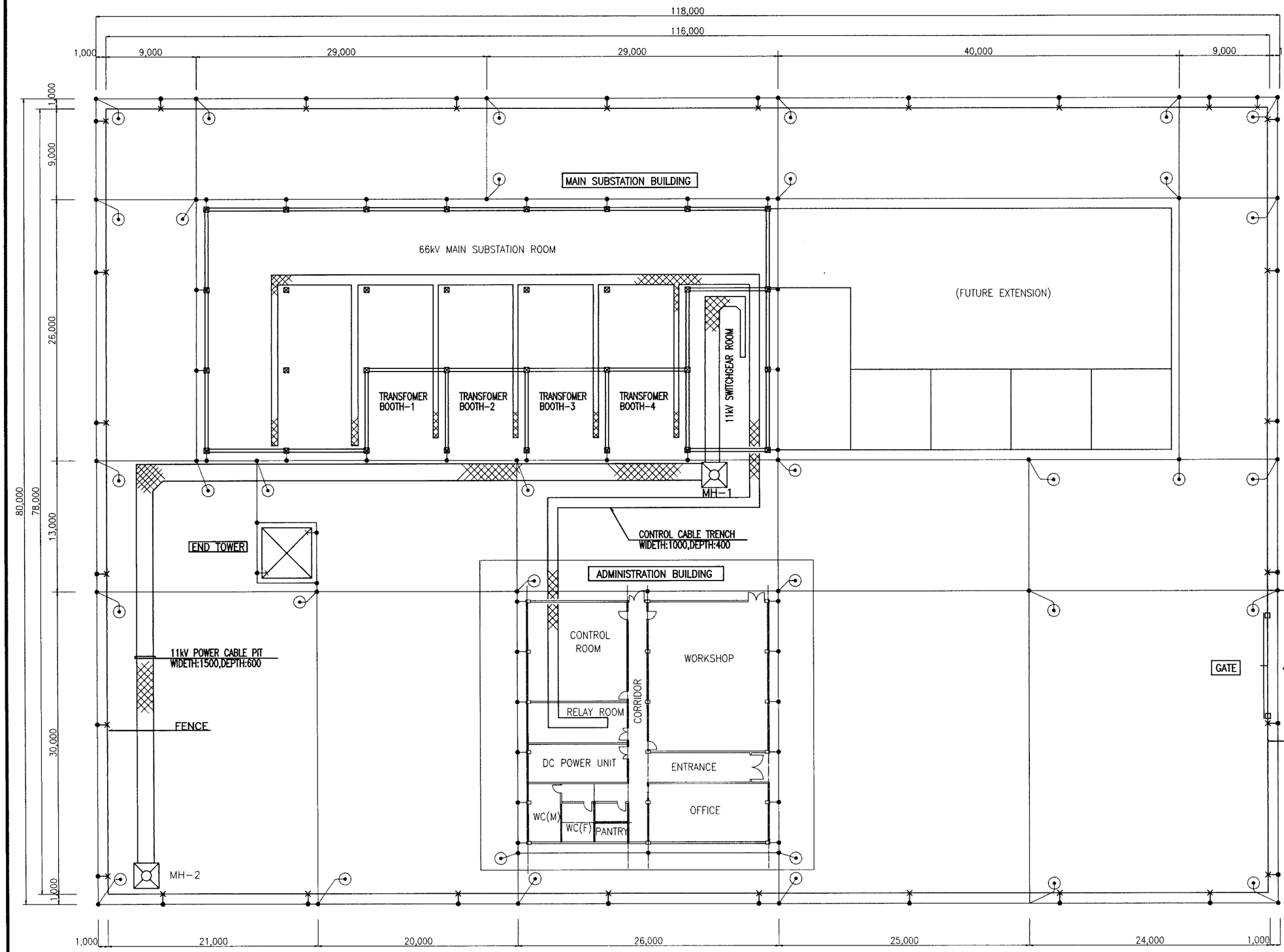


S=1/400

SYMBOL	DESCRIPTION	SPECIFICATION
	EARTH GRID CONDUCTOR	STRANDED COPPER CABLE 120mm²
	CONNECTION POINT	STRANDED COPPER CABLE 120mm² BY EXOTHERMIC WELDING
	GROUNDING ROD	COPPER SHEATHED STEEL ROD 14mm dia.x3m long.
	CONNECT TO STRUCTURE	STRANDED COPPER CABLE 120mm² BY EXOTHERMIC WELDING
	CONNECTION FENCE AND EARHING GRID	STRANDED COPPER CABLE 120mm² BY EXOTHERMIC WELDING
	MANHOLE	

NOTE:
1. All earthing grid shall be buried 600mm below finished ground level.
2. The grid conductor shall be 120mm² of bare stranded copper.
3. All connections underground and where possible above ground shall be exothermic welds.
4. The fence shall be connected to the earthing grid evry with 15 meters.
5. Each major piece of equipment shall be grounded twice separate ground leads.
6. All foundation reinforcing steel and anchor bolts shall be interconnected with a suitabel connection to the ground grid.
7. A earthing conductor(120mm² stronded copper cable) shall be installed through the all cable pits.
8. The earthing conductors in the cable pits shall be grounded earth gridat all crossing by exothermic weld.

0 5 10 15 20m
SCALE

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

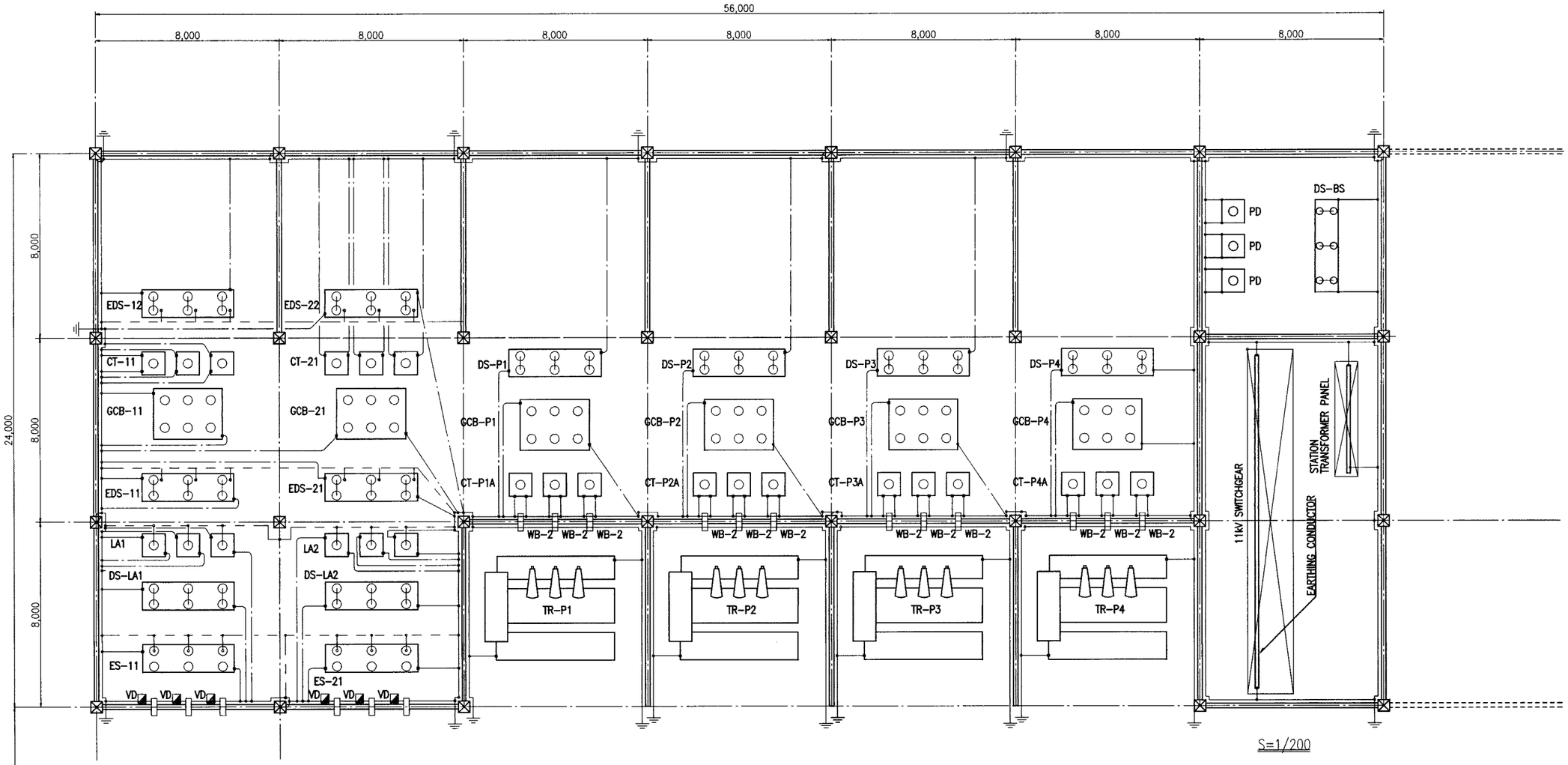
THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

