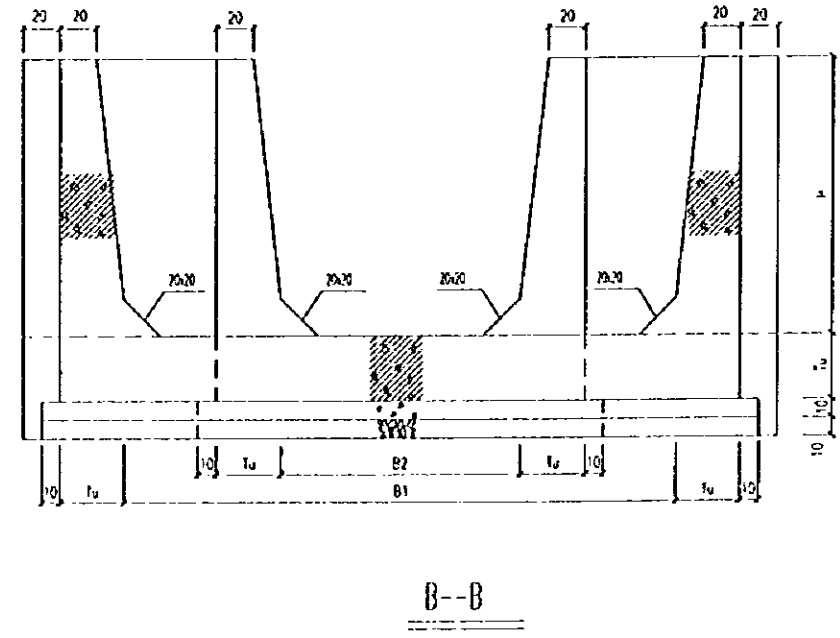
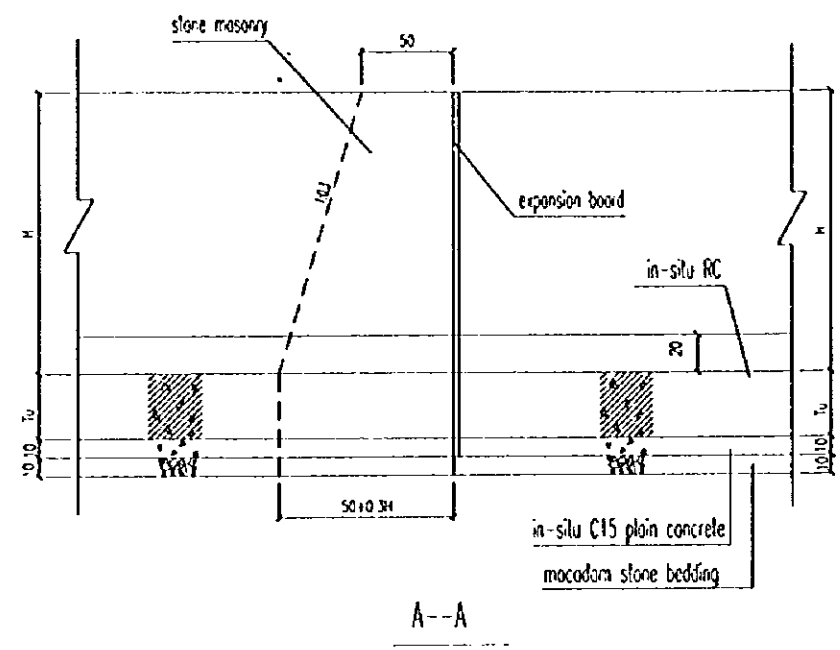
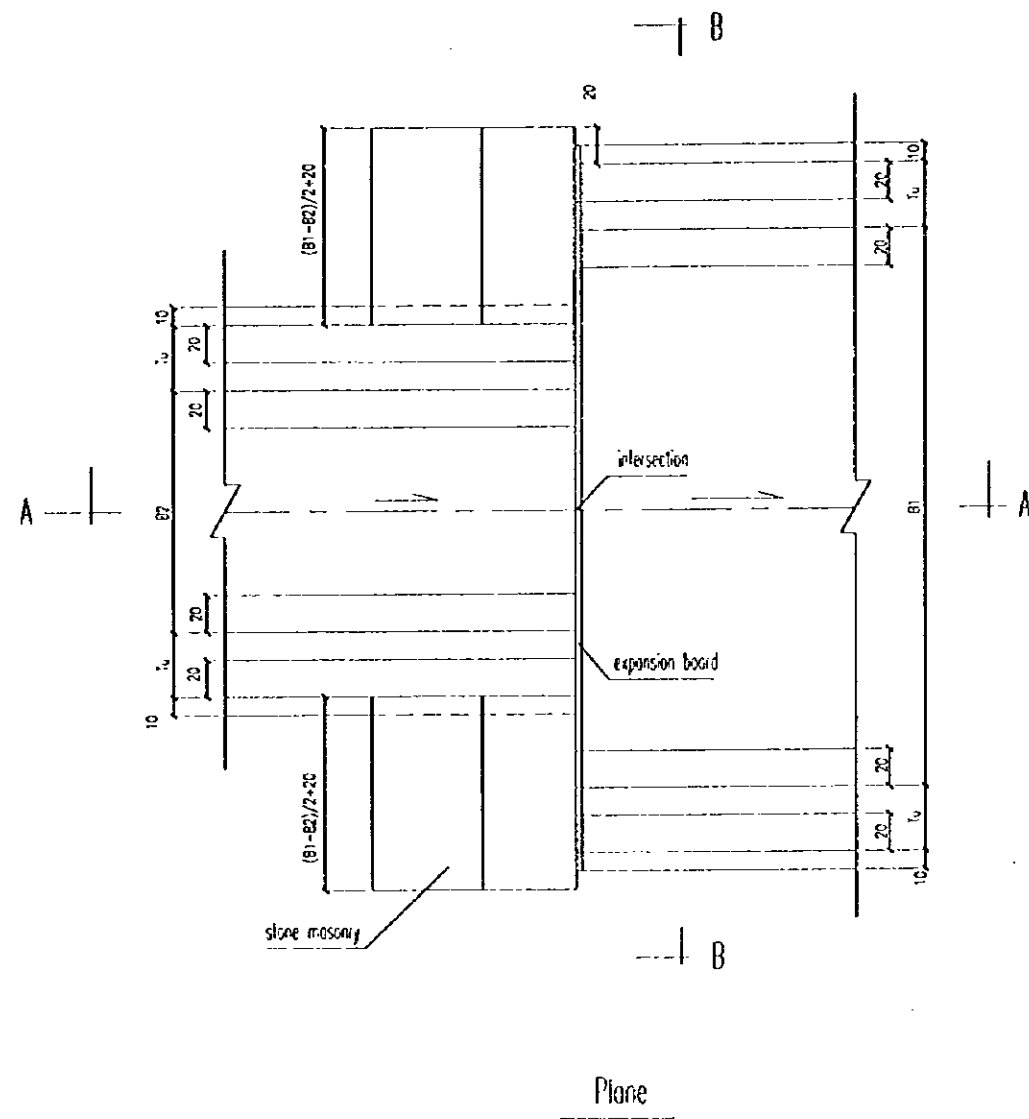


NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board.
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.
4. Reinforcement of U-shape RC ditch see "DWG1-D8".
Else, while $A < 20$ cm, NO. Ⓞ reinforcement is no use;
while $A = 0$, NO. Ⓞ reinforcement break to joint to NO. Ⓞ reinforcement,
NO. Ⓞ reinforcement is no use.

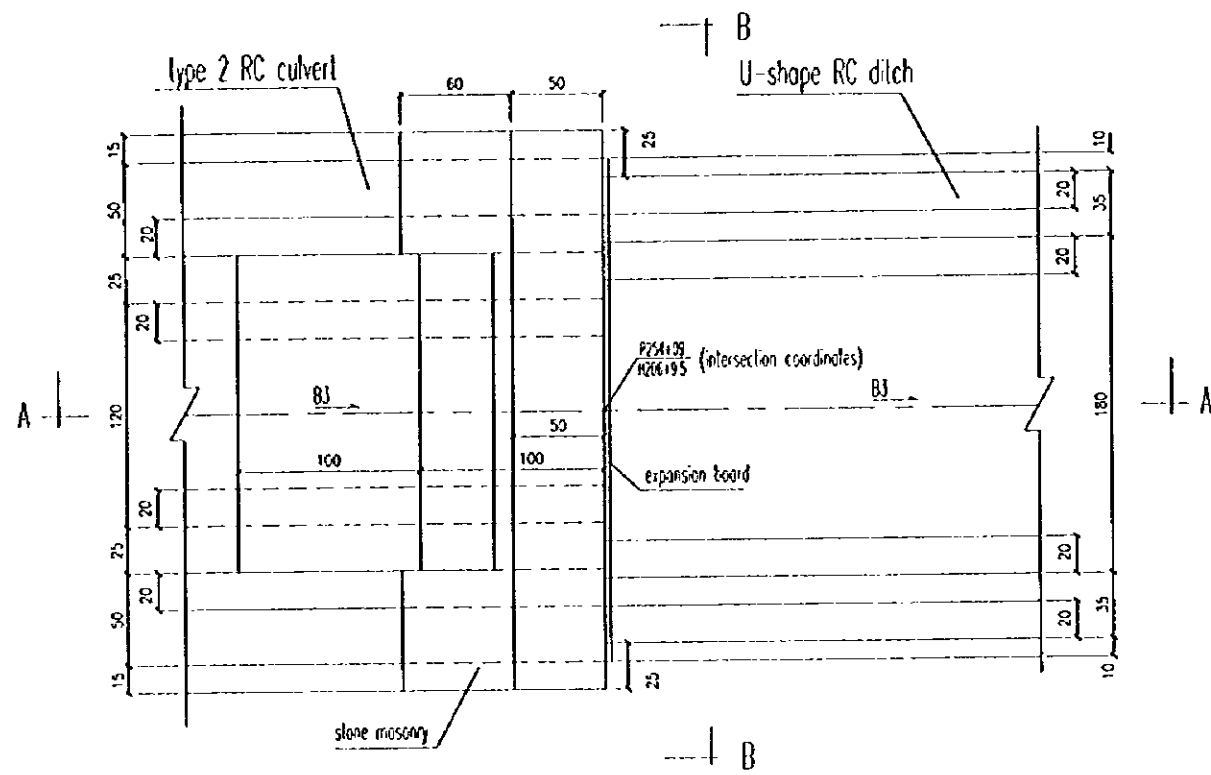
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES(S12)	
NO SCALE	DWG1-D9(14/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



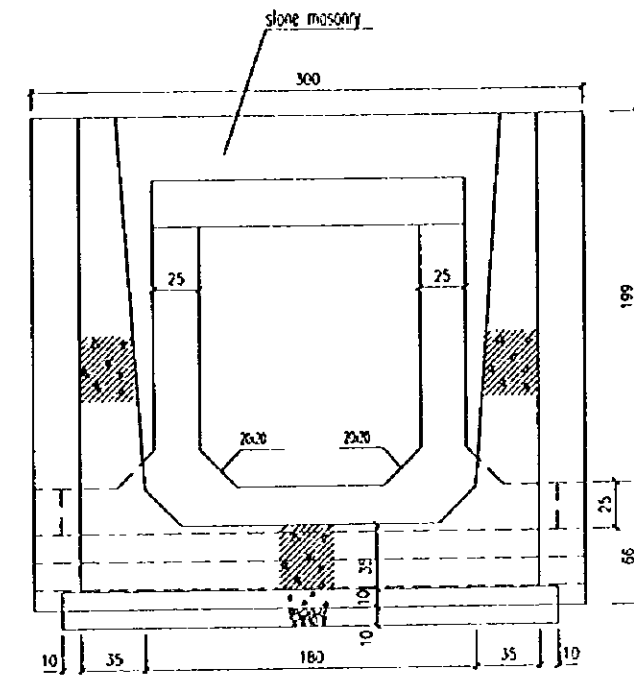
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board.
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

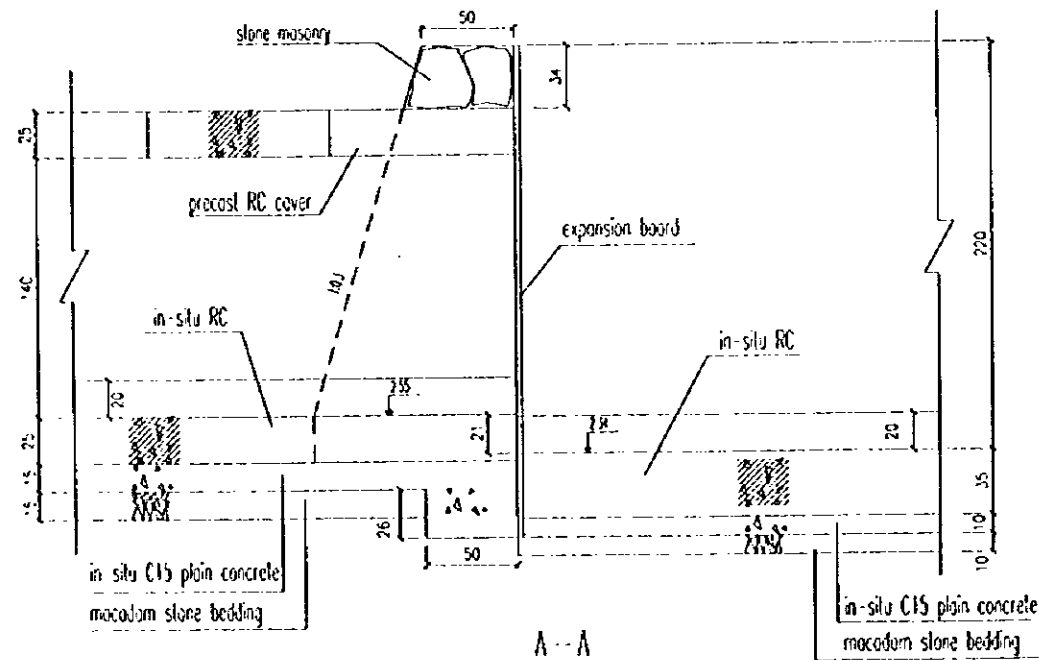
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S13)	
NO. SCALE	DWG1-D9(15/23)
JAPAN INTERNATIONAL COOPERATION AGENCY	



Plane



B--B

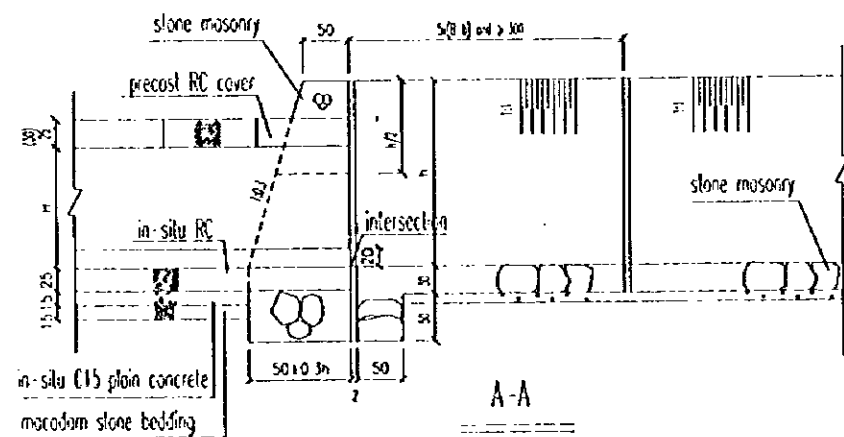
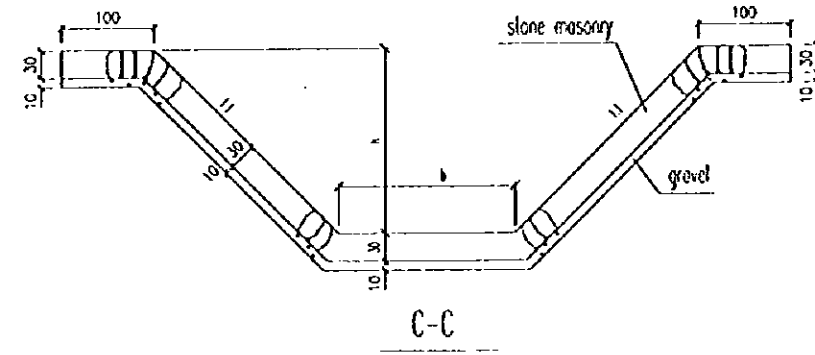
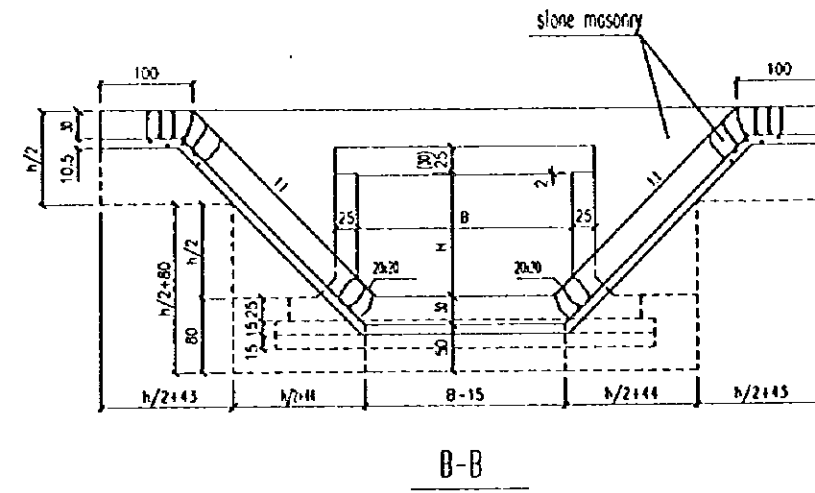
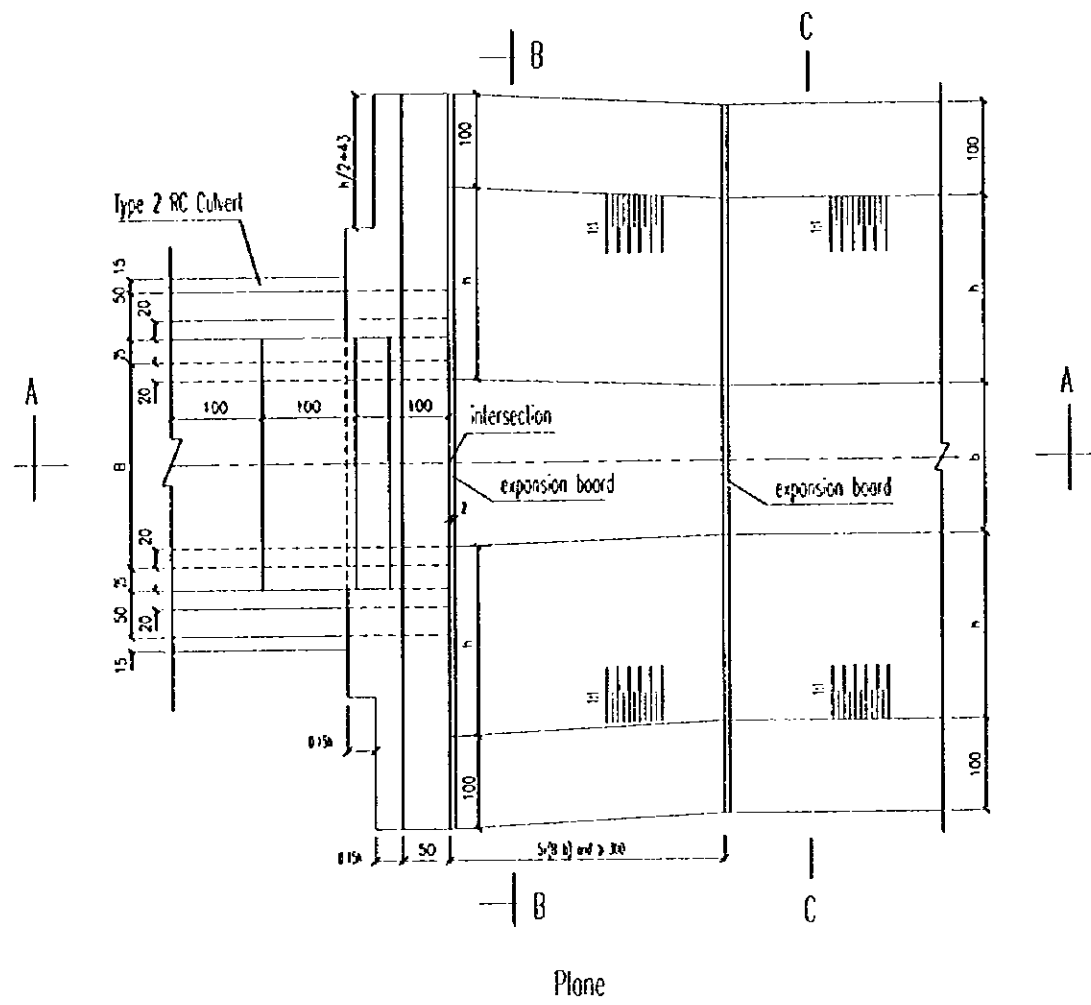


A--A

NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board.
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.
4. Quantities of intersection:
stone masonry: 3.5 (m³)

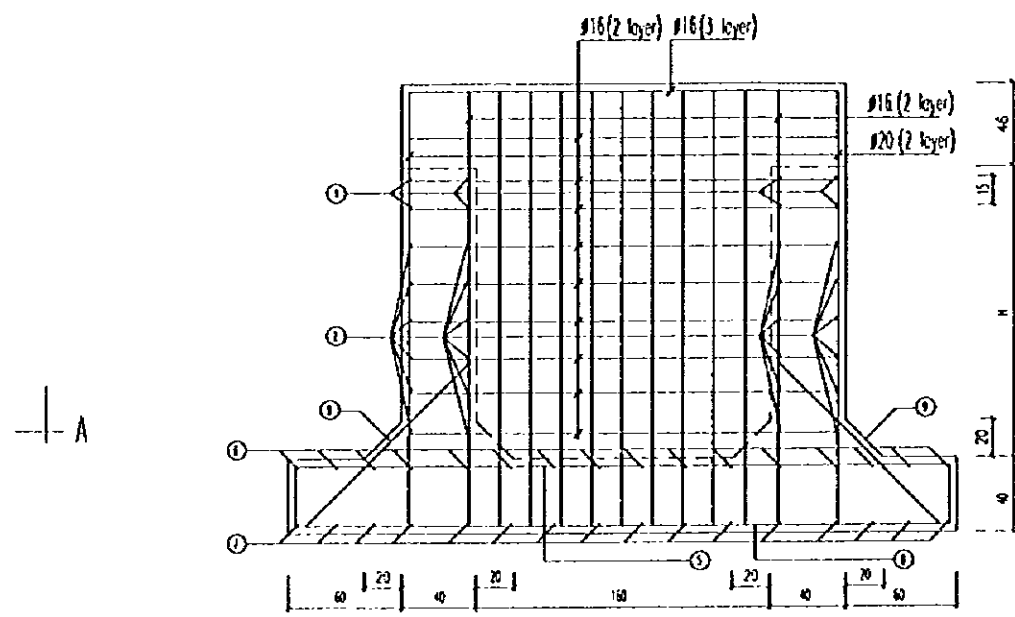
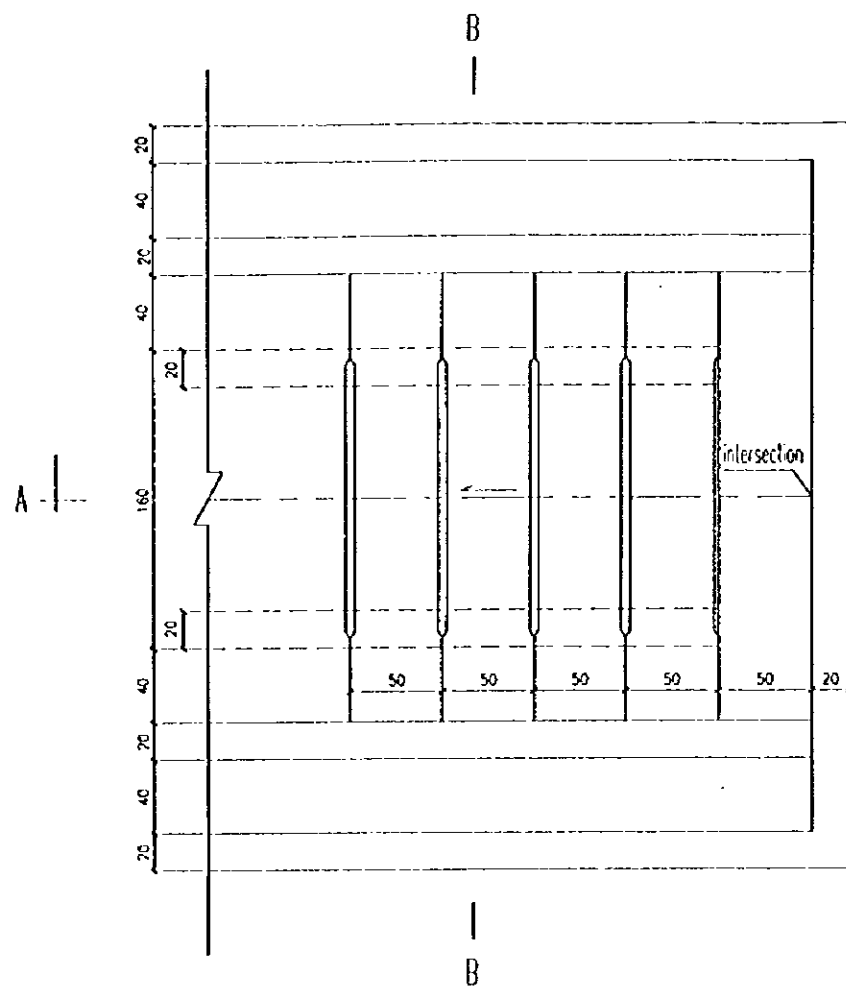
PEOPLE'S REPUBLIC OF CHINA	
SHANQIU PUJING INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S14)	
SCALE	DWG1-D9(16/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



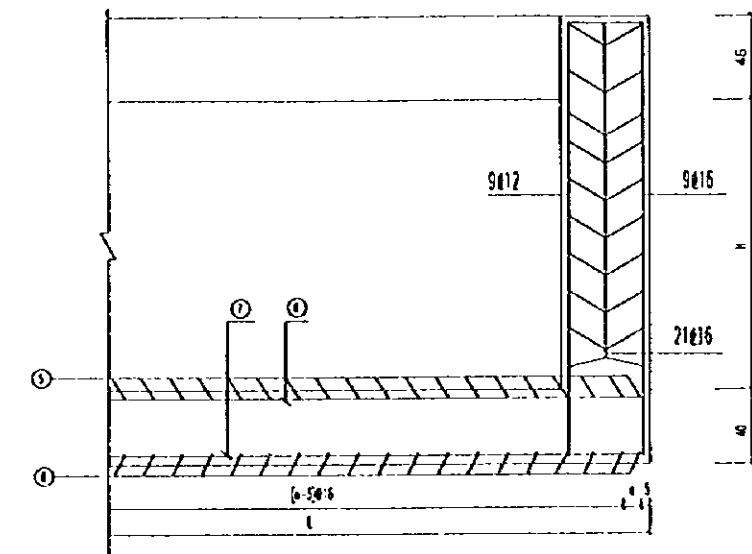
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness timber board
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (IS15)	
NO SCALE	DWG1-D9(17/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	

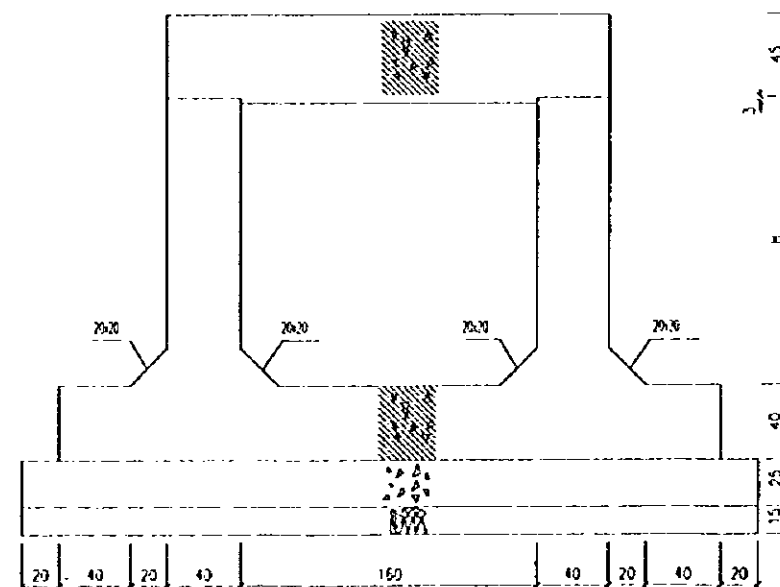
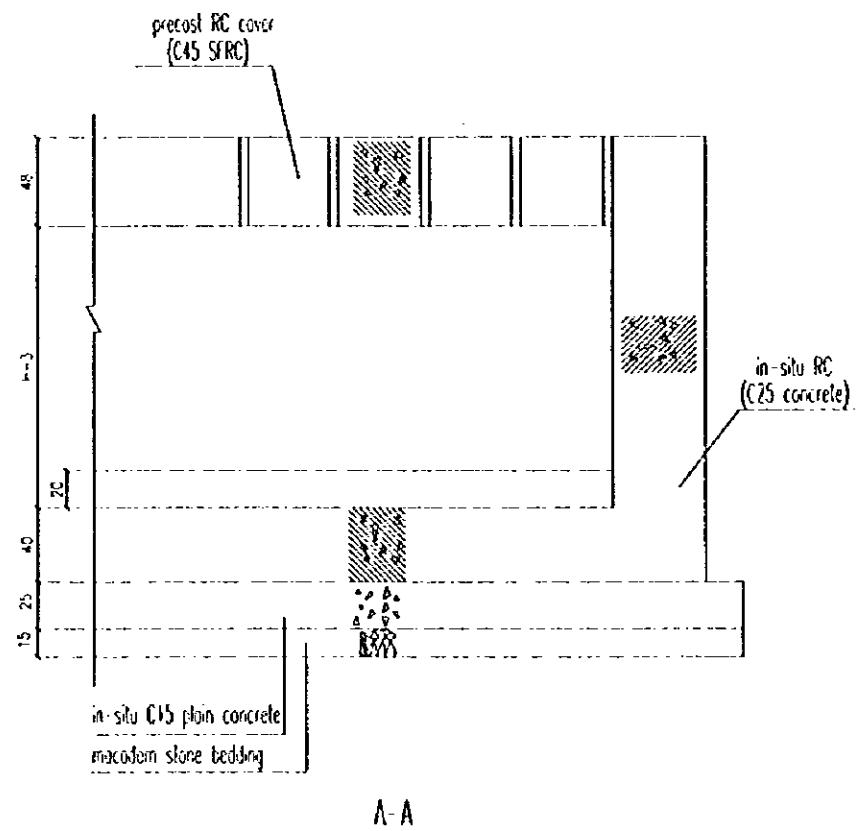


Reinforcement of Type 2 RC Ditch
(Cross Section of Ending Wall)



Profile of Reinforcement

Plane



B-B

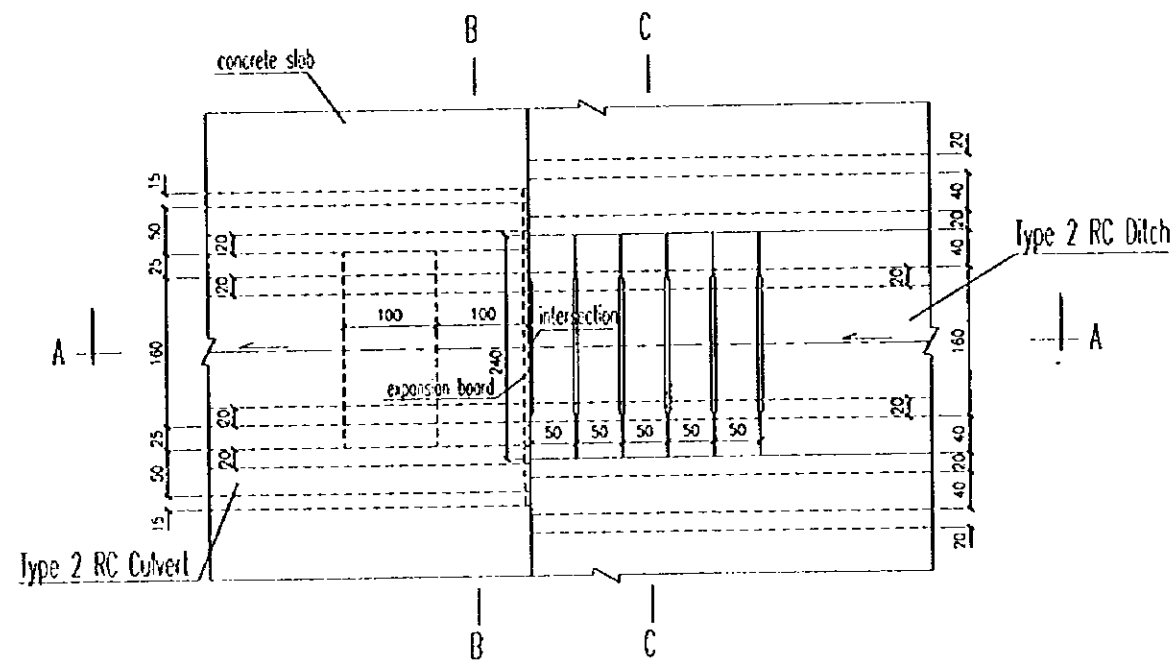
quantities of intersection

storm drainage	intersection coordinates	H cm	reinforcement			C25 concrete m ³	C15 concrete m ³	macadam stone bedding
			Ø12 kg	Ø16 kg	Ø20 kg			
A7-1	P216+00 H208+30	163	19.9	134.9	27.1	2.50	0.2	0.12
A5-1	P252+0.5 H214+00	152	19.0	132.6	26.0	2.37	0.2	0.12

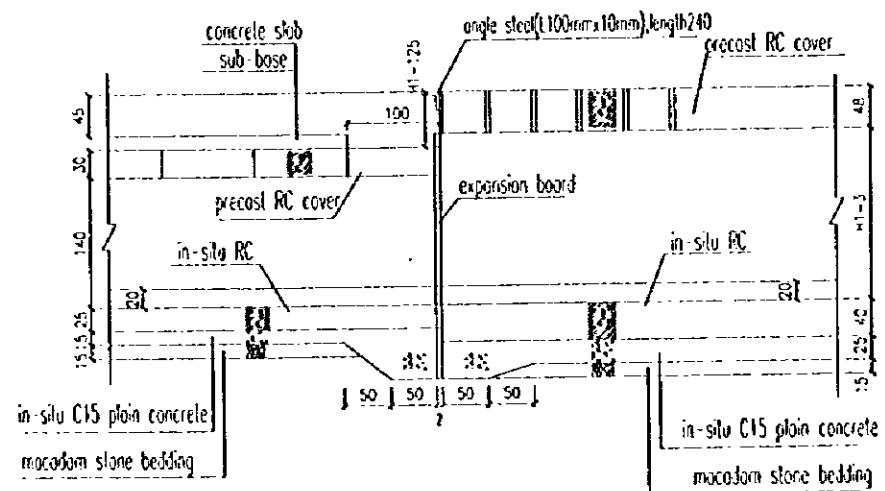
NOTE

- Unit:cm.
- See "DWG1-09(1~2/29)" for coordinates of intersection .
- Reinforcement of type 2 ditch see "DWG1-08".
Else, NO. ①, ②, ③ inside reinforcement in ending wall is no use.

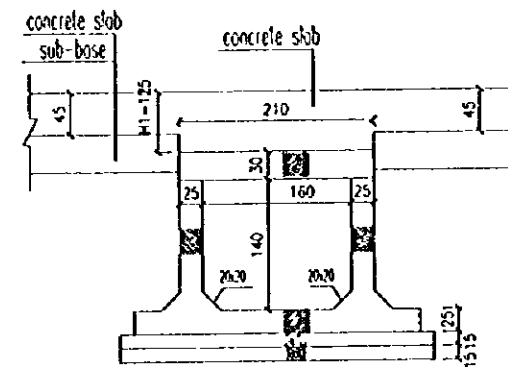
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S16)	
SCALE	DWG1-09(18/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



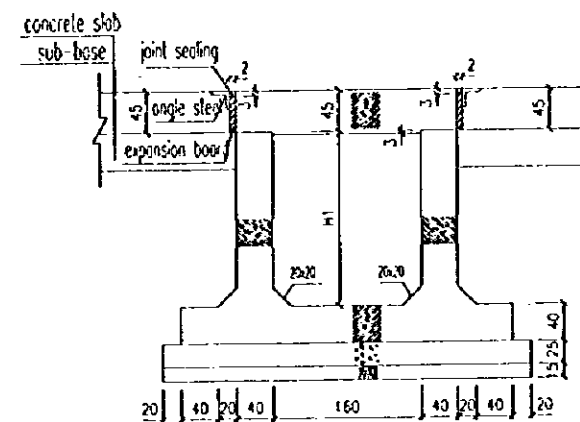
Plane



A-A



B-B

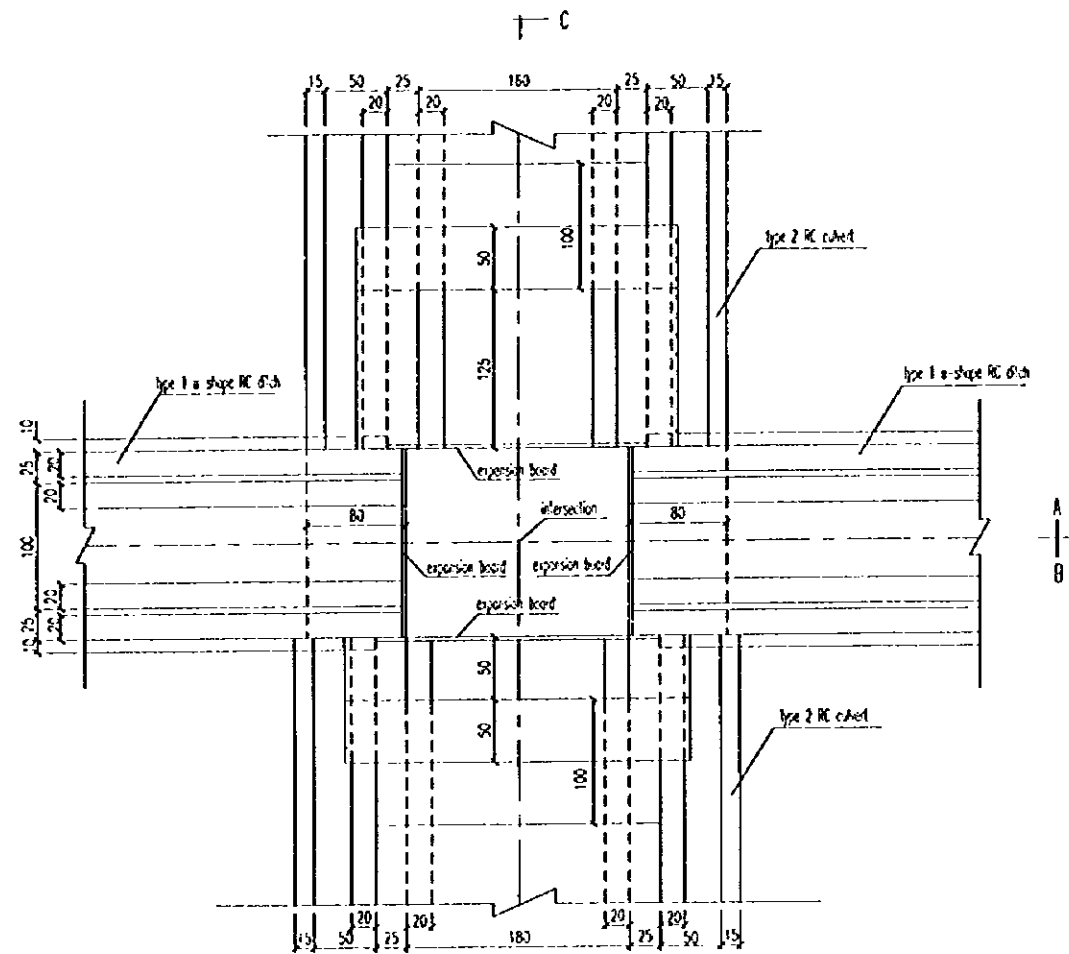


C-C

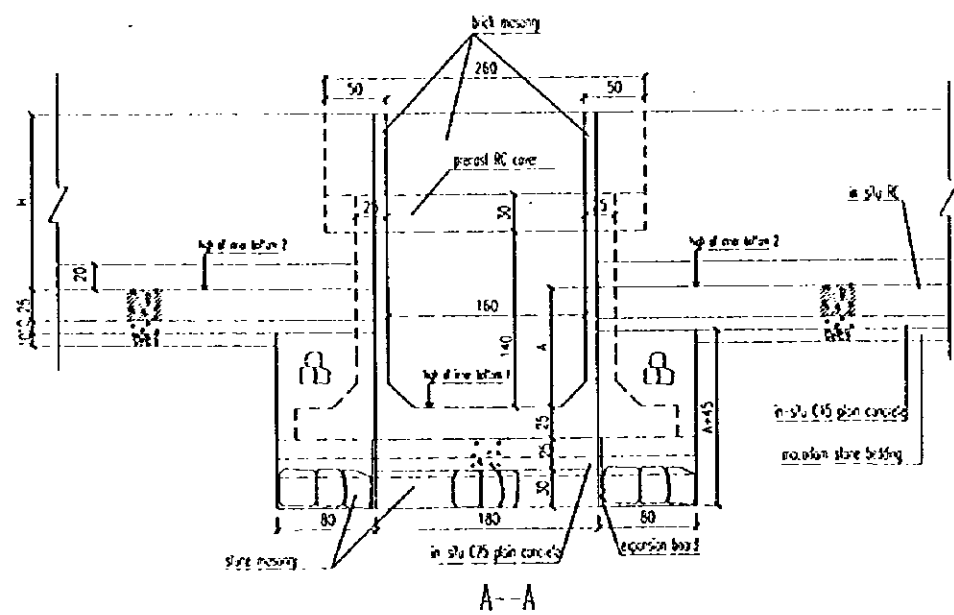
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

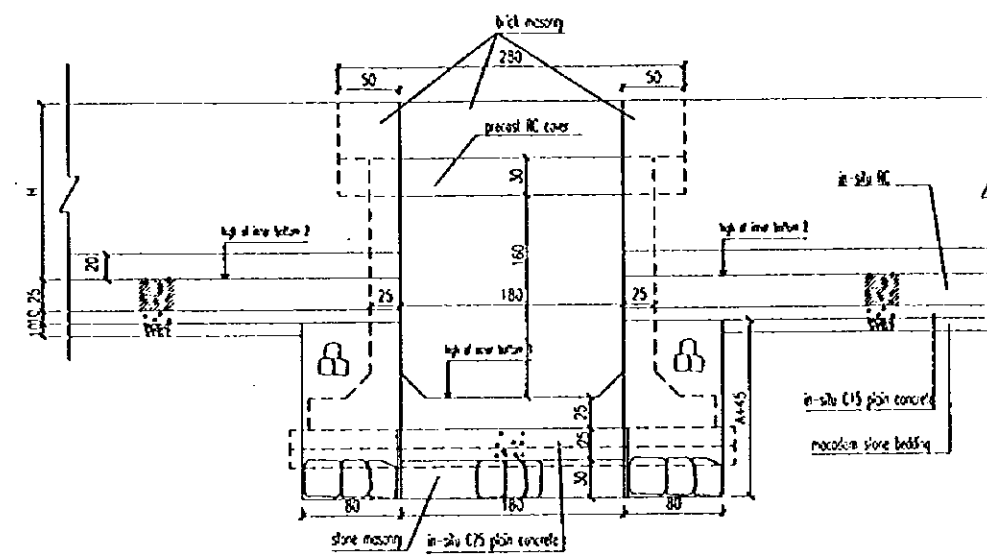
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT SEPTEMBER 1997	
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (1517)	
SCALE	DWG1-D9(19/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



