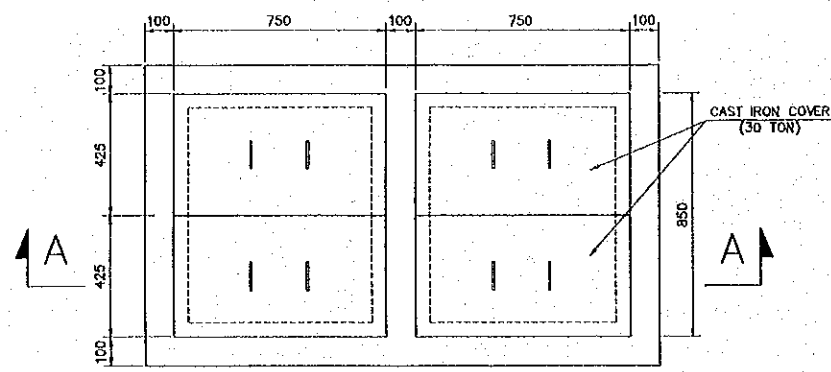
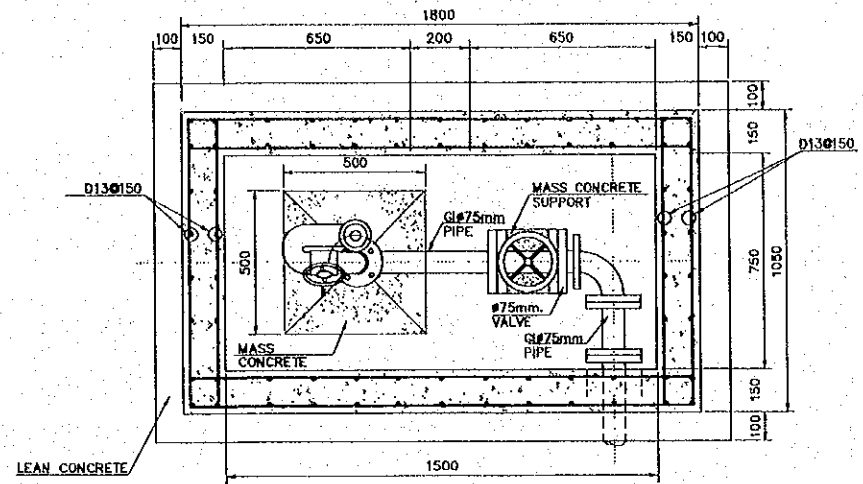


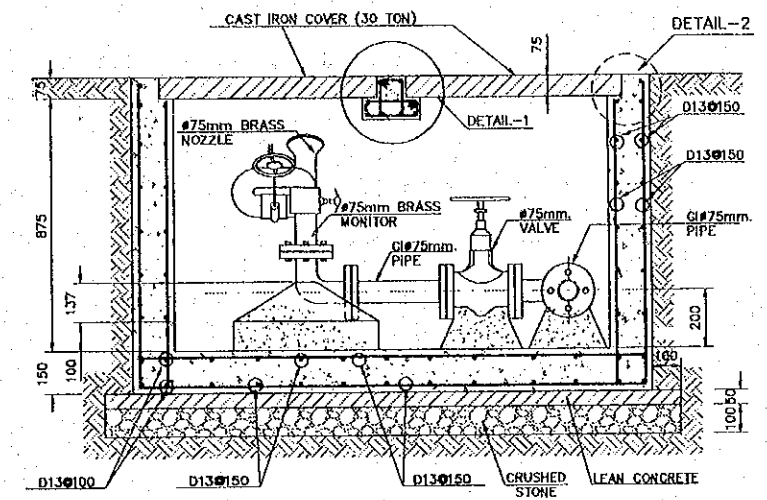
REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	<p>JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</p> <p>CEPA COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)</p>	<p>THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR</p> <p>NIPPON KOEI CO., LTD.</p>	DESIGNED BY :	SECTION :	DATE :
								CHECKED BY :	SUB-SECTION :	OCTOBER/2002
								APPROVED BY :	TITLE :	SCALE :
								<p>UTILITY WORK</p> <p>WATER SUPPLY AND FIRE FIGHTING SYSTEMS</p> <p>DETAIL -1 OF FIRE FIGHTING SYSTEM</p>		<p>INDICATED</p> <p>DRAWING NO. : UT-02-010</p>



COVER PLAN  
SCALE 1:20

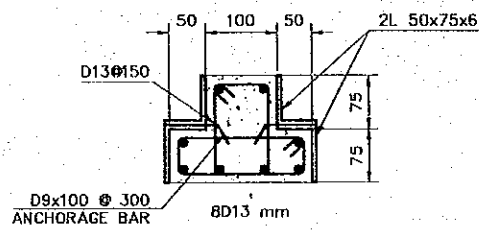


BOTTOM PLAN  
SCALE 1:20

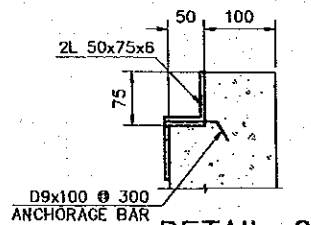


SECTION A-A  
SCALE 1:20

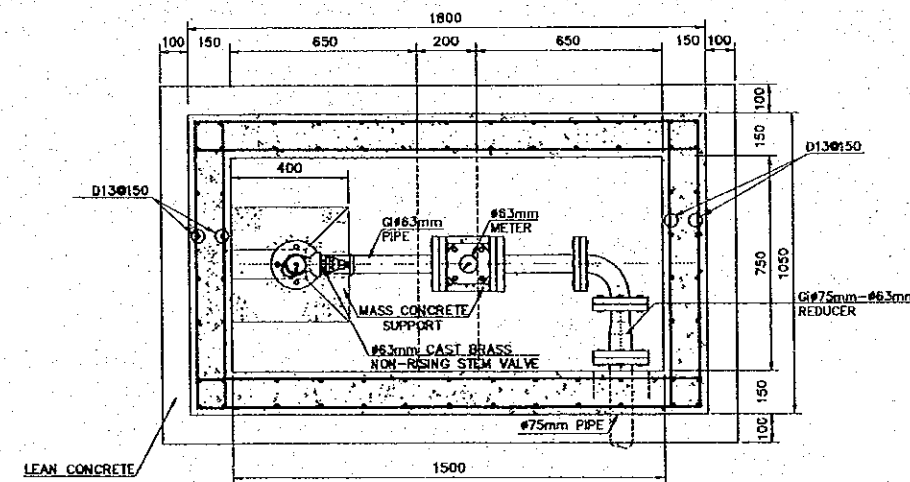
PIT TYPE 1B  
(FIRE MONITOR AND GATE VALVE IN PASSENGER BERTH)



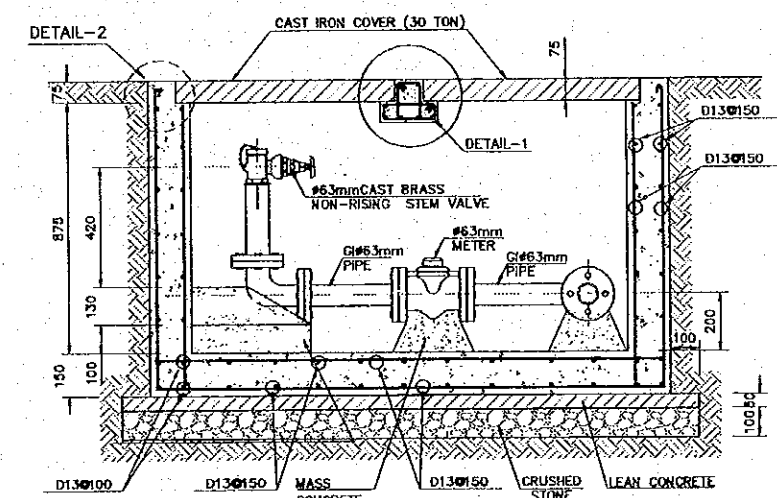
DETAIL-1  
SCALE 1:10



DETAIL-2  
SCALE 1:10



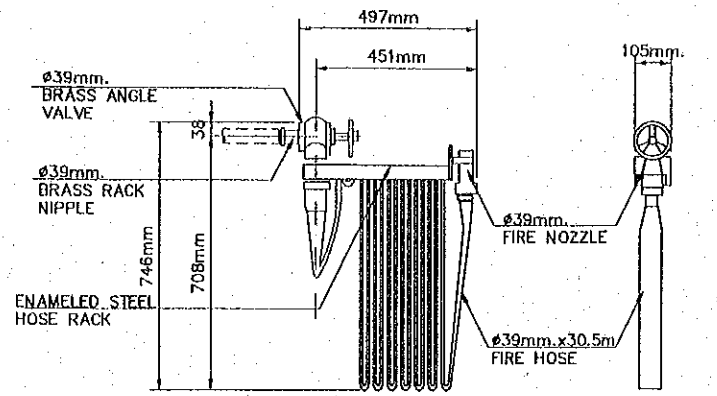
BOTTOM PLAN  
SCALE 1:20



SECTION A-A  
SCALE 1:20

PIT TYPE 1B  
(FIRE MONITOR AND GATE VALVE IN PASSENGER BERTH)

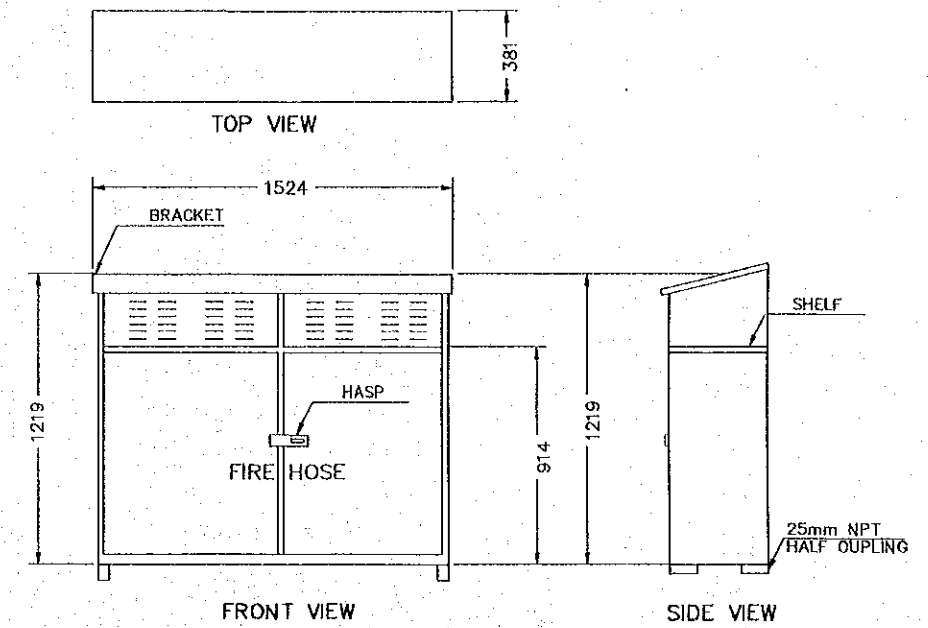
REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR  NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : UTILITY WORK	DATE : OCTOBER/2002
									CHECKED BY :	SUB-SECTION : WATER SUPPLY AND FIRE FIGHTING SYSTEMS	SCALE : INDICATED
								APPROVED BY :	TITLE : DETAIL -2 OF FIRE FIGHTING SYSTEM	DRAWING NO. : UT-02-011	