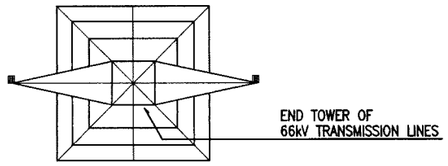
EARTHING PLAN-1 (EARTH GRID)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-405



S=1/200



END TOWER OF
66kV TRANSMISSION LINES

SYMBOL	DESCRIPTION	SPECIFICATION
———	INDOOR GROUNDING CONDUCTOR	BARE STRANDED COPPER CABLE 120mm² EXPOSED INSTALLATION
——·——	EQUIPMENT GROUNDING CONDUCTOR	BARE STRANDED COPPER CABLE 120mm² IN 30mm PVC CONDUIT
— — —	SYSTEM GROUNDING CONDUCTOR	BARE STRANDED COPPER CABLE 120mm² INSTALLED IN FLOOR SLAB
—⊣⊪	CONNECTION TO EXTERNAL GROUNDING GRID	BY EXOTHERMIC WELDING
—⊣	CONNECTION TO INTERNAL GROUNDING CONDUCTOR	BY EXOTHERMIC WELDING
—⊣•	CONNECTION TO EQUIPMENT GROUNDING TERMINAL	BY BOLTS
—×	CONNECTION TO REINFORCE IRON BAR OF FLOOR SLAB	BY EXOTHERMIC WELDING
⊣	CONNECTION TO BUILDING TRUCTURE	BY EXOTHERMIC WELDING

0 5 10m
SCALE

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

EARTHING PLAN-2(INDOOR)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-406

MAIN SUBSTATION OPERATION SCHEDULE

		OPERATION MODE			
		NORMAL	ALTERNATIVE-1	ALTERNATIVE-2	ALTERNATIVE-3
POWER SUPPLIED BY REA THROUGH:		66kV TRANSMISSION LINE-1 TRANSFORMER BANK-1 & 2	66kV TRANSMISSION LINE-1 TRANSFORMER BANK-3 & 4	66kV TRANSMISSION LINE-2 TRANSFORMER BANK-1 & 2	66kV TRANSMISSION LINE-2 TRANSFORMER BANK-3 & 4
NAME OF EQUIPMENT	CODE				
PRIMARY ISOLATOR	DS 11	CLOSE		OPEN	
	DS 21	OPEN		CLOSE	
MAIN CIRCUIT BREAKER	GCB 11	CLOSE		OPEN	
	GCB 12	OPEN		CLOSE	
SECONDARY ISOLATOR	DS 12	CLOSE		OPEN	
	DS 22	OPEN		CLOSE	
FEEDER ISOLATOR	DS-P1	CLOSE	OPEN	CLOSE	OPEN
	DS-P2	CLOSE	OPEN	CLOSE	OPEN
	DS-P3	OPEN	CLOSE	OPEN	CLOSE
	DS-P4	OPEN	CLOSE	OPEN	CLOSE
FEEDER CIRCUIT BREAKER	GCB-P1	CLOSE	OPEN	CLOSE	OPEN
	GCB-P2	CLOSE	OPEN	CLOSE	OPEN
	GCB-P3	OPEN	CLOSE	OPEN	CLOSE
	GCB-P4	OPEN	CLOSE	OPEN	CLOSE
11kV FEEDER CIRCUIT BREAKER	VCB-P1	CLOSE	OPEN	CLOSE	OPEN
	VCB-P2	CLOSE	OPEN	CLOSE	OPEN
	VCB-P3	OPEN	CLOSE	OPEN	CLOSE
	VCB-P4	OPEN	CLOSE	OPEN	CLOSE
ISOLATOR OF LIGHTING ARRESTOR	DS-LA1	CLOSE	CLOSE	CLOSE	CLOSE
	DS-LA2	CLOSE	CLOSE	CLOSE	CLOSE

NOTE:
1. ALL EARTHING SWITCHES SHALL BE OPEN FOR EVERY OPERATION MODE THEY WILL BE CLOSED FOR MAINTENANCE WORKS ONLY.
2. FOR CODE OF EQUIPMENT SEE THE 66kV MAIN SUBSTATION SINGLE LINE DAIGRAM (DRWG. SSE-402).

MAIN SUBSTATION PROTECTION SYSTEM FUNCTION

RELAY OPERATED \ EQUIPMENT TO BE TRIPPED	GCB -1	GCB -21	GCB -P1	GCB -P2	GCB -P3	GCB -P4	VCB -P1	VCB -P2	VCB -P3	VCB -P4	VCB -STR1	VCB -STR2	VCB-STF1 VCB-STF2 VCB-LA1 VCB-LA2 VCB-BTF	VCB -F1	VCB -F2	VCB BTF
OC-11	O															
OC-21		O														
UV	O	O														
OV	O	O														
OC-P1			O													
DFR-P1			O													
OC-P2				O												
DFR-P2				O												
OC-P3					O											
DFR-P3					O											
OC-P4						O										
DFR-P4						O										
GCT-P1			O	O												
GCT-P2			O	O												
GCT-P3					O	O										
GCT-P4					O	O										
OC-P1B							O									
OC-P2B								O								
OC-P3B									O							
OC-P4B										O						
OC-STR1											O					
OC-STR2												O	O	O		
OC(SELF CONTAINED)													O			
GCT-F1														O		
GCT-F2															O	
GCT-BTF																O

NOTE:
1. FOR CODE OF RELAY AND EQUIPMENT SEE THE MAIN SUBSTATION SINGLE LINE DIAGRAM (DRWG.SSE-402).

MAIN SUBSTATION INTER LOCK SCHEDULE

EQUIPMENT	CONDITIONS TO BE CLOSE	CONDITIONS TO BE OPEN
DS 11	DS 21 IS OPEN AND DS 22 IS OPEN AND GCB 11 IS OPEN	GCB 11 IS OPEN
GCB 11	DS 21 IS OPEN AND DS 22 IS OPEN AND GCB 22 IS OPEN	
DS 12	DS 21 IS OPEN AND DS 22 IS OPEN AND GCB 11 IS OPEN	GCB 11 IS OPEN
DS 21	DS 11 IS OPEN AND DS 12 IS OPEN AND GCB 21 IS OPEN	GCB 21 IS OPEN
GCB 21	DS 11 IS OPEN AND DS 12 IS OPEN AND GCB 21 IS OPEN	
DS 22	DS 11 IS OPEN AND DS 12 IS OPEN AND GCB 21 IS OPEN	GCB 21 IS OPEN
DS-P1	GCB-P1 IS OPEN AND DS-P3 IS OPEN AND DS-P4 IS OPEN	GCB-P1 IS OPEN
GCB-P1	GCB-P3 IS OPEN AND GCB-P4 IS OPEN AND VCB-P1 IS OPEN	
DS-P2	GCB-P2 IS OPEN AND DS-P3 IS OPEN AND DS-P4 IS OPEN	GCB-P2 IS OPEN
GCB-P2	GCB-P3 IS OPEN AND GCB-P4 IS OPEN AND VCB-P2 IS OPEN	
DS-P3	GCB-P3 IS OPEN AND DS-P1 IS OPEN AND DS-P2 IS OPEN	GCB-P3 IS OPEN
GCB-P3	GCB-P1 IS OPEN AND GCB-P2 IS OPEN AND VCB-P3 IS OPEN	
DS-P4	GCB-P4 IS OPEN AND DS-P1 IS OPEN AND DS-P2 IS OPEN	GCB-P4 IS OPEN
GCB-P4	GCB-P1 IS OPEN AND GCB-P2 IS OPEN AND VCB-P4 IS OPEN	
VCB-P1 VCB-P2	VCB-P1 IS OPEN AND VCB-STF1 IS OPEN AND VCB-BTF IS OPEN	
VCB-P3 VCB-P4	VCB-P2 IS OPEN AND VCB-STF2 IS OPEN AND VCB-BTF IS OPEN	

NOTE:
1. FOR CODE OF EQUIPMENT SEE THE 66kV MAIN SUBSTATION SINGLE LINE DAIGRAM (DRWG.SSE-402).
2. ALL INTER LOCK SYSTEM SHALL BE POSSIBLE TO RELEASE FOR MAINTENANCE WORKS.

