

5-4 基本設計図

基本設計図面は、以下のような構成になっている。

(1) マハンカルチュラル・プロジェクト

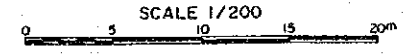
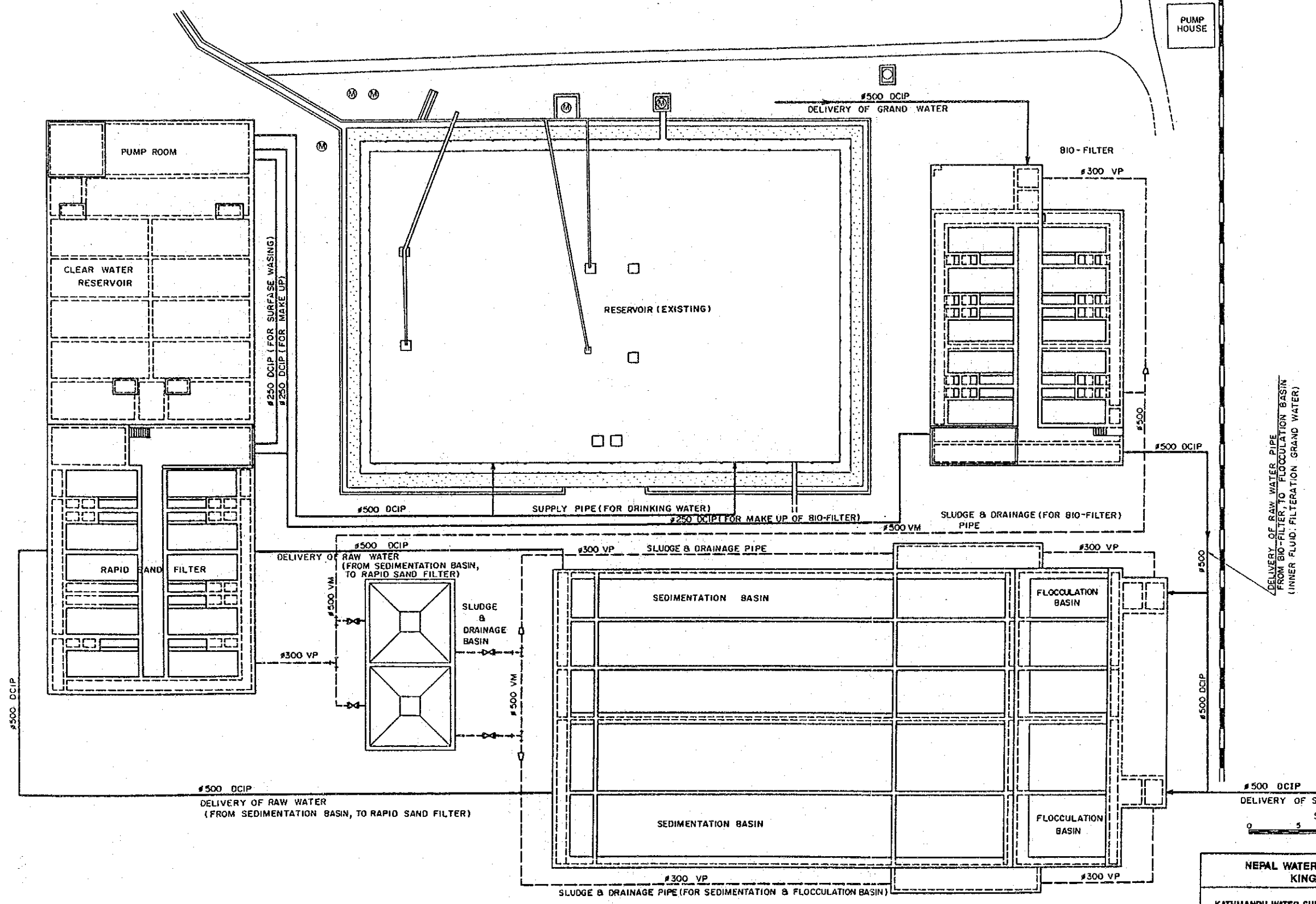
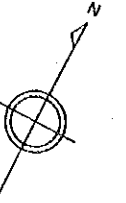
<u>図面番号</u>	<u>図面名称</u>
M-1.	一般計画平面図
M-2.	浄水場一般平面図
M-3.	浄水場水位高低図
M-4.	生物ろ過池構造図
M-5.	沈澱池構造図
M-6.	急速ろ過池構造平面図
M-7.	急速ろ過池構造断面図
M-8.	浄水池構造図
M-9.	浄水設備流れ図
M-10.	凝集剤溶解注入システム流れ図
M-11.	アルカリ剤溶解注入システム流れ図
M-12.	次亜生成注入システム流れ図
M-13.	さらし粉溶解注入システム流れ図 (予備)
M-14.	電気設備一般図
M-15.	受変電設備図
M-16.	動力制御盤及び配線一覧表
M-17.	減圧バルブ室構造図
M-18.	流量調整池構造図
M-19.	導水管平面図および縦断図 (1/5)
M-20.	導水管平面図および縦断図 (2/5)
M-21.	導水管平面図および縦断図 (3/5)
M-22.	導水管平面図および縦断図 (4/5)
M-23.	導水管平面図および縦断図 (5/5)

GENERAL PLAN



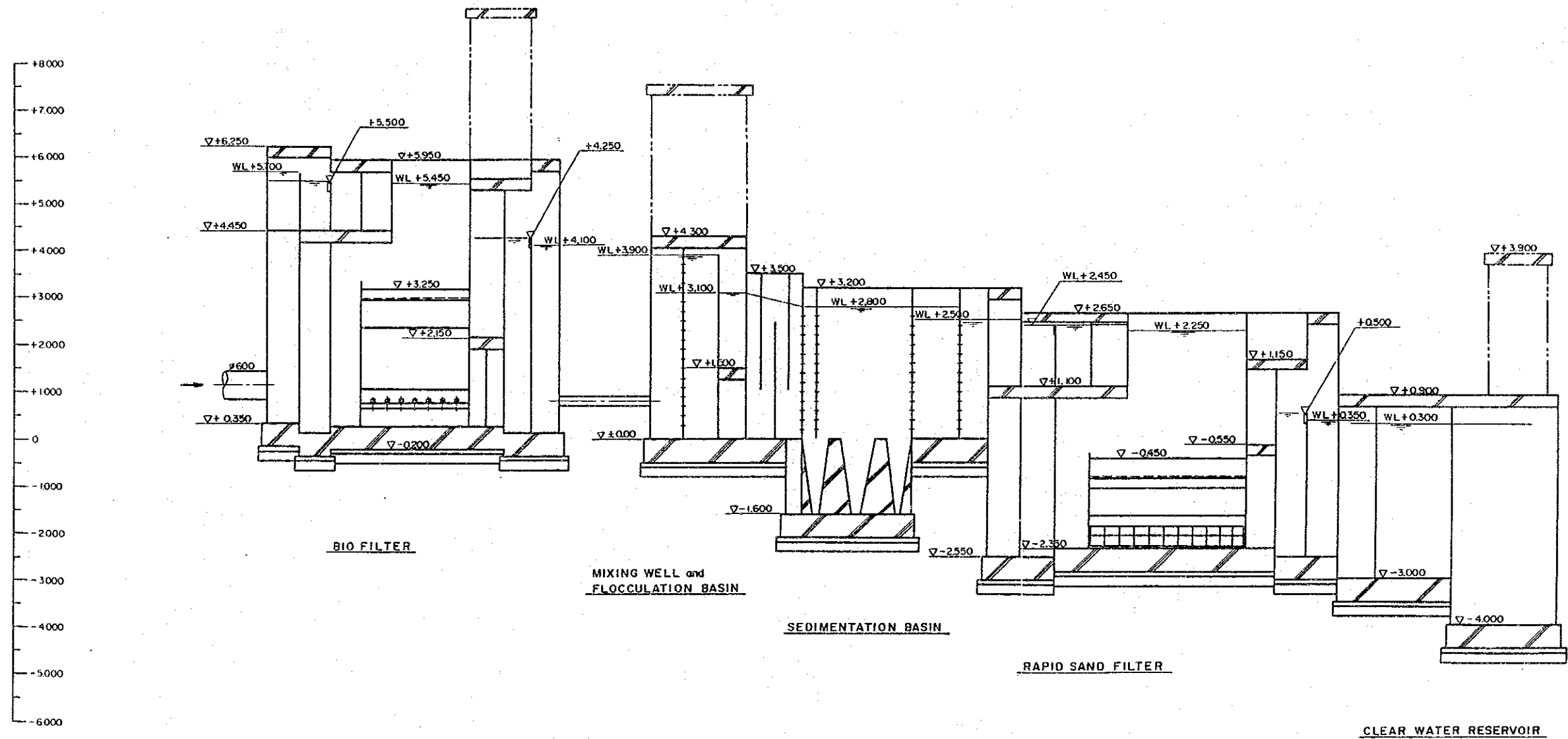
- LEGEND**
- Water Intake
 - Balancing Reservoir
 - ⊙ Water Treatment Plant
 - ⊙ Well
 - P Type of Pipe
 - D Diameter of Pipe
 - Proposed Pipeline
 - Existing Pipeline

NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
GENERAL PLAN			
Date	JULY, 1981	Drawing No.	M-1
JAPAN INTERNATIONAL COOPERATION AGENCY			

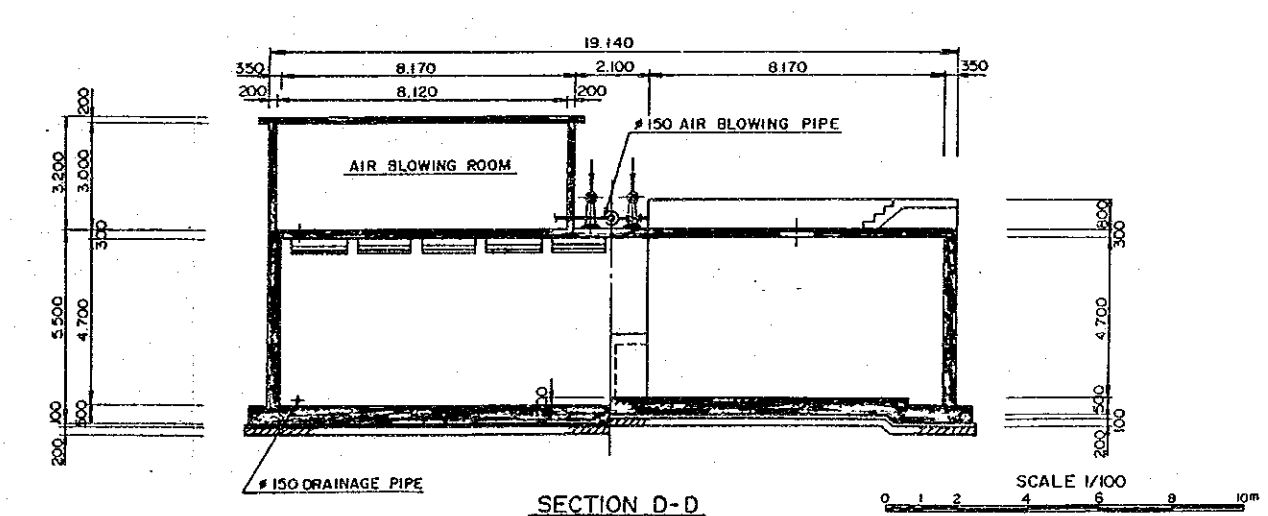
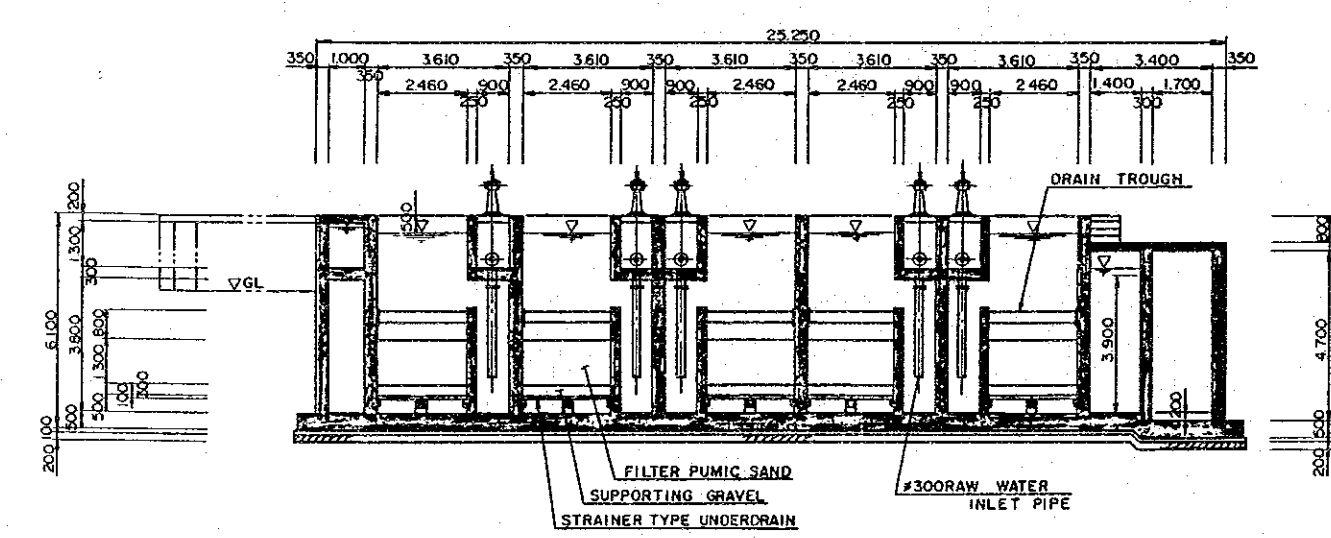
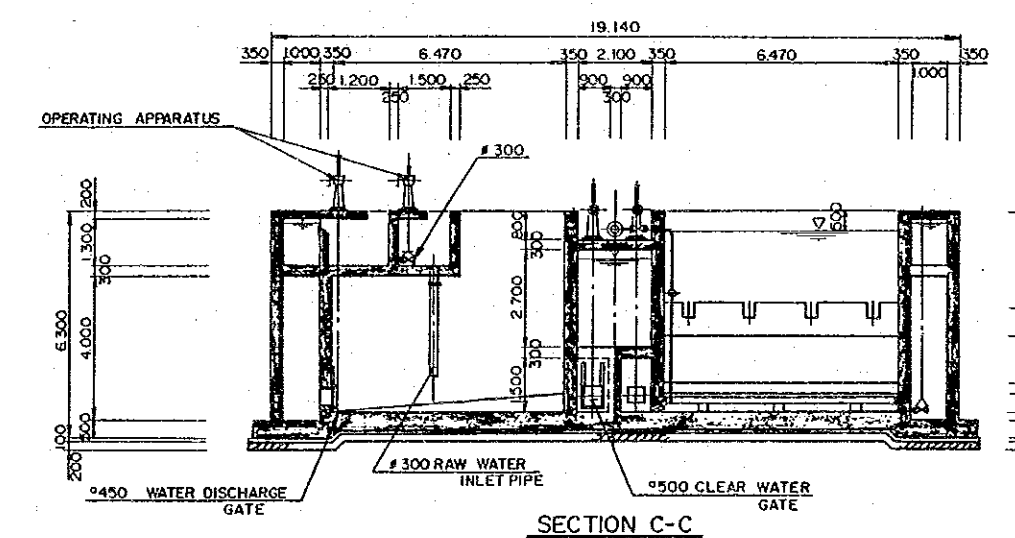
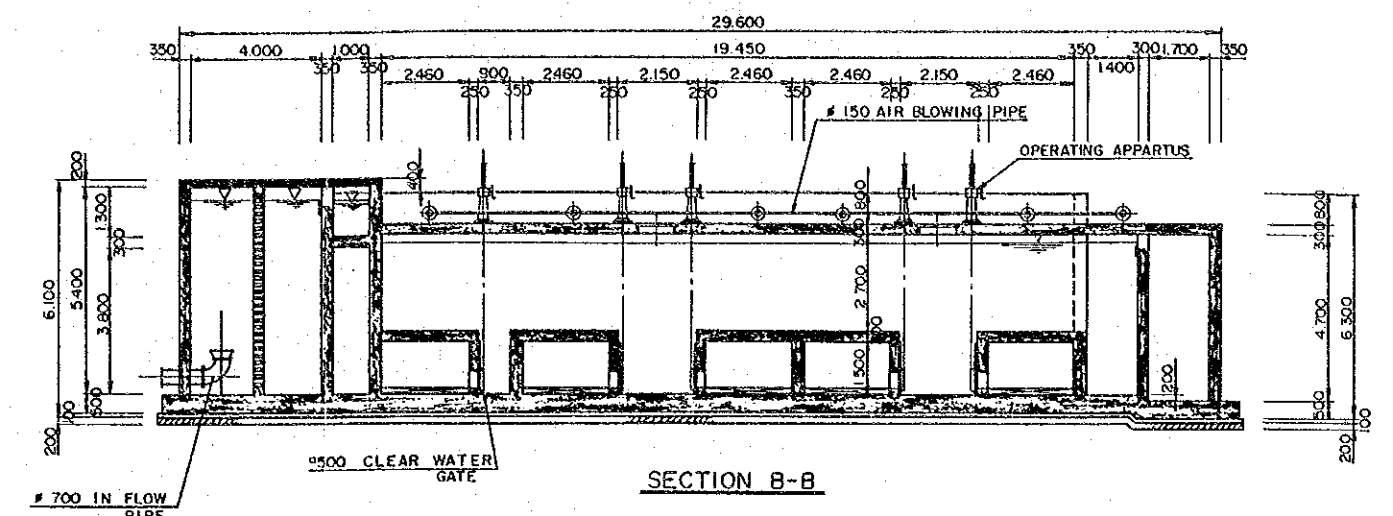
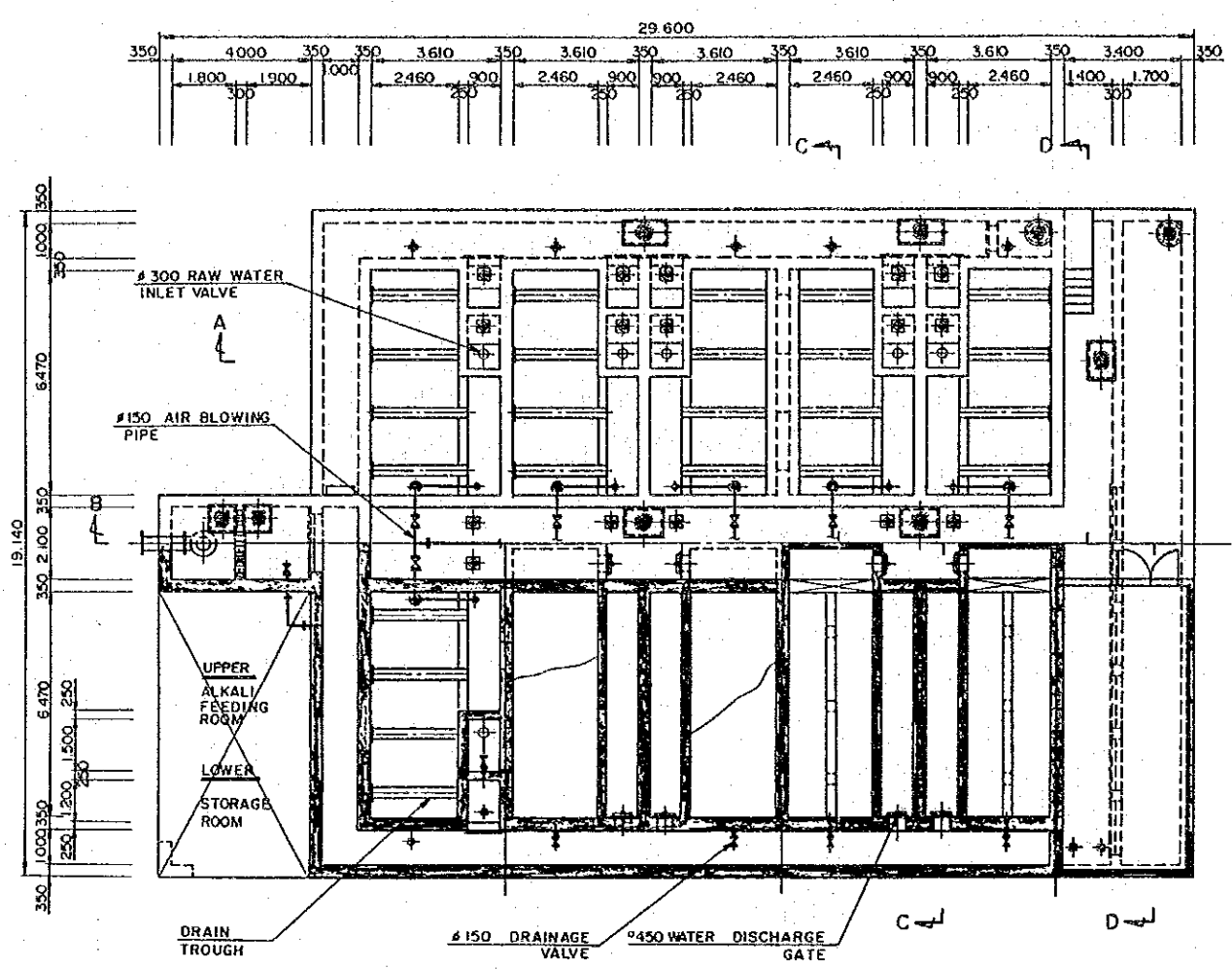


NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
TREATMENT PLANT GENERAL PLAN			
Date	JULY, 1991	Drawing No.	M-2
JAPAN INTERNATIONAL COOPERATION AGENCY			

DIFFERENCE IN WATER LEVELS OF TREATMENT PLANT

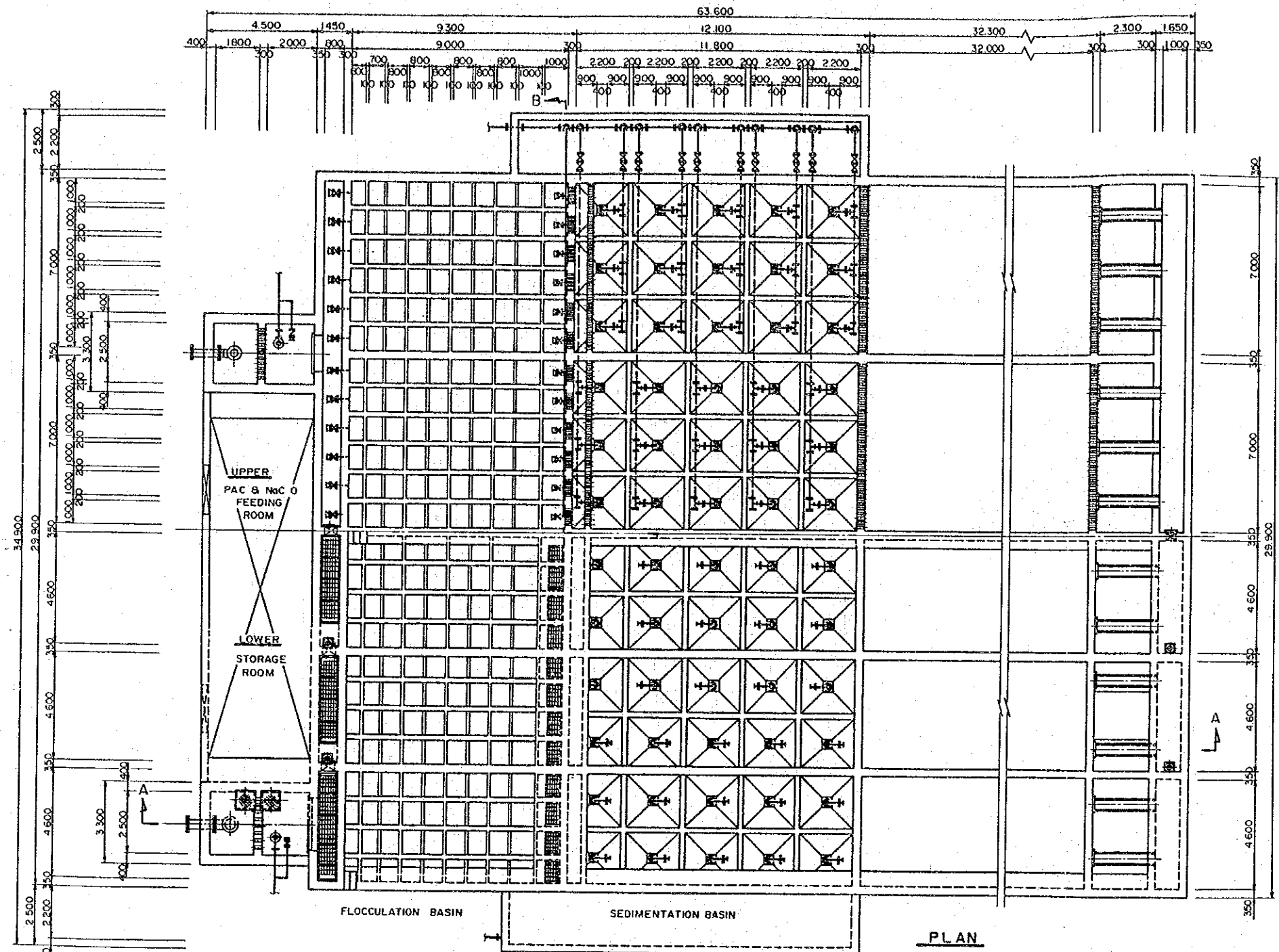


NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
DIFFERENT IN WATER LEVEL OF TREATMENT PLANT			
Date	JULY, 1991	Drawing No.	M-3
JAPAN INTERNATIONAL COOPERATION AGENCY			

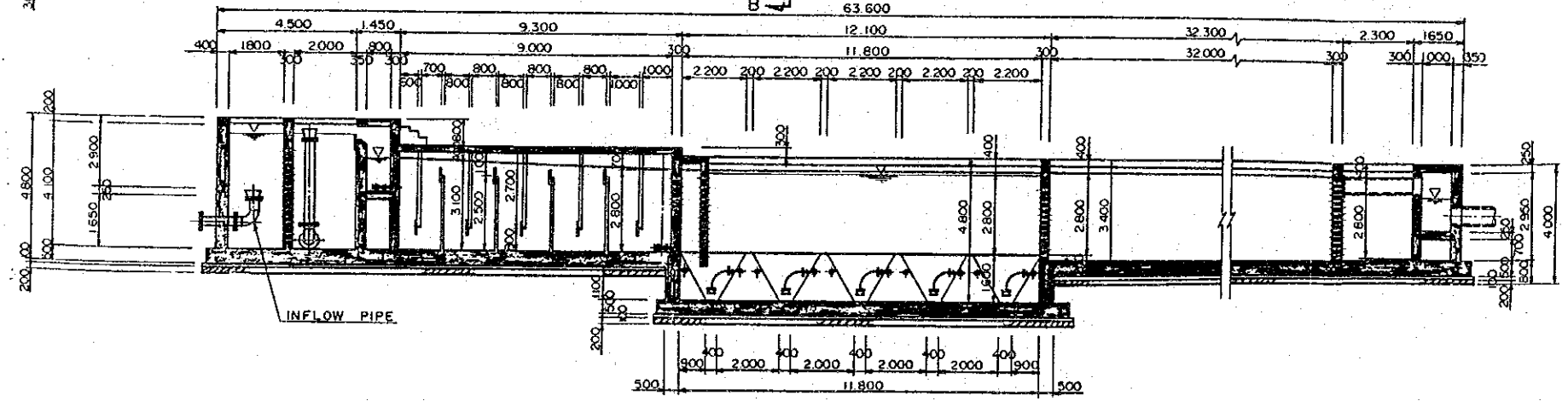


SCALE 1/100

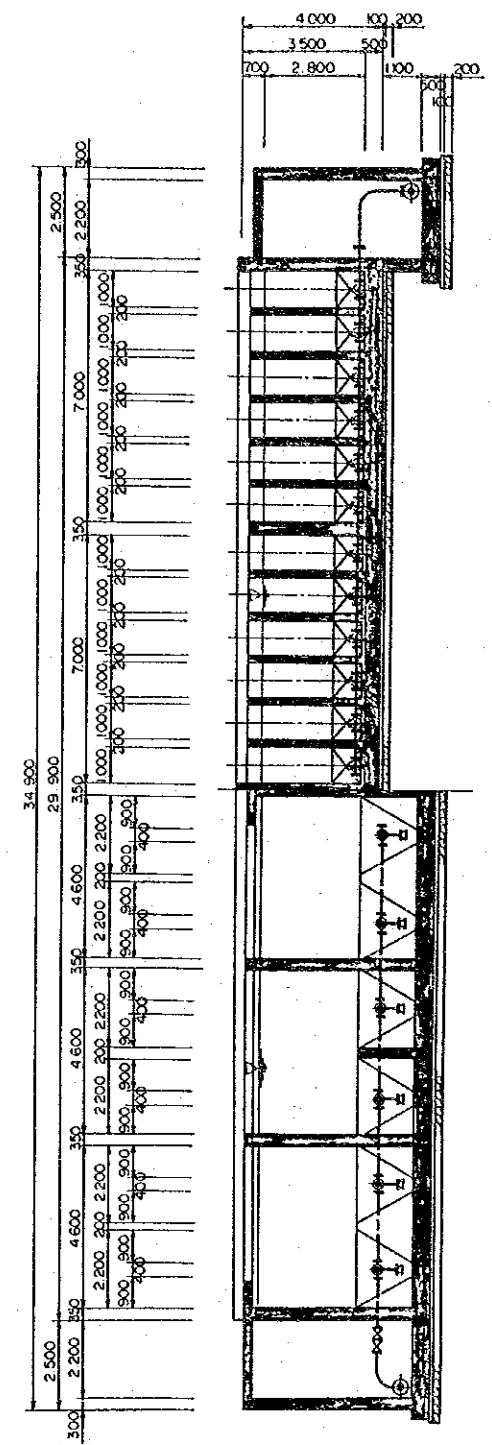
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
BIO FILTER PLAN AND SECTION			
Date	JULY, 1991	Drawing No.	M-4
JAPAN INTERNATIONAL COOPERATION AGENCY			



