LIGHTING FIXTURE LEGEND

	TYPE C: Ceiling mounted luminaire aluminum or steel body electrostatically painted in white color,louver with 24W T8, 120 Lm/W, IP-20, 4000K, CR1-80, operation life 50000 hours , 5 years warranty
	TYPE C: Ceiling mounted luminaire aluminum or steel body electrostatically painted in white color,louver with 24W T8, 120 Lm/W, IP-55, 4000K, CR1-80, operation life 50000 hours , 5 years warranty
W	TYPE W: 100W LED projector module wall mounted. Die-cast aluminum housing with high corrosion resistance. Extruded aluminum structure. Stone wash surface treatment and silicone gasket, 100 lm/W, 3500K, IP65, IK10, 95 CRI.
EM	TYPE EM: Emergency Non Maintained luminaire made with high-technology LED-lamp, up to 30000 hours service, has a matte cover and provides a uniform lighting with built in battery for 3 hours. 11W, IP54, 338lm, 4000K, 85 CRI.
	TYPE EX: EXIT SIGN LED LIGHT WALL / CEILING MOUNTED MAINTAINED, 10W - 450 LM DURATION 1.5H, POLYCARBONATE HOUSING IP 65 - WITH ENGRAVED LETTERS ON FIXTURES.
	TYPE EX: EXIT SIGN DIRECTIONAL - ONE WAY LED LIGHT WALL / CEILING MOUNTED MAINTAINED, 10W - 450 LM DURATION 1.5H, POLYCARBONATE HOUSING IP 65 - WITH ENGRAVED LETTERS ON FIXTURES.

ELECTRICAL LEGEND

	16Amp Simplex Socket Wall Mounted H=45CM F.F.L
	16Amp 3Phase socket H=120cm F.F.L
	10Amp One Way One Gang H=120cm F.F.L
a,b	10Amp One Way Two Gang H=120cm F.F.L
	10Amp One Way One Gang H=120cm F.F.L Waterproof
	10Amp One Way Two Gang H=120cm F.F.L Waterproof
a,b,c	10Amp One Way Three Gang H=120cm F.F.L. ANTI-BACTERIAL
	10Amp Two Way One Gang H=120cm F.F.L. ANTI-BACTERIAL
DB-	Distribution Board
SMDB	Sub-Main Distribution Board 800Amps max
CP	CONTROL PANEL
M.D.B	Main Distribution Board 8 Outgoing max
LSP–	Lighting Switch Panel
	Disconnect Switch Waterproof Rating Indicated On Drawings.
INTERFACE WITH DX FIRE ALARM	CONTACTOR Three PHASE 40AMP

FIRE ALARM LEGEND

H	ADDRESSABLE HEAT DETECTOR CEILING MOUNTED.
HS	ADDRESSABLE HEAT-SMOKE DETECTOR CEILING MOUNTED.
F	ADDRESSABLE MANUAL FIRE ALARM STATION, H =140cms.
F.B	ADDRESSABLE FIRE BELL with strobe light, H=240cm F.F.L
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL, H=180cm F.F.L
CM	ADDRESSABLE CONTROL MODULE.
	FLASHER LIGHT VISUAL ALARM WATER PROOF

COMMUNICATION LEGEND

	RJ45 Data Outlet Wall Mounted H:45cm F.F.L
-U DATA RACK	Data Rack
	RJ11 Telephone Outlet Wall Mounted H:120cm F.F.L
CONSOLE	CCTV CONSOLE
N.V.R	Network Video Recorder
	5 MP dome with 360° panoramic view for all light conditions
FIX.C	8 MP resolution and in 16:9 format Fixed surveillance CCTV.
TV.B–1	SET TOP OF BOX(TELEVISION BOX)
TV	WALL MOUNTED TELEVISION OUTLET

WIRE SIZE	CONDUIT SIZE & WIRES NUMBER		
mm2	20mm.	25mm.	32mm.
1.5	7	12	-
2.5	5	9	12
4	3	6	9
6	-	5	8
10	-	3	6
16	-	-	4
25	-	-	3

LEGEND

MCC	MOTOR CONTROL CENTER
CP	CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL
CHWP	CHILLED WATER PUMP
DB	DISTRIBUTION BOARD
UDB	DISTRIBUTION BOARD UPS
SMDB	SUB MAIN DISTRIBUTION BOARD
USMDB	SUB MAIN DISTRIBUTION BOARD UPS
LVP	LOW VOLTAGE PANEL
MV	MEDIUM VOLTAGE
DS	DISCONNECT SWITCH
MDB	MAIN DISTRIBUTION BOARD
MCB	MOLDED CIRCUIT BREAKER
MCCB	MOLDED CASE CIRCUIT BREAKER

LIGHTNING LEGEND

	AIR TERMINAL h=5m
DC	DOWN CONDUCTOR 25X3mm
	LIGHTNING EARTH PIT

Note:

1. ALL DATA OUTLET DEVICES SHALL BE CONNECTED TO DATA RACK THROUGHT CAT-6 CABLE
2. ALL TELEPHONE OUTLET DEVICES SHALL BE CONNECTED TO TELEPHONE TERMINAL CABINET THROUGH CAT-3 CABLE

GENERAL NOTES:

1. THE FOLLOWING NOTES SHALL APPLY TO ALL THE ELECTRICAL DRAWING AS APPLICABLE UNLESS OTHERWISE INDICATED OR NOTED.
2. DO NOT SCALE FROM THE LAYOUT DRAWINGS, WORK ACCORDING TO ARCHITECTURAL & ELECTRICAL DETAILS UNLESS OTHERWISE AUTHORIZED.
3. THE ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE REST OF THE DRAWINGS (ARCHITECTURE, STRUCTURE, AIR CONDITIONING, PLUMBING, DECORATION) , B.O.Q AND THE SPECIFICATIONS, AS APPLICABLE.
4. ALL DIMENSIONS SHOWN ON DETAILS ARE IN cm UNLESS OTHERWISE INDICATED.
5. ALL EXPOSED CONDUITS ABOVE FALSE CEILING , IF EXIST, WHEN RUN BELOW FALSE CEILING SHALL BE CONCEALED IN WALLS.
6. EQUIPMENT GROUNDING (EARTH CONTINUITY) CONDUCTORS ARE NOT ON SINGLE LINE DIAGRAMS THEY SHALL BE READ IN ACCORDANCE WITH THE SPECIFICATIONS.
7. LIGHTING POINTS AND JUNCTION BOXES SHALL BE CONCEALED IN CONFORMANCE WITH ASSOCIATED CONDUITS.
8. PENDENT LIGHTING POINT SHALL CONSIST OF A CEILING ROSE, FLEXIBLE CORD, A LAMP HOLDER OR LIGHTING FIXTURES TYPE AS INDICATED IN THE LIGHTING SCHEDULE & LIGHTING LAYOUTS.
9. SHAPE AND DIMENSION OF SYMBOLS USED FOR LED AND / OR OTHER FIXTURES DO NOT NECESSARILY REPRESENT SHAPE AND DIMENSIONS OF ACTUAL FIXTURE INTENDED. FOR THIS PURPOSE REFER TO LIGHTING FIXTURES SCHEDULE AND SPECIFICATIONS.
10. OUTLET BOX FOR FALSE CEILING MOUNTED LIGHTING FIXTURE SHALL BE POSITIONED IN SUCH A WAY IT WILL NOT BE OBSTRUCTED BY A/C DUCTS, PIPES, ETC... THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE A/C AND PLUMBING CONTRACTOR FOR THIS PURPOSE, PRIOR TO INSTALLING THE BOXES.
11. LIGHTING FIXTURES MOUNTED IN FALSE CEILING SHALL BE FED THROUGH AN EXPOSED LIGHTING OUTLET (ABOVE FALSE CEILING) CEILING ROSE AND HEAT RESISTANT FLEXIBLE CORD AS SPECIFIED.
12. LIGHTING SWITCHES IN BEDROOM NEAR BED ,IF EXIST, SHALL BE LOCATED AT H=65 LIGHTING SWITCHES NEAR DOORS SHALL BE INSTALLED AT 8cm. FROM ARCHITRAVE (MEASURED FROM THE EDGE OF SWITCH).
13. RECEPTACLES (SOCKET OUTLETS) SHALL BE LOCATED AT H=45 CM AS INDICATED ABOVE EXCEPT IN THE BEDROOM NEAR BED SHALL BE AT H=65 CM F.F.L. OR OTHERWISE INDICATED.
14. THE MINIMUM CONDUIT SIZE USED SHALL BE No.Ø20mm. FOR LIGHTING No.Ø25mm.
15. TELEPHONE CONDUIT SIZES SHALL BE MINIMUM Ø20mm FOR 1 & 2 WIRES & Ø25mm. FOR 3 & 4 WIRES.
16. MINIMUM CONDUIT SIZE FOR DATA SYSTEM IS Ø25mm.
17. STARTERS SHALL HAVE POWER RATING NOT SMALLER THAT THE POWER RATING OF THE RELEVANT MOTOR.
18. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONDUITS OUTLETS BOXES FOR LIFT SIGNAL EQUIPMENT (CALL BUTTONS, POSITION INDICATORS, ETC...) AS REQUIRED.
19. ALL CONDUCTORS SHOWN ARE SINGLE CORE IN CONDUITS UNLESS INDICATED ARM OR OTHERWISE.
20. LOCATION OF JUNCTION & PULL BOXES SHALL BE TO THE APPROVAL OF THE ENGINEER.
21. EACH CONDUIT SHALL CONTAIN ONLY ONE CIRCUIT, IF WE NEED MORE FOR COMMON EQUIPMENT,ADDITIONAL CONDUITS RUN IN PARALLEL.
22. ALL CONTROL WIRES BETWEEN EQUIPMENT SUPPLIED UNDER THE MECHANICAL ALL MOTORS STARTERS & OTHER THREE PHASE EQUIPMENT MAY HAVE THEIR CONTROL ON 220 VOLTS.
23. SIZE AT NO EXTRA COST THREE PHASE HEATERS ARE ASSUMED TO BE DELTA CONNECTED.
24. THE CONTRACTOR SHALL OTHERWISE PROVIDE A FULL SIZE NEUTRAL IN THE CIRCUIT AT NO EXTRA COST THE TERMINAL LUGS OF ALL CIRCUIT BREAKERS & DISCONNECTING SWITCHES CABLES AS INDICATED ON THE DWGS.
25. THE MIGHT NECESSITATE OFF-STANDARD CONDUIT FOR POWER & LIGHTING WIRES & CABLES SHALL HAVE SIZES AS TABULATED OVER SIZING.

