECTORS, CABLE TRAYS, CABLE ROUTES, CONDUIT ROUTES ...ETC. IN FULL COORDINATION WITH OTHER SERVICES AND TO THE ENGINEER APPROVAL.
- 11- LOCATION OF EARTH ELECTRODES AND DOWN CONDUCTORS SHALL BE COORDINATED WITH MANHOLES & SERVICES FOR OTHER TRADES.
- 12- ALL LIGHT FIXTURES SHALL BE SUPPLIED COMPLETE WITH CONTROL GEAR INCLUDING POWER FACTOR CAPACITORS WHERE NECESSARY AND LAMP WHETHER EXPLICITLY MENTIONED OR NOT.
- 13- LIGHTING FIXTURE IN MECHANICAL ROOMS, SUBSTATION, GENERATOR ROOM ... ETC. THE MINIMUM SIZE ALLOWED BY THE CODES AND MAY BE PURPOSELY OVERSIZED TO CONDUIT ...ETC. AND BE SUSPENDED WHERE REQUIRED.
- 14- CONDUIT SIZES CALLED OUT ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE CODES AND MAY BE PURPOSELY OVERSIZED TO AVOID EXCESS CONDUIT HEATING AND VOLTAGE DROP.
- 15- ALL CIRCUITS SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LUGS AND SHALL BE CONNECTED TO THE DEVICE, LUMINARIES, SOCKET OUTLET OR EQUIPMENT USING A SUITABLE GROUNDING LUG.
- 16- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION BOXES REQUIRED FOR EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS.
- 17- ALL FLUSH MOUNTED PANELS IN THE PROJECT SHALL HAVE THE REQUIRED NUMBER OF Ø 25MM CONDUITS EXTENDED TO ABOVE AN ACCESSIBLE CEILING FOR FUTURE USE.
- 18- LIGHT FITTINGS SHALL NOT ACCOMMODATE THE LAMPS MORE THAN THE WATTAGE SHOWN ON THE DRAWINGS OR SCHEDULES.
- 19- THE CONTRACTOR SHALL CONFIRM EXACT COUNTER HEIGHTS, EQUIPMENT LOCATIONS FOR POWER AND COMMUNICATION DEVICES.
- 20- ALL PANELS SHALL HAVE TYPED UP CIRCUIT DIRECTORIES REFLECTING THE CIRCUIT ARRANGEMENT AS IT IS ACTUALLY INSTALLED.
- 21- ALL RECESSED SPEAKERS LUMINARIES IN FIRE RATED CEILING SHALL BE INSTALLED SO AS TO MAINTAIN THE INTEGRITY OF THE FIRE RATING.
- 22- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS OR FIRE RATED WALL AND SLABS.
- 23- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND TECHNICAL BROCHURES FOR ALL LUMINARIES, EQUIPMENT AND DEVICES COVERED BY THIS CONTRACT FOR APPROVAL PRIOR TO ORDERING. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR STAMP AND SIGNATURE INDICATING THAT THEY HAVE BEEN CHECKED AND ARE TO THE BEST OF THEIR KNOWLEDGE . IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- 24- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORTS FOR CHEQUERED PLATES AND CABLES AS REQUIRED TO PERFORM THE INSTALLATION AT THE SPECIFIED STANDARDS.
- 25- ACBS SHALL HAVE A MINIMUM SYMMETRICAL INTERRUPTING CAPACITY OF 44KA FOR 3 SECOND. MCCBS SHALL HAVE THE REQUIRED MINIMUM INTERRUPTING CAPACITY FROM WHICH PANEL IT WAS USE/INSTALL.
- 26- EARTHING OF ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE RELEVANT B.S REQUIREMENTS.
- 27- CABLE TRAYS SHALL HAVE EARTH CONTINUITY BY 6MM2 COPPER WIRE.
- 28- ALL EQUIPMENT, WATER COOLERS, CONTROL PANELS AND ISOLATORS SHALL BE CONNECTED TO THE RING EARTH SYSTEM.
- 29- ALL DUTY AND STANDBY PUMPS SHALL BE INTERLOCKED BETWEEN STARTERS.
- 30- ALL MINUTE CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 10KA IN 3 SECONDS.
- 31- ALL ELOBS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 10KA IN 3 SECONDS.
- 32- THE SIZE OF ALL THE CABLE TRAYS/TRUNKS TO BE CALCULATED AND COORDINATED WITH ALL THE OTHER TRADES AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ERECTION. THE RESERVE SPARE CAPACITY SHALL NOT BE LESS THAN 25%.
- 33- THE DISTANCE BETWEEN CABLES SHALL BE 2D, WHERE D IS OVERALL DIAMETER OF LARGER CABLE.
- 34- ALL ELECTRICAL WORKS AND MATERIALS SHALL BE COMPLYING WITH ELECTRICAL AUTHORITY WIRING REGULATIONS AND LOCAL CODES, CONSTRUCTION SPECIFICATION AND TENDER DOCUMENTS SPECIFICATIONS.
- 35- ALL PENETRATIONS / OPENING THROUGH WALLS AND FLOORS SHALL BE PROPERLY SEALED WITH APPROVED FIRE SEALANT MATERIAL.
- 36- ALL ELECTRICAL INSTALLATIONS IN MECHANICAL & ELECTRICAL PLANT ROOMS SHALL BE CARRIED- OUT USING GI CONDUITS / SURFACE EXPOSED MOUNTED.
- 37- THE MOUNTING HEIGHTS OF ALL SWITCHES WILL BE AT 1250MM, SOCKETS WILL BE AT 450MM, AND THE TOP OF DISTRIBUTION PANEL BOARDS WILL BE AT 1800MM.
- 38- ALL ELECTRICAL WIRING INSTALLATIONS SHALL BE CARRIED-OUT AS PER APPROVED WORK SHOP DRAWINGS AND GENERALLY IN ACCORDANCE TO THE FOLLOWING GUIDELINES; IN AREAS COVERED WITH FALSE CEILING: EXPOSED CONDUITS ABOVE FALSE CEILING CONNECTED TO THE NEAREST TRUNKING OR CABLE TRAYS.
- 39- IN AREAS NOT COVERED WITH FALSE CEILING: ALL CONDUITS SHALL BE RECESSED IN CONCRETE SLABS. IN TECHNICAL PLANTS: ALL EXPOSED CONDUITS GALVANIZED STEEL. FOR WALL MOUNTED INSTALLATIONS : ALL CONDUITS IN WALLS SHALL BE RECESSED FOR FLOOR BOXES. RECESSED IN GROUND INSTALLATIONS : ALL CONDUITS SHALL BE RECESSED UNDER TILES.

FOR NURSE CALL SYSTEM LAYOUTS

- 01- USE GI TRUNKING OR PVC / GI 25MM Ø CONDUITS WIRING FROM JUNCTION BOX TO OUTLET POINT.
- 02- CONTRACTOR TO SHOW ALL CABLE TRAY/TRUNKING ROUTES IN COORDINATION WITH OTHER SERVICES.
- 03- SPACE 25% CAPACITY SHALL BE CONSIDERED WHILE SIZING THE CABLE TRAY TRUNKING FOR FUTURE USE.
- 04- COORDINATE WITH MEDICAL CONSULTANT LOADED DRAWINGS FOR EXACT LOCATIONS & HEIGHTS OF ALL SYSTEM'S DEVICES.
- 05- NURSE CALL SYSTEM CABLES TYPE AND SIZES SHALL BE PROVIDED AS PER THE SYSTEM'S MANUFACTURER RECOMMENDATIONS AND SHALL ACHIEVE THE SPECIFIED SYSTEM TECHNICAL PERFORMANCE.
- 06- TV SYSTEM SHALL BE CARRIED OUT BY A SPECIALIST SUPPLIER APPROVED BY THE ENGINEER.

FOR POWER SYSTEM LAYOUTS

- 01- EXACT LOCATION OF OUTLETS, ISOLATORS , DOUBLE POLE SWITCHES, ETC SHALL BE FULLY COORDINATED WITH OTHER SERVICES, MEDICAL CONSULTANT LOADED DRAWINGS & MECHANICAL SERVICES DRAWINGS.
- 02- CONTRACTOR TO SHOW ALL CABLE TRAY/TRUNKING ROUTES IN COORDINATION WITH OTHER SERVICES.
- 03- UNLESS OTHERWISE INDICATED, ALL INSTALLATIONS SHALL BE CARRIED -OUT USING RIGID PVC CONDUITS RECESSED IN SLABS AND WALLS.
- 04- USE GI TRUNKING/ Ø 25MM, PVC / GI CONDUITS WIRING FROM JUNCTION BOX TO OUTLET POINT.
- 05- 25% SPACE CAPACITY SHALL BE CONSIDERED WHILE SIZING THE CABLE TRAY & TRUNKING FOR FUTURE USE.
- 06- COORDINATE WITH MEDICAL CONSULTANT LOADED DRAWINGS FOR EXACT LOCATIONS & HEIGHTS OF ALL SYSTEM'S DEVICES.
- 07- ALL SURFACE MOUNTED ELECTRICAL INSTALLATIONS INSIDE THE ELECTRICAL AND MECHANICAL PLANT ROOMS SHALL BE CARRIED OUT USING GI. CONDUITS.

FIRE ALARM SYSTEM NOTES

- 01- ALL FIRE DETECTION AND ALARM SYSTEMS INSTALLATIONS SHALL BE CARRIED OUT USING FIRE RATED CABLES.
- 02- ALL INSTALLATIONS DETAILS SHALL BE IN ACCORDANCE TO THE ELECTRICAL TYPICAL DETAILS.
- 03- EXACT LOCATIONS OF THE DUCT MOUNTED SMOKE DETECTORS, CONTROL AND INTERFACE MODULES OF THE MECHANICAL EQUIPMENTS SHALL BE COORDINATED WITH THE MECHANICAL DRAWINGS.
- 04- FIXATION HEIGHT SHALL BE AS FOLLOWS: -
 - a. FIRE ALARM MANUAL CALL POINTS SHALL BE INSTALLED AT 1250MM F.F.L.
 - b. INDOOR SIREN SHALL BE INSTALLED AT 2200MM F.F.L.
 - c. OUTDOOR SIREN SHALL BE INSTALLED AT 3000MM F.F.L.
- 05- INTERFACE MODULES, FAULT, AND LINE ISOLATORS REQUIRED FOR DETECTION DEVICES ZONES/ LOOPS, AND INDOOR / OUTDOOR SIRENS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE SYSTEM'S MANUFACTURER REQUIREMENTS AT NO EXTRA COST. FAULT ISOLATOR SHALL BE PROVIDED EVERY 20 DEVICES, START AND END OF THE DETECTION LOOP AS PER NFPA & LOCAL CIVIL DEFENSE DEPARTMENT REQUIREMENTS
- 06- FIRE DETECTION AND ALARM SYSTEMS CABLES SIZE SHALL BE PROVIDED IN ACCORDANCE WITH NFPA72, THE SYSTEM'S MANUFACTURER, AND VOLTAGE DROP CALCULATIONS.
- 07- IN CASE OF FIRE ACKNOWLEDGE MESSAGE BY THE SPACE / ZONE OR RETURN DUCT MOUNTED DETECTORS, THE INTERFACE MODULE SHALL SHUT DOWN THE AHU SUPPLY FAN.
- 08- EXACT LOCATIONS OF THE FIRE DETECTION AND ALARM SYSTEM DEVICES SHALL BE COORDINATED WITH THE INTERIOR DESIGN DRAWINGS & REFLECTED CEILING PLANS.
- 09- CEILING VOIDS SMOKE DETECTORS (ABOVE FALSE CEILING) WITH REMOTE LED INDICATORS (UNDER FALSE CEILING) SHALL BE PROVIDED IN ALL SPACES/CORRIDORS WHERE CEILING VOID HEIGHT EXCEEDS 800MM. FINAL LOCATIONS AND NUMBERS SHALL BE AGREED WITH ENGINEER.
- 10- FIRE DETECTION & ALARM SYSTEM , SHALL BE CARRIED OUT IN ACCORDANCE WITH NFPA & LOCAL CIVIL DEFENSE DEPARTMENT REQUIREMENTS.

FOR POWER DISTRIBUTION BOARDS AND RISER

- 01- POWER SUPPLY FEEDER CABLE/SIZES SHOWN IN THE DRAWINGS MAY BE HIGHER IN SIZE THAN THEIR SUPPLY SIDE/ LOAD SIDE MSB/S, SMB/S, DB/S, MCCB/ISOLATOR TERMINAL CAPACITY. STRANDS OF WIRES SHALL NOT BE CUT IN ANY CASE TO ACCOMMODATE CABLES TO ANY TERMINALS AT THE TIME OF TERMINATION. THE ELECTRICAL CONTRACTOR SHALL ALLOW FOR THE FOLLOWING TO FACILITATE TERMINATION OF HIGHER SIZE CABLES.
- 02- SPREADER LINK OF APPROVED SIZE OF ADEQUATE, APPROPRIATE AND APPLICABLE SIZE SHALL BE USED, AND THE ENCLOSURE SHALL BE SIZED ACCORDINGLY.
- 03- ALTERNATIVELY USE OF REDUCTION BOXE/S, BUSBAR JUNCTION BOXE/S OF APPROVED SIZE TO BE CONSIDERED FOR TERMINATING HIGHER SIZE CABLES. IN ANY CASE THE DERATED AMPERE RATING OF REDUCED SIZES OF CABLE/S BETWEEN SUCH REDUCTION/BUS BAR BOXES AND LOAD SIDE SMB/S, DB/S, ISOLATOR OR EQUIPMENT SHALL NOT BE LESS THAN THE AMPERE RATING OF THE RESPECTIVE SUPPLY SIDE MCCB.
- 04- TIME/CURRENT CHARACTERISTICS OF MCCB, IN SUPPLY SIDE/LOAD SIDE PANELS TO BE WELL CO-ORDINATED FOR TRIPPING CHARACTERISTICS/DESCRIPTION.
- 03- ALL SUB-MAIN SWITCH BOARDS (SMB/S), MOTOR CONTROL, CENTRE/S (MCCBS) SHALL BE OF 'FORM 2B' SEPARATION.
- 04- EXACT LOCATION OF ALL EQUIPMENT / PANELS AND THEIR RESPECTIVE ISOLATORS NEED TO BE CO ORDNATED WITH ALL OTHER SERVICES AND TO ENGINEER'S APPROVAL.
- 05- ALL OUTGOING FEEDERS SIZES FOR MECHANICAL EQUIPMENTS TO BE AS PER SPECIFICATION /DRAWINGS AND AS PER FINAL SELECTION OF ALL APPLICABLE EQUIPMENT AND FINAL LOCATION.
- 06- ALLOW FOR CASCADING ALL MOTOR STARTER FEEDERS WITH 15-30 SEC TIME LAG.
- 07- ALLOW FOR BMS POINTS IN MECHANICAL EQUIPMENT / LIFTS / TRAVELLATORS, AS APPLICABLE.
- 08- MCCBS TO HAVE ADJUSTABLE TRIP SETTINGS AND THESE TRIP SETTINGS TO BE ADJUSTED AND SET AT SITE TO ENGINEERS APPROVAL.
- 09- ALLOW FOR 30MA ELOB FOR APPLICABLE CONTROL PANELS FOR ALL WET EQUIPMENT.
- 10- THE EXACT ROUTING, SPACE CONSTRAINTS, SPACE REQUIREMENT, AND REQUIRED CLEARANCES SHALL BE WELL CONSIDERED AND CO-ORDINATED WITH RESPECT TO OTHER ADJACENT PANELS AND ALL OTHER SERVICES. OBTAIN DUE APPROVAL FROM THE ENGINEER IN THIS REGARD PRIOR TO COMMENCEMENT OF MANUFACTURE OF THE BUS DUCT.
- 11- ALLOW FOR REDUCED VOLTAGE STARTERS FOR MOTORS AS PER SPECIFICATION.

FOR GROUNDING SYSTEM LAYOUTS

- 01- WHETHER IT IS SHOWN ON THE DRAWINGS OR NOT ALL EXTERNS METALLIC PARTS SHALL BE CONNECTED TO EQUIPMENT THE NEAREST BONDING EQUIPMENTAL CONDUCTOR USING A MINIMUM OF Ø 6MM2 COPPER CONDUCTOR. -EARTHING & BONDING SYSTEMS
- 02 SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROJECTS DOCUMENTS AND BS STANDARDS
- 03 SOIL CONDITIONS SHALL BE CHECKED TO ENSURE PROPER EARTHING EARTH RESISTANT SHALL NOT EXCEED 1 OHM.