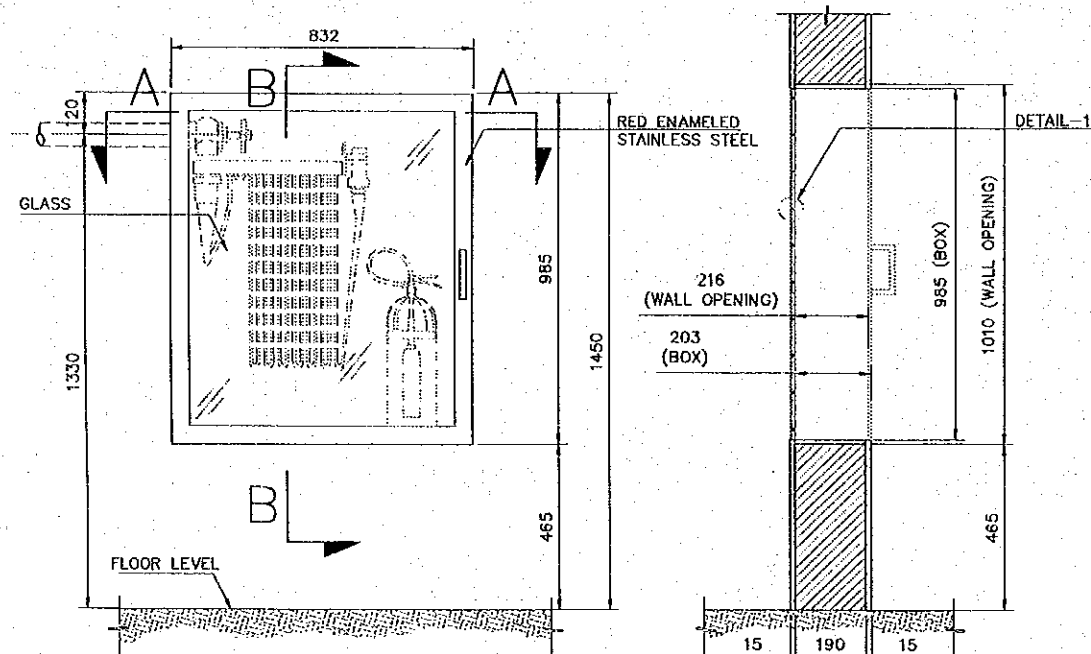
FRONT VIEW RIGHT SIDE VIEW

HOSE RACK  
SCALE 1:20

EQUIPMENT SCHEDULE	
EQUIPMENT	QTY
BRASS GATED WYE	1
HANDLINE #38mm NOZZLE	1
#63mmx15m COUPLED FIRE HOSE	4
HANDLINE #63mm NOZZLE	2
#38 mmx15m COUPLED FIRE HOSE	2
UNDERWRITERS PLAYPIPE	2
HYDRANT WRENCH	2
ADAPTOR REDUCER #63mmx #38mm	1
#63mm HOSE GASKET	4
#38mm HOSE GASKET	2
INTERNATIONAL SHORE CONNECTION	4
UNIVERSAL SPANNER WRENCH	4

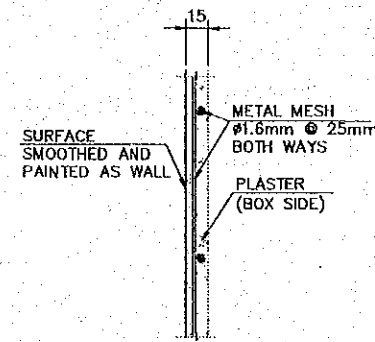


FRONT VIEW SIDE VIEW  
FIRE STATION CABINET  
ESCALE 1:30



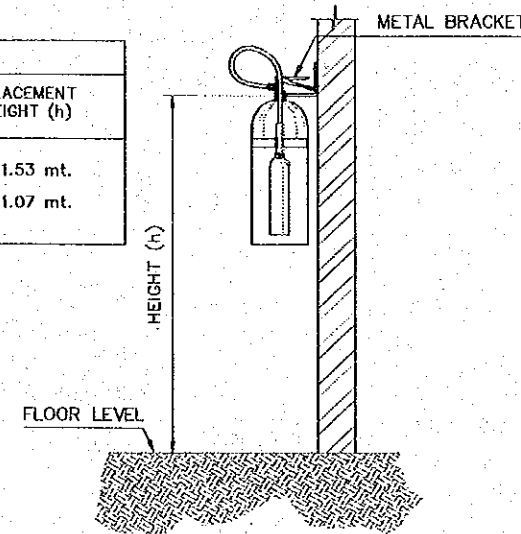
FRONT VIEW

SECTION B-B

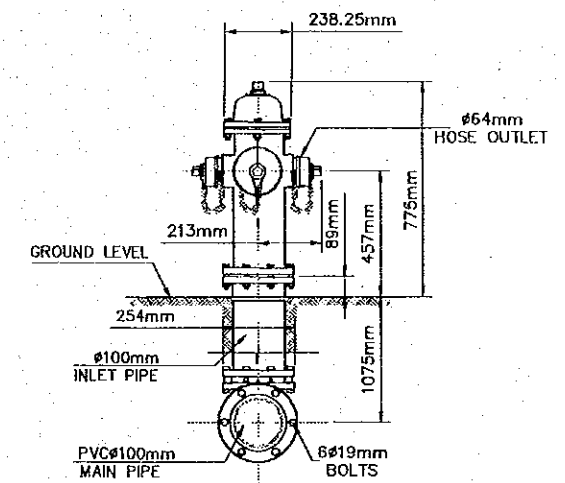


DETAIL-1  
SCALE 1:5

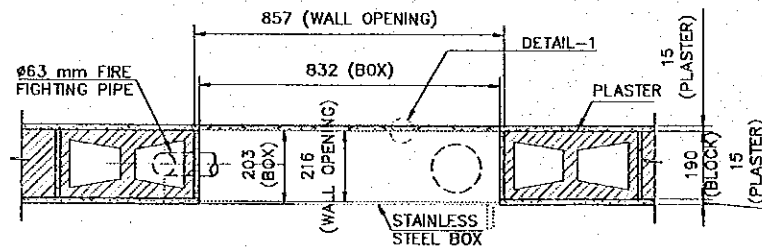
LEGEND	
WEIGHT OF EXTINGUISHER	PLACEMENT HEIGHT (h)
<18.14 KG.	1.53 mt.
>18.14 KG.	1.07 mt.