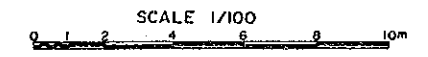
PLAN



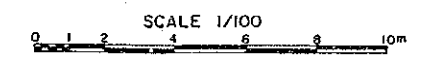
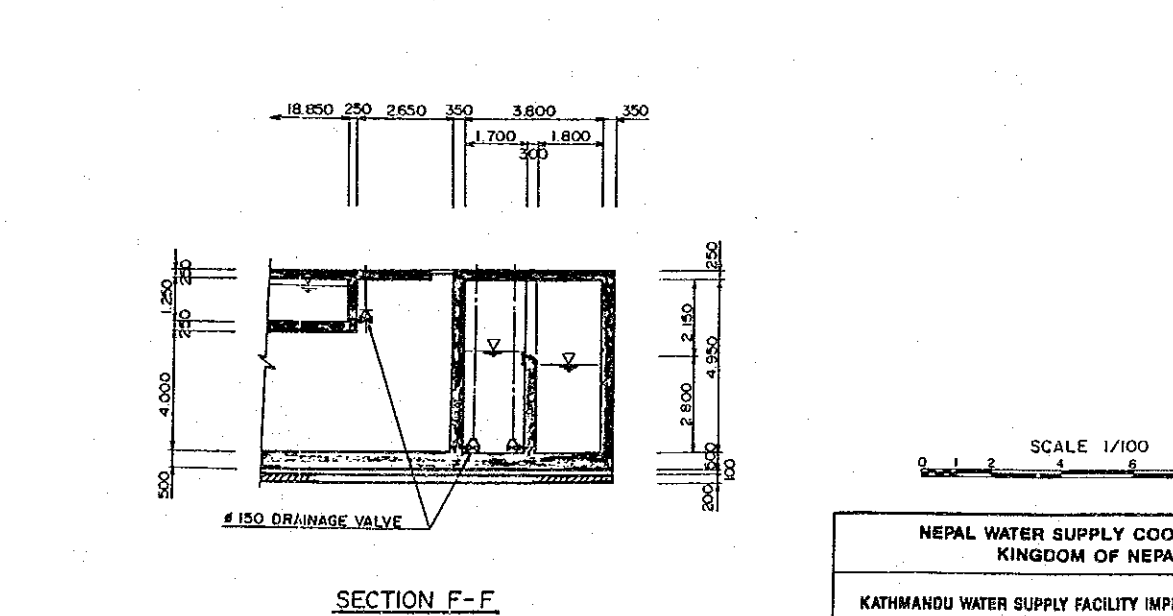
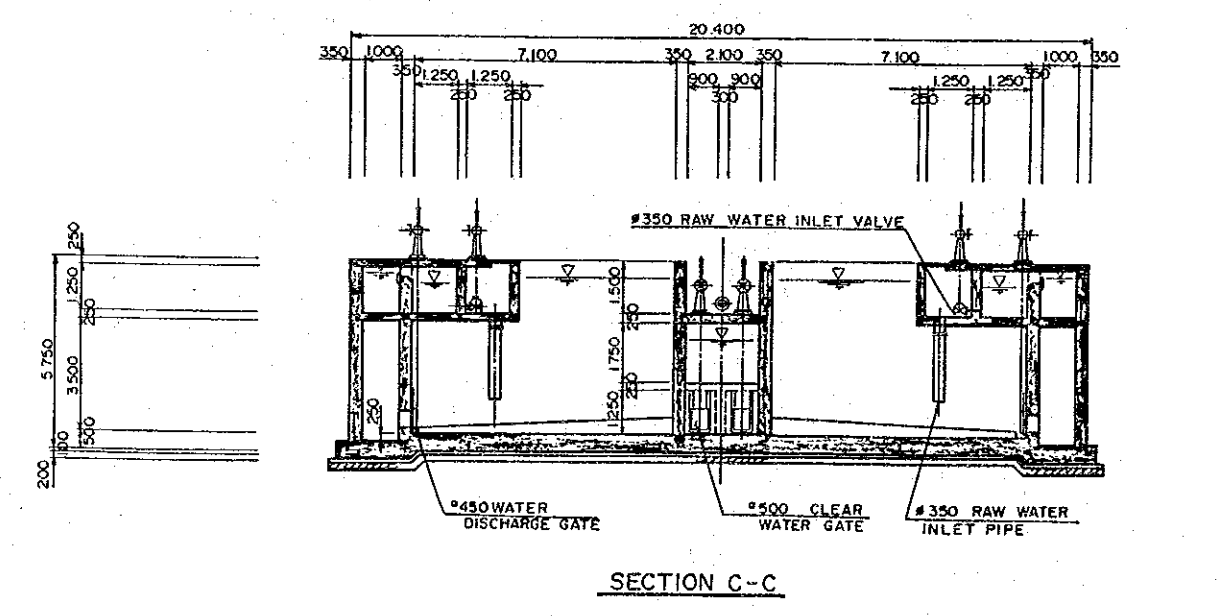
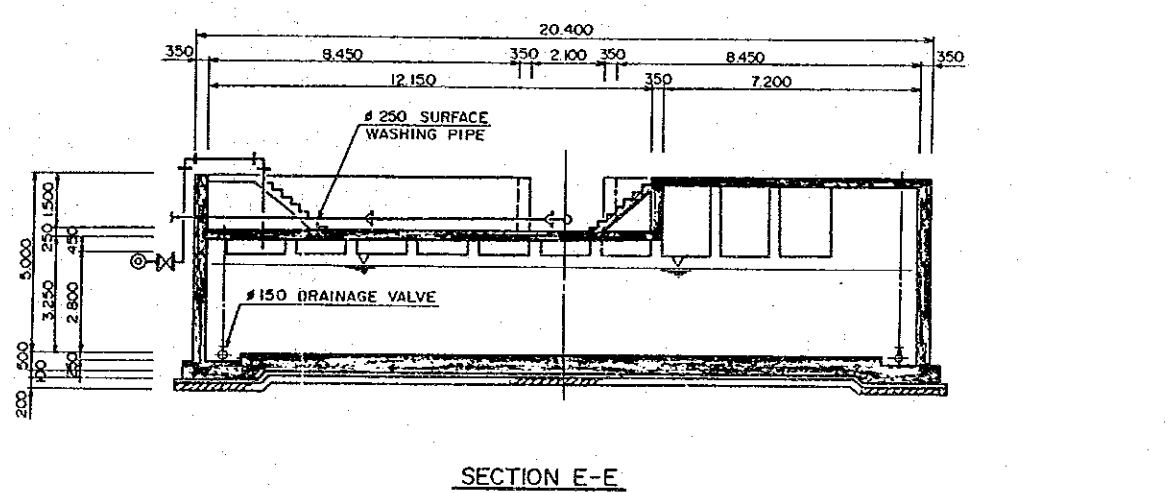
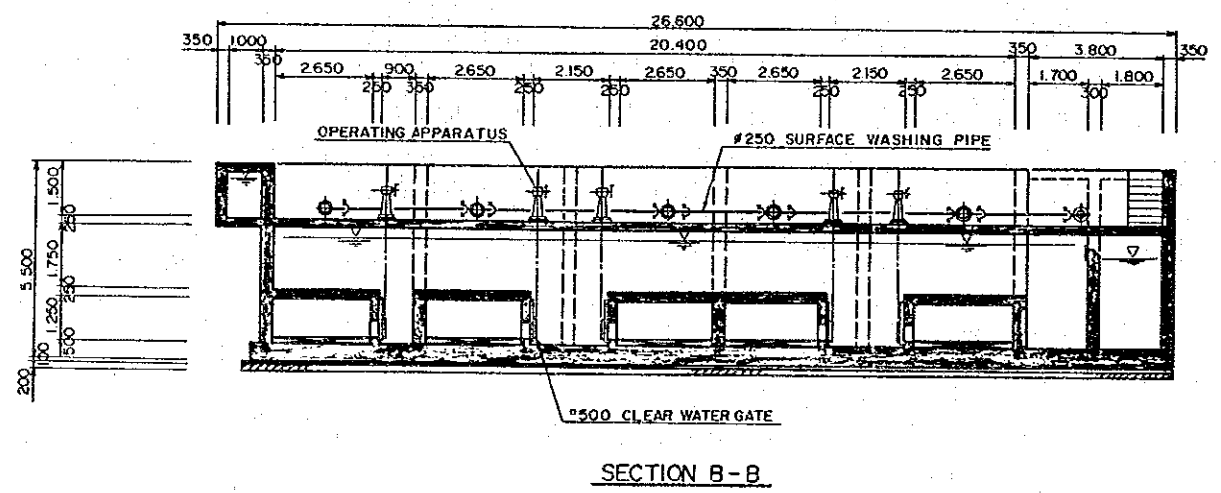
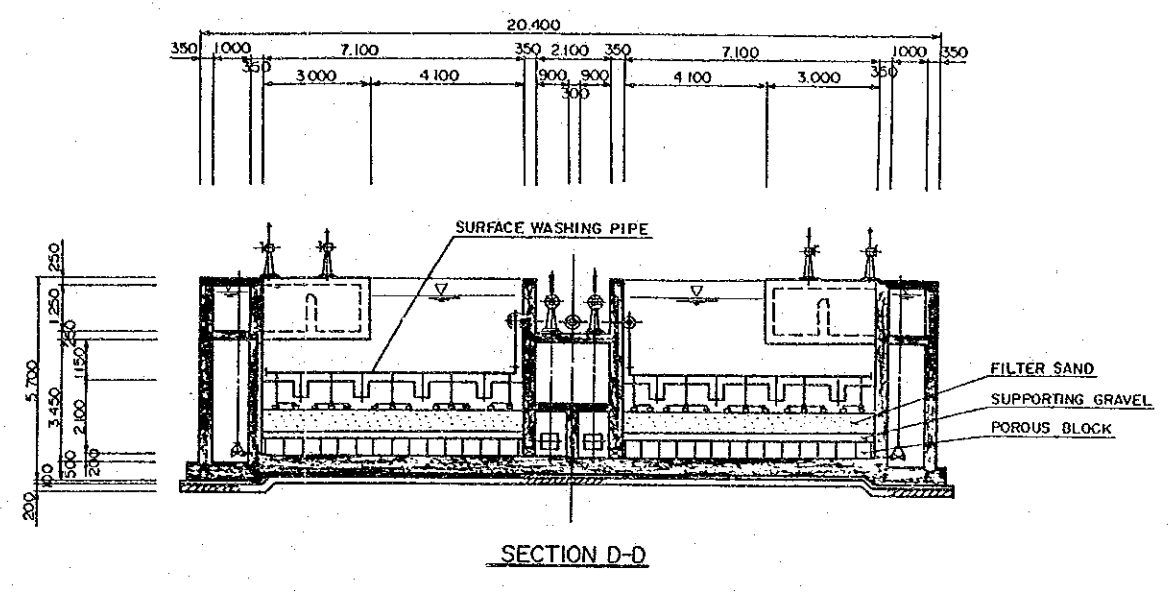
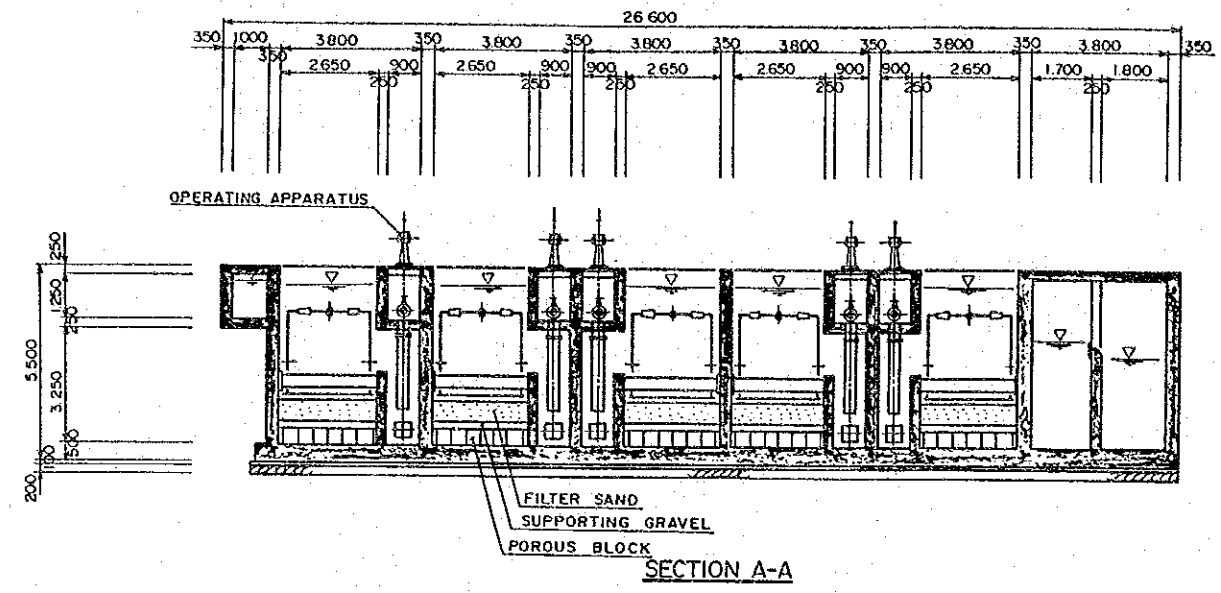
SECTION A-A



SECTION B-B

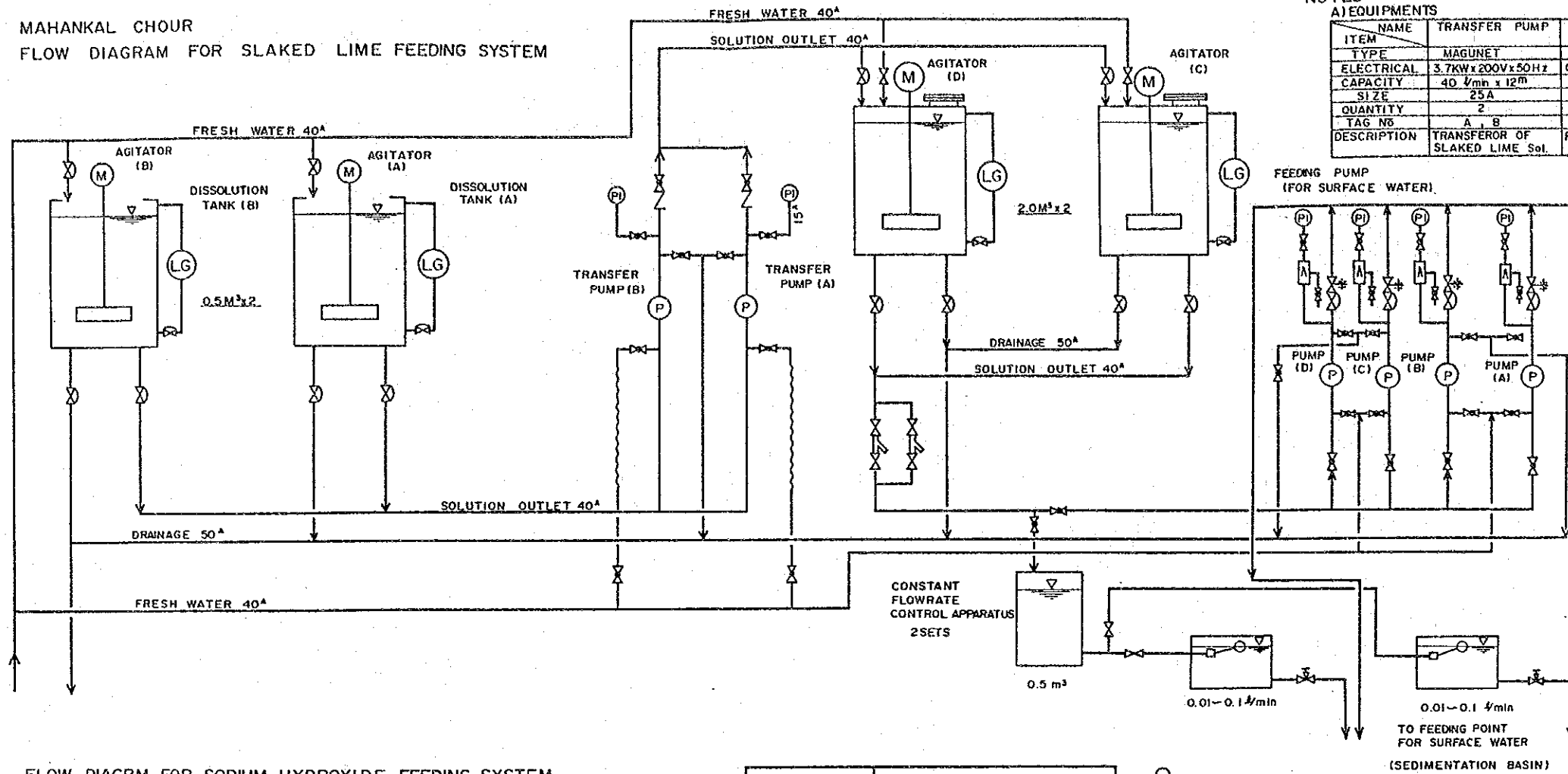


NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
SEDIMENTATION BASIN PLAN AND SECTION			
Date	JULY, 1991	Drawing No.	M-5
JAPAN INTERNATIONAL COOPERATION AGENCY			



NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL		
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT		
RAPID SAND FILTER SECTION		
Date	JULY, 1991	Drawing No. M-7
JAPAN INTERNATIONAL COOPERATION AGENCY		

MAHANKAL CHOUR
FLOW DIAGRAM FOR SLAKED LIME FEEDING SYSTEM



NOTES
A) EQUIPMENTS

ITEM NAME	TRANSFER PUMP	FEEDING PUMP	AGITATOR	SOLUTION STRAGE TANK
TYPE	MAGNET	DIAPHRAGM	OSCILLATION	ROUND - VERTICAL
ELECTRICAL	3.7KW x 200V x 50Hz	0.2KW x 200V x 50Hz	2.2KW x 200V x 50Hz	---
CAPACITY	40 l/min x 12m	1.7 l/min 0.85 l/min	196 rpm	2.0m³
SIZE	25A	10A	10A	ø 1,400mm x H 1,580mm
QUANTITY	2	2	4	2
TAG NO	A, B	A, B, C, D	A, B, C, D	A, B
DESCRIPTION	TRANSFEROR OF SLAKED LIME Sol.	FOR SURFACE WATER	AGITATOR OF SLAKED LIME HYDROLYSIS	STRAGE OF SLAKED LIME SOLUTION

NOTE
OTHER EQUIPMENTS (DISSOLUTION TANK etc)
SEE SHEET OF FLOW DIAGRAM SODIUM HYPOCHLORITE.