FOR LIGHTING SYSTEM LAYOUTS

- 01- UNLESS OTHERWISE INDICATED, ALL INSTALLATIONS SHALL BE CARRIED -OUT USING RIGID PVC CONDUITS RECESSED IN SLABS AND WALLS.
- 02- FOR DETAILS OF LIGHTING FIXTURES, REFER TO FIXTURE LEGEND.
- 03- EXACT LOCATION OF LIGHTING FIXTURES SHALL BE COORDINATED WITH THE REFLECTED CEILING LAYOUTS, INTERIOR DESIGN DRAWINGS, AND MEDICAL CONSULTANT LOADED DRAWINGS.
- 04- EXACT LOCATION OF THE LIGHTING SWITCHES AND WALL MOUNTED FIXTURES SHALL BE COORDINATED WITH THE INTERIOR DESIGN DRAWINGS, AND MEDICAL CONSULTANT LOADED DRAWINGS.
- 05- ALL SURFACE MOUNTED ELECTRICAL INSTALLATIONS INSIDE THE ELECTRICAL AND MECHANICAL PLANT ROOMS SHALL BE CARRIED OUT USING GI. CONDUITS.
- 06- TYPICAL SWITCHING CONTROL FOR ALL PATIENTS' ROOMS.

FOR LOW CURRENT SYSTEMS LAYOUTS

- 01- USE GI TRUNKING OR PVC / GI 25MM Ø CONDUITS FOR TELEPHONE & DATA SYSTEM WIRING.
- 02- CONTRACTOR TO SHOW ALL CABLE TRAY/TRUNKING ROUTES IN COORDINATION WITH OTHER SERVICES.
- 03- 25% SPACE CAPACITY SHALL BE CONSIDERED WHILE SIZING THE CABLE TRAY & TRUNKING FOR FUTURE USE.
- 04- 4 PAIR CAT.6 CABLE SHALL BE LAID FROM IDF TO EACH OUTLET POINTS.
- 05- COORDINATE WITH MEDICAL CONSULTANT LOADED DRAWINGS FOR EXACT LOCATIONS & HEIGHTS OF TELEPHONE & DATA OUTLETS.
- 06- CONTRACTOR SHALL SUBMIT COMPLETE SCHEMATIC WIRING DIAGRAM, EQUIPMENT DETAILS ... ETC. FOR ALL SYSTEMS TO ENGINEERS APPROVAL.
- 07- ALL SURFACE MOUNTED ELECTRICAL INSTALLATIONS INSIDE THE ELECTRICAL AND MECHANICAL PLANT ROOMS SHALL BE CARRIED OUT USING GI. CONDUITS.
- 08- FOR CARD ACCESS CONTROL AND MAGNETIC CONTACT EXACT LOCATIONS COORDINATE WITH ARCHITECTURAL DOORS DETAILS.
- 09- SPEAKERS RATINGS AND LOCATIONS SHALL BE CHECKED AND VERIFIED BY THE SOUND SYSTEM SUPPLIER TO ENSURE PROPER AND OPTIMUM SOUND PRESSURE LEVELS AND DISTRIBUTION ARE ACHIEVED.
- 10- COORDINATE WITH THE A/V SYSTEM SUPPLIER FOR THE DETAIL OF THE INSTALLATIONS REQUIREMENTS.
- 11- COORDINATE THE A/V SYSTEM DEVICES WITH THE INTERIOR DESIGN.

PROJECT TITLE :

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- Yemen -**

YE115 C001
 BUDGET CODE SUB-PROJ.

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 ELECTRICAL GENERAL NOTES
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MOUNTING HEIGHT OF DEVICES AND EQUIPMENT	
unless otherwise indicated, devices and equipment shall be installed at the following heights, measured in cms. from f.f.l., to the center line of device or equipment.	
items marked thus (*) shall be referred to general notes 2.1 to 2.12 & 3.1-3.5 for additional remarks: IEC 60364	
lighting point above mirror in toilb01-et-mu	RAL 180 cms. or as per I.D. requirement
LIGHTING SWITCHES	125 cms.
FANS SWITCHES	125 cms.
13 AMPERE SOCKET OUTLET	45 cms.
F.C.U SOCKET OUTLET	Ceiling
20 AMPERE DP SWITCH FOR AC UNIT	Adjacent to A/C
20 AMPERE DP SWITCH FOR WATER HEATER	125 cms.
13 AMPERE SO IN KITCHEN ABOVE WORK TOP	25cm above worktop
ROOM THERMOSTATS	160 cms.
FIRE ALARM BREAK GLASS	125 cms.
FIRE ALARM BELL	220 cms.
TELEPHONE/TV CONNECTION BOX	100 cms.
DATA/SOUND CONNECTION BOX	100 cms.
TELEPHONE SOCKET OUTLETS	45 cms.
DATA SOCKET OUTLETS	45 cms.
TV SOCKET OUTLETS	120 cms.
POWER SOCKET OUTLETS FOR TV	120 cms.
TOP OF DISTRIBUTION BOARD	180 cms.
TOP OF addressable fire alarm control panel	180 cms.
CONTACTOR CONTROL PUSHBUTTON	140 cms.
FLEX OUTLET	45 cms.
OUTLET BOX FOR CONTROL DEVICE	140 cms.

minimum requirement of conduit sizes shall be as tabulated below:				
cable size	conduit size			no. & diameter of wires
	20mm	25mm	32mm	
conductor size	MAX No. of cables			
1.5 mm ²	11	18	30	1/1.13
2.5 mm ²	8	14	23	1/1.78
2.5 mm ²	7	12	20	7/0.67
4.0 mm ²	5	9	15	7/0.85
6.0 mm ²	4	7	12	7/1.04
10.0 mm ²	3	4	7	7/1.35
16.0 mm ²	2	3	5	7/1.70
25.0 mm ²	-	2	4	7/2.14
35.0 mm ²	-	-	2	19/1.53
50.0 mm ²	-	-	2	19/1.78

mini cross sectional area of protective conductor	
cross sectional area of phase conductor (s) mm ²	mini cross sectional area of the corresponding protective conductor ECC or (SP) mm ²
$S \leq 16$	S
$16 < S \leq 35$	16
$S > 35$	S/2

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LEGEND LIGHTING DEVICE SYSTEM

SYMBOL	DISCRPTION
	SURFACE MOUNTED IN CEILING LED LIGHTING FIXTURE, ALUMINUM HOUSING, POLYSTYRENE OPTICAL COVER ,OPAL LENS FINISH , WITH 2700LM, 30W, IP-22, CRI>80, 4000K.(L1)
	SURFACE MOUNTED IN CEILING LED DOWN LIGHT LIGHTING FIXTURE, WITH DIE CASTALUMINUM HOUSING & POLYCARBONATE REFLECTOR, SYSTEM FLUX 1530lm, 18W, 840 NUETRAL WHITE, IP-40.(L2)
	WALL - MOUNTED LED LIGHTING LUMINARIES, WALL MOUNTED OUTDOOR , 220V, 50Hz,20 WATT, 1600 LM, IP65.(L3)
	CEILING MOUNTED EXIT SIGN LUMINARIES WITH 1X8W, LED LAMP AND WITH DOUBLE SIDED PICTOGRAM IP44, DIRECTION AS SHOWN IN DRAWING (L5)
	ANTI-MOSQUITOES DEVICE, 20W.
	5W LED WELL MOUNTED LIGHTING LUMINAIRE USED FOR MIRROR, OPAL DIFFUSER, 90LM/W, IP56, CRI>80, 6500K.
	5W LED WELL MOUNTED LIGHTING LUMINAIRE, WITH BUILT IN BATTERY USED FOR EMERGNCEY.
	WALL MOUNTED DECORATIVE LIGHTING UNIT WITH 100 W. LINEAR HALOGEN LAMP (IP-65)(L4).
	PHOTOCELL SENSOR,IP65.
	LIGHTING SWITCH, ONE WAY, ONE GANGE, 240V.
	LIGHTING SWITCH, ONE WAY, TWO GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, ONE GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, TWO GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, THREE GANGE, 240V.
	BACK BOX.
	MAIN DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.

LEGEND HVAC POWER SYSTEM

SYMBOL	DISCRPTION
	A.C SPLIT INTERNAL UNIT.
	16A-220V,WALL MOUNTED SWITCHED WITH RED INDECATOR 1300MM A.F.F.L.WITH GALVANIZED STEEL SQUARE BOX.
	16A EARTHED ,SHUTTERED AND SWITCHED SINGLE POWER SOCKET OUTLET.
	DISTRIBUTION BOARD FOR AC .

LEGEND VENTILATION / FAN SYSTEM

SYMBOL	DISCRPTION
	CEILING FRESH AIR FAN OUTLET.
	FAN SWITCH.
	WALL MOUNTED FRESH AIR FAN OUTLET.
	SINGLE GANG ONE-WAY FAN SWITCH.
	BACK BOX.
	AXIAL WALL / GLASS MOUNTED EXHAUST FANS FRESH AIR FAN OUTLET.
	INLINE FAN (DUCTED).
	SINGLE PHASE DISCONNECT SWITCH, 220V, 50HZ
	MAIN DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.

LEGEND POWER SYSTEM

SYMBOL	DISCRPTION
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG UPS SOCKET OUTLET- UK Type.
	16A EARTHED , SHUTTERED, UPS SOCKET OUTLET- EU Type.
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET- UK Type.
	63A 3-PHASE INDUSTRIAL TYPE SOCKET OUTLET, 5PIN, SWITCHED, COMPLETE WITH PLUG, IP-55(380V,50HZ,5PIN).
	20A-220V,WALL MOUNTED SWITCHED WITH RED INDECATOR 1300MM A.F.F.L.WITH GALVANIZED STEEL SQUARE BOX.
	16A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET.
	20A EARTHED , SHUTTERED AND SWITCHED SINGLE POWER SOCKET OUTLET.
	BACK BOX.
	DISTRIBUTION BOARD FOR UPS ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR X-RAY_UPS.
	MAIN DISTRIBUTION BOARD MDB.

W.P =weather proof
X =Number of sockets

LEGEND LOW CURRENT SYSTEM

SYMBOL	DISCRPTION
	DATA OUTLET, WALL MOUNTED.
	TEL OUTLET, WALL MOUNTED.
	SATELLITE SOCKET.
	ACCESS POINT WIFI.
	DATA PULL BOX.
	IT CABINET
	TEL JUNCTIONS BOX.
	NETWORK SWITCH.
	NETWORK SWITCH POE.
	FINGERPRINT DEVICE FOR ATTENDANCE.

LEGEND FIRE ALARM

SYMBOL	DISCRPTION
	SMOKE DETECTOR.
	HEAT DETECTOR.
	MANUAL CALL POINT / BREAK GLASS
	BELL / SOUNDER WITH STROBE
	CONVENTIONAL FIRE ALARM CONTROL PANEL

LEGEND FIRE EXTINGUISHER

SYMBOL	DISCRPTION
	DRY POWDER FIRE EXTINGUISHER 6KG CAPACITY.
	CO2 FIRE EXTINGUISHER 6KG CAPACITY.

LEGEND EARTHING SYSTEM

SYMBOL	DISCRPTION
	EARTHING POINT GROUNDING SYSTEM EARTHING ROD 2.4M (L) 16MM(OA) COMPLETE WITH CONCRETE EARTH PIT.
	(116)mm2 BARE CILCABLE FOR EARTHING.
	EARTH BAR.

LEGEND DISTRIBUTION PANEL

SYMBOL	DISCRPTION
	UPS
	DISTRIBUTION BOARD FOR UPS ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR AC .
	DISTRIBUTION BOARD FOR X-RAY_UPS.
	MAIN DISTRIBUTION BOARD MDB.
	AUTOMATIC TRANSFER SWITCH
	UNDERGROUND.
	MANHOLE.

LEGEND BLOOD REF ALARM CIRCUIT

SYMBOL	DISCRPTION
	UPS , 350 W
	NORMALLY CLOSE Point are already in the refrigerator
	Lighting and sound horn alarm device



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

ELECTRICAL LEGEND

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

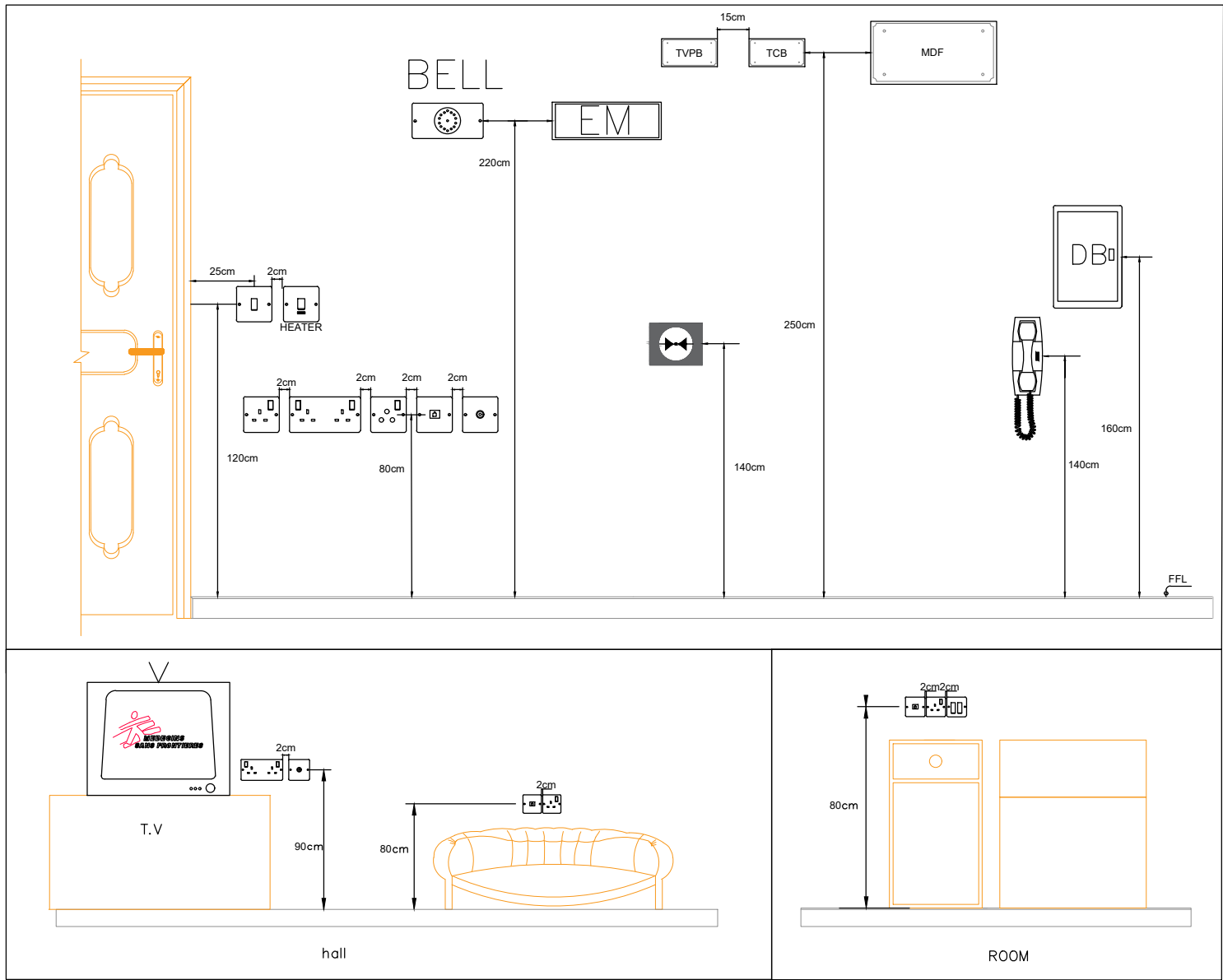
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YE115 C001

Sheet N° :

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scale :