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
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4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

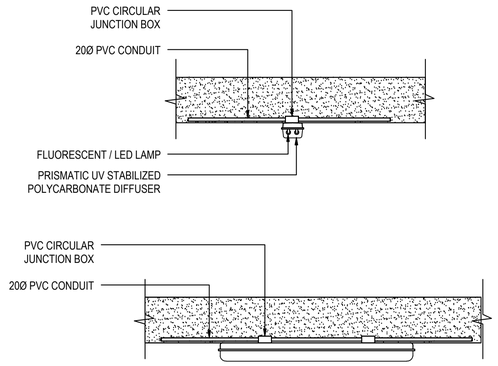
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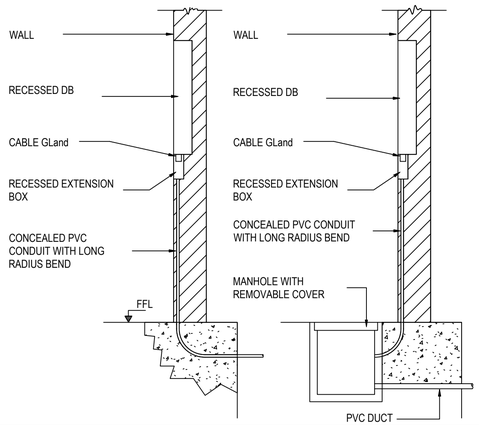
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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
ELECTRICAL LEGEND

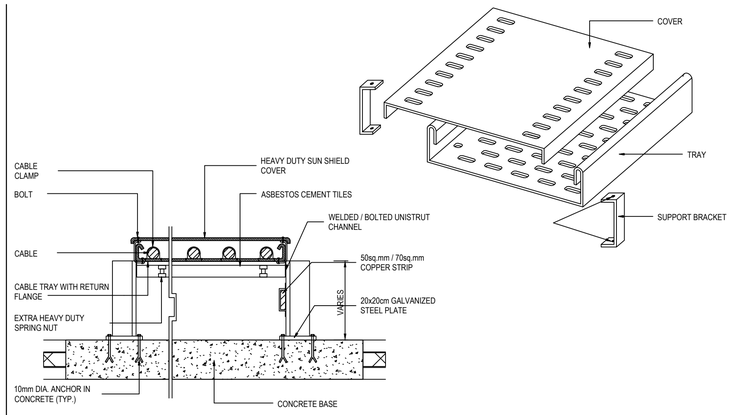
SCALE:	NO
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H
APP'D:	A.SH
SHEET SIZE A:	A | 3 | 2 | 1 | 0
PROJ. No.:	DWG. No.:
L2026–14	E–401R1
APP'D FOR CONSTRUCTION :	
COMPUTER CODE No.	2026-14-E-401R1



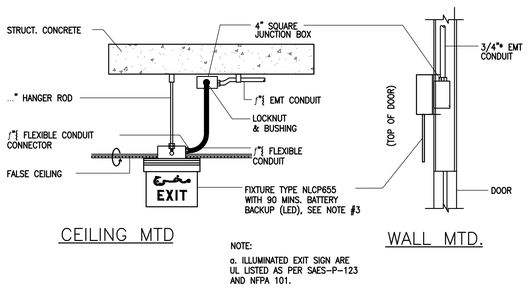
FLUORESCENT \ LED FIXTURE MOUNTING



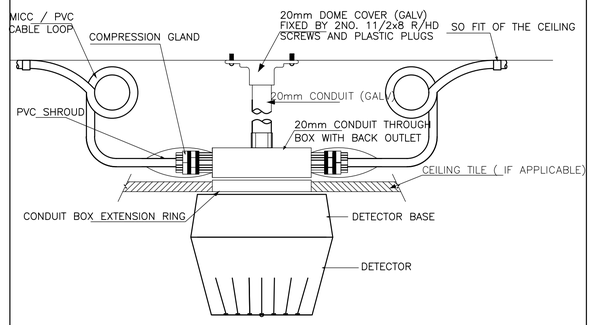
TYPICAL CABLE ENTRY FROM BELOW TO RECESSED DB



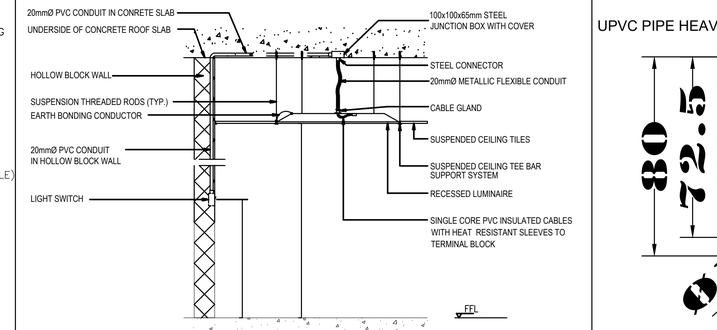
CABLE TRUNK TYPICAL DETAILS



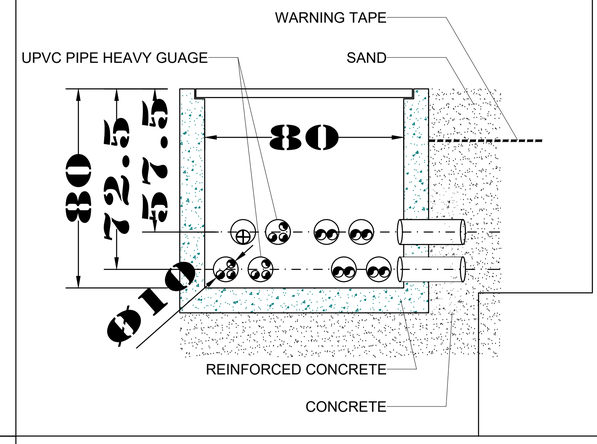
EXIT LIGHT SIGNAGE MOUNTING



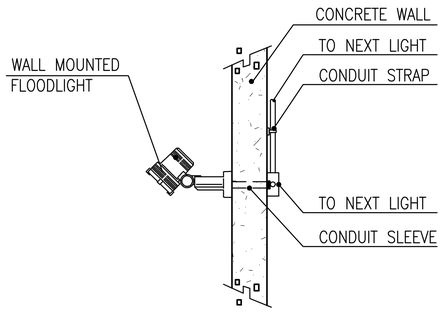
STD. MOUNTING DETAILS FOR SMOKE OR HEAT DETECTOR



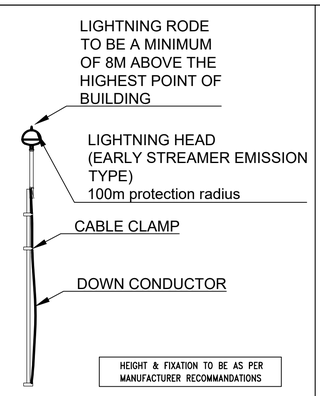
60x60CM RECESSED FIXTURE MOUNTED IN SUSPENDED CEILING



80CM HAND HOLE TYPICAL SECTION

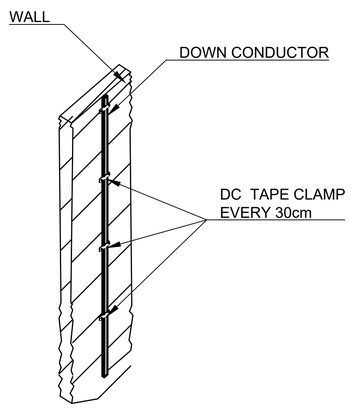


WALL MOUNTED FLOODLIGHT



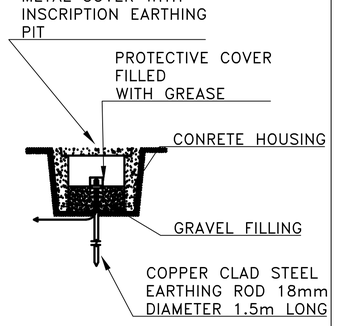
LIGHTNING HEAD (EARLY STREAMER EMISSION TYPE)

DETAIL–1–



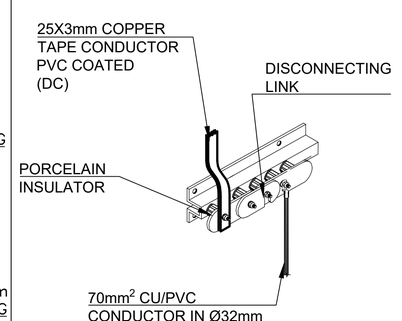
BARE COPPER TAPE INSTALLATION ON WALL

DETAIL–2–



EARTH PIT

DETAIL –3–



TO BE MOUNTED IN GALAVANIZED
STEEL INSPECTION BOX

LIGHTNING BAR

DETAIL –4–

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

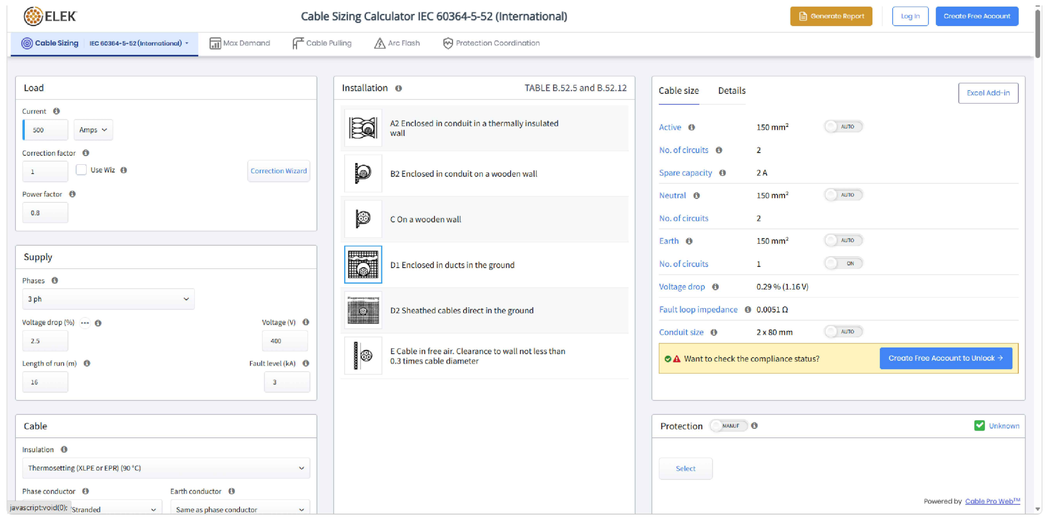
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2 – XXXXX
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BEIRUT – LEBANON

PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
ELECTRICAL GENERAL DETAILS

SCALE:	NO
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H
APP'D:	A.SH
SHEET SIZE A:	A1
PROJ. No.:	DWG. No.:
L2026–14	E–402R1
APP'D FOR CONSTRUCTION :	
COMPUTER CODE No.	2026-14-E-402R1