B) DESIGN ITEMS

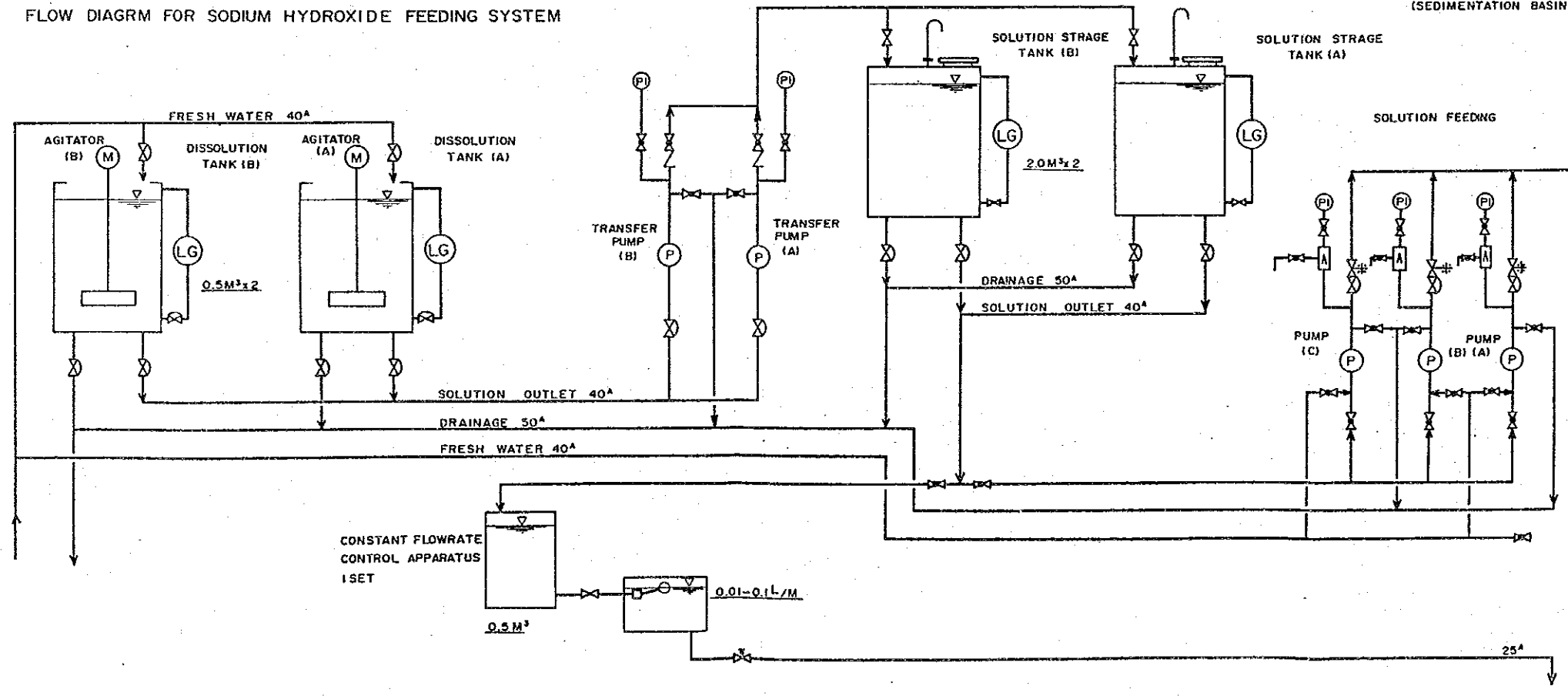
B-1. QUANTITY OF FLOW

WATER	MINIMUM	MAXIMUM
SURFACE	8,500m³/day	25,400m³/day

B-2. RATE OF DOSING (MEAN)

WATER	SEASON	MEAN
SURFACE	RAIN-FALL	20 mg/l
	DRY	5 mg/l

FLOW DIAGM FOR SODIUM HYDROXIDE FEEDING SYSTEM



NOTE

A) DESIGN ITEMS

- A-1. QUANTITY OF FLOW
GRAND WATER 19,000m³/day
- A-2. RATE OF DOSING
MEAN 20mg/l

B) EQUIPMENTS

ITEM NAME	FEEDING PUMP	SOLUTION STRAGE TANK
TYPE	DIAPHRAGM	ROUND - VERTICAL
ELECTRICAL	0.2KW x 200V x 50Hz	---
CAPACITY	0.85 l/min	2.0m³
SIZE	10A	ø 1,400mm x H 1,580mm
QUANTITY	3	2
TAG NO	A, B, C	A, B
DESCRIPTION		MATERIAL PE CLOSE TYPE

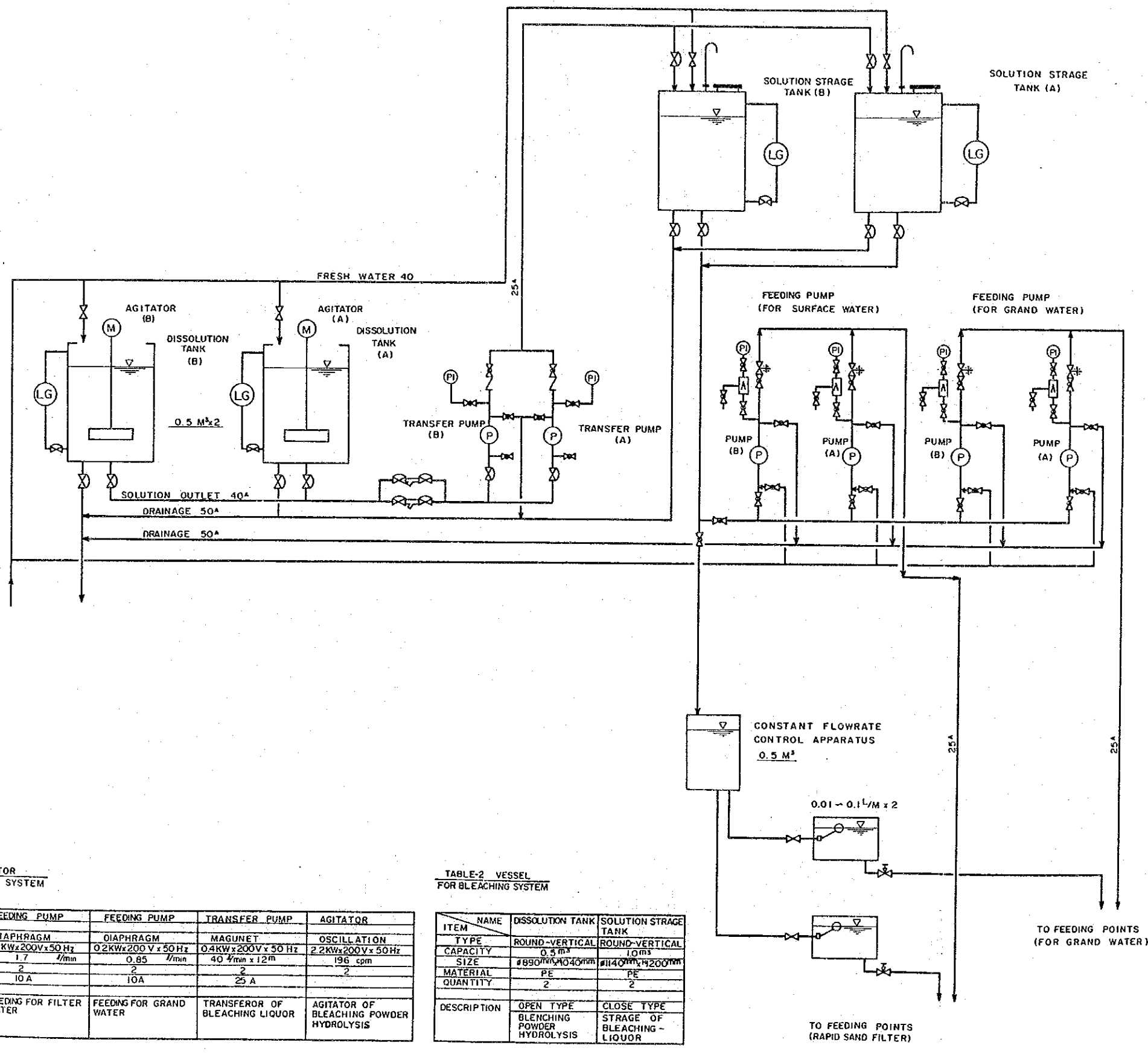
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

FLOW DIAGRAM OF PAC FEEDING SYSTEM

Date	JULY, 1991	Drawing No.	M-10
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JAPAN INTERNATIONAL COOPERATION AGENCY



NOTE

A) DESIGN ITEMS
A-1. QUANTITY OF FLOW

ITEM	MINIMUM	MAXIMUM	DESCRIPTION
WATER	-	19,000m ³ /day	OXYDATION
GRAND	-	26,800m ³ /day	STERILIZE
FILTER	25300m ³ /day	-	-

A-2. RATE OF FEEDIN (MEAN)

ITEM	SEASON	MEAN QUANTITY	DESCRIPTION
WATER	-	2.1 mg/l	OXYDATION
GRAND	RAIN - FALL	2.5 mg/l	STERILIZE
FILTER	DRY	1.5 mg/l	-

B) SYMBOLS
SEE SHEET OF FLOW DIAGRAM PAC FEEDING SYSTEM

EQUIPMENTS

TABLE-1 ROTATOR FOR BLEACHING SYSTEM

ITEM NAME	FEEDING PUMP	FEEDING PUMP	TRANSFER PUMP	AGITATOR
TYPE	DIAPHRAGM	DIAPHRAGM	MAGNET	OSCILLATION
ELECTRICAL	0.2KWx200Vx50Hz	0.2KWx200Vx50Hz	0.4KWx200Vx50Hz	2.2KWx200Vx50Hz
CAPACITY	1.7 l/min	0.85 l/min	40 l/min x 12m	196 cpm
QUANTITY	2	2	2	2
SIZE	10A	10A	25A	
DESCRIPTION	FEEDING FOR FILTER WATER	FEEDING FOR GRAND WATER	TRANSFEROR OF BLEACHING LIQUOR	AGITATOR OF BLEACHING POWDER HYDROLYSIS

TABLE-2 VESSEL FOR BLEACHING SYSTEM

ITEM NAME	DISSOLUTION TANK	SOLUTION STRAGE TANK
TYPE	ROUND-VERTICAL	ROUND-VERTICAL
CAPACITY	0.5 m ³	10 m ³
SIZE	#890mmx1040mm	#1140mmx1200mm
MATERIAL	PE	PE
QUANTITY	2	2
DESCRIPTION	OPEN TYPE BLEACHING POWDER HYDROLYSIS	CLOSE TYPE STRAGE OF BLEACHING-LIQUOR

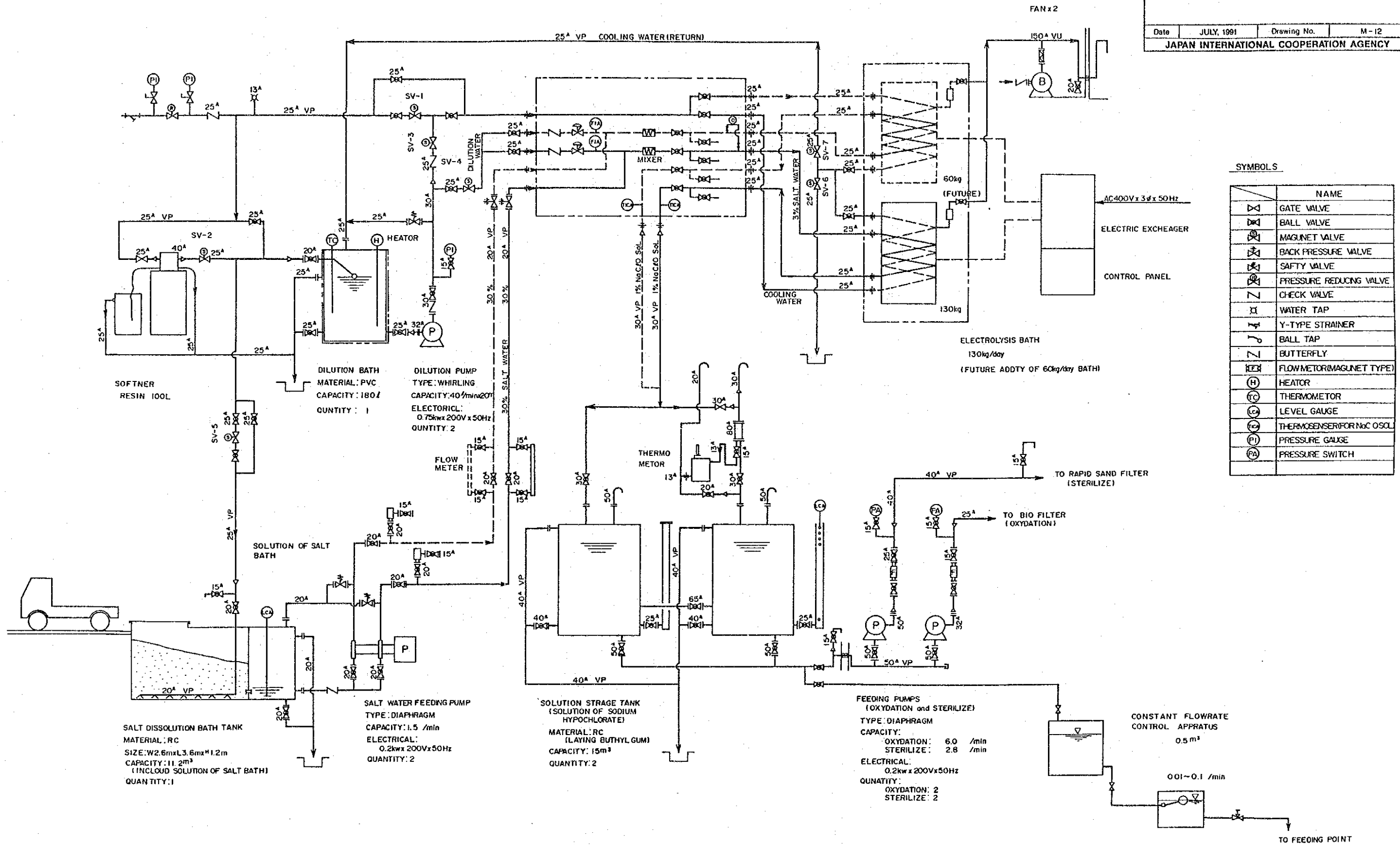
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

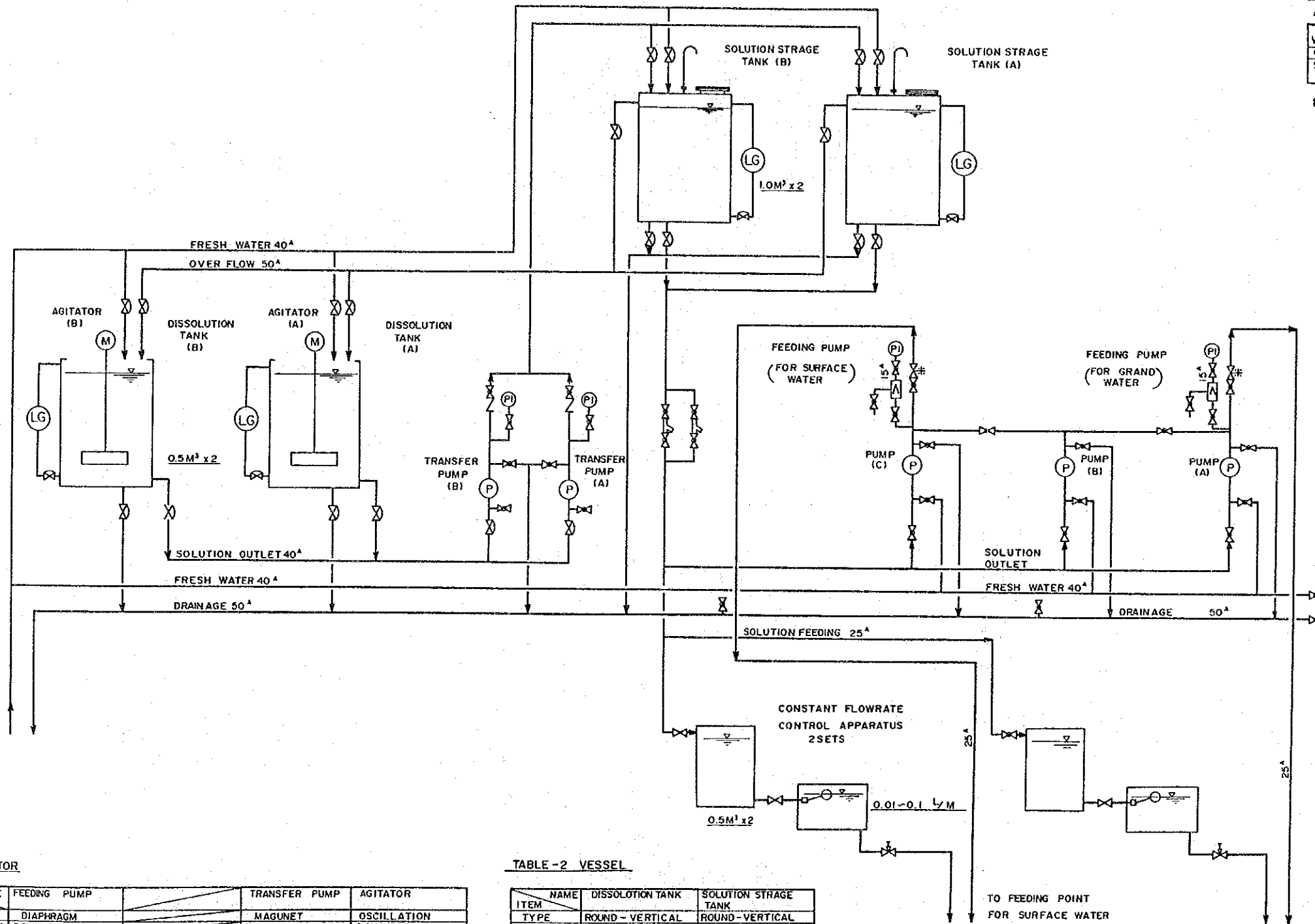
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