FIRE EXTINGUISHER PLACEMENT  
NOT TO ESCALE



STAND TYPE HYDRANT  
SCALE 1:20



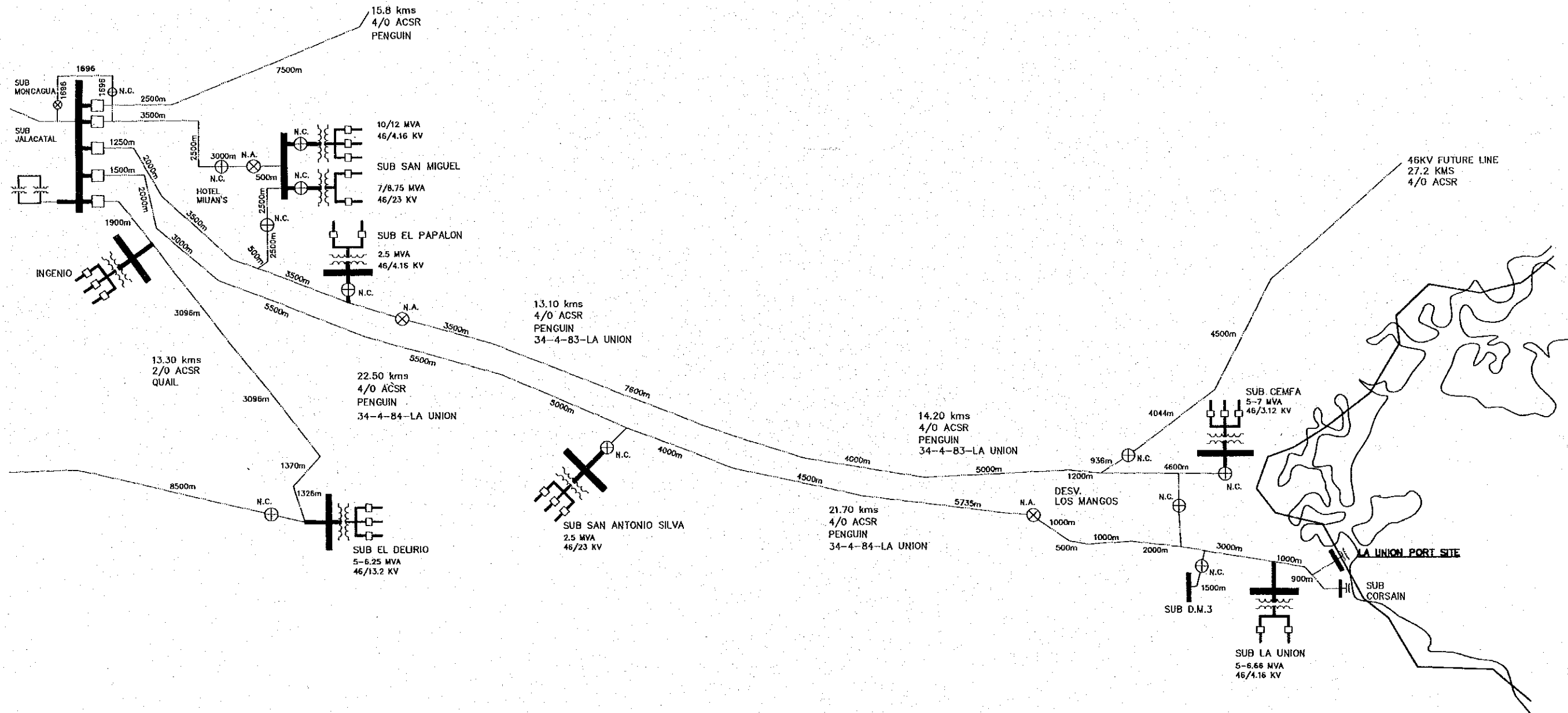
SECTION A-A

BOX FOR HOSE RACK AND EXTINGUISHER  
ESCALE 1:20




INDOOR HYDRANT

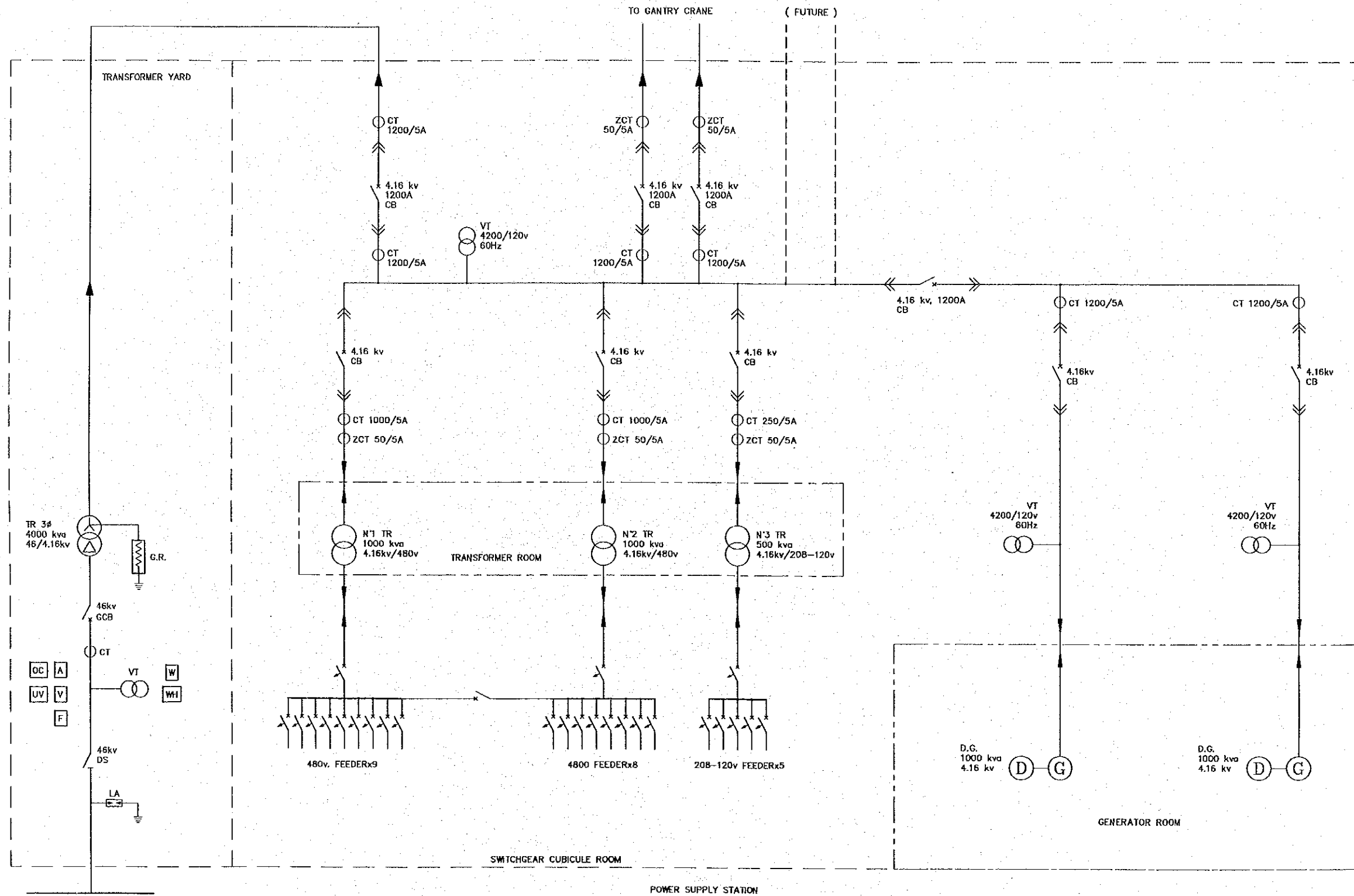
REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : UTILITY WORK	DATE : OCTOBER/2002
					CHECKED BY :			SUB-SECTION : WATER SUPPLY AND FIRE FIGHTING	SCALE : INDICATED	
					APPROVED BY :			TITLE : DETAIL-3 OF FIRE FIGHTING SYSTEM	DRAWING NO. : UT-02-012	

# **ELECTRICAL WORKS**



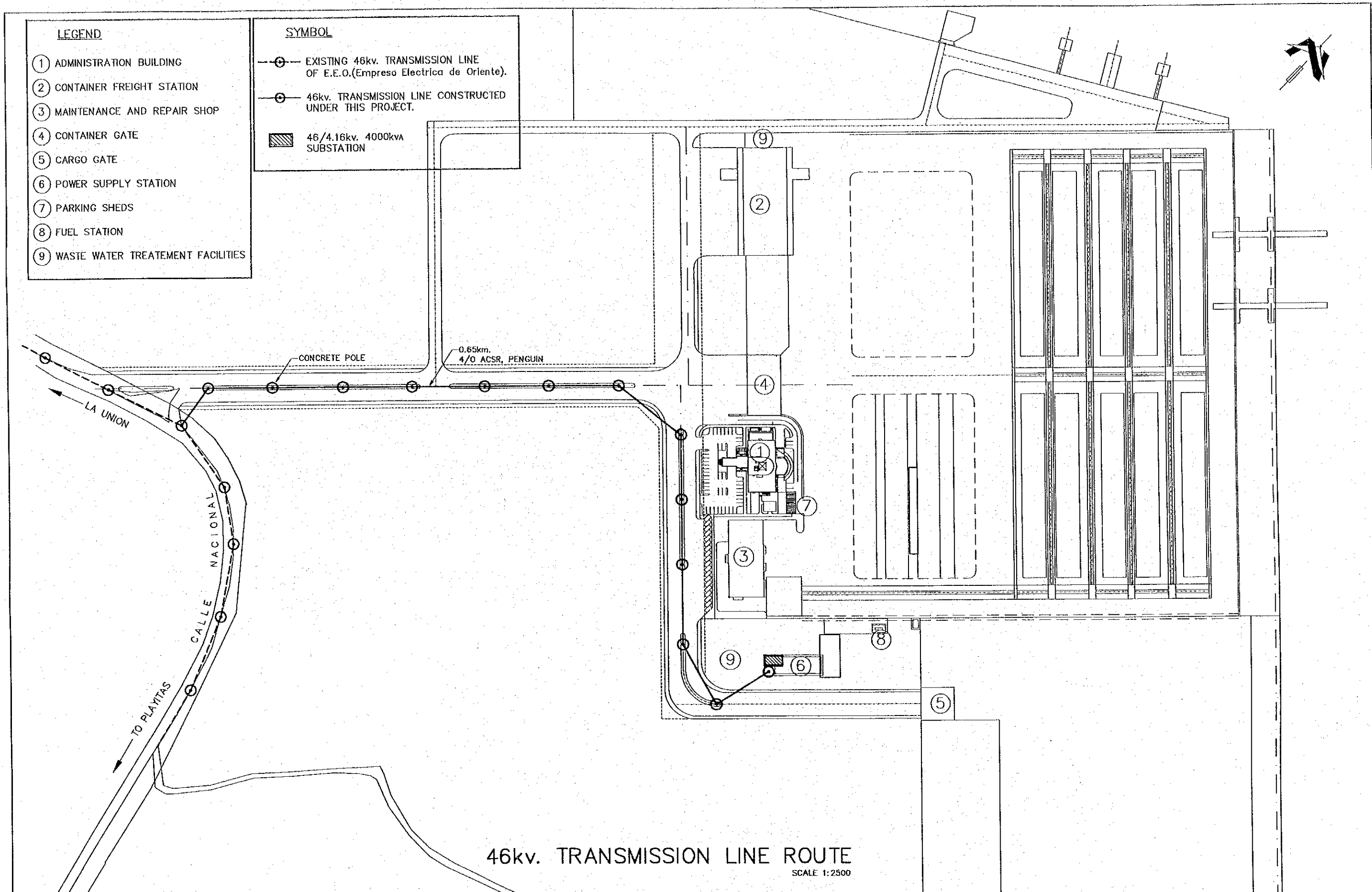
E.E.O. TRANSMISSION LINE FOR LA UNION PORT

REV. NO.		DATE		COORDINATE		BY		APPROVED		DATE		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b>	<b>THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR</b>	DESIGNED BY : CHECKED BY : APPROVED BY :	SECTION : <b>ELECTRICAL WORK</b> SUB-SECTION : <b>GENERAL</b> TITLE : <b>E.E.O. TRANSMISSION LINE FOR LA UNION PORT</b>	DATE : OCTOBER/2002
																SCALE : NOT TO SCALE
												 <b>COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)</b>	 <b>NIPPON KOEI CO., LTD.</b>			DRAWING NO.: EL-00-001




POWER SUPPLY SYSTEM SINGLE LINE DIAGRAM


REV. NO.		DATE		COORDINATE		BY		APPROVED		DATE		JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION :	DATE :
														ELECTRICAL WORK POWER SUPPLY POWER SUPPLY SYSTEM SINGLE LINE DIAGRAM	OCTOBER/2002	
													CHECKED BY :	SUB-SECTION :	SCALE :	
													APPROVED BY :	POWER SUPPLY SYSTEM	NOT TO SCALE	
														SINGLE LINE DIAGRAM	DRAWING NO.:	
															EL-01-001	