PRESIDENTIAL PALACE

ABLE DESCRIPTION PHASE 2 Jul-26

POWER CABLE FOR RESEAU RES-3-4							
N	CABLE	FROM	TO	SUPPLY	NUMBER OF SET	LENGTH (m)	TOTAL LENGTH (m)
1	4CX120mm²	RES-3	JUNCTION BOX R-3	GARDEN	1	24	24
2	4CX150mm²	RES-3	JUNCTION BOX R-3	CAFETERIA GAS STATION & THE CLINIC	1	24	24
3	4CX25mm²	RES-3	JUNCTION BOX R-3	WATER FOUNTAIN Nb 3	2	24	48
4	4CX25mm²	RES-3	JUNCTION BOX R-3	Guards	1	24	24
5	4CX25mm²	RES-3	JUNCTION BOX R-3	president aide	1	24	24
6	4CX25mm²	RES-3	JUNCTION BOX R-3	office nb2	1	24	24
7	4CX25mm²	RES-3	JUNCTION BOX R-3	A/C Office	1	24	24
8	4CX25mm²	RES-3	JUNCTION BOX R-3	battalion	1	24	24
9	4CX16mm²	RES-3	JUNCTION BOX R-3	ROAD BLOCK Nb3	1	24	24
10	4CX25mm²	RES-3	JUNCTION BOX R-3	offices nb 12	1	24	24
11	4CX25mm²	RES-3	JUNCTION BOX R-3	DB-R-3	1	24	24
12	4CX150mm²	RES-4	JUNCTION BOX R-4	build nb 4	1	30	30
13	4CX6mm²	RES-4	JUNCTION BOX R-4	Cafeteria in the palace	1	30	30
14	4CX6mm²	RES-4	DB-G	Generator room	1	30	30
15	4CX6mm²	RES-4	DB-GS	Main electrical room	1	20	20

TOTAL FOR CABLE 4CX150mm²	**54m**
TOTAL FOR CABLE 4CX120mm²	**24m**
TOTAL FOR CABLE 4CX25mm²	**192m**
TOTAL FOR CABLE 4CX16mm²	**24m**
TOTAL FOR CABLE 4CX6mm²	**80m**

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4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

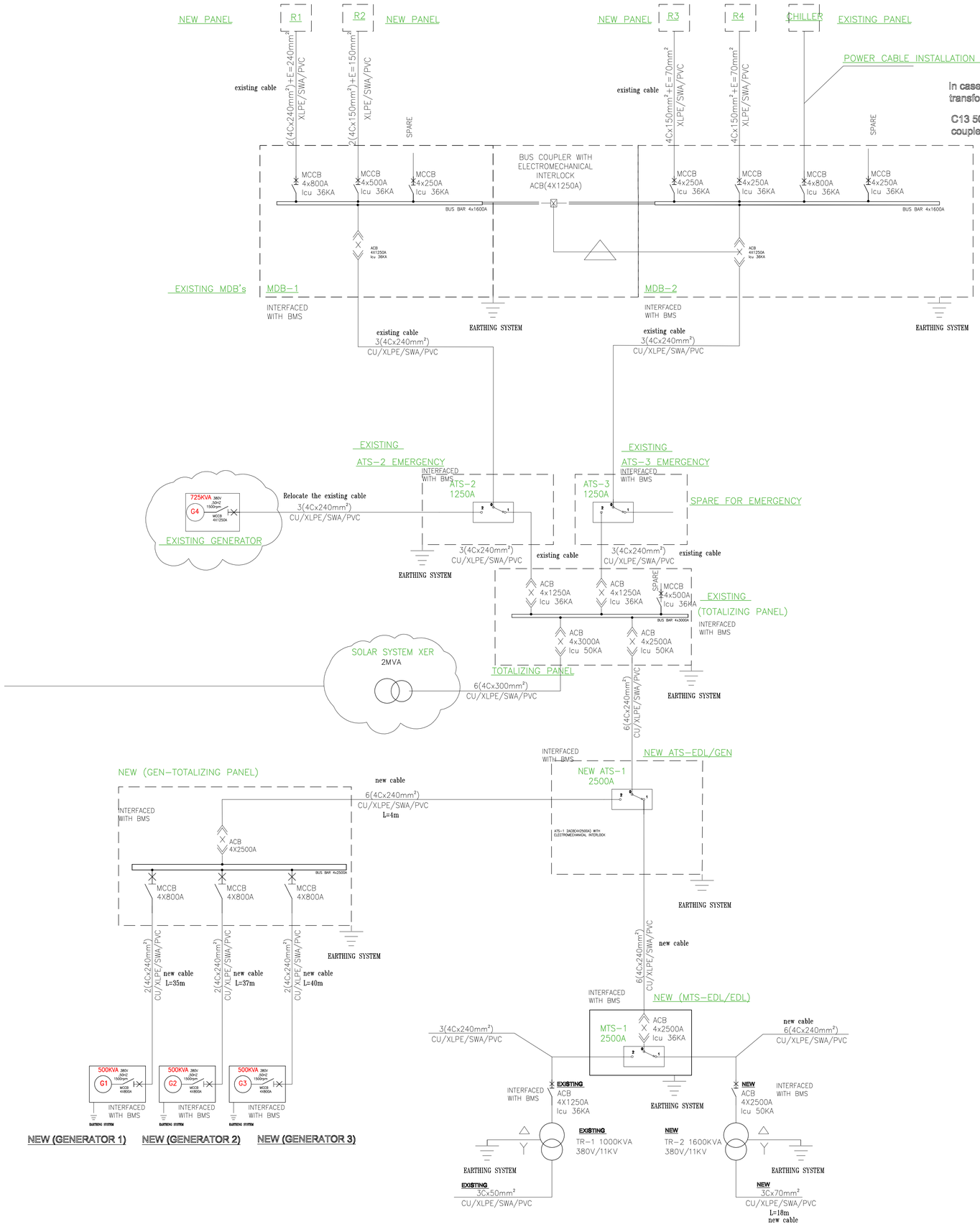
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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
ELECTRICAL CALCULATION REPORT

SCALE:	NO
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H
APP'D:	A.SH
SHEET SIZE A:	A3
PROJ. No.:	DWG. No.:
L2026–14	E–403R1
APP'D FOR CONSTRUCTION :	
COMPUTER CODE No.	2026-14-E-403R1



Note: The contactor **C13** for chiller should be programmed to open when ATS–2 is switched to the position of G4.

Note: the solar system controller must control the maximum power export to the grid to not exceed 80% OF capacity of the EDL transformer

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3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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NOTES
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6 – XXXXX

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BAHRAIN – DUBAI – U.A.E. – TRIPOLI – LIBYA
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RABAT – MOROCCO – TIRANA – ALBANIA
SANAA – YEMEN – SUDAN – KHARTOUM – SUDAN

PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
ELECTRICAL RISER DIAGRAM PHASE 2

SCALE:	no
DATE:	OCT–2026
DRAWN:	A.F.
CHECKED:	M.H.
APP'D:	A.SH.
SHEET No.:	4 / 7 / 1 / 8
PROJ. No.:	DWG. No.:
L2026–14	E–404R1

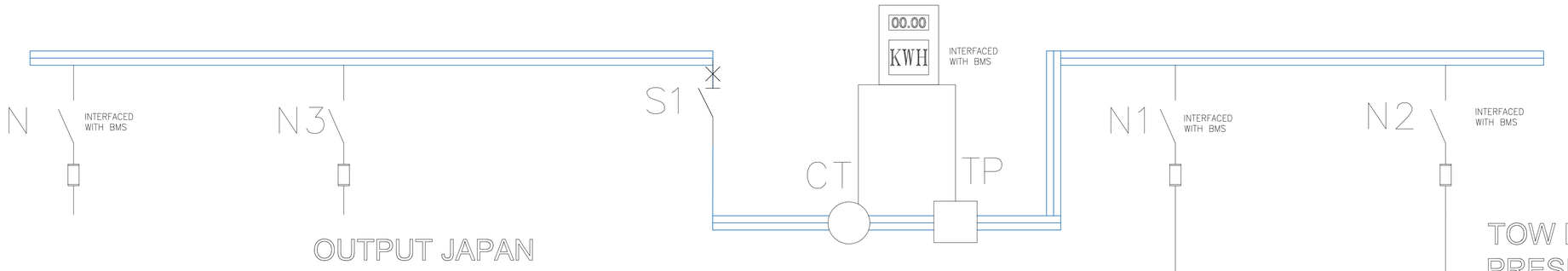
APP'D FOR CONSTRUCTION :

COMPUTER CODE No.: L2026–14–A112

MEDIUM VOLTAGE

copper busbar could be 60 × 10 mm

EDL KWH METER



N1 Switchgear with SF6 Circuit Breakers

S1 Switchgear 11KV - 600AMP

Rehabilitation of Existing 11 kV MV Switchgear and Protection System – Carry out the complete rehabilitation of the existing 11 kV switchgear, including inspection, dismantling where required, cleaning, servicing, repair and replacement of defective or obsolete components. The work shall include circuit new breaker ,current and voltage transformer and protection relays

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5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MV RISER DIAGRAM

SCALE:	no
DATE:	OCT–2026
DRAWN:	A.F.
CHECKED:	M.H.
APPVD:	A.SH.
DRG. No.:	1 / 1 / 1 / 0
PROJ. No.:	DWG. No.:
L2026-14	E-405R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. | 2026-14-A112

Load Distribution Schedule

Project / Building Name:TL-2797 | **MAIN C.B : 25 AT / 100 AF, 3P** | **FEED FROM :** RES-4
Address / Location: ELECTRICAL ROOM | **VOLTAGE : 380/220V,3-PH,50Hz** | **FEEDER SIZE :** 4C-6mm² PVC/PVC+1-6mm² PVC G.
Distribution Board No / Ref: DB-G | **WAYS : 24** | **DISTANCE :** 30m
LOCATION: GROUND FLOOR | **%V.D. :**

			CCT.ref.No	MCB rating (A)	Phase & Neutral Size mm²	Earth Size mm²	No. of Ways	DESCRIPTION	CirXLPEit Load in (W) R	Y	B	CONDUIT SIZE
1	4P 25A 10 kA MCB	Section 1 - 300mA RCD 16A 3ph	R1	10A			SPARE		0			
2			Y1	10A	2.5 MM²	2.5 MM²	LIGHTING	GENERATOR ROOM		192		20MM
3			B1	10A	2.5 MM²	2.5 MM²	LIGHTING	GENERATOR ROOM			192	20MM
4			R2	10A			SPARE		0			
5			Y2	10A	2.5 MM²	2.5 MM²	LIGHTING	OUTDOOR		300		20MM
6			B2	10A	2.5 MM²	2.5 MM²	LIGHTING	ALL EMERGENCY AND EXIT			50	20MM
7		Section 2 - 300mA RCD 20A 3ph	R3	16A	4 MM²		SOCKET	GENERATOR ROOM	500			25MM
8			Y3	16A			SOCKET			500		25MM
9			B3	16A			SOCKET				500	25MM
10			R4	16A	4 MM²	4 MM²	SOCKET	GENERATOR ROOM	900			25MM
11			Y4	16A			SPARE			0		
12			B4	16A			SPARE				0	