FLOW DIAGRAM OF SLAKED LIME
FEEDING SYSTEM

Date	JULY, 1991	Drawing No.	M-11
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JAPAN INTERNATIONAL COOPERATION AGENCY





NOTES

A) DESIGN ITEMS

A - 1. QUANTITY OF FLOW

CASE	1	2	3
WATER			
GRAND	18,300m ³ /day	12,500m ³ /day	—
SURFACE	8,500m ³ /day	12,800m ³ /day	25,400m ³ /day
TOTAL	26,800m ³ /day	25,300m ³ /day	25,400m ³ /day

A - 2. RATE OF FEEDING

ITEM	SEASON	MEAN	MAXIMUM
WATER			
GRAND	—	15.6 mg/l	—
SURFACE	RAIN-FALL	22.2 mg/l	40mg/l
	DRY	15.6 mg/l	

B) SYMBOLS

VALVES

- BALL VALVE
- CHECK VALVE
- DIAPHRAGM VALVE
- BACK PRESSURE REGULATION VALVE
- GATE VALVE
- FLOW CONTROL VALVE
- BALL TAP

EQUIPMENTS

ROTATOR

- MOTOR
- PUMP

OTHERS

- PRESSURE GAUGE
- LEVEL GAUGE
- AIR CHAMBER
- Y-TYPE STRAINER

EQUIPMENTS

TABLE - 1 ROTATOR

ITEM	NAME	FEEDING PUMP	TRANSFER PUMP	AGITATOR
TYPE	DIAPHRAGM		MAGNET	OSCILLATION
ELECTRICAL		0.2KW x 200V x 50Hz	0.4KW x 200V x 50Hz	2.2KW x 200V x 50Hz
CAPACITY		1.7 l/min	40 l/min x 12 m	196 cpm
QUANTITY		3	2	2
SIZE		10 A	25 A	A, B
TAG NO		A, B, C	A, B	A, B
DESCRIPTION		FEEDING FOR SURFACE WATER & GRAND WATER	TRANSFEROR OF PAC SOLUTION.	AGITATOR OF PAC HYDROLYSIS

TABLE - 2 VESSEL

ITEM	NAME	DISSOLUTION TANK	SOLUTION STRAGE TANK
TYPE		ROUND - VERTICAL	ROUND - VERTICAL
CAPACITY		0.5 m ³	1.0 m ³
SIZE		ø 890mm x 11040mm	ø 1140mm x 12000mm
MATERIAL		PE	PE
QUANTITY		2	2
DESCRIPTION		OPEN TYPE PAC(SOLID) HYDROLYSIS	CLOSE TYPE STRAGE OF PAC SOLUTION.

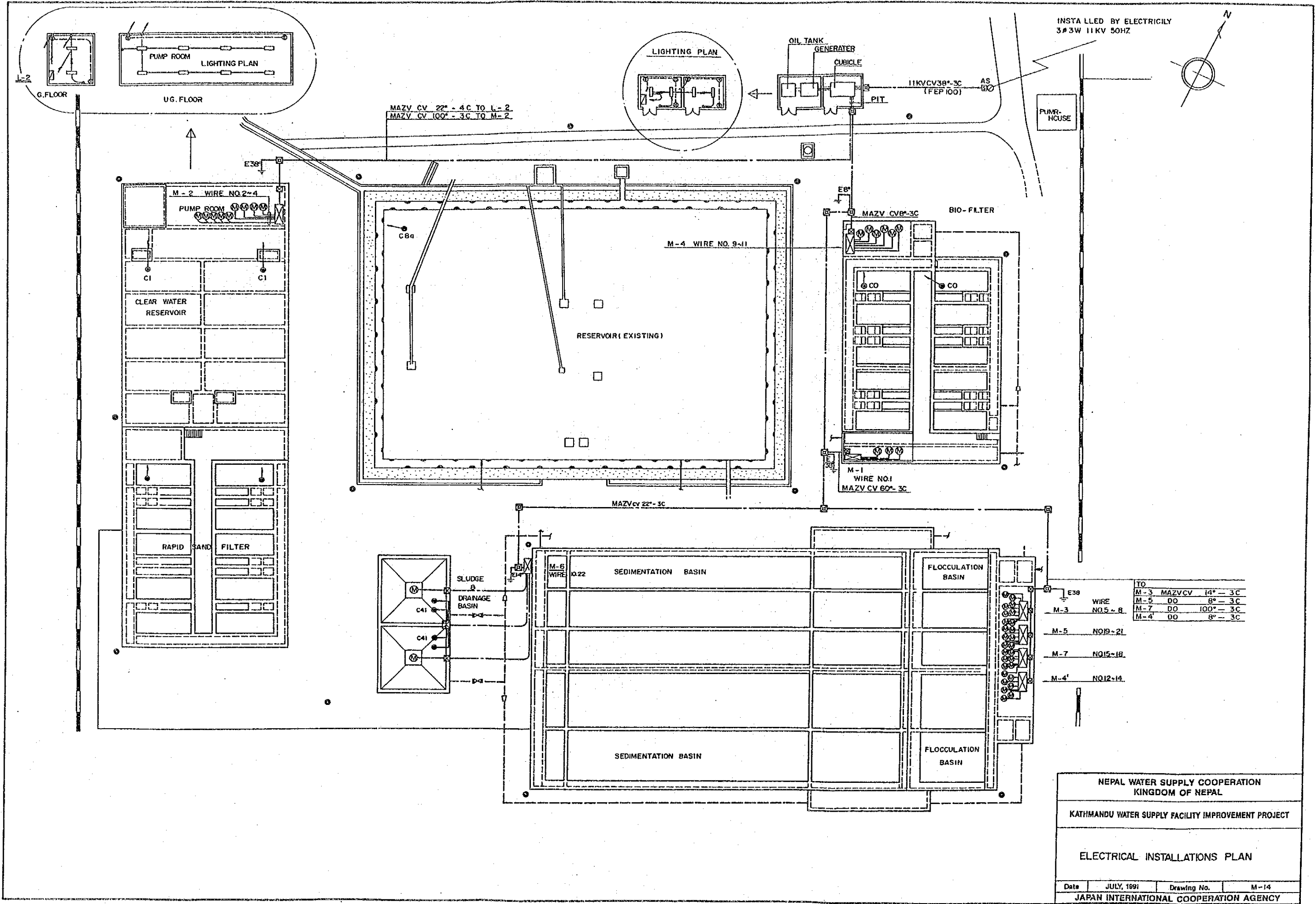
**NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL**

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

**FLOW DIAGRAM OF BLEACHING
POWDER FEEDING SYSTEM**

Date	JULY, 1991	Drawing No.	M-13
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JAPAN INTERNATIONAL COOPERATION AGENCY



TO	M-3 MAZVCV	14" - 3C
	M-5 DO	8" - 3C
	M-7 DO	100" - 3C
	M-4' DO	8" - 3C
	M-3	NQ15-18
	M-5	NQ19-21
	M-7	NQ15-18
	M-4'	NQ12-14

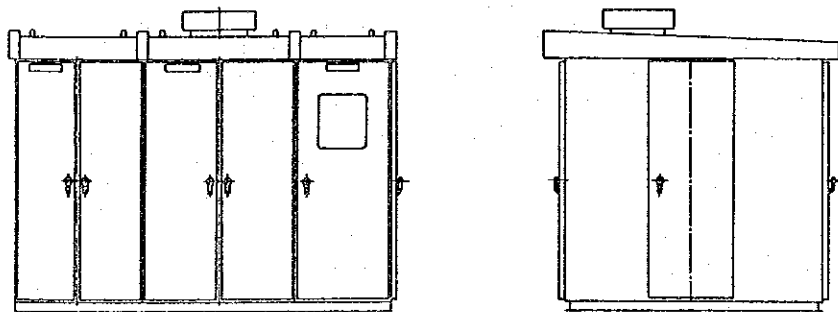
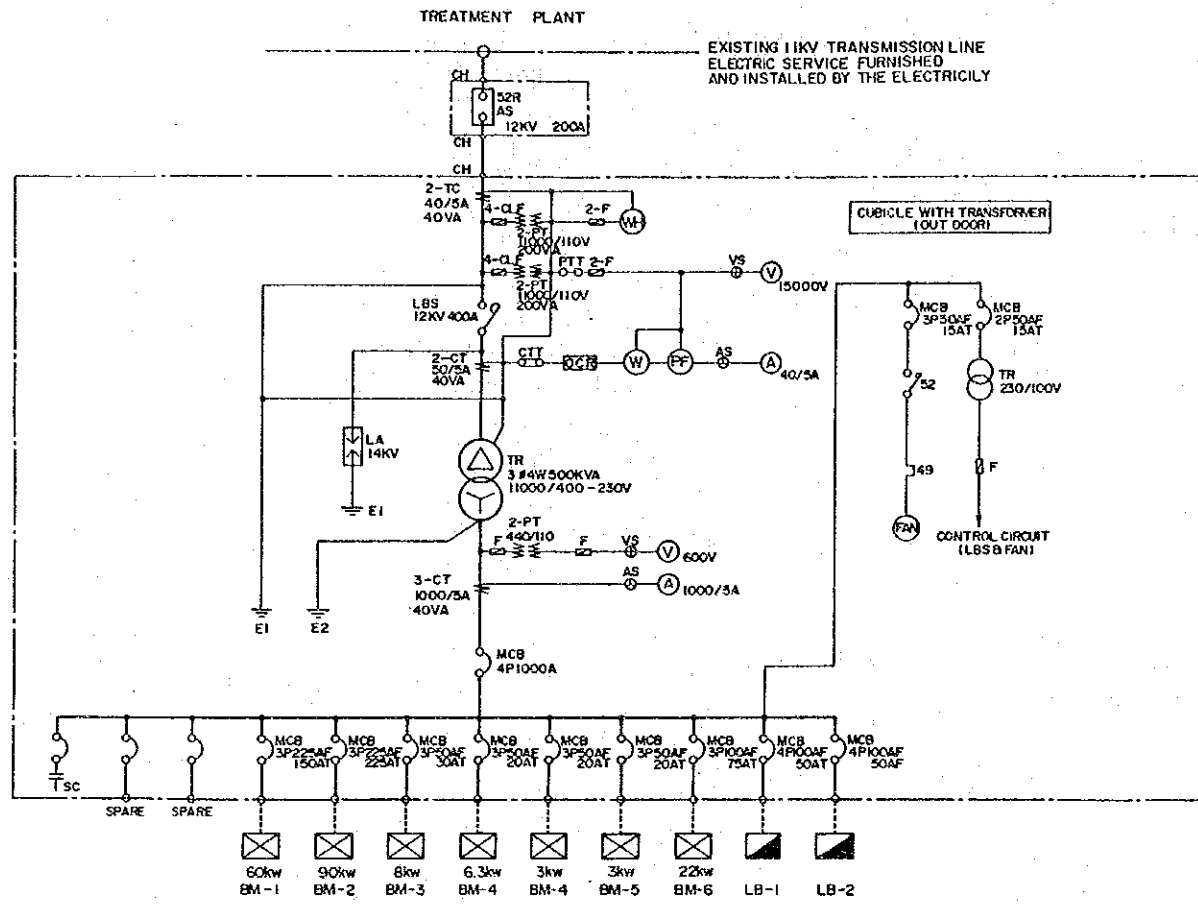
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