46kv. TRANSMISSION LINE ROUTE  
SCALE 1:2500

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

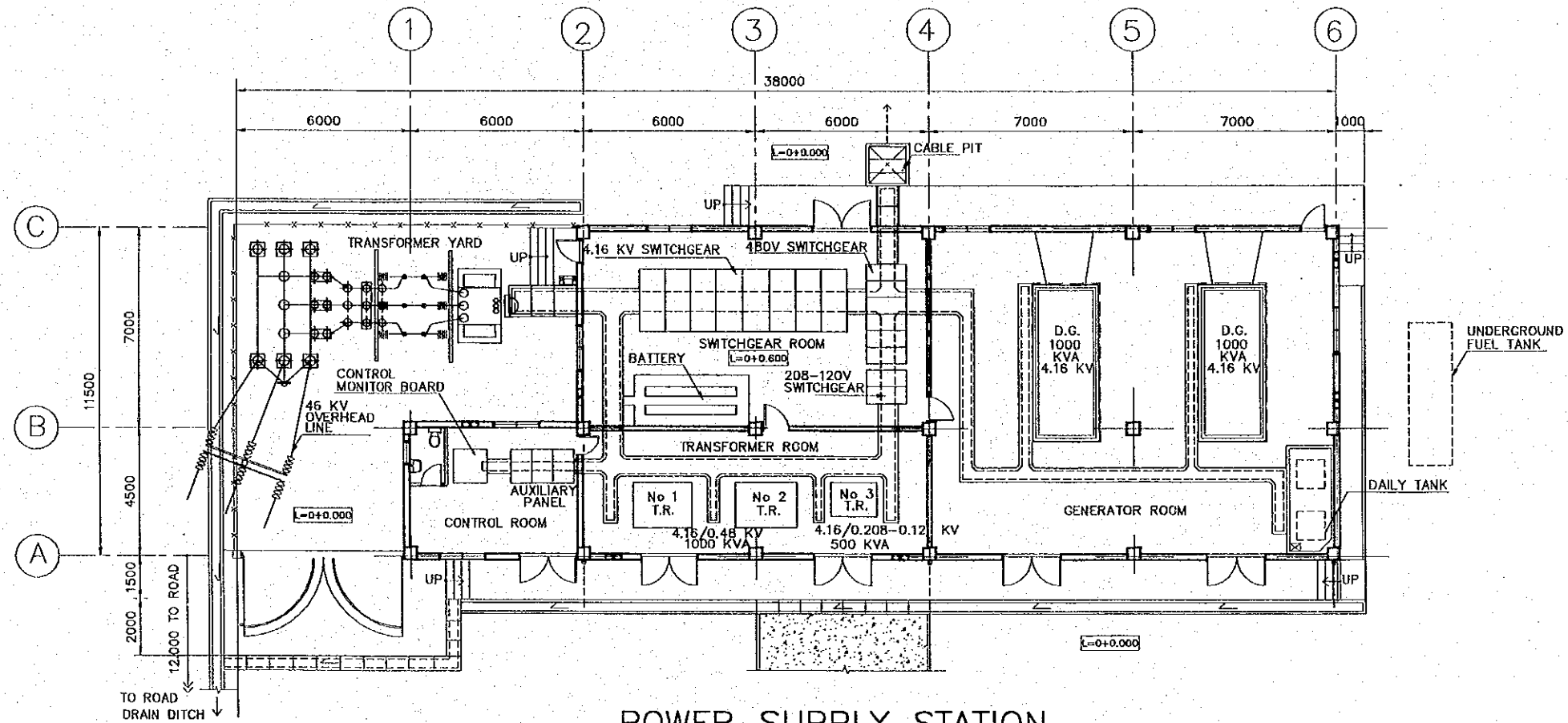
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
 COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

THE DETAILED DESIGN  
 ON PORT REACTIVATION PROJECT  
 IN LA UNION PROVINCE  
 OF THE REPUBLIC OF EL SALVADOR  
 NIPPON KOEI CO., LTD.

DESIGNED BY :  
 CHECKED BY :  
 APPROVED BY :



SECTION : ELECTRICAL WORK  
 SUB-SECTION : POWER SUPPLY  
 TITLE : 46kv. TRANSMISSION LINE ROUTE

DATE : OCTOBER/2002  
 SCALE : 1:2500  
 DRAWING NO. : EL-01-002




**POWER SUPPLY STATION  
EQUIPMENT LAYOUT**


SCALE 1:200

REV. NO.		DATE		COORDINATE		BY		APPROVED		DATE		 <b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b>	<b>THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR</b>	 <b>NIPPON KOEI CO., LTD.</b>	DESIGNED BY :	SECTION :	DATE :
															CHECKED BY :	SUB-SECTION :	SCALE :
															APPROVED BY :	TITLE :	DRAWING NO. :
												<b>ELECTRICAL WORK</b> <b>POWER SUPPLY</b> <b>POWER SUPPLY STATION</b> <b>EQUIPMENT LAYOUT</b>			OCTOBER/2002 1:200 EL-01-003		



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

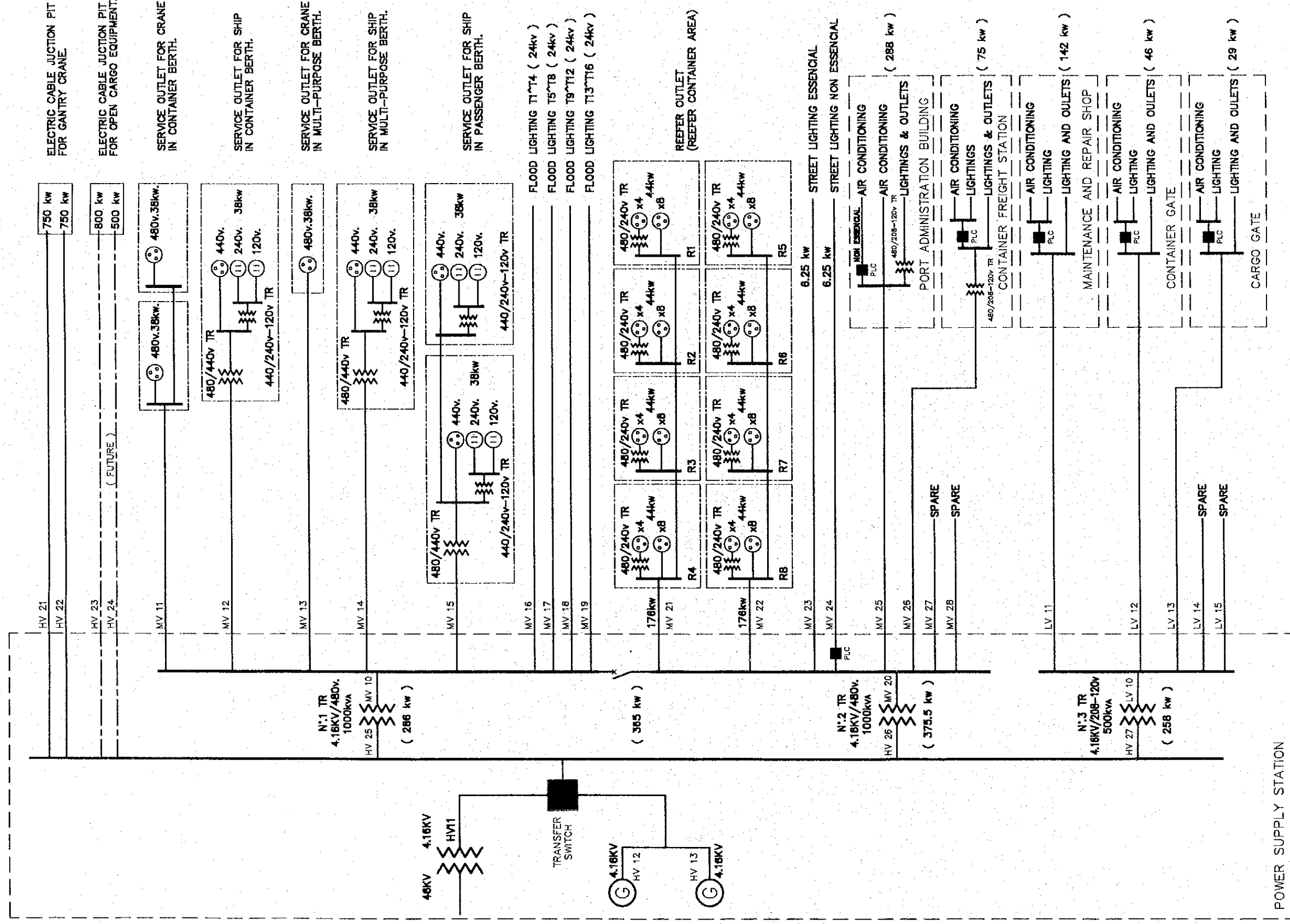

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**  
**COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)**

THE DETAILED DESIGN  
 ON PORT REACTIVATION PROJECT  
 IN LA UNION PROVINCE  
 OF THE REPUBLIC OF EL SALVADOR  

**NIPPON KOEI CO., LTD.**

DESIGNED BY :  
 CHECKED BY :  
 APPROVED BY :