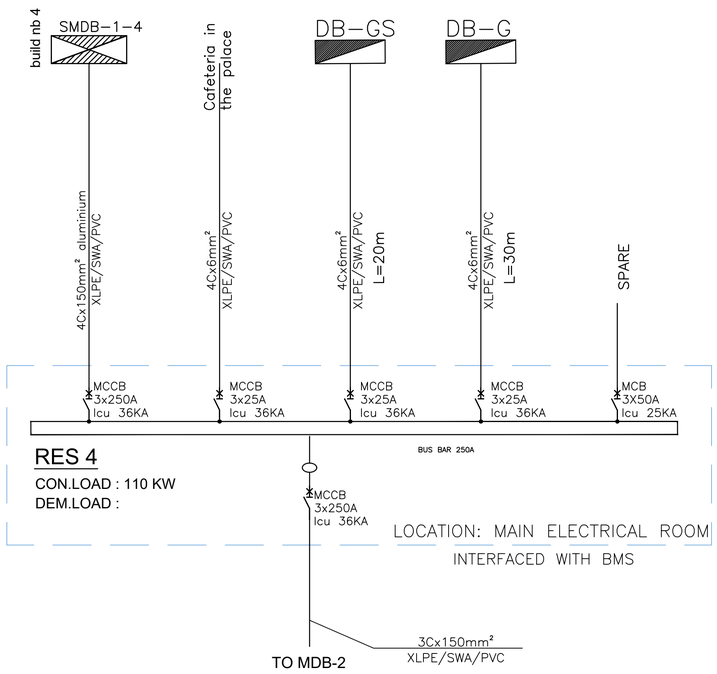
CONNECTED LOAD PHASE "R" =	***1400 W***	TOTAL CONNECTED LOAD (KW) =	***3.1***	TOTAL CONNECTED CURRENT "I"	***5.95***		LTG.	S.O	HVAC	KIT. EQP	EWH	TOTAL
CONNECTED LOAD PHASE "Y" =	***992 W***	DEMAND FACTOR =	***67%***	TOTAL DEMAND CURRENT "I"	***3.99***	CONN.KW	0.73	2.40	0.00	0.00	0.00	3.13
CONNECTED LOAD PHASE "B" =	***742 W***	TOTAL DEMAND LOAD (KW) =	***2.1***	TOTAL DEMAND CURRENT "I"	***4.39***	DEM.FACT	90.0%	60.0%	60.0%	80.0%	100.0%	67.0%
TOTAL CONNECTED LOAD =	***3134 W***	TOTAL DEMAND LOAD (KW) =	***2.3***	WITH 10% SPARE		DEM.KW	0.66	1.44	0.00	0.00	0.00	2.10
BALANCE : 47.00%		WITH 10% SPARE										

Load Distribution Schedule

Project / Building Name:TL-2797 | **MAIN C.B : 25 AT / 100 AF, 3P** | **FEED FROM :** RES-4
Address / Location: ELECTRICAL ROOM | **VOLTAGE : 380/220V,3-PH,50Hz** | **FEEDER SIZE :** 4C-6mm² PVC/PVC+1-6mm² PVC G.
Distribution Board No / Ref: DB-GS | **WAYS : 30** | **DISTANCE :** 20m
LOCATION: GROUND FLOOR | **%V.D. :**

			CCT.ref.No	MCB rating (A)	Phase & Neutral Size mm²	Earth Size mm²	No. of Ways	DESCRIPTION	CirXLPEit Load in (W) R	Y	B	CONDUIT SIZE
1	4P 25A 10 kA MCB	Section 1 - 300mA RCD 16A 3ph	R1	10A	2.5 MM²	2.5 MM²	LIGHTING	CORRIDOR	72			20MM
2			Y1	10A	2.5 MM²	2.5 MM²	LIGHTING	TRANSFORMER ROOM FOR PV		144		20MM
3			B1	10A	2.5 MM²	2.5 MM²	LIGHTING	ELECTRICAL ROOM			192	20MM
4			R2	10A	2.5 MM²	2.5 MM²	LIGHTING	ELECTRICAL ROOM	192			20MM
5			Y2	10A	2.5 MM²	2.5 MM²	LIGHTING	TRANSFORMER ROOM		216		20MM
6			B2	10A	2.5 MM²	2.5 MM²	LIGHTING	CONTROL ROOM +TOILET			155	20MM
7		Section 2 - 300mA RCD 20A 3ph	R3	16A			SPARE		0			
8			Y3	10A	2.5 MM²	2.5 MM²	LIGHTING	ALL EMERGENCY AND EXIT		190		20MM
9			B3	10A	2.5 MM²	2.5 MM²	LIGHTING	ROOM			144	20MM
10			R4	16A	4 MM²	4 MM²	SOCKET	TRANSFORMER ROOM FOR PV + ELECTRICAL ROOM	900			25MM
11			Y4	16A	4 MM²	4 MM²	SOCKET	TRANSFORMER ROOM		540		25MM
12			B4	16A	4 MM²	4 MM²	SOCKET	CONTROL ROOM+TOILET			720	25MM
13			R5	16A	4 MM²		FAN	CONTROL PANEL FOR FANS	370			25MM
14			Y5	16A			FAN			370		25MM
15			B5	16A			FAN				370	25MM
16			R6	16A			SPARE					
17			Y6	16A			SPARE					

CONNECTED LOAD PHASE "R" =	***1534 W***	TOTAL CONNECTED LOAD (KW) =	***4.6***	TOTAL CONNECTED CURRENT "I"	***8.69***		LTG.	S.O	HVAC	KIT. EQP	EWH	TOTAL
CONNECTED LOAD PHASE "Y" =	***1460 W***	DEMAND FACTOR =	***78%***	TOTAL DEMAND CURRENT "I"	***6.80***	CONN.KW	1.31	2.16	1.11	0.00	0.00	4.58
CONNECTED LOAD PHASE "B" =	***1581 W***	TOTAL DEMAND LOAD (KW) =	***3.6***	TOTAL DEMAND CURRENT "I"	***7.48***	DEM.FACT	90.0%	60.0%	100.0%	80.0%	100.0%	78.3%
TOTAL CONNECTED LOAD =	***4575 W***	TOTAL DEMAND LOAD (KW) =	***3.9***	WITH 10% SPARE		DEM.KW	1.17	1.30	1.11	0.00	0.00	3.58
BALANCE : 7.65%		WITH 10% SPARE										



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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

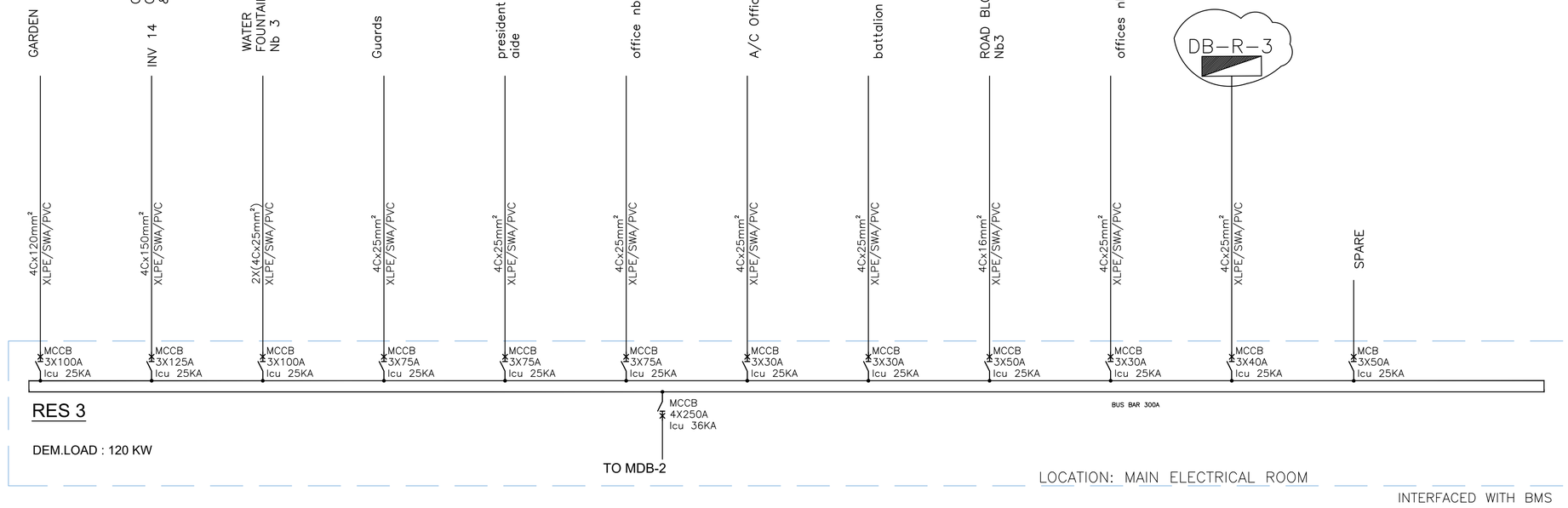
LEGEND
1 – ———————————
2 – ———————————
3 – ———————————
4 – ———————————
5 – ———————————
6 – ———————————

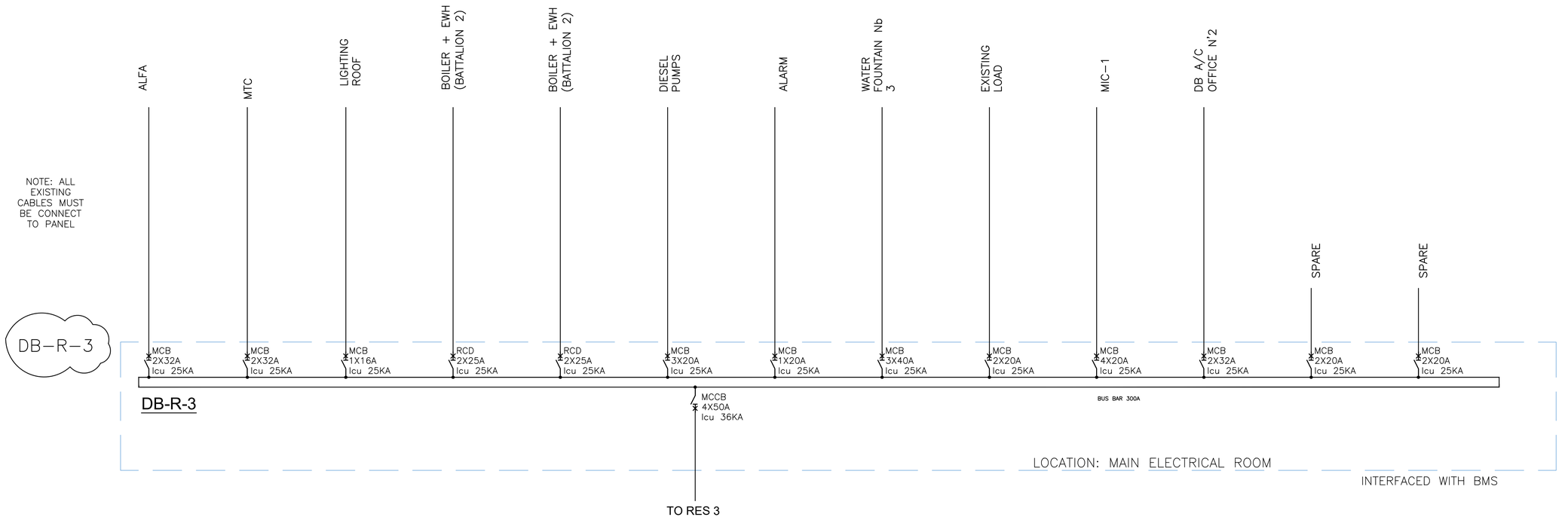
NOTES
1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
NEW PANEL BOARD 1/3