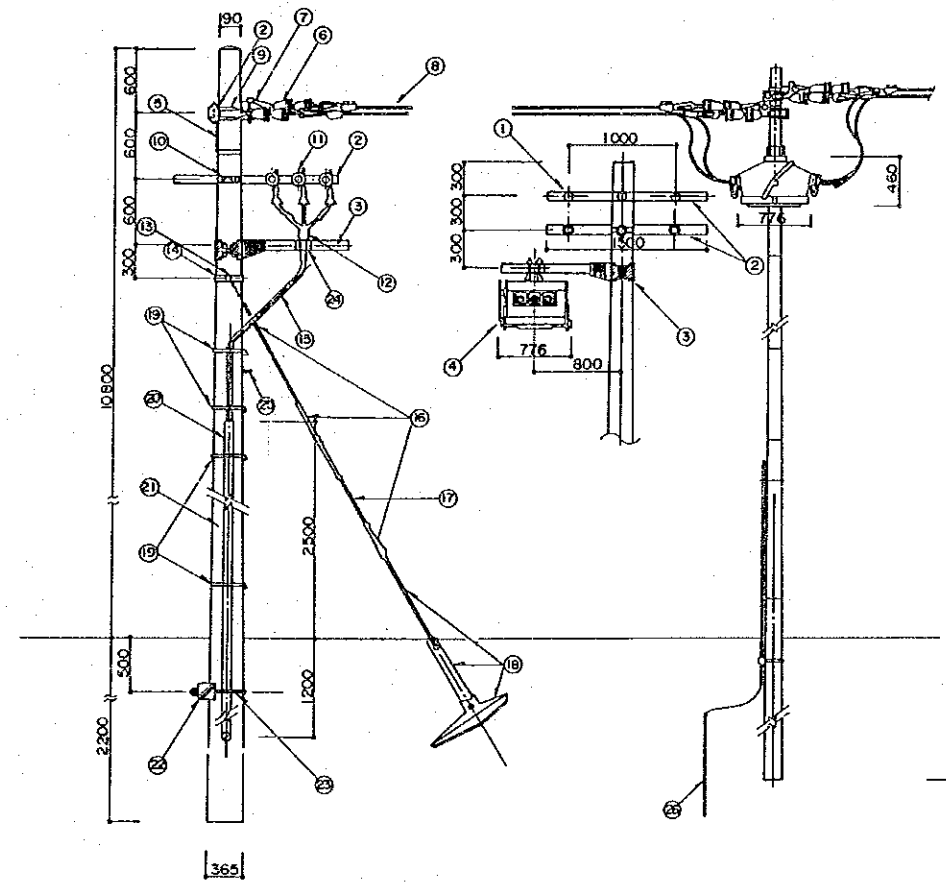
ELECTRICAL INSTALLATIONS PLAN

Date	JULY, 1991	Drawing No.	M-14
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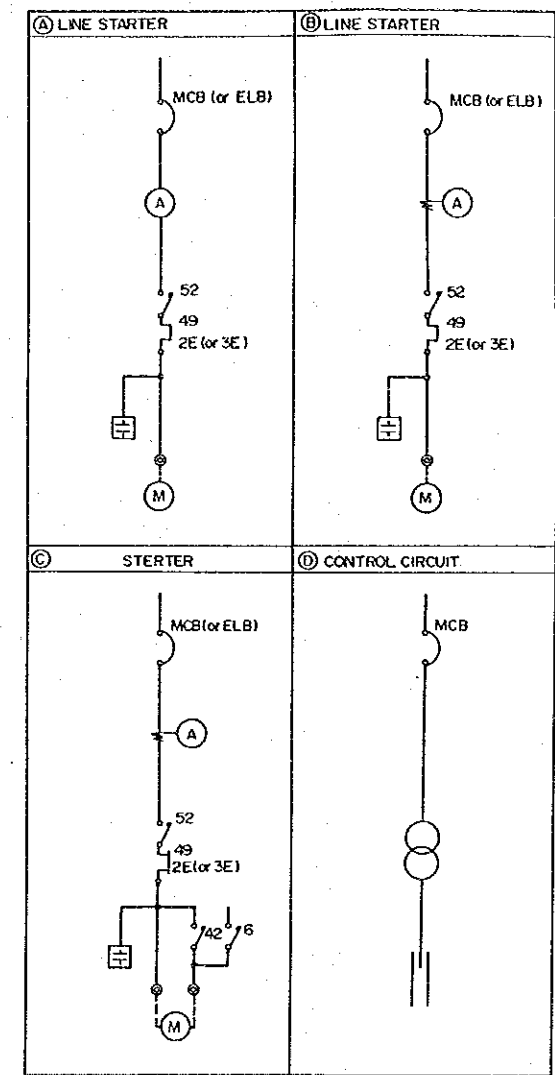
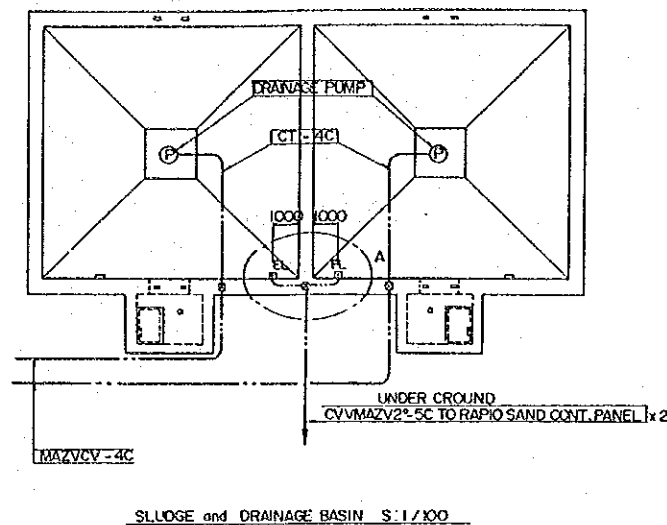
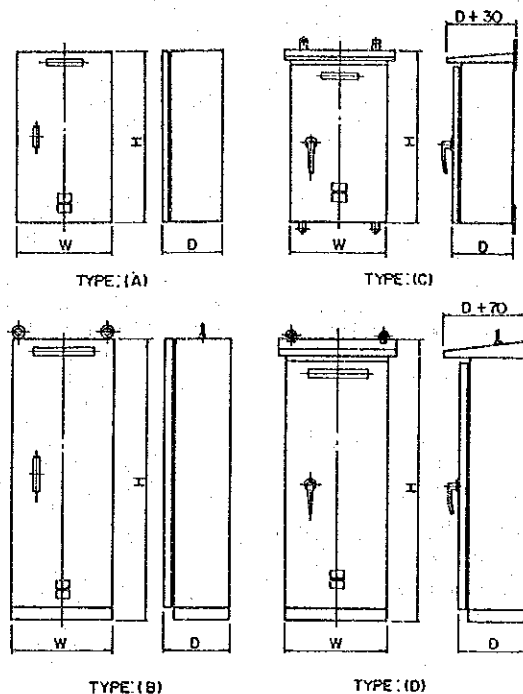
NO	DESCRIPTION	NO	DESCRIPTION
1	SIDE PIN INSULATOR	19	CABLE BAND(SUS-TYPE)
2	ARM C-75 (LGA)	20	(FP 100)
3	ARM (ALS)	21	CONCRETE POLE 13M
4	AIR LOAD-BREAK SWITCH	22	STOPPER ARM FOR POLE
5	ARM TIE (AMT-01)	23	U-BOLT
6	INSULATOR 3SETS	24	CABLE HANGER
7	MAIN WERE HANGER	25	STEPPING BOLT
8	H.V 15kvOC-CABLE	26	EARTH ROD 14#X1500
9	TWIST STRIPE (TSTP)		
10	ARM-BAND (UABO)		
11	SIDE PIN INSULATOR		
12	H.V 12kv XLPE CABLE HEAD		
13	THIMBLE		
14	U-BAND (SPRIT-TYPE)		
15	H.V 12kv XLPE CABLE		
16	GRIP FOR WIRE		
17	STEEL WIRE 30M ²		
18	STAY ROD		



NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
SUB-STATION			
Date	JULY, 1991	Drawing No.	M-15
JAPAN INTERNATIONAL COOPERATION AGENCY			

SIZE and PIPE of POWER CONTROL PANEL

PANELE	SIZE			TYPE	REM
	W	H	D		
MM - 1	1000	2250	500	B	
MM - 2	1600	2250	500	B	
MM - 3	1000	2150	400	D	
MM - 4	1000	2150	400	D	
MM - 4'	800	2150	400	D	
MM - 5	800	2150	400	D	
MM - 6	700	1300	300	C	
MM - 7	1000	2150	400	D	



WIRING LIST

MOTOR CONTROL PANEL	1. Mahoukai Chaur	LOAD CAP (KW)	FIX WIRE No.	SPARE WIRE No.	NON-FIX WIRE No.	TOTAL WIRE No.	LOC. ON OFF	MAN. OFF	NO. OF VSTOR	OVERFLOW	CRG. W. NO.	REM.
MM 1	BIO FILTER BLOWER	30	1	22	3	55						
MM 2	CLEAR WATER RESERVOIR SURFACE WASHING PUMPS	30	2	22	3	55						
	MAKE UP PUMPS	7.5	3	5.5	3	20						
	TRANSMISSION PUMPS	11	4	8	3	55						
MM 3	ALUMINUM SULFATE FEEDING SYSTEM MIXER	2.2	5	5.5	3	20						
	TRANSFER PUMPS	0.4	6	5.5	3	20						
	FEEDING PUMPS	0.2	7	5.5	3	20						
	FEEDING PUMPS	0.2	8	5.5	3	20						
MM 4	ALKALI AGENT FEEDING SYSTEM MIXER	2.2	9	5.5	3	20						
	TRANSFER PUMPS	3.7	10	5.5	3	20						
	FEEDING PUMPS	0.2	11	5.5	3	20						
MM 4'	ALKALI AGENT FEEDING SYSTEM MIXER	2.2	12	5.5	3	20						
	TRANSFER PUMPS	0.4	13	5.5	3	20						
	FEEDING PUMPS	0.2	14	5.5	3	20						
MM 7	SELF-MADE SODIUM SOLT WATER PUMPS	0.4	15	5.5	3	20						
	CLEAR WATER PUMPS	0.4	16	5.5	3	20						
	ELECTROLYSIS	36.5	17	38	3	51						
	FEEDING PUMPS	0.4	18	5.5	3	20						
MM 5	BLEACHING POWDER FEEDING SYSTEM MIXER	2.2	19	5.5	3	20						
	TRANSFER PUMPS	0.4	20	5.5	3	20						
	FEEDING PUMPS	0.2	21	5.5	3	20						
MM 6	WASTE WATER BASIN	11	22	22	3	55						

MOTOR CONTROL PANEL	1. Mahoukai Chaur	LOAD CAP (KW)	FIX WIRE No.	SPARE WIRE No.	NON-FIX WIRE No.	TOTAL WIRE No.	LOC. ON OFF	MAN. OFF	NO. OF VSTOR	OVERFLOW	CRG. W. NO.	REM.
MM-1	BIO FILTER BLOWER	30	2	1	0	60						
MM-2	CLEAR WATER RESERVOIR SURFACE WASHING PUMPS	30	2	1	0	60						
	MAKE UP PUMPS	7.5	1	1	0	7.5						
	TRANSMISSION PUMPS	11	3	1	0	33						
MM-3	ALUMINUM SULFATE FEEDING SYSTEM MIXER	2.2	2	0	0	4.4						
	RECEPTION PUMPS	0.4	1	1	0	0.4						
	FEEDING PUMPS	0.2	3	2	0	0.6						
	FEEDING PUMPS	0.2	2	1	0	0.4						
MM-4	ALKALI AGENT FEEDING SYSTEM MIXER	2.2	4	0	0	8.8						
	TRANSFER PUMPS	3.7	1	1	0	3.7						
	FEEDING PUMPS	0.2	4	0	0	0.8						
MM-4'	ALKALI AGENT FEEDING SYSTEM MIXER	2.2	2	0	0	4.4						
	TRANSFER PUMPS	0.4	1	1	0	0.4						
	FEEDING PUMPS	0.2	2	1	0	0.4						
MM-7	SELF-MADE SODIUM SOLT WATER PUMPS	0.4	1	1	1	0.8						
	CLEAR WATER PUMPS	0.4	1	1	1	0.8						
	ELECTROLYSIS	36.5	1	0	0	36.5						
	FEEDING PUMPS	0.4	4	0	0	1.6						
MM-5	BLEACHING POWDER FEEDING SYSTEM MIXER	2.2	2	0	0	4.4						
	TRANSFER PUMPS	0.4	1	1	0	0.4						
	FEEDING PUMPS	0.2	4	0	0	0.8						
MM-6	WASTE WATER BASIN	11	2	1	0	22						

Σ 272.1

NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL

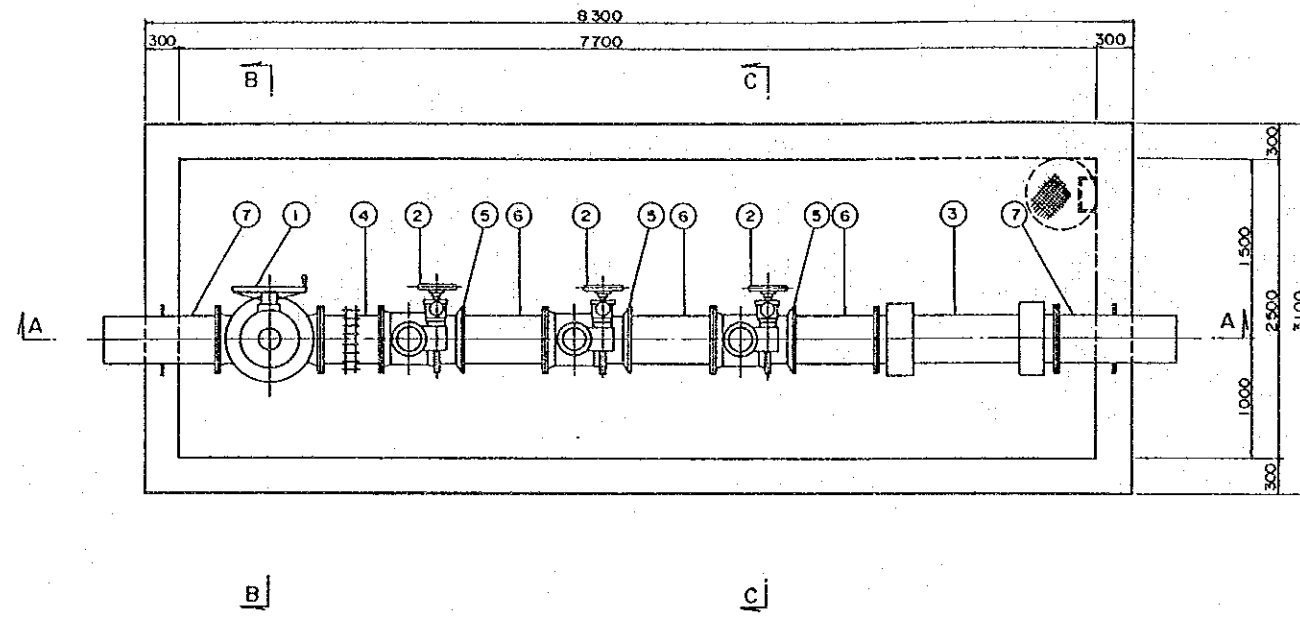
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