SECTION : ELECTRICAL WORK  
 SUB-SECTION : POWER SUPPLY  
 TITLE : DISTRIBUTION SYSTEM DIAGRAM

DATE : OCTOBER/2002  
 SCALE : NOT TO SCALE  
 DRAWING NO : EL-01-004

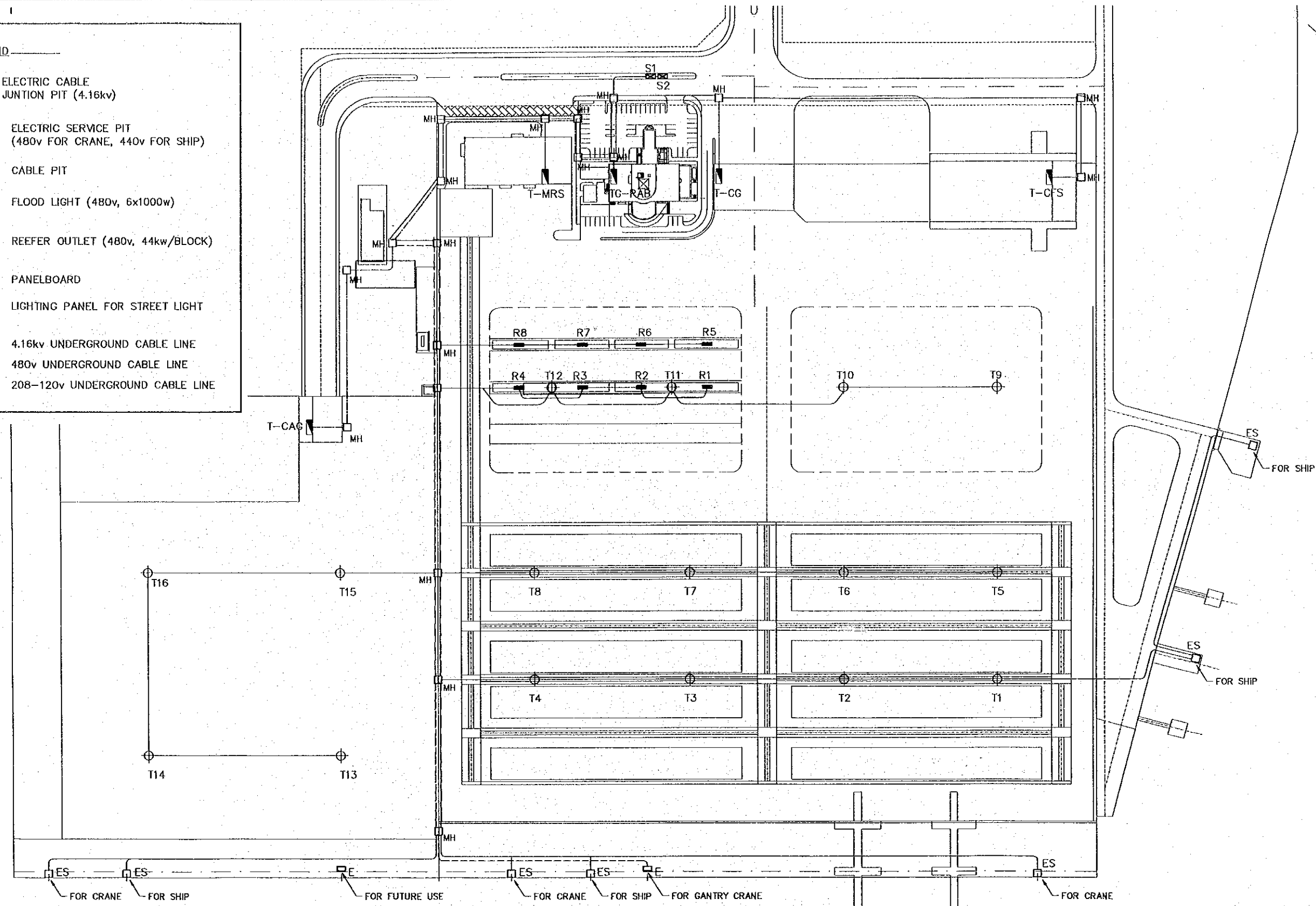


DISTRIBUTION SYSTEM DIAGRAM



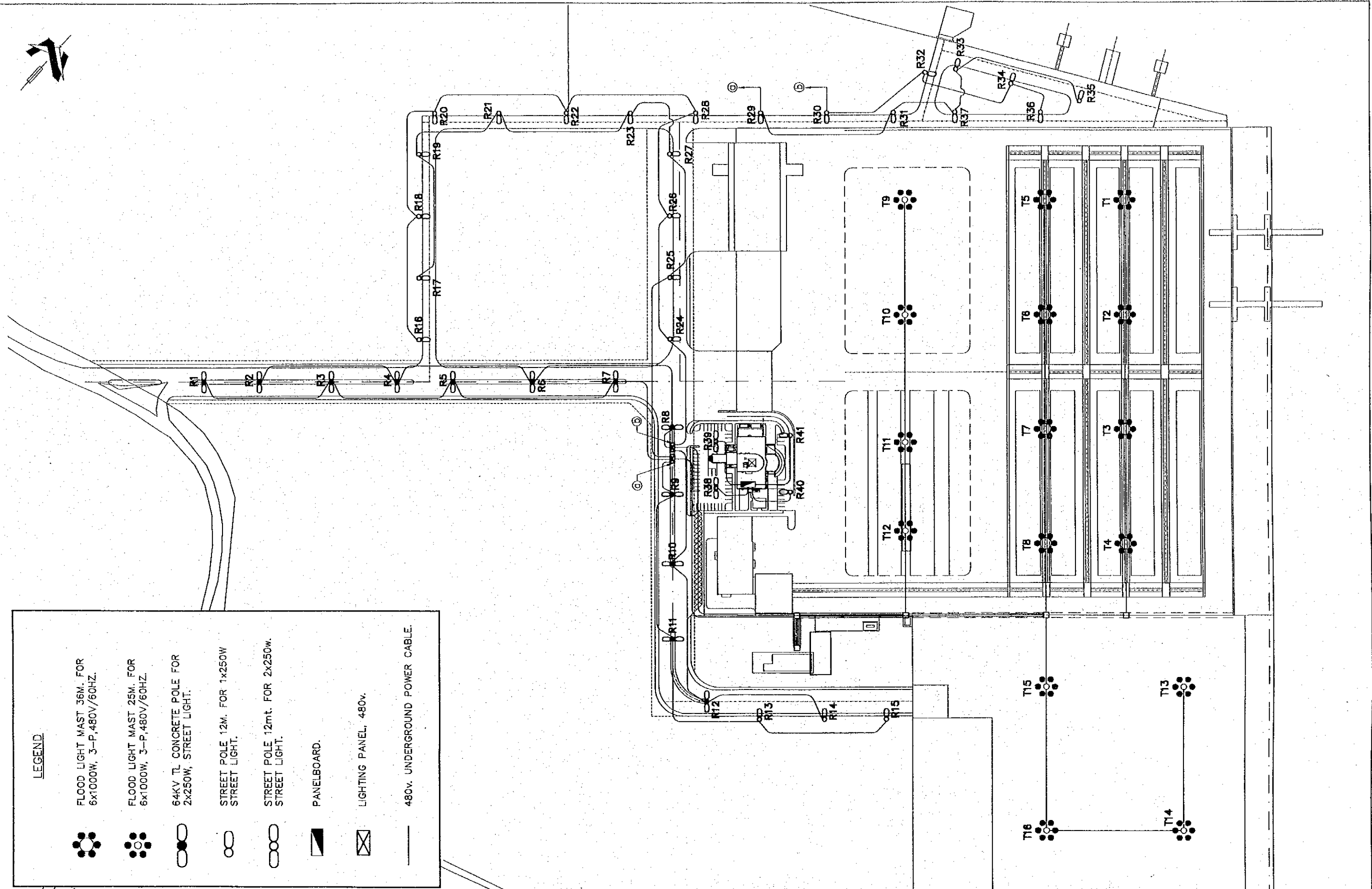
**LEGEND**

- ELECTRIC CABLE JUNCTION PIT (4.16kv)
- ELECTRIC SERVICE PIT (480v FOR CRANE, 440v FOR SHIP)
- CABLE PIT
- FLOOD LIGHT (480v, 6x1000w)
- T1^T16
- REEFER OUTLET (480v, 44kw/BLOCK)
- R1^R8
- PANELBOARD
- LIGHTING PANEL FOR STREET LIGHT
- S1^S2
- 4.16kv UNDERGROUND CABLE LINE
- 480v UNDERGROUND CABLE LINE
- 208-120v UNDERGROUND CABLE LINE



**MAIN UNDERGROUND CABLE LAYOUT**  
SCALE 1:2000

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE		
						<p align="center">THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR</p> <p align="center"> NIPPON KOEI CO., LTD.</p>	
						DESIGNED BY :	SECTION : ELECTRICAL WORK
						CHECKED BY :	SUB-SECTION : POWER SUPPLY
						APPROVED BY :	TITLE : MAIN UNDERGROUND CABLE LAYOUT
							DATE : OCTOBER/2002
							SCALE : 1:2000
							DRAWING NO. : EL-01-005



LEGEND	
	FLOOD LIGHT MAST 36M. FOR 6x1000W, 3-P, 480V/60HZ.
	FLOOD LIGHT MAST 25M. FOR 6x1000W, 3-P, 480V/60HZ.
	64KV TL CONCRETE POLE FOR 2x250W, STREET LIGHT.
	STREET POLE 12M. FOR 1x250W STREET LIGHT.
	STREET POLE 12mt. FOR 2x250w. STREET LIGHT.
	PANELBOARD.
	LIGHTING PANEL, 480v.
	480v. UNDERGROUND POWER CABLE.

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

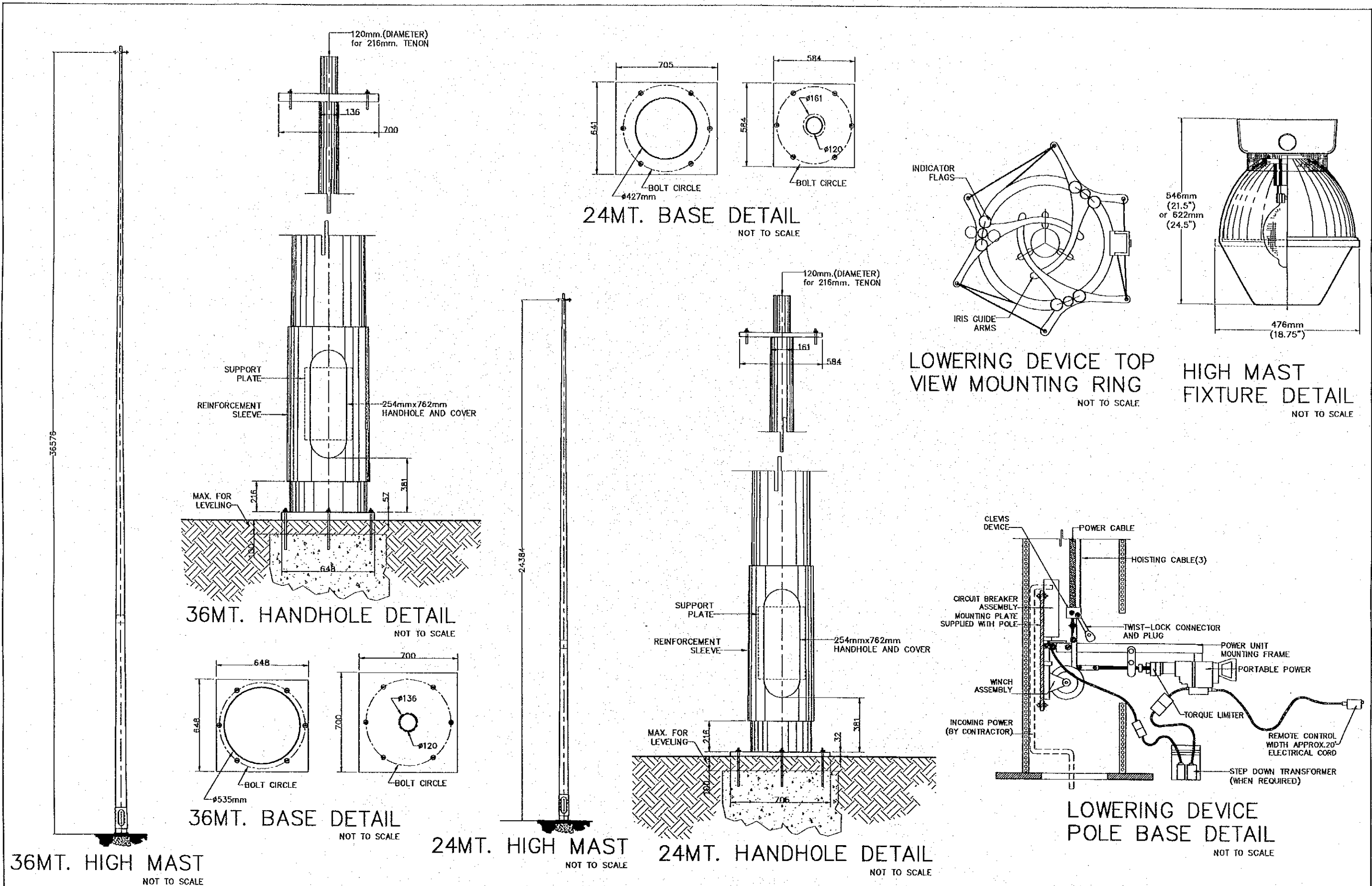
THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD.