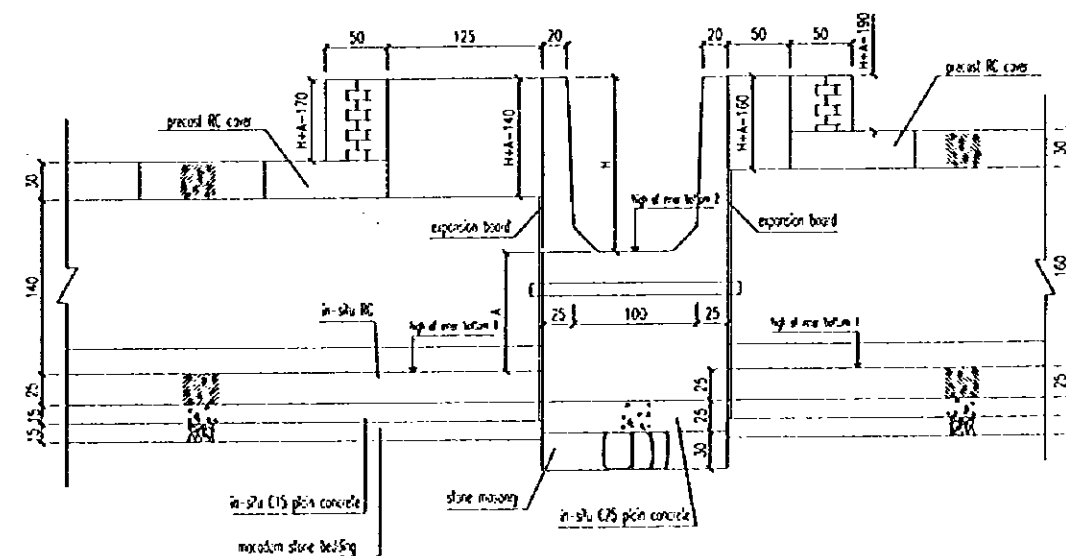
Plane



A--A



B--B



C--C

Parameter of intersection

intersection	high of brick masonry (mm)	high of in-situ concrete (mm)	H (m)
P25-N N22-N	210	315	1.31
P25-N N22-N	210	317	1.41

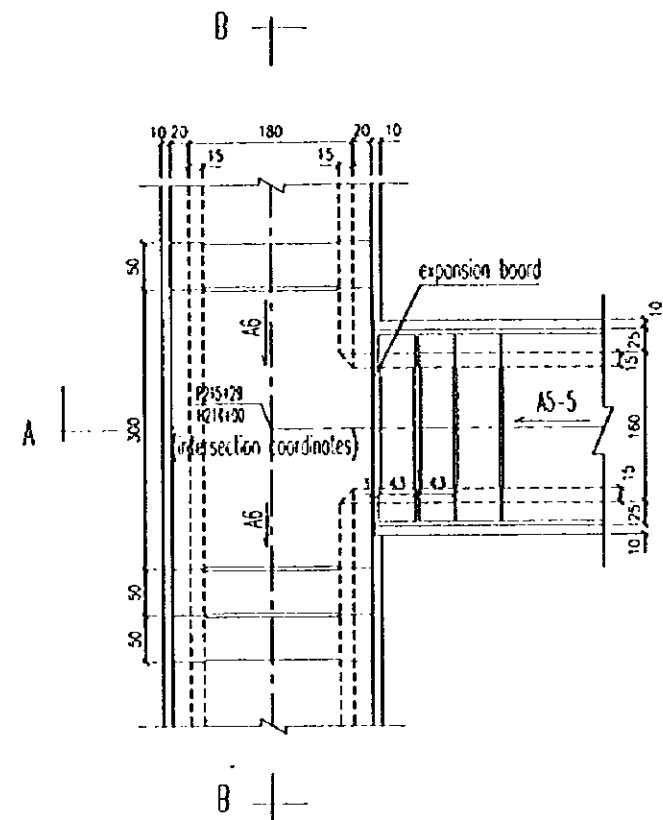
Quantities of intersection

intersection coordinates	C25 concrete (m ³)	stone masonry (m ³)	brick masonry (m ³)
P25-N N22-N	0.1	4.8	2.9
P25-N N22-N	0.1	4.2	3.0

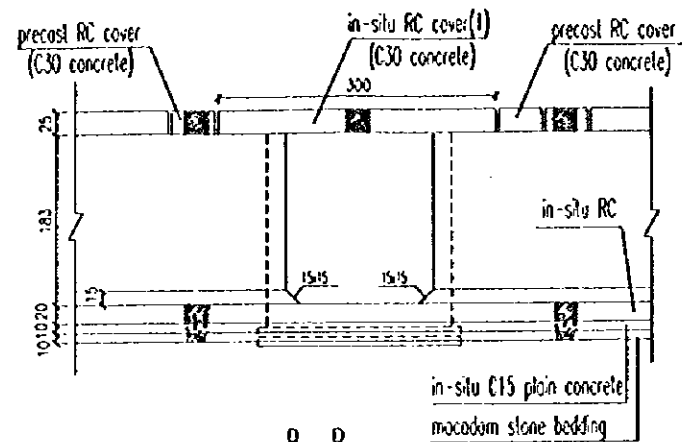
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board.
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

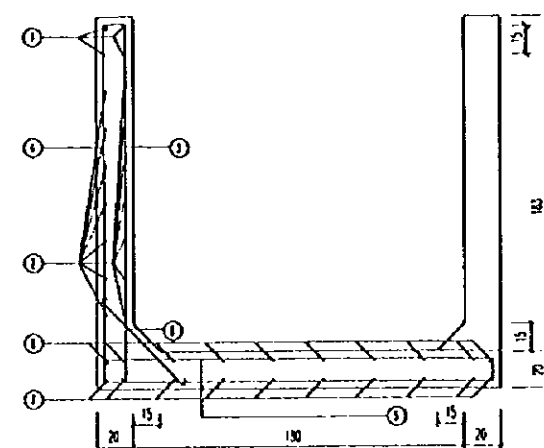
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S18)	
NO SCALE	DWG1-D9(20/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



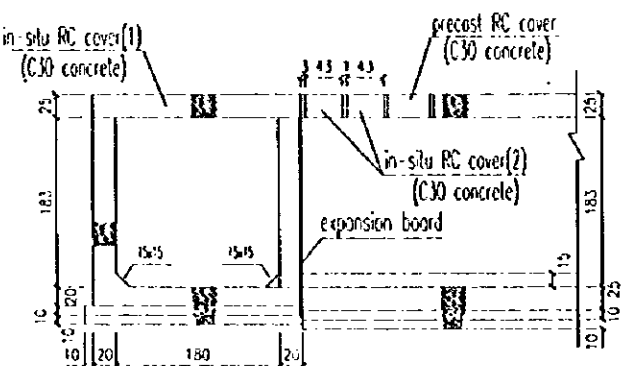
Plane
(1:40)



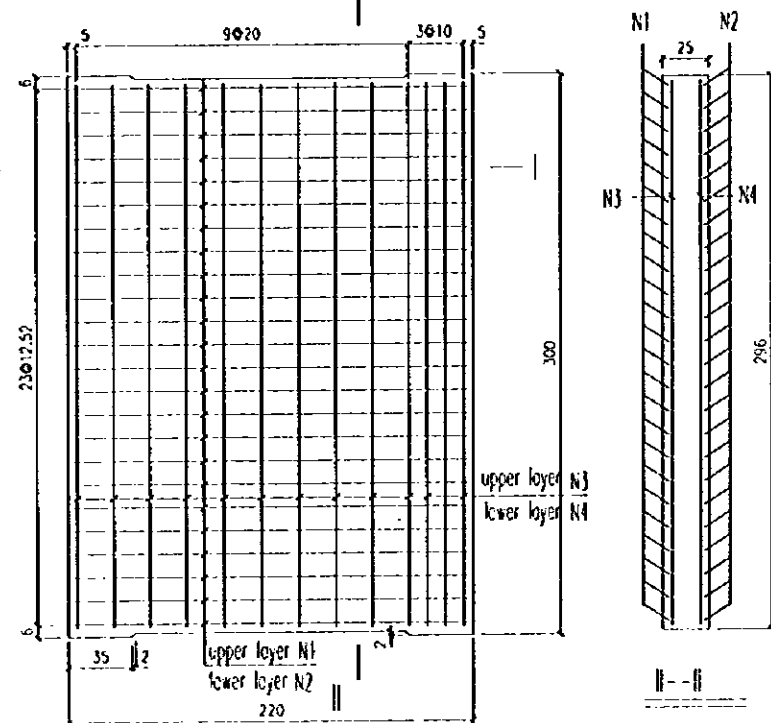
B--B
(1:40)



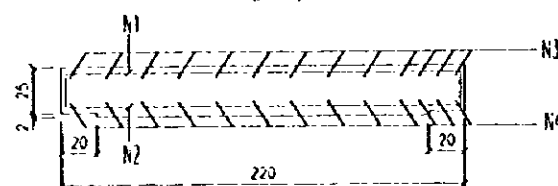
Reinforcement of Type I RC Ditch
(Cross Section of Intersection)



A--A
(1:40)

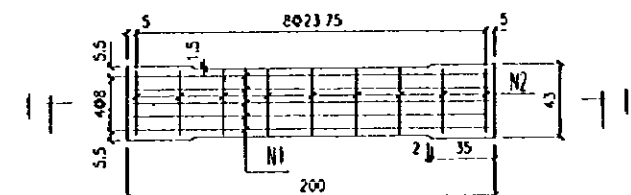


Reinforcement of in-situ cover(1)
(plane)

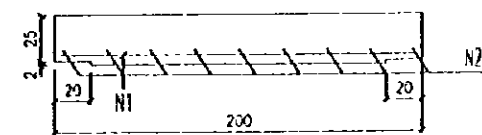


Bending Schedule of in-situ Cover(1)

NO	shape	diameter (mm)	NO'S	length (m)	total length (m)	total weight (kg)	concrete (m³)
N1	— 215	φ12	21	715	5150	45.83	1.28
N2	— 220	φ16	24	725	6120	56.58	
N3	— 251	φ12	13	251	3263	31.90	
N4	— 251	φ16	13	251	3263	58.70	



Reinforcement of in-situ cover(2)
(plane)



— — —

Bending Schedule of in-situ Cover(2)

NO	shape	diameter (mm)	NO'S	length (m)	total length (m)	total weight (kg)	concrete (m³)
N1	— 195	φ14	5	195	975	41.70	#28
N2	— 35	φ8	9	35	315	12.5	

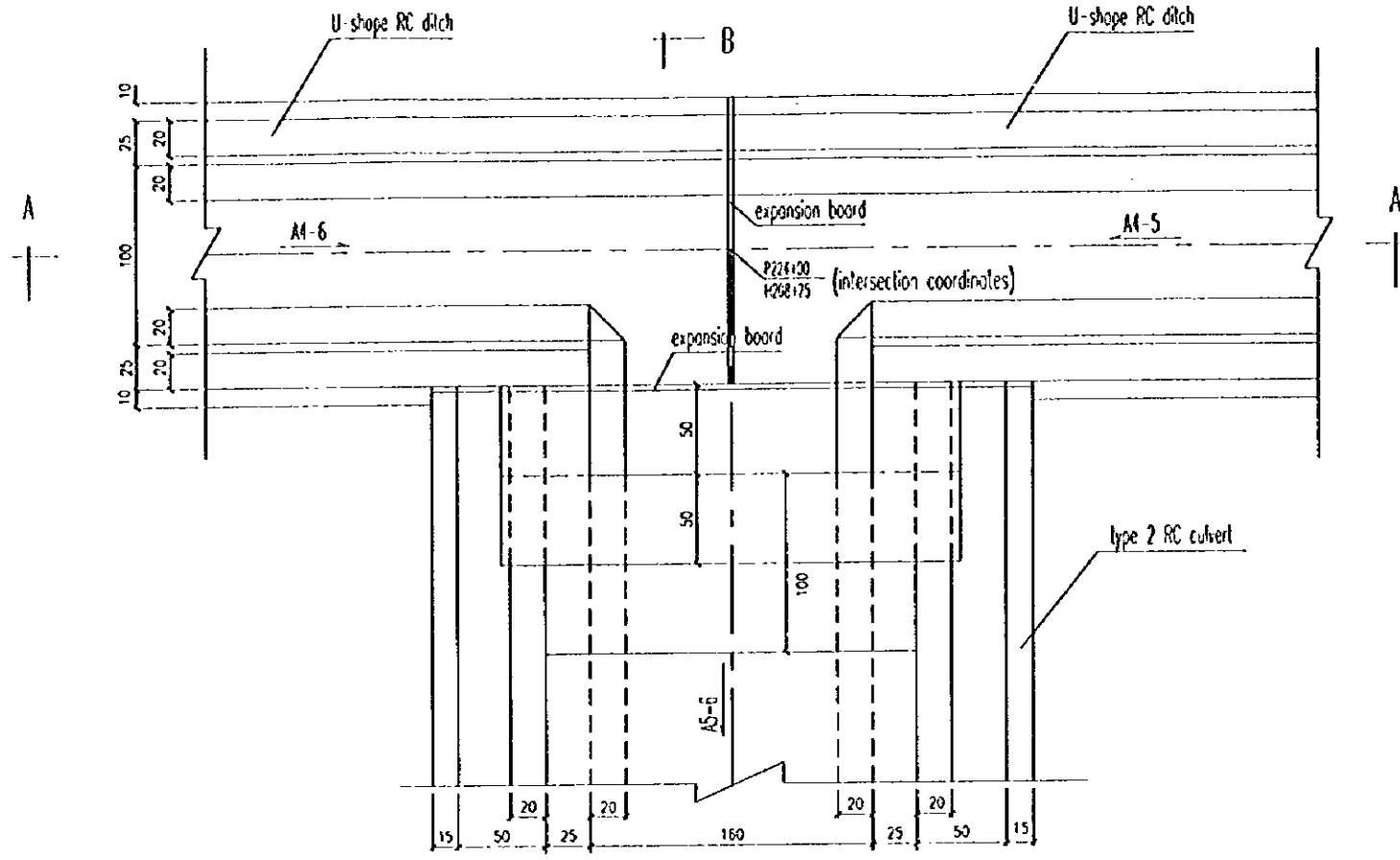
Quantities of in-situ cover(2)

piece	#	kg	#	kg	concrete (m³)
2	15	2156	0.6		

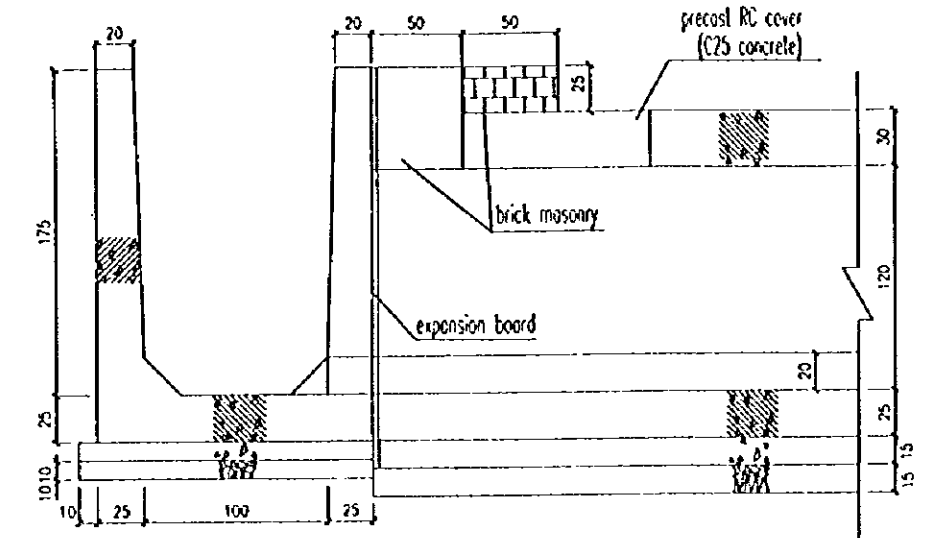
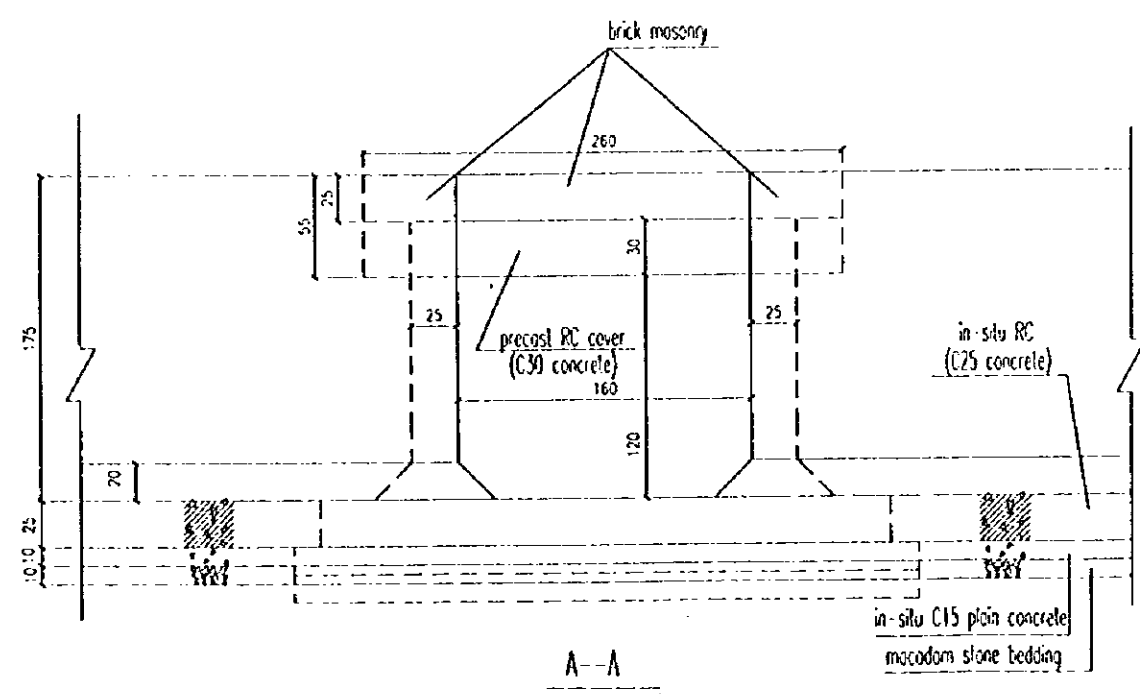
NOTE

- Unit:cm.
- Expansion joint material:2cm thickness polyvinyl board.
- See "DWG1-D9(1~2/29)" for coordinates of intersection.
- Reinforcement of type I RC ditch see "DWG1-D8".

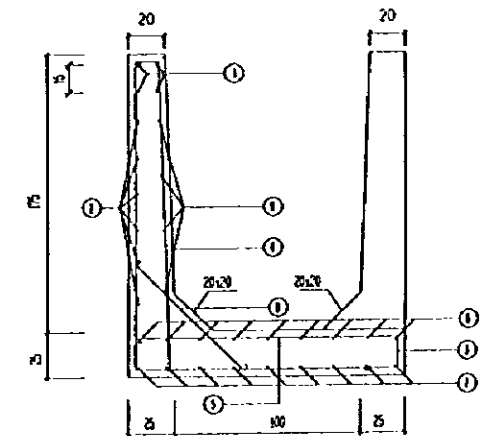
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT SEPTEMBER 1997	
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (K519)	
SCALE:	DWG1-D9(21/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



Plane



B--B

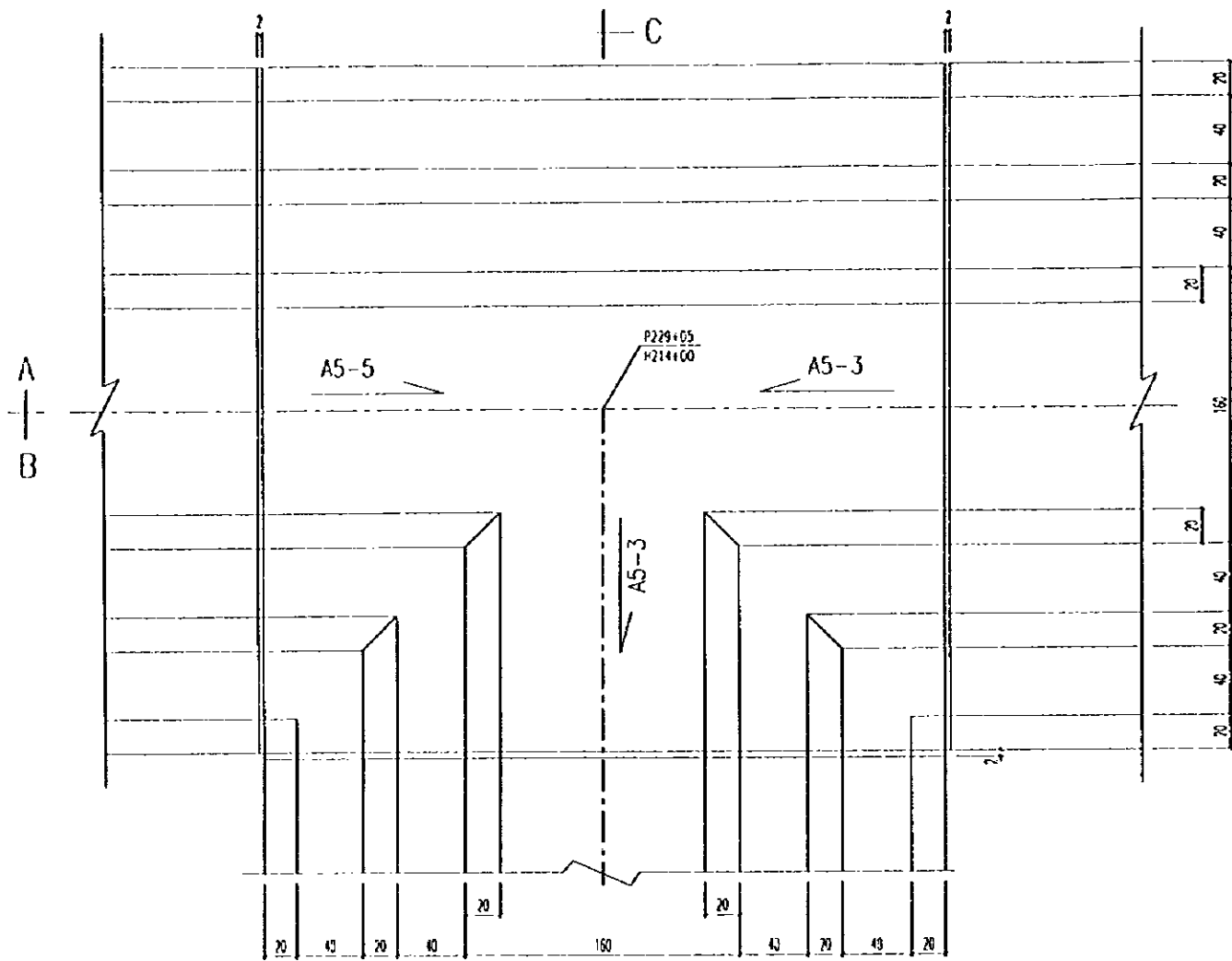


Reinforcement of U-shape RC Ditch
(Cross Section of Intersection)

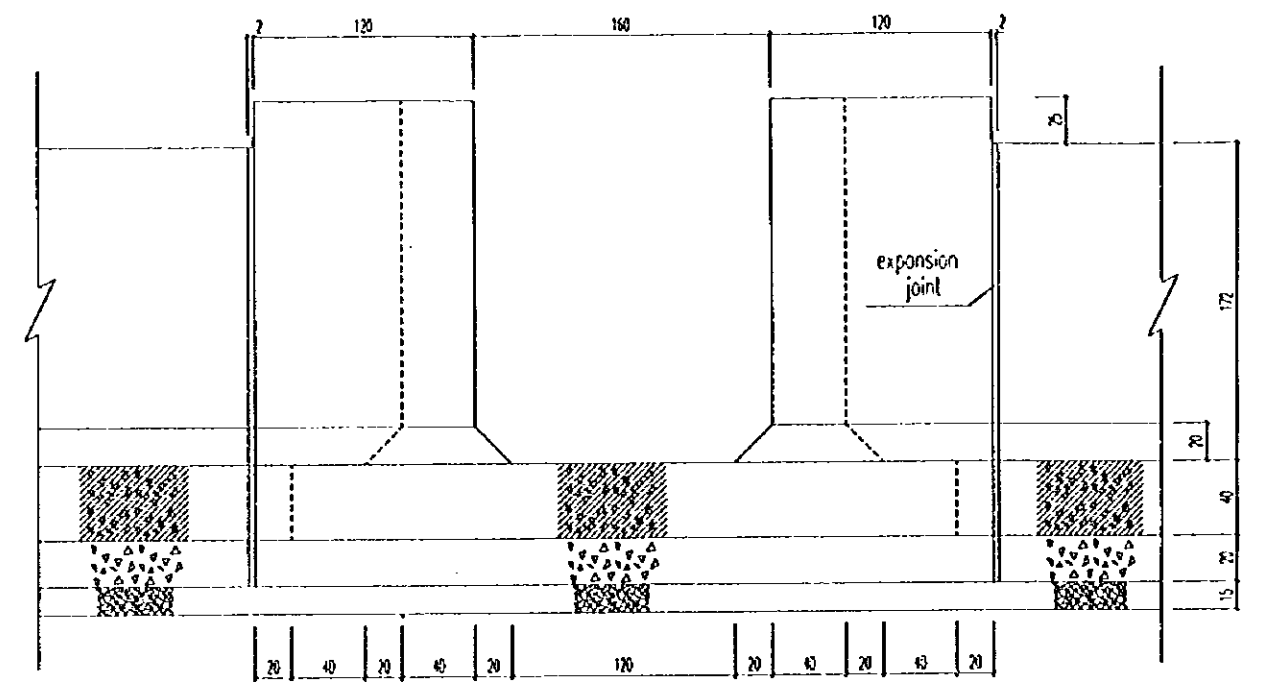
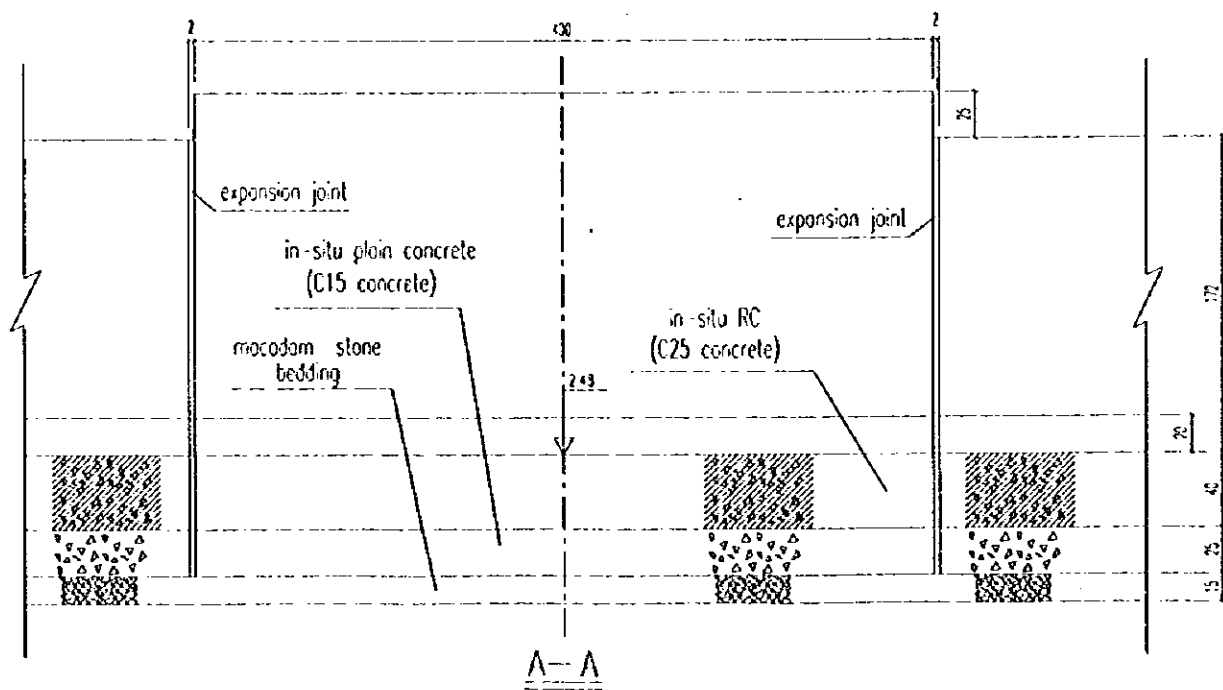
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness polyvinyl board.
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.
4. Reinforcement of U-shape RC ditch see "DWG1-D8".
5. Quantities of intersection:
brick masonry: 0.7 (m³)

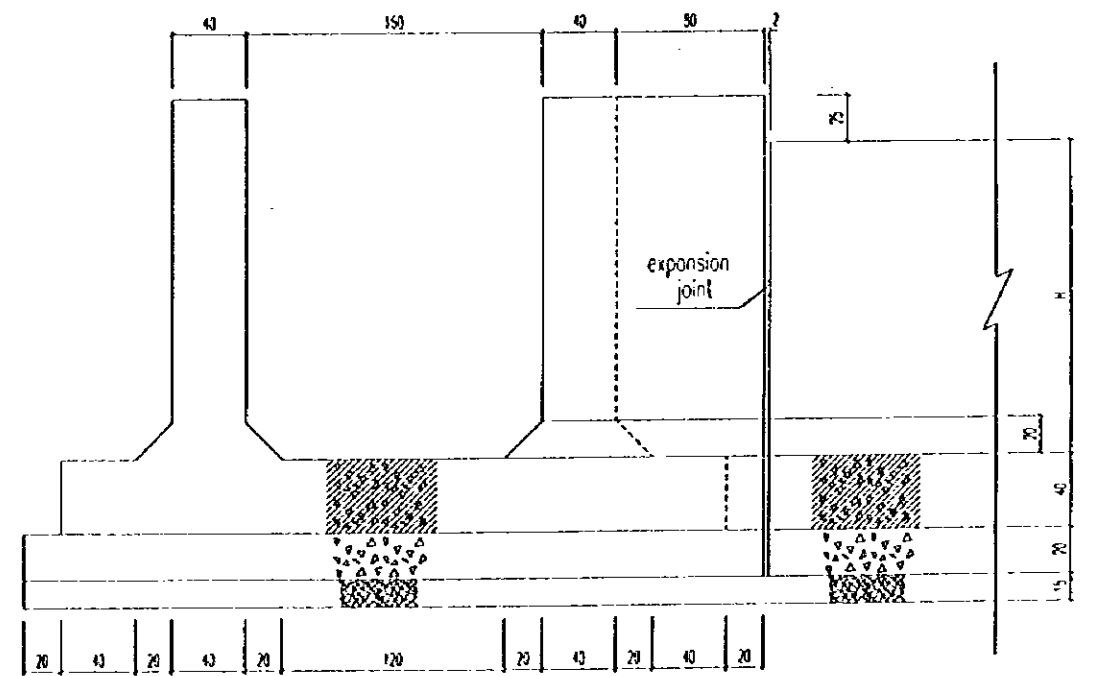
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT SEPTEMBER 1997	
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (520)	
SCALE	DWG1 D9(22/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



PLAN



B-B

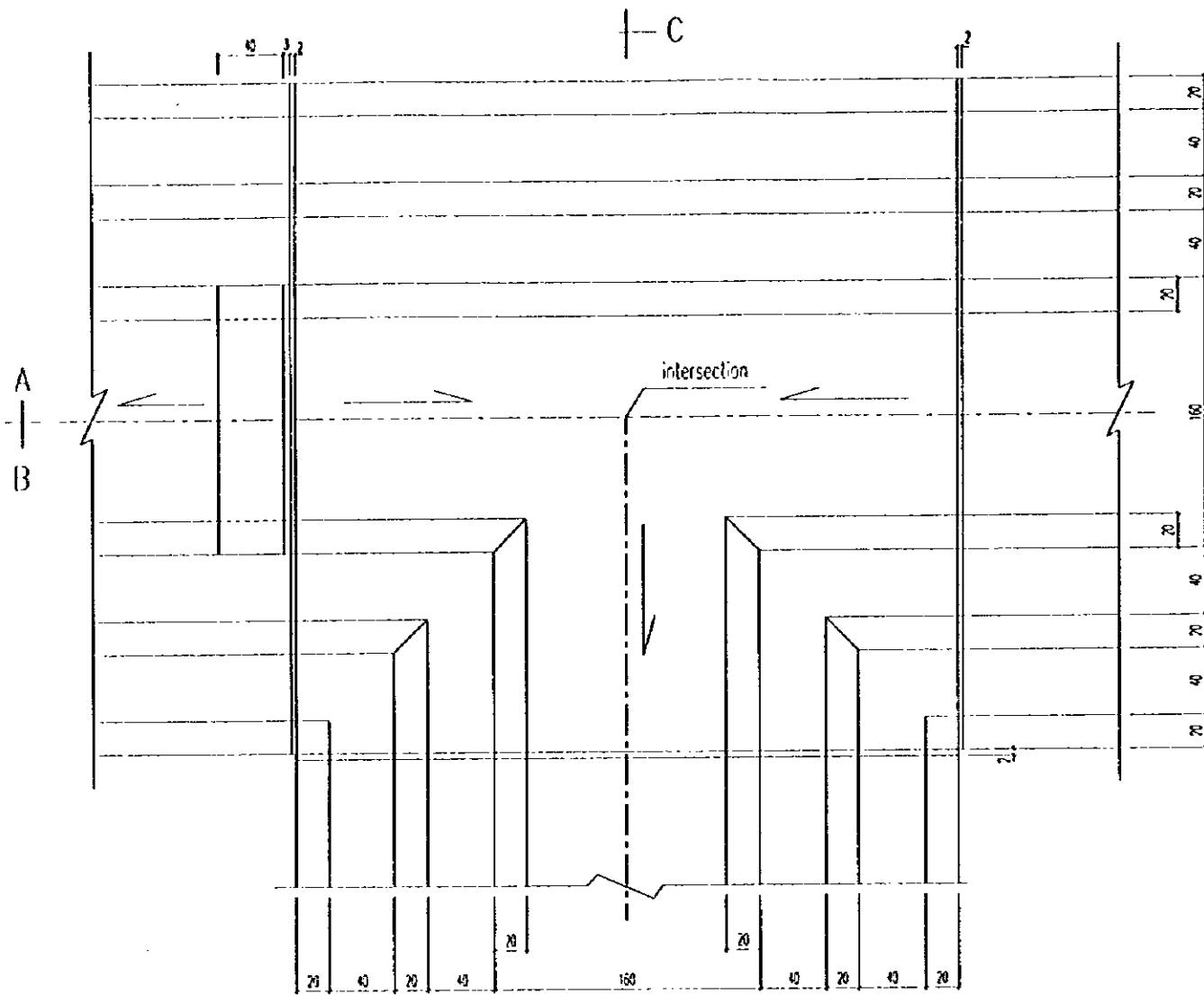


C-C

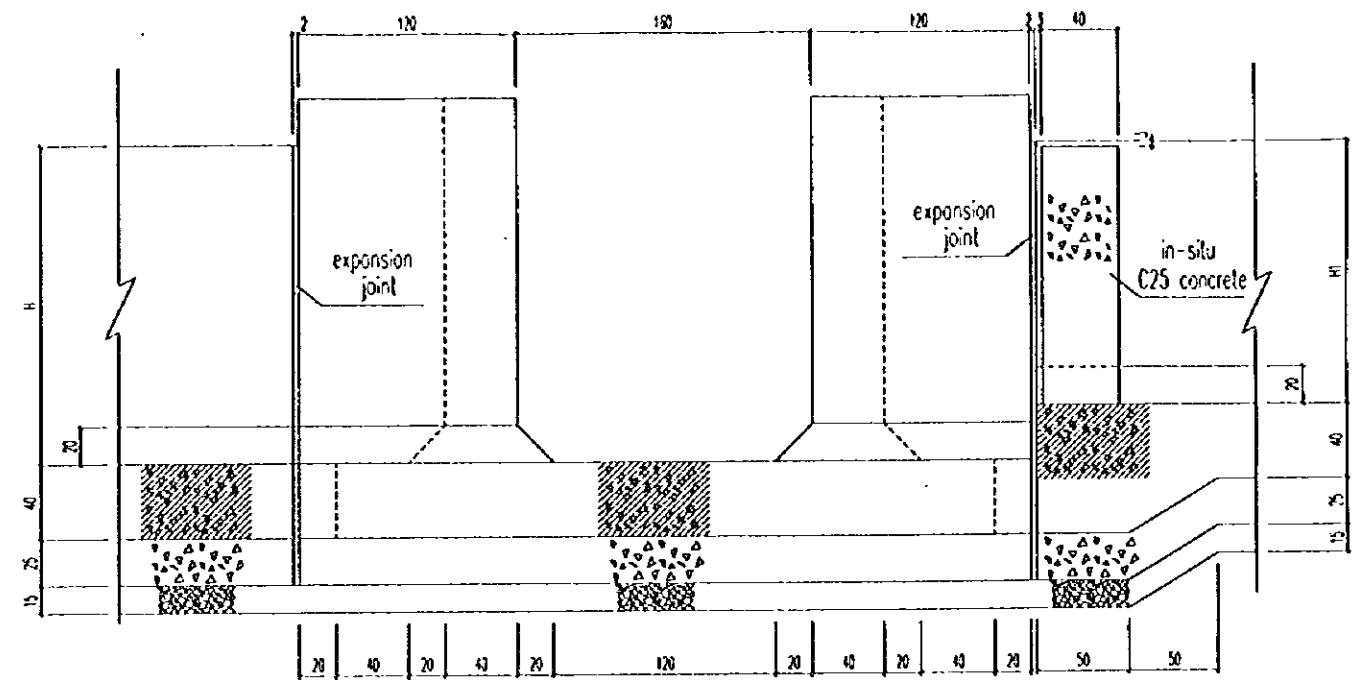
NOTE

1. Units : for dimensions , cm; for heights , m.
2. See "DWG1-D6(4/6)" for details of expansion joint .
3. Cast steel gratings are used for the part with higher side walls, see "DWG1-D10" for arrangement and details of cast steel gratings .