POWER CONTROL PANEL AND WIRING LIST

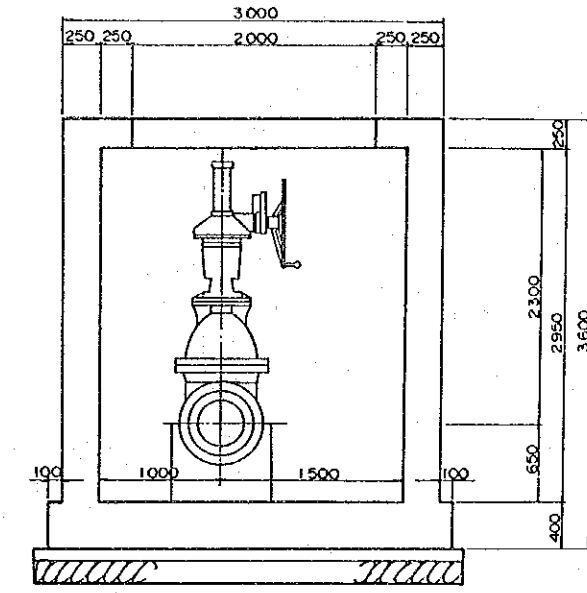
Date: JULY, 1991 Drawing No. M-16

JAPAN INTERNATIONAL COOPERATION AGENCY

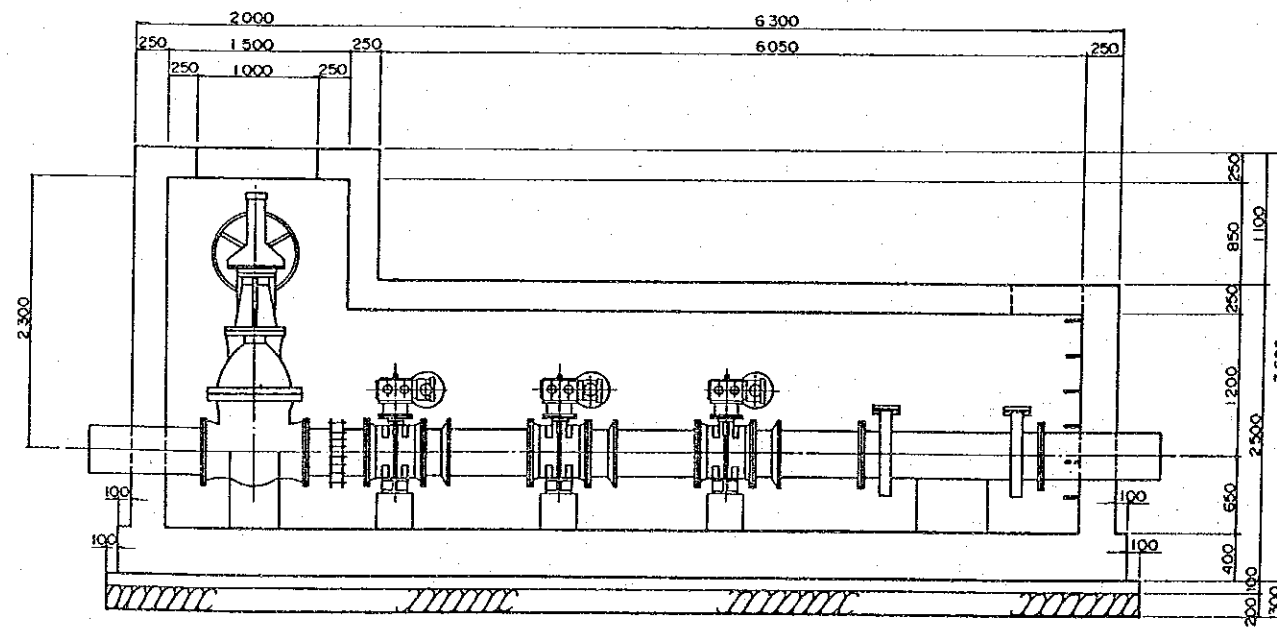
PLAN



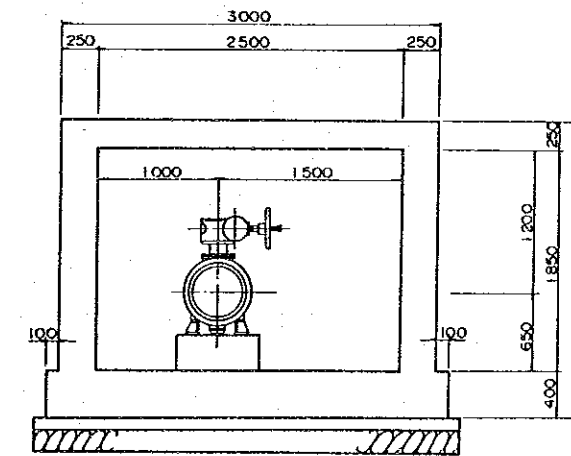
SECTION B-B



SECTION A-A

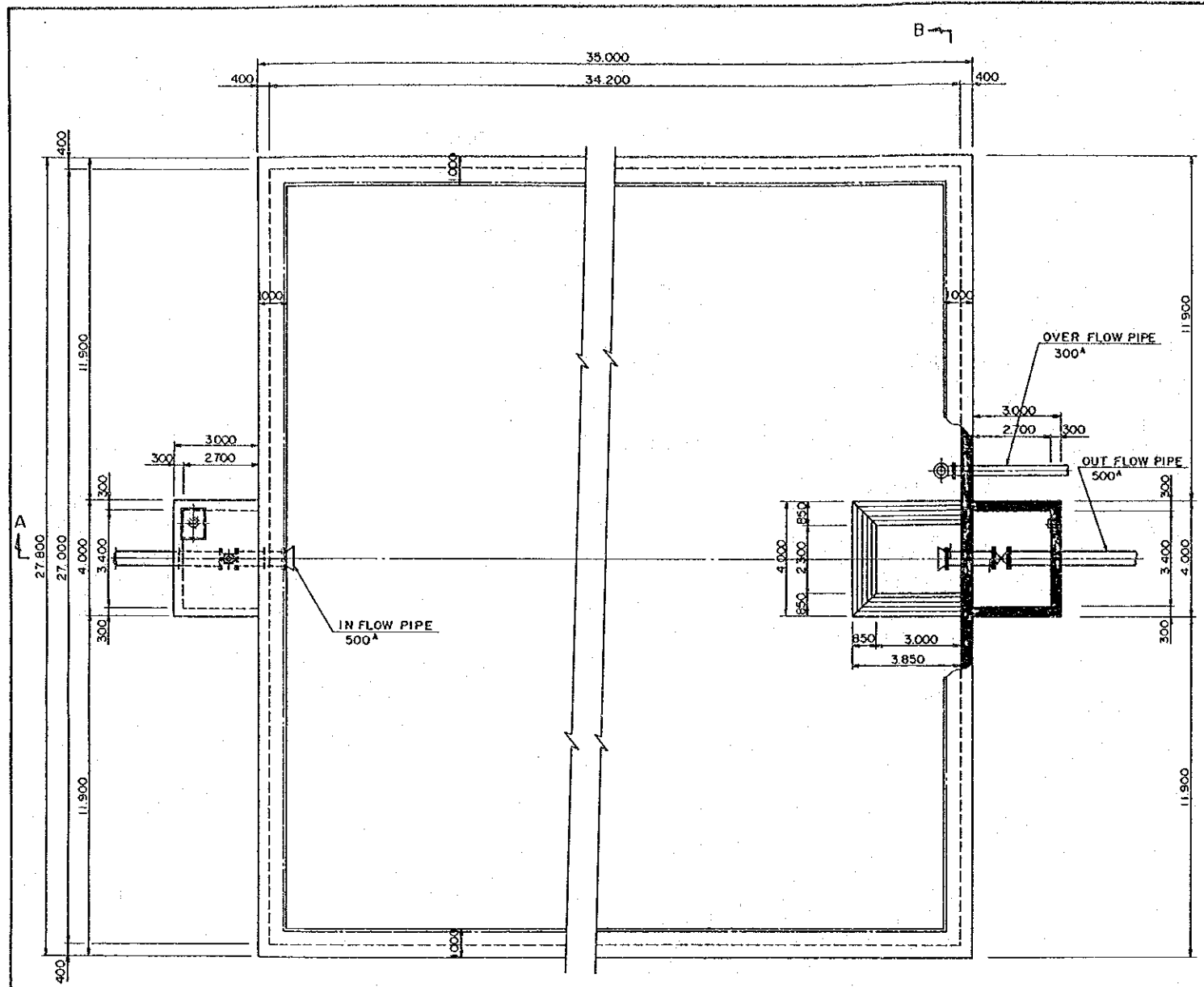


SECTION C-C

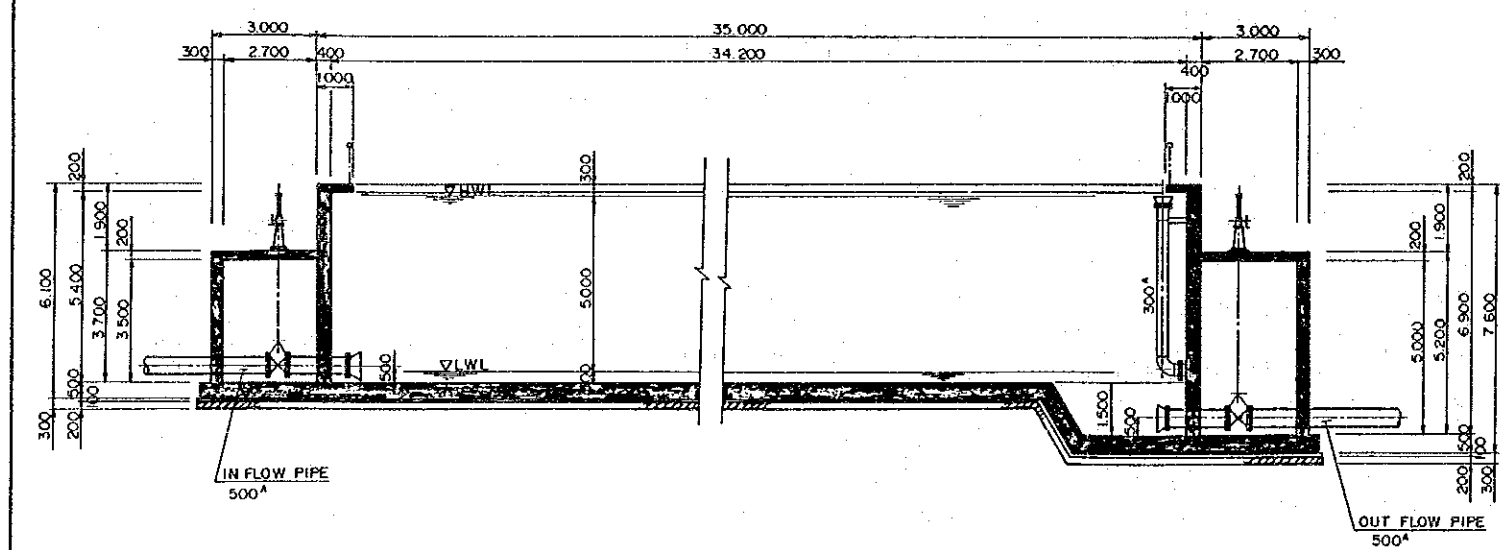


NO	NAME	SIZE	Nos
1	GATE VALVE, HIGHPRESS-UR TYPE	Ø 400	1
2	PRESSURE CONTROL VALVE (JETPORT)	"	3
3	PRESSURE REDUCING DEVICE	"	1
4	DOUBLE FLANGED ADAPTOR	Ø400x500	1
5	SOCKET AND FLANGED TYPE	Ø 400	3
6	FLANGES AND SPIGOT TYPE	"	3
7	DOUBLE FLANGED SHORT PIPE WITH HANDWHEEL	Ø400x1000	2

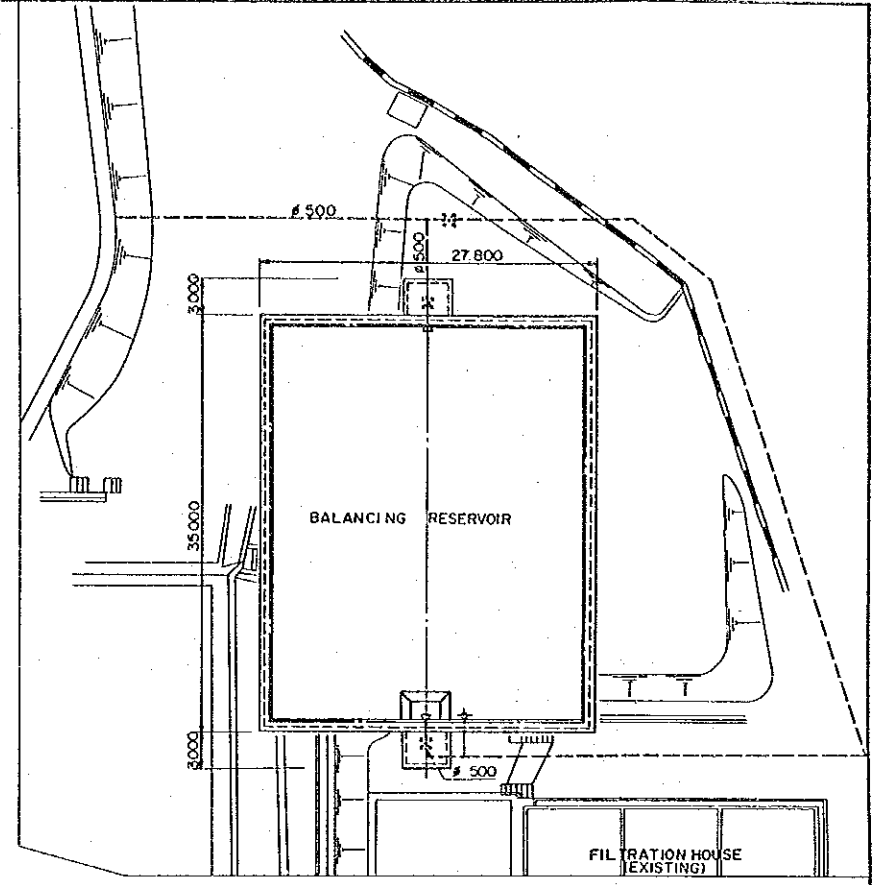
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
PRESSURE CONTROL VALVE AND VALVE ROOM			
Date	JULY, 1991	Drawing No.	M - 17
JAPAN INTERNATIONAL COOPERATION AGENCY			



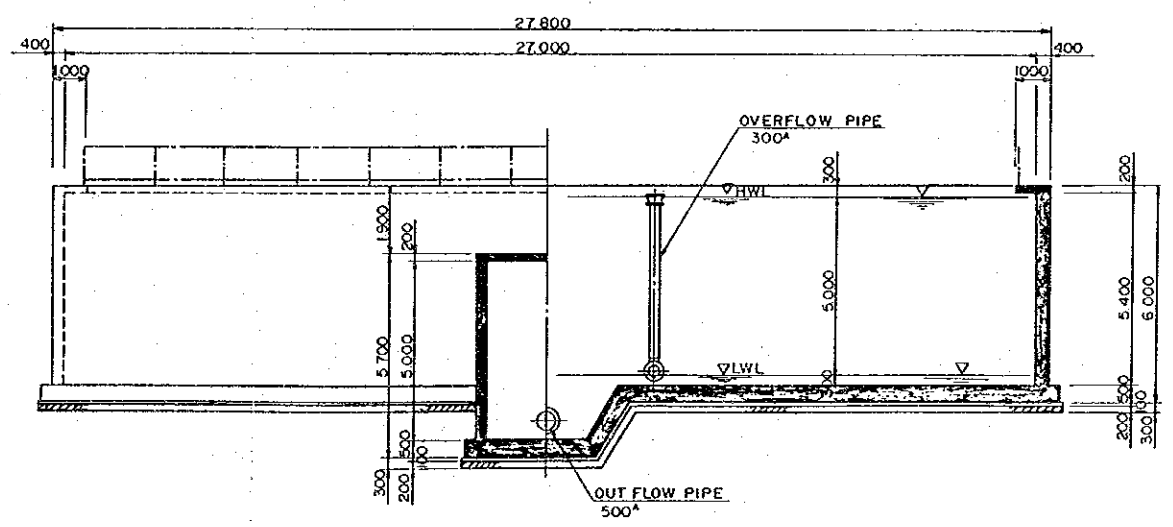
PLAN



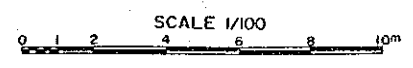
SECTION A-A



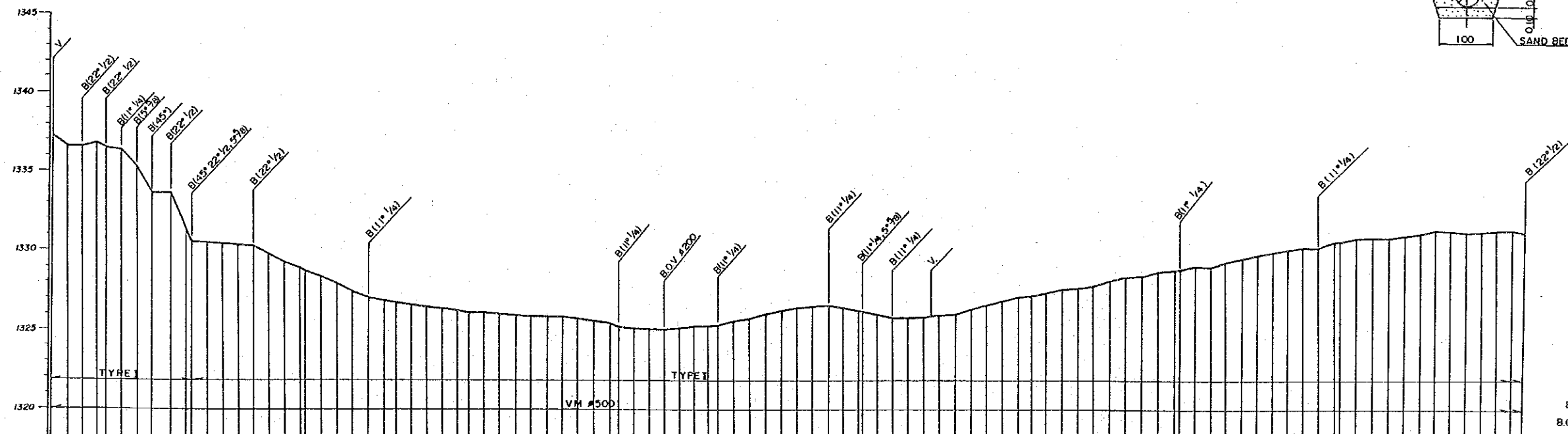
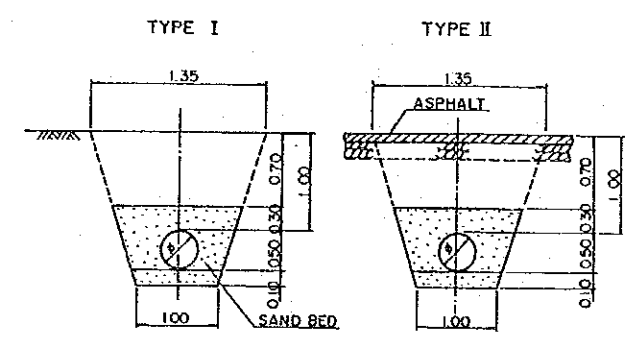
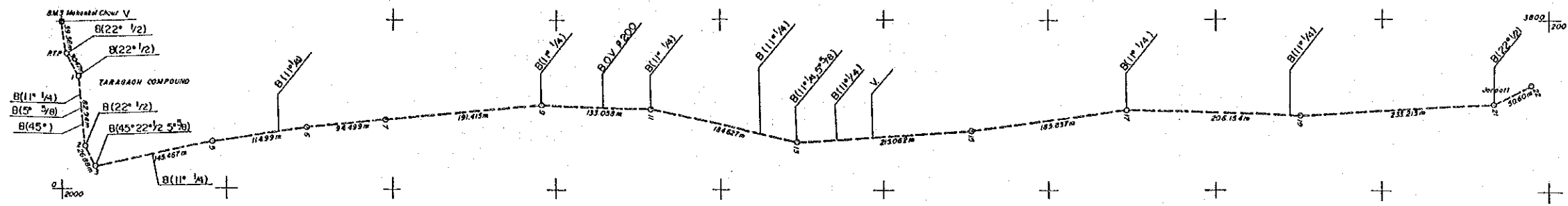
KEY PLAN



SECTION B-B



NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
BALANCING RESERVOIR PLAN AND SECTION			
Date	JULY, 1991	Drawing No.	M-18
JAPAN INTERNATIONAL COOPERATION AGENCY			



PEG NUMBER	PT	1	2	3	5	6	7	9	11	13	15	17	19	21
GAP DISTANCE IN METER	38.38	50.47	82.94	2686	148.467	114.999	34.459	181.415	133.058	184.427	215.062	185.837	206.054	233.213
TOTAL DISTANCE IN METER	38.38	88.85	171.79	178.670	327.137	442.136	476.595	657.990	791.048	925.065	1140.127	1325.964	1532.018	1765.231
EXISTING GROUND LEVEL	1339.371	1338.534	1336.500	1332.790	1328.730	1326.689	1325.238	1325.820	1325.560	1326.770	1327.719	1328.730	1329.676	1331.180
PROPOSED PIPE LINE LEVEL														

- LEGEND**
- B. BEND
 - B.O.V. BLOW OFF VALVE
 - AV AIR VALVE
 - AD AQUE DUKT
 - P.R.V. PRESSURE REDUCING VALVE
 - V VALVE