DESIGNED BY :  
 CHECKED BY :  
 APPROVED BY :

SECTION : ELECTRICAL WORK  
 SUB-SECTION : AREA LIGHTING SYSTEM  
 TITLE : AREA LIGHTING LAYOUT

DATE : OCTOBER/2002  
 SCALE : 1:2500  
 DRAWING NO. : EL-02-001



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

**JICA**  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**Cepa**  
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

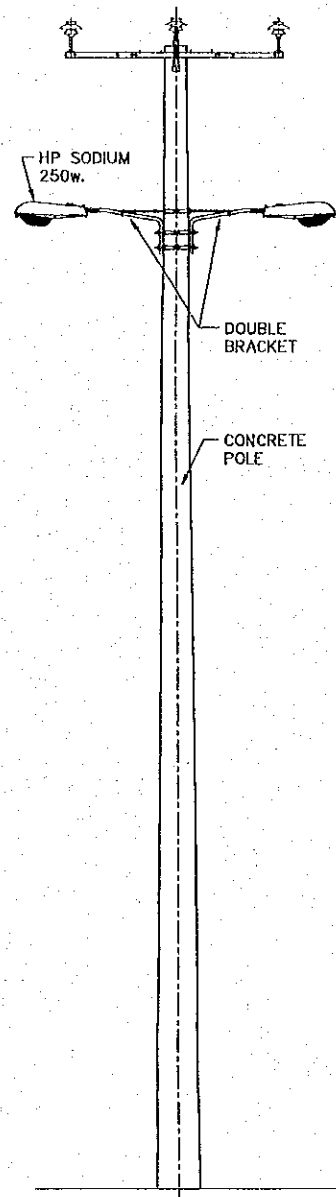
THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

**NKC**  
NIPPON KOEI CO., LTD.

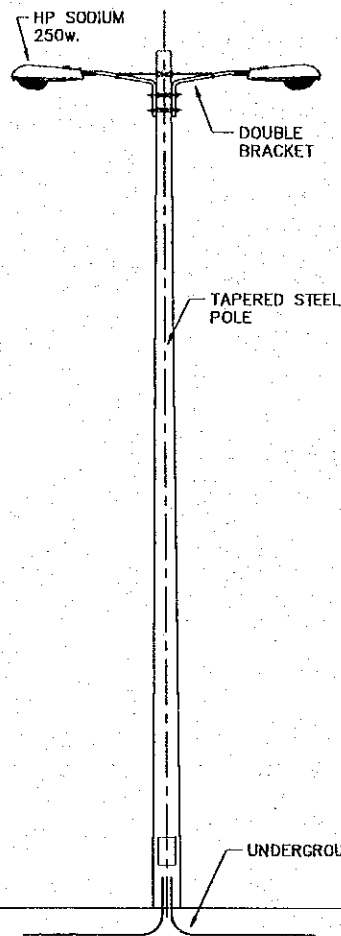
DESIGNED BY :  
CHECKED BY :  
APPROVED BY :

SECTION : ELECTRICAL WORK  
SUB-SECTION : AREA LIGHTING SYSTEM  
TITLE : DETAILS OF LIGHTING POLES, MASTS AND FIXTURES

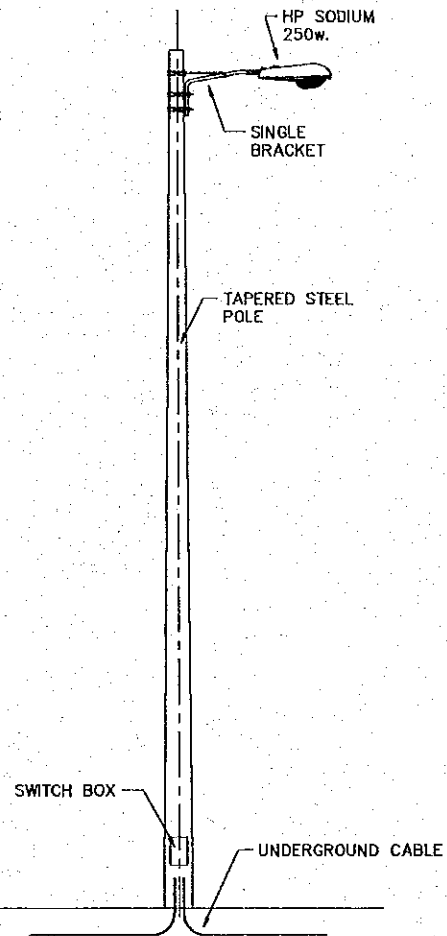
DATE : OCTOBER/2002  
SCALE : NOT TO SCALE  
DRAWING NO. : EL-02-002



STREET LIGHT  
FOR MAIN ROAD  
( 12 SETS ) NOT TO SCALE

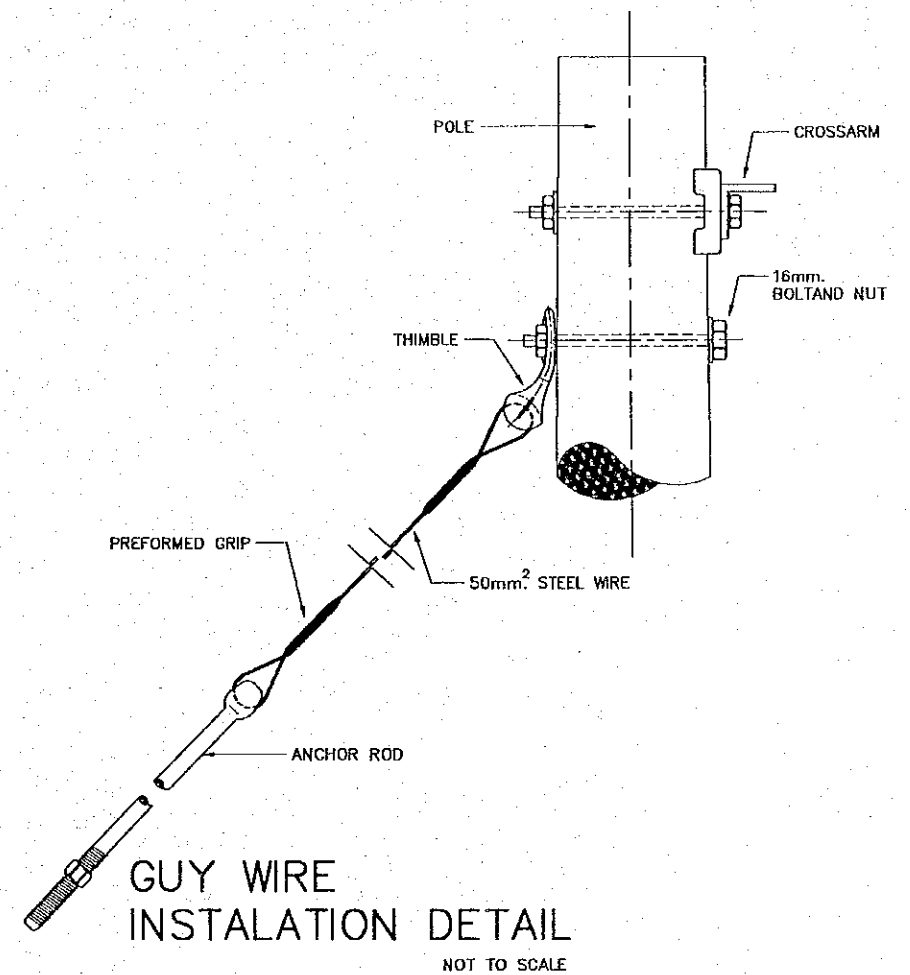
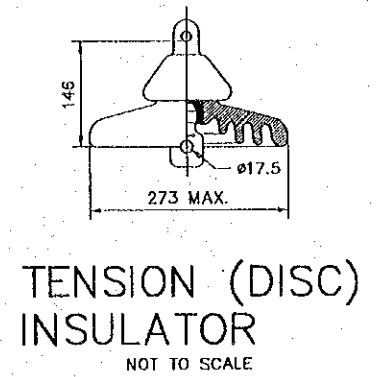
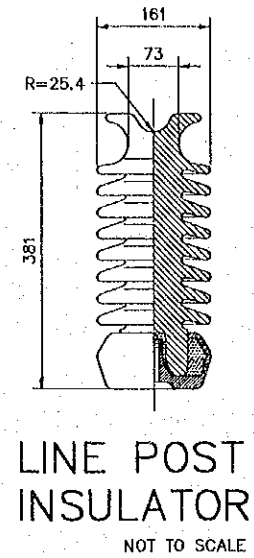
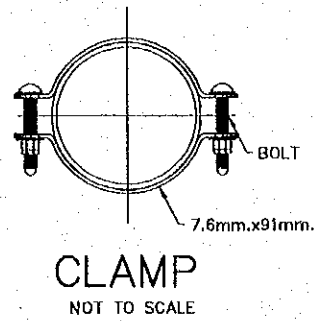