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

CONTROL SYSTEM

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-407

CONTROL CABLE SCHEDULE

	EQUIPMENT NAME	CODE	REMOTE CONTROL FOR	CONNECTED FROM	TO	CABLE	CABLE NO.	REMARKS
REMOTE CONTROL CABLES	PRIMARY ISOLATOR	DS 11	OPEN & CLOSE	REMOTE CONTROL PANEL	DS 11	SCC 4C−10mm²	RC101	
	PRIMARY ISOLATOR	DS 21	OPEN & CLOSE		DS 21	SCC 4C−10mm²	RC102	
	MAIN CIRCUIT BREAKER	GCB 11	OPEN & CLOSE		GCB 11	SCC 4C−10mm²	RC103	
	MAIN CIRCUIT BREAKER	GCB 21	OPEN & CLOSE		GCB 21	SCC 4C−10mm²	RC104	
	SECONDARY ISOLATOR	DS 12	OPEN & CLOSE		DS 12	SCC 4C−10mm²	RC105	
	SECONDARY ISOLATOR	DS 22	OPEN & CLOSE		DS 22	SCC 4C−10mm²	RC106	
	66kV FEEDER ISOLATOR	DS P1	OPEN & CLOSE		DS P1	SCC 4C−10mm²	RC107	
	66kV FEEDER ISOLATOR	DS P2	OPEN & CLOSE		DS P2	SCC 4C−10mm²	RC108	
	66kV FEEDER ISOLATOR	DS P3	OPEN & CLOSE		DS P3	SCC 4C−10mm²	RC109	
	66kV FEEDER ISOLATOR	DS P4	OPEN & CLOSE		DS P4	SCC 4C−10mm²	RC110	
	FEEDER CIRCUIT BREAKER	GCB P1	OPEN & CLOSE		GCB P1	SCC 4C−10mm²	RC111	
	FEEDER CIRCUIT BREAKER	GCB P2	OPEN & CLOSE		GCB P2	SCC 4C−10mm²	RC112	
	FEEDER CIRCUIT BREAKER	GCB P3	OPEN & CLOSE		GCB P3	SCC 4C−10mm²	RC113	
	FEEDER CIRCUIT BREAKER	GCB P4	OPEN & CLOSE		GCB P4	SCC 4C−10mm²	RC114	
	11kV MAIN CIRCUT BREAKER	VCB−P1	OPEN & CLOSE		VCB−P1	SCC 4C−10mm²	RC115	
	11kV MAIN CIRCUT BREAKER	VCB−P2	OPEN & CLOSE		VCB−P2	SCC 4C−10mm²	RC116	
	11kV MAIN CIRCUT BREAKER	VCB−P3	OPEN & CLOSE		VCB−P3	SCC 4C−10mm²	RC117	
	11kV MAIN CIRCUT BREAKER	VCB−P4	OPEN & CLOSE		VCB−P4	SCC 4C−10mm²	RC118	
	11kV FEEDER CIRCUIT BREAKER	VCB−F1	OPEN & CLOSE		VCB−F1	SCC 4C−10mm²	RC119	
	11kV FEEDER CIRCUIT BREAKER	VCB−F2	OPEN & CLOSE		VCB−F2	SCC 4C−10mm²	RC120	
	11kV FEEDER CIRCUIT BREAKER	VCB−STF1	OPEN & CLOSE		VCB−STF1	SCC 4C−10mm²	RC121	
	11kV FEEDER CIRCUIT BREAKER	VCB−STF2	OPEN & CLOSE		VCB−STF2	SCC 4C−10mm²	RC122	
	11kV FEEDER CIRCUIT BREAKER	VCB−LAF1	OPEN & CLOSE		VCB−LAF1	SCC 4C−10mm²	RC123	
	11kV FEEDER CIRCUIT BREAKER	VCB−LAF2	OPEN & CLOSE		VCB−LAF2	SCC 4C−10mm²	RC124	
	11kV BUS TIE BREAKER	VCB−BTF	OPEN & CLOSE		VCB−BTF	SCC 4C−10mm²	RC125	
SUPERVISING CABLES	PRIMARY ISOLATOR	DS 11	ON/OFF MODE	SUPERVISING PANEL	DS 11	SCC 4C−4mm²	SC101	
	PRIMARY ISOLATOR	DS 21	ON/OFF MODE		DS 21	SCC 4C−4mm²	SC102	
	EARTHING SWITCH	ES 11	ON/OFF MODE		ES 11	SCC 4C−4mm²	SC103	
	EARTHING SWITCH	ES 21	ON/OFF MODE		ES 21	SCC 4C−4mm²	SC104	
	ISOLATOR FOR ARRESOTR	DS−LA1	ON/OFF MODE		DS−LA1	SCC 4C−4mm²	SC105	
	ISOLATOR FOR ARRESOTR	DS−LA2	ON/OFF MODE		DS−LA2	SCC 4C−4mm²	SC106	
	MAIN CIRCUIT BREAKER	GCB 11	ON/OFF & TRIPP		GCB 11	SCC 6C−4mm²	SC107	
	MAIN CIRCUIT BREAKER	GCB 21	ON/OFF & TRIPP		GCB 21	SCC 6C−4mm²	SC108	
	SECONDARY ISOLATOR	DS 12	ON/OFF MODE		DS 12	SCC 4C−4mm²	SC109	
	SECONDARY ISOLATOR	DS 22	ON/OFF MODE		DS 22	SCC 4C−4mm²	SC110	
	66kV FEEDER ISOLATOR	DS P1	ON/OFF MODE		DS P1	SCC 4C−4mm²	SC111	
	66kV FEEDER ISOLATOR	DS P2	ON/OFF MODE		DS P2	SCC 4C−4mm²	SC112	
	66kV FEEDER ISOLATOR	DS P3	ON/OFF MODE		DS P3	SCC 4C−4mm²	SC113	
	66kV FEEDER ISOLATOR	DS P4	ON/OFF MODE		DS P4	SCC 4C−4mm²	SC114	
	FEEDER CIRCUIT BREAKER	GCB P1	ON/OFF & TRIPP		GCB P1	SCC 6C−4mm²	SC115	
	FEEDER CIRCUIT BREAKER	GCB P2	ON/OFF & TRIPP		GCB P2	SCC 6C−4mm²	SC116	
	FEEDER CIRCUIT BREAKER	GCB P3	ON/OFF & TRIPP		GCB P3	SCC 6C−4mm²	SC117	
	FEEDER CIRCUIT BREAKER	GCB P4	ON/OFF & TRIPP		GCB P4	SCC 6C−4mm²	SC118	
	MAIN TRANSFORMER	TR−P1	OIL/COIL TEMPERATURE		TR−P1	SCC 4C−4mm²	SC119	
	MAIN TRANSFORMER	TR−P2	OIL/COIL TEMPERATURE		TR−P2	SCC 4C−4mm²	SC120	
	MAIN TRANSFORMER	TR−P3	OIL/COIL TEMPERATURE		TR−P3	SCC 4C−4mm²	SC121	
	MAIN TRANSFORMER	TR−P4	OIL/COIL TEMPERATURE		TR−P4	SCC 4C−4mm²	SC122	
	CIRCUIT BREAKER OF STR	VCB−STR1	ON/OFF & TRIPP		VCB−STR1	SCC 6C−4mm²	SC123	
	CIRCUIT BREAKER OF STR	VCB−STR2	ON/OFF & TRIPP		VCB−STR2	SCC 6C−4mm²	SC124	
	DC POWER UNIT	MCCB 3P100A	TRIPP ALARM		MCCB 3P100A	SCC 3C−4mm²	SC125	
	PRIMARY CURRENT	CT 11	CURRENT MEASURING		CT 11	SCC 4C−4mm²	SC126	
	PRIMARY CURRENT	CT 12	CURRENT MEASURING		CT 12	SCC 4C−4mm²	SC127	
	66kV BUS VOLTAGE	GPT	VOLTAGE MEASURING		GPT	SCC 4C−4mm²	SC128	
	11kV MAIN CIRCUT BREAKER	VCB−P1	ON/OFF MODE		VCB−P1	SCC 4C−4mm²	SC129	
	11kV MAIN CIRCUT BREAKER	VCB−P2	ON/OFF MODE		VCB−P2	SCC 4C−4mm²	SC130	
	11kV MAIN CIRCUT BREAKER	VCB−P3	ON/OFF MODE		VCB−P3	SCC 4C−4mm²	SC131	
	11kV MAIN CIRCUT BREAKER	VCB−P4	ON/OFF MODE		VCB−P4	SCC 4C−4mm²	SC132	
	11kV FEEDER CIRCUIT BREAKER	VCB−F1	ON/OFF MODE		VCB−F1	SCC 4C−4mm²	SC133	
	11kV FEEDER CIRCUIT BREAKER	VCB−F2	ON/OFF MODE		VCB−F2	SCC 4C−4mm²	SC134	
	11kV FEEDER CIRCUIT BREAKER	VCB−STF1	ON/OFF MODE		VCB−STF1	SCC 4C−4mm²	SC135	
	11kV FEEDER CIRCUIT BREAKER	VCB−STF2	ON/OFF MODE		VCB−STF2	SCC 4C−4mm²	SC136	
	11kV FEEDER CIRCUIT BREAKER	VCB−LAF1	ON/OFF MODE		VCB−LAF1	SCC 4C−4mm²	SC137	
	11kV FEEDER CIRCUIT BREAKER	VCB−LAF2	ON/OFF MODE		VCB−LAF2	SCC 4C−4mm²	SC138	
	11kV BUS TIE BREAKER	VCB−BTF	ON/OFF MODE		VCB−BTF	SCC 4C−4mm²	SC139	