SCALE:	A1 – NO SCL
DATE:	OCT–2026
DRAWN:	M.H
CHECKED:	A.S
APP'D:	A.M
PROJ. No.:	DWG. No.:
L2026–14	E–406R1
APP'D FOR CONSTRUCTION :	
COMPUTER CODE No.	XX–AXXX





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NOTES
1 – XXXX
2 – XXXX
3 – XXXX
4 – XXXX
5 – XXXX
6 – XXXX

LEGEND
1 –
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6 –

REVISIONS	No.	BY	DATE
1 – XXXX	Rev1	X.X	X/XX/XX
2 – XXXX	Rev2	X.X	X/XX/XX
3 – XXXX	Rev3	X.X	X/XX/XX
4 – XXXX	Rev4	X.X	X/XX/XX
5 – XXXX	Rev5	X.X	X/XX/XX
6 – XXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE

GENERAL DIRECTORATE BAABDA, LEBANON

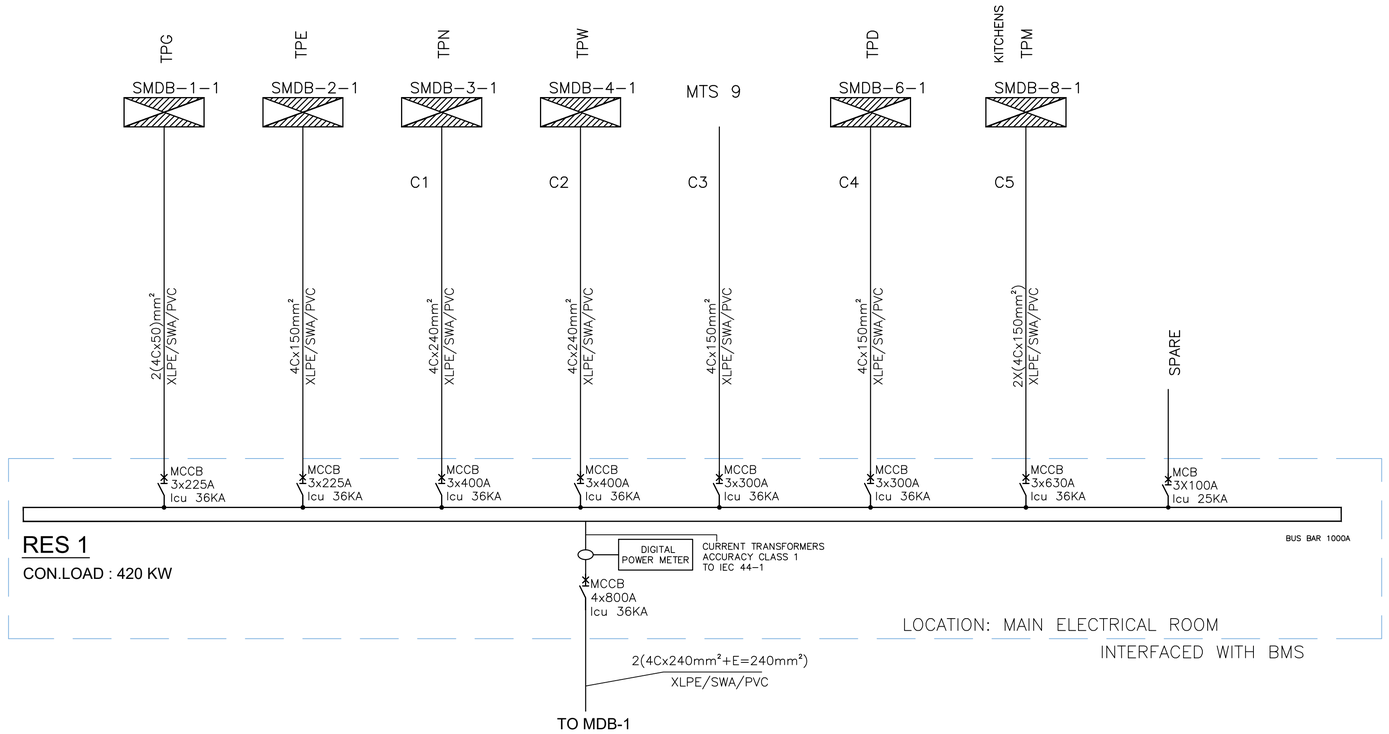
MAIN ELECTRICAL / GENERATOR ROOMS

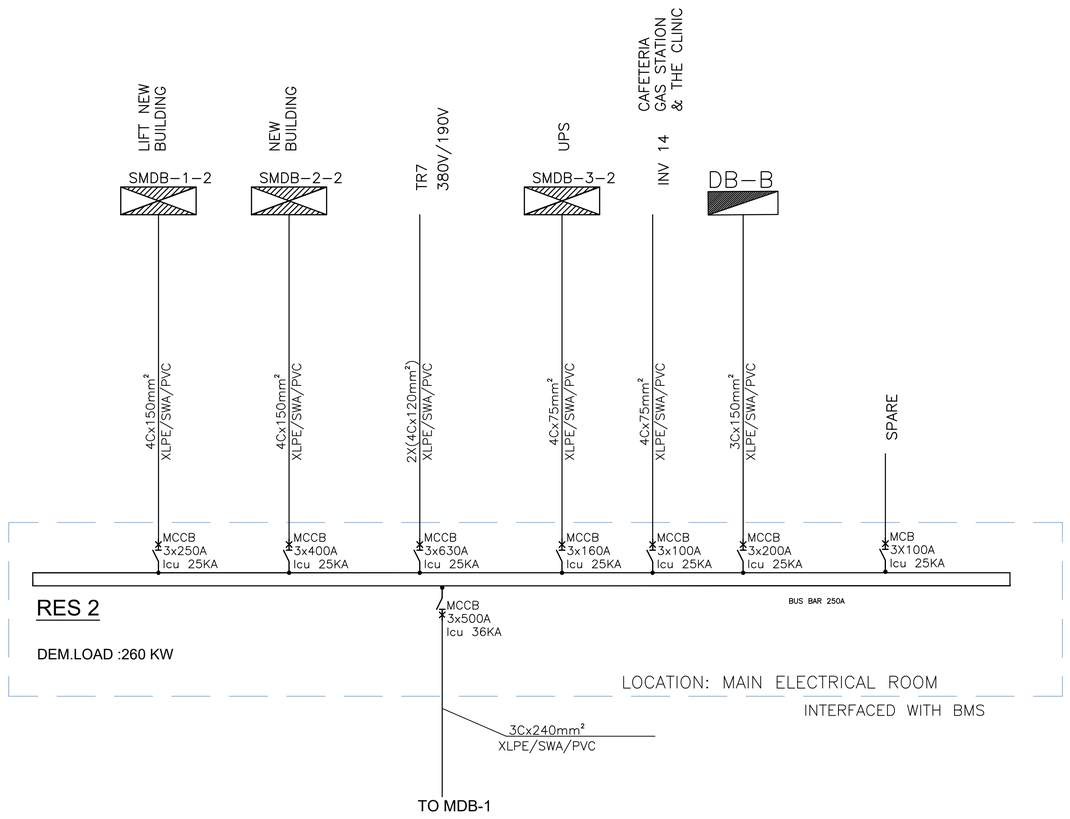
NEW PANEL BOARD 2/3

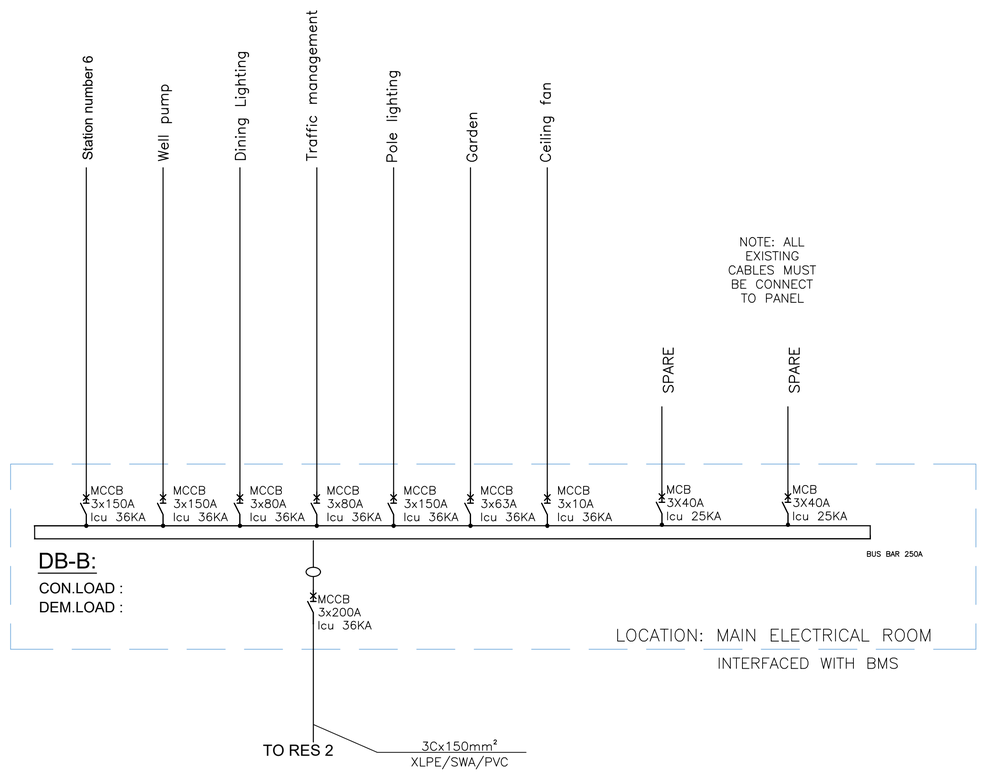
SCALE:	A1 – NO SCL
DATE:	OCT-2026
DRAWN:	M.H
CHECKED:	A.S
APP'D:	A.M
PROJ. No.:	DWG. No.:
L2026-14	E-407R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. | XX-AXXX