Date : 12 / 08 / 2025



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg



N°	Date	Issue

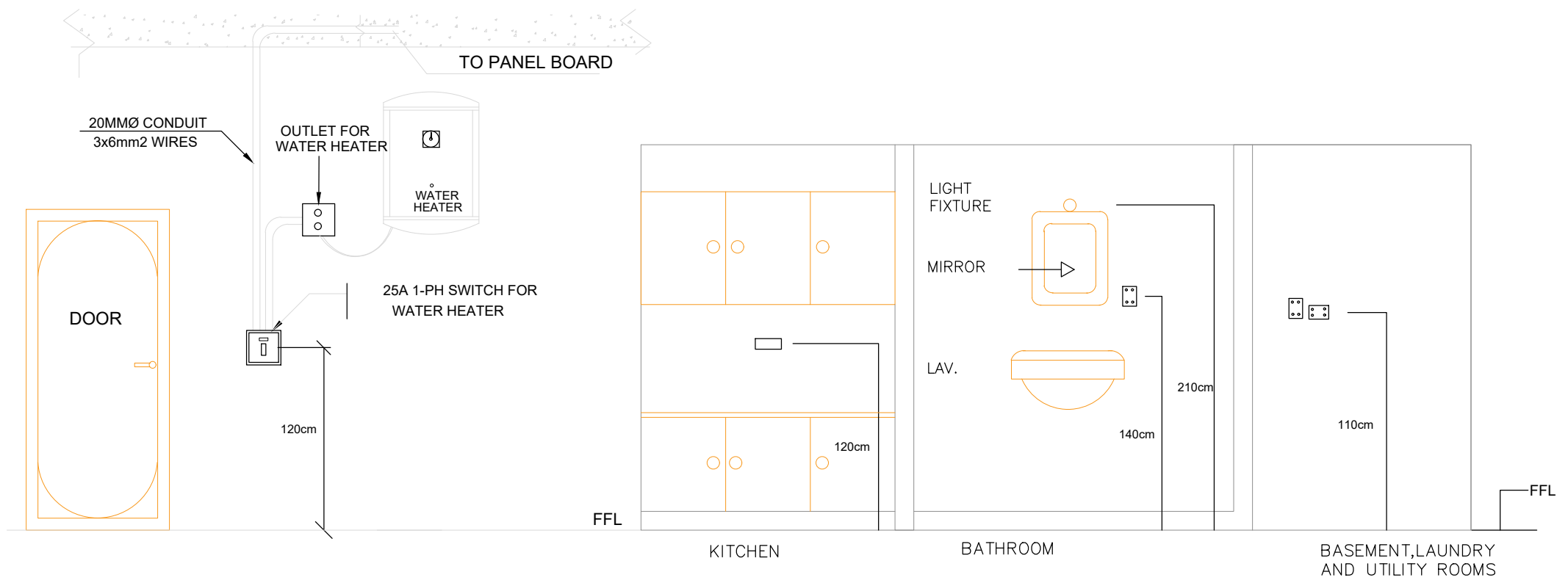
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PROJECT TITLE :

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- Yemen -**

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :

FOR BID ONLY

N°	Date	Issue

BUDGET CODE SUB-PROJ. **YE115C001**

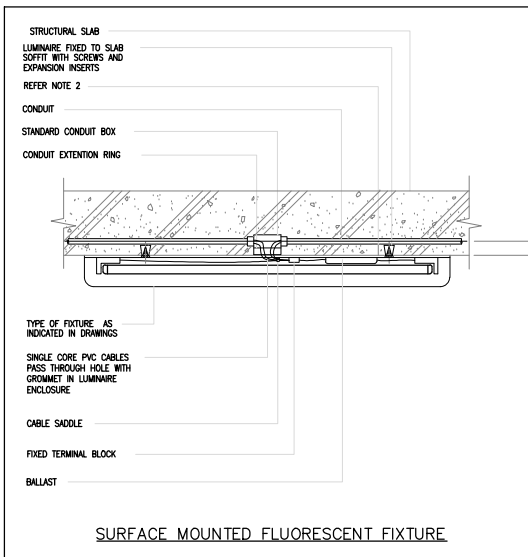
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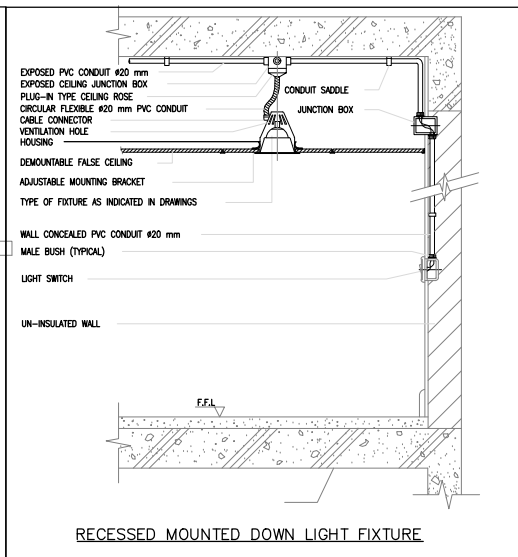
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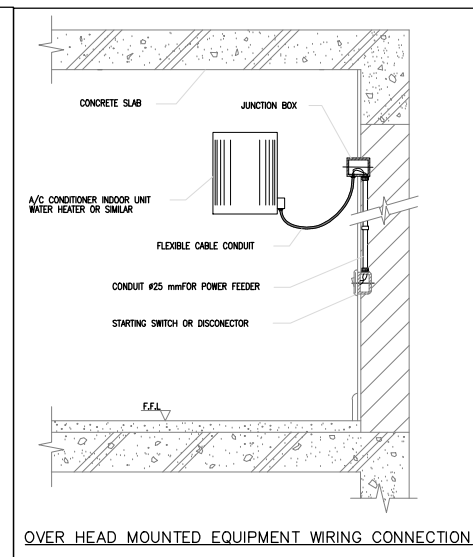
MEDECINS SANS FRONTIERES - D:\Users\yve115comatmg\AppData\Local\Temp\AcPublish_14500_04-Electrical Design, August 11.dwg, 3 (9) , 12 08 2025 - 16:50



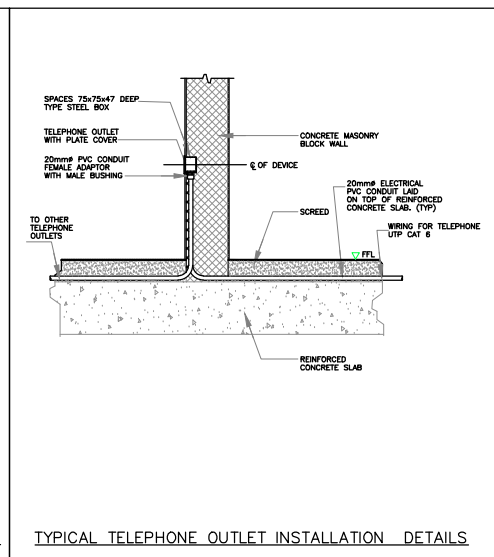
SURFACE MOUNTED FLUORESCENT FIXTURE



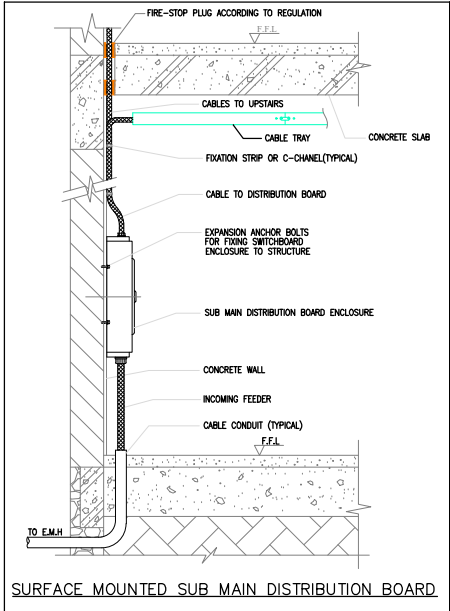
RECESSED MOUNTED DOWN LIGHT FIXTURE



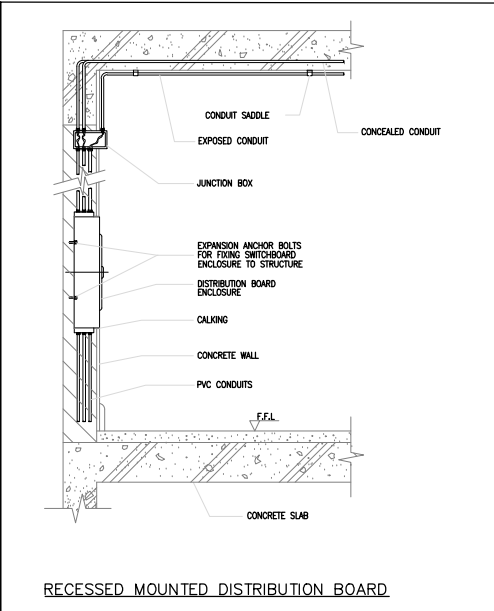
OVER HEAD MOUNTED EQUIPMENT WIRING CONNECTION



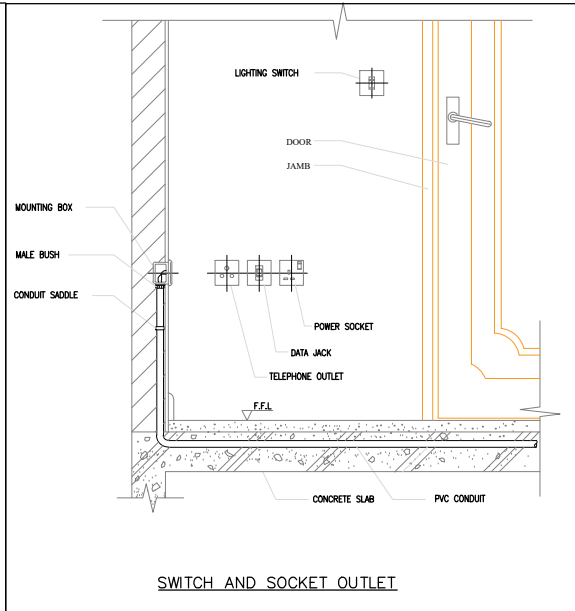
TYPICAL TELEPHONE OUTLET INSTALLATION DETAILS



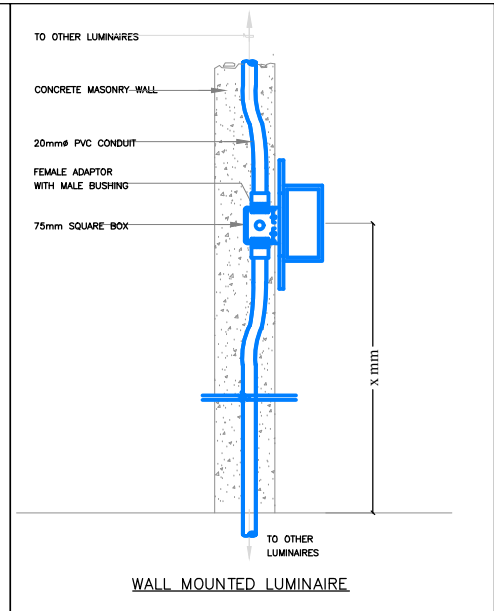
SURFACE MOUNTED SUB MAIN DISTRIBUTION BOARD



RECESSED MOUNTED DISTRIBUTION BOARD



SWITCH AND SOCKET OUTLET



WALL MOUNTED LUMINAIRE



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DRAWING TITLE :
ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :
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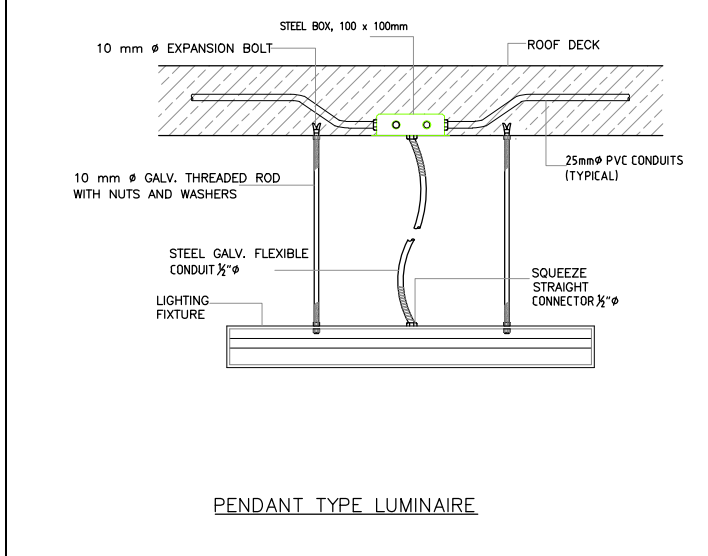
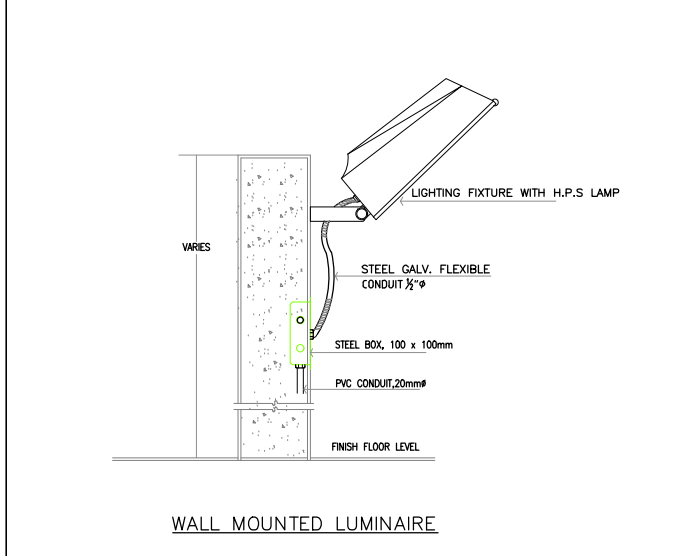
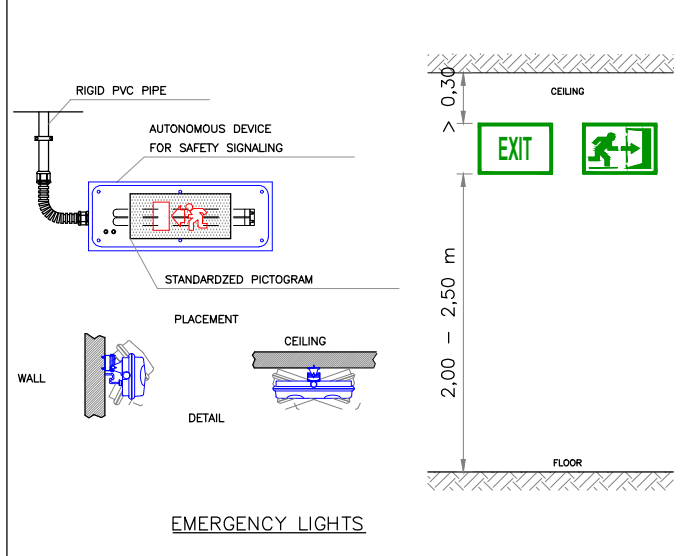
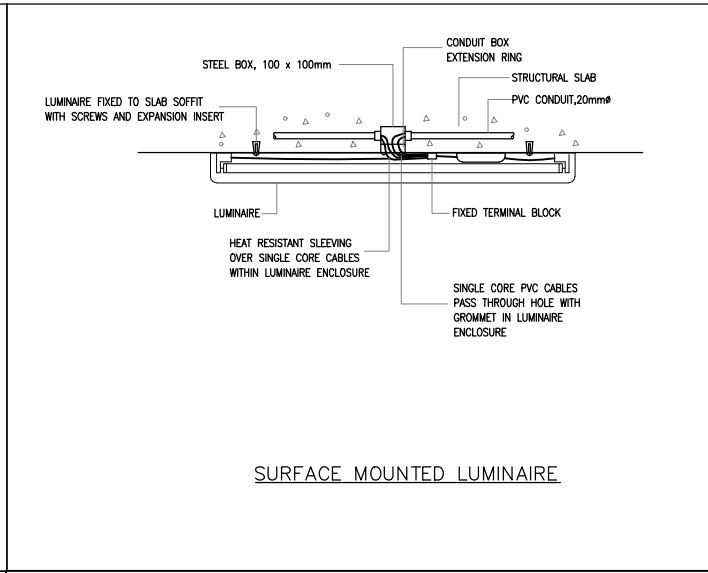
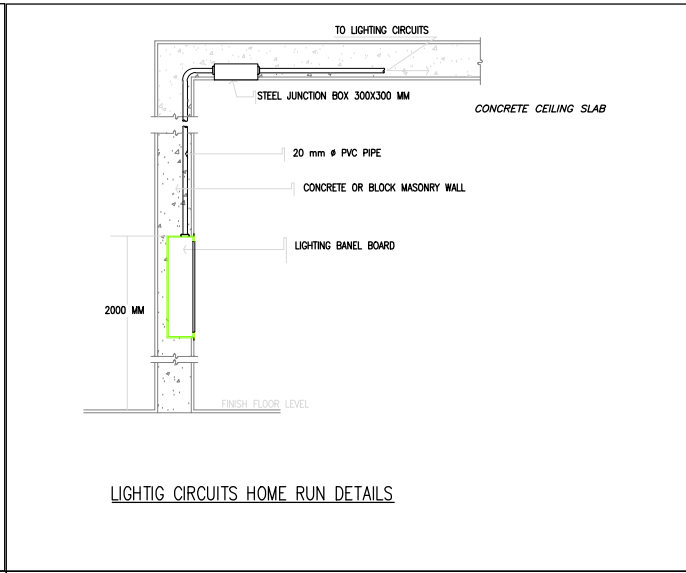
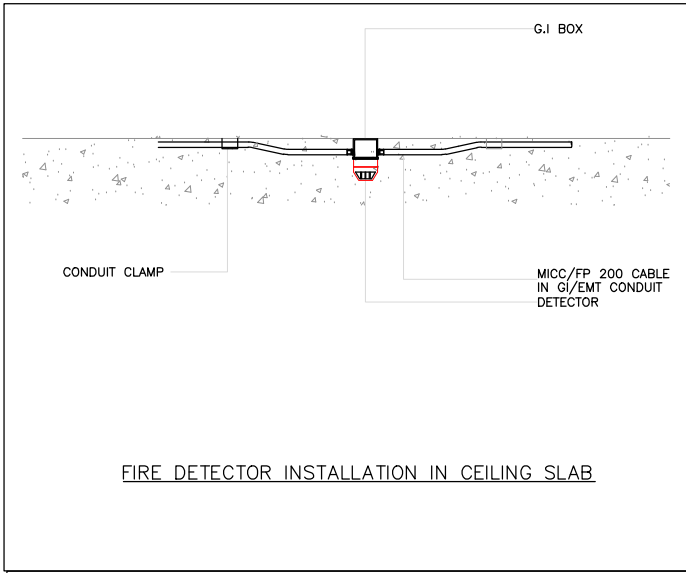
N°	Date	Issue