	EQUIPMENT NAME	CODE	PROTECT TO	CONNECTED FROM	CONNECTED TO	CABLE	CABLE NO.	REMARKS
PROTECTION CABLES	66kV CURRENT TRNSFORMER	CT 11	OVER CURRENT	RELAY PANEL	CT 11	SCC 4C−4mm²	PC101	
	66kV CURRENT TRNSFORMER	CT 22	OVER CURRENT		CT 22	SCC 4C−4mm²	PC102	
	66kV GROUND VOLTAGE TRANSFORMER	GPT	OVER VOLTAGE		GPT	SCC 4C−4mm²	PC103	
		GPT	UNDER VOLTAGE		GPT	SCC 4C−4mm²	PC104	
		GPT	GROUNDING OVER VOLTAGE		GPT	SCC 4C−4mm²	PC105	
	MAIN TRANSFORMER TR−P1	CT−P1A	OVER CURRENT		CT−P1A	SCC 4C−4mm²	PC106	
		CT−P1B	OVER CURRENT		CT−P1B	SCC 4C−4mm²	PC107	
	MAIN TRANSFORMER TR−P2	CT−P2A	OVER CURRENT		CT−P2A	SCC 4C−4mm²	PC108	
		CT−P2B	OVER CURRENT		CT−P2B	SCC 4C−4mm²	PC109	
	MAIN TRANSFORMER TR−P3	CT−P3A	OVER CURRENT		CT−P3A	SCC 4C−4mm²	PC110	
		CT−P3B	OVER CURRENT		CT−P3B	SCC 4C−4mm²	PC111	
	MAIN TRANSFORMER TR−P4	CT−P4A	OVER CURRENT		CT−P4A	SCC 4C−4mm²	PC112	
		CT−P4B	OVER CURRENT		CT−P4B	SCC 4C−4mm²	PC113	
	11kV FEEDER GROUND FAULT	GCT−P1	GROUNDING OVER VOLTAGE		GCT−P1	SCC 4C−4mm²	PC114	
	11kV FEEDER GROUND FAULT	GCT−P2	GROUNDING OVER VOLTAGE		GCT−P2	SCC 4C−4mm²	PC115	
	11kV FEEDER GROUND FAULT	GCT−P3	GROUNDING OVER VOLTAGE		GCT−P3	SCC 4C−4mm²	PC116	
	11kV FEEDER GROUND FAULT	GCT−P4	GROUNDING OVER VOLTAGE		GCT−P4	SCC 4C−4mm²	PC117	
	11kV FEEDER	CT−P1C	OVER CURRENT		CT−P1C	SCC 4C−4mm²	PC118	
	11kV FEEDER	CT−P2C	OVER CURRENT		CT−P2C	SCC 4C−4mm²	PC119	
	11kV FEEDER	CT−P3C	OVER CURRENT		CT−P3C	SCC 4C−4mm²	PC120	
	11kV FEEDER	CT−P4C	OVER CURRENT		CT−P4C	SCC 4C−4mm²	PC121	
	11kV BUS TIE	CT−BTF	OVER CURRENT		CT−BTF	SCC 4C−4mm²	PC122	
	11kV FEEDER GROUND FAULT	OCG−F1	GROUNDING OVER CURRENT		OCG−F1	SCC 4C−4mm²	PC123	
	11kV FEEDER GROUND FAULT	OCG−F2	GROUNDING OVER CURRENT		OCG−F2	SCC 4C−4mm²	PC124	
	STATION TRANSFORMER	OC−STR1	OVER CURRENT		OC−STR1	SCC 4C−4mm²	PC125	
	STATION TRANSFORMER	OC−STR2	OVER CURRENT		OC−STR2	SCC 4C−4mm²	PC126	
	DC POWER UNIT	MAIN BREAKER	MCCB TRIP		MCCB−3P100A	SCC 4C−4mm²	PC127	

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

CONTROL CABLE SHCEDULE-1

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-408

	EQUIPMENT NAME	CODE	REMOTE CONTROL FOR	CONNECTED FROM	TO	CABLE	CABLE NO.	REMARKS
INTER LOCKING CABLES	PRIMARY ISOLATOR	EDS 11		EDS 11	EDS 21	SCC 3C-4mm²	IC101	
				EDS 11	GCB 11	SCC 6C-4mm²	IC102	
	PRIMARY ISOLATOR	EDS 21		EDS 21	EDS 11	SCC 3C-4mm²	IC103	
				EDS 21	GCB 21	SCC 6C-4mm²	IC104	
				EDS 21	EDS 12	SCC 3C-4mm²	IC105	
	MAIN CIRCUIT BREAKER	GCB 11		GCB 11	EDS 21	SCC 3C-4mm²	IC106	
				GCB 11	EDS 22	SCC 3C-4mm²	IC107	
				GCB 11	GCB 21	SCC 3C-4mm²	IC108	
	MAIN CIRCUIT BREAKER	GCB 21		GCB 21	EDS 11	SCC 3C-4mm²	IC109	
				GCB 21	EDS 12	SCC 3C-4mm²	IC110	
				GCB 21	GCB 11	SCC 3C-4mm²	IC111	
	SECONDARY ISOLATOR	EDS 12		EDS 12	EDS 21	SCC 3C-4mm²	IC112	
				EDS 12	GCB 11	SCC 6C-4mm²	IC113	
				EDS 12	EDS 22	SCC 3C-4mm²	IC114	
	SECONDARY ISOLATOR	EDS 22		EDS 22	EDS 11	SCC 3C-4mm²	IC115	
				EDS 22	GCB 21	SCC 6C-4mm²	IC116	
				EDS 22	EDS 12	SCC 3C-4mm²	IC117	
	FEEDER ISOLATOR	DS-P1		DS-P1	GCB-P1	SCC 6C-4mm²	IC118	
				DS-P1	DS-P3	SCC 3C-4mm²	IC119	
				DS-P1	DS-P4	SCC 3C-4mm²	IC120	
	FEEDER ISOLATOR	DS-P2		DS-P2	GCB-P2	SCC 6C-4mm²	IC121	
				DS-P2	DS-P3	SCC 3C-4mm²	IC122	
				DS-P2	DS-P4	SCC 3C-4mm²	IC123	
	FEEDER ISOLATOR	DS-P3		DS-P3	GCB-P3	SCC 6C-4mm²	IC124	
				DS-P3	DS-P1	SCC 3C-4mm²	IC125	
				DS-P3	DS-P2	SCC 3C-4mm²	IC126	
	FEEDER ISOLATOR	DS-P4		DS-P4	GCB-P4	SCC 6C-4mm²	IC127	
				DS-P4	DS-P1	SCC 3C-4mm²	IC128	
				DS-P4	DS-P2	SCC 3C-4mm²	IC129	
	FEEDER CIRCUIT BREAKER	GCB-P1		GCB-P1	GCB-P3	SCC 3C-4mm²	IC130	
				GCB-P1	GCB-P4	SCC 3C-4mm²	IC131	
	FEEDER CIRCUIT BREAKER	GCB-P2		GCB-P2	GCB-P3	SCC 3C-4mm²	IC132	
				GCB-P2	GCB-P4	SCC 3C-4mm²	IC133	
	FEEDER CIRCUIT BREAKER	GCB-P3		GCB-P3	GCB-P1	SCC 3C-4mm²	IC134	
				GCB-P3	GCB-P2	SCC 3C-4mm²	IC135	
	FEEDER CIRCUIT BREAKER	GCB-P4		GCB-P4	GCB-P1	SCC 3C-4mm²	IC136	
				GCB-P4	GCB-P2	SCC 3C-4mm²	IC137	

NOTE:
1. FOR CODE OF EQUIPMENT SEE THE 66kV MAIN SUBSTATION SINGLE LINE DIAGRAM (DRWG.SEE-402).
2. SCC:600V SHIELDED TYPE PVC INSULATED COPPER CONDUCTOR CONTROL CABLE.

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

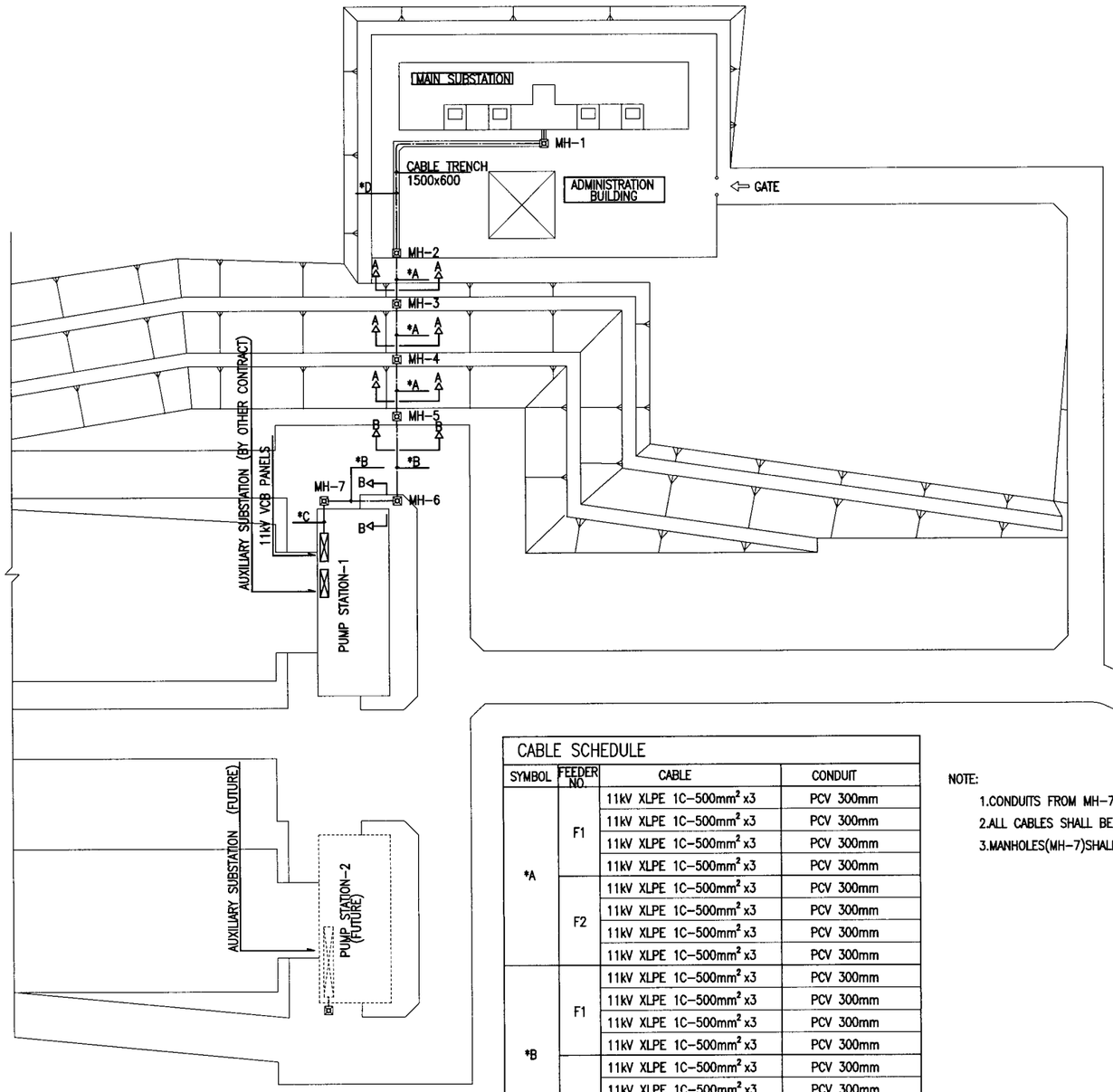
THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