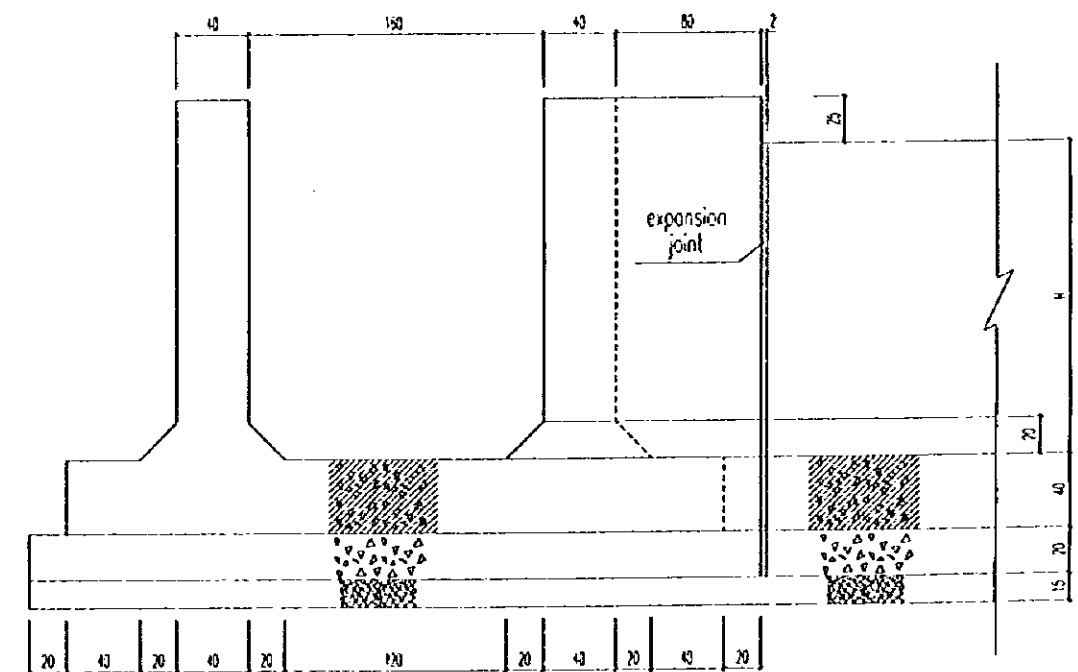
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S21)	
SCALE	DWG1-09(21/23)
JAPAN INTERNATIONAL COOPERATION AGENCY	



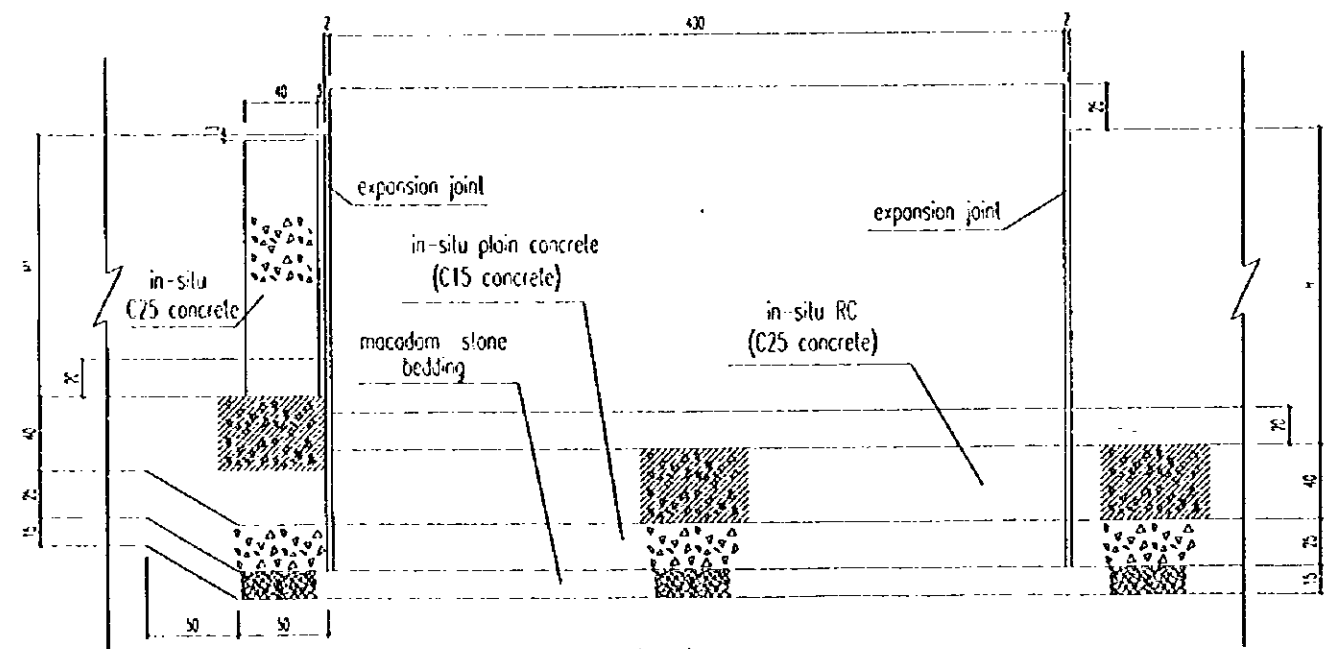
PLAN



B-B



C-C



A-A

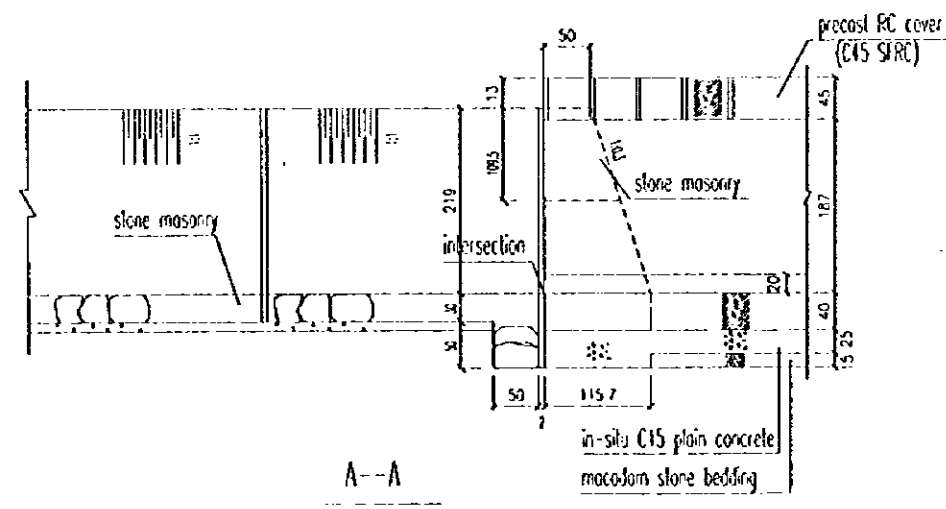
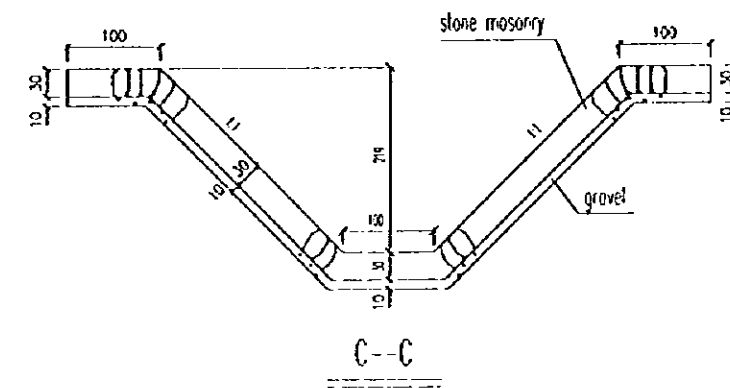
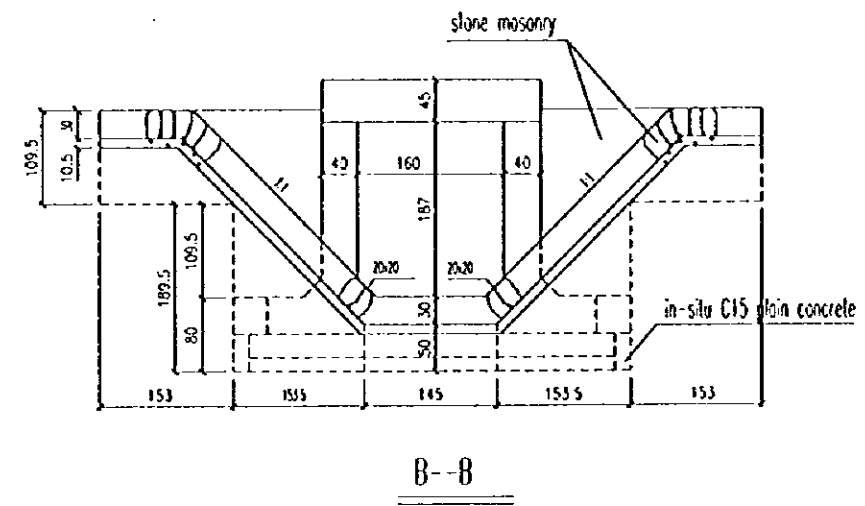
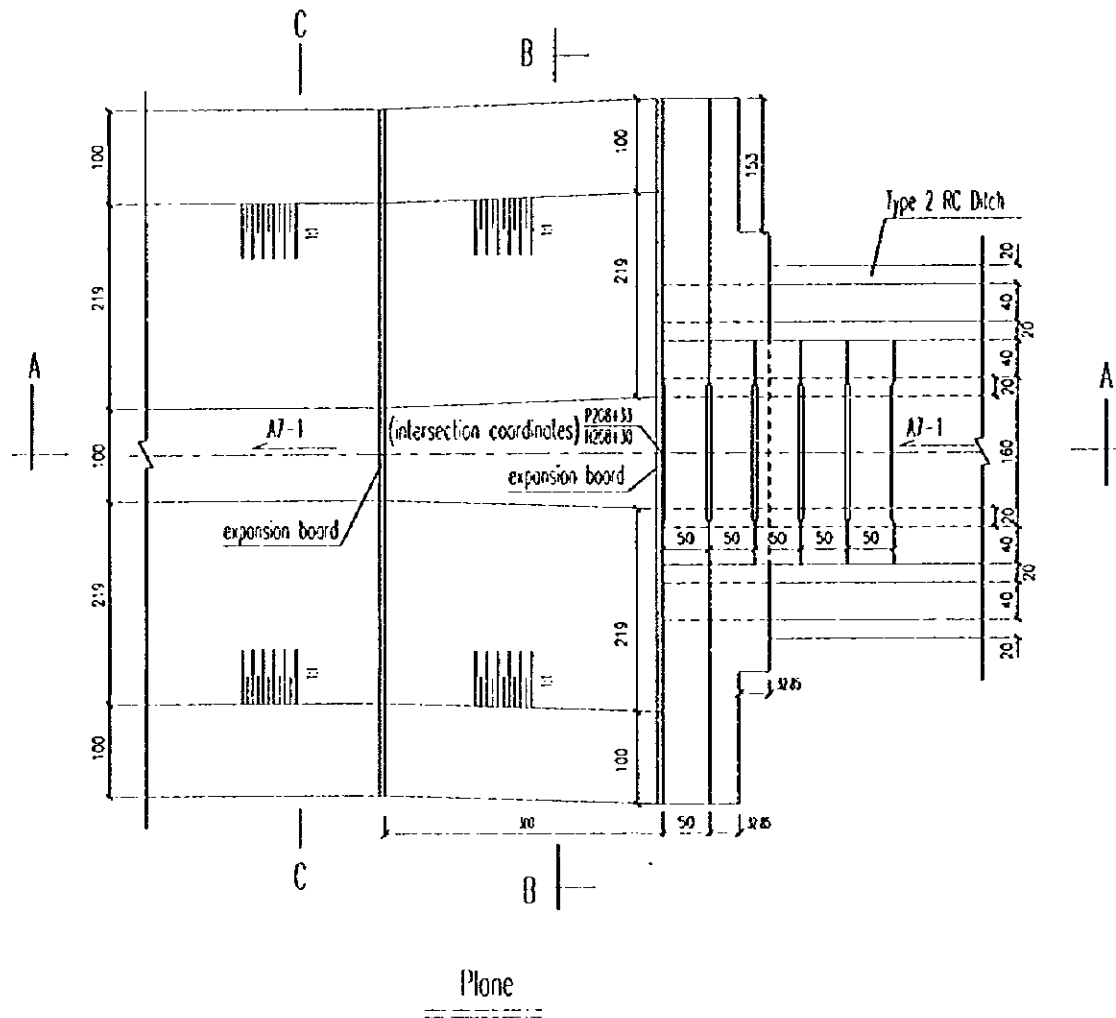
NOTE

1. Units : for dimensions , cm; for heights , m.
2. See "DWG1-D6(4/6)" for details of expansion joint .
3. Cast steel gratings are used for the part with higher side walls, see "DWG1-D10" for arrangement and details of cast steel gratings .

PARAMETERS

INTERSECTION	USER BOUND LENGTH (m)	H1 (cm)	H11 (cm)
P245*10 H214*00	2.50	1.76	1.37
P235*20 H214*00	2.50	1.72	1.43

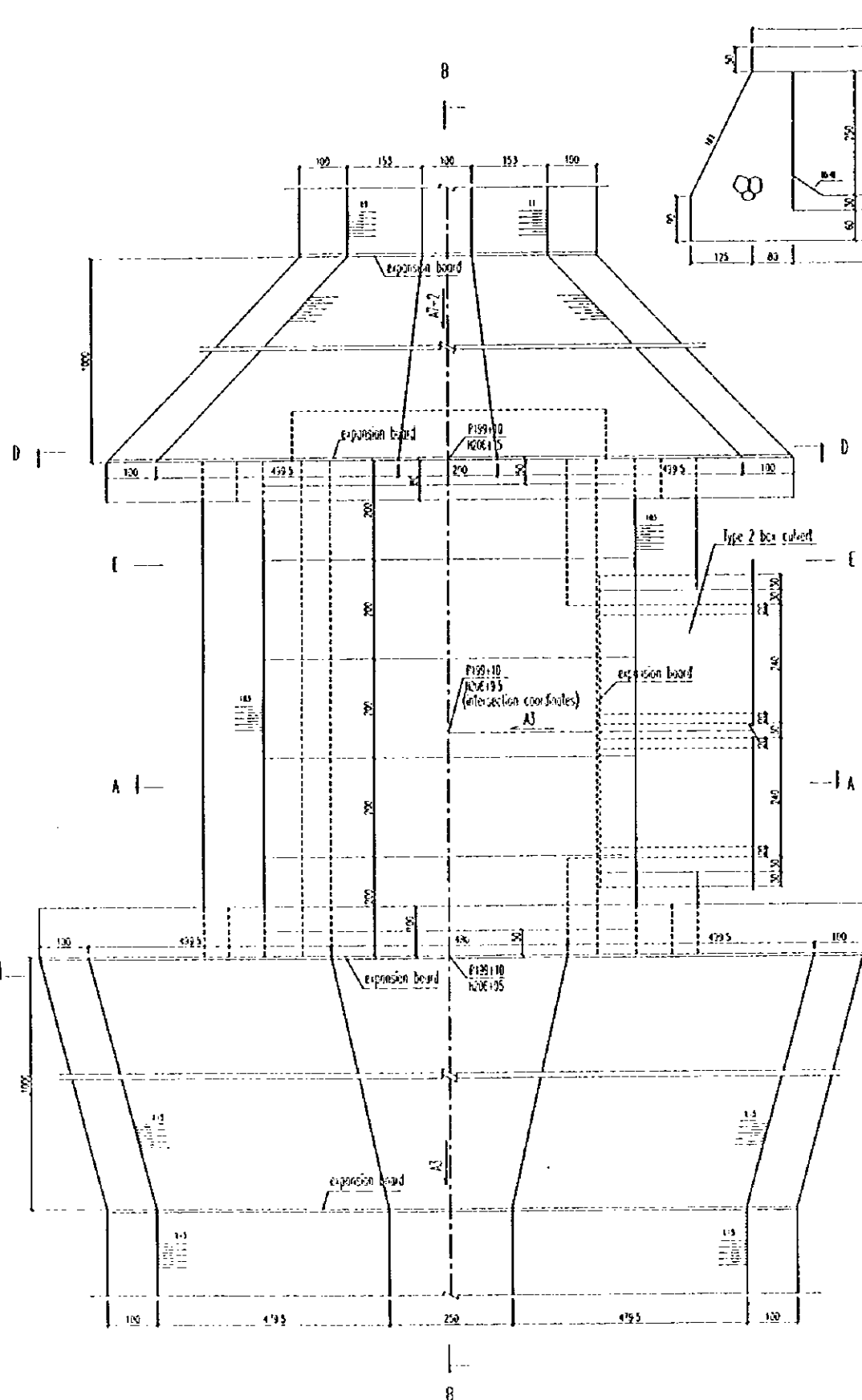
PEOPLE'S REPUBLIC OF CHINA
 SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT | SEPTEMBER 1997
 DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (4522)
 SCALE 1:50
 DWG1-D9(24/29)
 JAPAN INTERNATIONAL COOPERATION AGENCY



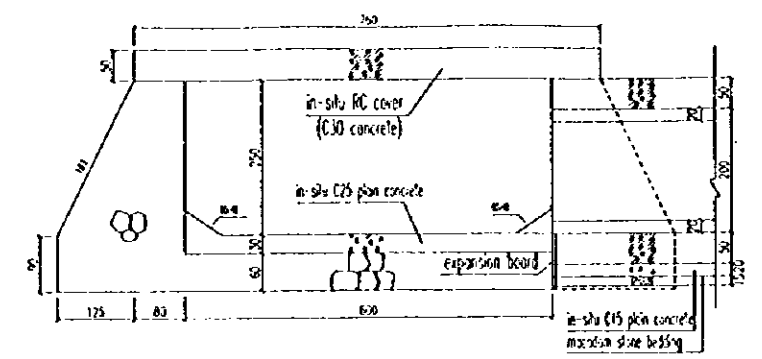
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness timber board
3. See "DWG1-09(1~2/29)" for coordinates of intersection.

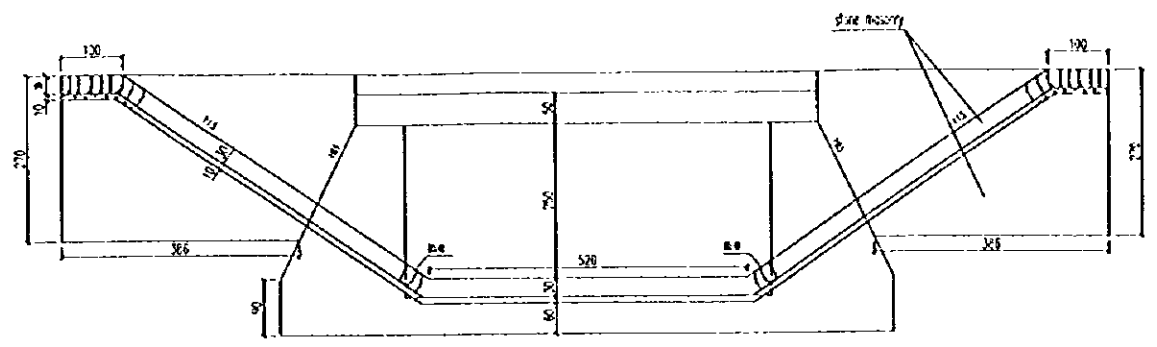
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES(S23)	
SCALE	DWG1-09(25/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



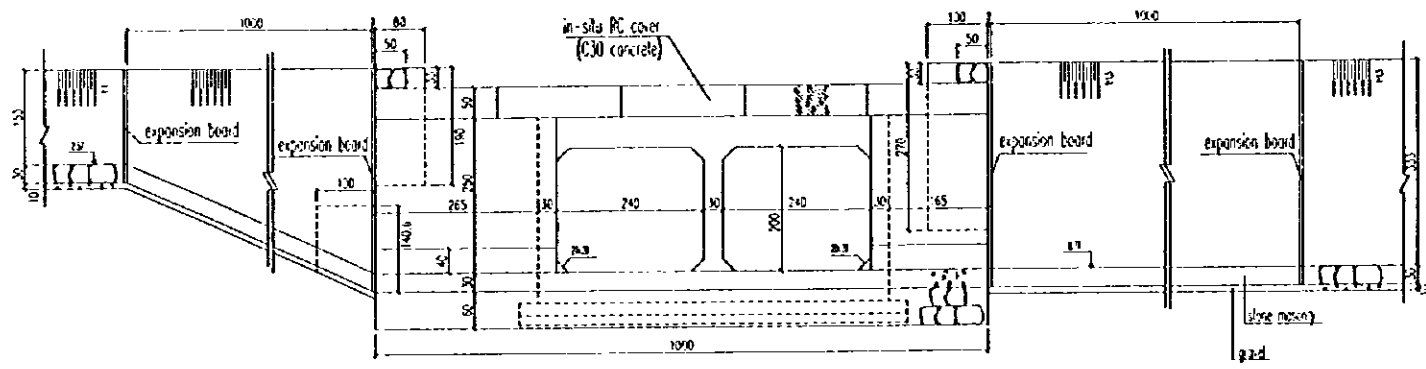
Plan



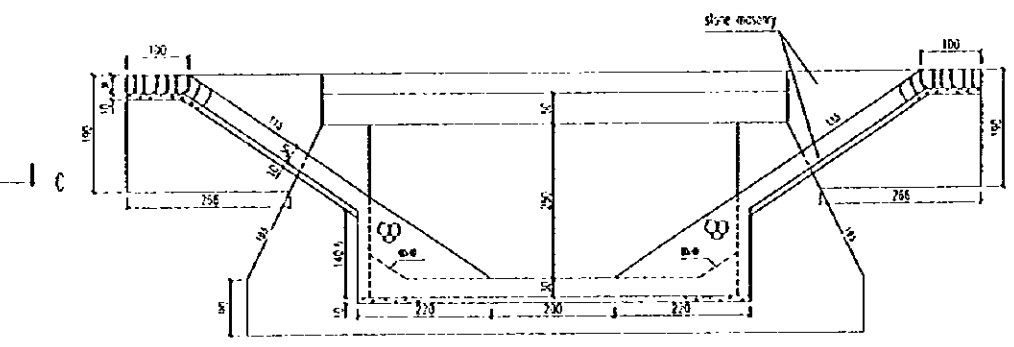
A-A



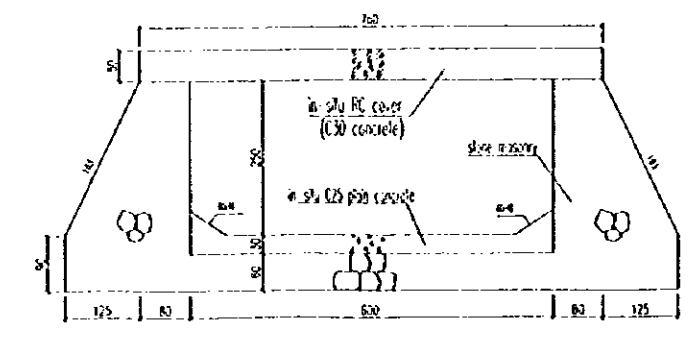
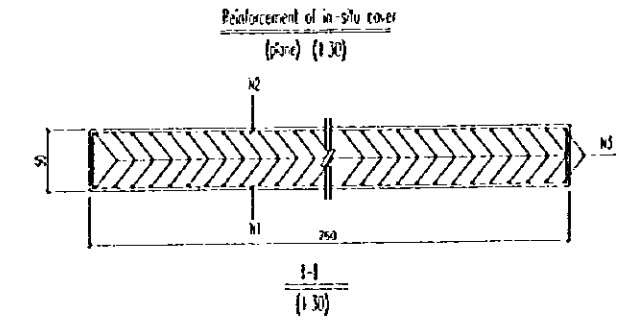
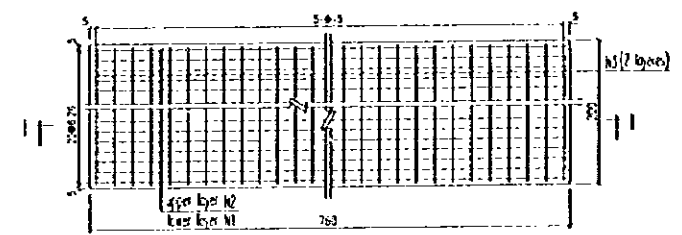
C-C



B-B



D-D



E-E

Beading Schedule of in-situ Cover (1)

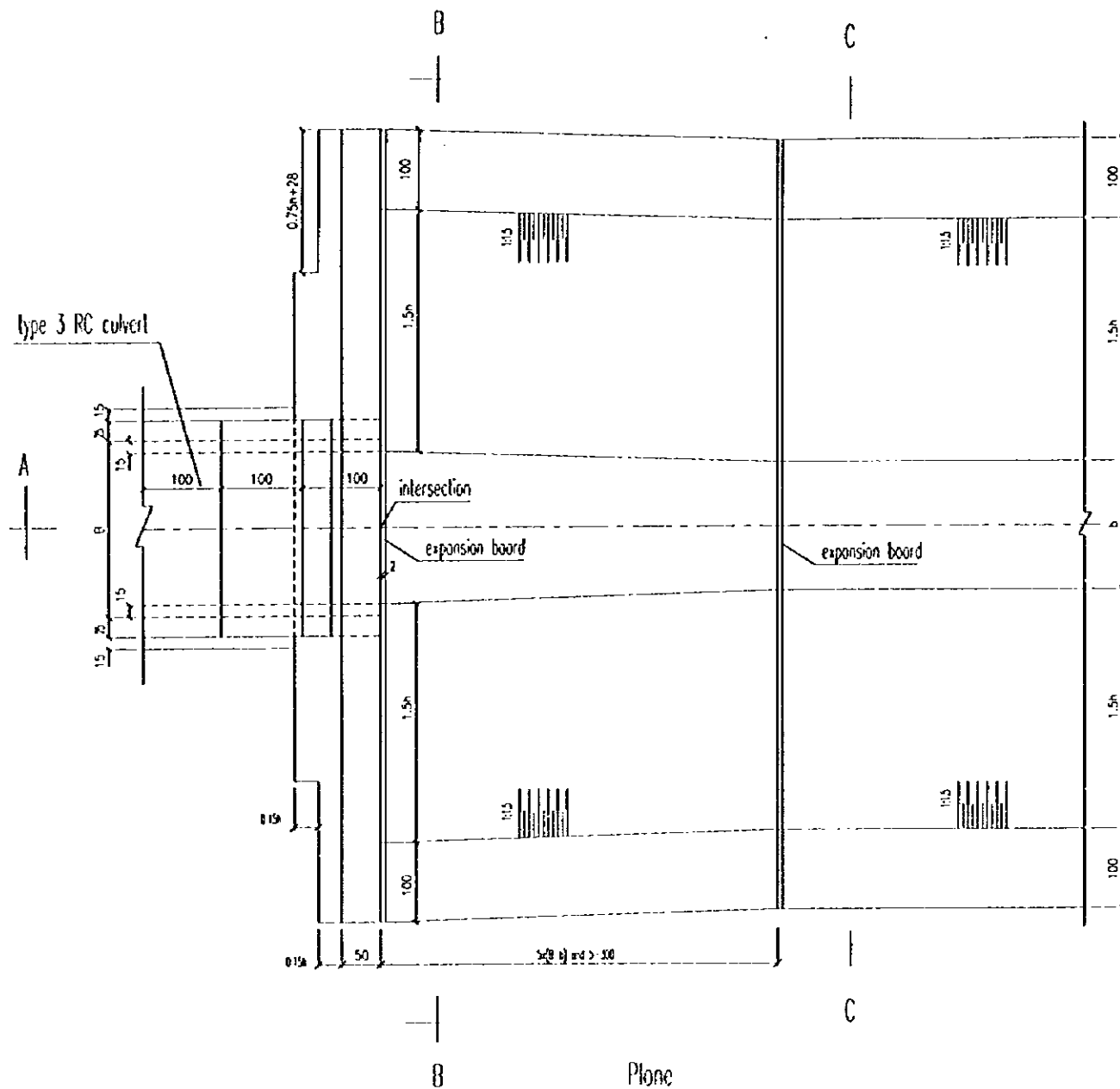
NO	shape	size	length	width	height	concrete
N1	100x100	100	100	100	100	1:3
N2	100x100	100	100	100	100	1:3
N3	100x100	100	100	100	100	1:3
N4	100x100	100	100	100	100	1:3
N5	100x100	100	100	100	100	1:3

Details of intersection

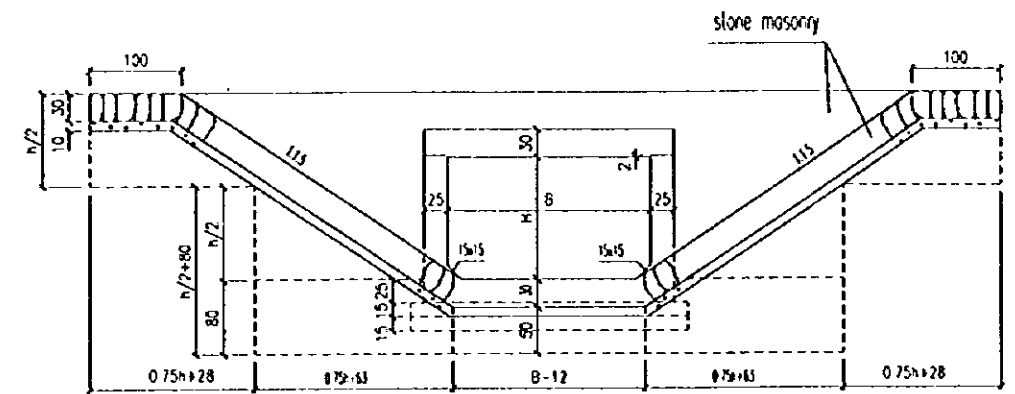
piece of cover	NO	size	C30 concrete	C25 concrete	slope masonry	expansion board	height
1	N1	100x100	1:3	1:3	1:3	100	200

- NOTE
- 1 Unit cm.
 - 2 Expansion joint material 2cm thickness timber board
 - 3 See "DWSI-D9(1-2/29)" for coordinates of intersection.

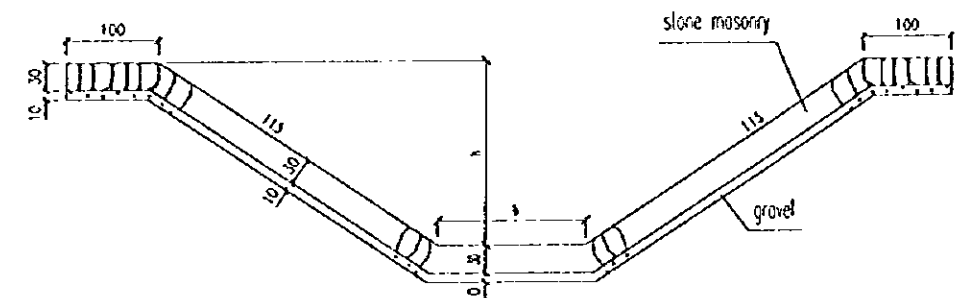
PEOPLE'S REPUBLIC OF CHINA
 SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT | SEPTEMBER 1997
 DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (1524)
 SCALE: 1:30 | DWSI-D9(26/29)
 JAPAN INTERNATIONAL COOPERATION AGENCY



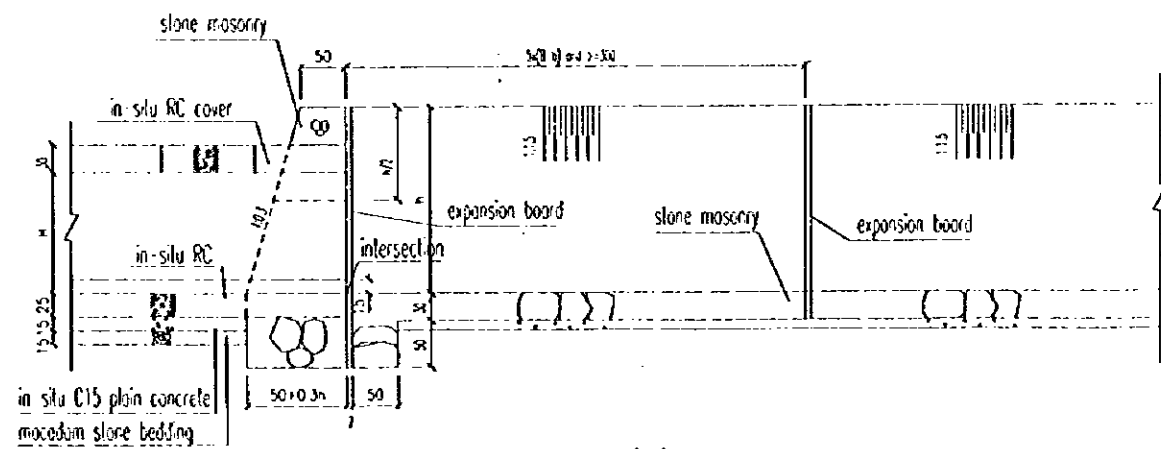
Plane



B-B



C-C

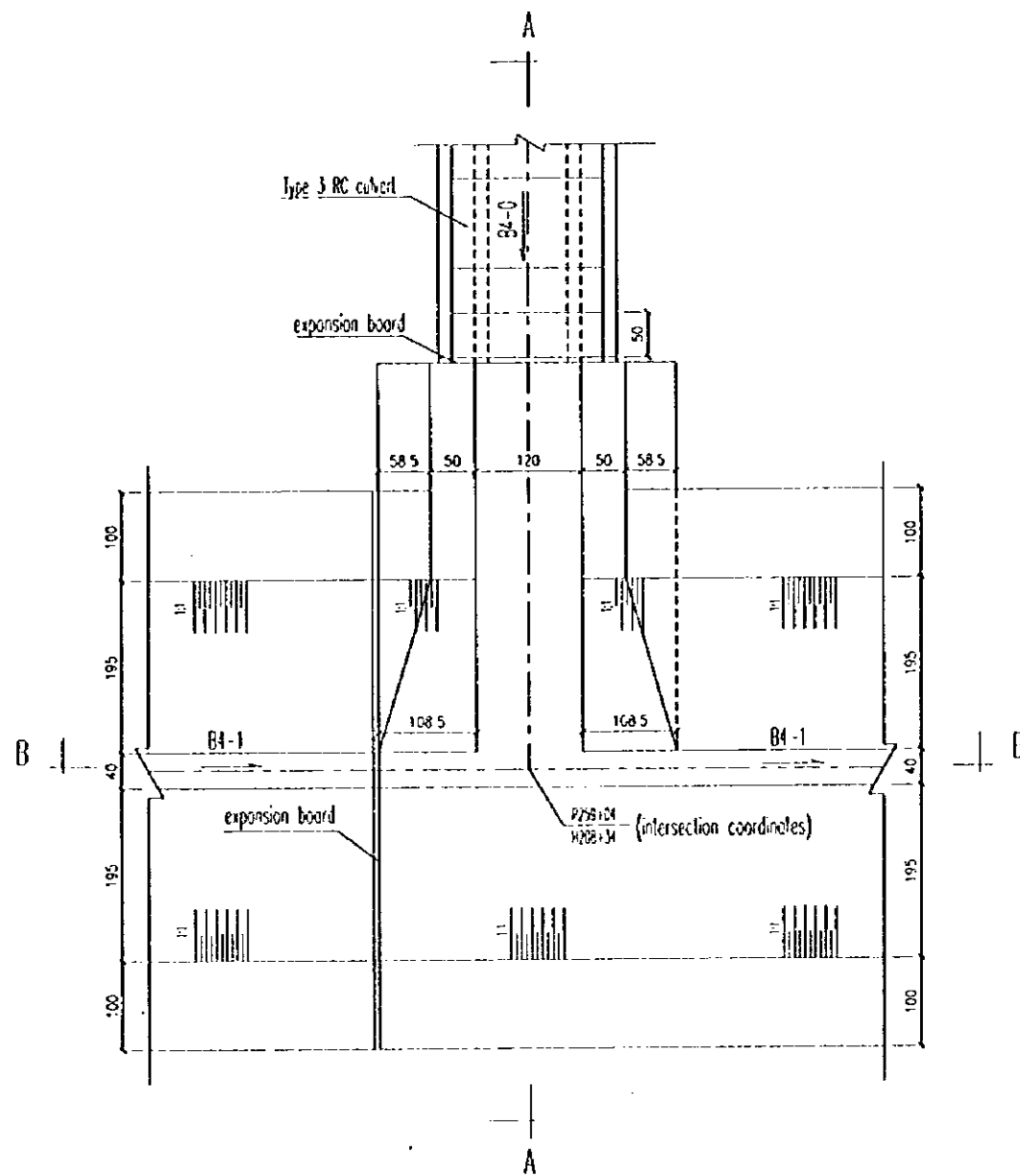


A-A

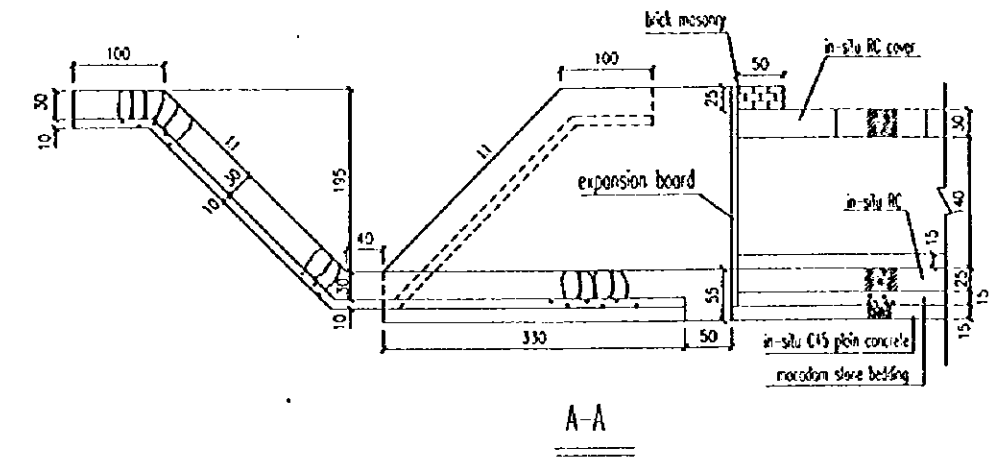
NOTE

1. Unit: cm.
2. Expansion joint material: 2cm thickness timber board
3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

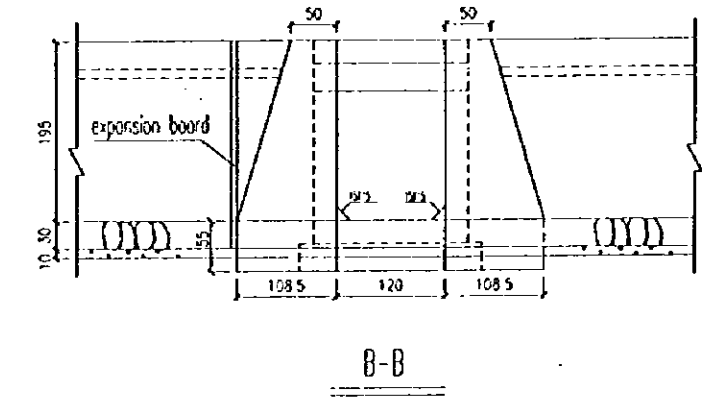
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (S25)	
NO SCALE	DWG1-D9(27/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



Plane



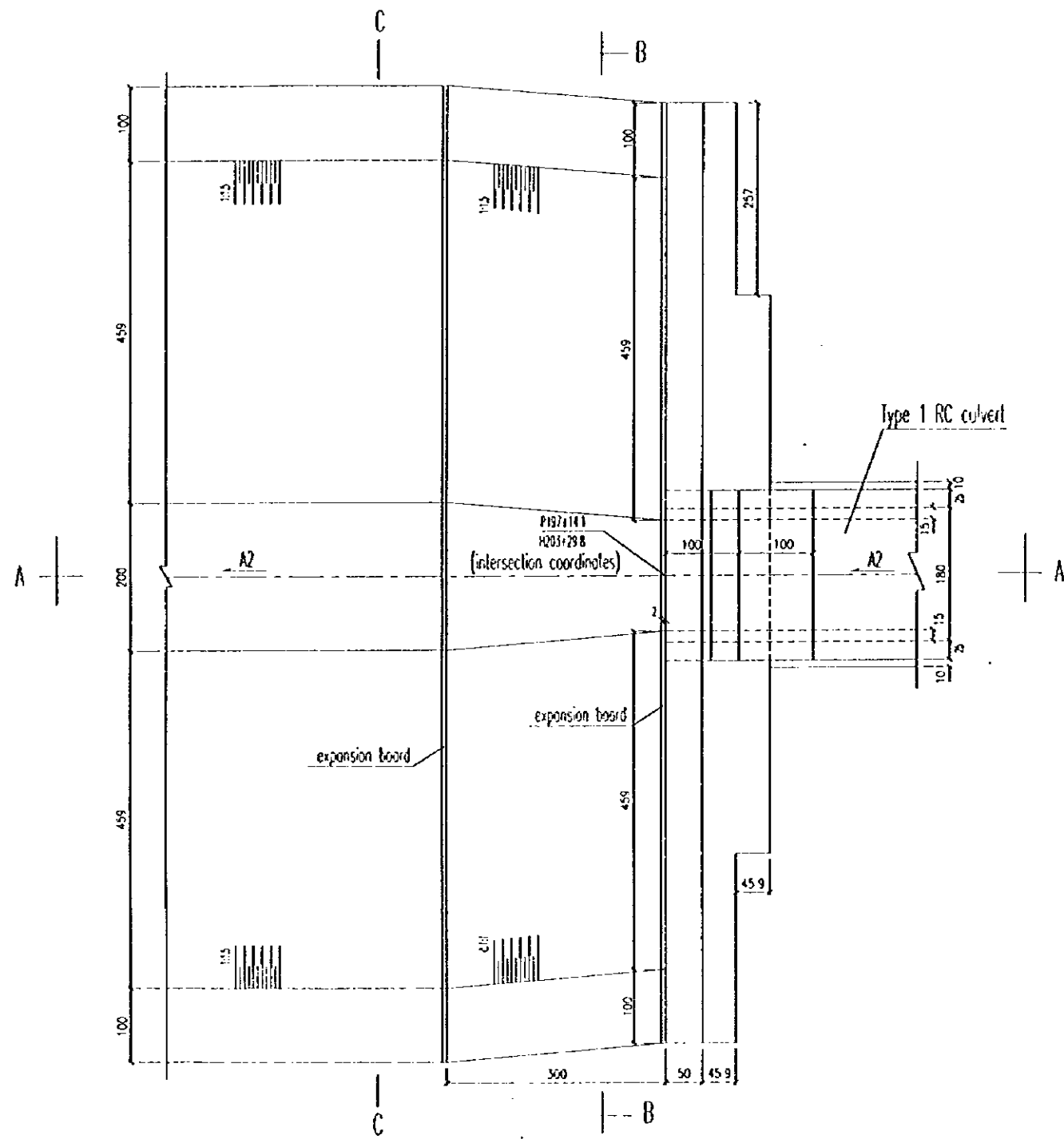
A-A



B-B

- NOTE
1. Unit: cm.
 2. Expansion joint material 2cm thickness timber board.
 3. See "DWG1-D9(1~2/29)" for coordinates of intersection.

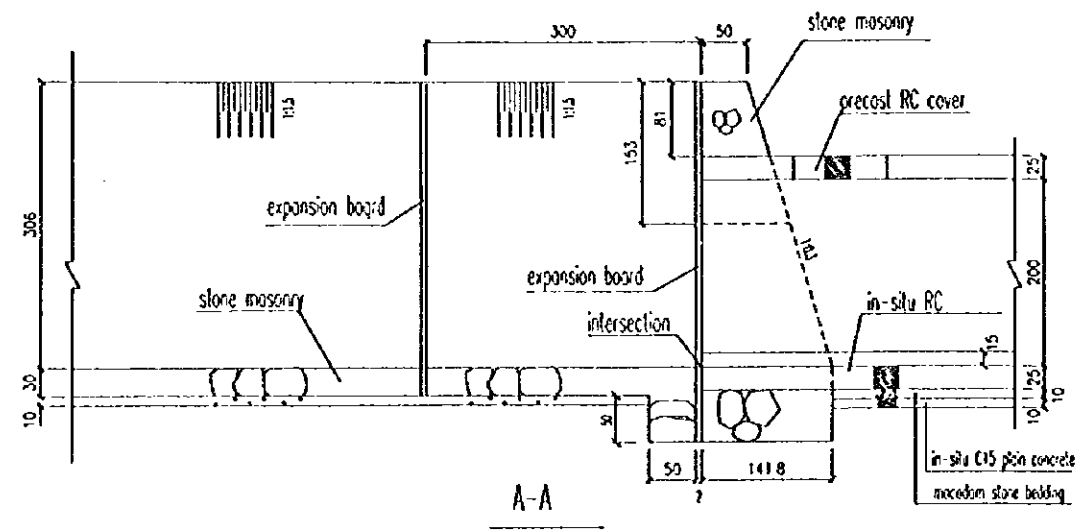
PEOPLE'S REPUBLIC OF CHINA	
SHANDUN PUDDING INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES(S26)	
SCALE	DWG1-D9(28/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



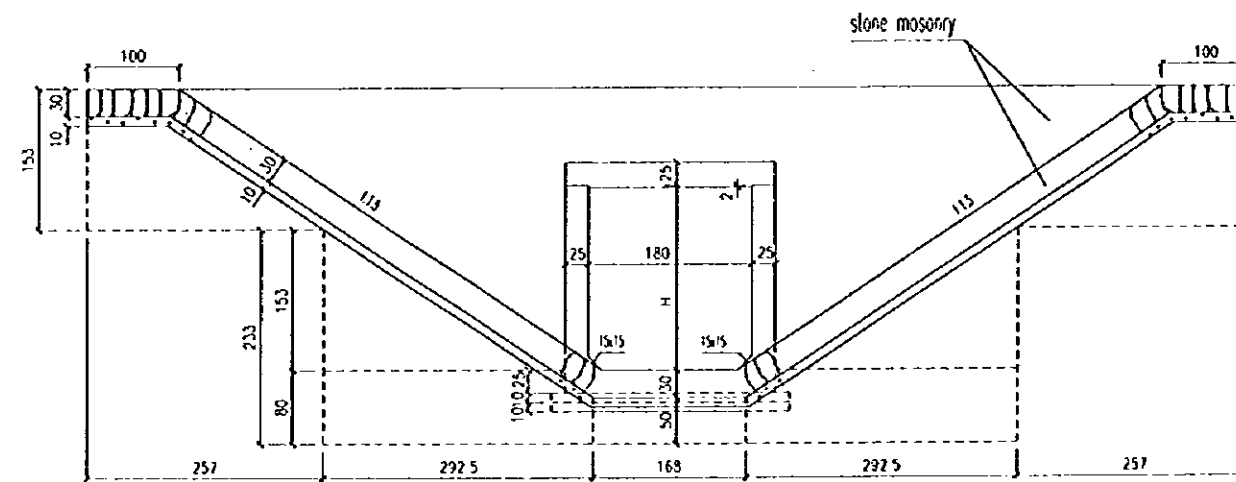
Plane

NOTE

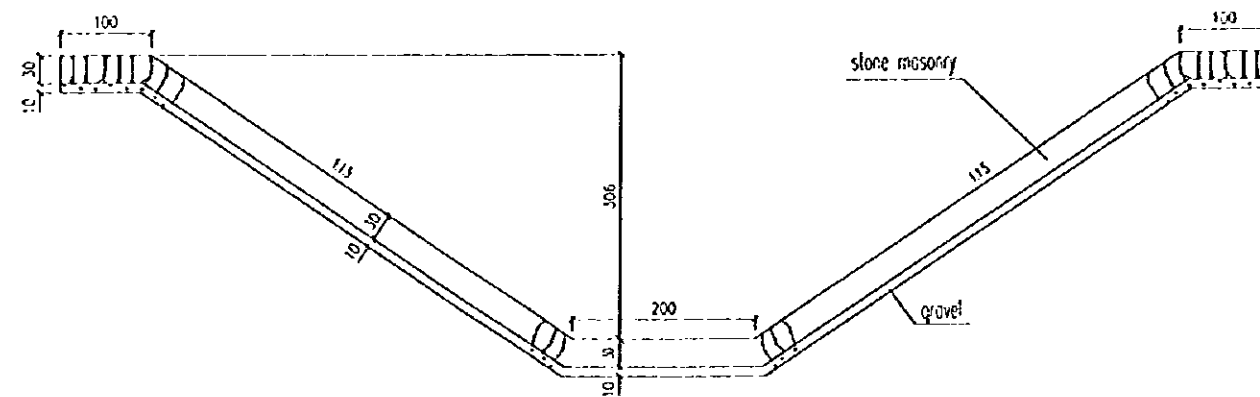
1. Unit: cm.
2. Expansion joint material: 2cm thickness timber board.
3. See "DWG1-09(1~2/29)" for coordinates of intersection.