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PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
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CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg



N°	Date	Issue

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Sheet N° : **3 (10)**

scale :

Date : 12 / 08 / 2025

How to use Fire Extinguisher



PULL THE PIN



AIM LOW AT THE
BASE OF FLAME

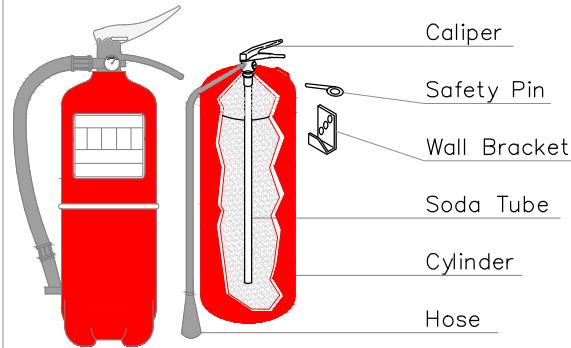


SQUEEZE THE HANDLE



SWEEP SIDE TO SIDE

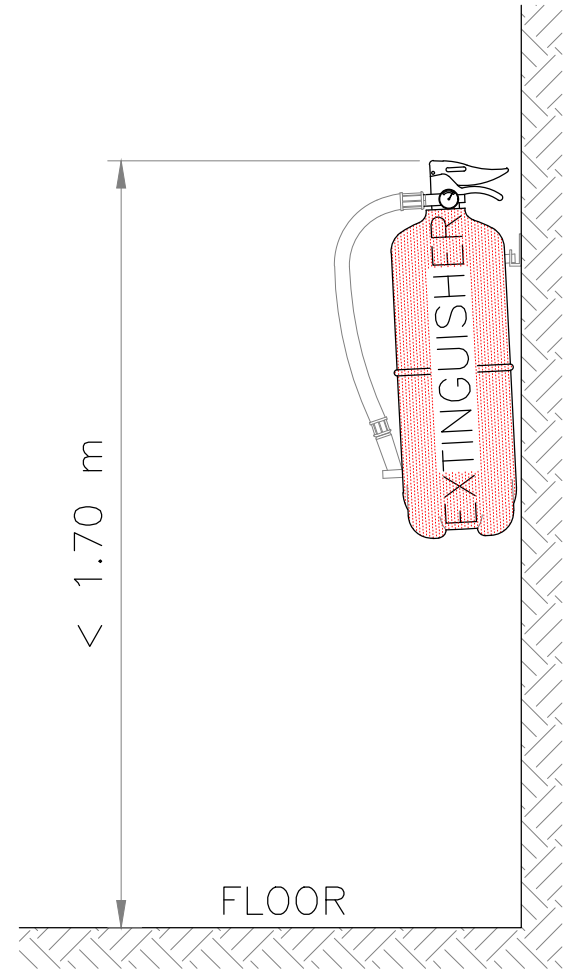
MANUAL EXTINGUISHER



Manual fire extinguisher manufactured according to technical standards, with sheet steel, built-in pressure, painted and silk-screened with instructions for use, type, load capacity, useful life and discharge time.

Provided with fixing hardware, check pressure gauge, safety pin, discharge lever and diffuser hose to direct the jet.

MANUAL FIRE EXTINGUISHER PLACEMENT DETAIL



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DRAWING TITLE :

ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg

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N° Date Issue

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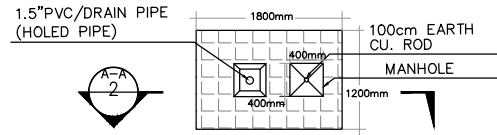
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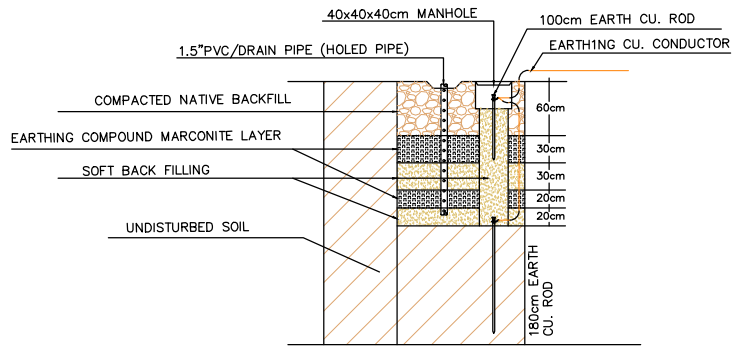
Date : 12 / 08 / 2025

TYPE E1

This Type Used for Panels

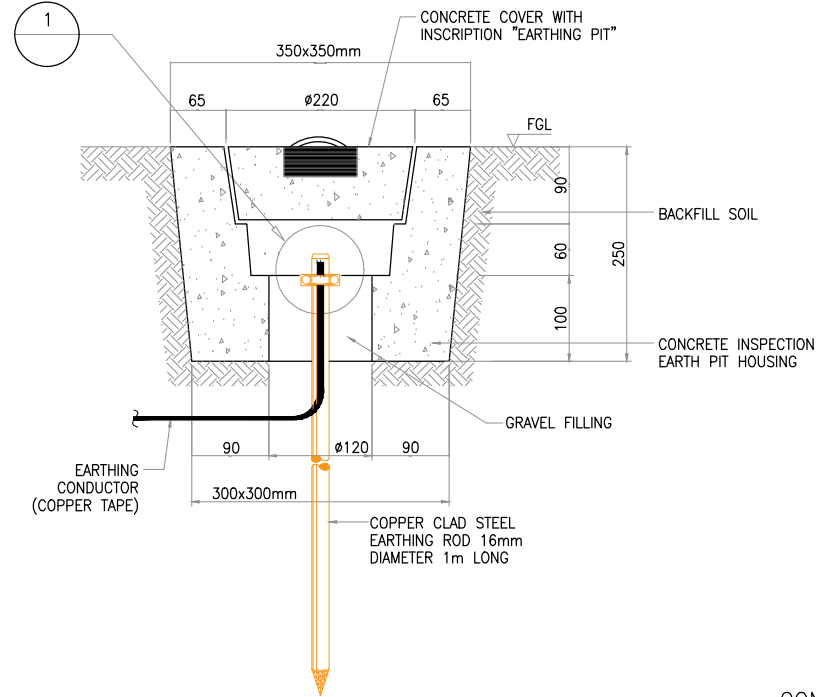


1 TYPICAL PLANE DETAILS FOR EARTHING PIT (TYPE E1)



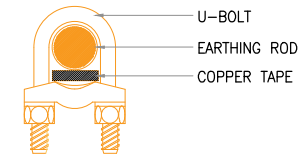
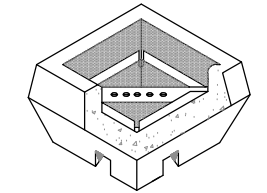
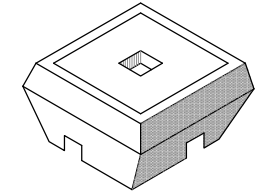
2 SECTION A-A SCALE

TYPICAL DETAIL



INSPECTION PIT DETAIL

CONNECTION OF ROD TO CONDUCTOR



1



PROJECT TITLE :

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BUILDING NAME :

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DRAWING TITLE :

ELECTRICAL DETAILS

FILE NAME : 04-Electrical Design, August 11.dwg

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N° Date Issue

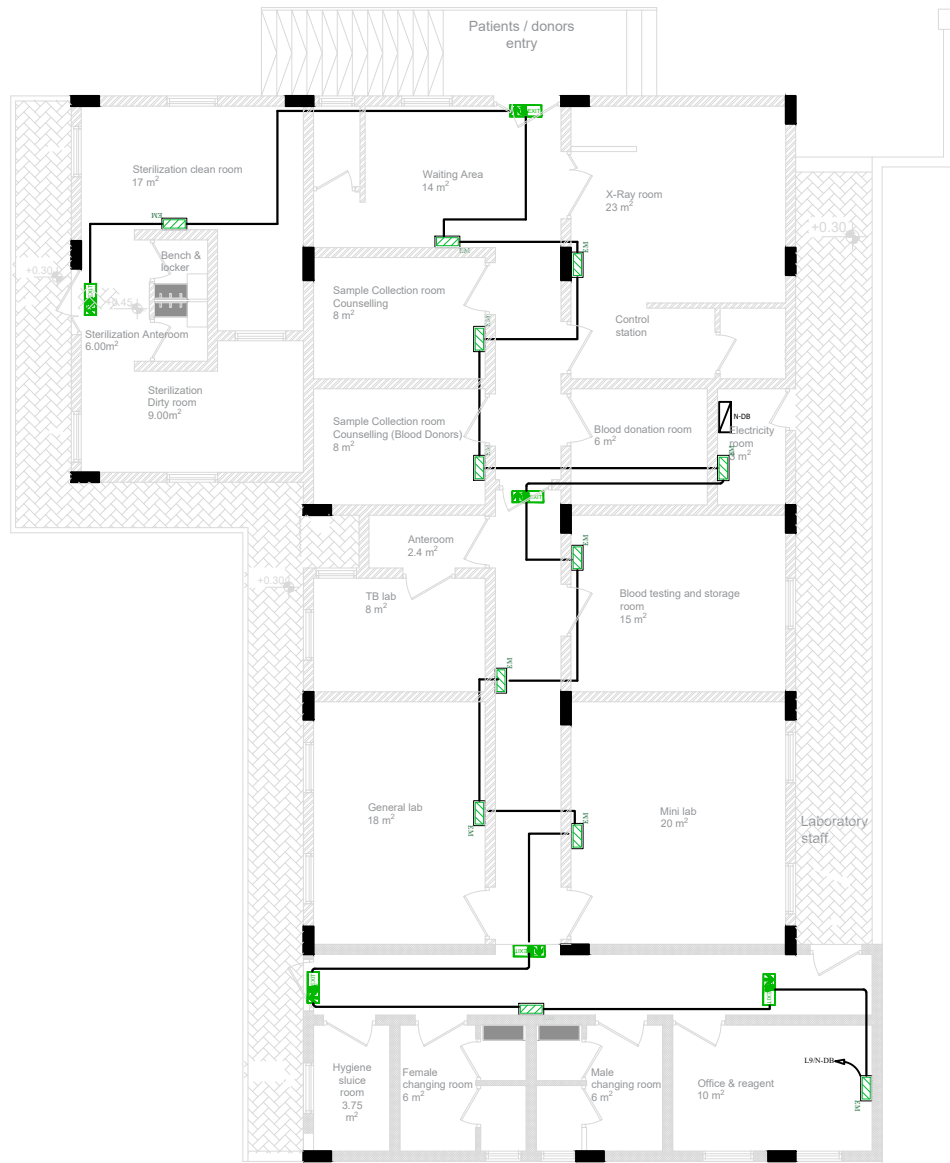
BUDGET CODE SUB-PROJ.
YE115 C001

Sheet N° :

3 (12)

scale :

Date : 12 / 08 / 2025



LEGEND LIGHTING DEVICE SYSTEM

SYMBOL	DISCRPTION
	SURFACE MOUNTED IN CEILING LED LIGHTING FIXTURE, ALUMINUM HOUSING, POLYSTYRENE OPTICAL COVER ,OPAL LENS FINISH , WITH 2700LM, 30W, IP-22, CRI>80, 4000K.(L1)
	SURFACE MOUNTED IN CEILING LED DOWN LIGHT LIGHTING FIXTURE, WITH DIE CASTALUMINUM HOUSING & POLYCARBONATE REFLECTOR, SYSTEM FLUX 1530lm, 18W, 840 NUETRAL WHITE, IP-40.(L2)
	WALL- MOUNTED LED LIGHTING LUMINARIES, WALL MOUNTED OUTDOOR , 220V, 50Hz,20 WATT, 1600 LM, IP65.(L3)
	CEILING MOUNTED EXIT SIGN LUMINARIES WITH 1X8W, LED LAMP AND WITH DOUBLE SIDED PICTOGRAM IP44, DIRECTION AS SHOWN IN DRAWING (L5)
	ANTI-MOSQUITOES DEVICE, 20W.
	5W LED WELL MOUNTED LIGHTING LUMINAIRE USED FOR MIRROR, OPAL DIFFUSER, 90LM/W, IP56, CRI>80, 6500K.
	6W LED WELL MOUNTED LIGHTING LUMINAIRE, WITH BUILT IN BATTERY USED FOR EMERGNCEY.
	WALL MOUNTED DECORATIVE LIGHTING UNIT WITH 100 W. LINEAR HALOGEN LAMP (IP-65)(L4).
	PHOTOCELL SENSOR,IP65.
	LIGHTING SWITCH, ONE WAY, ONE GANGE, 240V.
	LIGHTING SWITCH, ONE WAY, TWO GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, ONE GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, TWO GANGE, 240V.
	LIGHTING SWITCH, TWO WAY, THREE GANGE, 240V.
	BACK BOX.
	MAIN DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**GROUND FLOOR PLAN-
LIGHTING SYSTEM - EMERGNCEY**