CONTROL CABLE SHCEDULE-2

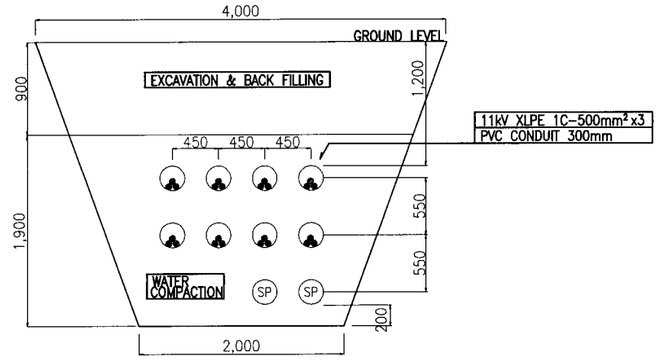
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-409

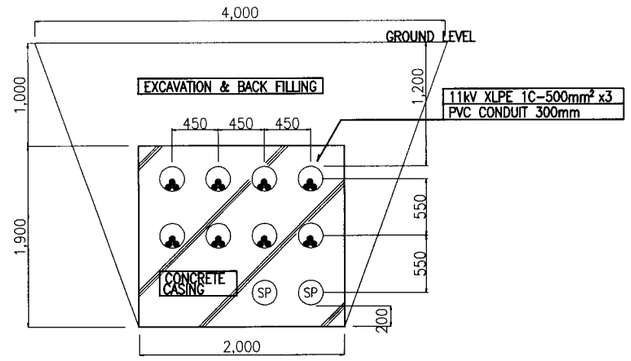


11kV POWER FEEDER CABLE PLAN
S=1/1000

SECTIONS FOR UNDERGROUND CBLE LINE



SECTION A



SECTION B

CABLE SCHEDULE

SYMBOL	FEEDER NO.	CABLE	CONDUIT
*A	F1	11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
	F2	11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
*B	F1	11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
	F2	11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
		11kV XLPE 1C-500mm² x3	PCV 300mm
*C	F1	11kV XLPE 1C-500mm² x6	PCV 300mm
		11kV XLPE 1C-500mm² x6	PCV 300mm
	F2	11kV XLPE 1C-500mm² x6	PCV 300mm
		11kV XLPE 1C-500mm² x6	PCV 300mm
*D	F1	11kV XLPE 1C-500mm² x12	CABLE TRENCH
	F2	11kV XLPE 1C-500mm² x12	

NOTE:

1.CONDUITS FROM MH-7 TO 11kV VCB PANELS SHALL BE INSTALLED BY OTHER (PACKAGE-2) CONTRACT.
2.ALL CABLES SHALL BE INSTALLED BY THIS CONTRACT.
3.MANHOLES(MH-7)SHALL BE INSTALLED BY OTHER (PACKAGE-2) CONTRACT.

0 1 2 3 4 5 100 m
SCALE

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
BETWEEN KM 108.466 AND KM 118.560
EL SALAAM No.7 (BIR EL ABD) PUMPING STATION

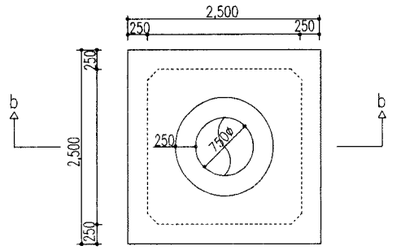
11kV MAIN FEEDER CABLE PLAN

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. PACIFIC CONSULTANTS INTERNATIONAL

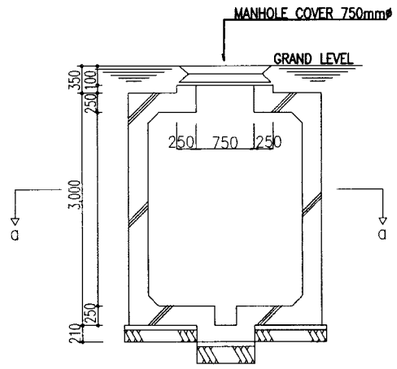
DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-410