STREET LIGHT AROUND  
ADMINISTRATION BUILDING  
( 2 SETS ) NOT TO SCALE



STREET LIGHT  
FOR SUB-MAIN ROAD  
( 26 SETS ) NOT TO SCALE

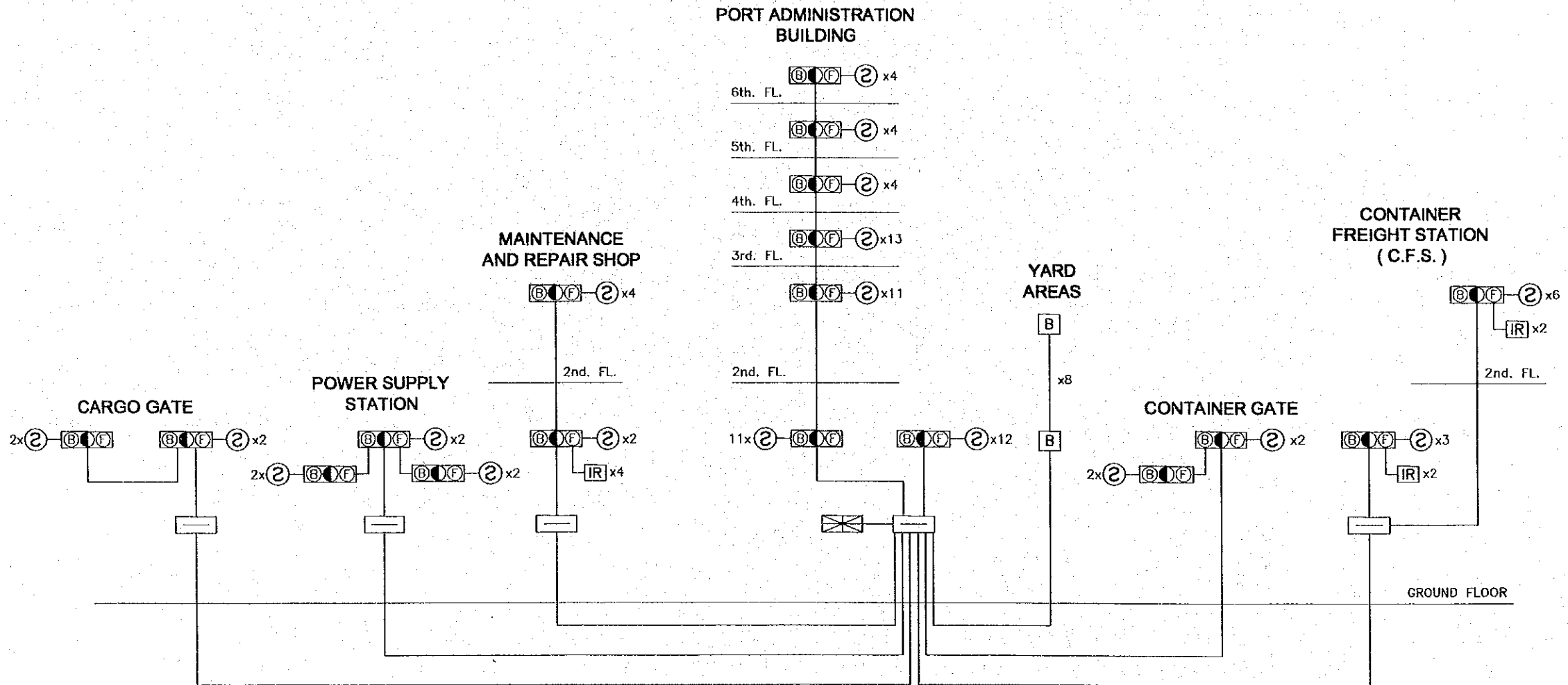
AREA LIGHT AROUND  
ADMINISTRATION BUILDING  
( 2 SETS ) NOT TO SCALE



REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION :	DATE :
									CHECKED BY : APPROVED BY :	ELECTRICAL WORK AREA LIGHTING SYSTEM STREET LIGHT, AREA LIGHT AROUND ADMINISTRATION BUILDING & DETAILS	OCTOBER/2002 NOT TO SCALE EL-02-003

LEGEND

	MAIN RECEIVING PANEL BOARD
	TERMINAL PANEL BOARD
	FIRE ALARM COMBINATION PANEL
	SMOKE/HEAT DETECTOR
	INFRARED BEAM DETECTOR
	OUTSIDE HAND PUSHBUTTON



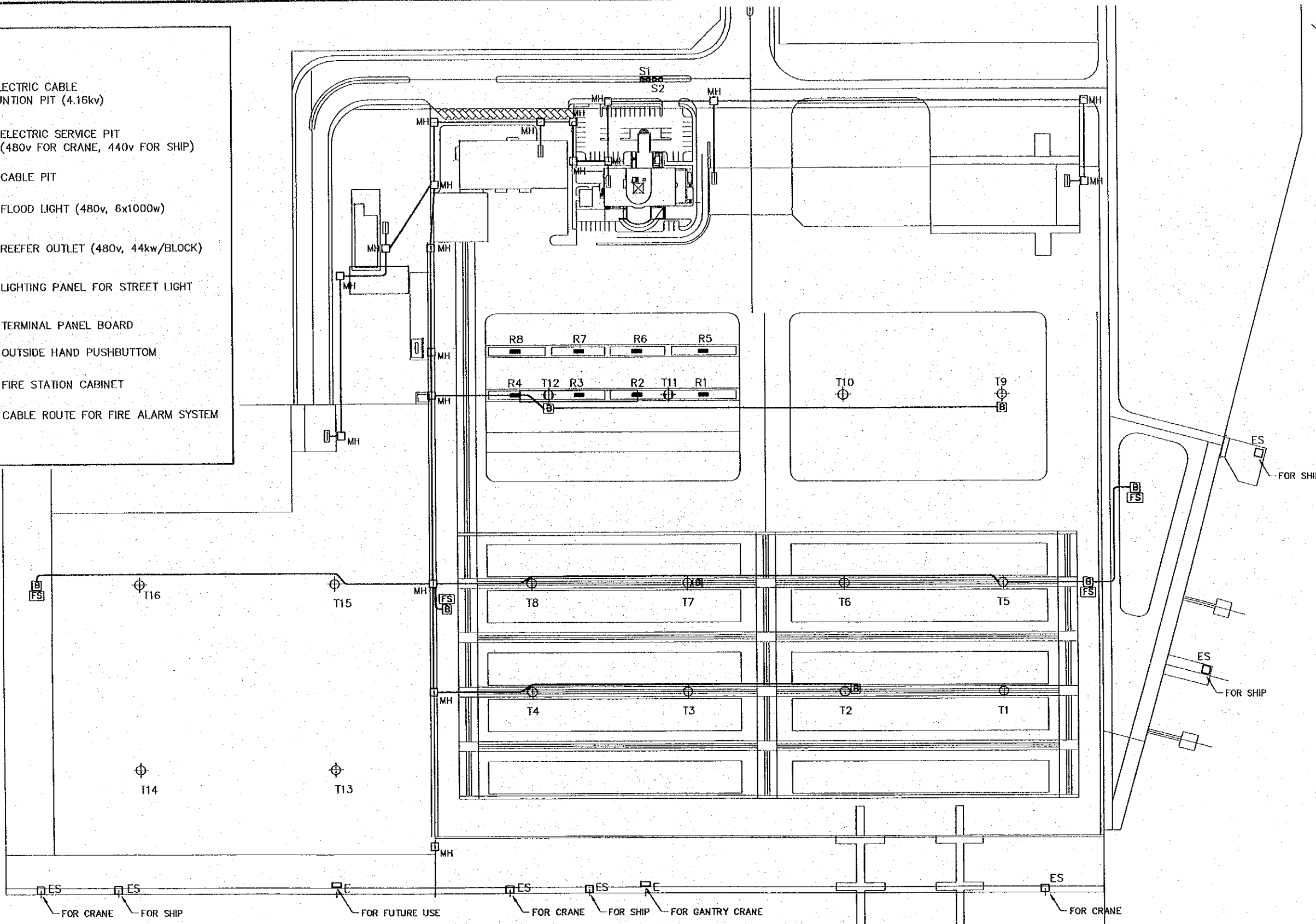
FIRE DETECTION SYSTEM DIAGRAM

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : ELECTRICAL WORK	DATE : OCTOBER/2002
								CHECKED BY :	SUB-SECTION : FIRE DETECTION & COMMUNICATION SYSTEM	SCALE : NOT TO SCALE
								APPROVED BY :	TITLE : FIRE DETECTION SYSTEM DIAGRAM	DRAWING NO. : EL-03-001




**LEGEND**

- E ELECTRIC CABLE
- JUNCTION PIT (4.16kv)
- ES ELECTRIC SERVICE PIT  
(480v FOR CRANE, 440v FOR SHIP)
- MH CABLE PIT
- ⊕ FLOOD LIGHT (480v, 6x1000w)
- T1^T16 REEFER OUTLET (480v, 44kw/BLOCK)
- R1^R8 LIGHTING PANEL FOR STREET LIGHT
- S1^S2 TERMINAL PANEL BOARD
- B OUTSIDE HAND PUSHBUTTON
- FS FIRE STATION CABINET
- CABLE ROUTE FOR FIRE ALARM SYSTEM




**FIRE DETECTION SYSTEM LAYOUT**  
SCALE 1:2000

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE


**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**  

**COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)**

**THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR**  

**NIPPON KOEI CO., LTD.**

DESIGNED BY :	
CHECKED BY :	
APPROVED BY :	