FILE NAME : 04-Electrical Design, August 11.dwg

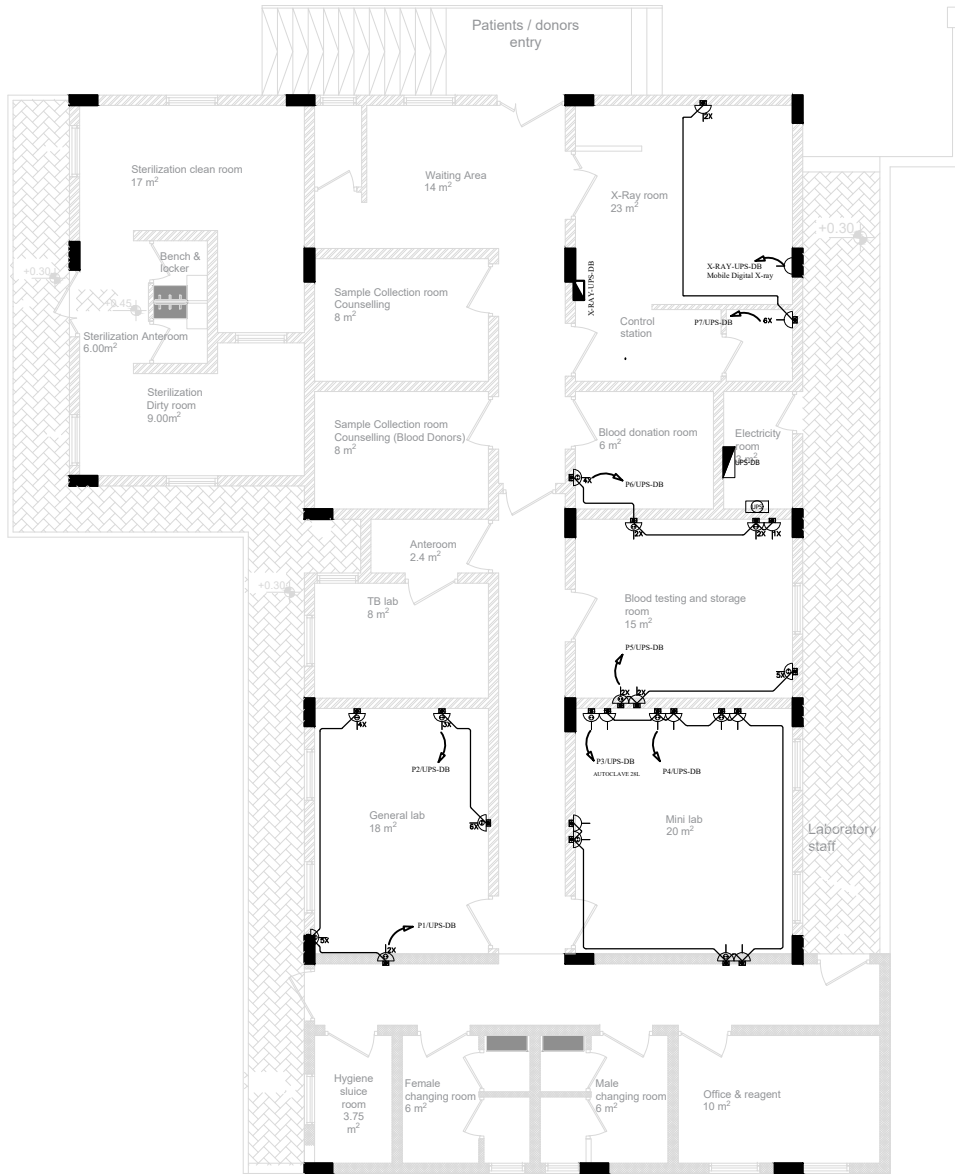
HQ stamp :

N°	Date	Issue

BUDGET CODE SUB-PROJ. **YE115C001**

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3 (14)

scale :
Date : 12 / 08 / 2025



LEGEND POWER SYSTEM

SYMBOL	DISCRPTION
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG UPS SOCKET OUTLET- UK Type.
	16A EARTHED , SHUTTERED, UPS SOCKET OUTLET- EU Type.
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET- UK Type.
	63A 3--PHASE INDUSTRIAL TYPE SOCKET OUTLET, 5PIN, SWITCHED, COMPLETE WITH PLUG, IP-55(380V,50HZ,5PIN).
	20A-220V,WALL MOUNTED SWITCHED WITH RED INDEECATOR 1300MM A.F.F.L WITH GALVANIZED STEEL SQUARE BOX.
	16A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET.
	20A EARTHED , SHUTTERED AND SWITCHED SINGLE POWER SOCKET OUTLET.
	BACK BOX.
	DISTRIBUTION BOARD FOR UPS ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR X-RAY_UPS.
	MAIN DISTRIBUTION BOARD MDB.

w.p =weather proof
X =Number of sockets



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

GROUND FLOOR PLAN-
UPS POWER SYSTEM

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

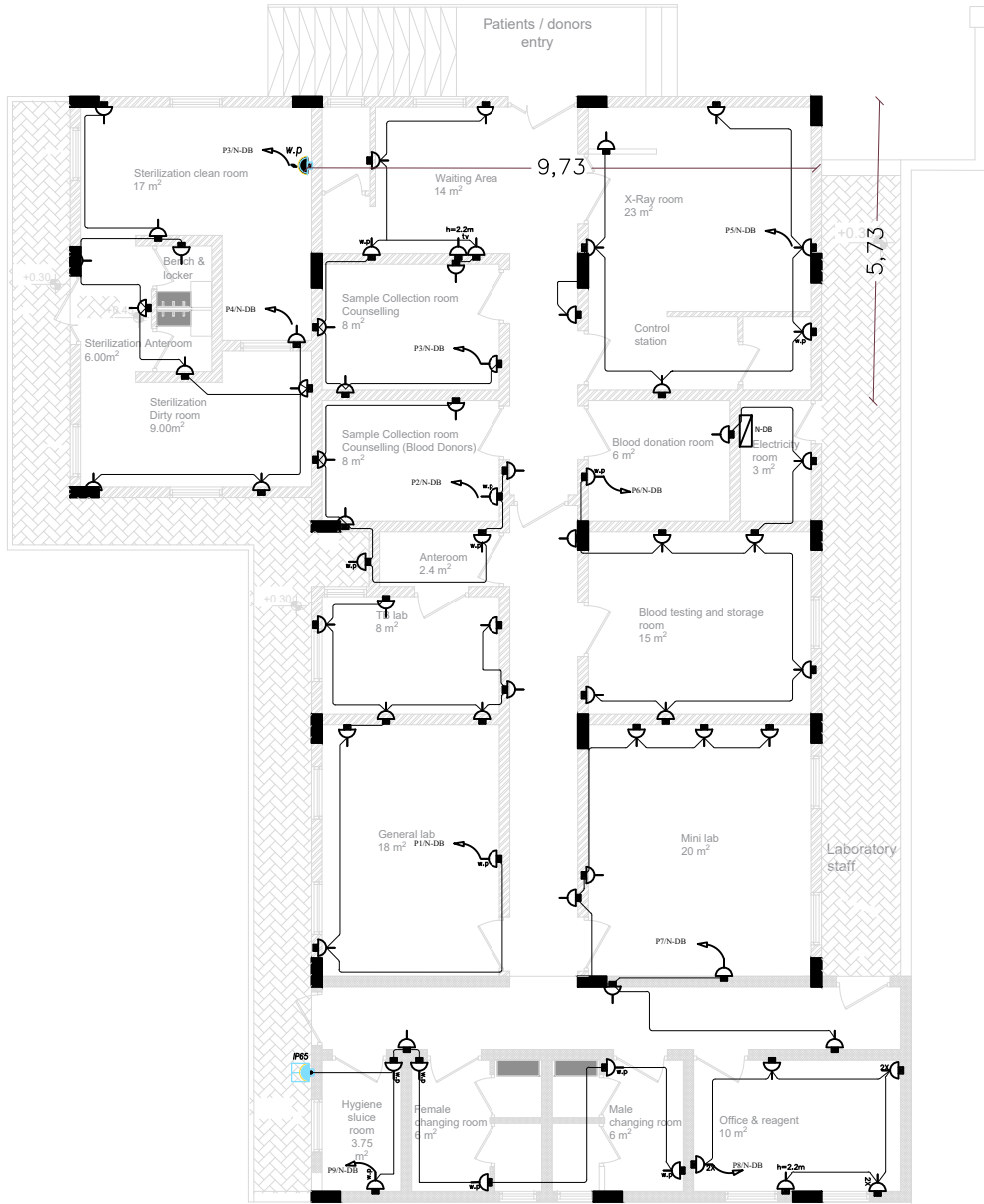
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scale :

Date : 12 / 08 / 2025



LEGEND POWER SYSTEM

SYMBOL	DISCRPTION
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG UPS SOCKET OUTLET- UK Type.
	16A EARTHED , SHUTTERED, UPS SOCKET OUTLET- EU Type.
	13A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET- UK Type.
	63A 3-PHASE INDUSTRIAL TYPE SOCKET OUTLET, 5PIN, SWITCHED, COMPLETE WITH PLUG, IP-55(380V,50HZ,5PIN).
	16A-220V,WALL MOUNTED SWITCHED WITH RED INDECACTOR 1300MM A.F.F.L.WITH GALVANIZED STEEL SQUARE BOX.
	16A EARTHED , SHUTTERED, SWITCHED ONE GANG NORMAL SOCKET OUTLET.
	20A EARTHED , SHUTTERED AND SWITCHED SINGLE POWER SOCKET OUTLET.
	BACK BOX.
	DISTRIBUTION BOARD FOR UPS ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR AC .
	DISTRIBUTION BOARD FOR X-RAY_UPS.
	MAIN DISTRIBUTION BOARD MDB.

W.p = weather proof
X = Number of sockets



PROJECT TITLE :
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BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
GROUND FLOOR PLAN-
NORMAL POWER SYSTEM

FILE NAME : 04-Electrical Design, August 11.dwg



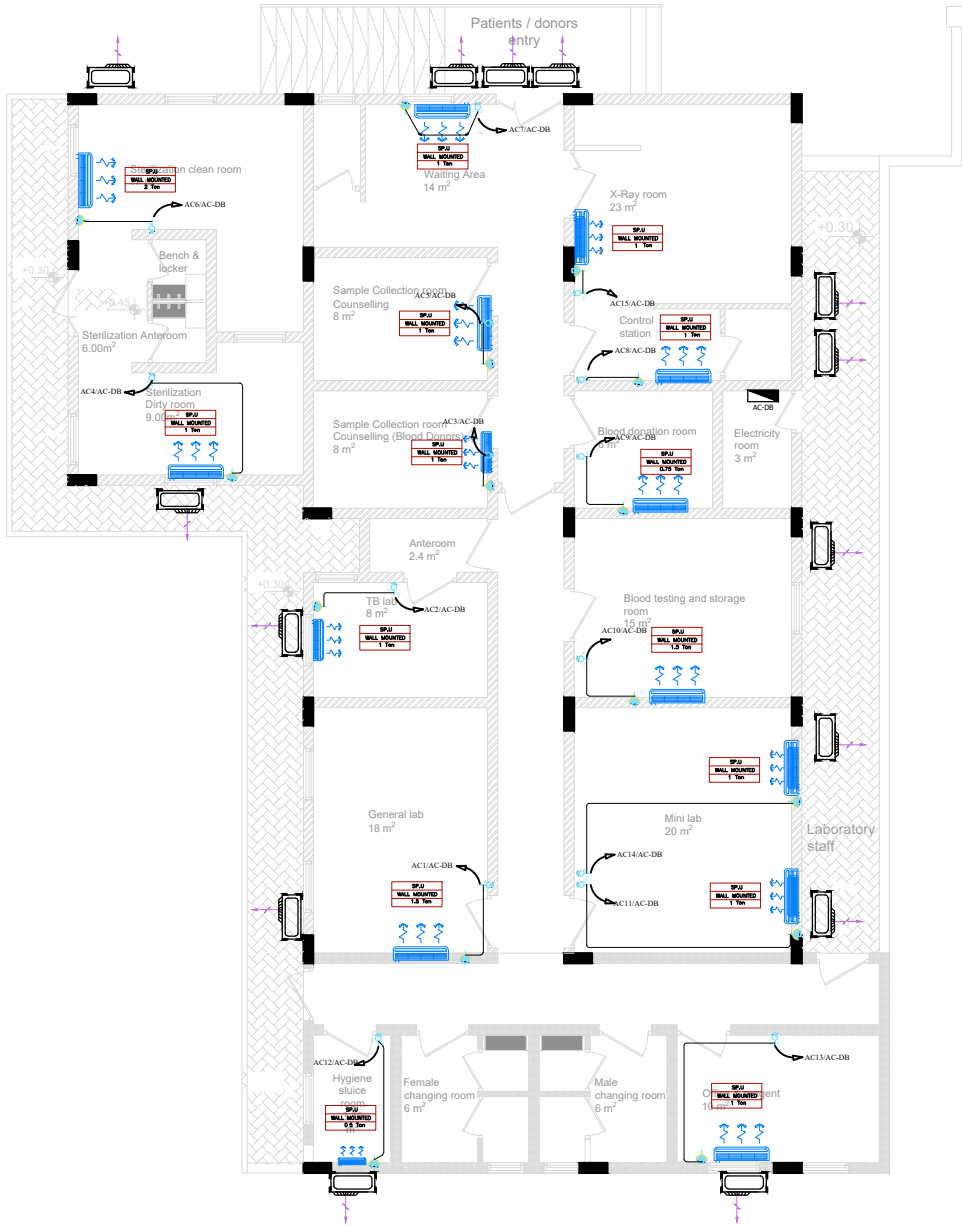
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LEGEND HVAC POWER SYSTEM

SYMBOL	DISCRIPTION
	A.C SPLIT INTERNAL UNIT.
	16A-220V, WALL MOUNTED SWITCHED WITH THE RED INDECATOR 1300MM A.F.F.L. WITH GALVANIZED STEEL SQUARE BOX.
	16A EARTHED, SHUTTERED AND SWITCHED SINGLE POWER SOCKET OUTLET.
	DISTRIBUTION BOARD FOR AC.



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**
CODE CAM : CNSTR | HMAT | XXX

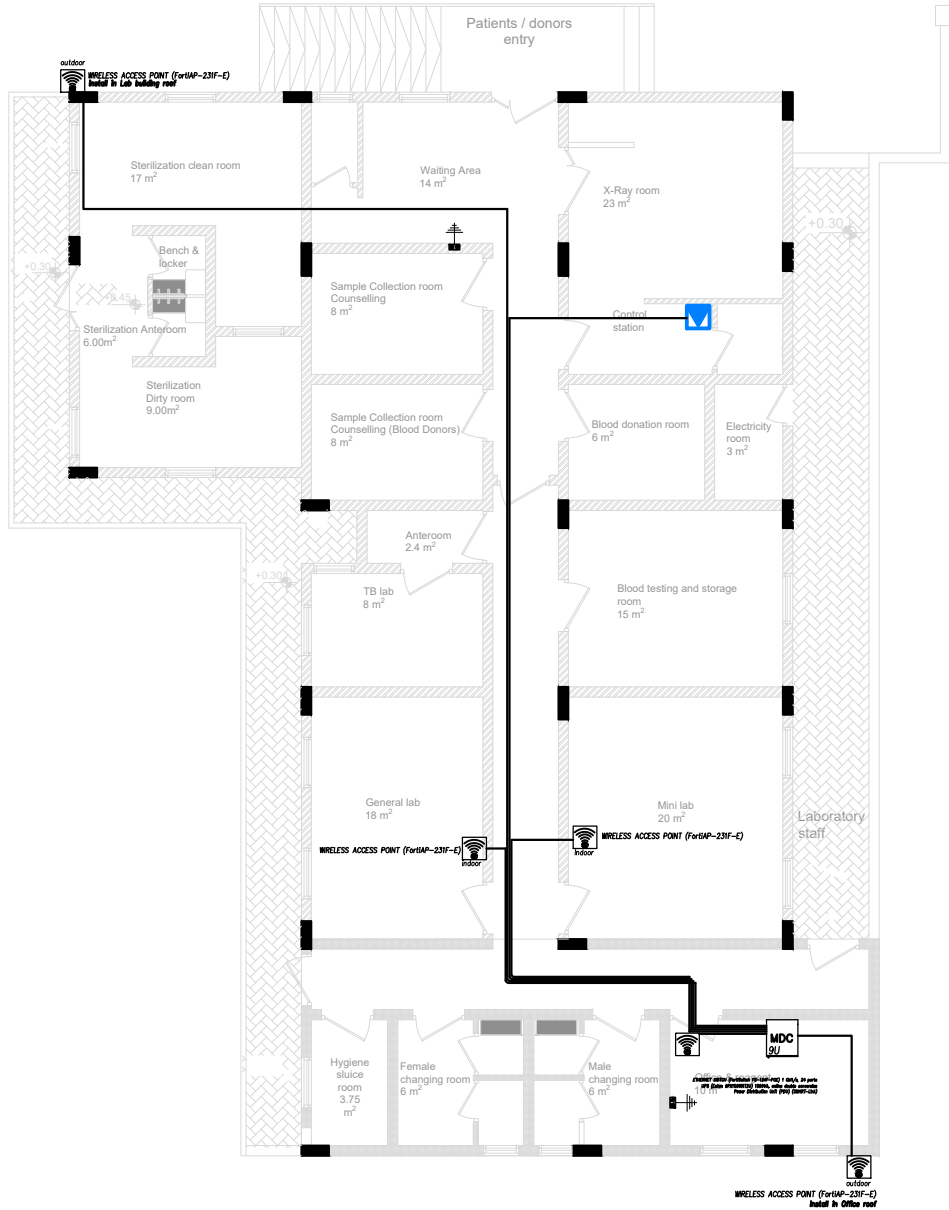
DRAWING TITLE :
GROUND FLOOR PLAN - HVAC (AC)
POWER SYSTEM
FILE NAME : 04-Electrical Design, August 11.dwg



N°	Date	Issue

BUDGET CODE SUB-PROJ. **YE115C001**

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scale :
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LEGEND LOW CURRENT SYSTEM

SYMBOL	DISCRIPTION
	DATA OUTLET, WALL MOUNTED.
	TEL OUTLET, WALL MOUNTED.
	SATELLITE SOCKET.
	ACCESS POINT WFI.
	DATA PULL BOX.
	IT CABINET
	TEL JUNCTIONS BOX.
	NETWORK SWITCH.
	NETWORK SWITCH POE.
	FINGERPRINT DEVICE FOR ATTENDANCE.