A-A

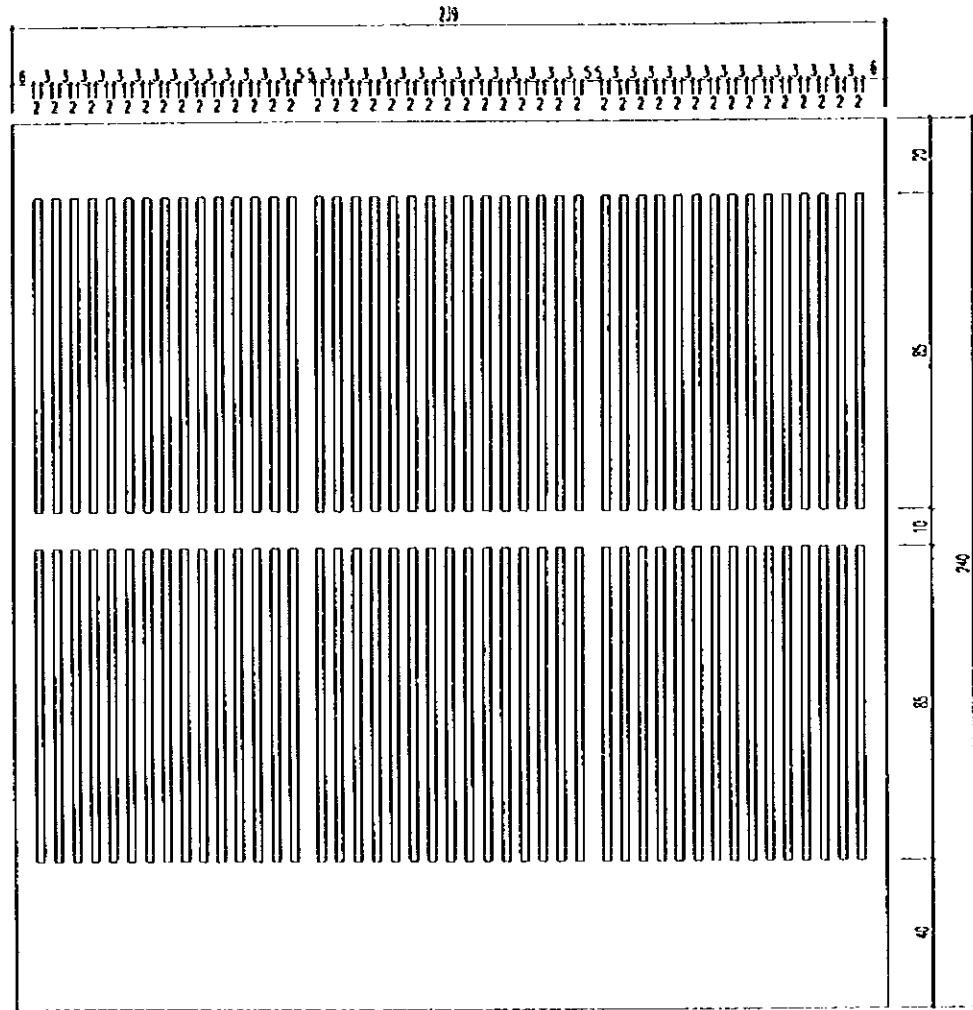


B-B

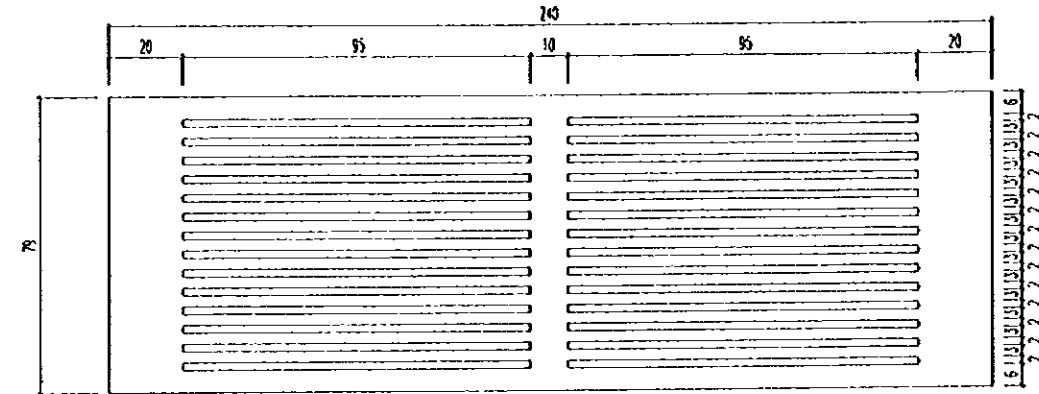


C-C

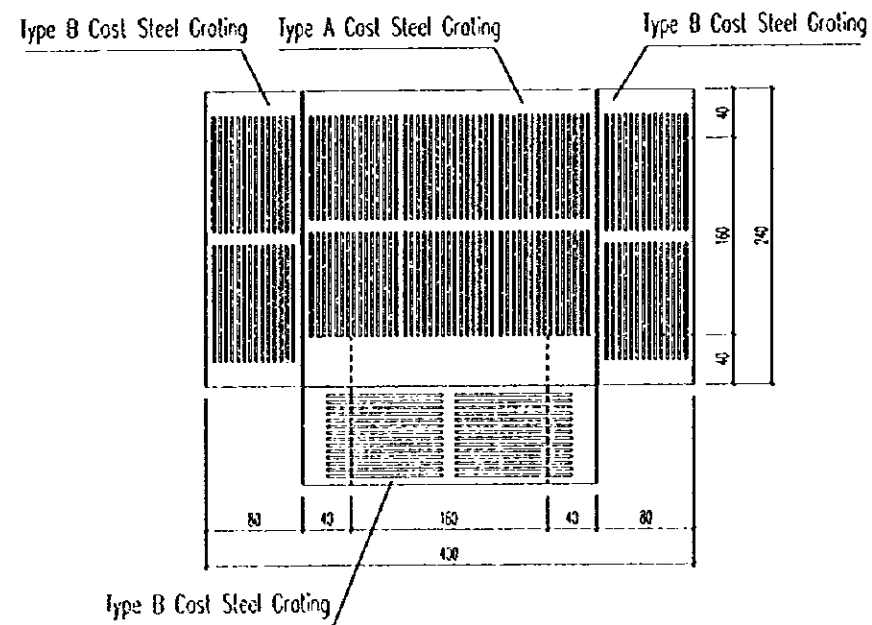
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STORM DRAINAGE INTERSECTION STRUCTURES (5/27)	
NO SCALE	DWG1-09(23/29)
JAPAN INTERNATIONAL COOPERATION AGENCY	



Plan of Type A Cast Steel Grating
(1:10)



Plan of Type B Cast Steel Grating
(1:10)

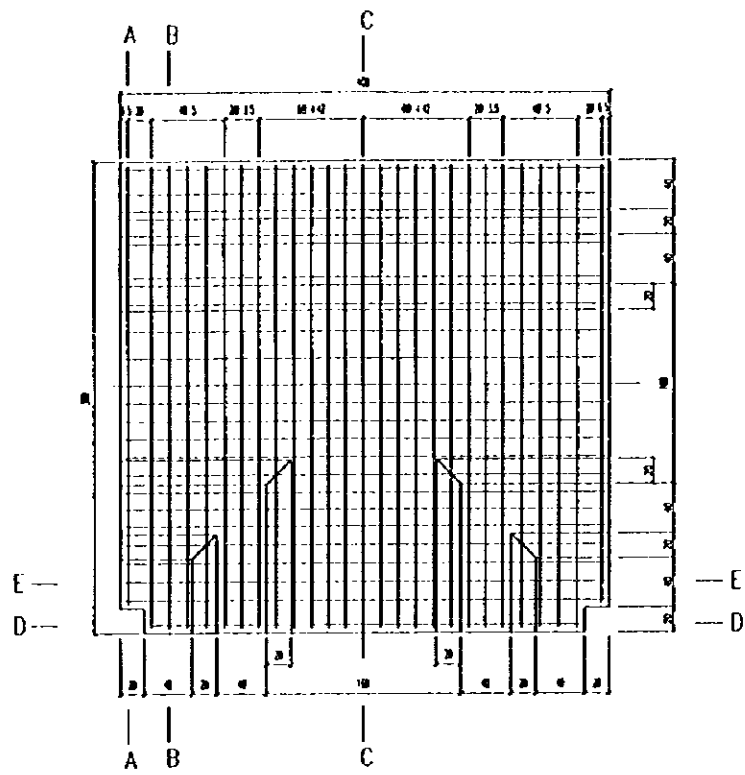


Plan for Arrangement of
Cast Steel Gratings
(1:30)

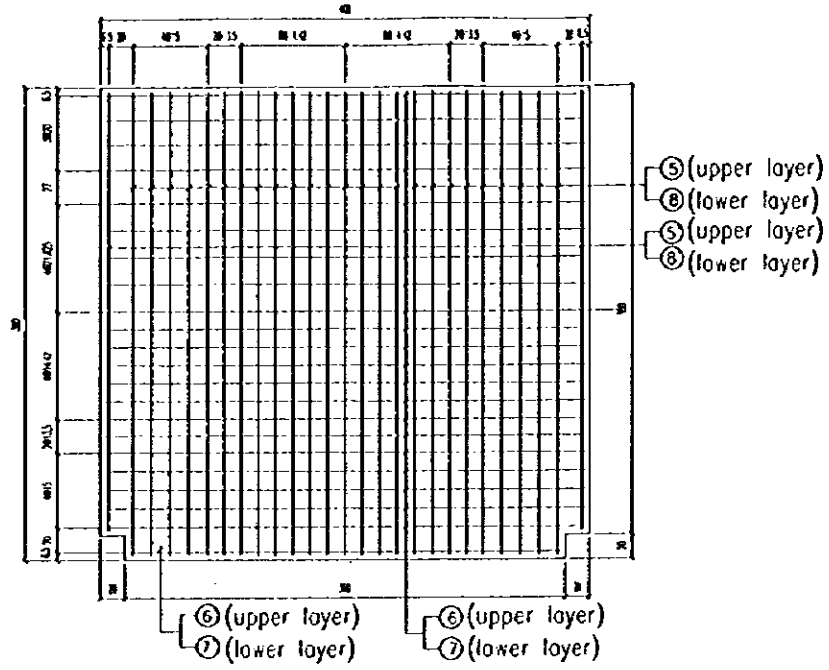
NOTE

1. Unit : cm .
2. Steel : ZG270-500 .
3. Thickness : 20cm .
4. Weight of each unit: for type A , 6.604t ;
for type B , 2.142t.

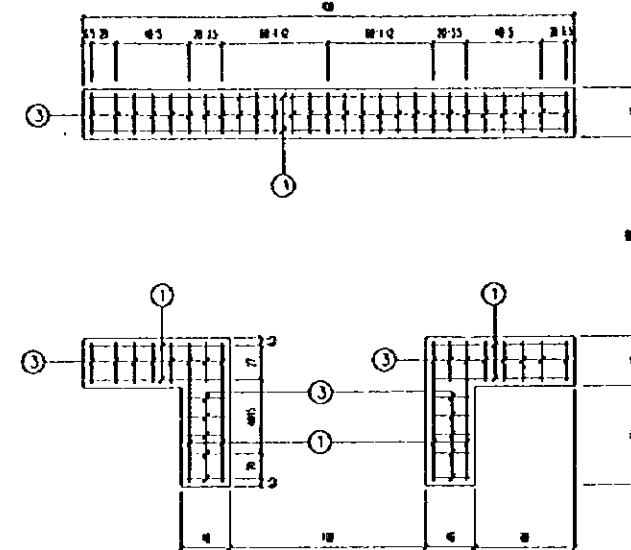
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF CAST STEEL GRATINGS	
SCALE	AS SHOWN DWG-010
JAPAN INTERNATIONAL COOPERATION AGENCY	



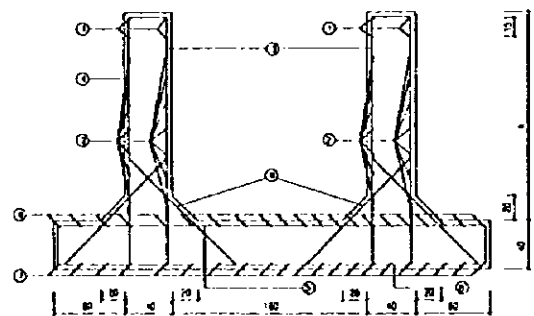
PLAN OF REINFORCEMENT



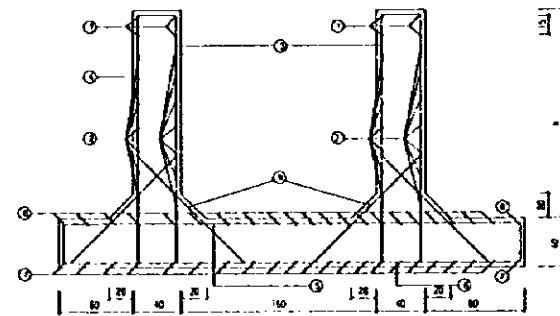
PLAN OF REINFORCEMENT FOR BOTTOM SLAB



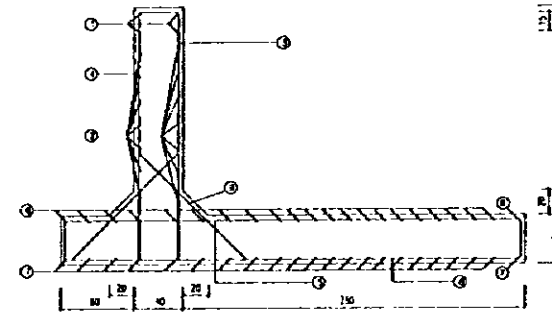
PLAN OF REINFORCEMENT FOR THE TOP OF SIDE WALL



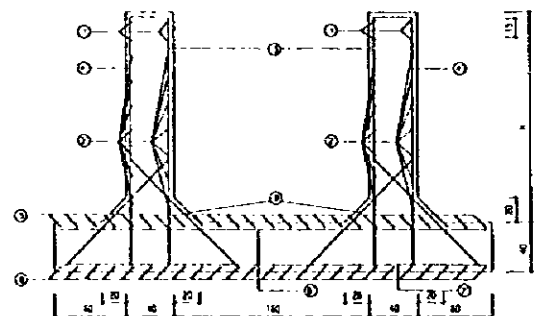
A-A



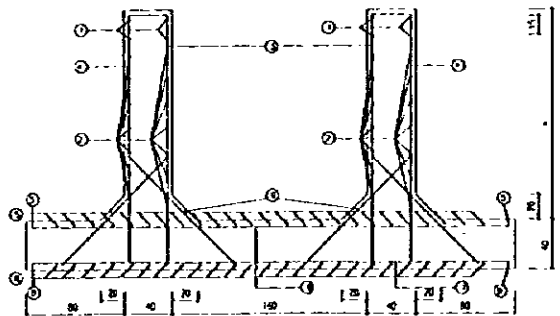
B-B



C-C



D-D



E-E

BENDING SCHEDULE

No.	Shape (cm)	Do (mm)	No's	Length (cm)
①	—	25	4	393
①	—	25	16	113
②	—	10	14	393
②	—	10	56	113
③	—	16	53	h+66
④	—	20	43	h+66
④	—	20	10	h+64
⑤	—	16	25	373
⑤	—	16	2	353
⑥	—	20	21	393
⑥	—	20	1	353
⑦	—	20	21	393
⑦	—	20	1	353
⑧	—	20	25	433
⑧	—	20	2	419
⑨	—	12	104	124

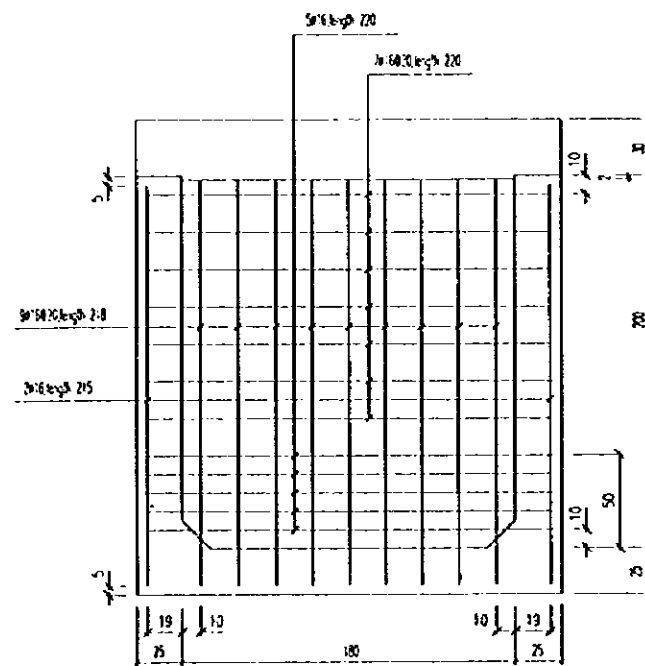
QUANTITIES

QUANTITIES	h (cm)	REINFORC BAR (kg)					C25 CONCRETE (m³)
		#10	#12	#16	#20	#25	
P245x10 H214x50	201	73	145	382	1066	131	15.0
P235x20 H214x50	197	73	115	378	1061	131	14.9
P229x105 H214x50	197	73	115	378	1061	131	14.9

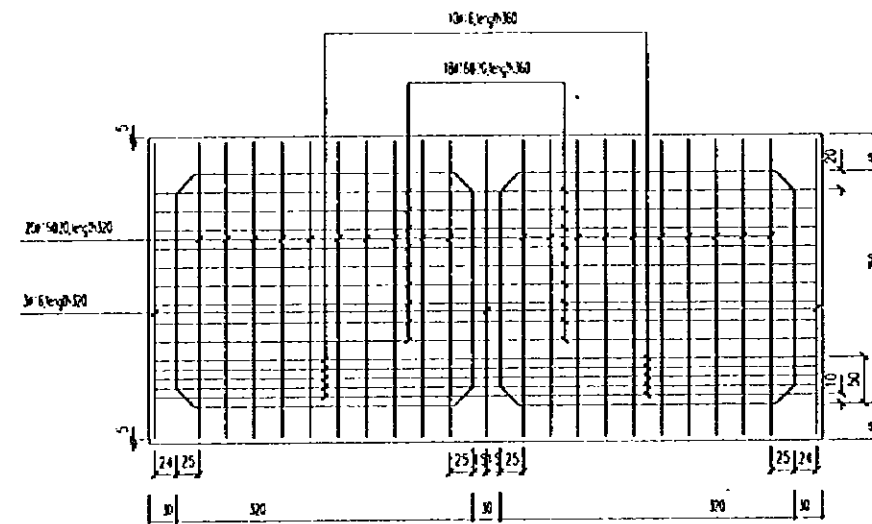
NOTE

- Unit: cm.
- Concrete: C25.

PEOPLE'S REPUBLIC OF CHINA	
SHANDU PUDDING INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
REINFORCEMENT FOR TURNING OF TYPE 2 RC DITCH	
SCALE	1:50
DWC1-D11	
JAPAN INTERNATIONAL COOPERATION AGENCY	



Detail of Steel Railing of RC Culvert
(Cross Section)
(1:20)



Detail of Steel Railing of Box Culvert
(Cross Section)
(1:40)

Coordinates and Quantities of steel railing

drainage	type of drainage	coordinates	weight of steel (Ø16) (kg)
B1	Type 3 RC Culvert	P309+14.8	79.5
B2	Type 3 RC Culvert	H205+25.7	79.5
B2	Type 3 Box Culvert	H205+19.7	275.2
A2	Type 3 Box Culvert	H193+18.2	275.2

NOTE

1. Unit: cm.

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
DETAILS OF STEEL RAILING STRUCTURES	
SCALE	AS SHOWN DWG1-012
JAPAN INTERNATIONAL COOPERATION AGENCY	

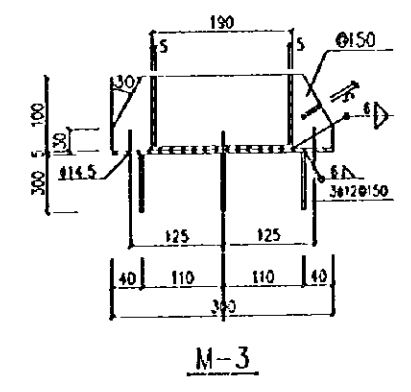
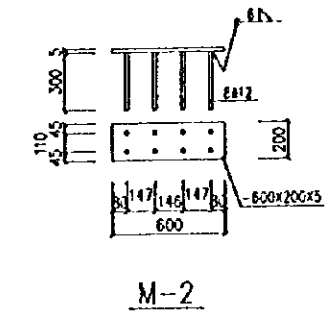
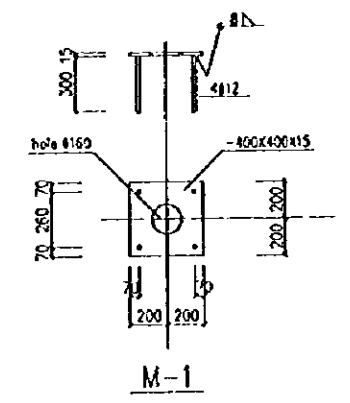
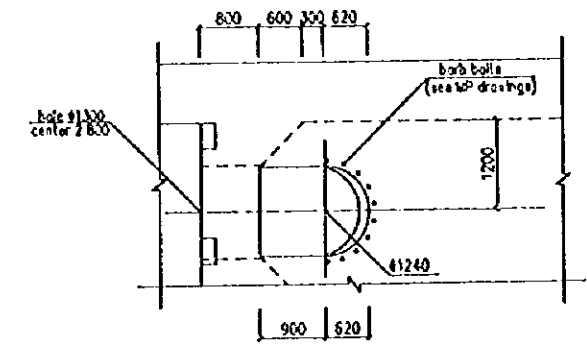
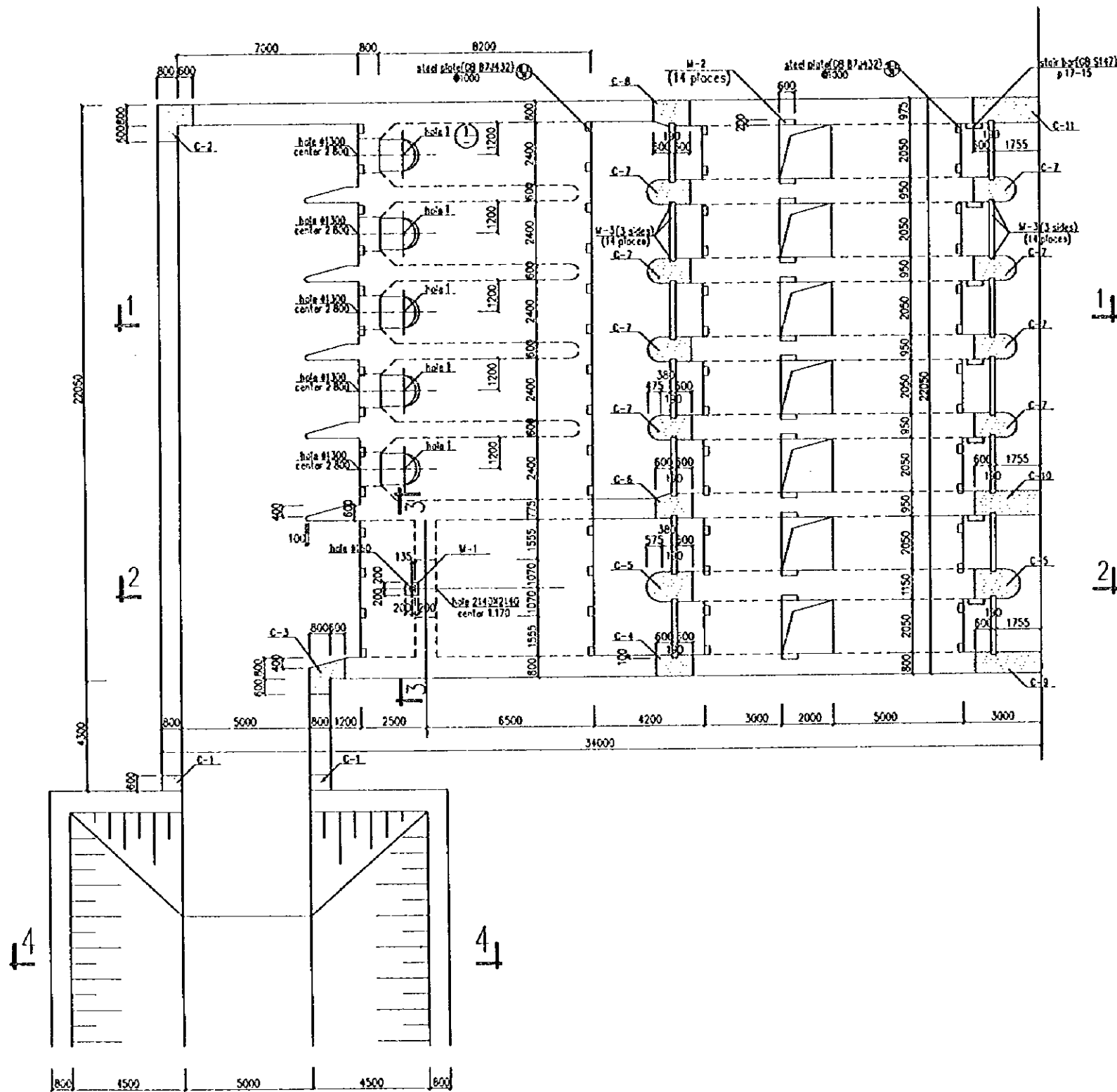
STORM DRAINAGE QUANTITIES(1)

name	description of works	length m	precast		in-situ		in-situ concrete			sub-base			cut	backfilling			stone masonry	gravel	brick masonry	polyvinyl board	timber board	reinforcement												fabrication of steel grating	cost steel grating						
			C45 SFRC	C30 concrete	C30 concrete	box culvert	else RC ditch/culvert	C15 plain concrete	macadam stone bedding	C7.5 concrete	macadam stone bedding	soil		φ8	φ10	φ12						φ14	φ16	φ18	φ20	φ22	φ25	φ16	φ30	φ35	type A	type B									
			m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³		m ³	m ³	m ³						m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³		m ³	m ³	m ³				
A1	type 1 RC ditch	480		238.1			6.93	128.4	128.4		592			3273					39.2		9.362	137.8	7.995	29.742																	
	type 3 RC culvert	43				26.5		4.59	14.4	14.4	30.7							0.4	3.0			1.127	1.265	1.545	1.748																
	masonry ditch	2931.92									15741				4756	1586			475.6																						
	sub-total	2651.92		238.1		26.5		22.2	127.8	127.8	2760			3434	4756	1586		0.4	42.3	475.6	9.362	14.345	9.760	31.207	1.748																
A2	type 1 RC ditch/culvert	1142.5		266.9	2.3		1641.1	337.1	337.1	14505			7663						98.9		2471.3	31.078	33.713	36.613	39.339																
	type 2 RC culvert	698		465.4			1086.2	361.8	361.8	16265	5107.8	639.9	6.99					3.2	22.9			30.664	24.016	15.458	57.750											1.653					
	type 3 box culvert	149				1153.9		159.6	159.6	7205			2908						65.7				16.924	8.911	32.164												0.276				
	sub-total	2073.05		1232.3	2.3	1153.9	2737.3	850.5	850.5	50611	5107.8	639.9	11411	2777	926			3.2	23.5	277.7	2471.3	75.666	66.640	64.266	97.089	123.097									0.276	1.653					
A3	type 1 U-shape RC ditch	1340					4198	573.2	573.2	31905			12714						234.7		494.88	38.450	31.573	26.289	30.825																
	type 2 RC culvert	80		58.1			144.3	4.32	4.32	1390	602.4	72.6	181					9.4				3.834	2.642	13.136	8.293													0.210			
	type 2 box culvert	430				3182.0		559.8	419.9	15614	4321.9	1024.8	1705					187.0				49.734	60.246		88.609	136.212													2.866		
	sub-total	2077.33		58.1	42.0	3190.0	4283.7	1176.7	1036.5	54213	5424.0	1397.0	14609	1063	260	20.0		431.0	78.0	494.88	92.018	96.149	26.289	140.590	144.510										5.904						
A4	type 1 U-shape RC ditch	630					613.3	110.5	110.5	4360			2533						39.2		11.293	6.739	23.418																		
	type 1 RC ditch	16.5		7.2	0.5		235	3.8	3.8	203			110						1.4		0.292	0.435	0.245	0.979																	
	type 1 U-shape RC ditch	129.25					243.2	32.5	32.5	1594			795						14.0		3.130	1.777	2.020	5.403																	
	sub-total	2478.5	1580.2				4334	1439.0	834.4	17475	8508.6			296.6					296.6			143.956	66.242		121.856																
A5	type 2 RC culvert	843.75		567.0			1256	430.8	430.8	11801	5213.8	323.7	2227					9.5	87.8			33.691	20.078	56.931	34.238																
	masonry ditch	289		354.0	7.9		812.1	163.0	163.0	7285			3590						50.3		13.561	13.856	19.223	28.080	3.181																
	sub-total	2478.5	1580.2	574.2	0.5	5810.7	1969.0	1368.5	31073	13522.8	3737	3132						9.5	369.9			34.72	17.843	86.575	63.313	155.314															
	sub-total	2478.5	1580.2	574.2	0.5	5810.7	1969.0	1368.5	31073	13522.8	3737	3132						9.5	369.9			34.72	17.843	86.575	63.313	155.314															
A6	type 1 RC ditch	289					812.1	163.0	163.0	7285			3590						50.3		13.561	13.856	19.223	28.080	3.181																
	type 1 U-shape RC ditch	109.33					737.5	79.5	79.5	1618			827						13.4		3.143	1.607	1.789	5.214																	
	type 2 RC culvert	170.85		122.0			303.8	92.3	92.3	2950	1299.4	145.5	577					3.4	19.8			7.741	5.050	4.910	18.669																
	sub-total	1106.18		476.0	19.9		1637.2	267.5	267.5	12334	1299.4	145.5	5834	1				3.4	86.4			16.704	24.110	27.662	40.190	27.153															
A7	type 2 RC ditch	287	306.5				835.6	287.2	172.3	3545	1750.2								56.1			78.250	12.758		23.838																
	type 2 RC culvert	80.85		51.7			121.2	41.2	41.2	1184	464.6	97.8	185					0.3	8.1			2.988	1.866	6.334	3.963																
	masonry ditch	538.35								3439									116.1																						
	sub-total	926.2	306.5	51.7			956.8	328.4	213.6	8138	2277.8	97.8	185					0.3	64.3			31.238	14.464	6.334	26.901	4.969															
regulating pondage A																																									

NOTE

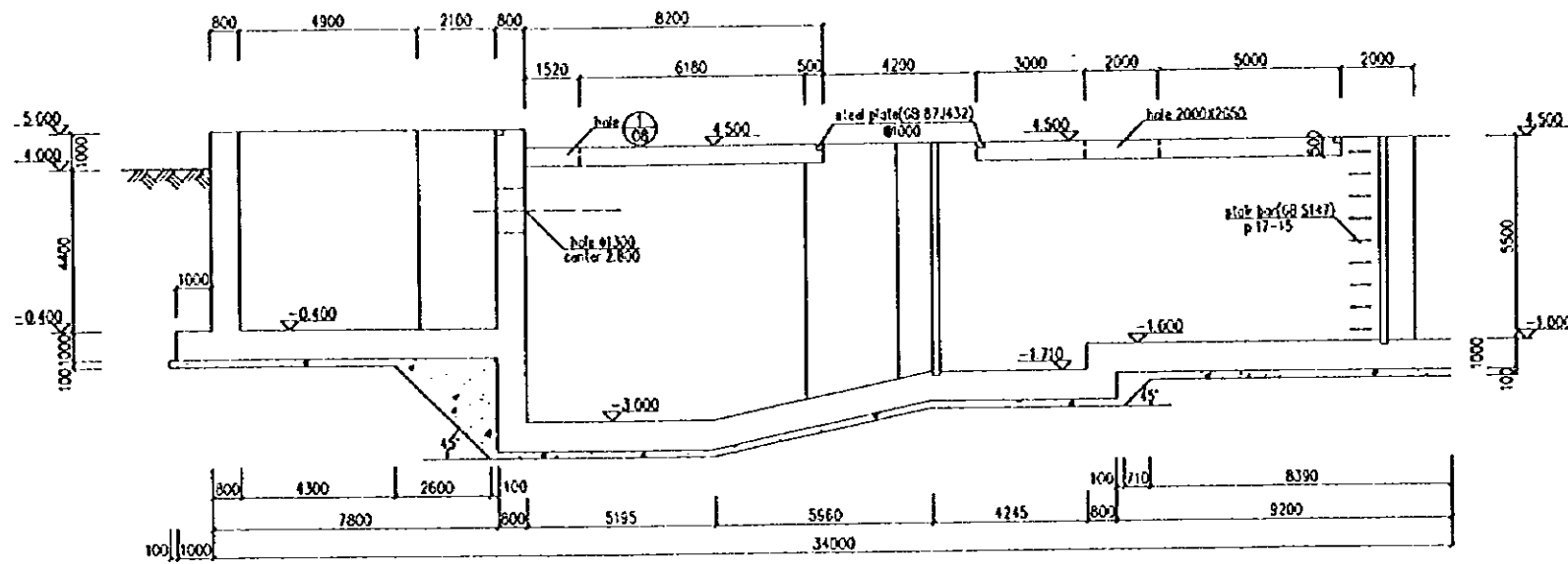
1. Quantities in the chart exclude wastage.
2. Quantities of "else" means the quantities of drainage intersection.

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI FUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
STORM DRAINAGE QUANTITIES(1/2)	
NO. SCALE	DWG1-013(1/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	

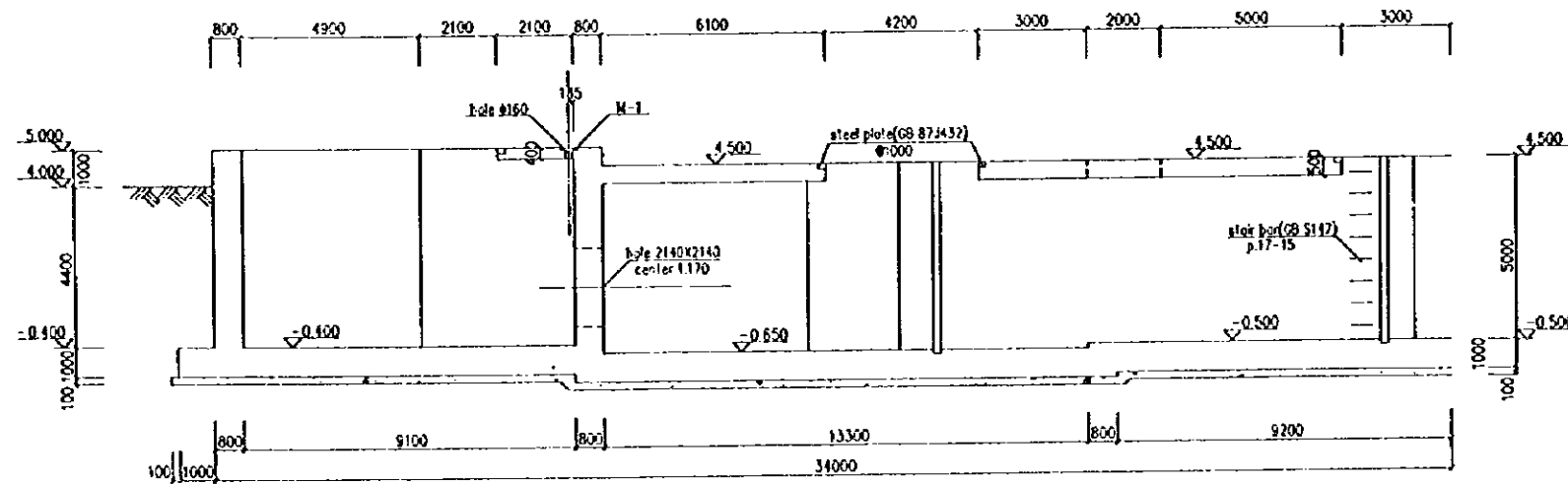


Molding Drawing

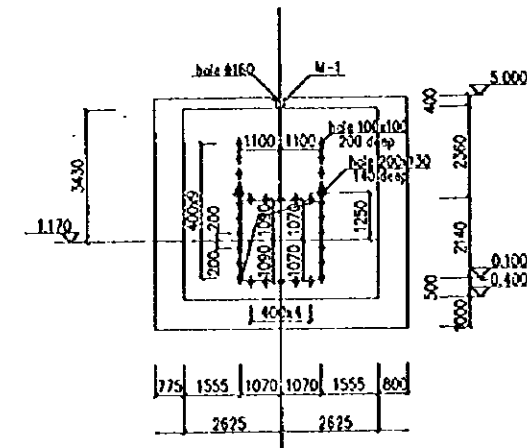
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA: Molding Drawing	
SCALE	DWG1-B1
JAPAN INTERNATIONAL COOPERATION AGENCY	



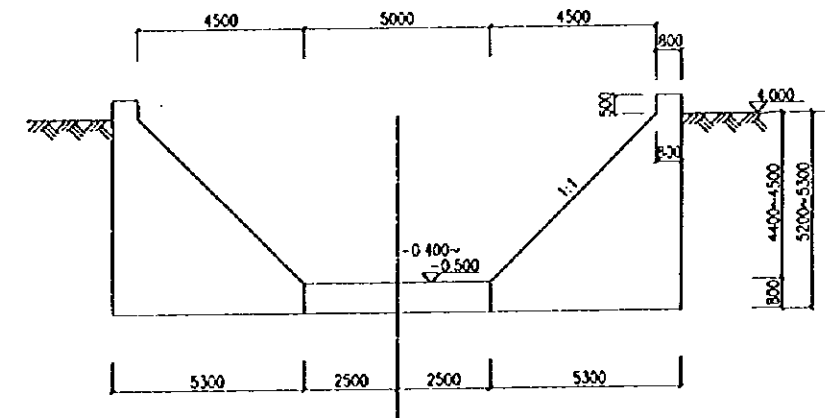
1-1



2-2



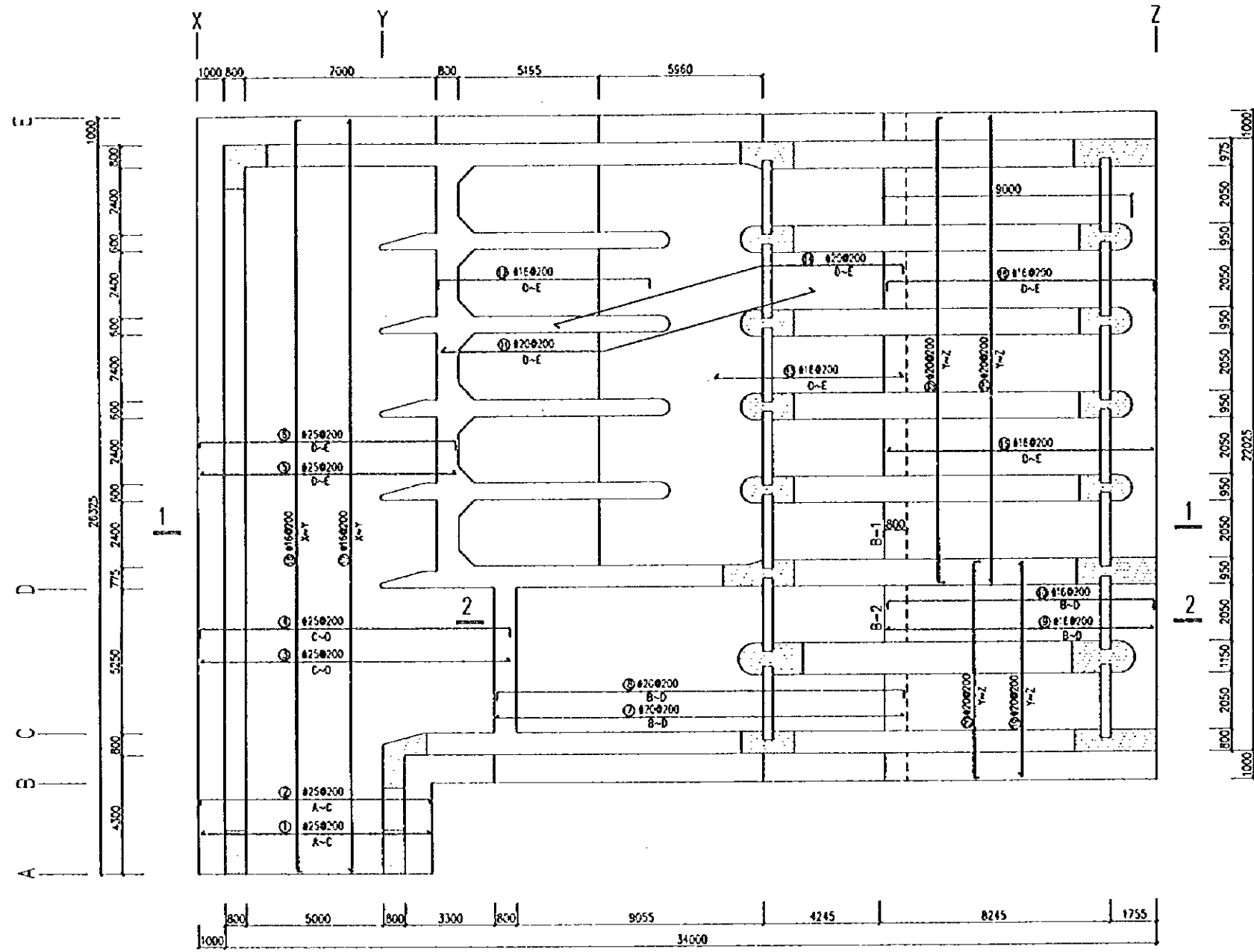
3-3



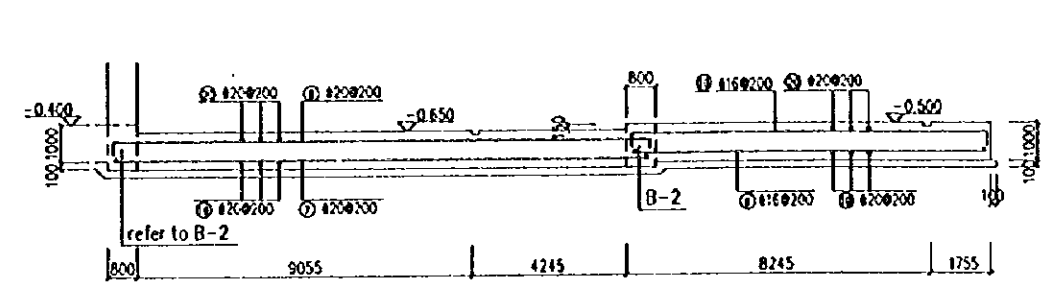
4-4

Note:
The planar positions of sections 1-1~4-4 refer to molding drawing.