MANHOLE SCHEDULE-1

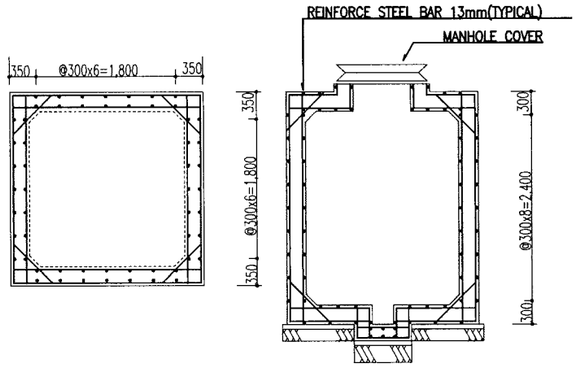
TYPICAL DETAIL



PLAN



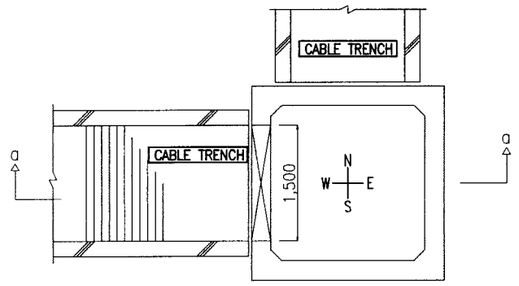
SECTION b-b



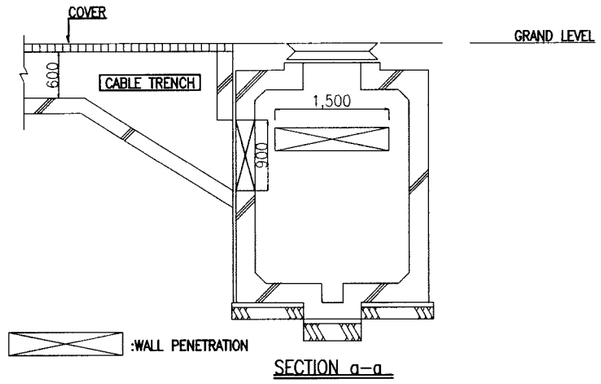
SECTION a-a　　SECTION b-b

REINFORCEMENET BAR COMPOSITION

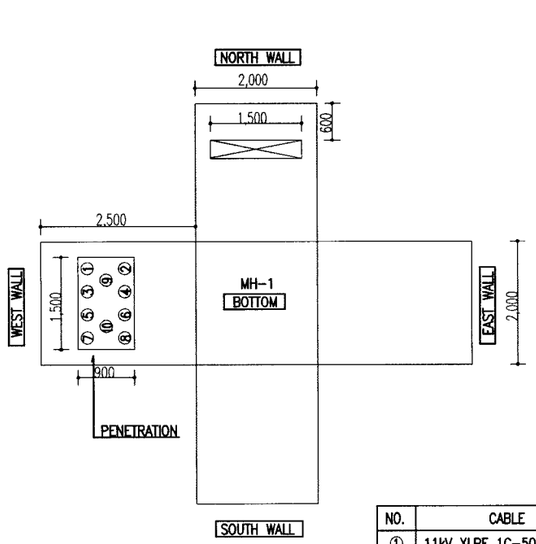
MH-1



PLAN

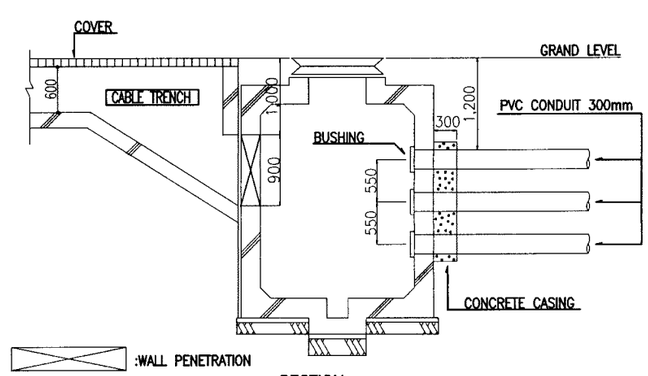


SECTION a-a



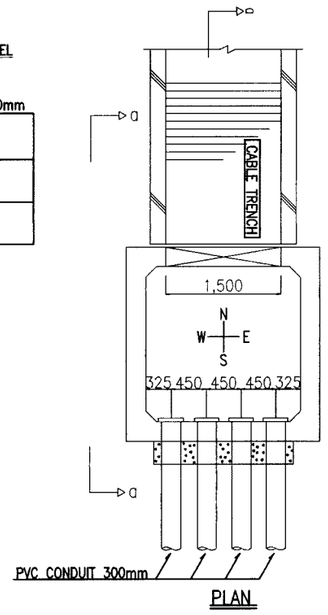
NO.	CABLE	CONDUIT	REMARKS
①	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F1
②	11kV XLPE 1C-500mm² x3	PVC 300mm	
③	11kV XLPE 1C-500mm² x3	PVC 300mm	
④	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑤	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F2
⑥	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑦	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑧	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑨	———	PVC 300mm	SPARE
⑩	———	PVC 300mm	

MH-2

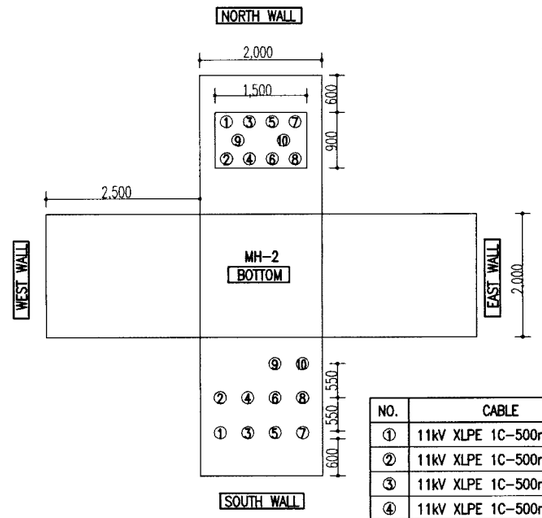


SECTION a-a

MH-2



PLAN



NO.	CABLE	CONDUIT	REMARKS
①	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F1
②	11kV XLPE 1C-500mm² x3	PVC 300mm	
③	11kV XLPE 1C-500mm² x3	PVC 300mm	
④	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑤	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F2
⑥	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑦	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑧	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑨	———	PVC 300mm	SPARE
⑩	———	PVC 300mm	

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

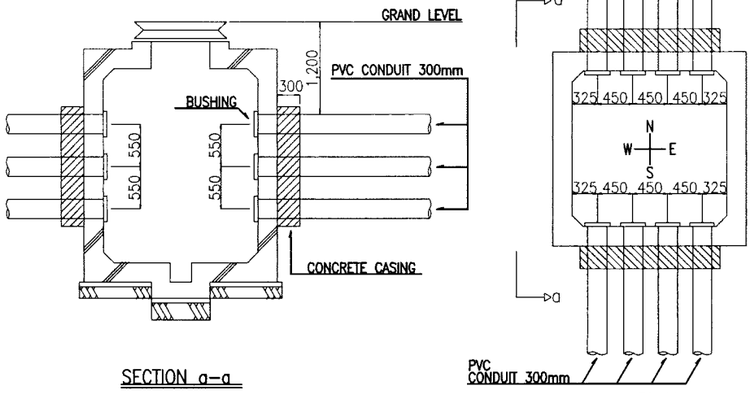
AUXILIARY SUBSTATION MANHOLE SCHEDULE-1

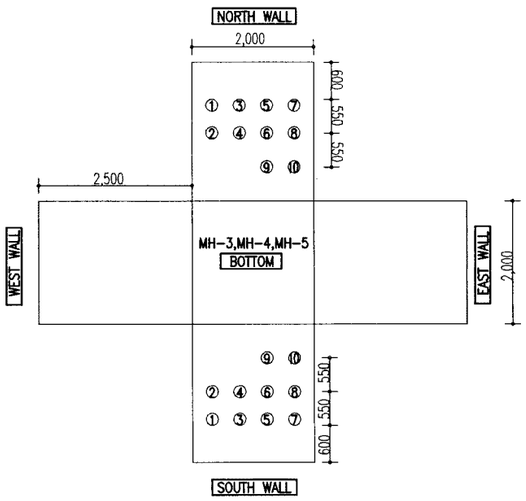
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-411

MANHOLE SCHEDULE-2

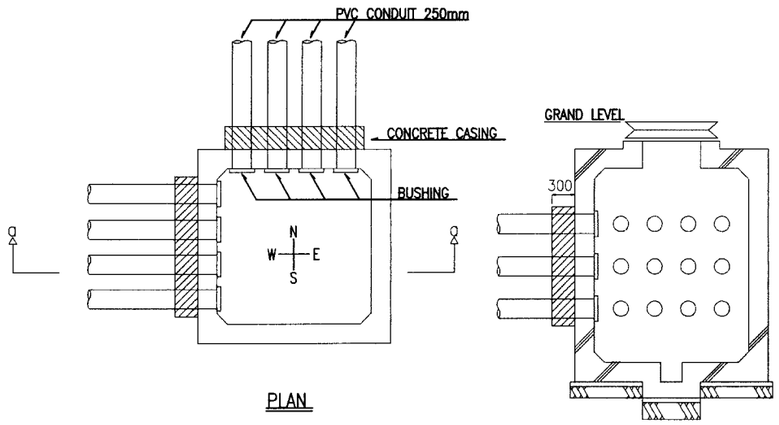
MH-3,MH-4,MH-5

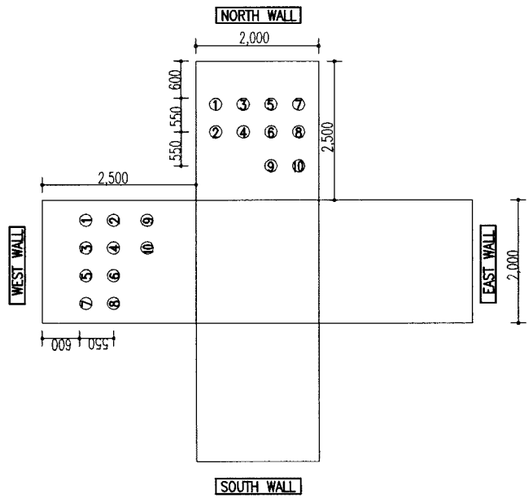




NO.	CABLE	CONDUIT	REMARKS
①	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F1
②	11kV XLPE 1C-500mm² x3	PVC 300mm	
③	11kV XLPE 1C-500mm² x3	PVC 300mm	
④	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑤	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F2
⑥	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑦	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑧	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑨	————	PVC 300mm	SPARE
⑩	————	PVC 300mm	

MH-6

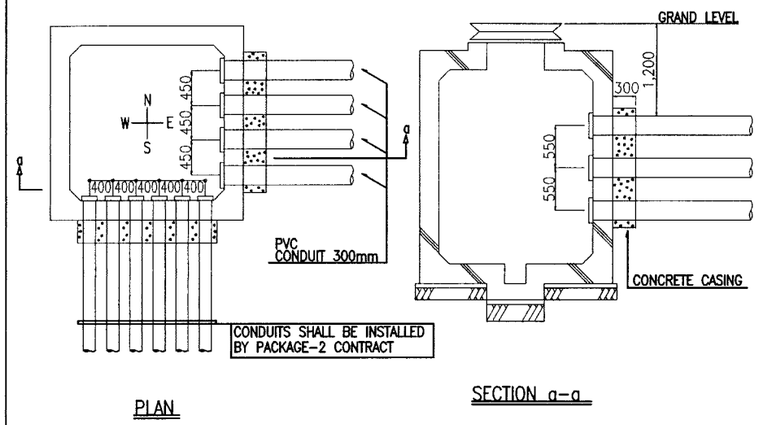


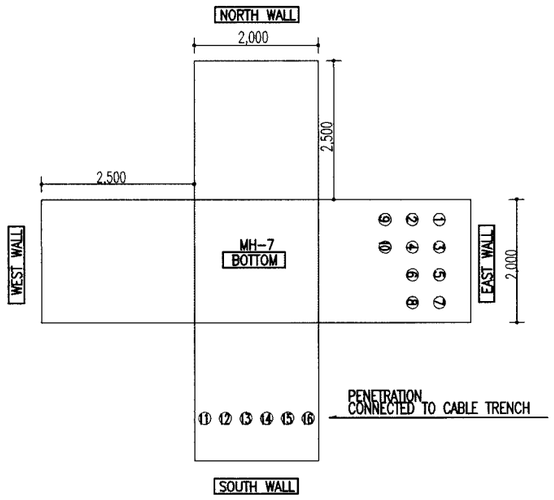


NO.	CABLE	CONDUIT	REMARKS
①	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F1
②	11kV XLPE 1C-500mm² x3	PVC 300mm	
③	11kV XLPE 1C-500mm² x3	PVC 300mm	
④	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑤	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F2
⑥	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑦	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑧	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑨	————	PVC 300mm	SPARE
⑩	————	PVC 300mm	