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**GROUND FLOOR PLAN-
LOW CURRENT SYSTEM**

FILE NAME : 04-Electrical Design, August 11.dwg



N°	Date	Issue

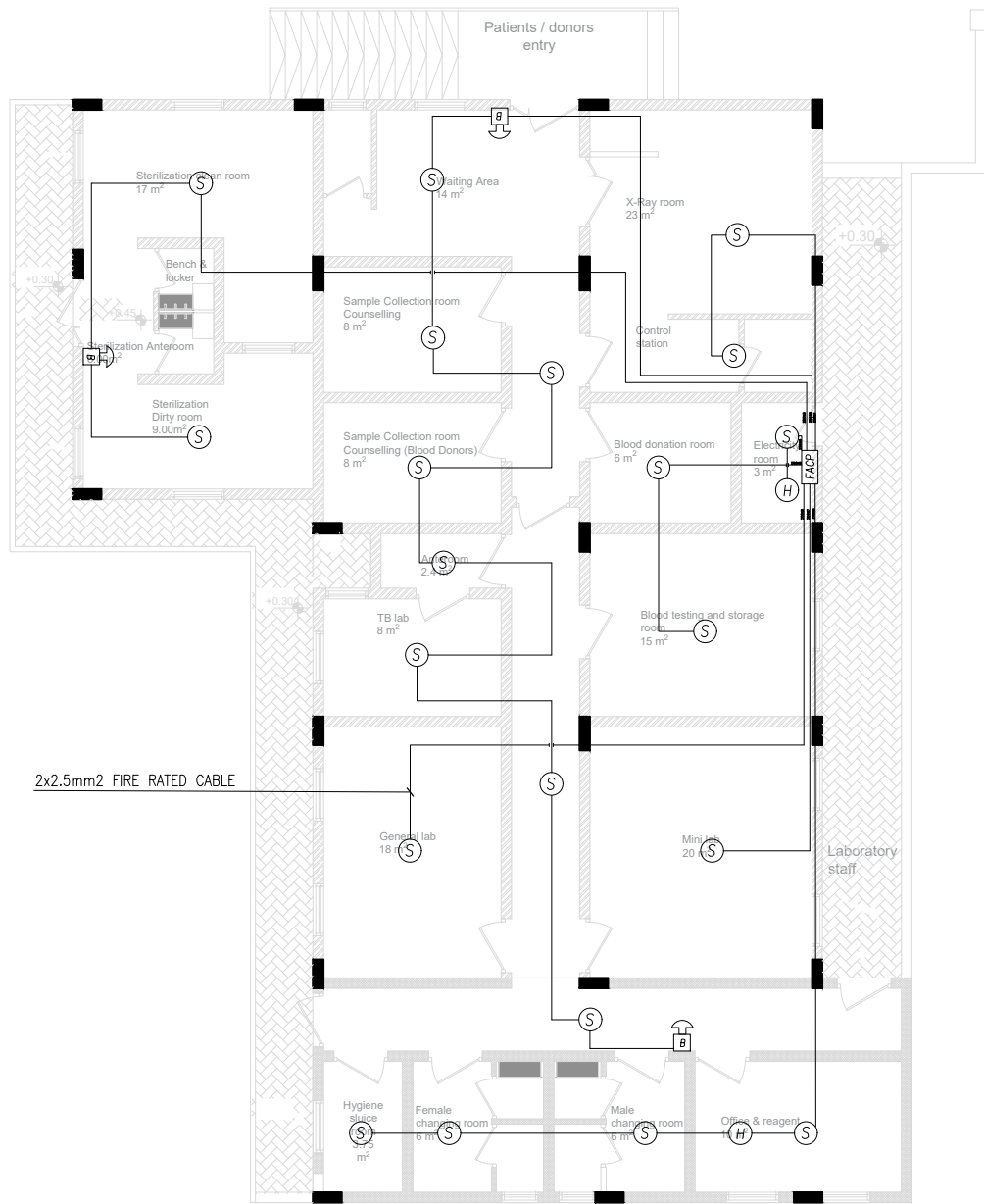
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Sheet N° : **3 (18)**

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Date : 12 / 08 / 2025

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LEGEND FIRE ALARM

SYMBOL	DISCRIPTION
(S)	SMOKE DETECTOR.
(H)	HEAT DETECTOR.
(B)	MANUAL CALL POINT / BREAK GLASS
(U)	BELL / SOUNDER WITH STROBE
FACP	CONVENTIONAL FIRE ALARM CONTROL PANEL



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

GROUND FLOOR PLAN-
FIRE ALARM SYSTEM

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

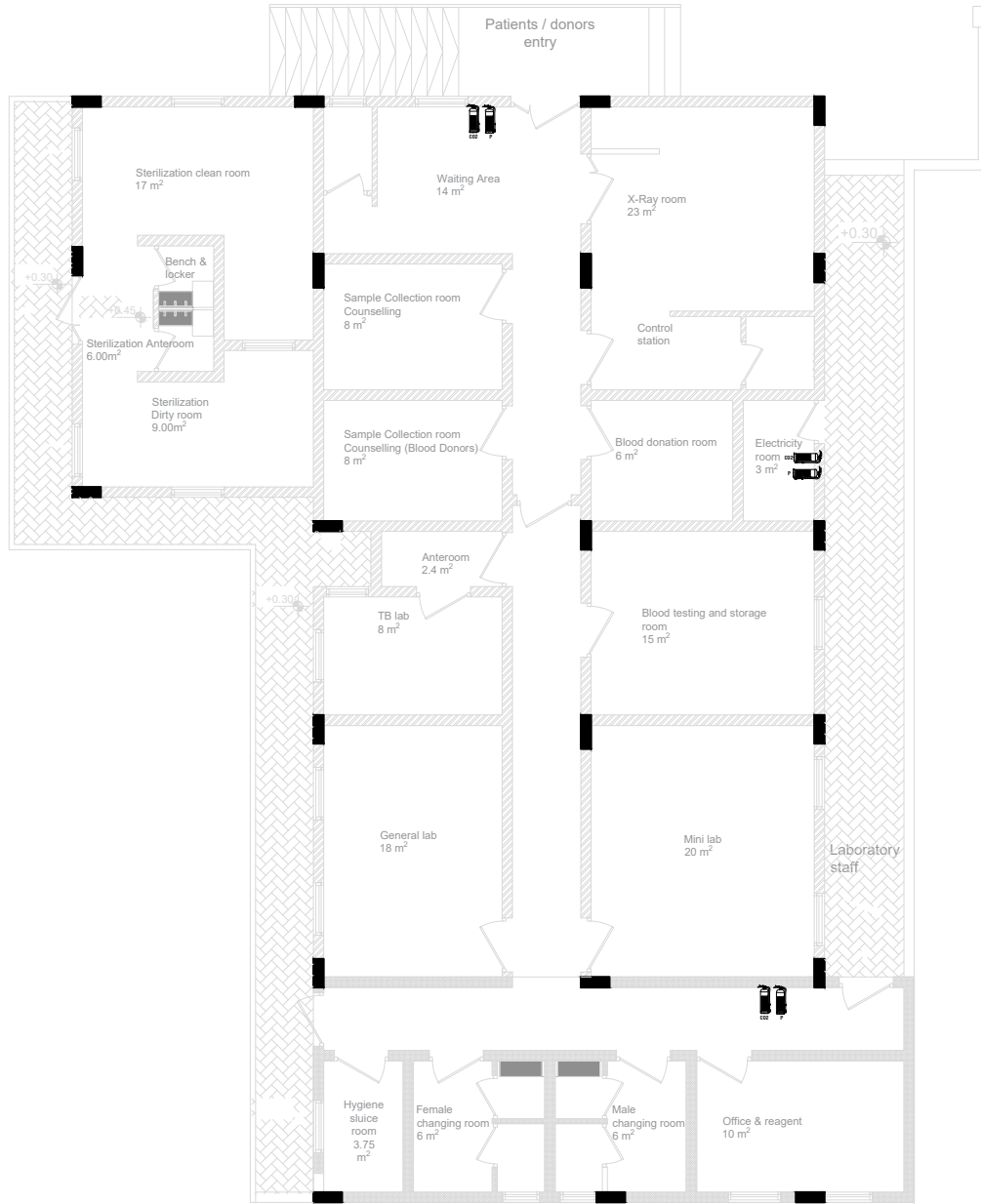
BUDGET CODE SUB-PROJ.
YE115 C001

Sheet N° :





3 (19)

scale :

Date : 12 / 08 / 2025



LEGEND FIRE EXTINGUISHER

SYMBOL	DISCRPTION	SYMBOL	DISCRPTION
	DRY POWDER FIRE EXTINGUISHER 6KG CAPACITY.		DRY POWDER FIRE EXTINGUISHER 6KG CAPACITY.
	CO2 FIRE EXTINGUISHER 6KG CAPACITY.		CO2 FIRE EXTINGUISHER 6KG CAPACITY.



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

**GROUND FLOOR PLAN-
FIRE EXTINGUISHER**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

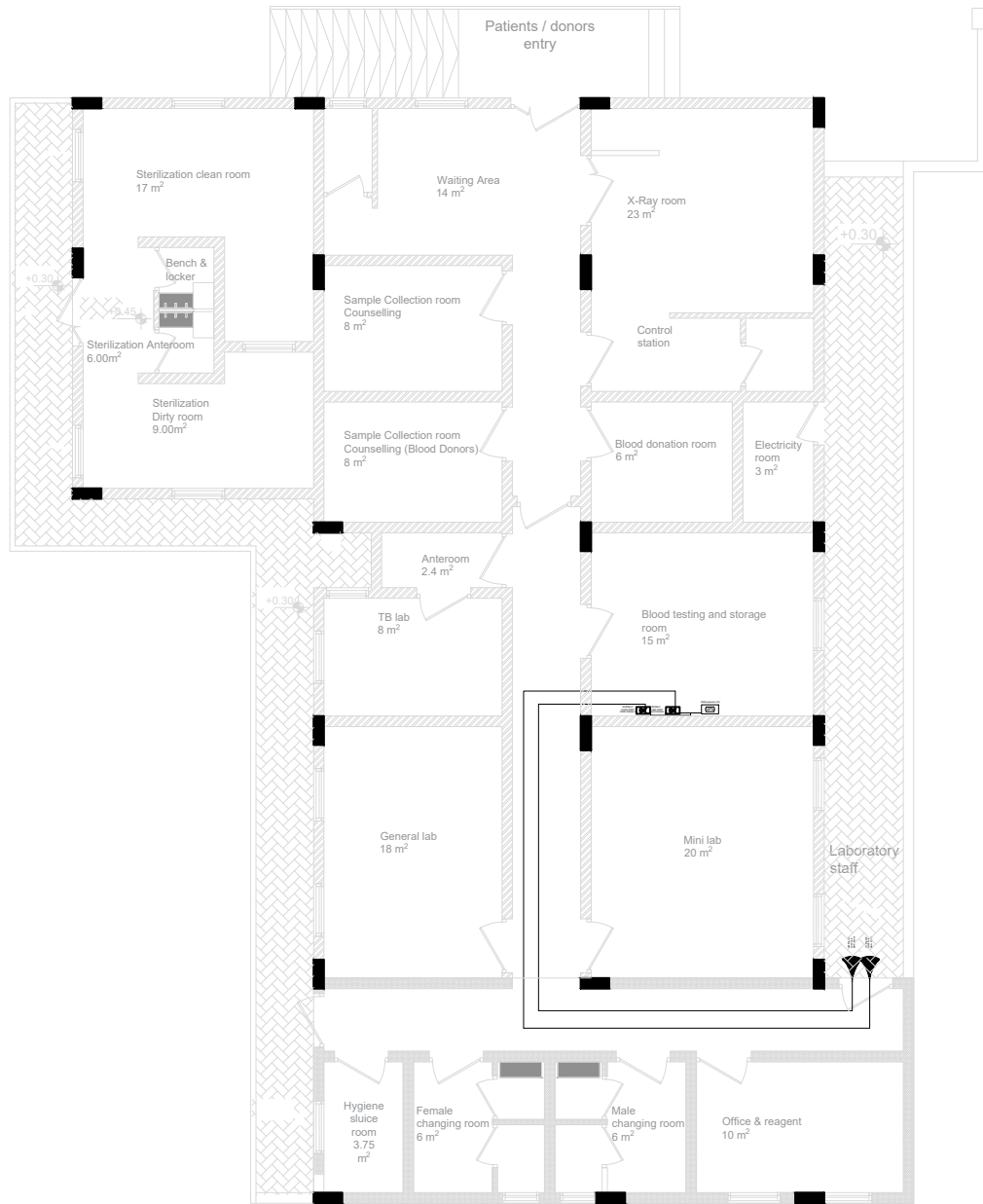
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YE115 C001**

Sheet N° :




3 (20)

scale :

Date : 12 / 08 / 2025



LEGEND BLOOD REF ALARM CIRCUIT

SYMBOL	DISCRIPTION
	UPS , 350 W
	NORMALLY CLOSE Point are already in the refrigerator
	Lighting and sound horn alarm device



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

GROUND FLOOR PLAN-
Blood Refrigerator Alarm Circuit

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

BUDGET CODE SUB-PROJ.
YE115 C001

Sheet N° :

3 (21)

scale :

Date : 12 / 08 / 2025



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

**GROUND FLOOR PLAN-
EARTHING SYSTEM**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

BUDGET CODE SUB-PROJ.
YE115 C001

Sheet N° :

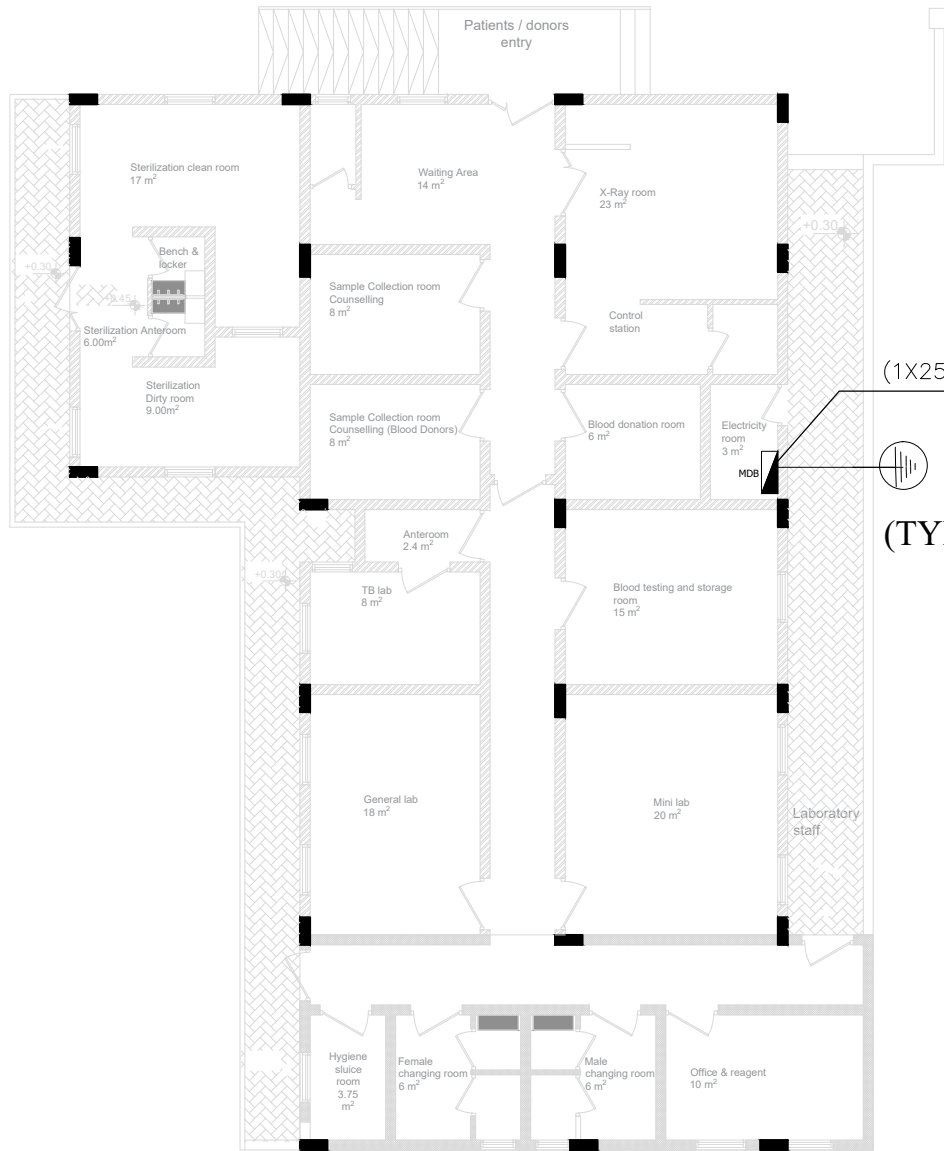
3 (22)

scale :