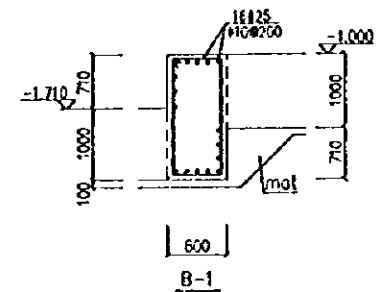
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA Sections (1-1~4-4) of Molding Drawing	
SCALE	DWG1-B2
JAPAN INTERNATIONAL COOPERATION AGENCY	



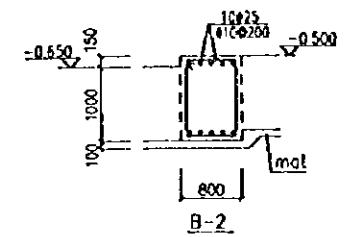
Baseboard Reinforcement Drawing



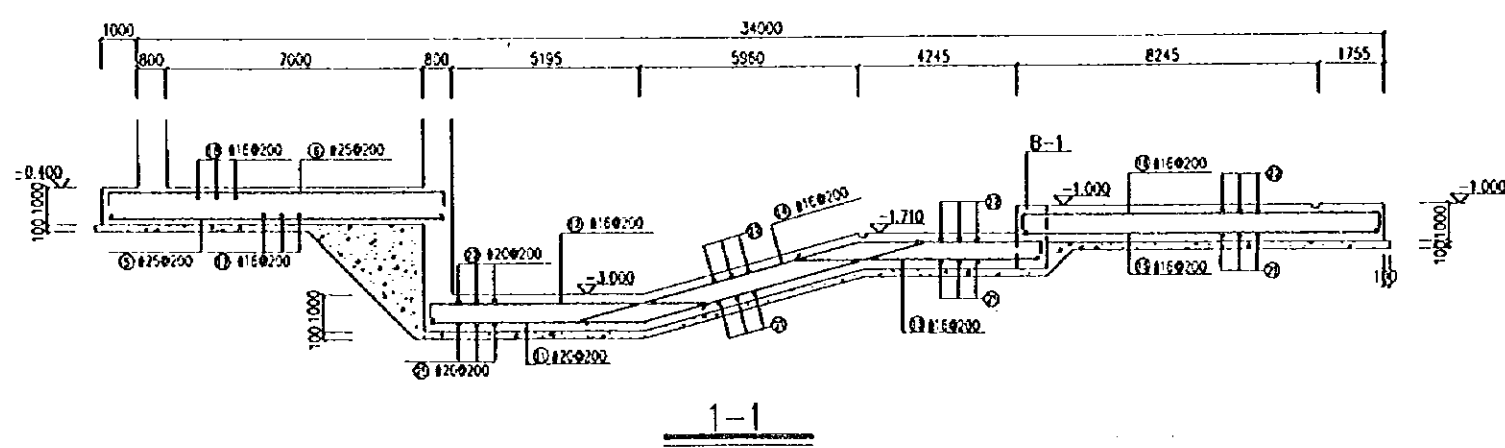
2-2



B-1

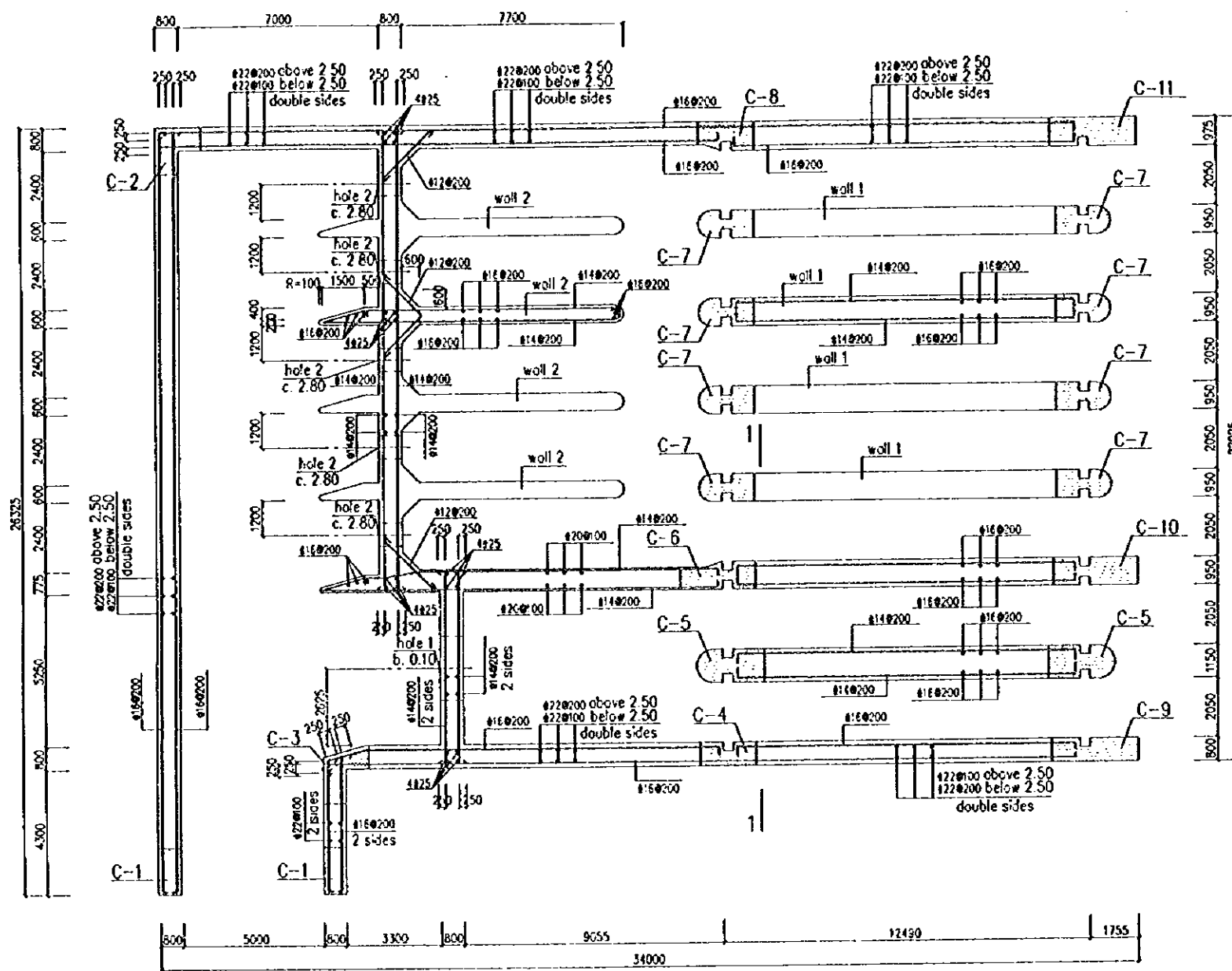


B-2

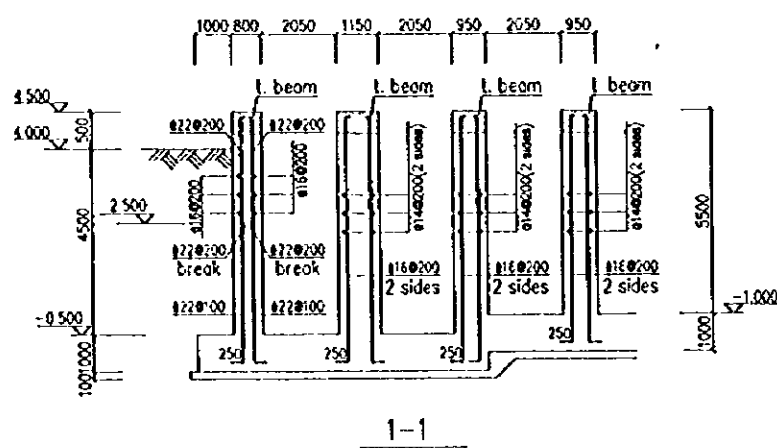
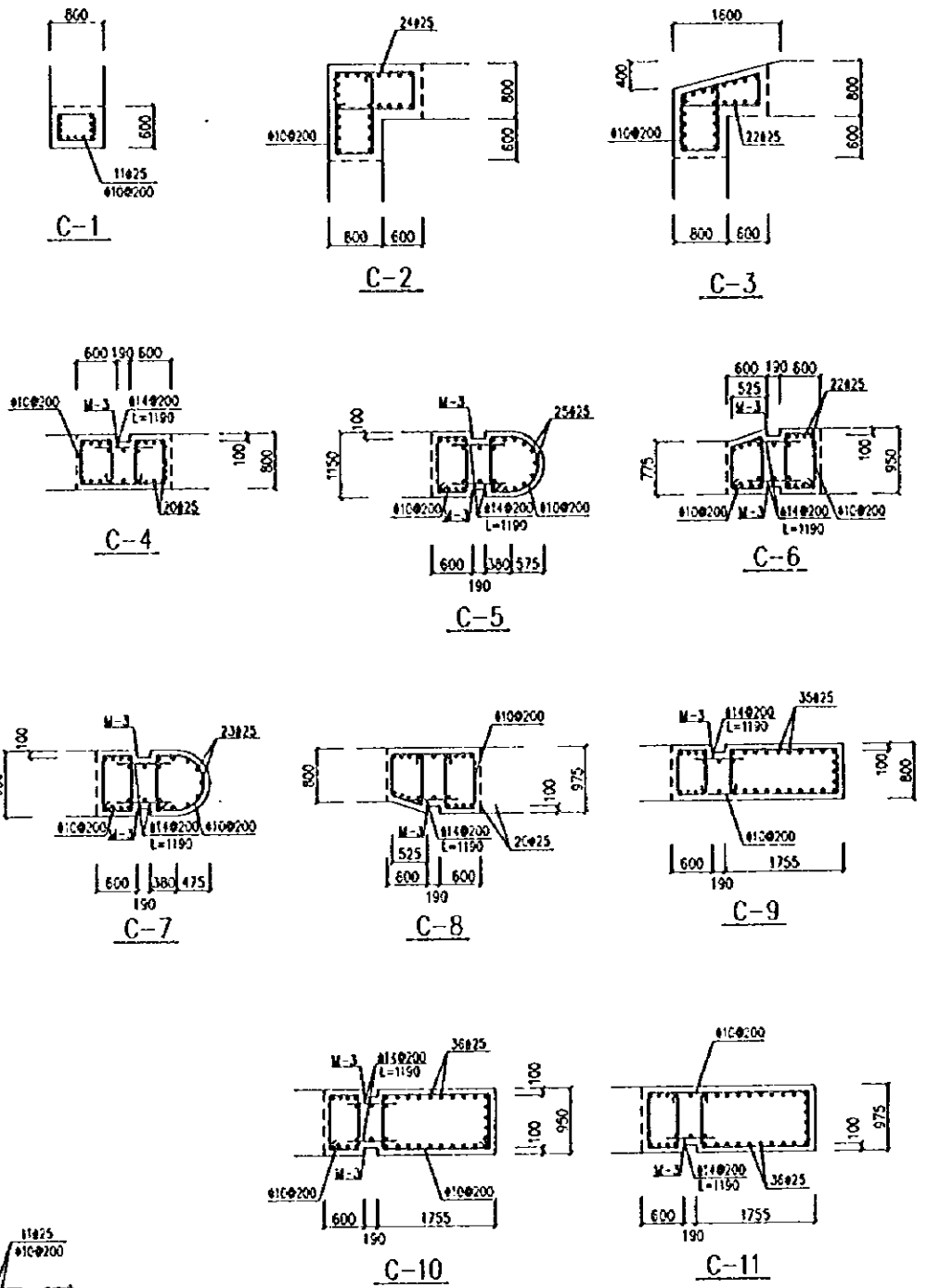


1-1

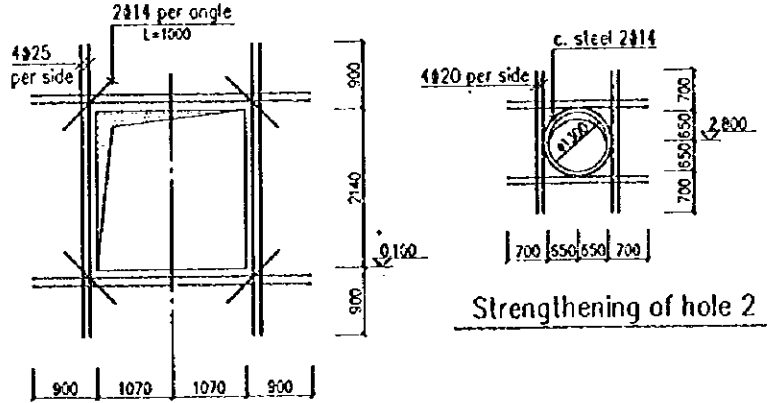
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA: Baseboard Reinforcement Drawing	
SCALE	CHG1-B3
JAPAN INTERNATIONAL COOPERATION AGENCY	



Wall Reinforcement Drawing

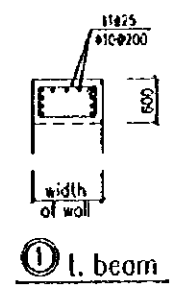


1-1



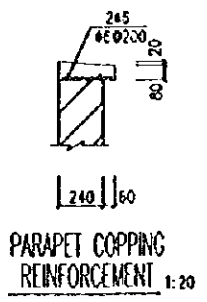
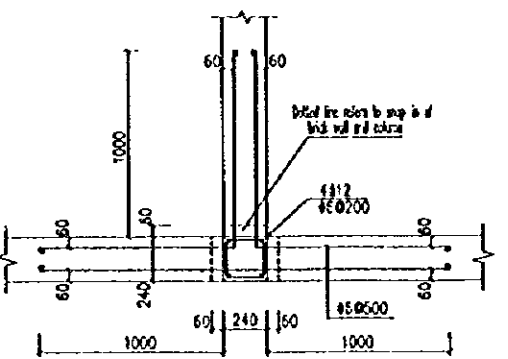
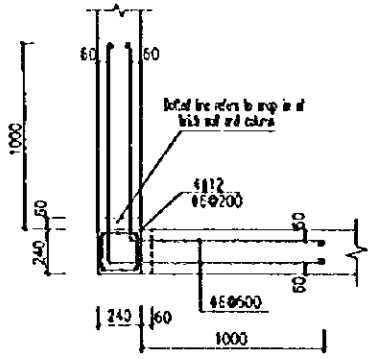
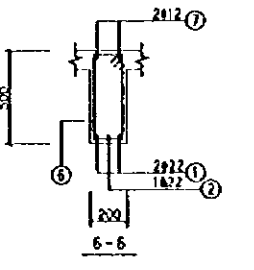
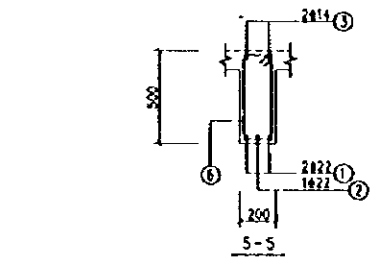
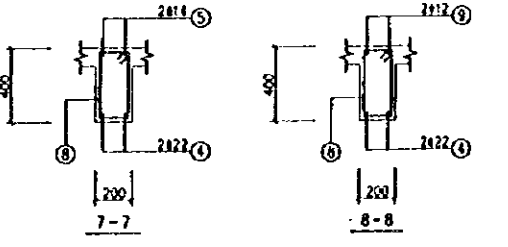
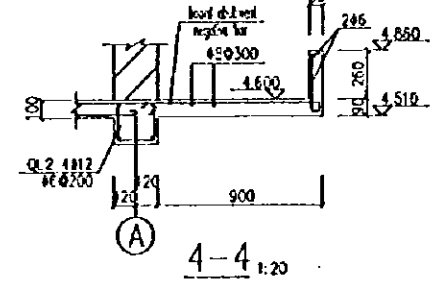
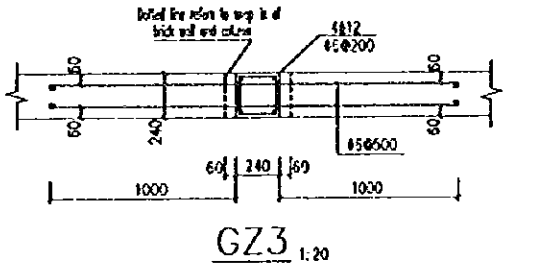
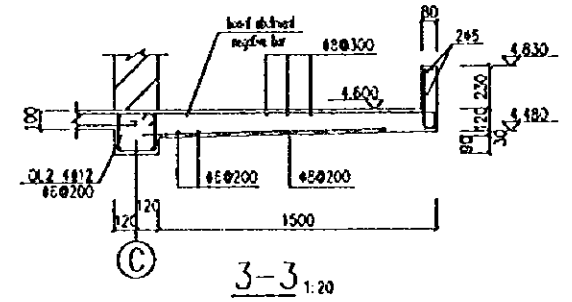
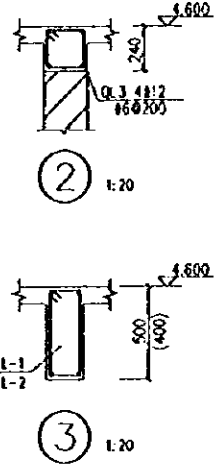
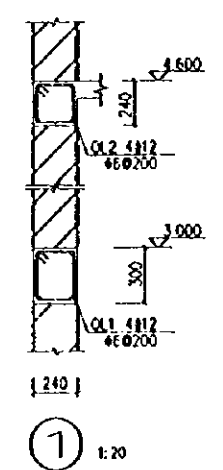
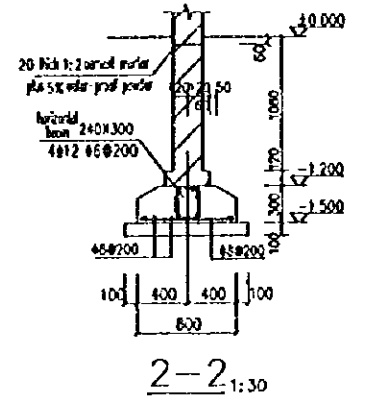
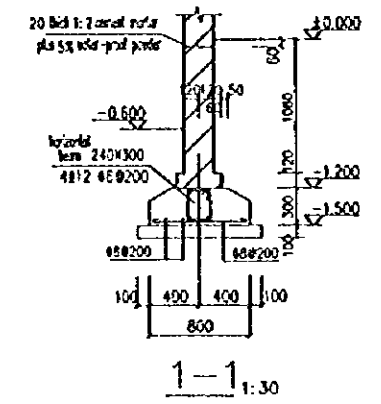
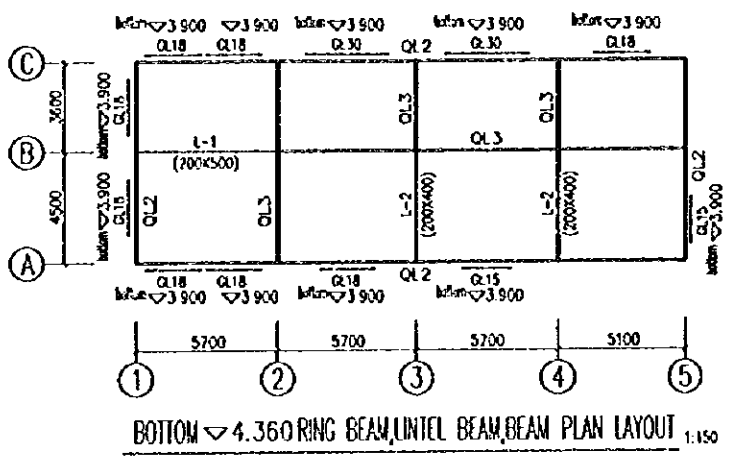
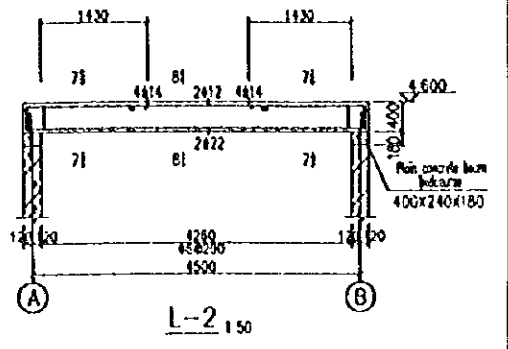
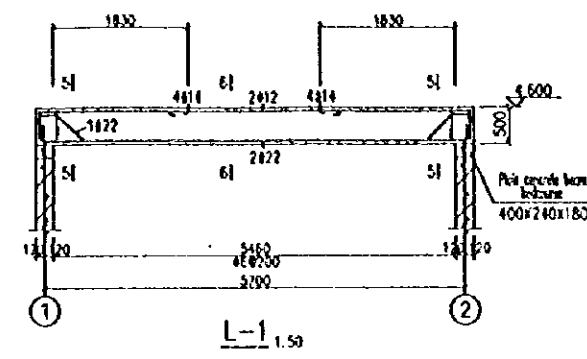
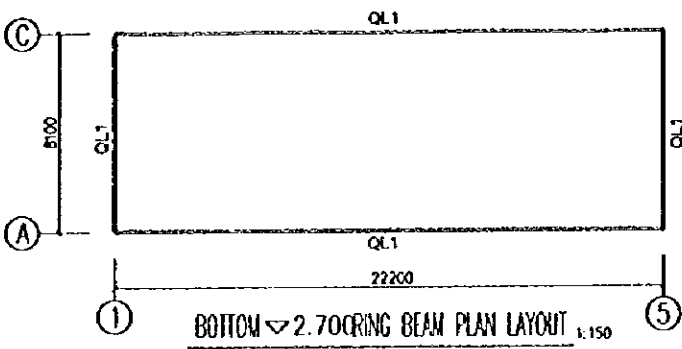
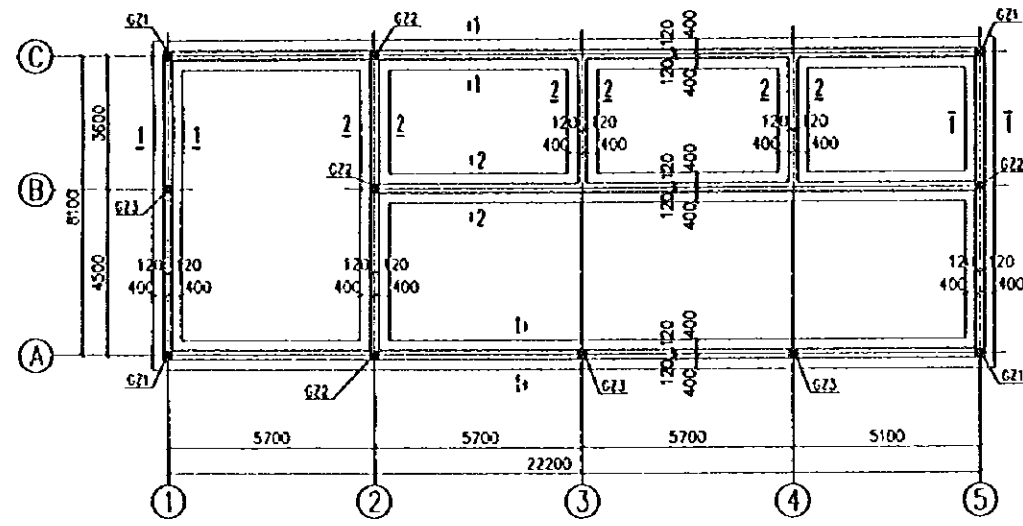
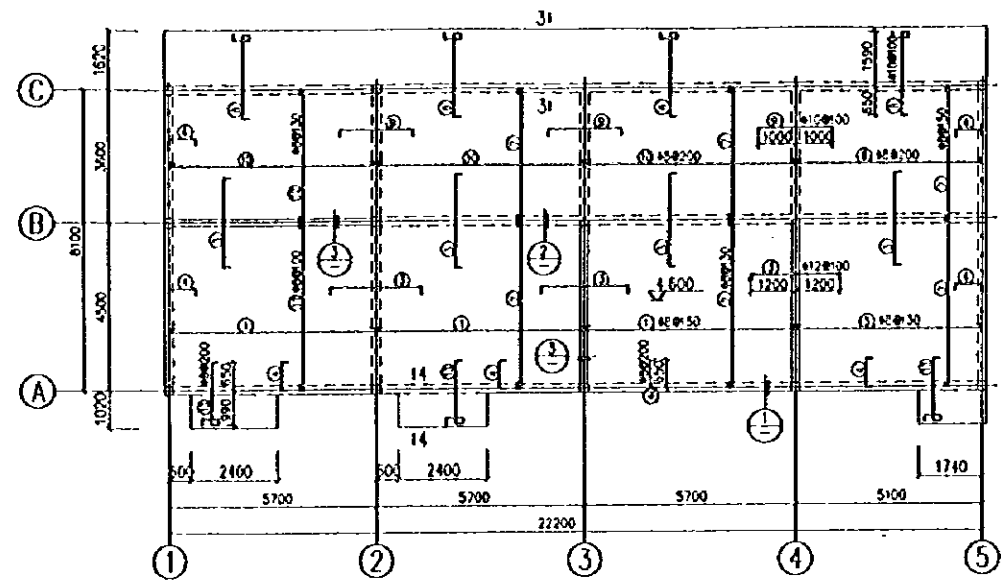
Strengthening of hole 1

Strengthening of hole 2

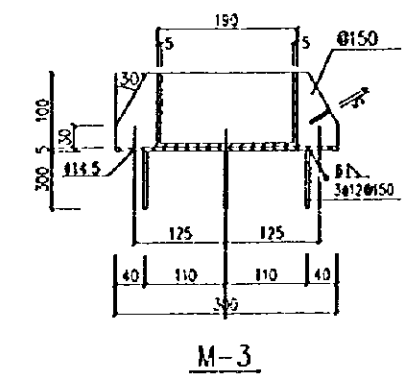
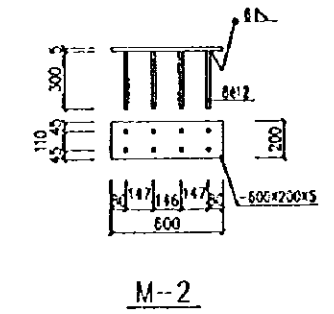
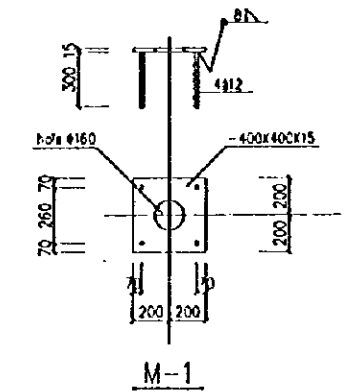
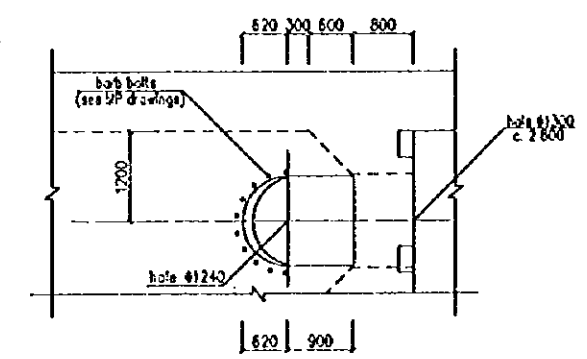
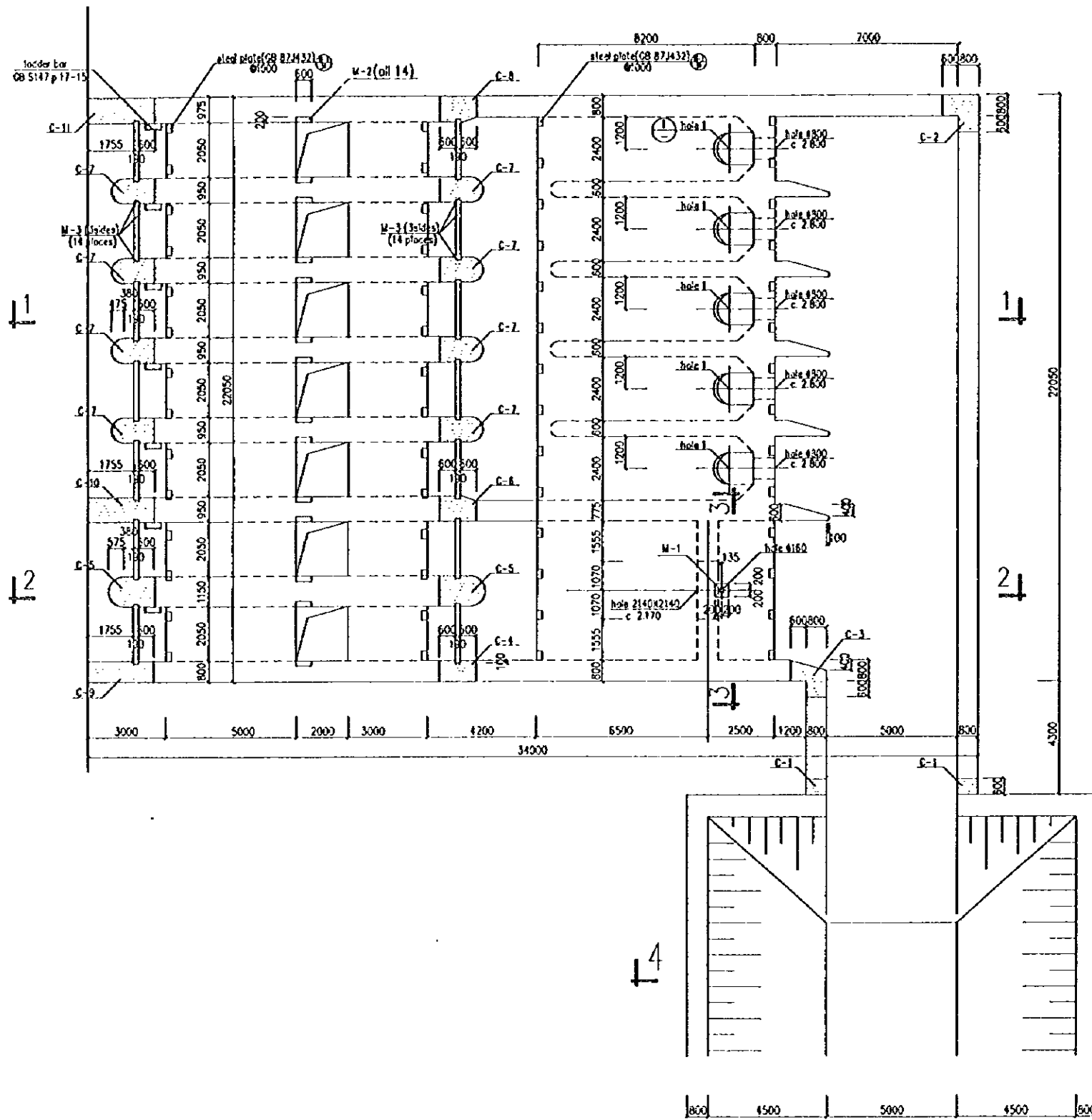


① l. beam

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA Wall Reinforcement Drawing	
SCALE	DWG1-B4
JAPAN INTERNATIONAL COOPERATION AGENCY	

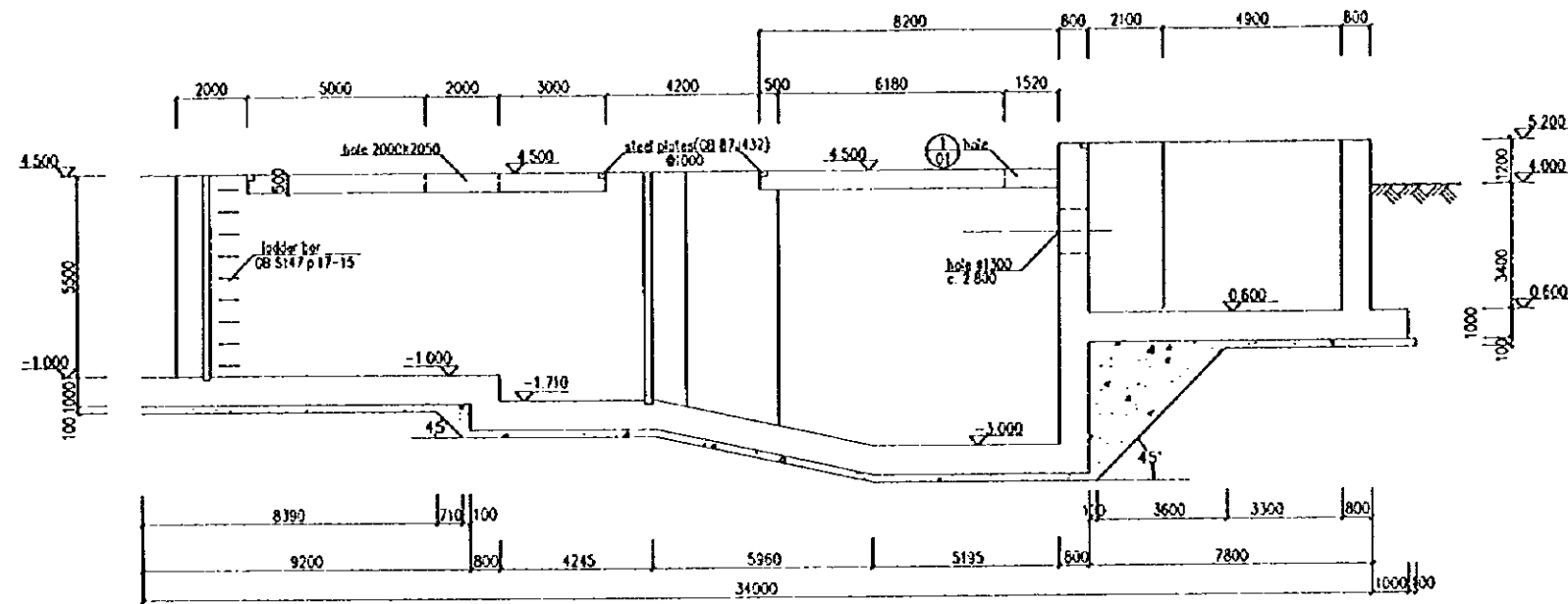


PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDDING INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA-NORTH DRAINAGE PUMP STATION SUBSTATION STRUCTURE DESIGN	
SCALE	DWG1-B6
JAPAN INTERNATIONAL COOPERATION AGENCY	

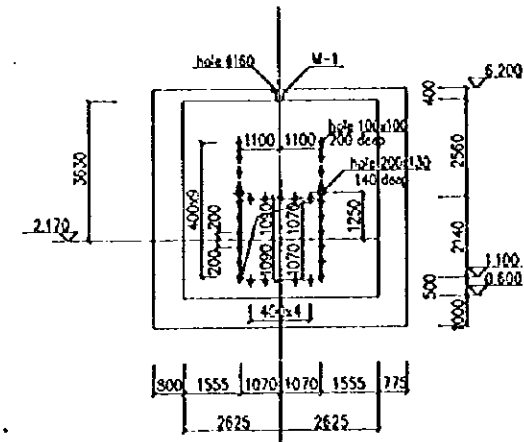


Molding Drawing

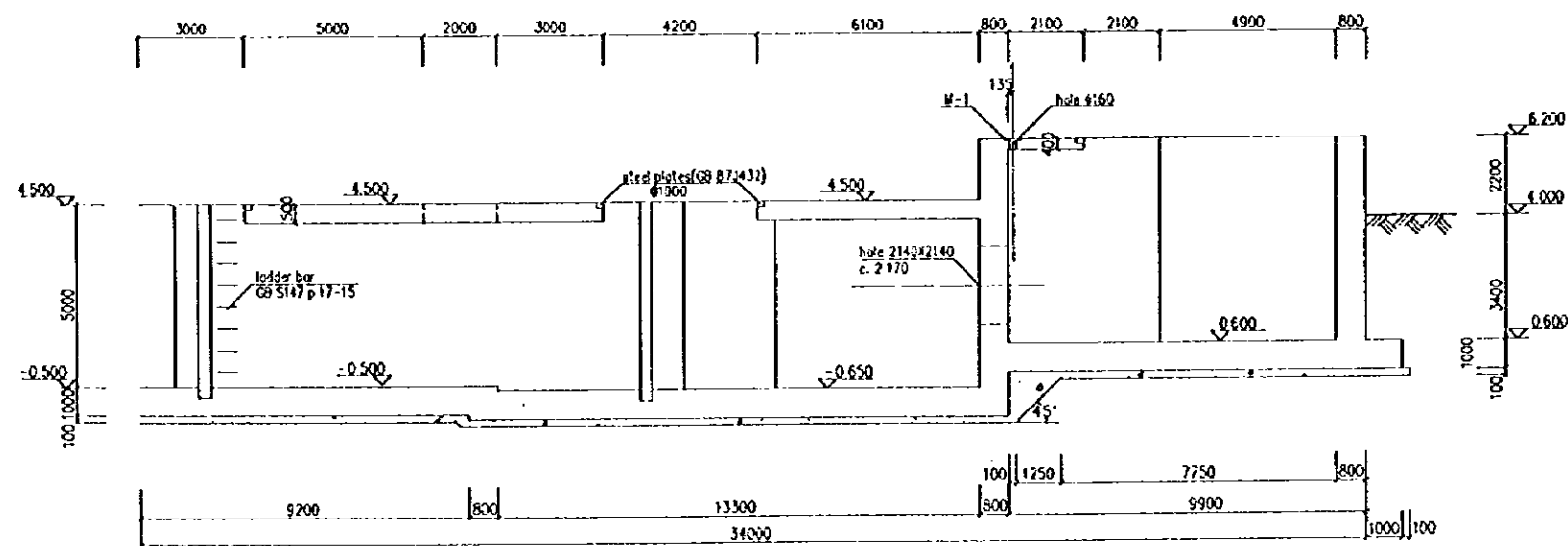
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA Molding Drawing	
SCALE	DWG1-B7
JAPAN INTERNATIONAL COOPERATION AGENCY	



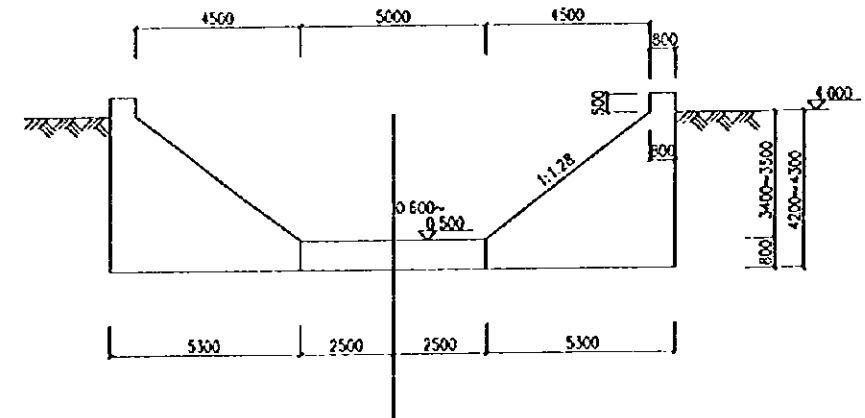
1-1



3-3



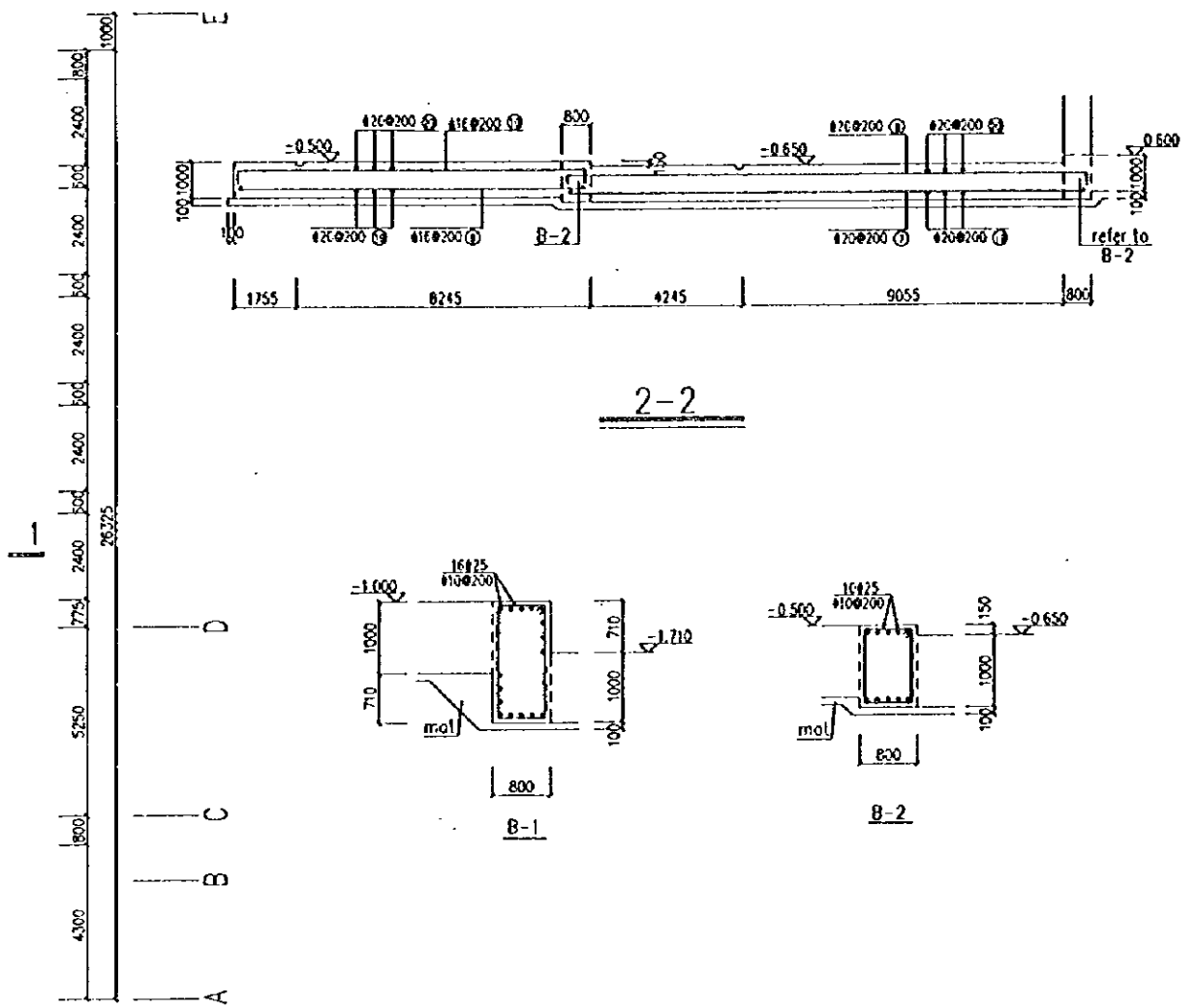
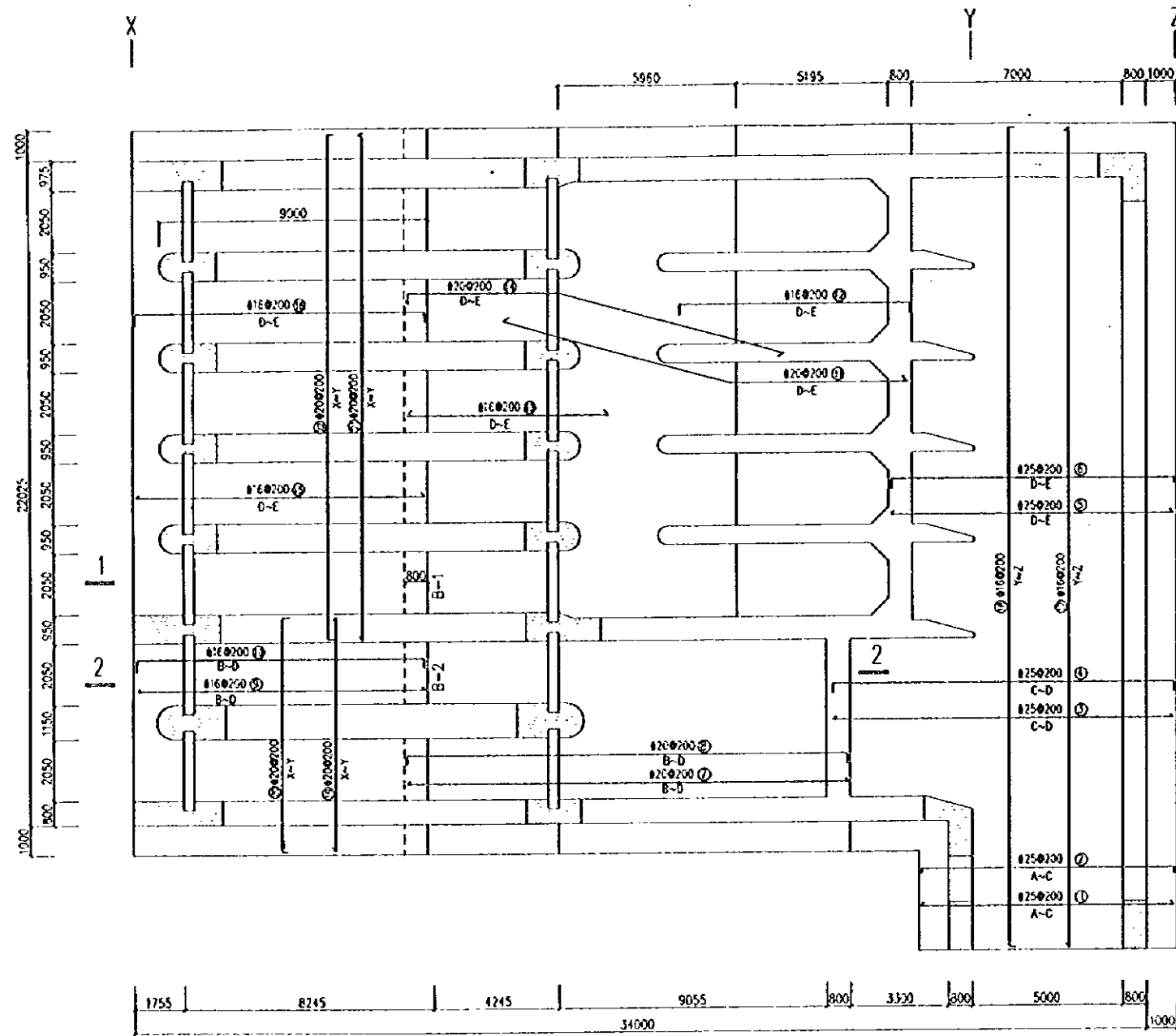
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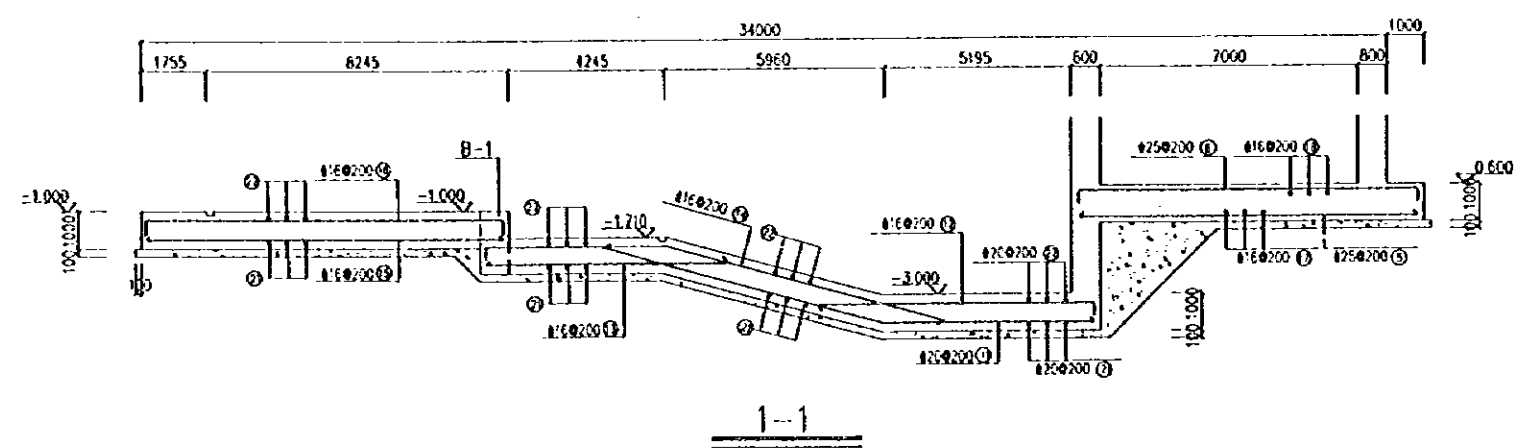
4-4

Note:
The planar positions of sections 1-1~4-4 refer to molding drawing.