NOTES
1 – XXXX
2 – XXXX
3 – XXXX
4 – XXXX
5 – XXXX
6 – XXXX

LEGEND
1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
NEW PANEL BOARD 3/3

SCALE:	A1 – NO SCL
DATE:	OCT–2026
DRAWN:	M.H
CHECKED:	A.S
APP'D:	A.M
PROJ. No.:	DWG. No.:
L2026–14	E–408R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. | XX–AXXX

PHASE 2

FUEL

FUEL

G3

G4

IN1=2.25
TOP2=4.35

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

DB-GS

A1
A2

F4 MCCB 1500A TR1
F1 MCCB 1500A TR2
MCCB 1250A TR4

Medium voltage
from EDL 11kv

R4

SUPPLY
R4

VOID

CONTACTOR
C3–C4

G3
RES 3
CHILLER
G4
RES 2
RES 1
TR4

SUPPLY R2
SUPPLY R2

CONTACTOR
C5–C6

R3

BMS SMP

SOLAR MONITORING PANEL

Building Management System)

48-inch display screen

ATS–2
4X1250A

ATS–3
4X1250A

TOTALIZING PANEL–1
EDL OR GEN/SOLAR

MDB–1& MDB–2 +
BUS COUPLER 4X1600A

ELECTRICAL ROOM
02 GF

11KV/190V
TR–1
500KVA
MANUAL
VOLT
ADJUSTER

11KV/190V
TR–2
500KVA
MANUAL
VOLT
ADJUSTER

MDB FOR TR1 and
TR2

TR–5

ATS
SUPPLY
R2

ATS
SUPPLY
FOR
CHILLER

CHILLER

CONTACTOR
+DELAIS FOR R1

R1

MTS

CABINET
FOR
TR–1

TR–7

TR–AC

TR–8

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

LEGEND

1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

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No.	REVISIONS	BY	DATE
Rev1	1 – XXXXX	X.X	X/XX/XX
Rev2	2 – XXXXX	X.X	X/XX/XX
Rev3	3 – XXXXX	X.X	X/XX/XX
Rev4	4 – XXXXX	X.X	X/XX/XX
Rev5	5 – XXXXX	X.X	X/XX/XX
Rev6	6 – XXXXX	X.X	X/XX/XX

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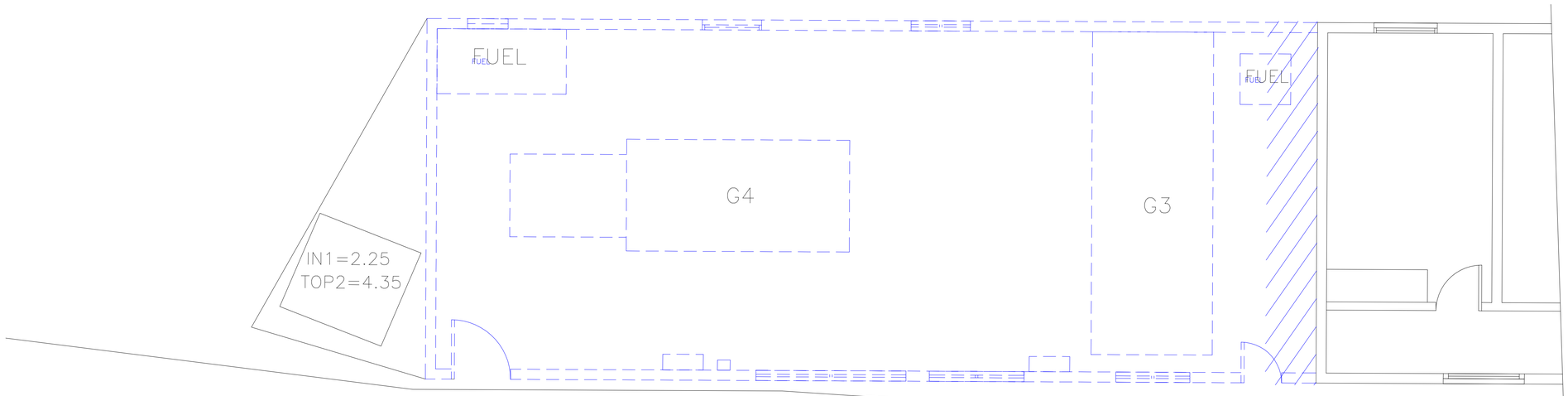
PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM–TRANSFORMER EXISTING LAYOUT

SCALE:	1/50
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRAWING No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026–14	E–410R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A110

PHASE 2



Work Strategy - Generator Room

1- Dismantling and removing the existing 2 generators G3 & G4 600KVA , 725KVA. During the renovation period, G3 should be reinstalled temporary and connected to the load to maintain continuity of service and complete operational functionality including all temporary works required.

2- After completing civil works in generator room, Reinstall the existing generator G4 725KVA, Remove and handle G3 to the representative of the presidential palace.

3- Installation for the 3 new generators 500kVA with all equipment and accessories..

Work Strategy - MV Room

1- Renovate the existing MV room while maintaining continuity of power supply from the existing solar source and temporary generator G3.

2- Disconnect the MV source feed from EDL for safety precautions and connect a temporary source for MV Output JAPAN, coordinate with EDL.

3- Dismantling and removing the existing 2 old transformer 1&2 11KV/190V, 500KVA, and handle to the representative of the presidential palace.

4- Replace MV switchgear, cable routes, supports, lighting, ventilation, and room finishes.
Complete testing and commissioning before transferring the load to the renovated installation.

5- Install the new transformer 11kV/380V, 1600kVA with all equipment and accessories.



NOTES
1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

LEGEND
1 –
2 –
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4 –
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6 –

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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– YEMEN – SUDAN – ALBANIA –

PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM-TRANSFORMER DEMOLISHING LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
REVISION No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026-14	E-411R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A111

PHASE 2

IN1=2.25
TOP2=4.35

FUEL

GEN-1 500KVA

GEN-2 500KVA

GEN-3 500KVA

EXISTING GEN/G4

GENERATOR ROOM
04 GF

TRENCH

DB-GS

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS-2
4X1250A

ATS-3
4X1250A

TOTALIZING PANEL-1
EDL OR GEN/SOLAR

MDB-1& MDB-2 +
BUS COUPLER 4X1600A

R-1
PANEL

R-2
PANEL

R-3
PANEL

R-4
PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING
PANEL-2 FOR
NEW GEN. SETS

ACB 2500A
NEW TR

ATS.1 2500A
EDL.1/EDL.2

TR-4

11KV/380V
1000KVA

Medium voltage
from EDL 11kv

JUNCTION
BOX R4

R4

TRANSFORMER ROOM
03 GF

Monitoring
and Alarm
Panel

NEW XER 1600KVA
11/0.38KV

JUNCTION
BOX R3

DB-R-3

DB-B

BMS SMP

SOLAR MONITORING PANEL

Building Management System)

48-inch display screen

NB: REPRODUCTION AND USE OF THESE DOCUMENTS IS PROHIBITED WITHOUT WRITTEN PERMISSION OF THE DESIGNER

REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

LEGEND

1 – ——————————
2 – ——————————
3 – ——————————
4 – ——————————
5 – ——————————
6 – ——————————

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM–TRANSFORMER PROPOSAL LAYOUT

SCALE:	1/50
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRAWING No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026–14	E–412R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A1T2

PHASE 2

IN1=2.25
TOP2=4.35

FUEL

GEN-1 500KVA

GEN-2 500KVA

GEN-3 500KVA

EXISTING GEN/G4

GENERATOR ROOM
04 GF

TRENCH

EXISTING 3X70mmsq 11KV CABLE FROM SOLAR XER WITH FOC FOR CONTROL

(3X6"PVC CONDUITS) FOR 11KV & F.O CABLES FROM SOLAR SYSTEM AT 60CM FROM FFL (ROAD CROSSING) PROTECTED BY CONCRETE ENCASEMENT

NEW TRENCH

6(4CX240mmsq) CABLES FROM NEW GEN.SETS TO TOTALIZING PANEL +3(4CX240mmsq FROM G4

(2X6X6"PVC CONDUITS) FOR CABLES FROM NEW GEN.SETS AT -60CM FROM FFL (ROAD CROSSING) PROTECTED BY CONCRETE ENCASEMENT

ELECTRICAL MAINHOLE 80X100CM FOR 11KV CABLE

ELECTRICAL MAINHOLE 140X100CM FOR LOW VOLTAGE CABLES

DB-GS

EXISTING 60X60 CM CHANNEL WITH GALVANIZED STEEL COVER FOR 11 KV CABLE 3(1X70mmsq)

EXISTING 60X60 CM CHANNEL WITH STEEL COVER FOR MV SWITCHGEAR

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM FOR PV PANELS
01 GF

The location for this channel must be as per the transformer outgoing cables

80X60 CM CHANNEL WITH GALVANIZED STEEL COVER FOR LOW VOLTAGE CABLES

EXISTING TRENCH

MCCB 1250A TR4

ATS-2 4X1250A

ATS-3 4X1250A

TOTALIZING PANEL-1 EDL OR GEN/SOLAR

MDB-1& MDB-2+ BUS COUPLER 4X1600A

80X60 CM CHANNEL FOR LOW VOLTAGE CABLES

TOTALIZING PANEL-2 FOR NEW GEN. SETS

ATS.1 2500A EDL:1/EDL.2

ATS.1 2500A EDL/GEN

ACB 2500A NEW TR

NEW TRENCH

ELECTRICAL ROOM
02 GF

EXISTING 80X60 CM CHANNEL WITH GALVANIZED STEEL COVER FOR LOW VOLTAGE CABLES 6(4CX240mmsq)

R-1 PANEL

R-2 PANEL

R-3 PANEL

R-4 PANEL

TR-4

11KV/380V
1000KVA

Medium voltage from EDL 11kv

JUNCTION BOX R4

R4

TRANSFORMER ROOM
03 GF

Monitoring and Alarm Panel

JUNCTION BOX R3

DB-R-3

NEW XER 1600KVA
11/0.38KV

BMS S.M.P

SOLAR MONITORING PANEL

Building Management System)

48-inch display screen

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

NB: REPRODUCTION AND USE OF THESE DOCUMENTS IS PROHIBITED WITHOUT WRITTEN PERMISSION OF THE DESIGNER

LEGEND

1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
ELECTRICAL TRENCH LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRG. SIZE:	A1
PROJ. No.:	DWG. No.:
L2026-14	E-413R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A112