MH-7

MANHOLE (MH-7) SHALL BE INSTALLED BY PACKAGE-2 CONTRACT





NO.	CABLE	CONDUIT	REMARKS
①	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F1
②	11kV XLPE 1C-500mm² x3	PVC 300mm	
③	11kV XLPE 1C-500mm² x3	PVC 300mm	
④	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑤	11kV XLPE 1C-500mm² x3	PVC 300mm	11kV POWER FEEDER F2
⑥	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑦	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑧	11kV XLPE 1C-500mm² x3	PVC 300mm	
⑨	————	PVC 300mm	SPARE
⑩	————	PVC 300mm	
⑪	11kV XLPE 1C-500mm² x6	PVC 300mm	11kV POWER FEEDER F1
⑫	11kV XLPE 1C-500mm² x6	PVC 300mm	
⑬	11kV XLPE 1C-500mm² x6	PVC 300mm	11kV POWER FEEDER F2
⑭	11kV XLPE 1C-500mm² x6	PVC 300mm	
⑮	————	PVC 300mm	SPARE
⑯	————	PVC 300mm	SPARE

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No. 7 P.S.)

AUXILIARY SUBSTATION MANHOLE SCHEDULE-2

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SSE-412

A. GENERAL NOTES:

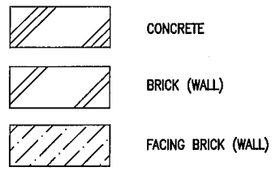
1. ALL ARCHITECTURAL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH SPECIFICATIONS, CIVIL,STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.
2. ALL DIMENSIONS ARE IN MILIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE NOTED.
3. DO NOT SCALE, USE WRITTEN DIMENSIONS.
4. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION.
5. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF E.S.S.
6. CONTRACTOR SHALL SUBMIT FOR APPROVAL ALL SHOP DRAWINCS BEFORE FABRICATION AND CONSTRUCTION REQUIRED FOR THE WORKS AS SPECIFIED.
7. UNLESS NOTED ALL EXTERNAL BRICK WALLS SHALL BE 240 MM THICK AND FACING BRICK SHALL BE 250 MM THICK.

B. ABBREVIATION

A/C	AIR CONDITONING	MH	MANHOLE
AEP	ACRYLIC EMULSION PAINT	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
CL	CENTRE LINE	NTS	NOT TO SCALE
CI	CAST IRON	OP	OIL PAINT
CM	CENTIMETRE	PL	PLATE
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE
CONST	CONSTRUCTION	R	RADIUS
D	DEPTH	RC	REINFORCED CONCRETE
DIA(ø)	DIAMETER	REF	REFERENCE
DN	DOWN	REQ	REQUIRED
DWG	DRAWING	REV	REVISED
ELEC	ELECTRICAL	RM	ROOM
ELEV	ELEVATION	SEC	SECTION
ENT	ENTRANCE	SQ	SQUARE
EXP	EXPOSED	SVC	SERVICE
EXT	EXTERNAL	SS	STAINLESS STEEL
FAB	FABRICATED	STD	STANDARD
FDN	FOUNDATION	STL	STEEL
FFL	FINISHED FLOOR LEVEL	SUSP	SUSPENDED
FL	FLOOR	THK	THICKNESS
GALV	GALVANIZED	UG	UNGLAZED
GL	GROUND LEVEL	UPVC	UNPLASTICISED POLYVYNIL CHLORIDE
GFL	GROUND FLOOR LEVEL	VAC	VENTILATION AND AIR CONDITIONING
H	HEIGHT	VOL	VOLUME
INT	INTERNAL	VP	VINYL PAINT
KG	KILOGRAM	W	WIDTH
KM	KILOMETER	W/	WITH
L	LENGTH	W/O	WITHOUT
M	METER	WC	WATER CLOSET
MAX	MAXIMUM	WD	WOOD
MECH	MECHANICAL	WM	WIRE MESH

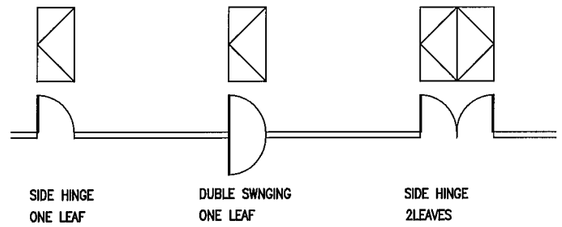
C. SYMBOLS:

1.CONCRETE AND MASONRY

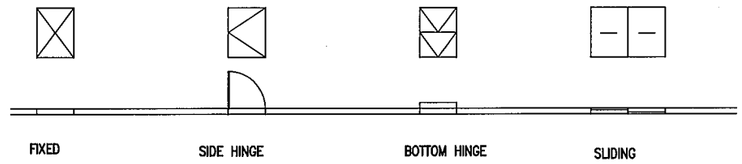


2.DOORS AND WINDOWS

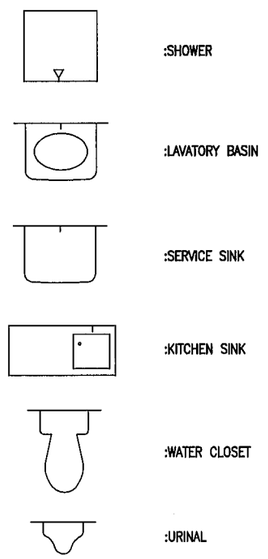
DOORS:



WINDOWS:



3.PLUMBING FIXTURES:



THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

MAIN SUBSTATION & ADMINISTRATION BUILDING
GENERAL NOTES

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SBM-401

FINISHING SCHEDULE

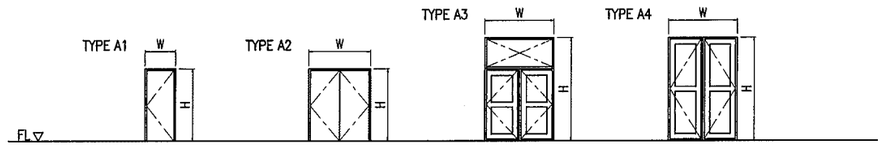
BUILDING OUTLINE		
	MAIN SUBSTATION	ADMINISTRATION BUILDING
STORY	1	1
BUILDING EAVES HEIGHT (GL+mm)	8,300	4,300
BUILDING HEIGHT (GL+mm)	8,900	5,300
MAIN STRUCTURE	RC	RC
BUILDING AREA (sq.m)	1,344.0	576.0
TOTAL FLOOR AREA (sq.m)	1,334.0	576.0
EXTERNAL FINISHING SCHEDULE		
ROOF	BITUMINOUS WATERPROOFING MEMBRANE W/INSULATION 50mm THK, MORTAR 70mm THK, AND CEMENT MORTAR TILES	
ROOF DRAIN	150MM DIA. CAST IRON	
DOWN SPOUT	CAST IRON PIPE 150 DIA. W/PAINT	
WALL	CEMENT PLASTER W/ PAINT FINISH ON BRICK WORK	
WINDOWS	ALUMINIUM WINDOW ON GLAZED	
LOUVRES	FIXED ALUMINIUM LOUVER	
DOORS	STEEL W/ PAINT FINISH	
BASEBOARD	CEMENT PLASTER W/ PAINT FINISH ON CONCRETE	

INTERNAL FINISHING SCHEDULE

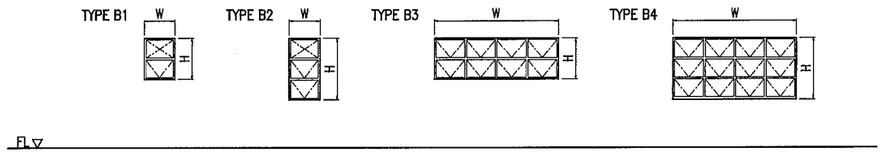
ROOM NAME \ FINISH		FLOOR: STEEL TROWELLED W/HARDNER FINISH	FLOOR: TERRAZZO TILE	FLOOR: CERAMIC TILE	BASE: CEMENT PLASTER W/ PAINT H=100	BASE: TERRAZZO TILE H=100	WALL: CEMENT PLASTER W/PAINT	WALL: CERAMIC TILE (H=FL+2000)	CEILING: EXPOSED RC STRUCTURE W/PAINT ON PLASTER	CEILING: MINERAL FIBER ACOUSTIC TILE SUSPENDED	CEILING HEIGHT	VENTILATION AND AIR CONDITIONING	REMARKS
MAIN SUBSTATION	66kv EQUIPMENT ROOM	○			○		○		○		EX	—	
	11kv SWITCHGEAR ROOM	○			○		○		○		EX	V/T	
	TRANSFORMER BOOTHS	○			○		○		○		EX	—	
ADMINISTRATION BUILDING	CONTROL ROOM		○			○	○			○	3,000	A/C	
	RELAY ROOM	○			○		○		○		EX	A/C	
	DC POWER UNIT	○			○		○		○		EX	V/T	
	WORKSHOP	○			○		○		○		EX	V/T	
	OFFICE		○			○	○			○	3,000	A/C	
	ENTRANCE		○			○	○		○		EX	—	
	STORAGE		○			○	○		○		EX	—	
	PANTRY			○			○	○	○		EX	V/T	
	TOILET (M)			○			○	○	○		EX	V/T	
	TOILET (F)			○			○	○	○		EX	V/T	
	CORRIDOR		○			○	○		○		EX	—	