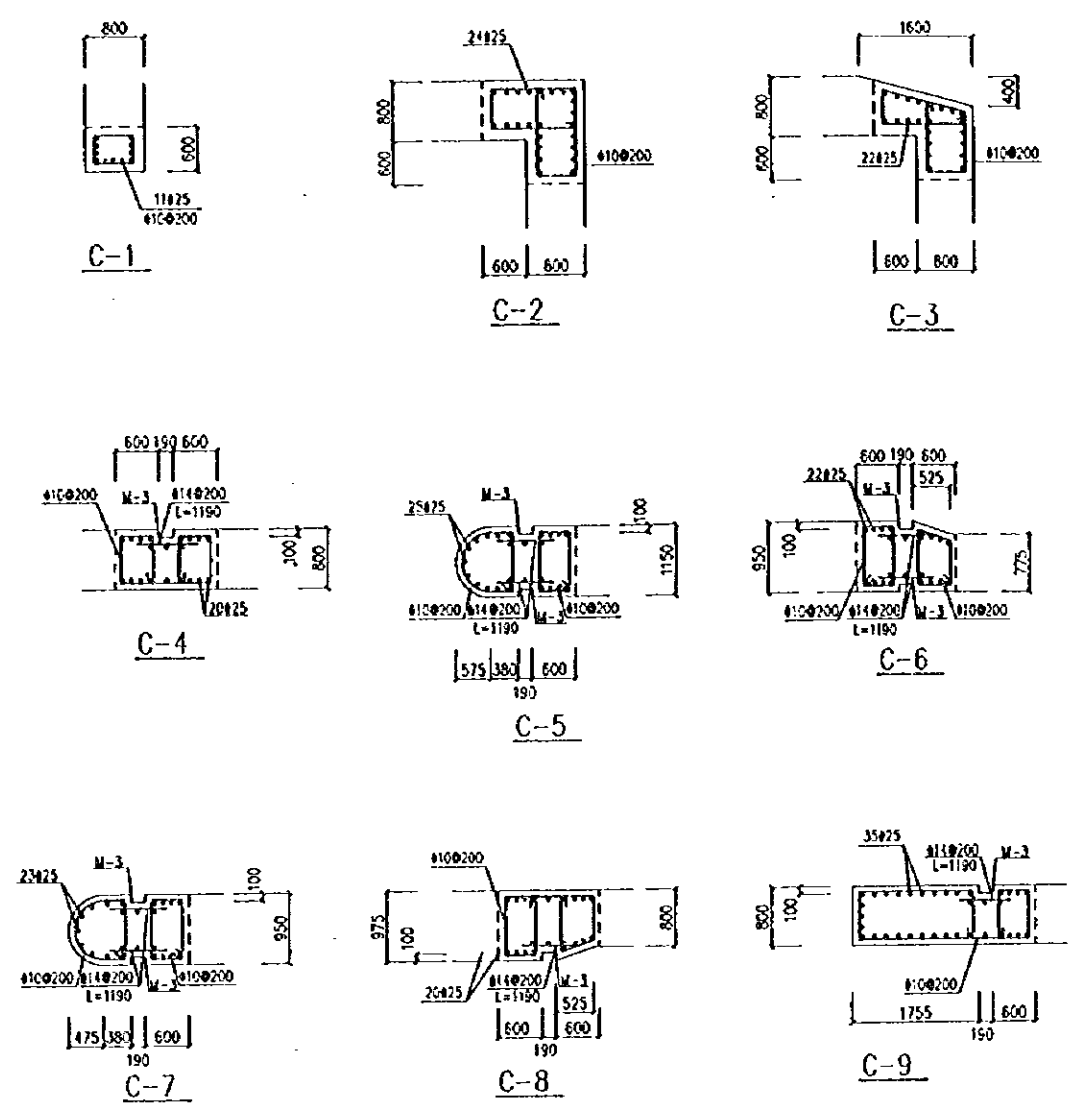
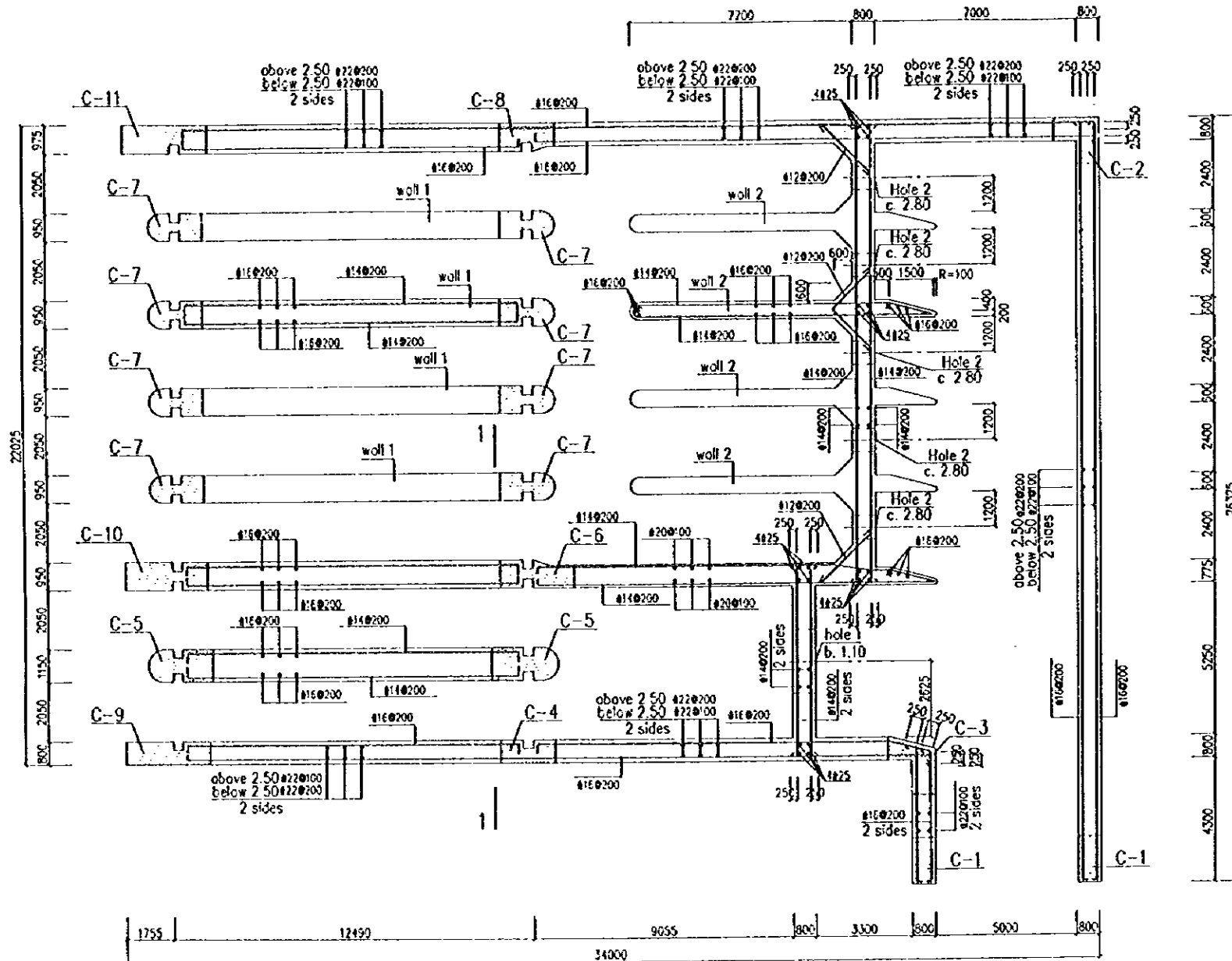
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA: Sections (1-1~4-4) of Molding Drawing	
SCALE	DWG1-88
JAPAN INTERNATIONAL COOPERATION AGENCY	



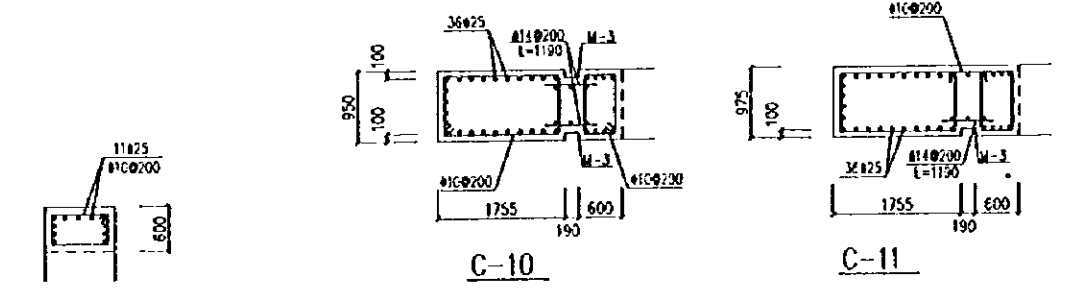
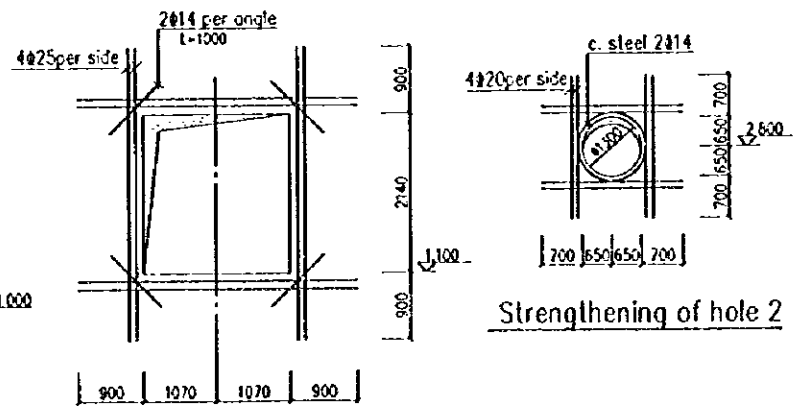
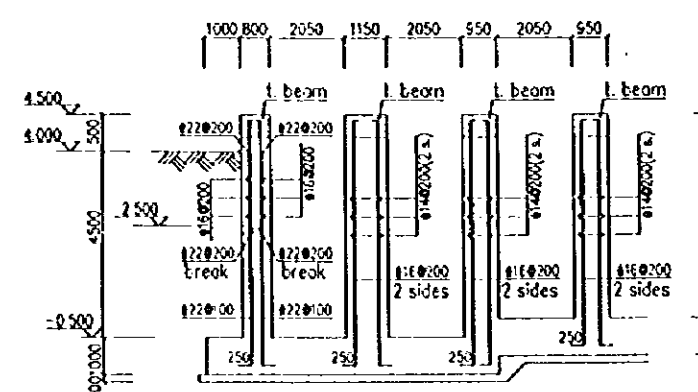
Baseboard Reinforcement Drawing



PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA: Baseboard Reinforcement Drawing	
SCALE	1/50
JAPAN INTERNATIONAL COOPERATION AGENCY	



Wall Reinforcement Drawing



1-1

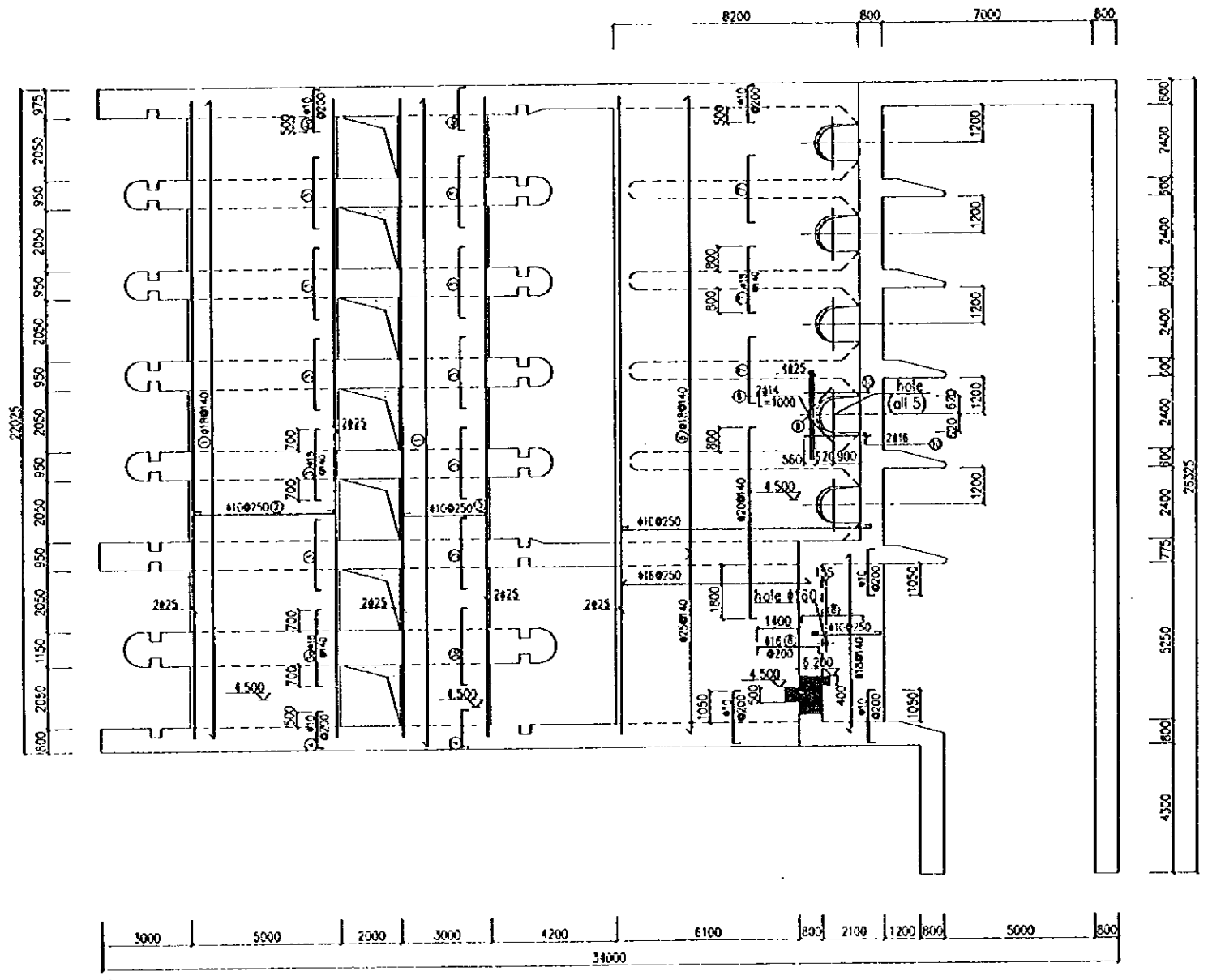
Strengthening of hole 1

Strengthening of hole 2

C-10

C-11

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUOONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA: Wall Reinforcement Drawing	
SCALE	DWG1-B10
JAPAN INTERNATIONAL COOPERATION AGENCY	



Headslob Reinforcement Drawing

Note:
Thickness of the unspecified slabs is 500.

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA Headslob Reinforcement Drawing	
SCALE	DWG1-B11
JAPAN INTERNATIONAL COOPERATION AGENCY	

Finishing Technical Specifications

No.	Topping	Construction
Floor 1	Concrete (with water-proof layer)	1. 110 thick C15 concrete 1:1 cement mortar, tamping & polishing. 2. 30 thick 1:3 cement mortar protection layer. 3. One-felt-two-asphalt water-proof layer, rolling up to 150 high all around, pasting coarse sand; 4. 150 thick pebble, grouting M2.5 mixed mortar; 5. soil tamping.
Apron 1	Concrete	1. 50 thick C15 concrete 1:1 cement mortar, tamping & polish; 2. 150 thick pebble, grouting M2.5 mixed mortar; 3. Soiling tamping, pitch to outside 4%.
Interior Wall 1	Coating	1. Paint interior wall coating; 2. 2 thick grummet finish coat; 3. 8 thick 1:3 lime putty mortar; 4. 13 thick 1:3 lime putty mortar priming.
Skirt 1	Cement h=120	1. 8 thick 1:2.5 cement mortar topping, tamping & polish; 2. 12 thick 1:3 cement mortar priming, deburring or scratch.
Ceiling 1	Coating	1. Paint white scrubbing-resisting coating; 2. 2 thick grummet finish coat; 3. 6 thick 1:3:9 cement lime putty mortar; 4. 2 thick 1:0.5:1 cement lime putty mortar priming; 5. R.C. slab bottom to be brushed one coat of plain wet cement (mixing 107 glue with water 3~5%).
Ramp 1	Concrete	1. 20 thick 1:2 cement mortar mopping, 15 wide emery antislip strip, spacing 80, convex to ramp surface; 2. One coat of plain wet cement binder course; 3. 50 thick C15 concrete; 4. 300 thick pebble, grouting M2.5 mixed mortar; 5. Soiling tamping (levelling as per plan & section dimension).
Roof 1	Small Stone Protection Layer (without person)	1. Pave one coat of binded peastone of 3~6 in portical size; 2. Ternary ethlene-propylene rubber rolled material water-proof layer; 3. 20 thick 1:2.5 cement mortar levelling course; 4. Pave 1:8 cement perlite thermal insulation layer, lowest point :30 thick, 2% pitch, vibrating & tamping polish (exhaust channel, PVC exhaust dust to be provided with vent spacing of not more than 6 M as per Codes); 5. 20 thick 1:3 cement mortar levelling course; 6. R.C. slab.

No.	Topping	Construction
Exterior Wall 1	Facing Brick	1. 1:1 cement mortar (fine sand) pointing; 2. Paste 10 thick facing brick (as pasting as brushing one coat of Yj-302 type concrete interface treatment agent to increase binding force); 3. 12 thick 1:0.2:2 cement lime putty mortar binder course; 4. Brush one coat of plain wet cement (mixing 107 glue with water 3~5%); 5. 8 thick 1:3 cement mortar priming, deburring & scratching; 6. Brush one coat of Yj-302 type concrete interface treatment agent (as brushing as plastering).
Painting 1		1. Two coats of dark-green mixed paint; 2. Claircolle making; 3. One coat of antirusting paint.

Name	Type	Opening Size	Standard Drawing	Number	Remark
C1	Louver window	1800x900	J652 C2-1809	4	
C2	Louver window	3000x900	J652 C2-3009	2	
C3	Aluminum alloy sliding window	1800x900	91J604-TC1809	2	white aluminium alloy
C4	Aluminum alloy sliding window	1500x1800	91J604-TC1518	3	white aluminium alloy
M1	Steel wooden door	1800x2700	J652 M210-1827	4	
M2	Steel wooden door	3000x2700	J652 M210-3027	2	
M3	Aluminum alloy door	900x2700	91J604-PM0927	1	white aluminium alloy
M4	Aluminum alloy door	900x2100	91J604-PM0921	1	white aluminium alloy

DESIGN INTRODUCTION

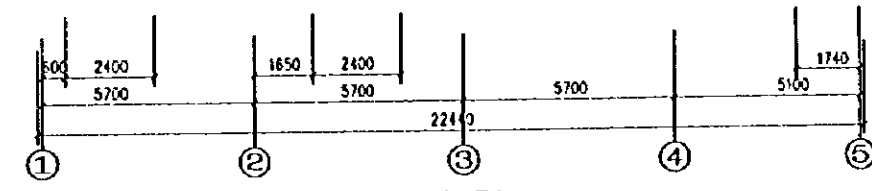
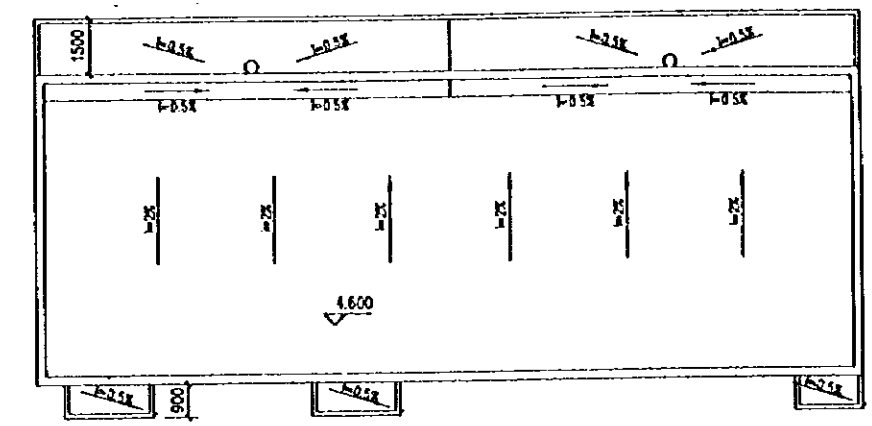
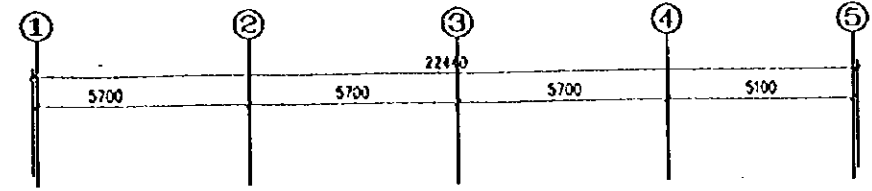
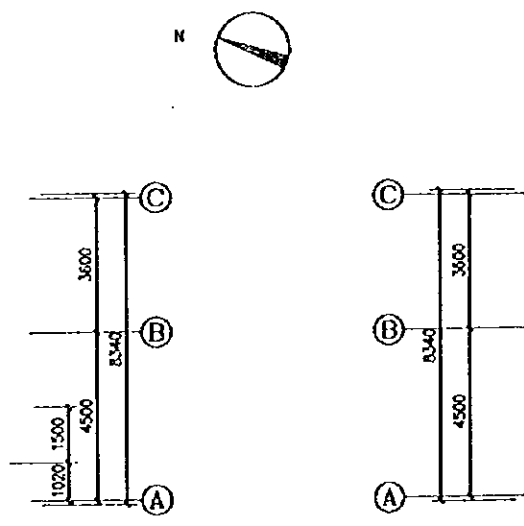
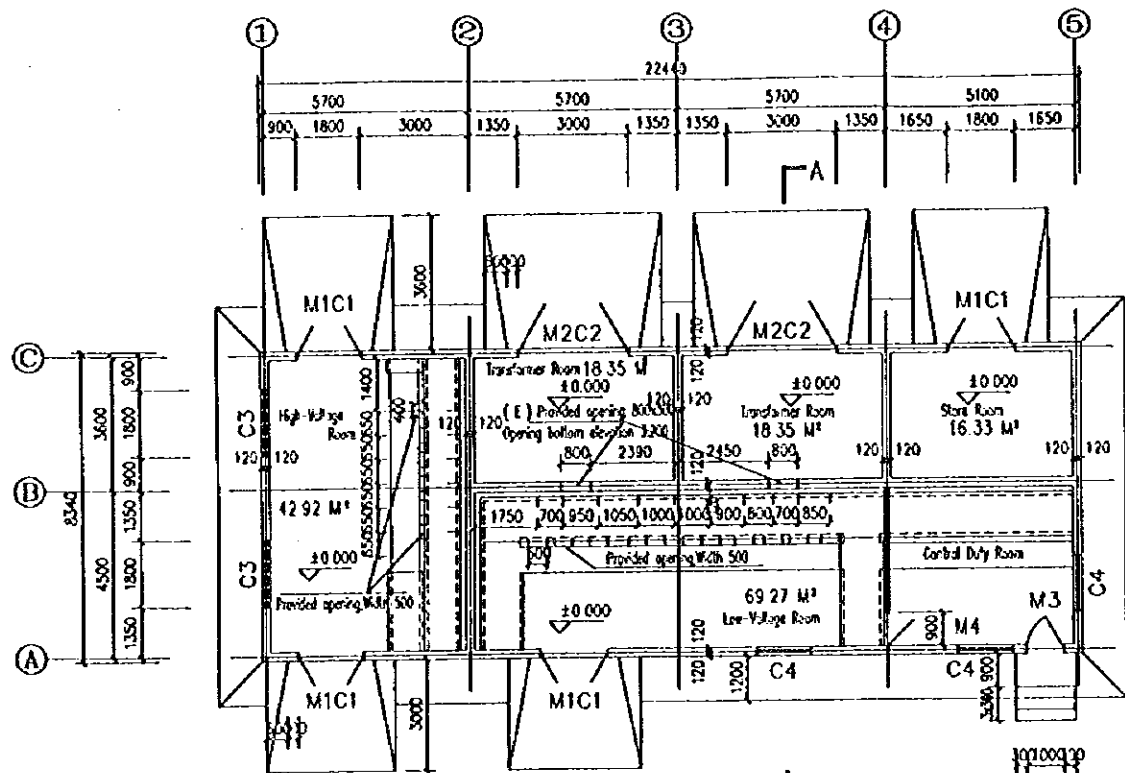
- This project is A Area Drainage Pump Station of Shanghai Pudong International Airport. The general plan position and outdoor elevations refer to General Drawing.
- Design basis: This project is designed based on preliminary design and preliminary design approving document.
- floor area: 179.82m²
- Wall: 1) Except otherwise noted, all walls are 240 thick brick wall, using brick of M7.5 and U7.5 mortar;
 2) All walls shall be provided with 20 thick 1:2 cement mortar damp-proof layer at the position of - 0.060, mixing water-proof agent of 3%~5%;
 3) 1:2 cement mortar angle bead shall be done for indoor wall convex corner, with height same as opening, width of two sides: 150;

Building Construction Table

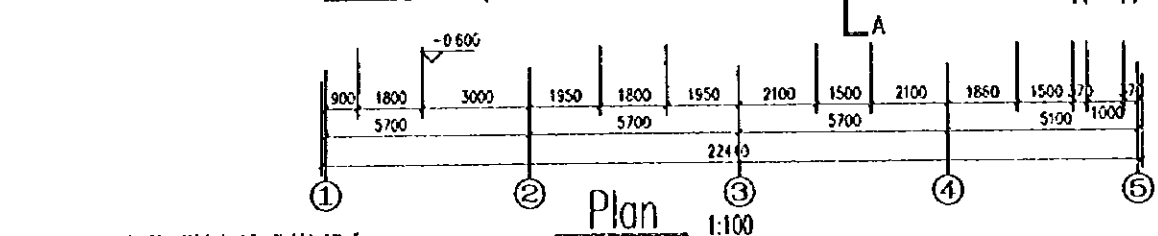
Name	Floor	Interior Wall	Skirt	Ceiling	Roof
	Topping/Construction	Topping/Construction	Topping/Construction	Topping/Construction	Roof
All of Room	Concrete/Floor 1	Coating/Interior Wall	Concrete/Skirt 1	Coating/Ceiling 1	Roof 1

Door & Window Table

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-Area Drainage Pump Station Finishing Technical Specifications	
SCALE	DWG1-A1
JAPAN INTERNATIONAL COOPERATION AGENCY	

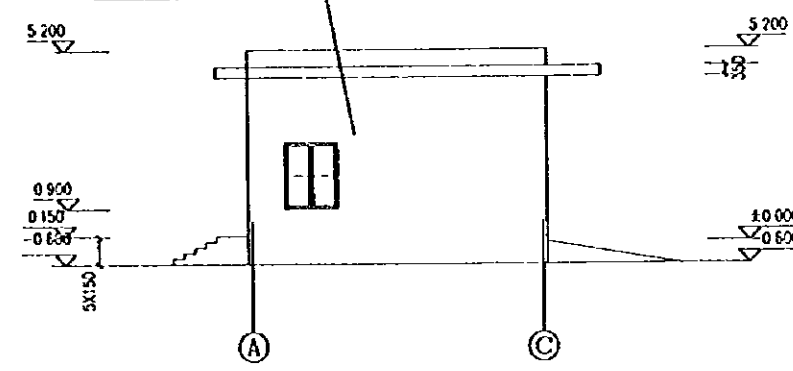


Roof Plan 1:100

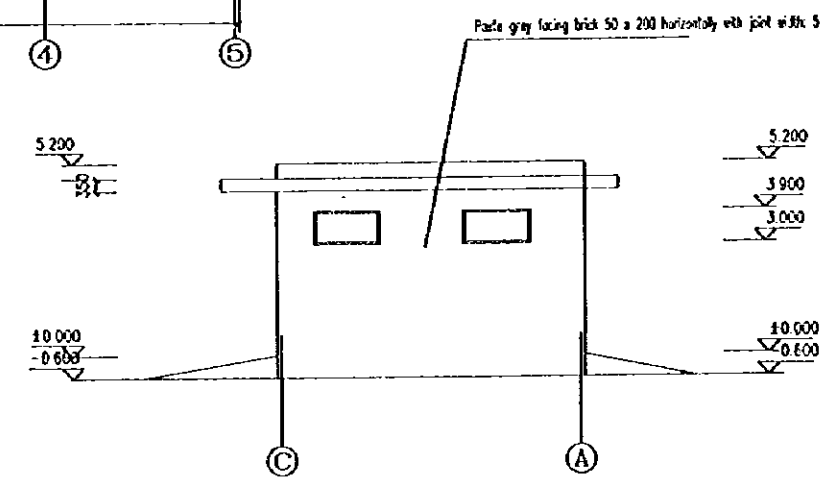


Plan 1:100

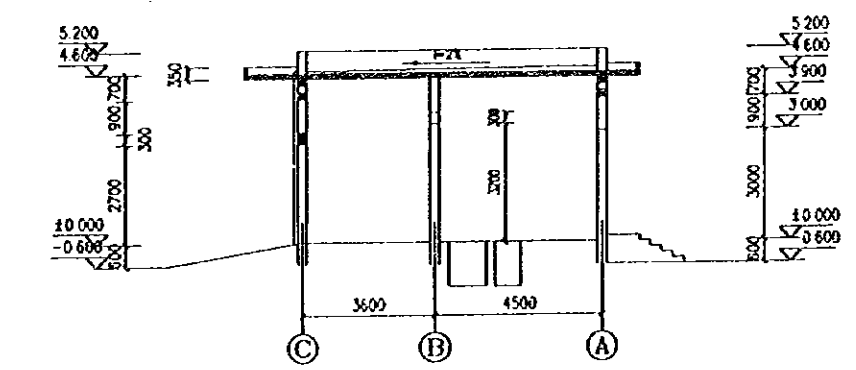
Pale grey facing brick 50 x 200 horizontally with joint width 5



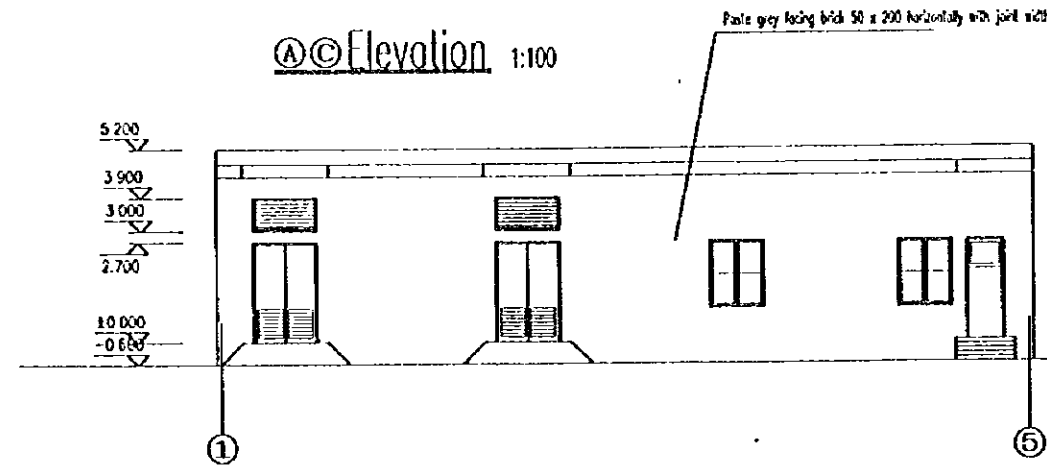
A-C Elevation 1:100



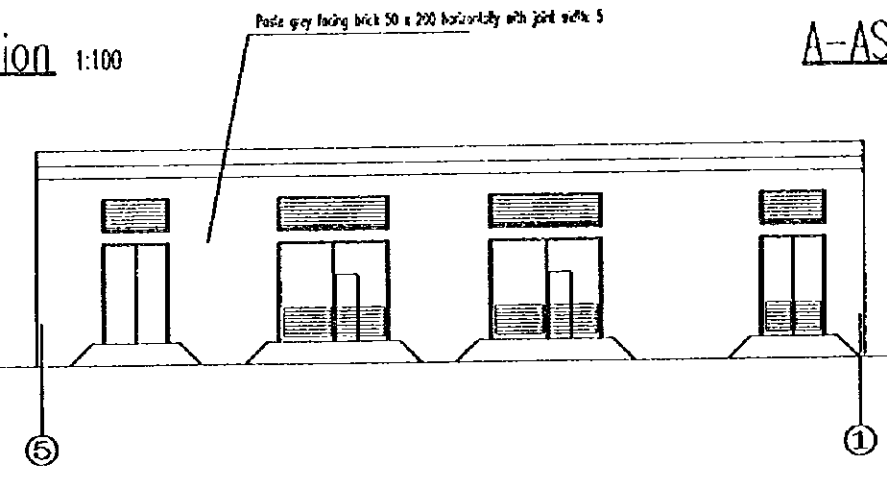
C-A Elevation 1:100



A-A Section 1:100



1-5 Elevation 1:100



5-1 Elevation 1:100

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT SEPTEMBER 1997	
A-Area Drainage Pump Station Detail	
SCALE	DWG1-A2
JAPAN INTERNATIONAL COOPERATION AGENCY	

Finishing Technical Specifications

No.	Topping	Construction
Floor 1	Concrete (with water-proof layer)	1. 110 thick C15 concrete 1:1 cement mortar, tamping & polishing. 2. 30 thick 1:3 cement mortar protection layer. 3. One-felt-two-asphalt water-proof layer, rolling up to 150 high all around, posting coarse sand; 4. 150 thick pebble, grouting M2.5 mixed mortar; 5. soil tamping.
Apron 1	Concrete	1. 50 thick C15 concrete 1:1 cement mortar, tamping & polish; 2. 150 thick pebble, grouting M2.5 mixed mortar; 3. Soiling tamping, pitch to outside 4%.
Interior Wall 1	Coating	1. Point interior wall coating; 2. 2 thick grummet finish coat; 3. 8 thick 1:3 lime putty mortar; 4. 13 thick 1:3 lime putty mortar priming.
Skirt 1	Cement h=120	1. 8 thick 1:2.5 cement mortar topping, tamping & polish; 2. 12 thick 1:3 cement mortar priming, deburring or scotch.
Ceiling 1	Coating	1. Paint white scrubbing-resisting coating; 2. 2 thick grummet finish coat; 3. 6 thick 1:3:9 cement lime putty mortar; 4. 2 thick 1:0.5:1 cement lime putty mortar priming; 5. R.C. slab bottom to be brushed one coat of plain wet cement (mixing 107 glue with water 3~5%).
Ramp 1	Concrete	1. 20 thick 1:2 cement mortar mopping, 15 wide emery antislip strip, spacing 80, convex to ramp surface; 2. One coat of plain wet cement binder course; 3. 50 thick C15 concrete; 4. 300 thick pebble, grouting M2.5 mixed mortar; 5. Soiling tamping (levelling as per plan & section dimension).
Roof 1	Small Stone Protection Layer (without person)	1. Pave one coat of binded peastone of 3~6 in partical size; 2. Ternary ethere-propylene rubber rolled material water-proof layer; 3. 20 thick 1:2.5 cement mortar levelling course; 4. Pave 1.8 cement perlite thermal insulation layer, lowest point :30 thick, 2% pitch, vibrating & tamping polish (exhaust channel, PVC exhaust dust to be provided with vent spacing of not more than 6 M as per Codes); 5. 20 thick 1:3 cement mortar levelling course; 6. R.C. slab.

No.	Topping	Construction
Exterior Wall 1	Facing Brick	1. 1:1 cement mortar (fine sand) pointing; 2. Paste 10 thick facing brick (as pasting as brushing one coat of Yj-302 type concrete interface treatment agent to increase binding force); 3. 12 thick 1:0.2:2 cement lime putty mortar binder course; 4. Brush one coat of plain wet cement (mixing 107 glue with water 3~5%); 5. 8 thick 1:3 cement mortar priming, deburring & scrotching; 6. Brush one coat of Yj-302 type concrete interface treatment agent (as brushing as plasting).
Painting 1		1. Two coats of dark-green mixed point; 2. Claircolle making; 3. One coat of antirusting point.