Date : 12 / 08 / 2025

LEGEND EARTHING SYSTEM

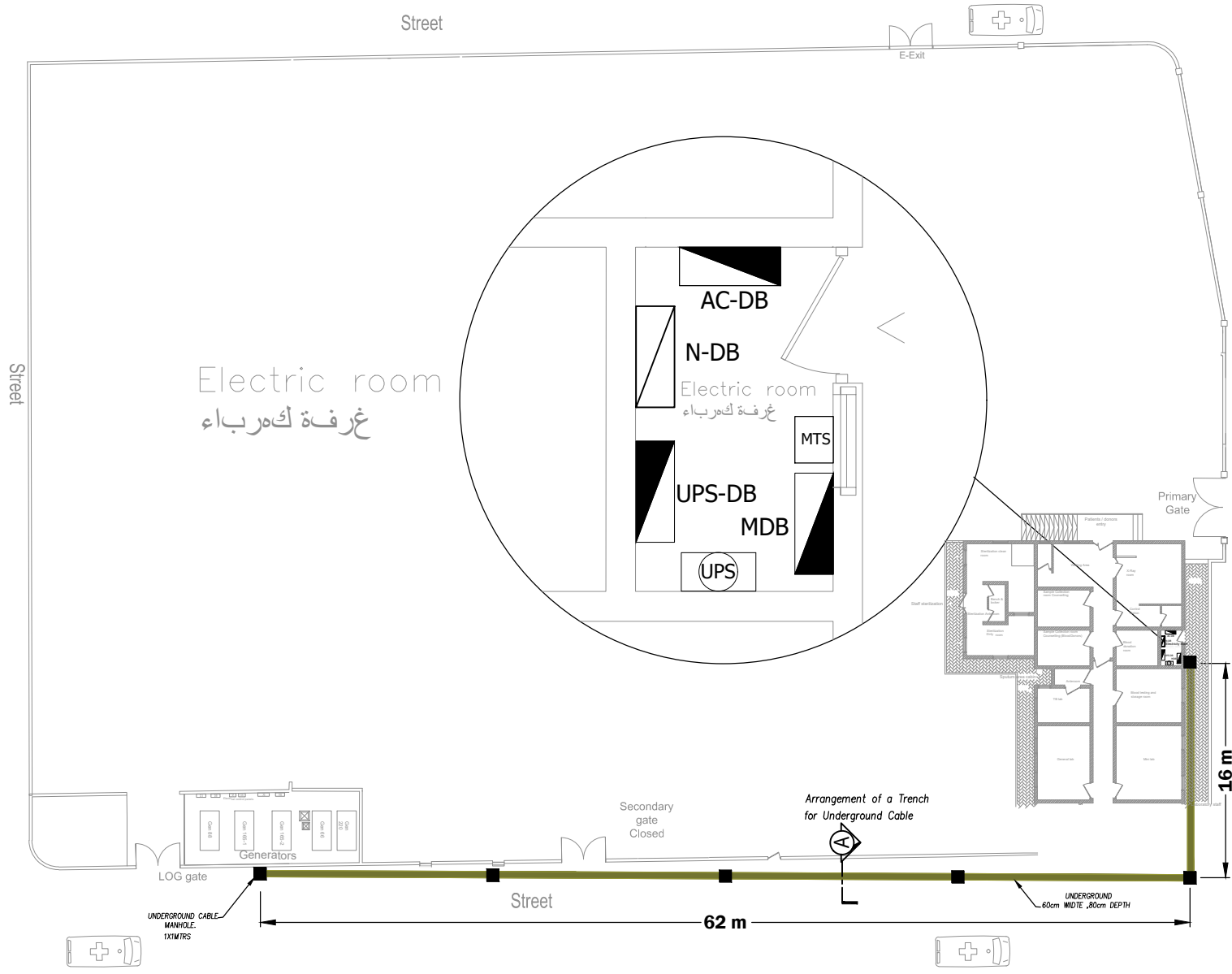
SYMBOL	DISCRIPTION
	EARTHING POINT GROUNDING SYSTEM EARTHING ROD 2.4M (L) 16MM(DIA) COMPLETE WITH CONCRETE EARTH PIT.
	(1X25)mm2 BARE CU.CABLE FOR EARTHING.
	EARTH BAR.



(1X25)mm2 BARE CU.CABLE FOR EARTHING

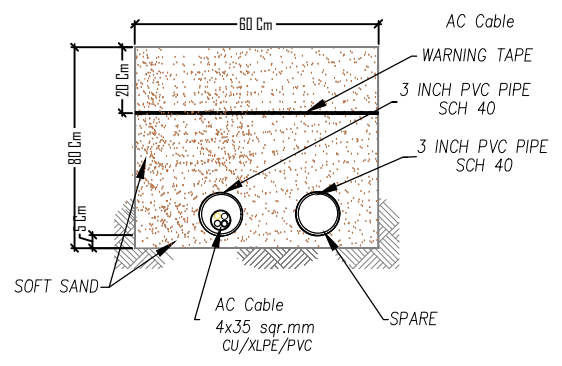
E
(TYPE-E1)

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LEGEND DISTRIBUTION PANEL

SYMBOL	DISCIPTION
	UPS
	DISTRIBUTION BOARD FOR UPS ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR NORMAL ELEC.POWER SYSTEM.
	DISTRIBUTION BOARD FOR AC .
	DISTRIBUTION BOARD FOR X-RAY_UPS.
	MAIN DISTRIBUTION BOARD MDB.
	AUTOMATIC TRANSFER SWTSH
	UNDERGROUND.
	MANHOLE.



SECTION A-A DETAILS.

MEDECINS SANS FRONTIERES



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**GROUND FLOOR PLAN-
MAIN CABLE ROUTING**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :

N°	Date	Issue

BUDGET CODE SUB-PROJ.
YE115C001

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Date : 12 / 08 / 2025



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**SING LINE DIAGRAM -
N-DB SLD**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :
**FOR BID
ONLY**

N°	Date	Issue

BUDGET CODE SUB-PROJ.
YE115 C001

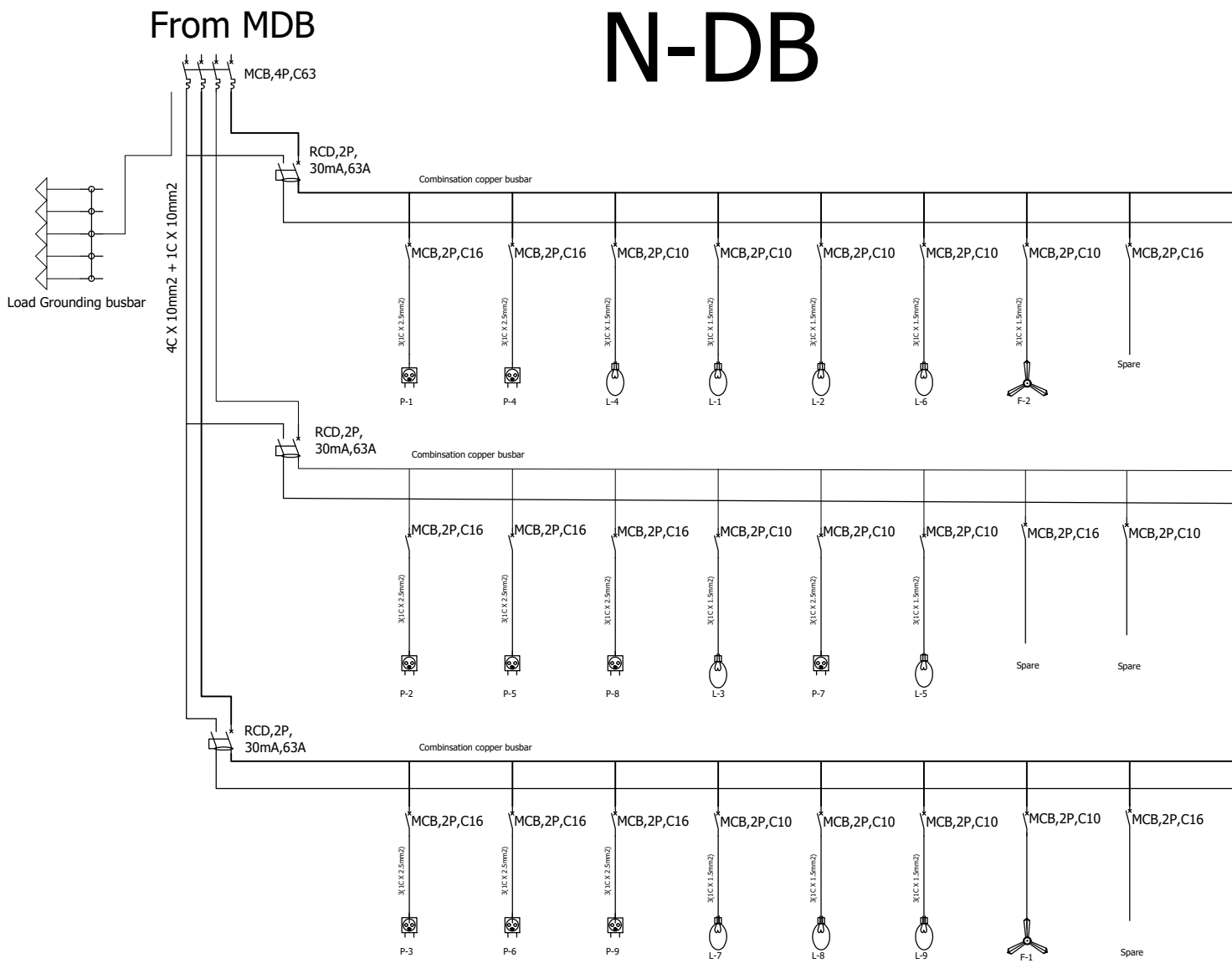
Sheet N° :
3 (24)

scale :

Date : 12 / 08 / 2025

LEGEND SLD

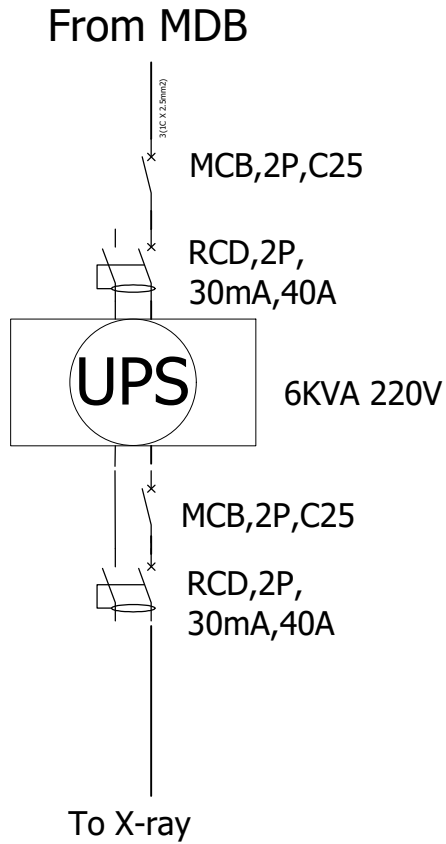
ITEM	SYMBOLE	DESCRIPTION
		2P,MCB
		2P,RCCB
		4P,MCB
		4P,RCCB
		SPD,type 2
		Ground busbar
		Nuetral Busbar
		LED Lights
		Fans
		Socket Outlets
		Water Heater
		A.C split
		Washing Maching
		Exhaust Fan(Ducted)
		Electrical Heater



From MDB

N-DB

X_RAY-DB



LEGEND SLD

ITEM	SYMBOLE	DESCRIPTION
		MCB, 2P
		RCCB, 2P
		MCB, 2P
		RCCB, 2P
		SPD, type 2
		Ground busbar
		Nuetral Busbar
		LED Lights
		Fans
		Socket Outlets
		Water Heater
		A.C split
		Waching Maching
		Exhaust Fan(Ducted)
		Electrical Heater



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**SING LINE DIAGRAM -
X_ray-DB SLD**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :
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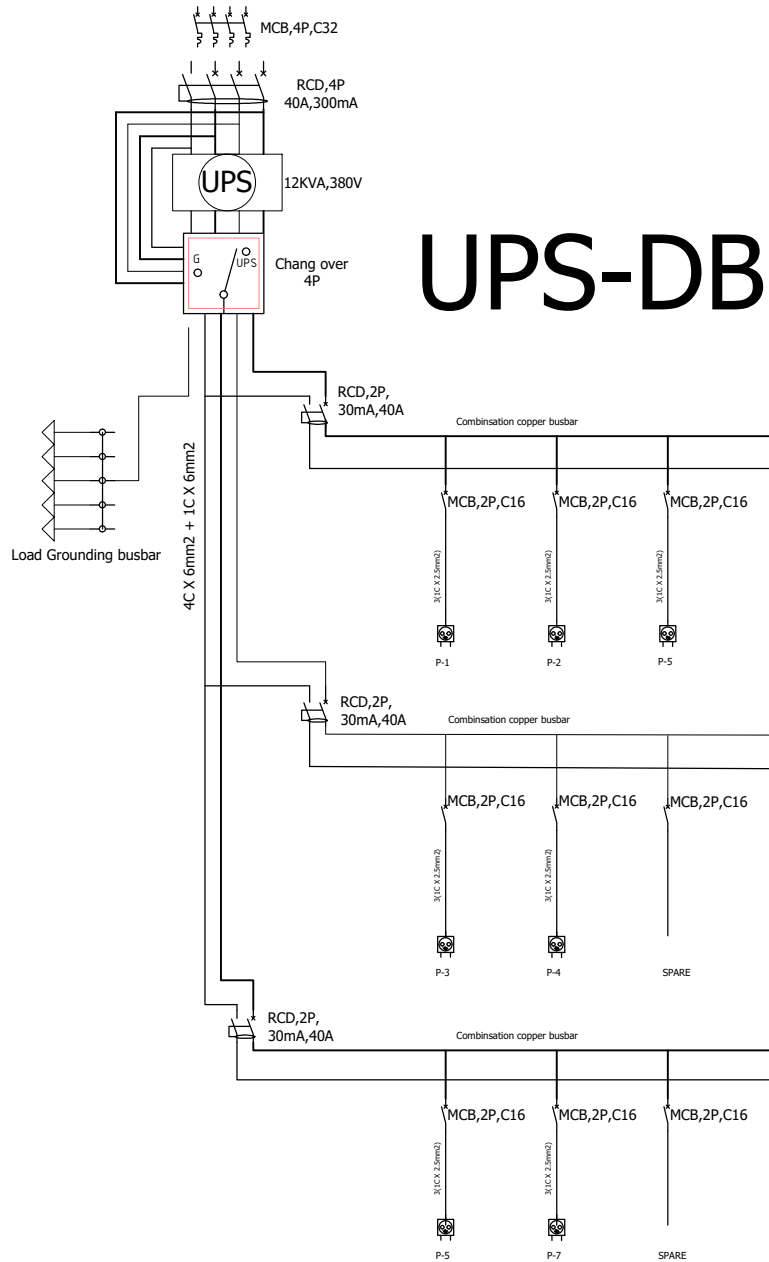
N°	Date	Issue

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YE115.C001

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3 (26)

scale :