DOORS AND WINDOWS SCHEDULE

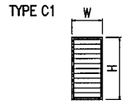
DOORS TYPE



WINDOWS TYPE



LOUVERS TYPE



No.	TYPE	MATERIAL	FRAME	GLASS	OPERATION	WIDE	HEIGHT	SILL LEVEL (FL ±)	REMARKS
D1	A1	ST	ST	—	SH	900	2,100	±0	
D2	A2	ST	ST	—	SH	1,800	2,100	±0	
D3	A2	ST	ST	—	SH	1,800	3,000	±0	
D4	A2	ST	ST	—	SH	2,000	3,000	±0	
D5	A2	ST	ST	—	SH	4,000	5,000	±0	
D6	A2	ST	ST	—	SH	3,500	4,000	±0	
D7	A3	ST	ST	6㎜	SH·FIX	2,000	3,000	±0	
D8	A4	ST	ST	6㎜	SH	2,000	3,000	±0	
D9	A1	ST	ST	—	SH	700	2,100	±0	A.T
D10	A2	WD	WD	—	SH	1,800	2,100	±0	
D11	A1	WD	WD	—	SH	900	2,100	±0	
D12	A1	WD	WD	—	SH	800	2,100	±0	
D13	A1	WD	WD	—	SH	700	2,050	—	
W1	B1	AL	AL	6㎜	BH·FIX	900	1,200	1,800	
W2	B2	AL	AL	6㎜	BH·FIX	900	1,800	1,200	
W3	B2	AL	AL	6㎜	BH·FIX	900	1,800	1,700	
W4	B3	AL	AL	6㎜	BH	3,600	1,200	6,300	
W5	B4	AL	AL	6㎜	BH	3,600	1,800	2,000	
L1	C1	AL	AL	—	—	900	1,800	1,700	
L2	C1	AL	AL	—	—	1,000	2,900	100	
L3	C1	AL	AL	—	—	1,800	1,200	6,300	
L4	C1	AL	AL	—	—	900	3,800	200	

ABBREVIATIONS

ST	STEEL
AL	ALUMINIUM
WD	WOOD
FIX	FIXED
SH	SIDE HING
BH	BOTTOM HING
SLID	SLIDING

THE ARAB REPUBLIC OF EGYPT
MINISTRY OF WATER RESOURCES AND IRRIGATION
NORTH SINAI DEVELOPMENT ORGANIZATION

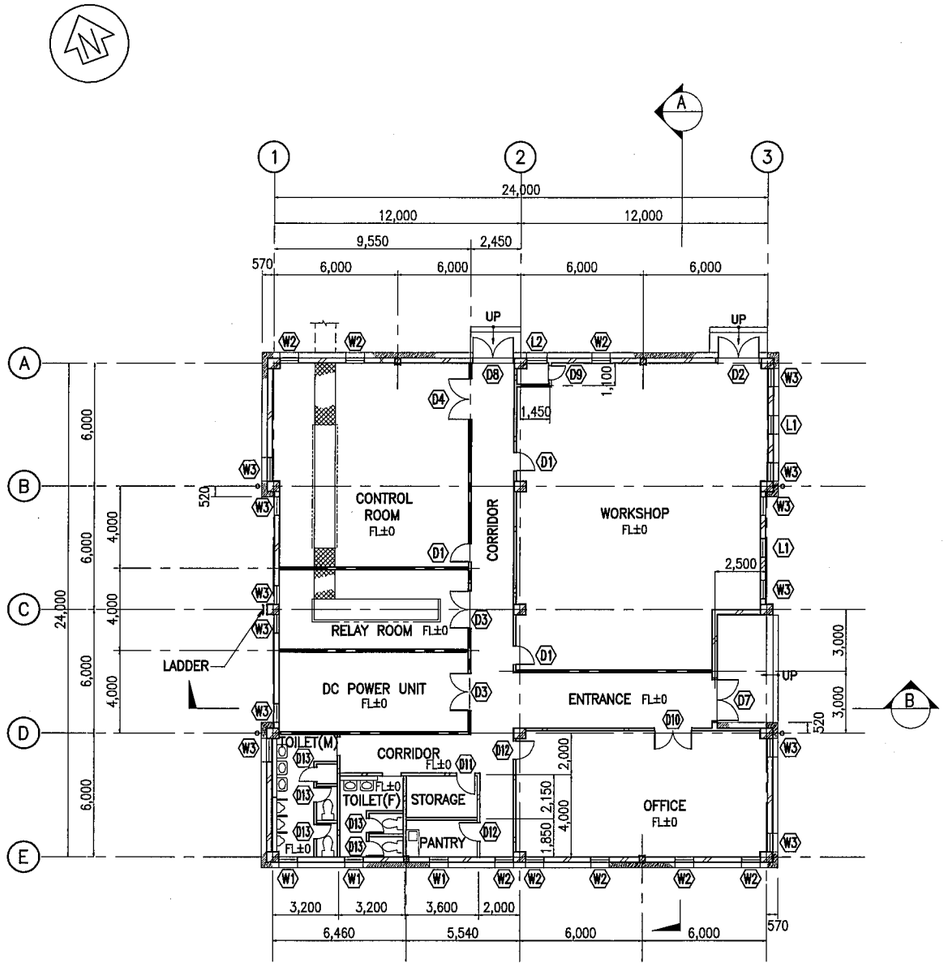
THE NORTH SINAI INTEGRATED RURAL DEVELOPMENT PROJECT (PHASE III)

CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
MAIN POWER SUBSTATION (FOR EL SALAAM No.7 P.S.)

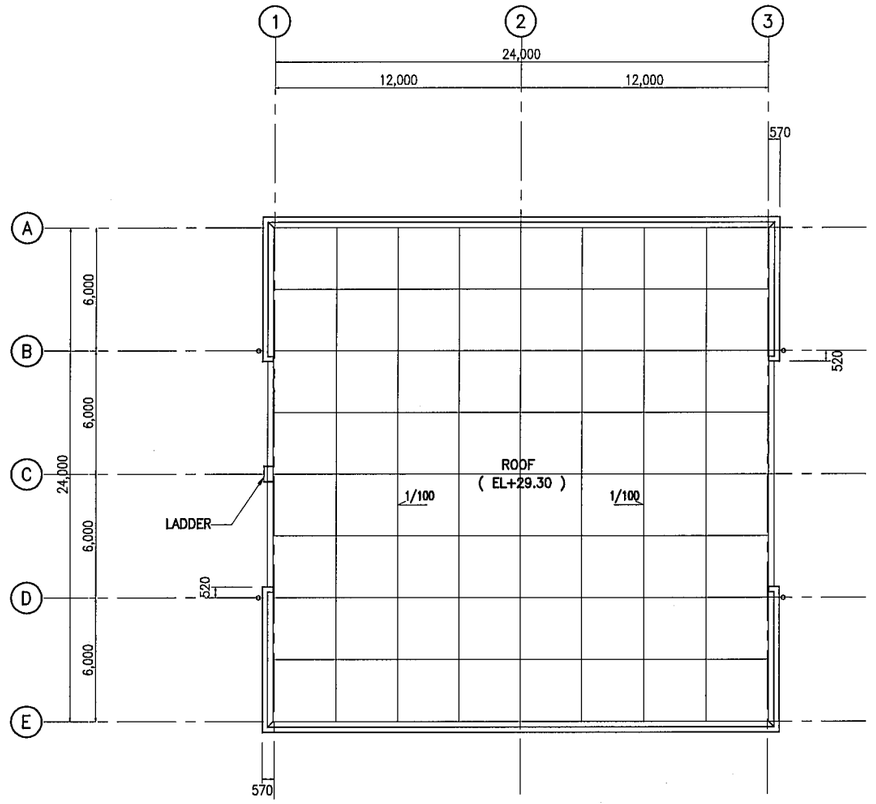
MAIN SUBSTATION & ADMINISTRATION BUILDING
DOORS, WINDOWS AND FINISHING SCHEDULE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SBW-402



GROUND FLOOR PLAN (EL+25.30)



ROOF PLAN (EL+29.30)

0 5 10 15m

SCALE 1:300

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CONVEYANCE SYSTEM OF EL SHEIKH GABER EL SABBAH CANAL
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ADMINISTRATION BUILDING
GROUND FLOOR AND ROOF PLANS

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC, PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED	
TRACED	
CHECKED	
APPROVED	
DRAWING NO.	SBW-403