Name	Type	Opening Size	Standard Drawing	Number	Remark
C1	Louver window	1800x900	J652 C2-1809	4	
C2	Louver window	3000x900	J652 C2-3009	2	
C3	Aluminum alloy sliding window	1800x900	# 91J604-TC1809	2	white aluminium alloy
C4	Aluminum alloy sliding window	1500x1800	# 91J604-TC1518	3	white aluminium alloy
M1	Steel wooden door	1800x2700	J652 M210-1827	4	
M2	Steel wooden door	3000x2700	J652 M210-3027	2	
M3	Aluminum alloy door	900x2700	# 91J604-PM0927	1	white aluminium alloy
M4	Aluminum alloy door	900x2100	# 91J604-PM0921	1	white aluminium alloy

Design Instruction

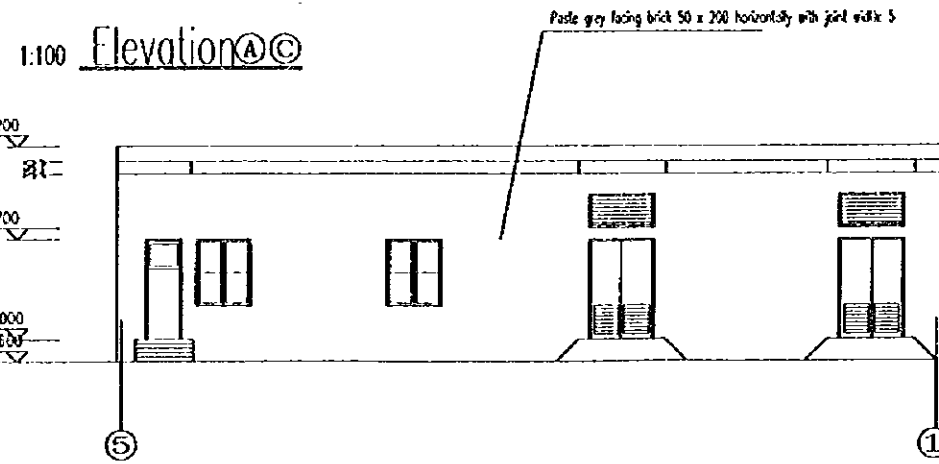
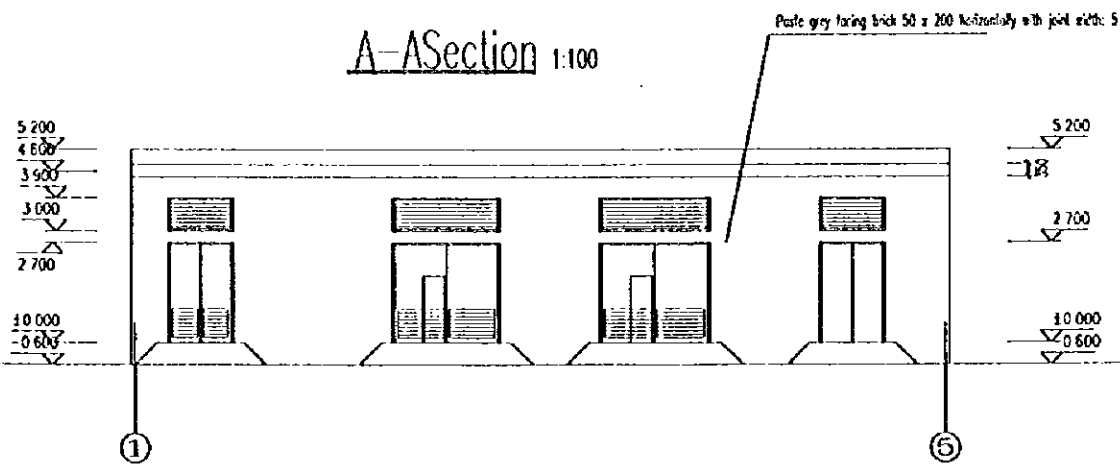
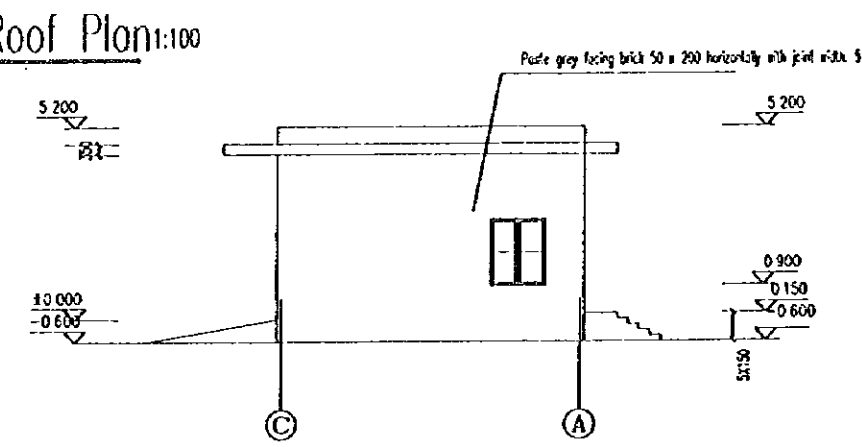
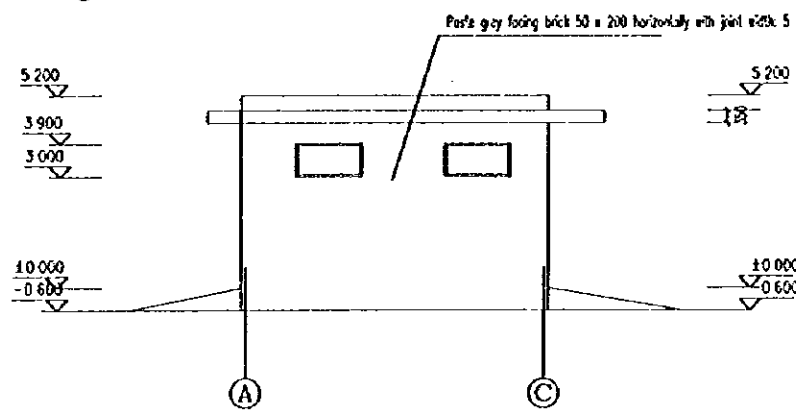
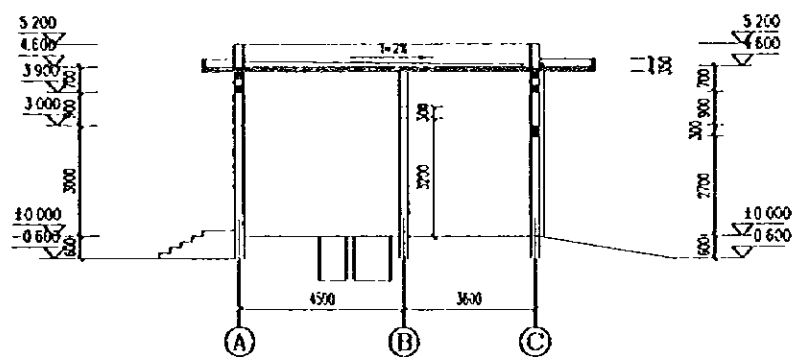
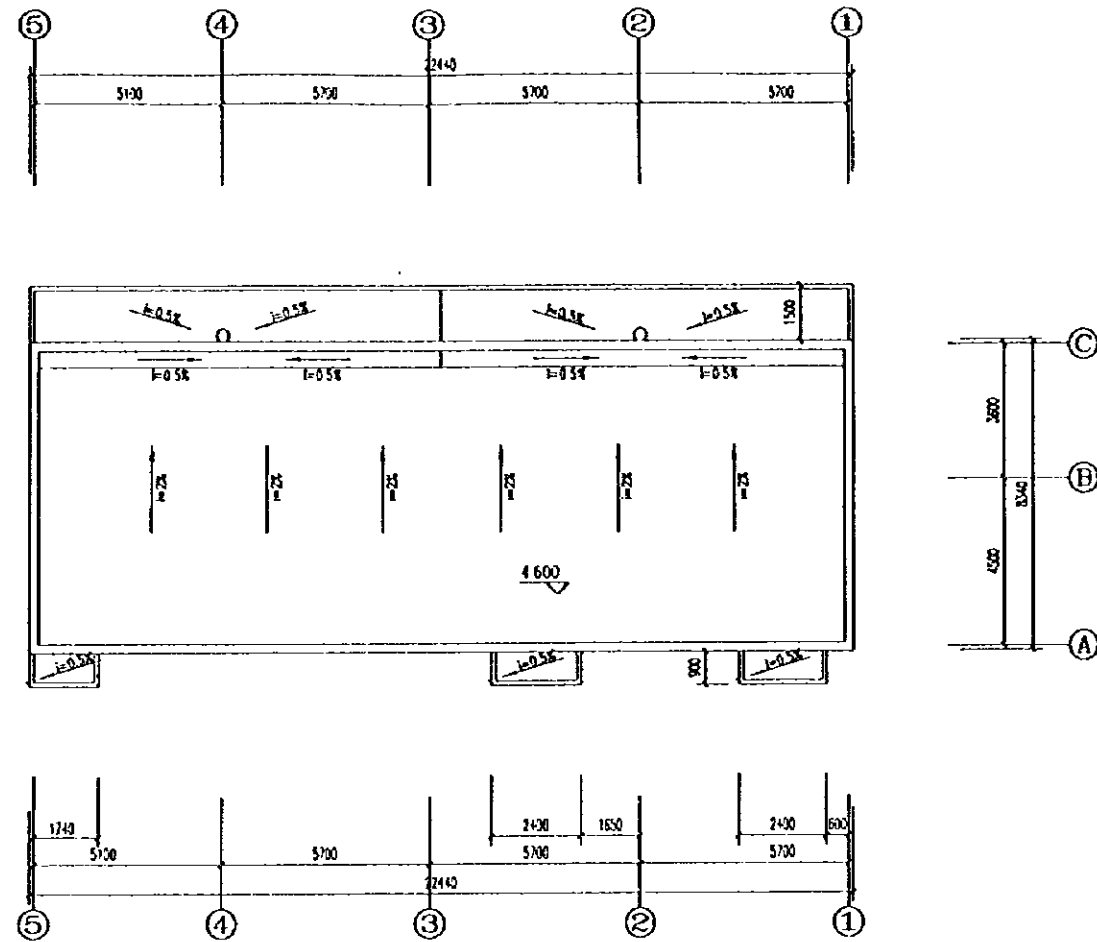
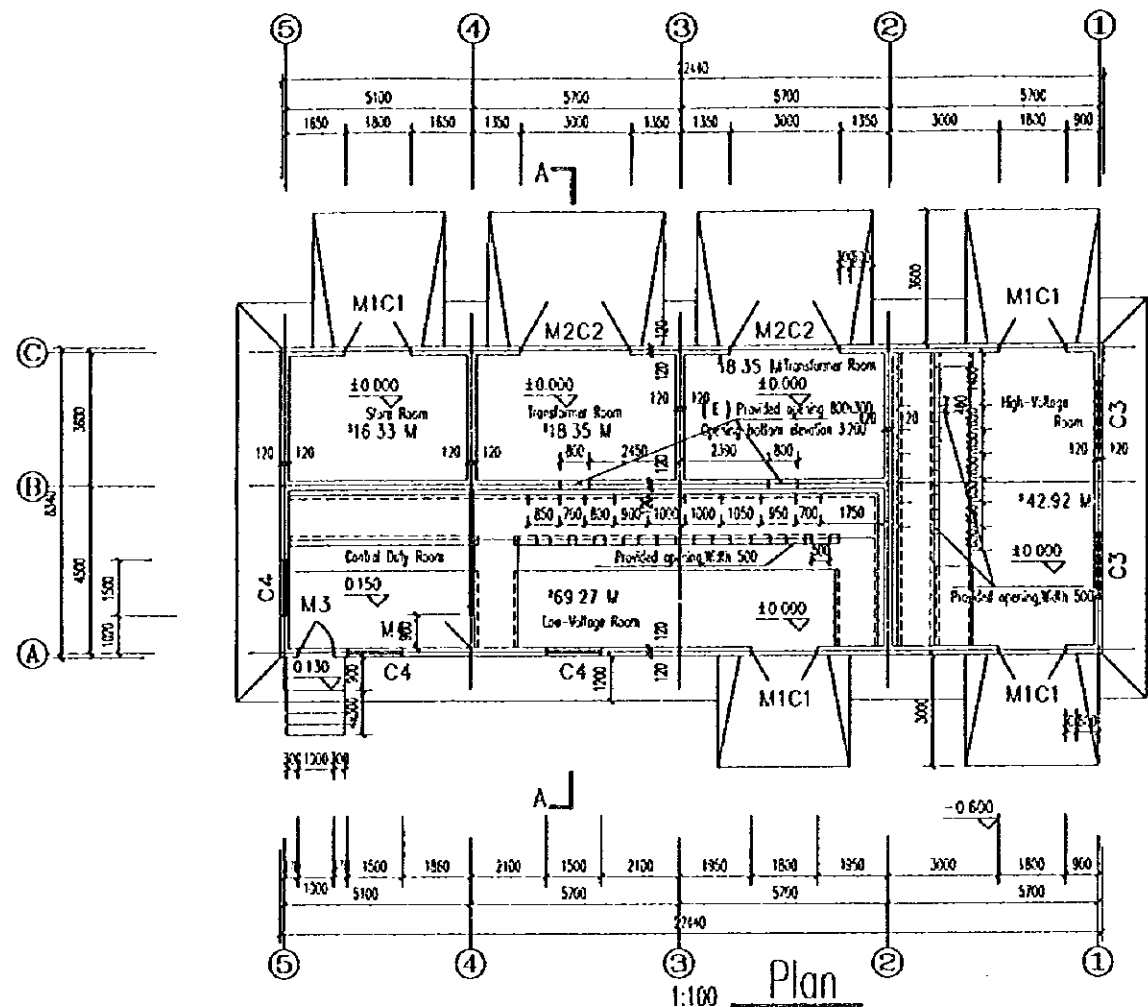
- This project is B Area Drainage Pump Station of Shanghai Pudong International Airport. The general plan position and outdoor elevations refer to General Drawing.
- Design basis: This project is designed based on preliminary design and preliminary design approving document.
- Floor area: 179.82m²
- Wall: 1) Except otherwise noted, all walls are 240 thick brick wall, using brick of M7.5 and U7.5 mortar;
 2) All walls shall be provided with 20 thick 1:2 cement mortar damp-proof layer at the position of - 0.060, mixing water-proof agent of 3%~5%;
 3) 1:2 cement mortar angle bead shall be done for indoor wall convex corner, with height same as opening, width of two sides: 150;

Building Construction Table

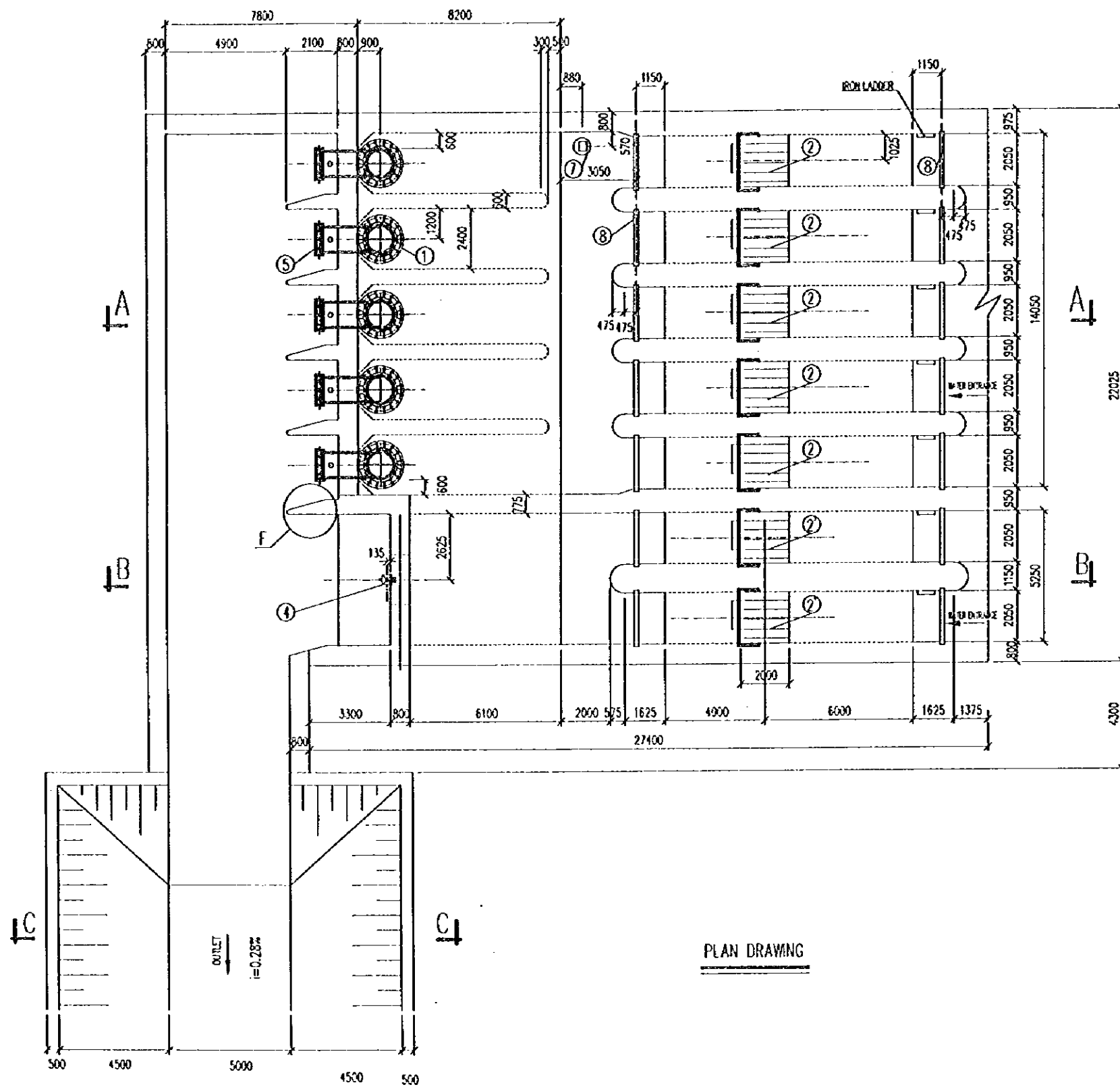
Name	Floor	Interior Wall	Skirt	Ceiling	Roof
	Topping/Construction	Topping/Construction	Topping/Construction	Topping/Construction	
All of Room	Concrete/Floor 1	Coating/Interior Wall	Concrete/Skirt 1	Coating/Ceiling 1	Roof 1

Door & Window Table

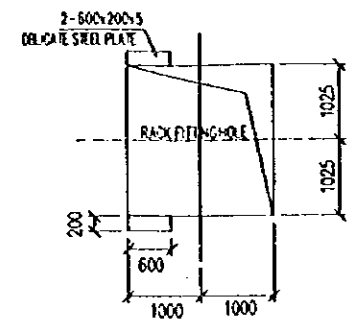
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-Area Drainage Pump Station Finishing Technical Specifications	
SCALE	DWG1-A3
JAPAN INTERNATIONAL COOPERATION AGENCY	



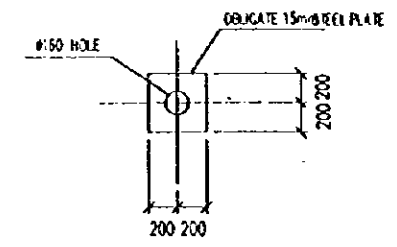
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT SEPTEMBER 1997	
B-Area Drainage Pump Station Detail	
SCALE	DWG1-A1
JAPAN INTERNATIONAL COOPERATION AGENCY	



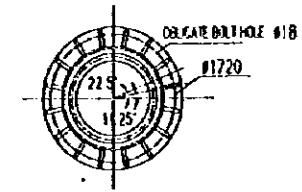
PLAN DRAWING



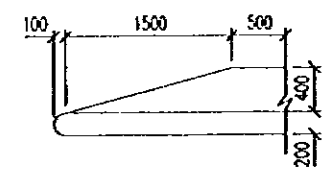
RACK BASES PLAN DETAIL DRAWING 1:50



MOTOR GATE HOST FIT BASES DRAWING 1:25



PUMP FIT BASES DRAWING 1:50

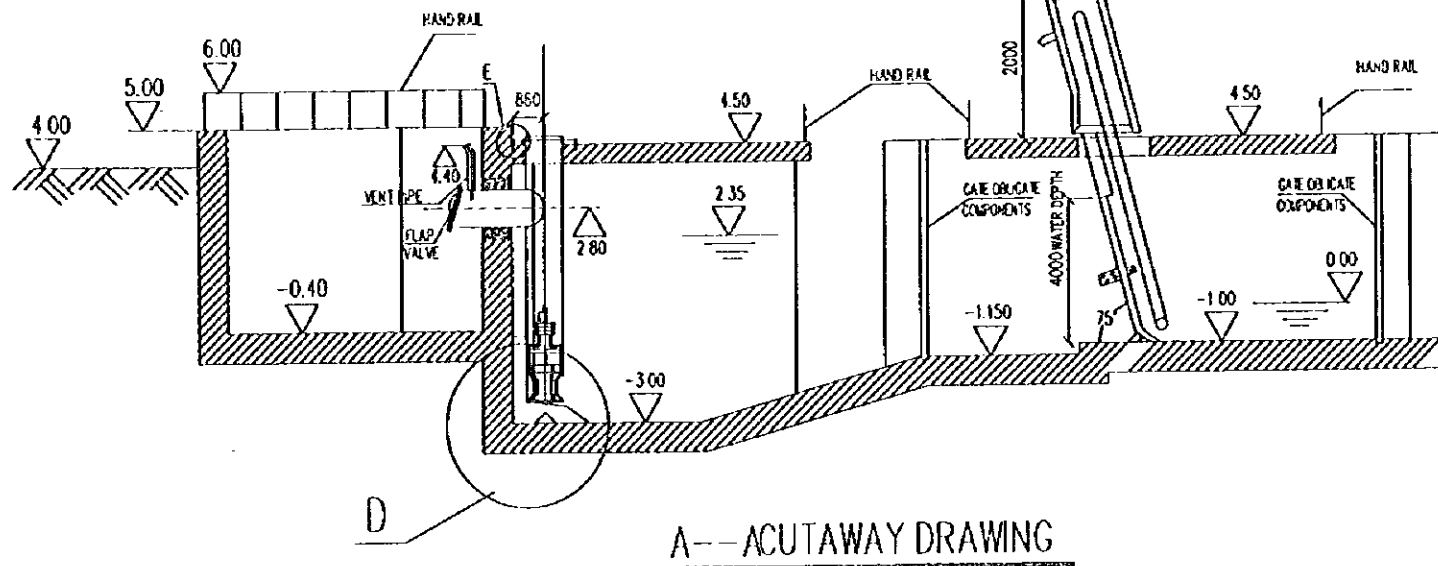


F DETAIL DRAWING

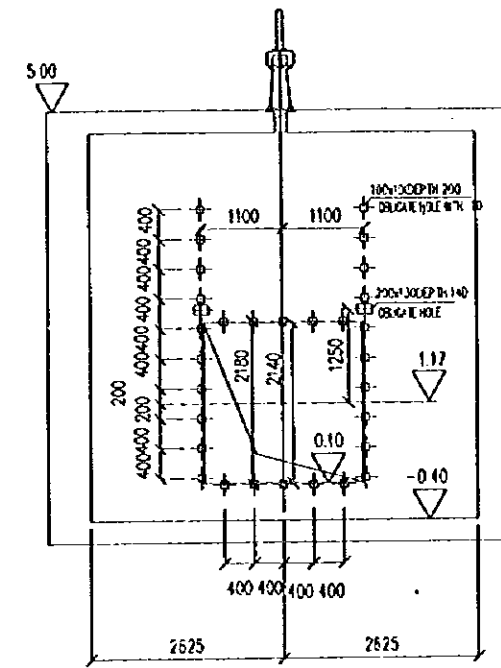
SPECIFICATION:
SIZES ON THE DRAWING SHALL BE IN mm

No	MATERIALS	No's	REMARKS
⑧	PGZ TYPE PLANE STEEL GATE WxH=2050x5000mm	2	
⑦	WATER LEVEL INDICATOR	1	CONTINUOUS WATER LEVEL MEASURING
⑥	PVC PIPE #200	10	VENT PIPE
⑤	FLAP VALVE #1200	5	
④	MANUAL/ELECTRIC GATE STATOR QDA180x6kw	1	
③	SFZ CAST IRON GATE 2000x2000mm		
②	AUTOMATIC RAKING MACHINE NOMINAL WIDTH OF THE FENCE 2.0m FENCE WELL DEPTH 5.0m FENCE INTERVAL 50mm WATER DEPTH 1.5m	2	
②	AUTOMATIC RAKING MACHINE NOMINAL WIDTH OF THE FENCE 2.0m FENCE WELL DEPTH 5.0m FENCE INTERVAL 50mm WATER DEPTH 1.0m	5	
①	STORM WATER PUMP #1200x2.0m ³ /s x 2.92m x 30kw	5	SUPPLIED IN COMPLETE SET

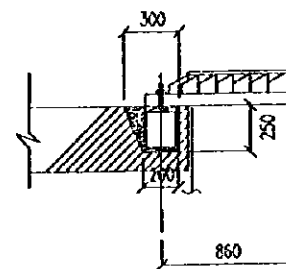
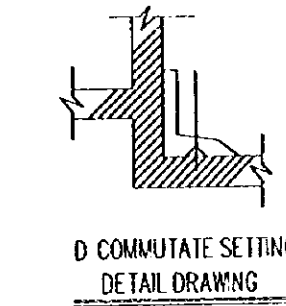
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A - AREA DRAINAGE PUMP STATION PLAN	
SCALE	DWG1-M1
JAPAN INTERNATIONAL COOPERATION AGENCY	



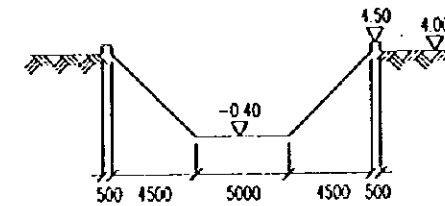
A--ACUTAWAY DRAWING



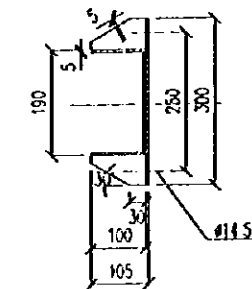
GATE FIT BASES DRAWING 1:50



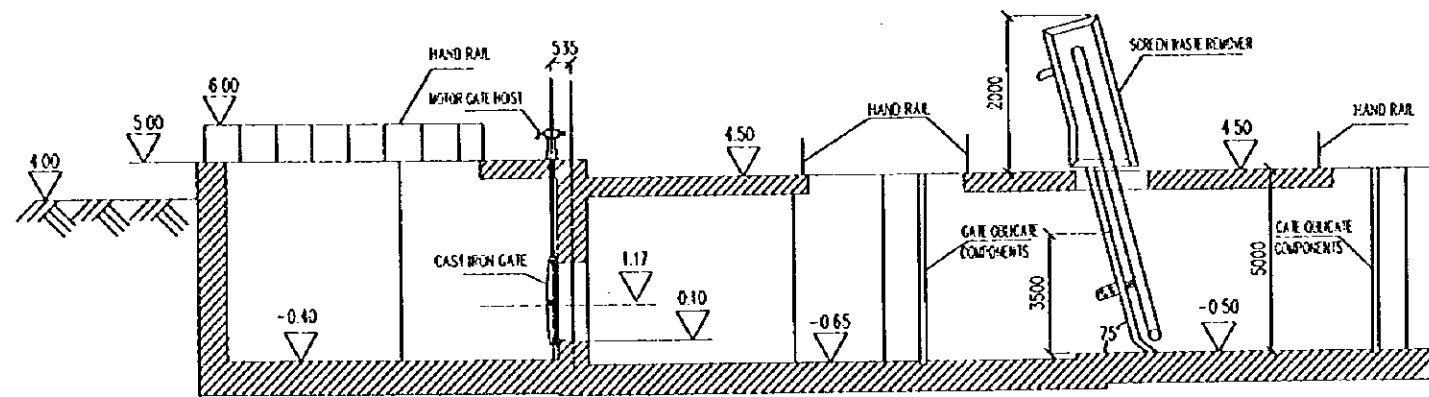
E PUMP FIT BASES CUTAWAY DRAWING



C--CAQUEDUCT CUTAWAY DRAWING



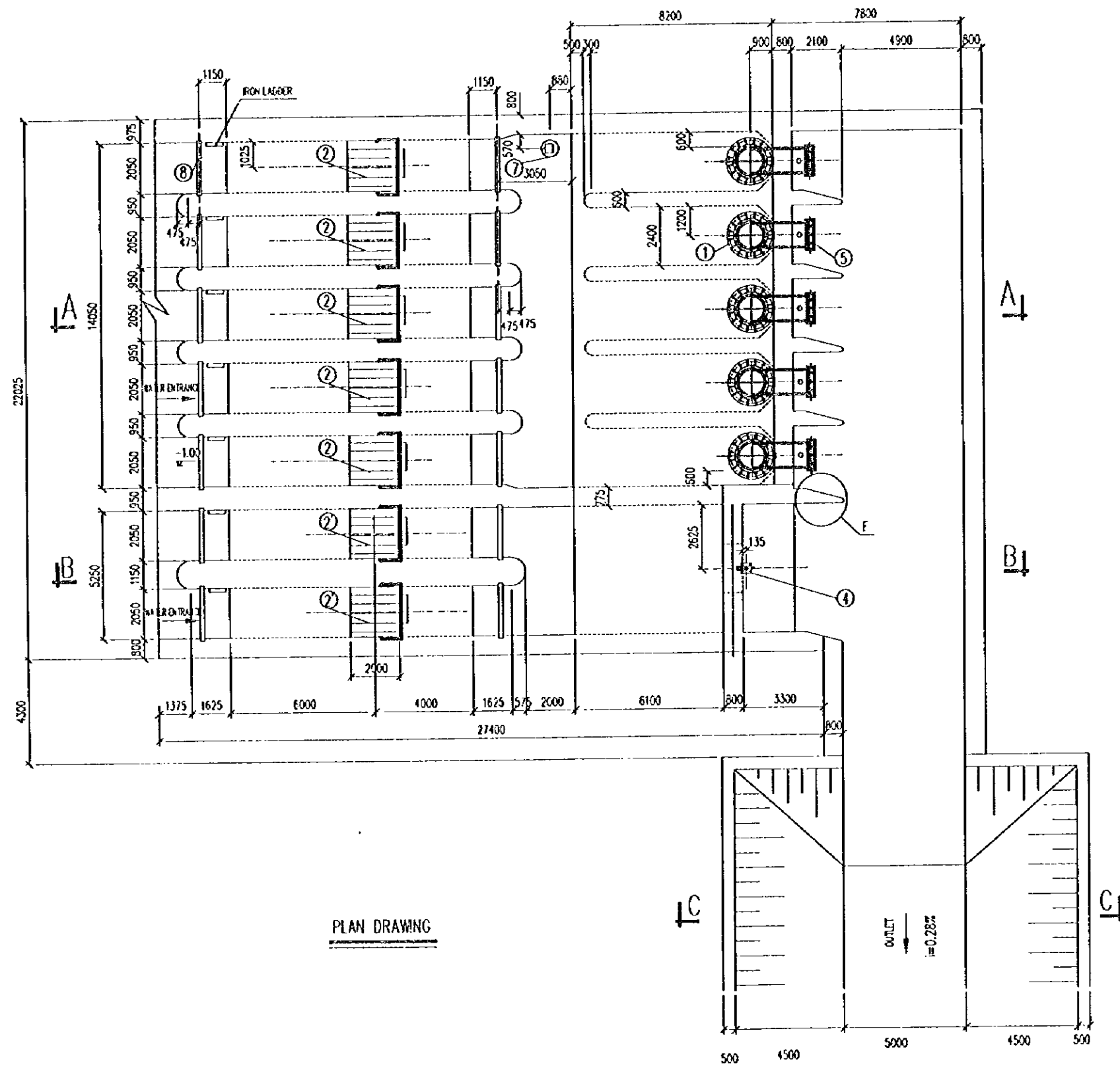
GATE OBLIQUE COMPONENTS DETAIL DRAWING



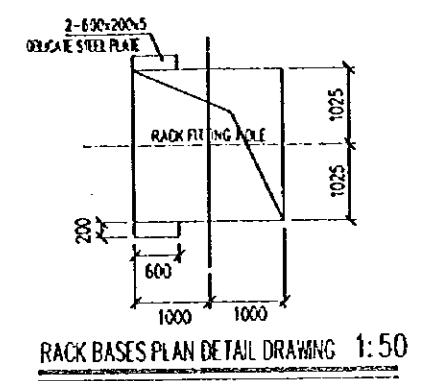
B--BCUTAWAY DRAWING

SPECIFICATION :
ELEVATIONS ON THE DRAWING SHALL BE IN m , AND OTHER SIZES IN mm

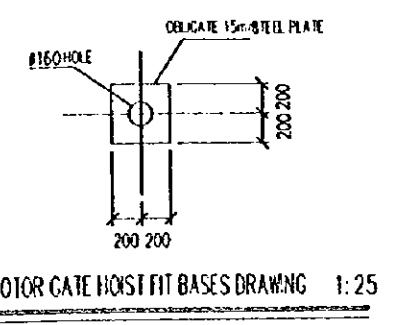
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A-AREA DRAINAGE PUMP STATION CUTAWAY	
SCALE	DWG1-M2
JAPAN INTERNATIONAL COOPERATION AGENCY	



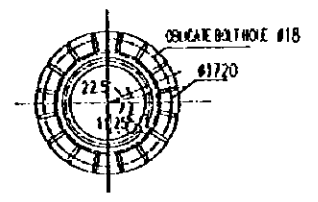
PLAN DRAWING



RACK BASES PLAN DETAIL DRAWING 1:50

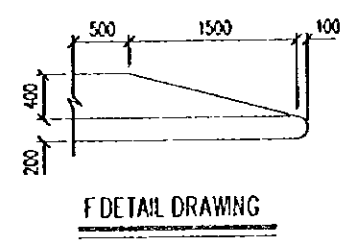


MOTOR GATE HOIST FIT BASES DRAWING 1:25



PUMP FIT BASES DRAWING

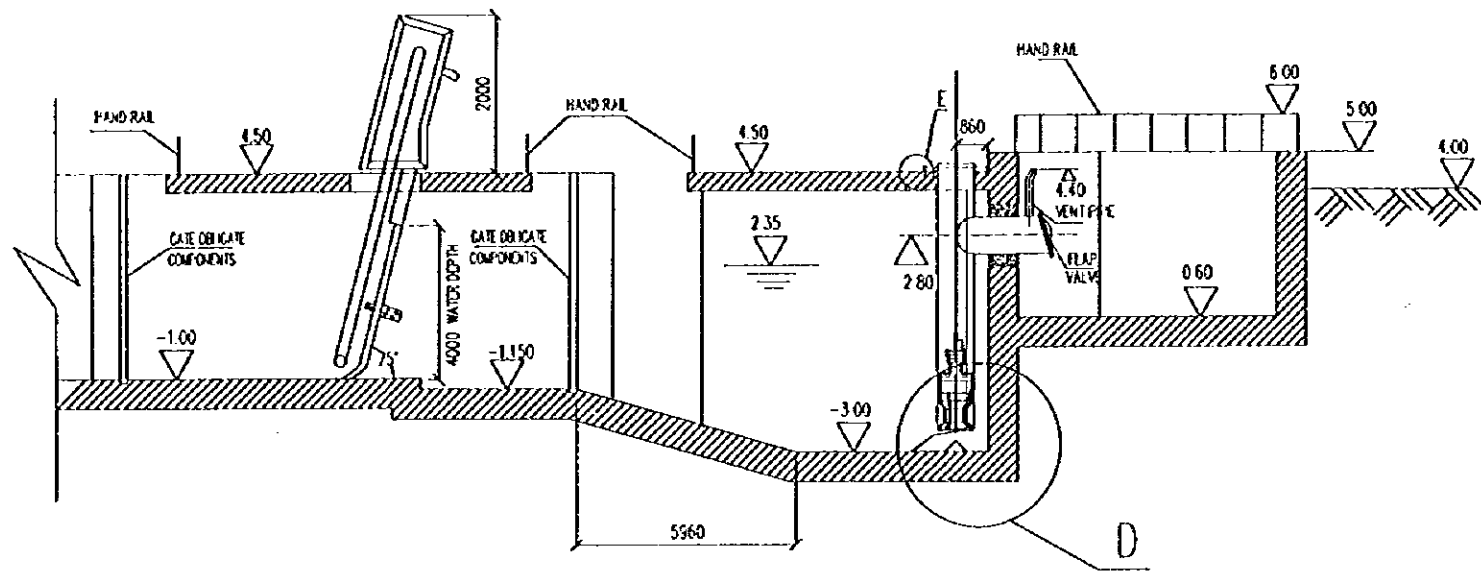
SPECIFICATION:
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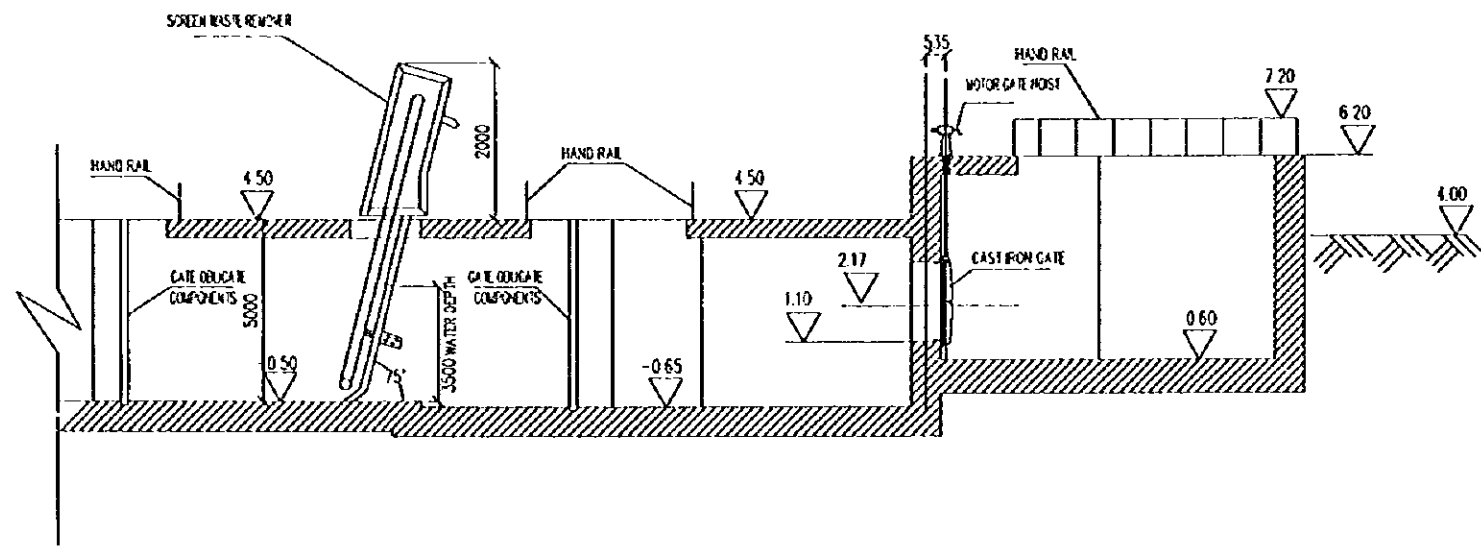
F DETAIL DRAWING

No	MATERIALS	No's	REMARKS
⑧	PQZ TYPE PLANE STEEL GATE WxH=2050x5000mm	2	
⑦	WATER LEVEL INDICATOR	1	CONTINUOUS WATER LEVEL MEASURING
⑥	PVC PIPE #200	10	VENT PIPE
⑤	FLAP VALVE #1200	5	
④	WATER/ELECTRIC GATE STATOR QDA180x6kw	1	
③	SFZ CAST IRON GATE 2000x2000mm		
②	AUTOMATIC RACKING MACHINE	2	NOMINAL WIDTH OF THE FENCE 2.0m FENCE WELL DEPTH 5.0m FENCE INTERVAL 50mm WATER DEPTH 1.5m
②	AUTOMATIC RACKING MACHINE	5	NOMINAL WIDTH OF THE FENCE 2.0m FENCE WELL DEPTH 5.0m FENCE INTERVAL 50mm WATER DEPTH 4.0m
①	STORM WATER PUMP #1200x2.0m/sx2.92m x 30kw	5	SUPPLIED IN COMPLETE SET

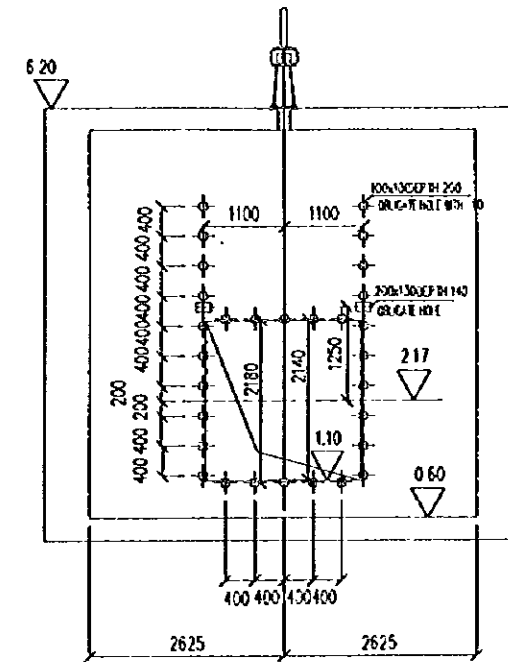
PEOPLE'S REPUBLIC OF CHINA
 SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT | SEPTEMBER 1997
 B-AREA DRAINAGE PUMP STATION PLAN
 SCALE 1:50 DWG1-M3
 JAPAN INTERNATIONAL COOPERATION AGENCY



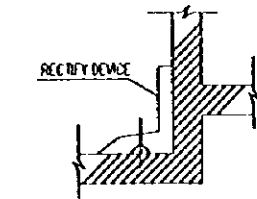
A--ACUTAWAY DRAWING



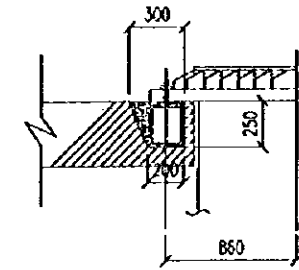
B--BCUTAWAY DRAWING



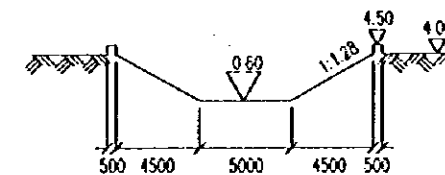
GATE FIT BASES DRAWING 1:50



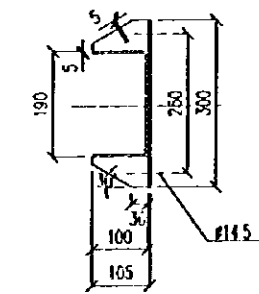
D COMMUTATE SETTING DETAIL DRAWING



E PUMP FIT BASES CUTAWAY DRAWING



C--CAQUEDUCT CUTAWAY DRAWING

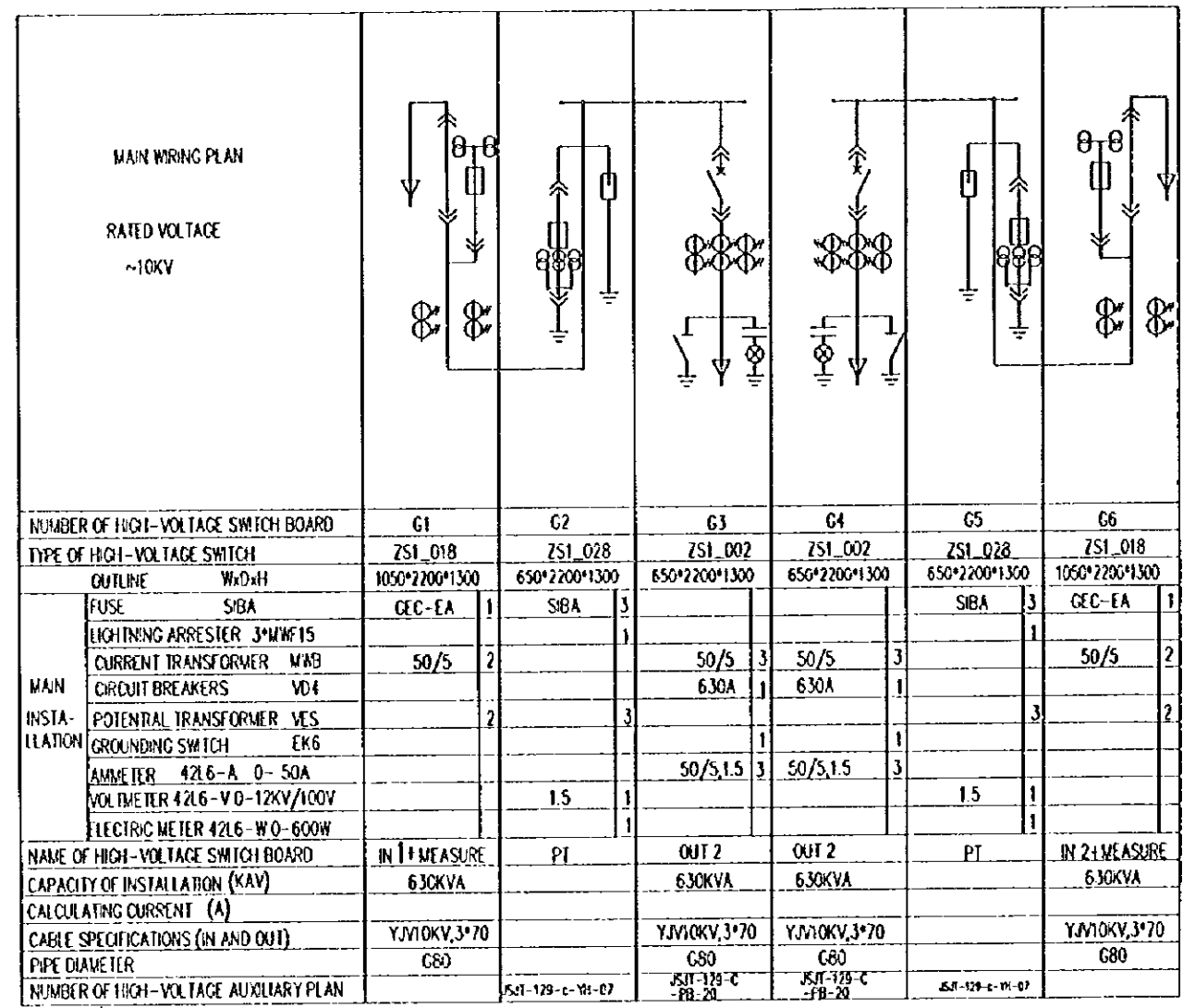


GATE OBLIQUE COMPONENTS DETAIL DRAWING

SPECIFICATION :

ELEVATIONS ON THE DRAWING SHALL BE IN m , AND OTHER SIZES IN mm

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
B-AREA DRAINAGE PUMP STATION CUTAWAY	
SCALE	DWG1-M4
JAPAN INTERNATIONAL COOPERATION AGENCY	



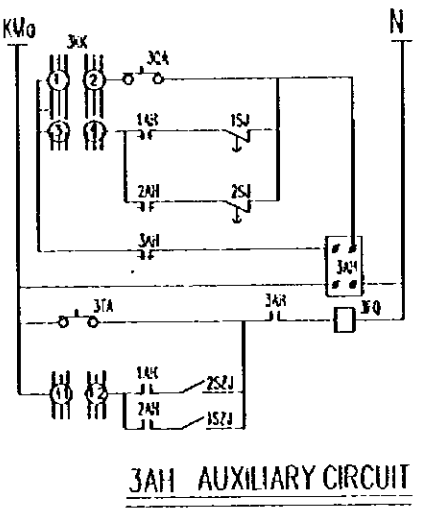
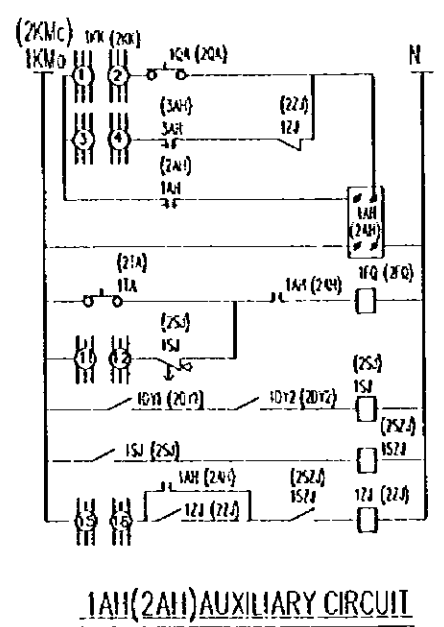
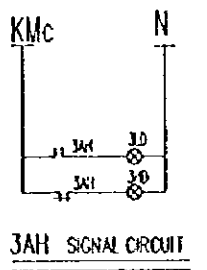
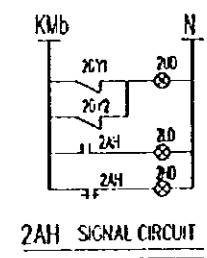
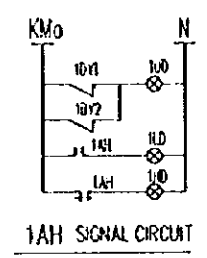
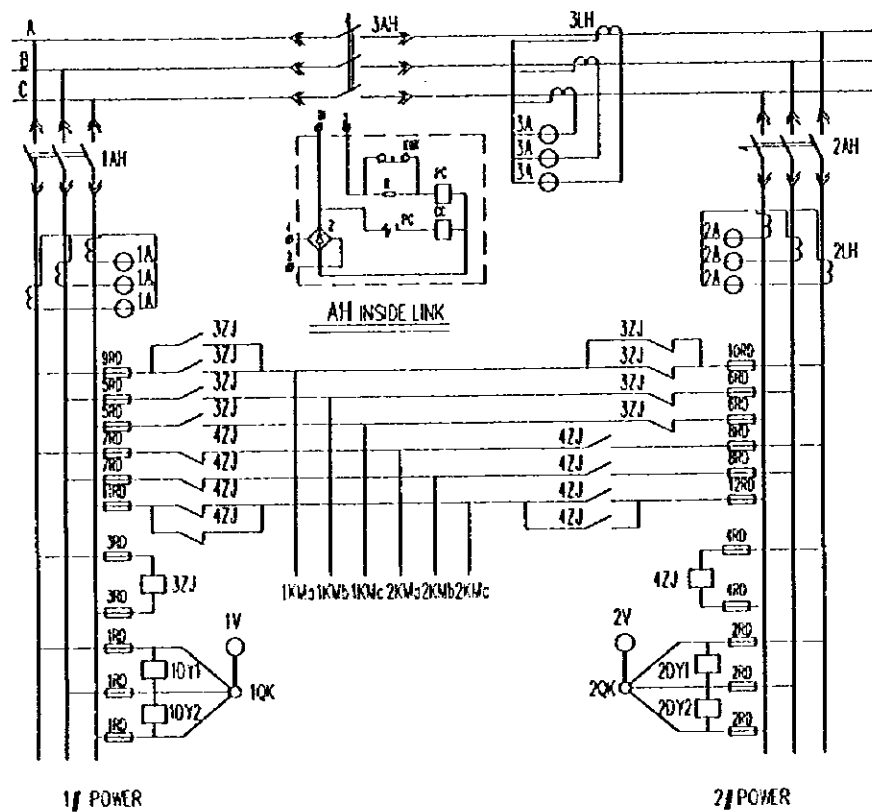
NOTES :

THERE IS A LITTLE DIFFERENCES FOR OPERATION MECHANISM TO THE STANDARD DRAWING .
FOR MODIFICATION SEE THE SECONDARY DRAWING PROVIDED BY THE MANUFACTURER .

PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A,B-AREA DRAINAGE PUMP STATION HIGH-VOLTAGE(10KV) POWER SUPPLY SYSTEM	
SCALE	DWG1-EI
JAPAN INTERNATIONAL COOPERATION AGENCY	

BUS																									
MAIN WIRING PLAN ~380/220																									
NUMBER OF SWITCH BOARD	NO-01	NO-02	NO-03	NO-04	NO-05			NO-06	NO-07			NO-08	NO-09	NO-10											
TYPE OF SWITCH BOARD	MNS-06	MNS-94	MNS-46*46	MNS-46*46	MNS-43(3)*72			MNS-07	MNS-43(8)			MNS-46*46	MNS-94	MNS-06											
WIDTH OF SWITCH BOARD	800*1000	600*1000	1100*1000	800*1000	1000*1000			1000*1000	1000*1000			1100*1000	600*1000	800*1000											
HEIGHT OF INSTALLATION	72E	72E			BE/2	BE/2	BE/2	BE	72E	BE/2	BE/2	BE/2	BE/2	BE/2	BE/2										
CURRENT TRANSFORMER	LN10 800/5A	LN2 100/5A	LN4 300A/5A	LN4 200/5A	3*(LN2-30A/5A)			LN10 800/5A	4*(LN2-10A)			LN4 300A/5A	LN2 100/5A	LN10 800/5A											
CIRCUIT BREAKERS	DW914 1600		HLA-600 Ie=300A	19CB-250 Ie=175A	3*(SS03-4GA Ie=25A)			DW914 1600	4*(SS03-KH11 Ie=15A)			HLA-600 Ie=300A		DWS14 1600											
THERMORELAY			4*(T250 Ie=160A)	T250 Ie=160A	3*(T16-10A)				4*(T16-10A)			4*(T250 Ie=160A)													
AC-CONTACTOR			2*(B170 Ie=170A)	B170 Ie=170A	3*(B16-10A)				4*(B16-10A)			2*(B170 Ie=170A)													
SOFTSTARTER			PS0175	PS0175								PS0175													
LOCK SWITCH WITH FUSE		QSA 250										QSA 250													
SC		Q1M2310KVAR										Q1M2310KVAR													
AC-CONTACTOR FUSE		F13-320										F13-320													
CABLE NUMBER																									
USE	1# POWER(N)	REACTIVE POWER COMPENSATION	POWER OF 1# PUMP	POWER OF 2# PUMP	POWER OF 3# PUMP	RESERVE	POWER OF 1# BAR RACK CLEANER	POWER OF 2# BAR RACK CLEANER	POWER OF 3# BAR RACK CLEANER	LIGHTING OF A-PUMP STATION	ENVIRONMENT LIGHTING	POWER OF BENCH BOARD	BUS CONTACT	POWER OF 4# BAR RACK CLEANER	POWER OF 5# BAR RACK CLEANER	POWER OF 6# BAR RACK CLEANER	RESERVE	POWER OF 7# BAR RACK CLEANER	RESERVE	POWER OF MOTOR GATE HOIST	RESERVE	POWER OF 4# PUMP	POWER OF 5# PUMP	REACTIVE POWER COMPENSATION	2# POWER (N)
CAPACITY OF INSTALLATION		120Kvar	90KW	90KW	90KW		2.2KW	2.2KW	2.2KW	10KW	10KW	10KW		2.2KW	2.2KW	2.2KW		2.2KW		6KW		90KW	90KW	120Kvar	

PEOPLE'S REPUBLIC OF CHINA
 SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT (SEPTEMBER 1997)
 A,B-AREA DRAINAGE PUMP STATION LOW-VOLTAGE(400V) POWER SUPPLY SYSTEM
 SCALE 1:100 DWG1-E2
 JAPAN INTERNATIONAL COOPERATION AGENCY



SYMBOL	TITLE	SPECIFICATIONS	AMOUNT	REMARKS
1-3AH	CIRCUIT BREAKERS	DETAILS IN LOW-VOLTAGE WIRING PLAN	3	
1-3H	CIRCUIT TRANSFORMER	DETAILS IN LOW-VOLTAGE WIRING PLAN	3	
1-2V	VOLTMETER	DETAILS IN LOW-VOLTAGE WIRING PLAN	2	
1-3A	AMMETER	DETAILS IN LOW-VOLTAGE WIRING PLAN	3	
1-2QK	SWITCH OF CHANGE VOLTAGE	LWS-15E0491/2	2	
1-3KK	TRANSFORMER SWITCH	LWS-1501050/4	3	
1-8RD	FUSES	RL1-15/10	18	
9-12RD	FUSES	RL1-60/20	4	
1-2UD	YELLOW LAMP	YD1-220/12V,1.2W	2	
1-3LD	GREEN LAMP	YD1-220/12V,1.2W	3	
1-3RD	RAD LAMP	YD1-220/12V,1.2W	3	
1-3QA	RAD BUTTON	AD11	3	
1-3TA	GREEN BUTTON	AD11	3	
1-2DY-2	VOLTAGE RELAY	DJ132/320	4	
1-2SJ	TIME RELAY	DSJ-13,220V	2	0.5s-0.9s
1-2ZJ	RELAY	JZ7-44,220V	2	
1-2SZJ	RELAY	JZ7-44,220V	2	
3-4ZJ	RELAY	JZ7-44,380V	2	

NOTES:

AUTO-SWITCH OVER WIRING DIAGRAM OF AUXILIARY CIRCUIT POWER SUPPLY:

NORMAL POWER SUPPLY:

- (1) SET 1AH,2AH,3AH TO MANUAL POSITIONS
- (2) AND CHANGE 1AH TO AUTO-POSITION, 1AH SWITCHES ON, 1# POWER SOURCE SUPPLY BUS-BAR SECTION 1
- (3) AND CHANGE 2AH TO AUTO-POSITION, 2AH SWITCHES ON, 2# POWER SOURCE SUPPLY BUS-BAR SECTION 2.
- (4) AND CHANGE 3AH TO AUTO-POSITION, BUS DUCT 3AH SHALL BE SET TO AUTO-SWITCH POSITION.

POWER SOURCE SHUTDOWN:

- (1) WHEN 1# POWER SOURCE SHUTDOWN, 1SJ LOSES POWER, 1SJ NORMAL CLOSE SWITCH CLOSES, MAKE TRICKLE COIL FQ SWITCH ON. 1AH OPENS AUTOMATICALLY. MEANWHILE ANOTHER PAIR OF 1SJ TIME-DELAY NORMAL CLOSE SWITCH CLOSE, MAKE 3AH CLOSE. 2# SOURCE SUPPLY TOTAL LOAD.
- (2) SAME FOR 2# POWER SOURCE SHUTDOWN

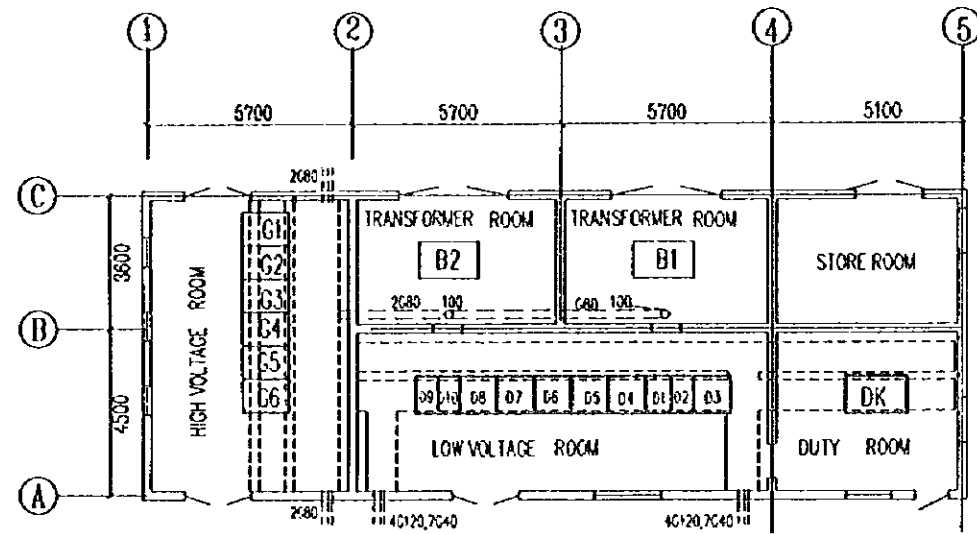
POWER SOURCE RECOVERY:

- (1) WHEN 1# POWER SOURCE RECOVERIES, 1SJ SHALL BE CLOSED TO MAKE 1SZJ SWITCH ON, 1SZJ NORMAL OPEN SWITCH SHALL CLOSE TO MAKE TRICKLE COIL 3AH SWITCH ON. 3AH OPENS AND 3AH NORMAL CLOSE SWITCH CLOSE, AND 1# POWER SOURCE RECOVERIES.
- (2) SAME FOR 2# POWER SOURCE RECOVERY.

LOAD FAILURE:

- (1) WHEN LOAD OF 1# POWER SOURCE FAILS, 1AH OPENS. BECAUSE 1SJ TIME-DELAY NORMAL CLOSE SWITCH OPENS, 3AH SHALL NOT SWITCH ON. WHEN FAILURE WAS REMOVED, 1AH SHALL BE CHANGED TO ZERO, LOCK OF 1ZJ SHALL BE REMOVED AND THEN CHANGE 1AH TO AUTO-POSITION, 1# POWER SOURCE RECOVERIES.
- (2) SAME FOR LOAD FAILURE OF 2# POWER SOURCE.

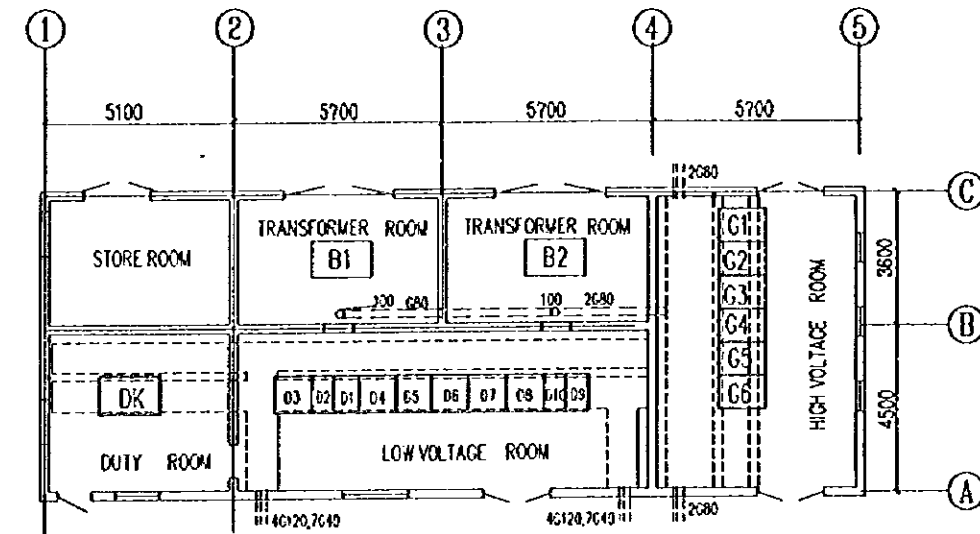
LAYOUT PLAN OF EQUIPMENT FOR NORTH SUBSTATION



MATERIAL TABLE 1:100

NO.	TITLE	SPECIFICATIONS	UNIT	AMOUNT
B1 B2	THREE-PHASE TRANSFORMER	SCR630KVA/10KV/0.4KV	SET	2
G2 G7	HIGH-VOLTAGE SWITCH BOARD	ZS1 018	SET	2
G3 G6	HIGH-VOLTAGE SWITCH BOARD	ZS1 028	SET	2
G4 G5	HIGH-VOLTAGE SWITCH BOARD	ZS1 002	SET	2
D1 D10	LOW-VOLTAGE SWITCH BOARD	MNS-06	SET	2
D2 D09	LOW-VOLTAGE SWITCH BOARD	MNS-94	SET	2
D3 D4 D8	LOW-VOLTAGE SWITCH BOARD	MNS-46*46 (SPECIALLY MADE)	SET	3
D5	LOW-VOLTAGE SWITCH BOARD	MNS-43*(3)*72	SET	1
D6	LOW-VOLTAGE SWITCH BOARD	MNS-07	SET	1
D7	LOW-VOLTAGE SWITCH BOARD	MNS-43*(8)	SET	1
DK	BENCH BOARD	1000*900*1500	SET	1
	ENCLOSED BUS BAR		METER	20

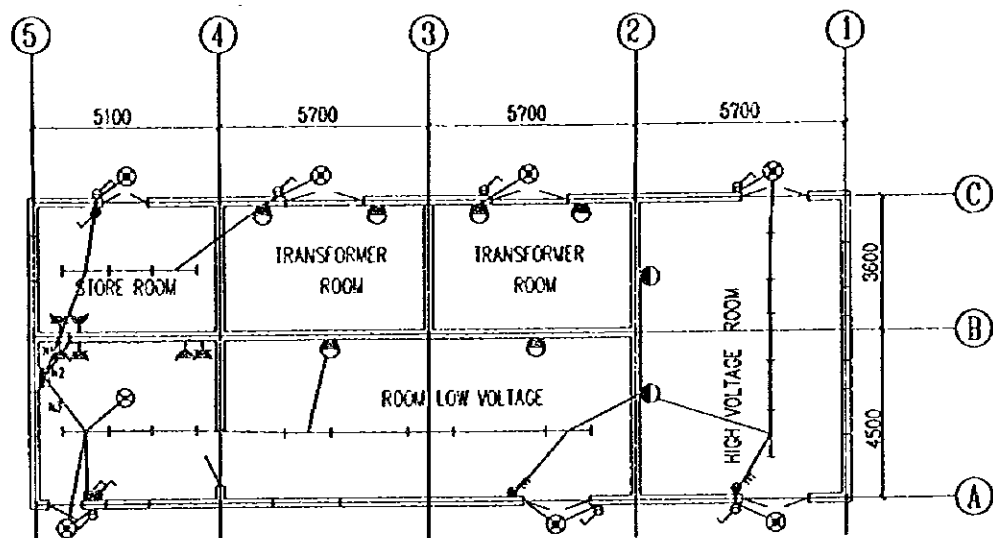
LAYOUT PLAN OF EQUIPMENT FOR SOUTH SUBSTATION



MATERIAL TABLE 1:100

NO.	TITLE	SPECIFICATIONS	UNIT	AMOUNT
B1 B2	THREE-PHASE TRANSFORMER	SCR630KVA/10KV/0.4KV	SET	2
G2 G7	HIGH-VOLTAGE SWITCH BOARD	ZS1 018	SET	2
G3 G6	HIGH-VOLTAGE SWITCH BOARD	ZS1 028	SET	2
G4 G5	HIGH-VOLTAGE SWITCH BOARD	ZS1 002	SET	2
D1 D10	LOW-VOLTAGE SWITCH BOARD	MNS-06	SET	2
D2 D09	LOW-VOLTAGE SWITCH BOARD	MNS-94	SET	2
D3 D4 D8	LOW-VOLTAGE SWITCH BOARD	MNS-46*46 (SPECIALLY MADE)	SET	3
D5	LOW-VOLTAGE SWITCH BOARD	MNS-43*(3)*72	SET	1
D6	LOW-VOLTAGE SWITCH BOARD	MNS-07	SET	1
D7	LOW-VOLTAGE SWITCH BOARD	MNS-43*(8)	SET	1
DK	BENCH BOARD	1000*900*1500	SET	1
	ENCLOSED BUS BAR		METER	20

B-AREA DRAINAGE PUMP STATION LIGHTING PLAN



MAIN WIRING PLAN	CIRCUIT NO	AIR CIRCUIT BREAKER	RATE CURRENT	USAGE	PHASE ORDER
	N1	C45N-1P	1e=10A	LIGHTING	a
	N2	C45N-1P	1e=10A	LIGHTING	b
	N3	C45N-1P	1e=10A	LIGHTING	c

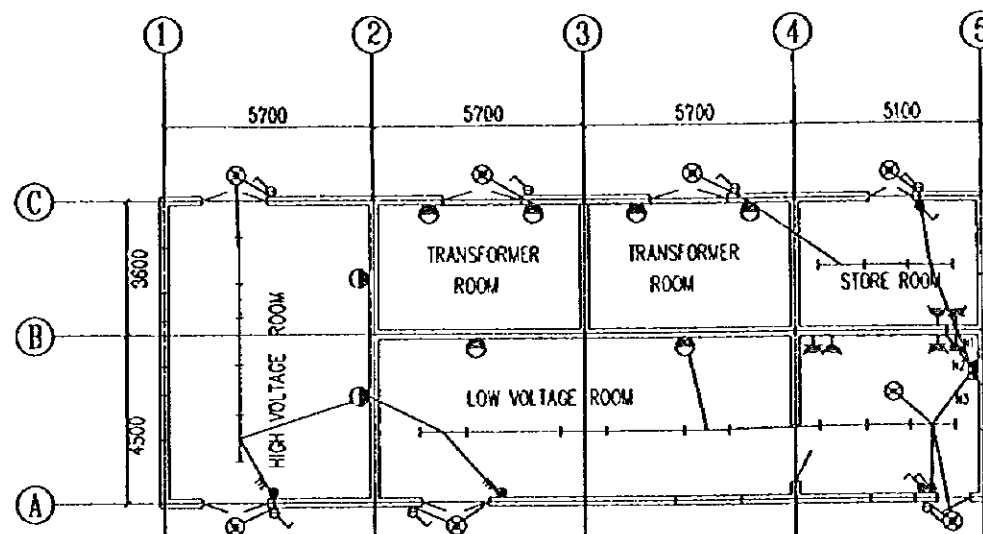
DIAGRAM OF LIGHTING/RECEPTACLE DISTRIBUTION BOX (B-AREA)

NO.	SYMBOL	INSTALLATIONS	SPECIFICATIONS	UNIT	QUANTITY	REMARKS
11	—	ELECTRIC PIPE	G15	METER	90	
10	—	CABLE	BV-500V,2.5mm ²	METER	220	
9	⊙	WALL FITTING	60W		8	
8	⊗	WATER AND DUST PROOF OVERHEAD LIGHT	40W		7	
7	⊕	WATER PROOF SWITCH	250V 5A		7	
6	⊞	LIGHTING/RECEPTACLE DISTRIBUTION BOX	XRM305-02-1B		1	
5	⊖	1 PHASE SOCKET	250V 10A		2	
4	⊕	SWITCH ENCLOSED	250V 5A		3	
3	—	FLUORESCENT	HD5025		10	
2	⊕	SWITCH ENCLOSED	250V 10A		2	
1	⊗	CEILING FAN	φ800		1	
INSTALLATIONS TABLE						

NOTES :

- 1: BV-500 2.5mm² WIRE WILL BE USED FOR LIGHTING OF NORMAL ROOM, THE WIRE SHOULD BE PASSED THROUGH G15 CONCEALED STEEL CONDUIT.
- 2: CONCEALED SWITCH WILL BE 1.4M APART FROM GROUND ,CONCEALED SOCKET, 0.3M FROM GROUND BV-500V 2.5mm² WIRES WHILE ARE PASSED THROUGH G15 CONCEALED STEEL CONDUIT.
- 3: WALL LAMP WILL BE INSTALLED AT HEIGHT OF 2M FROM GROUND ,BUT OTHER KINDS OF LIGHTING FITTINGS WILL BE 3.2M INSTALLATION HEIGHT FROM GROUND.

A-AREA DRAINAGE PUMP STATION LIGHTING PLAN



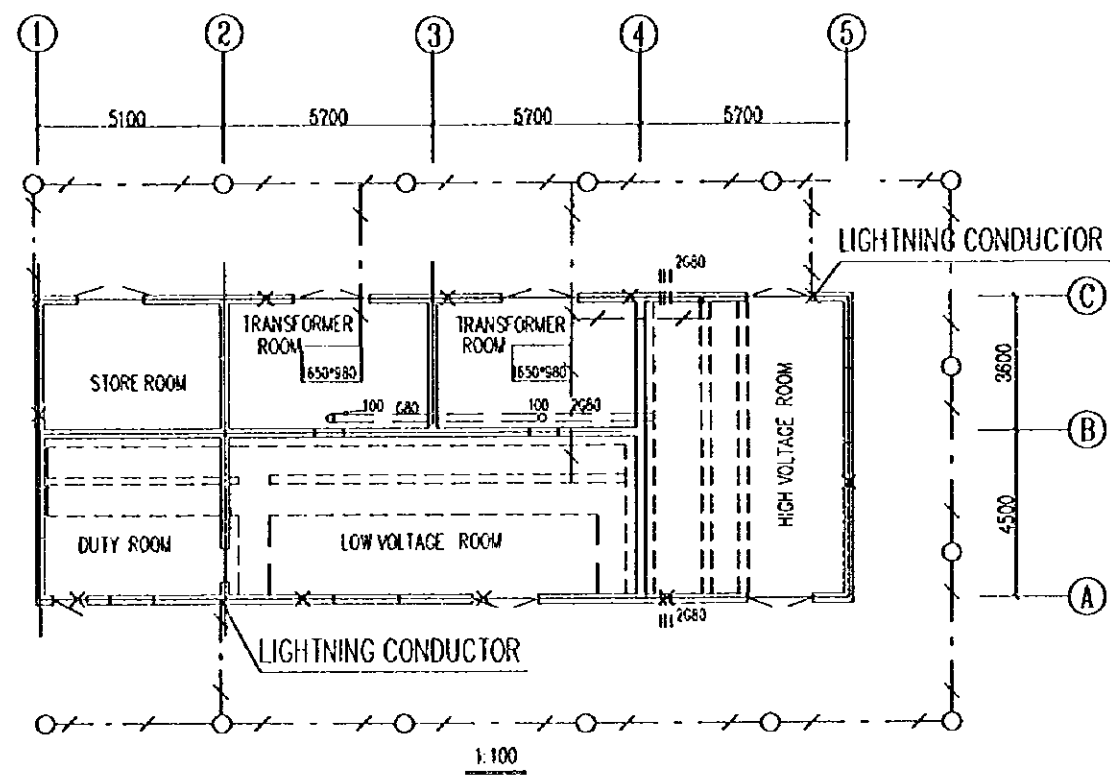
MAIN WIRING PLAN	CIRCUIT NO	AIR CIRCUIT BREAKER	RATE CURRENT	USAGE	PHASE ORDER
	N1	C45N-1P	1e=10A	LIGHTING	a
	N2	C45N-1P	1e=10A	LIGHTING	b
	N3	C45N-1P	1e=10A	LIGHTING	c

DIAGRAM OF LIGHTING/RECEPTACLE DISTRIBUTION BOX (A-AREA)

NO.	SYMBOL	INSTALLATIONS	SPECIFICATIONS	UNIT	QUANTITY	REMARKS
11	—	ELECTRIC PIPE	G15	METER	90	
10	—	CABLE	BV-500V,2.5mm ²	METER	220	
9	⊙	WALL FITTING	60W		8	
8	⊗	WATER AND DUST PROOF OVERHEAD LIGHT	40W		7	
7	⊕	WATER PROOF SWITCH	250V 5A		7	
6	⊞	LIGHTING/RECEPTACLE DISTRIBUTION BOX	XRM305-02-1B		1	
5	⊖	1 PHASE SOCKET	250V 10A		2	
4	⊕	SWITCH ENCLOSED	250V 5A		3	
3	—	FLUORESCENT	HD5025		10	
2	⊕	SWITCH ENCLOSED	250V 10A		2	
1	⊗	CEILING FAN	φ800		1	
INSTALLATIONS TABLE						

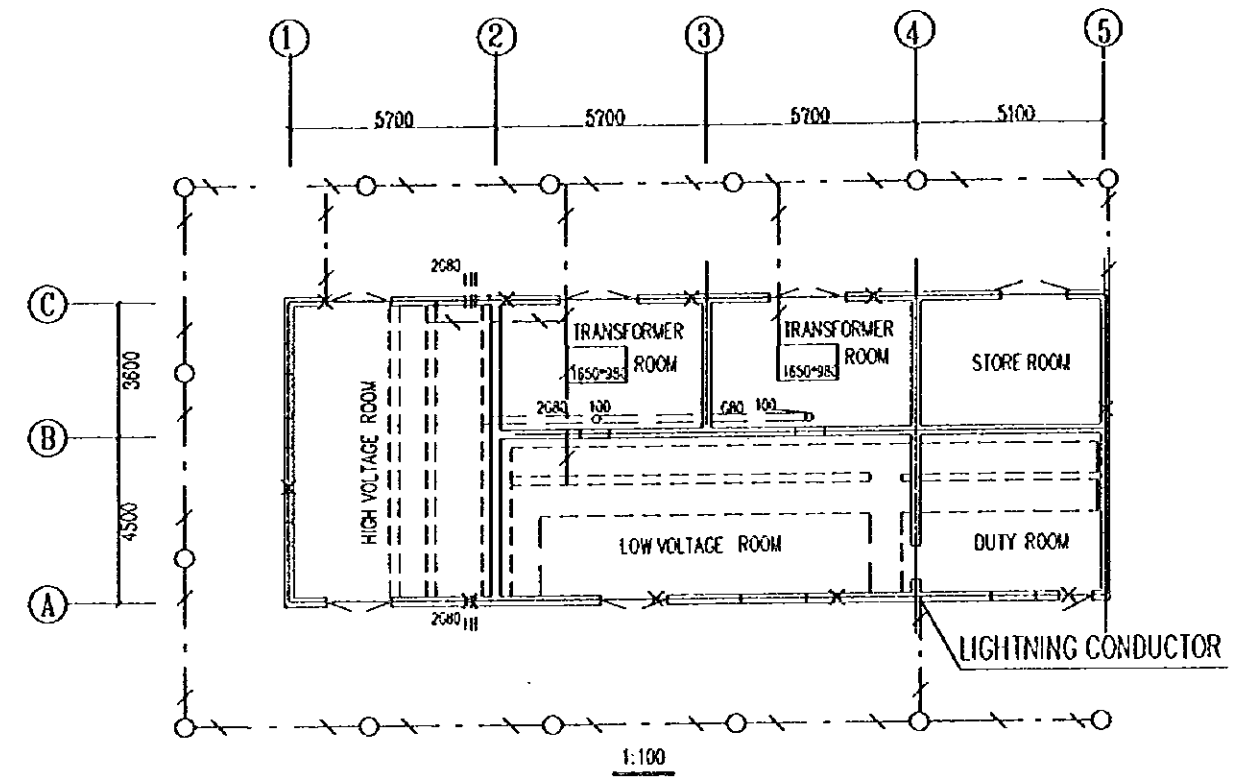
PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
A,B-AREA DRAINAGE PUMP STATION LIGHTING PLAN	
SCALE	1:100
DWG-ES	
JAPAN INTERNATIONAL COOPERATION AGENCY	

B-AREA DRAINAGE PUMP STATION LIGHTING DISCHARGE AND GROUND PLAN

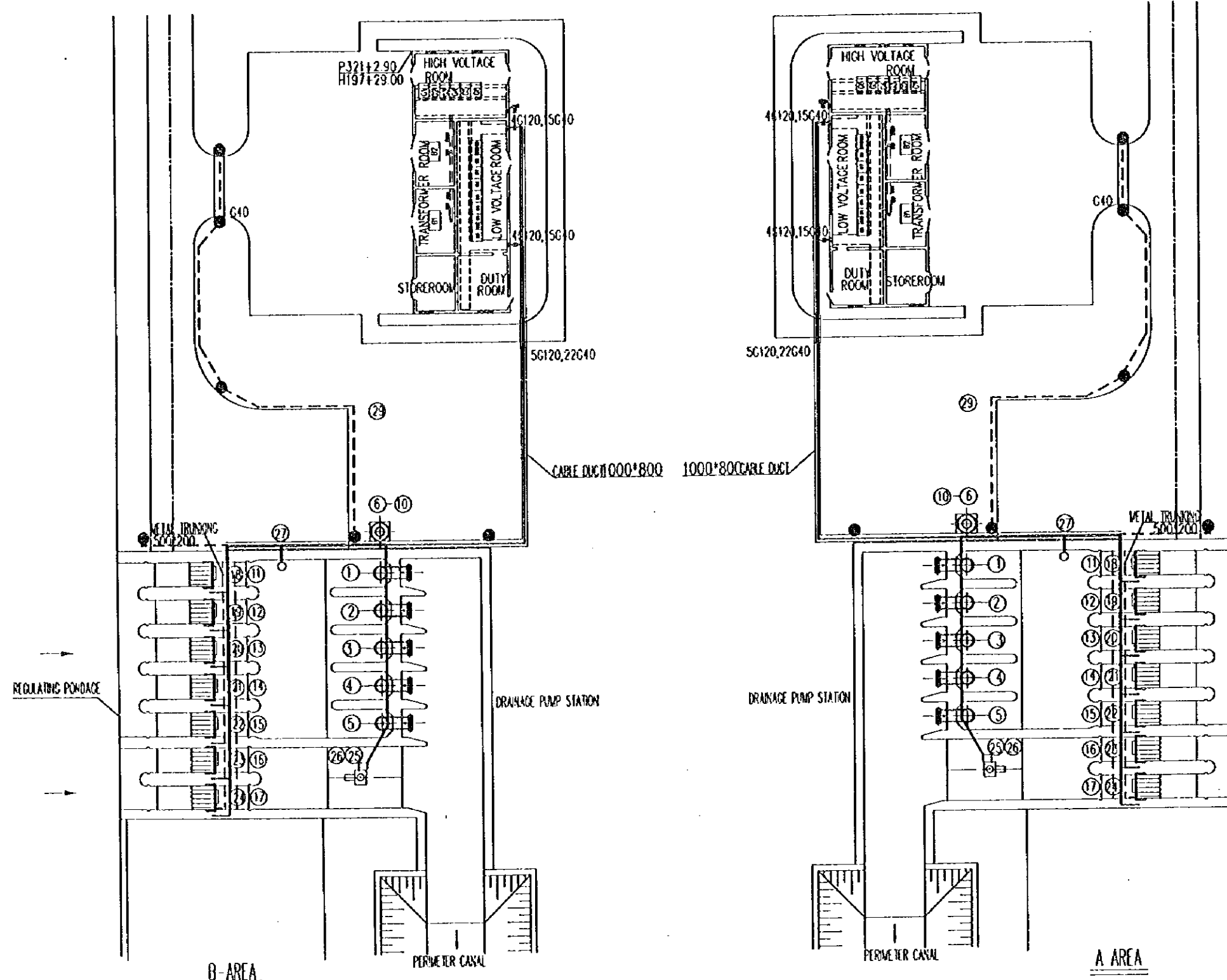


SYMBOL	INSTALLATIONS	SPECIFICATIONS	UNIT	QUANTITY
-x-	LIGHTNING DISCHARGE WIRE	ø8 CIRCLE STEEL	METER	65
○	GROUNDING ELECTRODE	L 50*50*5*2500		14
-	EARTH WIRE	— 40*4	METER	80

A-AREA DRAINAGE PUMP STATION LIGHTING DISCHARGE AND GROUND PLAN

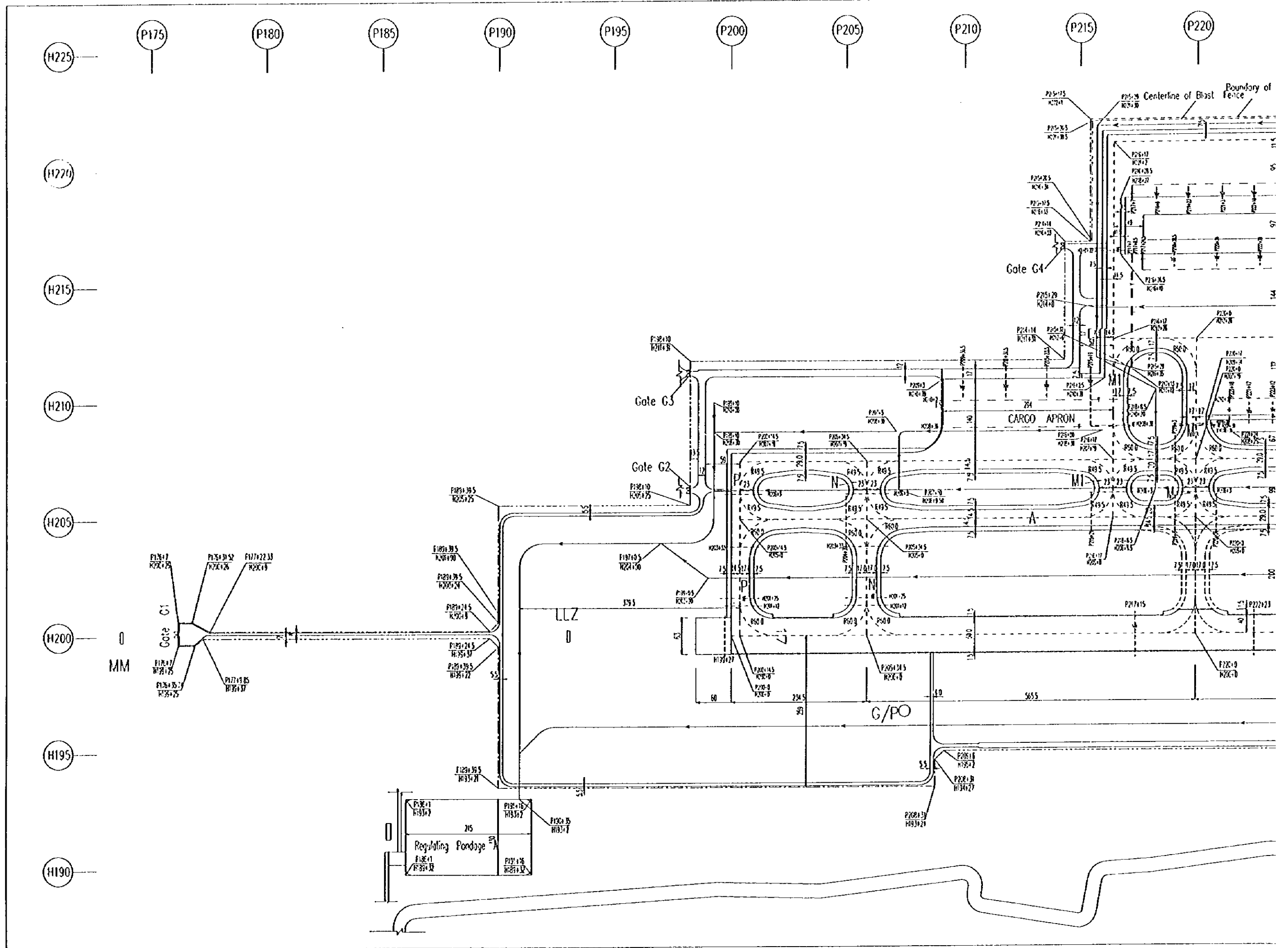


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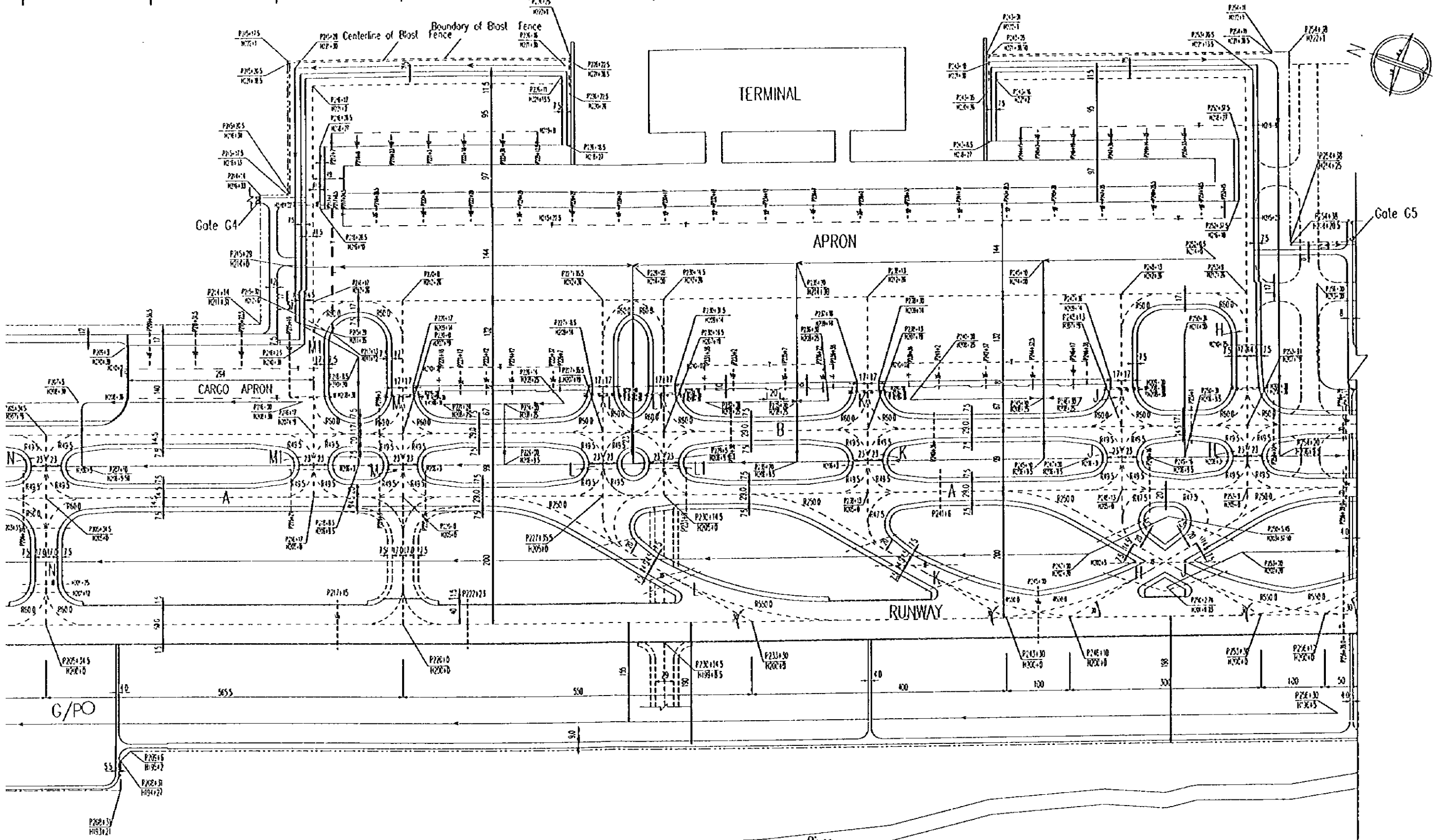


NO.	TITLE	SPECIFICATIONS	UNIT	AMOUNT	TUBE	LENGTH	LINE
01	PSC	W-1KV 3*240*1*120	METER	60	G120	16	LVR-1// PUMP
02	PSC	W-1KV 3*240*1*120	METER	60	G120	16	LVR-2// PUMP
03	PSC	W-1KV 3*240*1*120	METER	60	G120	16	LVR-3// PUMP
04	PSC	W-1KV 3*240*1*120	METER	60	G120	16	LVR-4// PUMP
05	PSC	W-1KV 3*240*1*120	METER	60	G120	16	LVR-5// PUMP
06	PCC	KV22-500V 5*2.5	METER	40	G40	5	LVR-1// PCB
07	PCC	KV22-500V 5*2.5	METER	45	G40	5	LVR-2// PCB
08	PCC	KV22-500V 5*2.5	METER	50	G40	5	LVR-3// PCB
09	PCC	KV22-500V 5*2.5	METER	55	G40	5	LVR-4// PCB
10	PCC	KV22-500V 5*2.5	METER	60	G40	5	LVR-5// PCB
11	PCC	KV-500V 3*1.5	METER	20			LVR-BB
12	PCC	KV-500V 3*1.5	METER	20			LVR-BB
13	PCC	KV-500V 3*1.5	METER	20			LVR-BB
14	PCC	KV-500V 3*1.5	METER	20			LVR-BB
15	PCC	KV-500V 3*1.5	METER	20			LVR-BB
16	PSC	W-1KV 3*4*1*2.5	METER	85	G40	5	LVR-RBR1//
17	PSC	W-1KV 3*4*1*2.5	METER	90	G40	5	LVR-RBR2//
18	PSC	W-1KV 3*4*1*2.5	METER	95	G40	5	LVR-RBR3//
19	PSC	W-1KV 3*4*1*2.5	METER	100	G40	5	LVR-RBR4//
20	PSC	W-1KV 3*4*1*2.5	METER	105	G40	5	LVR-RBR5//
21	PSC	W-1KV 3*4*1*2.5	METER	110	G40	5	LVR-RBR6//
22	PSC	W-1KV 3*4*1*2.5	METER	115	G40	5	LVR-RBR7//
23	PCC	KV22-500V 5*2.5	METER	85	G40	5	LVR-1//RRCS1//
24	PCC	KV22-500V 5*2.5	METER	90	G40	5	LVR-2//RRCS2//
25	PCC	KV22-500V 5*2.5	METER	95	G40	5	LVR-3//RRCS3//
26	PCC	KV22-500V 5*2.5	METER	100	G40	5	LVR-4//RRCS4//
27	PCC	KV22-500V 5*2.5	METER	105	G40	5	LVR-5//RRCS5//
28	PCC	KV22-500V 5*2.5	METER	110	G40	5	LVR-6//RRCS6//
29	PCC	KV22-500V 5*2.5	METER	115	G40	5	LVR-7//RRCS7//
30	PSC	W-1KV 3*4*1*2.5	METER	70	G40	5	LVR-MCH
31	PCC	KV-500V 14*1.5	METER	70	G40	5	LVR-MCHCS
32	PCC	KV22-500V 6*1.5	METER	60	G40	5	LVR-LIIC
33	PSC	W22-1KV 3*10*1*6	METER	150	G40		LVR-EL
34	PSC	W-1KV 3*20	METER	30	G80	20	POWER INTAKE CABLE
35	LAMP LAMP	40W	SET	5			
36	CABLE DUCT	1000*800	METER	60			
37	RRCS	2*(A-10-2K AN)	SET	1			
38	PCS	KSI500*650*250	SET	1			

NOTES: PSC: POWER SUPPLY CABLE
PCC: POWER CONTROL CABLE
LVR: LOW VOLTAGE ROOM
PCB: PUMP ON/OFF CONTROL BOX
LID: FLUID LEVEL INDICATION DEVICE
BB: BENCH BOARD
RRCS: ROTARY BAR RACK CLEANER CONTROL SWITCHBOARD
RBR: ROTARY BAR RACK
MCH: MOTOR GATE HOST CONTROL SWITCHBOARD
MCH: MOTOR GATE HOST
EL: ENVIRONMENT LIGHTING



P205 P210 P215 P220 P225 P230 P235 P240 P245 P250 P255 P257



PEOPLE'S REPUBLIC OF CHINA	
SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT	SEPTEMBER 1997
AIRFIELD PLAN	
SCALE	0 25 50 100 150
DNS1-P1(1/2)	
JAPAN INTERNATIONAL COOPERATION AGENCY	