Date : 12 / 08 / 2025



From
UPS

UPS-DB

LEGEND SLD

ITEM	SYMBOL	DESCRIPTION
		MCB,2P
		RCCB,2P
		MCB,2P
		RCCB,2P
		SPD,type 2
		Ground busbar
		Nuetral Busbar
		LED Lights
		Fans
		Socket Outlets
		Water Heater
		A.C split
		Waching Maching
		Exhaust Fan(Ducted)
		Electrical Heater



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

**SING LINE DIAGRAM -
UPS-DB SLD**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

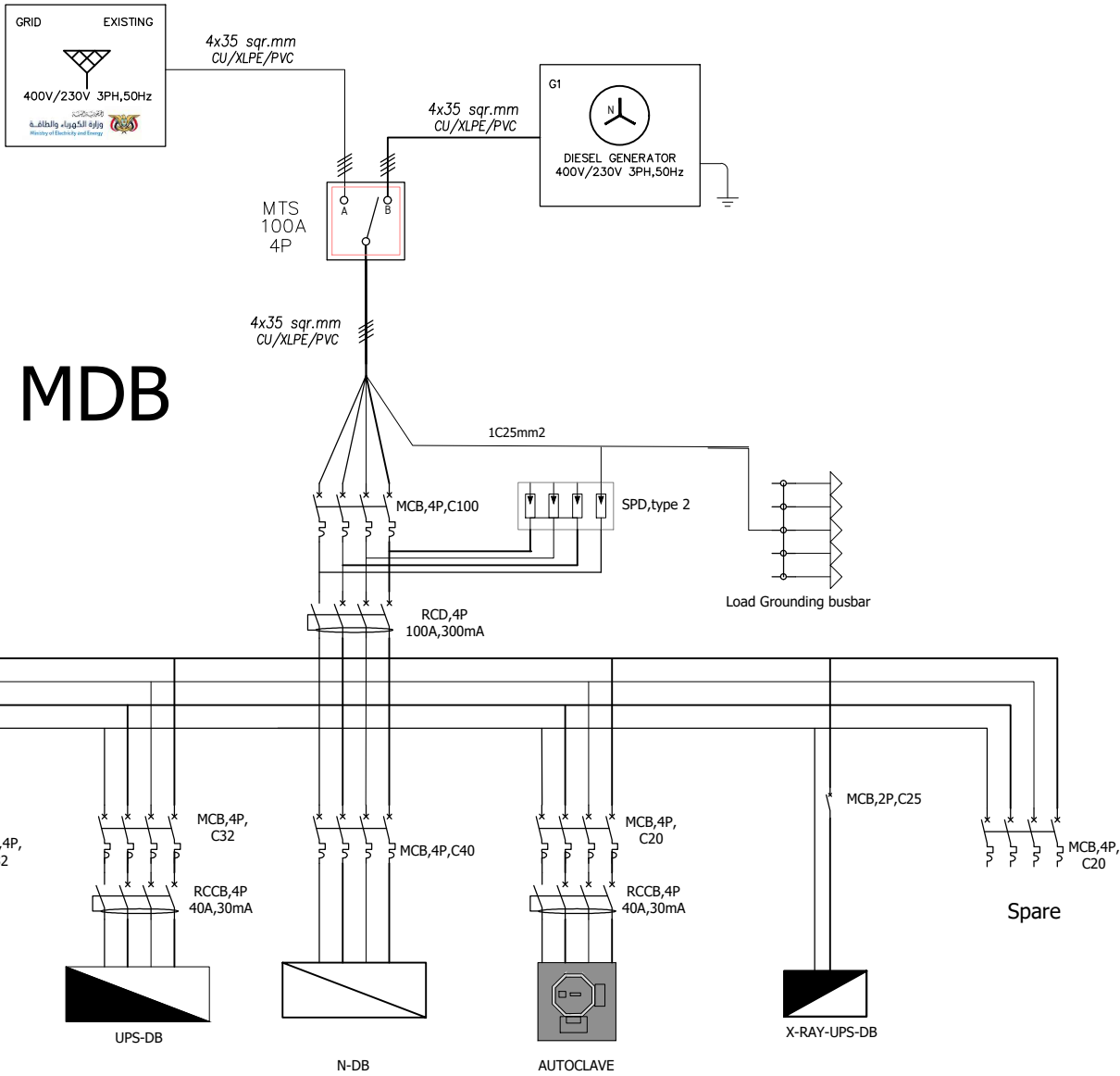
BUDGET CODE SUB-PROJ.
YE115 C001

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LEGEND SLD

ITEM	SYMBOL	DESCRIPTION
		2P, MCB
		2P, RCCB
		4P, MCB
		4P, RCCB
		SPD, type 2
		Ground busbar
		Neutral Busbar
		LED Lights
		Fans
		Socket Outlets
		Water Heater
		A.C split
		Washing Machine
		Exhaust Fan (Ducted)
		Electrical Heater



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**SING LINE DIAGRAM -
MDB SLD**

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :

N°	Date	Issue

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YE115C001

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Date : 12 / 08 / 2025



PROJECT TITLE :

**AD DAHI HOSPITAL
- Yemen -**

YE115 C001

BUILDING NAME :

**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :

ELECTRICAL DISTRIBUTION PANEL
N-DB

FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :



N° Date Issue

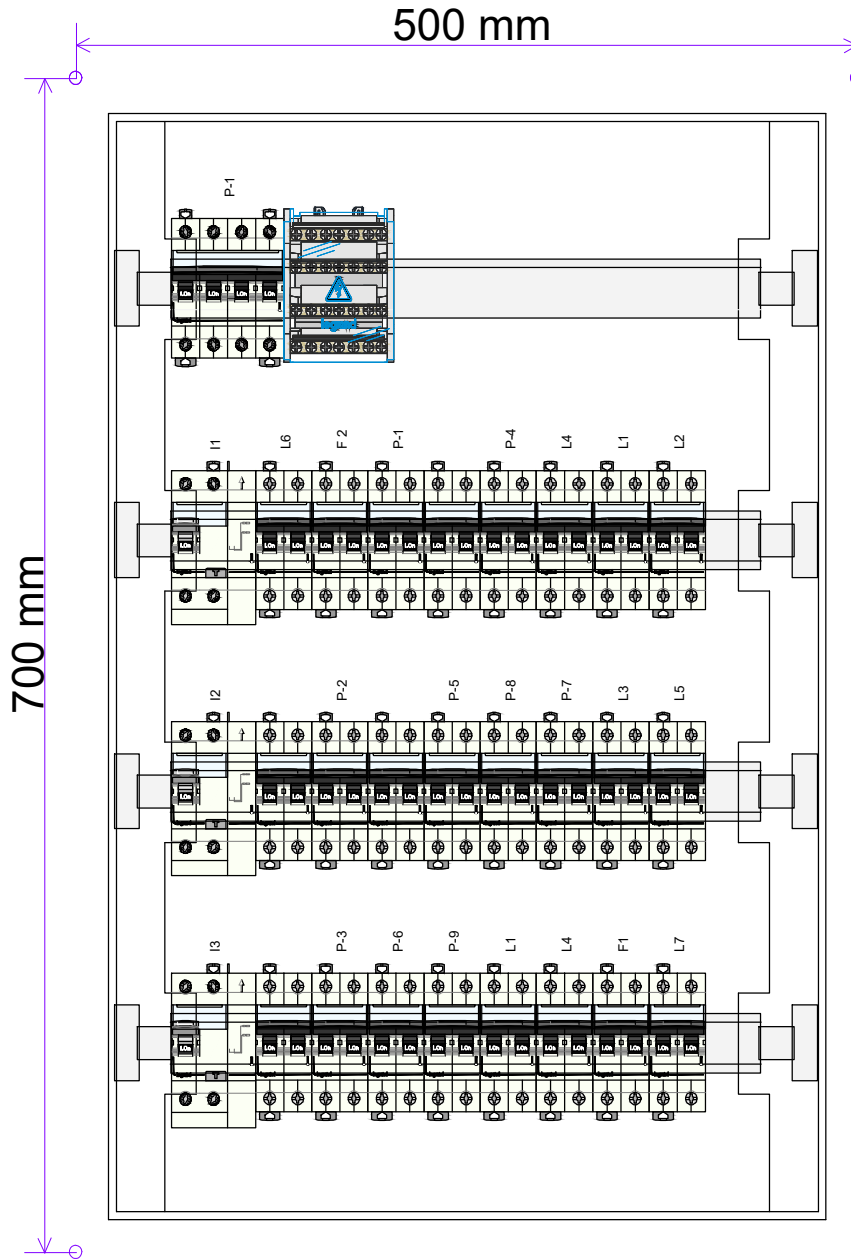
BUDGET CODE SUB-PROJ.
YE115 C001

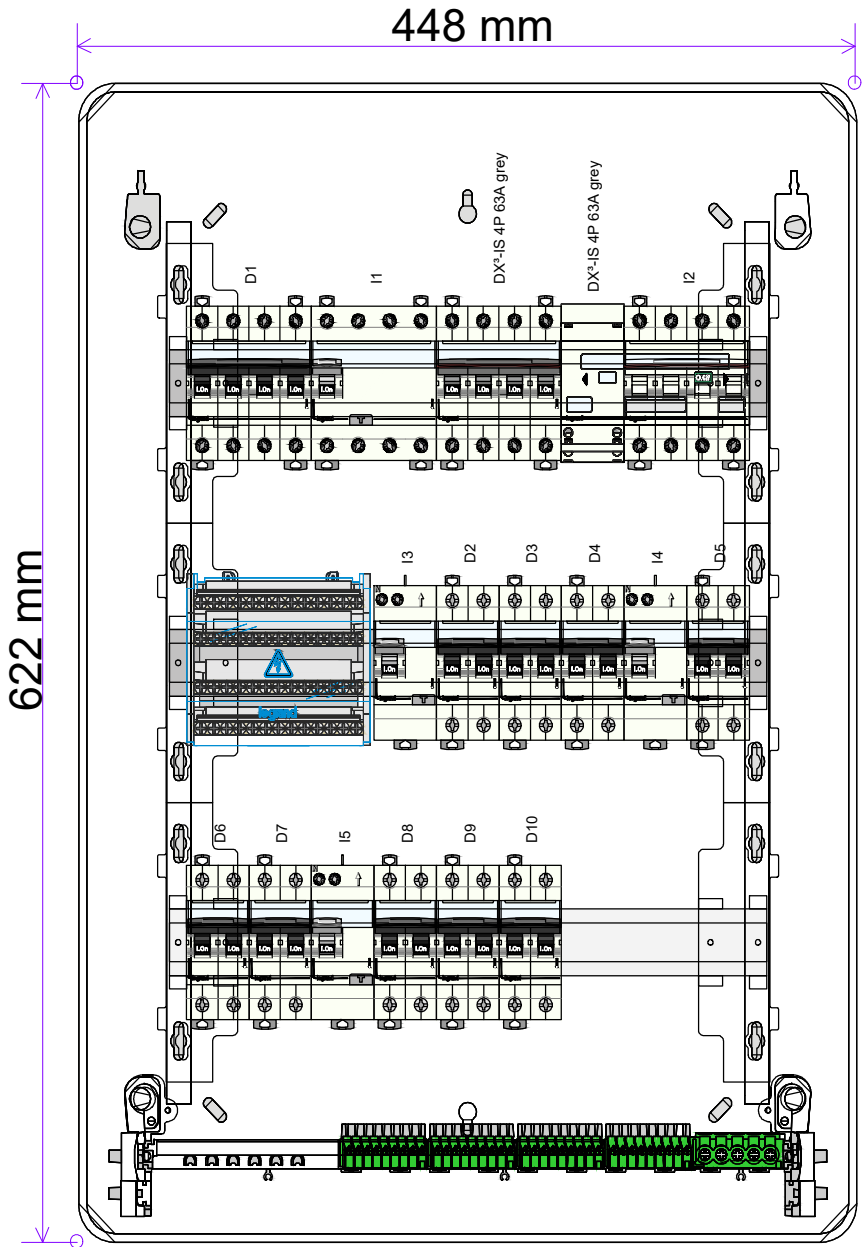
Sheet N° :

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PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**

CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
**ELECTRICAL DISTRIBUTION PANEL
UPS-DB**

FILE NAME : 04-Electrical Design, August 11.dwg

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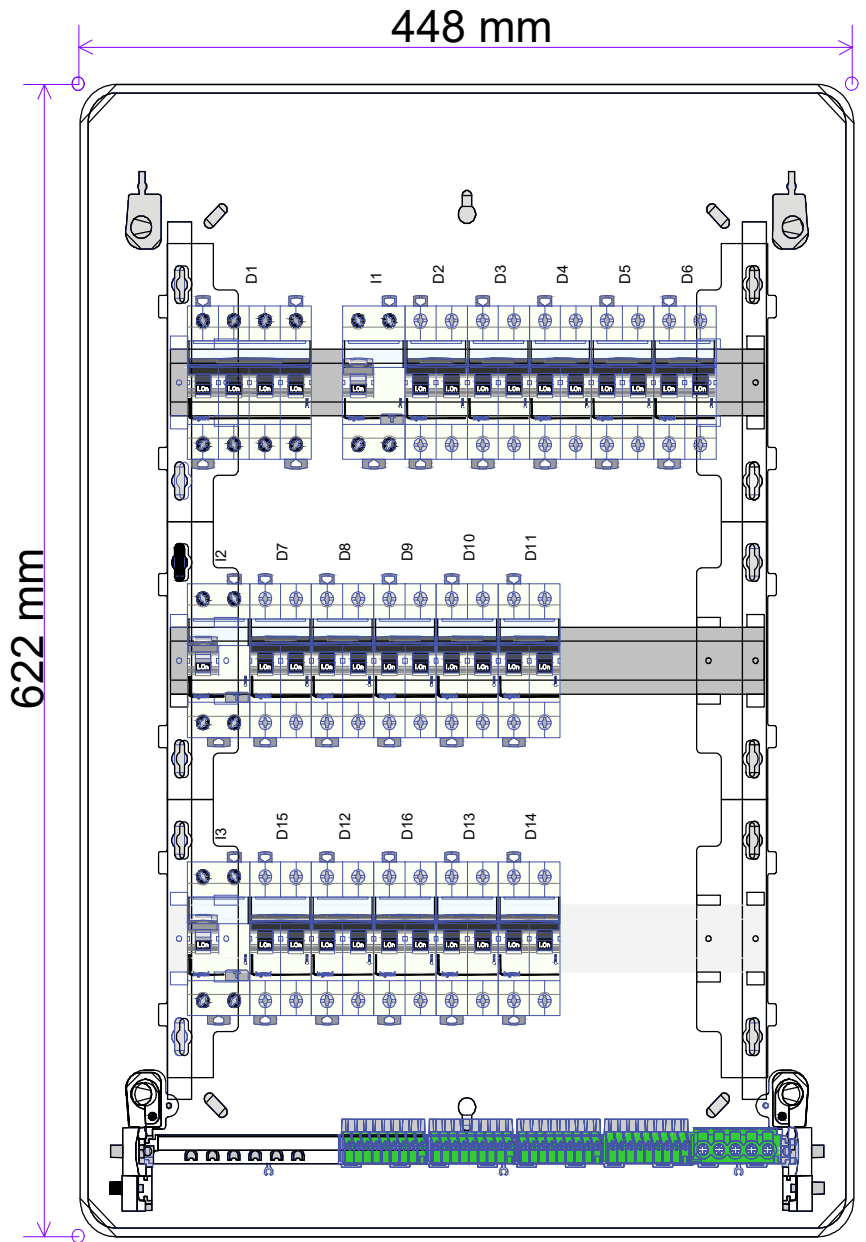
N°	Date	Issue

BUDGET CODE SUB-PROJ.
YE115C001

Sheet N° :
3 (31)

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Date : 12 / 08 / 2025



PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

BUILDING NAME :
**Laboratory sterilization
and X-Ray**
CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
ELECTRICAL DISTRIBUTION PANEL
AC-DB
FILE NAME : 04-Electrical Design, August 11.dwg

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N°	Date	Issue

BUDGET CODE SUB-PROJ.
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PROJECT TITLE :
**AD DAHI HOSPITAL
- Yemen -**

YE115 C001 BUILDING NAME :
**Laboratory sterilization
and X-Ray**
CODE CAM : CNSTR | HMAT | XXX

DRAWING TITLE :
ELECTRICAL DISTRIBUTION PANEL
MDB
FILE NAME : 04-Electrical Design, August 11.dwg

HQ stamp :
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N°	Date	Issue

BUDGET CODE SUB-PROJ.
YE115 C001

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Date : 12 / 08 / 2025