TO DB-G/Y1

TO DB-G/B1

GEN-1 500KVA

GEN-2 500KVA

GEN-3 500KVA

EXISTING GEN/G4

IN1=2.25
TOP2=4.35

FUEL

DB-G

EXIT

GENERATOR ROOM
04 GF

EXIT

ALL EMERGENCY
AND EXIT TO DB-G/B2

TRENCH

TO DB-G/Y2

TO DB-GS/R3

DB-GS

EXISTING DB

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS-2
4X1250A

ATS-3
4X1250A

TOTALIZING PANEL-1
EDL OR GEN/SOLAR

MDB-1& MDB-2 +
BUS COUPLER 4X1600A

R-1
PANEL

R-2
PANEL

R-3
PANEL

R-4
PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING
PANEL-2 FOR
NEW GEN. SETS

ATS.1 2500A
EDL.1/EDL.2

ACB 2500A
NEW TR

TR-4

11KV/380V
1000KVA

Medium voltage
from EDL 11kv

TO DB-GS/Y2

TRANSFORMER ROOM
03 GF

NEW XER 1600KVA
11/0.38KV

JUNCTION
BOX R4

R4

TO DB-GS/B2

Monitoring
and Alarm
Panel

ALL EMERGENCY AND
EXIT TO DB-GS/Y3

JUNCTION
BOX R3

DB-R-3

D1

EXIT

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

LEGEND

1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM-TRANSFORMER LGT LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRAWING No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026-14	E-414R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A1T2

IN1=2.25
TOP2=4.35

FUEL

DB-G

GEN-1
500KVA

GEN-2
500KVA

GEN-3
500KVA

EXISTING GEN/G4

TO DB-G/RYB3

TO DB-G/R4

GENERATOR ROOM
04 GF

TRENCH

PROVISION FOR
A/C

2X16A
TO DB-GS/R6

DB-GS
EXISTING DB

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS-2
4X1250A

ATS-3
4X1250A

TOTALIZING PANEL-1
EDL OR GEN/SOLAR

MDB-1& MDB-2 +
BUS COUPLER 4X1600A

R-1
PANEL

R-2
PANEL

R-3
PANEL

R-4
PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING
PANEL-2 FOR
NEW GEN. SETS

ATS.1 2500A
EDL.1/EDL.2

ACB 2500A
NEW TR

TR-4

11KV/380V
1000KVA

Medium voltage
from EDL 11kv

JUNCTION
BOX R4

R4

TRANSFORMER ROOM
03 GF

TO DB-GS/Y4

Monitoring
and Alarm
Panel

TO DB-GS/R4

NEW XER 1600KVA
11/0.38KV

JUNCTION
BOX R3

PROVISION FOR
W.H.

2X16A
TO DB-GS/Y6

DB-R-3

NB: REPRODUCTION AND USE OF THESE DOCUMENTS IS PROHIBITED WITHOUT WRITTEN PERMISSION OF THE DESIGNER

REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

LEGEND

1 –
2 –
3 –
4 –
5 –
6 –

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM-TRANSFORMER PWR LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRAWING No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026-14	E-415R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A1T2

IN1=2.25
TOP2=4.35

FUEL

GEN-1
500KVA

GEN-2
500KVA

GEN-3
500KVA

EXISTING GEN/G4

GENERATOR ROOM
04 GF

TRENCH

DB-GS

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS-2
4X1250A

ATS-3
4X1250A

TOTALIZING PANEL-1
EDL OR GEN/SOLAR

MDB-1& MDB-2 +
BUS COUPLER 4X1600A

R-1
PANEL

R-2
PANEL

R-3
PANEL

R-4
PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING
PANEL-2 FOR
NEW GEN. SETS

ATS.1 2500A
EDL.1/EDL.2

ACB 2500A
NEW TR

TR-4

11KV/380V
1000KVA

Medium voltage
from EDL 11kv

TRANSFORMER ROOM
03 GF

NEW XER 1600KVA
11/0.38KV

DATA RACK

TV

JUNCTION
BOX R4

R4

Monitoring
and Alarm
Panel

JUNCTION
BOX R3

DB-R-3

BMS S.M.P

SOLAR MONITORING PANEL

Building Management System)

48-inch display screen

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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LEGEND

1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM-TRANSFORMER LWC LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
DRAWING No.:	4 3 2 1 0
PROJ. No.:	DWG. No.:
L2026-14	E-416R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A1T2

IN1=2.25
TOP2=4.35

CONTROL MODULE INTERFACE WITH –GENERATOR SOLENOID VALVE
–MOTORIZE FIRE DAMPERS
–CONTROL PANEL TO FIRE SUPPRESSION SYSTEM FOR GENERATOR ROOM

GEN-1 500KVA

GEN-2 500KVA

GEN-3 500KVA

EXISTING GEN/G4

INTERFACE WITH FLASH LIGHT

GENERATOR ROOM
04 GF

TRENCH

CONTROL MODULE INTERFACE WITH
–MOTORIZE FIRE DAMPERS
–CONTROL PANEL TO FIRE SUPPRESSION SYSTEM FOR ELECTRICAL ROOM

CONTROL MODULE INTERFACE WITH
–MOTORIZE FIRE DAMPERS
–CONTROL PANEL TO FIRE SUPPRESSION SYSTEM FOR EDL TRANSFORMER ROOM

CONTROL MODULE INTERFACE WITH
–MOTORIZE FIRE DAMPERS
–CONTROL PANEL TO FIRE SUPPRESSION SYSTEM FOR SOLAR TRANSFORMER ROOM

INTERFACE WITH FAN CONTROL PANEL CP–01

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS–2 4X1250A

ATS–3 4X1250A

TOTALIZING PANEL–1 EDL OR GEN/SOLAR

MDB–1& MDB–2 + BUS COUPLER 4X1600A

R–1 PANEL

R–2 PANEL

R–3 PANEL

R–4 PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING PANEL–2 FOR NEW GEN. SETS

ACB 2500A NEW TR

MTS.1 2500AATS.1 2500A EDL.1/EDL.2 EDL/GEN

TR–4

11KV/380V
1000KVA

Medium voltage from EDL 11kv

JUNCTION BOX R4

R4

TRANSFORMER ROOM
03 GF

Monitoring and Alarm Panel

NEW XER 1600KVA
11/0.38KV

JUNCTION BOX R3

DB–R–3

NOTES
1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

LEGEND
1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM–TRANSFORMER FIRE ALARM LAYOUT

SCALE:	1/50
DATE:	OCT–2026
DRAWN:	A.F
CHECKED:	M.H.
APPD:	A.SH
DRG. STAT.	A / 1 / 0
PROJ. No.:	DWG. No.:
L2026–14	E–417R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A117

EARTH ROD WITH TEST LINK
ø18mm WITH 1.5m LONG
LEVEL GROUND
(SEE Detail 3)

EARTHING FOR GENERATOR

IN1=2.25
TOP2=4.35

FUEL

LINK

GEN-1 500KVA

GEN-2 500KVA

GEN-3 500KVA

EXISTING GEN/G4

GENERATOR ROOM
04 GF

TRENCH

EARTHING FOR TRANSFORMER

EARTH ROD WITH TEST LINK
ø18mm WITH 1.5m LONG
LEVEL GROUND
(SEE Detail 3)

LINK

SOLAR XER 2MVA
11/0.4KV

TRANSFORMER ROOM
FOR PV PANELS
01 GF

MV SWITCHGEAR

ATS-2
4X1250A

ATS-3
4X1250A

TOTALIZING PANEL-1
EDL OR GEN/SOLAR

MDB-1& MDB-2 +
BUS COUPLER 4X1600A

R-1 PANEL

R-2 PANEL

R-3 PANEL

R-4 PANEL

ELECTRICAL ROOM
02 GF

TOTALIZING PANEL-2 FOR NEW GEN. SETS

ATS.1 2500A EDL.1/EDL.2

ACB 2500A NEW TR

TR-4

11KV/380V
1000KVA

Medium voltage from EDL 11kv

TRANSFORMER ROOM
03 GF

JUNCTION BOX R4

R4

Monitoring and Alarm Panel

NEW XER 1600KVA
11/0.38KV

JUNCTION BOX R3

DB-R-3

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

LEGEND
1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

NOTES
1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
MAIN ELECTRICAL / GENERATOR ROOMS
MAIN ELECTRICAL ROOM-TRANSFORMER EARTHING SYSTEM LAYOUT

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F
CHECKED:	M.H.
APP'D:	A.SH
SHEET SIZE No.:	A 3 2 1 0
PROJ. No.:	DWG. No.:
L2026-14	E-418R1

APP'D FOR CONSTRUCTION :

COMPUTER CODE No. L2026-14-A1T2

TRANSFORMER 2MVA - SOLAR

PANEL

- TRANSFORMER GENERAL ALARM
- TRANSFORMER HIGH TEMPERATURE ALARM
- TRANSFORMER BREAKER ON/OFF STATUS
- TRANSFORMER BREAKER TRIP STATUS

TRANSFORMER 1600KVA - EDL

PANEL

- TRANSFORMER GENERAL ALARM
- TRANSFORMER HIGH TEMPERATURE ALARM
- TRANSFORMER BREAKER ON/OFF STATUS
- TRANSFORMER BREAKER TRIP STATUS

TRANSFORMER 1000KVA - EDL

PANEL

- TRANSFORMER GENERAL ALARM
- TRANSFORMER HIGH TEMPERATURE ALARM
- TRANSFORMER BREAKER ON/OFF STATUS
- TRANSFORMER BREAKER TRIP STATUS

MV PANEL

PANEL

- MAIN INCOMER ON/OFF STATUS
- MAIN INCOMING TRIP STATUS
- OUTGOING-1 BREAKER ON/OFF STATUS
- OUTGOING-1 BREAKER TRIP STATUS
- OUTGOING-2 BREAKER ON/OFF STATUS
- OUTGOING-2 BREAKER TRIP STATUS

MDB-1 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKER ON/OFF STATUS
- OUTGOING-1 BREAKER TRIP STATUS
- OUTGOING-2 BREAKER ON/OFF STATUS
- OUTGOING-2 BREAKER TRIP STATUS
- OUTGOING-3 BREAKER ON/OFF STATUS
- OUTGOING-3 BREAKER TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

MDB-2 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKER ON/OFF STATUS
- OUTGOING-1 BREAKER TRIP STATUS
- OUTGOING-2 BREAKER ON/OFF STATUS
- OUTGOING-2 BREAKER TRIP STATUS
- OUTGOING-3 BREAKER ON/OFF STATUS
- OUTGOING-3 BREAKER TRIP STATUS
- OUTGOING-4 BREAKER ON/OFF STATUS
- OUTGOING-4 BREAKER TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