SECTION :	ELECTRICAL WORK
SUB-SECTION :	FIRE DETECTION & COMMUNICATION SYSTEM
TITLE :	FIRE DETECTION SYSTEM LAYOUT

DATE :	OCTOBER/2002
SCALE :	1:2000
DRAMNO NO. :	EL-03-002

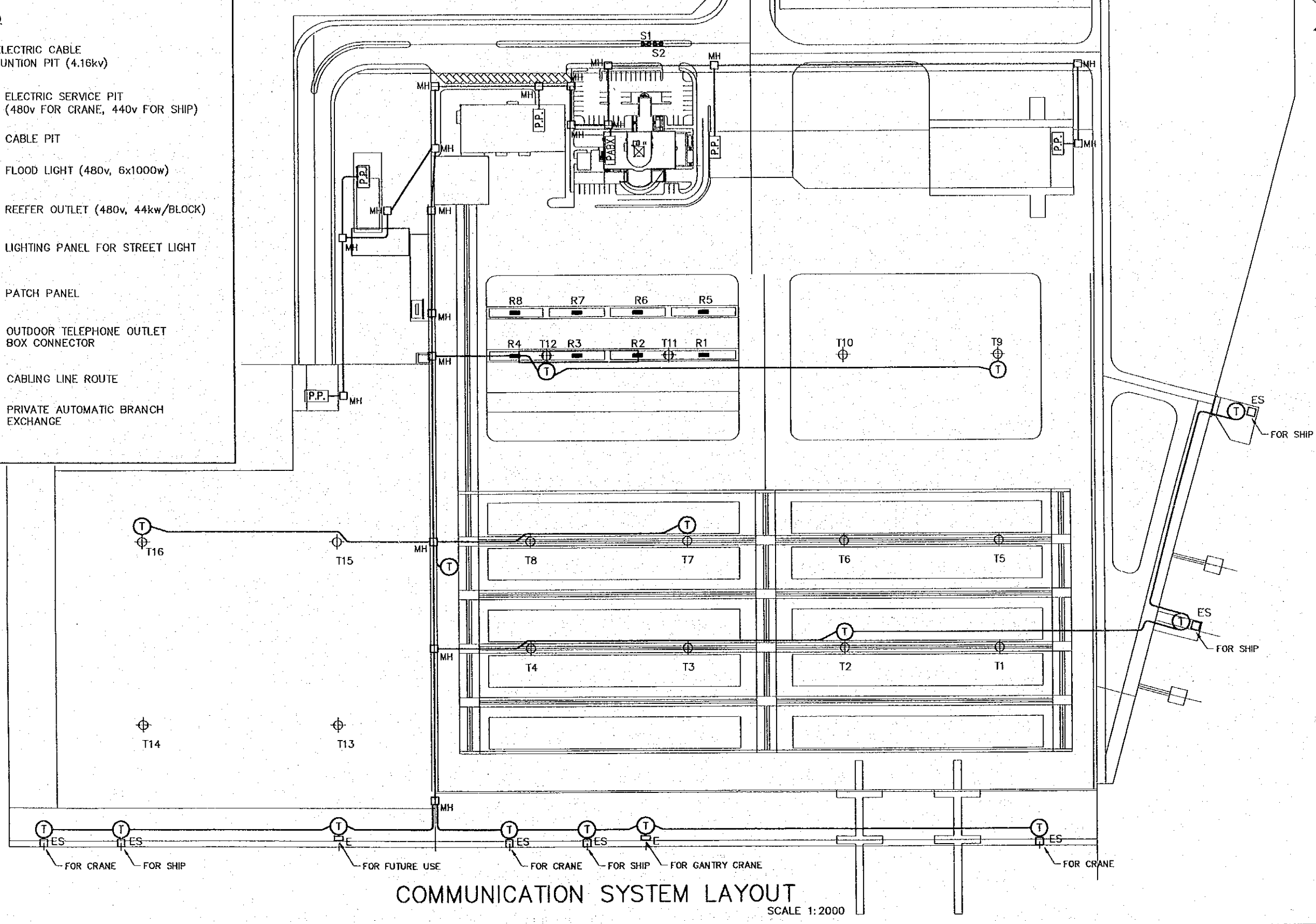









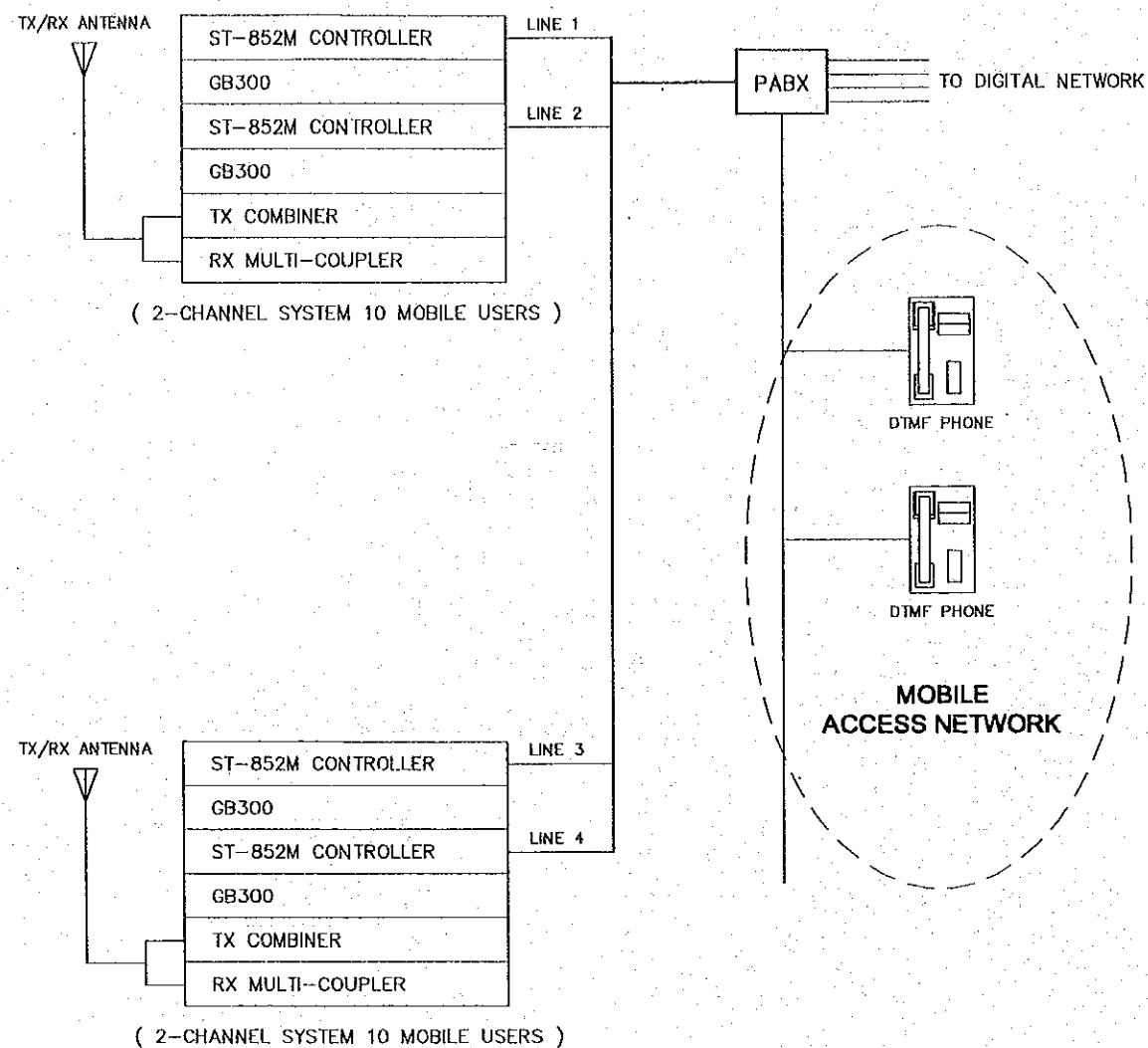
**LEGEND**

E	ELECTRIC CABLE
□	JUNCTION PIT (4.16kv)
ES	ELECTRIC SERVICE PIT
□	(480v FOR CRANE, 440v FOR SHIP)
MH	CABLE PIT
⊕	FLOOD LIGHT (480v, 6x1000w)
T1~T16	
■	REEFER OUTLET (480v, 44kw/BLOCK)
R1~R8	
⊗	LIGHTING PANEL FOR STREET LIGHT
S1~S2	
P.P.	PATCH PANEL
Ⓣ	OUTDOOR TELEPHONE OUTLET
	BOX CONNECTOR
—	CABLING LINE ROUTE
PABX	PRIVATE AUTOMATIC BRANCH
	EXCHANGE

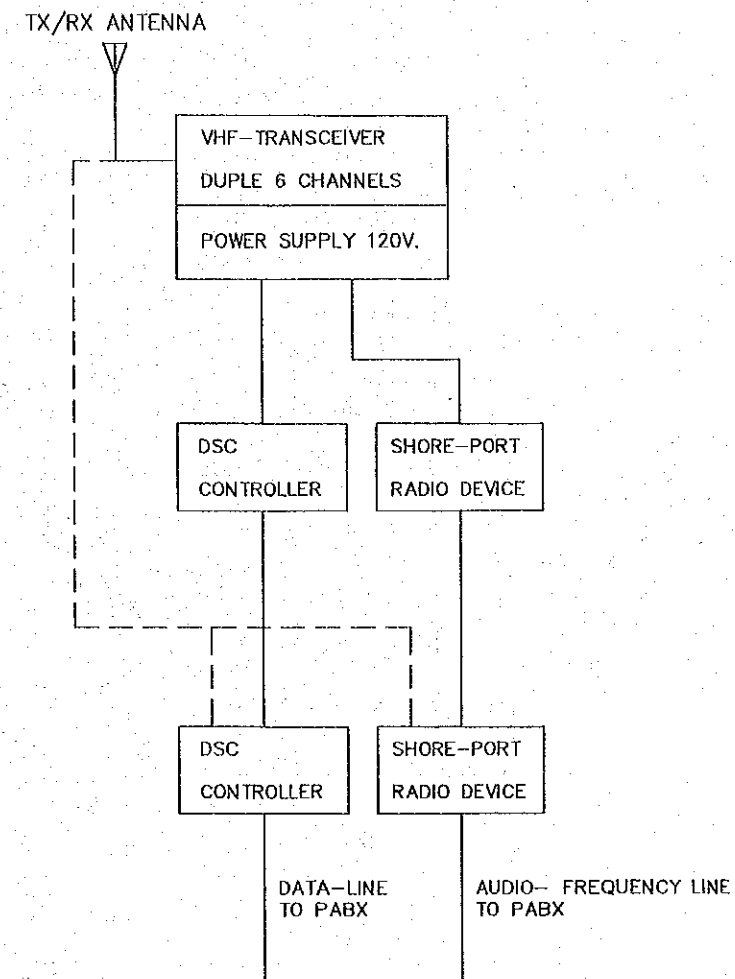


**COMMUNICATION SYSTEM LAYOUT**  
SCALE 1:2000

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	 NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : ELECTRICAL WORK	DATE : OCTOBER/2002
								CHECKED BY :	SUB-SECTION : FIRE DETECTION & COMMUNICATION SYSTEM	SCALE : 1:2000
								APPROVED BY :	TITLE : COMMUNICATION SYSTEM LAYOUT	DRAWING NO. : EL-03-004



NAVIGATION CONTROLLER ROOM  
PORT ADMINISTRATION BUILDING

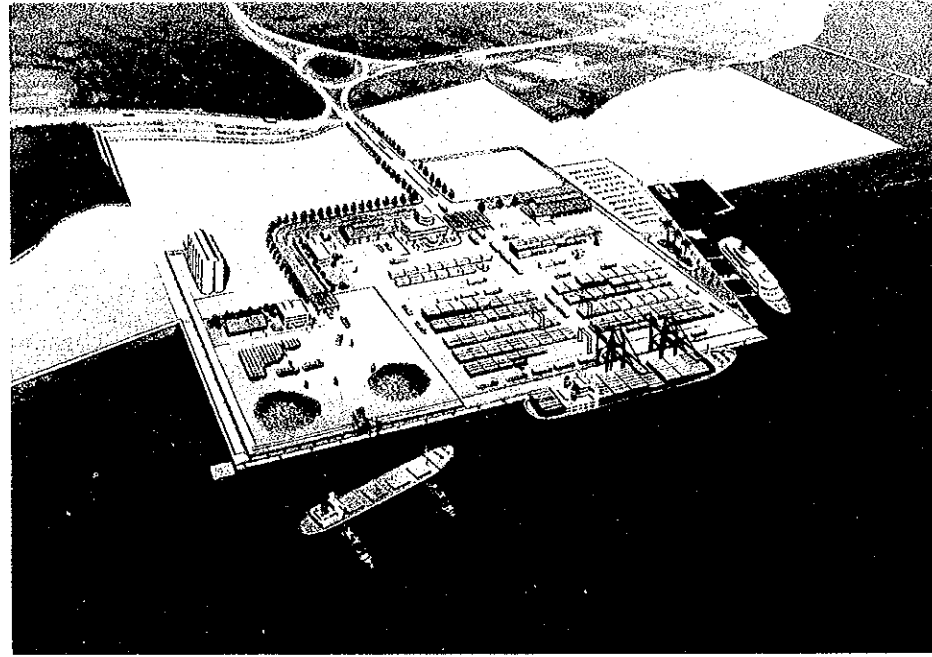


- UHF/VHF-COMMUNICATION BETWEEN
- \* MOBILE PHONE-MOBILE PHONE
  - \* MOBILE PHONE-FIXED PHONE
  - \* EMERGENCY CALL TO YARD CONTROLLER ROOM
- 20 MOBILE USERS WITH  
4 CONNECTIONS TO PABX

MOBILE PHONE & UHF/VHF COMMUNICATION SYSTEM PRINCIPLE DIAGRAM

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY :	SECTION : ELECTRICAL WORK	DATE : OCTOBER/2002
								CHECKED BY :	SUB-SECTION : FIRE DETECTION & COMMUNICATION SYSTEM	SCALE : NOT TO ESCALE
								APPROVED BY :	TITLE : MOBILE PHONE & UHF/VHF COMMUNICATION SYSTEM PRINCIPLE DIAGRAM	DRAWING NO. : EL-03-005





JICA