3(500 KVA) GENERATORS TOTALIZING PANEL

PANEL

- MAIN INCOMER G-1 ON/OFF STATUS
- MAIN INCOMER G-1 TRIP STATUS
- MAIN INCOMER G-2 ON/OFF STATUS
- MAIN INCOMER G-2 TRIP STATUS
- MAIN INCOMER G-3 ON/OFF STATUS
- MAIN INCOMER G-3 TRIP STATUS
- OUTGOING BREAKER ON/OFF STATUS
- OUTGOING BREAKER TRIP STATUS
- OUTGOING KW
- OUTGOING VOLTAGE
- OUTGOING LOADING CURRENT AMPS
- OUTGOING FREQUENCY

GEN.OR EDL WITH SOLAR TOTALIZING PANEL

PANEL

- MAIN INCOMER-1 GEN. OR EDL ON/OFF STATUS
- MAIN INCOMER-1 GEN. OR EDL TRIP STATUS
- MAIN INCOMER-2 SOLAR SYSTEM ON/OFF STATUS
- MAIN INCOMER-2 SOLAR SYSTEM TRIP STATUS
- OUTGOING BREAKER-1 TRIP STATUS
- OUTGOING BREAKER-1 ON/OFF STATUS
- OUTGOING BREAKER-2 ON/OFF STATUS
- OUTGOING BREAKER-2 TRIP STATUS
- OUTGOING BREAKER-3 ON/OFF STATUS
- OUTGOING BREAKER-3 TRIP STATUS
- MAIN INCOMER-1 GEN. OR EDL VOLTAGE
- MAIN INCOMER-1 GEN. OR EDL CURRENT AMPS
- MAIN INCOMER-1 GEN. OR EDL FREQUENCY
- MAIN INCOMER-2 SOLAR SYSTEM (KW)
- MAIN INCOMER-2 SOLAR SYSTEM VOLTAGE
- MAIN INCOMER-2 SOLAR SYSTEM LOADING CURRENT AMPS
- MAIN INCOMER-2 SOLAR SYSTEM FREQUENCY

RESEAU-1 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- MAIN INCOMING BREAKER ON/OFF STATUS
- OUTGOING-1 BREAKERS TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

RESEAU-2 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKERS ON/OFF STATUS
- OUTGOING-1 BREAKERS TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

RESEAU-3 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKERS ON/OFF STATUS
- OUTGOING-1 BREAKERS TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

RESEAU-4 PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKERS ON/OFF STATUS
- OUTGOING-1 BREAKERS TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

CHILLER PANEL

PANEL

- MAIN INCOMER BREAKER ON/OFF STATUS
- MAIN INCOMING BREAKER TRIP STATUS
- OUTGOING-1 BREAKERS ON/OFF STATUS
- OUTGOING-1 BREAKERS TRIP STATUS
- MAIN INCOMER KW
- MAIN INCOMER VOLTAGE
- MAIN INCOMER LOADING CURRENT AMPS
- MAIN INCOMER FREQUENCY

CCTV SYSTEM

CP

- CCTV SYSTEM ON/OFF STATUS
- CCTV SYSTEM GENERAL ALARM
- CCTV SYSTEM PANEL HEALTH STATUS

FIRE ALARM SYSTEM

FIRE ALARM SYSTEM

CP

- FIRE ALARM CONTROL PANEL ON/OFF STATUS
- FIRE ALARM CONTROL PANEL GENERAL ALARM
- FIRE ALARM CONTROL PANEL HEALTH STATUS

FIRE ALARM SYSTEM INTERFACE WITH BMS

INVERTERS SOLAR TOTALIZING PANEL

PANEL

- MAIN INCOMER- INV-1 ON/OFF STATUS
- MAIN INCOMER -INV-1 TRIP STATUS
- MAIN INCOMER- INV-2 ON/OFF STATUS
- MAIN INCOMER -INV-2 TRIP STATUS
- MAIN INCOMER- INV-3 ON/OFF STATUS
- MAIN INCOMER -INV-3 TRIP STATUS
- MAIN INCOMER- INV-4 ON/OFF STATUS
- MAIN INCOMER -INV-4 TRIP STATUS
- MAIN INCOMER- INV-5 ON/OFF STATUS
- MAIN INCOMER -INV-5 TRIP STATUS
- MAIN INCOMER-1 GEN. OR EDL (KW)
- OUTGOING BREAKER ON/OFF STATUS
- OUTGOING BREAKER TRIP STATUS
- OUTGOING KW
- OUTGOING VOLTAGE
- OUTGOING LOADING CURRENT AMPS
- OUTGOING FREQUENCY
- MAIN INCOMER- INV-1 KW
- MAIN INCOMER- INV-1 VOLTAGE
- MAIN INCOMER- INV-1 LOADING CURRENT AMPS
- MAIN INCOMER- INV-1 FREQUENCY
- MAIN INCOMER- INV-2 KW
- MAIN INCOMER- INV-2 VOLTAGE
- MAIN INCOMER- INV-2 LOADING CURRENT AMPS
- MAIN INCOMER- INV-2 FREQUENCY
- MAIN INCOMER- INV-3 KW
- MAIN INCOMER- INV-3 VOLTAGE
- MAIN INCOMER- INV-3 LOADING CURRENT AMPS
- MAIN INCOMER- INV-3 FREQUENCY
- MAIN INCOMER- INV-4 KW
- MAIN INCOMER- INV-4 LOADING CURRENT AMPS
- MAIN INCOMER- INV-4 FREQUENCY
- MAIN INCOMER- INV-5 KW
- MAIN INCOMER- INV-5 LOADING CURRENT AMPS
- MAIN INCOMER- INV-5 FREQUENCY

INVERTER-1

PANEL

- OUTGOING INV-1 BREAKERS ON/OFF STATUS
- OUTGOING INV-1 BREAKERS TRIP STATUS
- OUTGOING INV-1 KW
- OUTGOING INV-1 VOLTAGE
- OUTGOING INV-1 LOADING CURRENT AMPS
- OUTGOING INV-1 FREQUENCY
- INVERTER-1 FAULT

INVERTER-2

PANEL

- OUTGOING INV-2 BREAKERS ON/OFF STATUS
- OUTGOING INV-2 BREAKERS TRIP STATUS
- OUTGOING INV-2 KW
- OUTGOING INV-2 VOLTAGE
- OUTGOING INV-2 LOADING CURRENT AMPS
- OUTGOING INV-2 FREQUENCY
- INVERTER-2 FAULT

INVERTER-1

PANEL

- OUTGOING INV-3 BREAKERS ON/OFF STATUS
- OUTGOING INV-3 BREAKERS TRIP STATUS
- OUTGOING INV-3 KW
- OUTGOING INV-3 VOLTAGE
- OUTGOING INV-3 LOADING CURRENT AMPS
- OUTGOING INV-3 FREQUENCY
- INVERTER-3 FAULT

INVERTER-1

PANEL

- OUTGOING INV-1 BREAKERS ON/OFF STATUS
- OUTGOING INV-2 BREAKERS TRIP STATUS
- OUTGOING INV-1 KW
- OUTGOING INV-1 VOLTAGE
- OUTGOING INV-1 LOADING CURRENT AMPS
- OUTGOING INV-1 FREQUENCY
- INVERTER-4 FAULT

INVERTER-1

PANEL

- OUTGOING INV-1 BREAKERS ON/OFF STATUS
- OUTGOING INV-2 BREAKERS TRIP STATUS
- OUTGOING INV-1 KW
- OUTGOING INV-1 VOLTAGE
- OUTGOING INV-1 LOADING CURRENT AMPS
- OUTGOING INV-1 FREQUENCY
- INVERTER-5 FAULT

EXTRACT FAN-1

- FAN FLOW STATUS
- FAN AUTO/HAND STATUS
- FAN MOTOR START/STOP COMMAND
- FAN LO/HI MOTOR ON/OFF STATUS
- FAN LO/HI MOTOR TRIP/ALARM STATUS

MCC | FACP

- FIRE ALARM STATUS

EXTRACT FAN-2

- FAN FLOW STATUS
- FAN AUTO/HAND STATUS
- FAN MOTOR START/STOP COMMAND
- FAN LO/HI MOTOR ON/OFF STATUS
- FAN LO/HI MOTOR TRIP/ALARM STATUS

MCC | FACP

- FIRE ALARM STATUS

EXTRACT FAN-3

- FAN FLOW STATUS
- FAN AUTO/HAND STATUS
- FAN MOTOR START/STOP COMMAND
- FAN LO/HI MOTOR ON/OFF STATUS
- FAN LO/HI MOTOR TRIP/ALARM STATUS

MCC | FACP

- FIRE ALARM STATUS

DIESEL GENERATOR SET

DIESEL GENERATOR CONTROL PANEL

- DG ON/OFF STATUS
- DG MAIN BREAKER ON/OFF STATUS
- DG MAIN BREAKER TRIP ALARM
- DG GENERAL ALARM
- DG BATTERY HEALTHY STATUS
- ATS ON/OFF STATUS
- ATS TRIP ALARM
- OIL FUEL PUMP ON/OFF STATUS
- OIL FUEL PUMP TRIP ALARM
- OIL FUEL PUMP FILTER STATUS

FUEL CONTROL PANEL

- MAIN FUEL TANK LEVEL
- MAIN FUEL TANK LOW LEVEL STATUS
- MAIN FUEL TANK HI LEVEL STATUS
- DAILY FUEL TANK LOW LEVEL STATUS
- DAILY FUEL TANK HI LEVEL STATUS

GENERATOR ROOM TEMPERATURE SENSOR

FM 200

PANEL

- CONTROL PANEL ON/OFF STATUS
- CONTROL PANEL HEALTH STATUS

FM 200

PANEL

- CONTROL PANEL ON/OFF STATUS
- CONTROL PANEL HEALTH STATUS

NOTES

1 – XXXXX
2 – XXXXX
3 – XXXXX
4 – XXXXX
5 – XXXXX
6 – XXXXX

LEGEND

1 – ----------
2 – ----------
3 – ----------
4 – ----------
5 – ----------
6 – ----------

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REVISIONS	No.	BY	DATE
1 – XXXXX	Rev1	X.X	X/XX/XX
2 – XXXXX	Rev2	X.X	X/XX/XX
3 – XXXXX	Rev3	X.X	X/XX/XX
4 – XXXXX	Rev4	X.X	X/XX/XX
5 – XXXXX	Rev5	X.X	X/XX/XX
6 – XXXXX	Rev6	X.X	X/XX/XX

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PRESIDENTIAL PALACE
GENERAL DIRECTORATE BAABDA, LEBANON
SUSTAINABLE ENERGY "SOLAR PANELS"
DETAILS FOR BMS

SCALE:	1/50
DATE:	OCT-2026
DRAWN:	A.F.
CHECKED:	M.H.
APP'D:	A.SH.
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