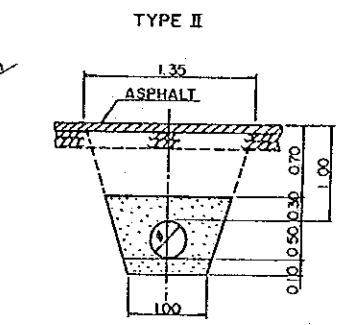
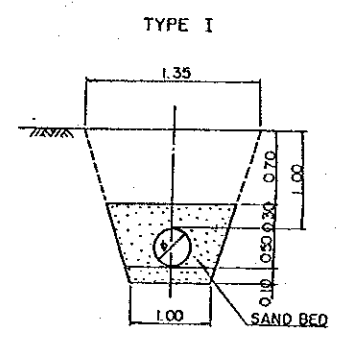
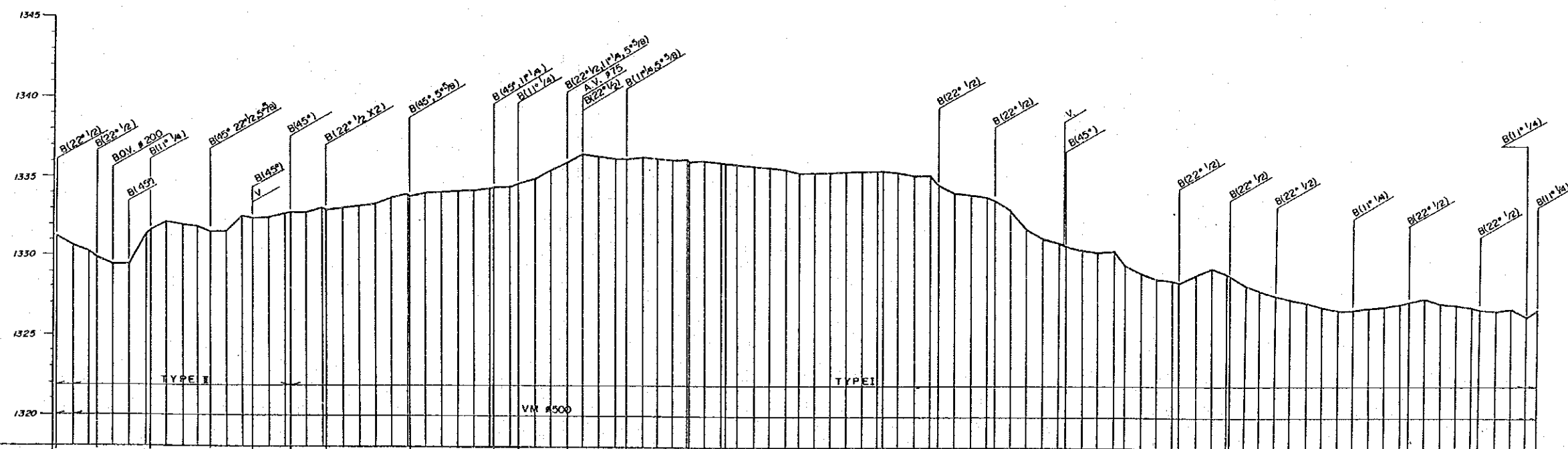
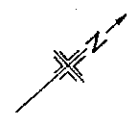
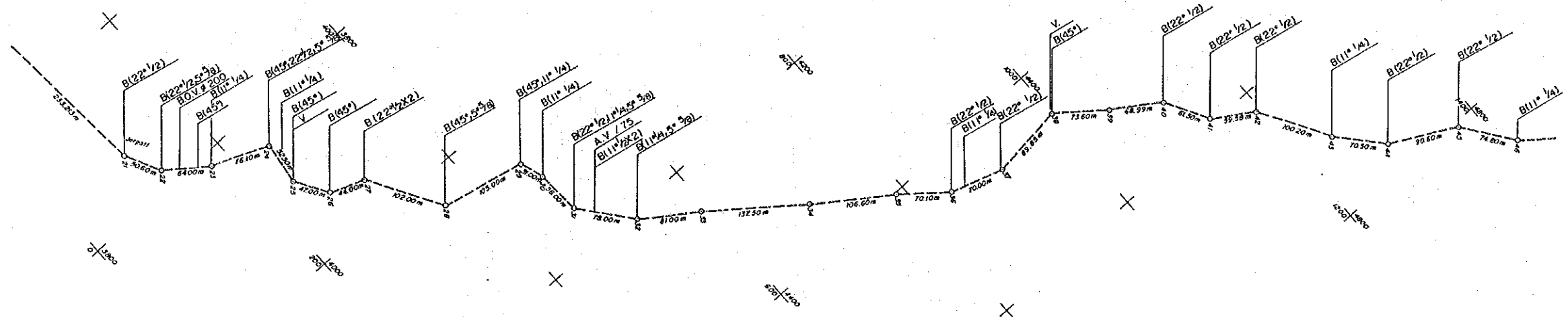
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

CONVEYANCE PIPE
PLAN AND PROFILE (1/5)

Date	JULY, 1991	Drawing No.	M-19
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JAPAN INTERNATIONAL COOPERATION AGENCY



- LEGEND**
- B. BEND
 - BO.V BLOW OFF VALVE
 - AV AIR VALVE
 - AD AQUE DUKT
 - P.R.V PRESSURE REDUCING VALVE
 - V. VALVE

PEG NUMBER	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
GAP DISTANCE IN METER	50.60	64.00	76.10	52.50	47.00	44.00	102.00	103.00	31.00	58.00	78.00	61.00	137.50	104.80	70.10	73.00	89.85	73.60	68.38	61.50	59.58	100.20	70.50	90.60	74.80	
TOTAL DISTANCE IN METER		104.60	170.70	223.20	270.20	314.20	416.20	519.20	550.20	608.20	686.20	747.20	884.70	989.50	1059.60	1132.60	1222.45	1306.05	1374.43	1435.81	1495.39	1595.59	1666.19	1756.79	1847.39	1922.19
EXISTING GROUND LEVEL	1321.80	1329.90	1334.74	1341.62	1345.47	1348.81	1352.96	1355.97	1358.66	1361.89	1365.94	1369.87	1373.57	1377.03	1380.24	1383.24	1386.15	1388.96	1391.67	1394.28	1396.84	1399.35	1401.81	1404.22	1406.58	1408.90
PROPOSED PIPE LINE LEVEL		1329.90	1334.74	1341.62	1345.47	1348.81	1352.96	1355.97	1358.66	1361.89	1365.94	1369.87	1373.57	1377.03	1380.24	1383.24	1386.15	1388.96	1391.67	1394.28	1396.84	1399.35	1401.81	1404.22	1406.58	1408.90

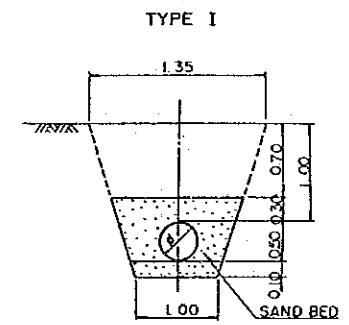
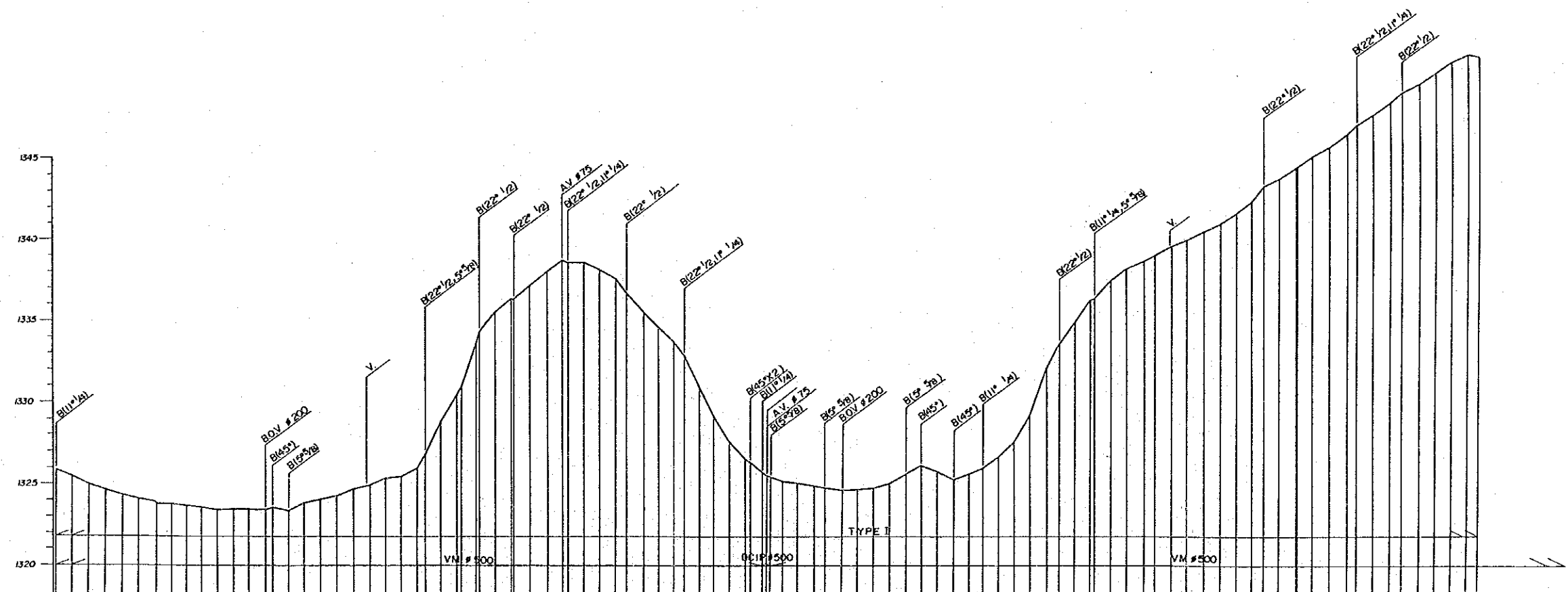
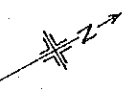
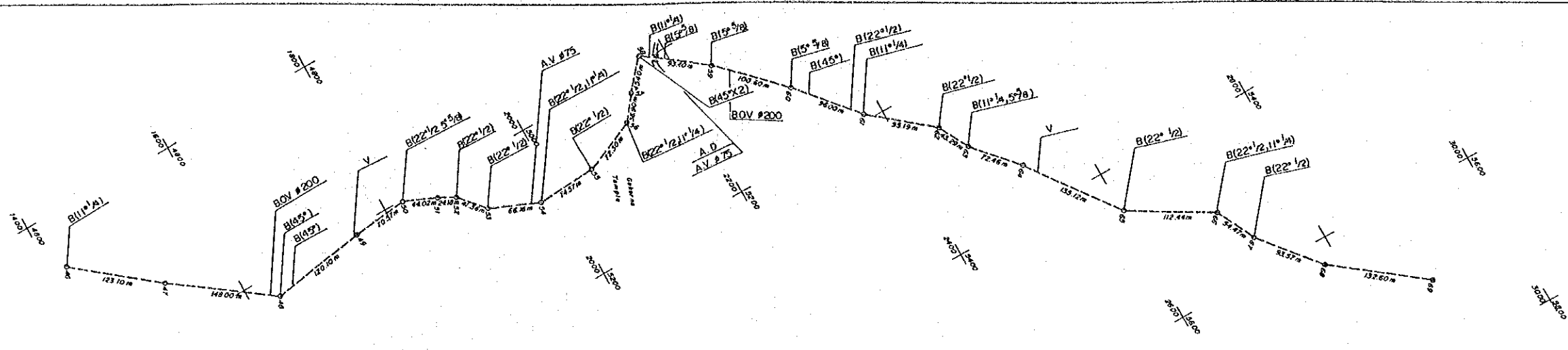
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

CONVEYANCE PIPE
PLAN AND PROFILE (2/5)

Date	JULY, 1991	Drawing No.	M-20
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JAPAN INTERNATIONAL COOPERATION AGENCY



PEG NUMBER	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
GAP DISTANCE IN METER	123.10	148.00	120.10	70.57	44.02	24.10	41.36	66.66	74.57	72.30	36.90	45.40	33.40	100.60	38.00	95.18	43.29	72.16	135.12	112.44	54.47	93.57	
TOTAL DISTANCE IN METER		123.10	271.10	391.67	435.69	459.79	501.15	567.81	642.38	714.68	751.58	796.98	830.38	930.98	968.98	1064.16	1107.45	1179.61	1314.73	1427.17	1481.64	1575.21	1668.78
EXISTING GROUND LEVEL	1325.00	1323.80	1325.00	1326.00	1327.00	1328.00	1329.00	1330.00	1331.00	1332.00	1333.00	1334.00	1335.00	1336.00	1337.00	1338.00	1339.00	1340.00	1341.00	1342.00	1343.00	1344.00	1345.00
PROPOSED PIPE LINE LEVEL	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00	1325.00

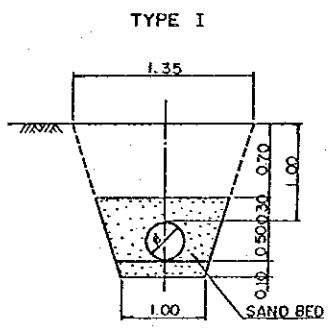
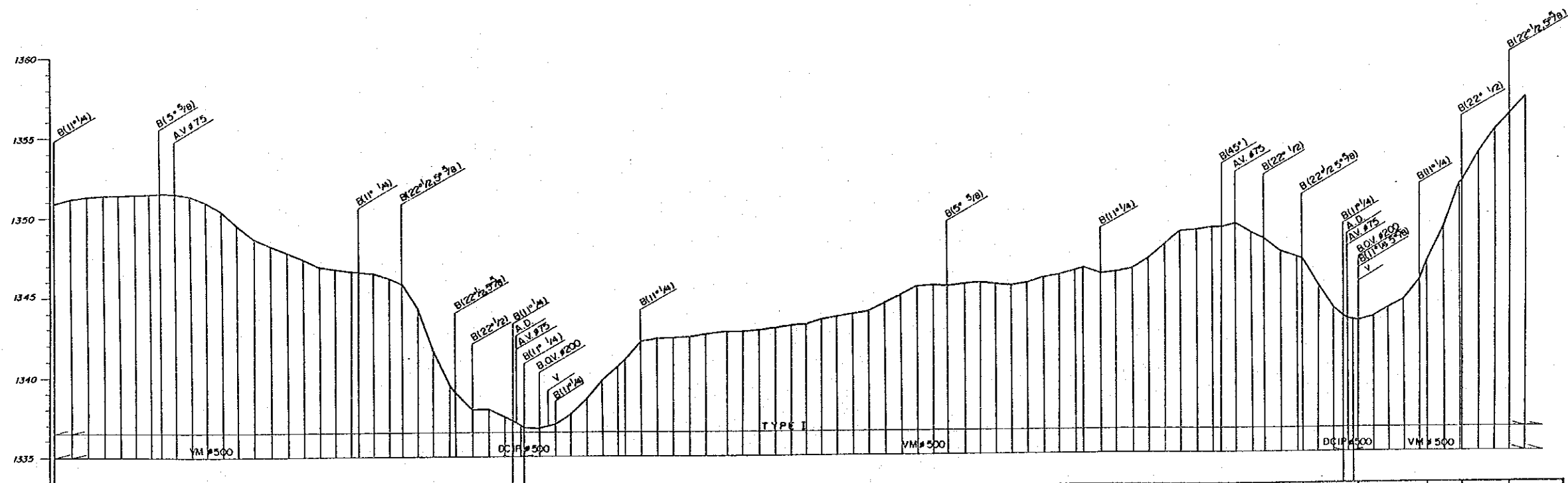
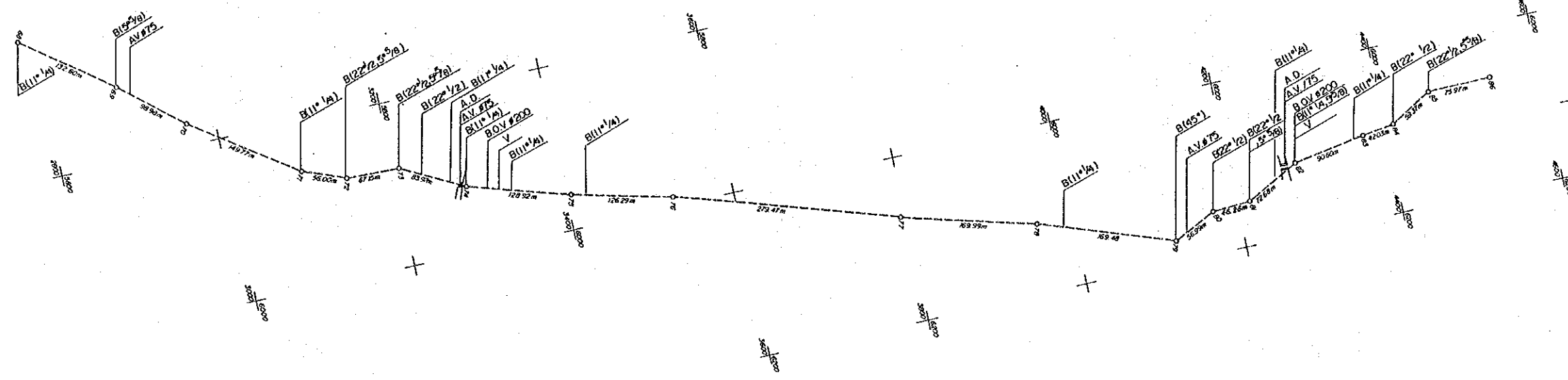
- LEGEND**
- B. BEND
 - B.O.V BLOW OFF VALVE
 - A.V AIR VALVE
 - A.D AQUE DUKT
 - P.R.V PRESSURE REDUCING VALVE
 - V. VALVE

**NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL**

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

**CONVEYANCE PIPE
PLAN AND PROFILE (3/5)**

Date	JULY, 1991	Drawing No.	M-21
JAPAN INTERNATIONAL COOPERATION AGENCY			



- LEGEND**
- B. BEND
 - B.O.V BLOW OFF VALVE
 - AV AIR VALVE
 - A.D AQUE DUKT
 - P.R.V PRESSURE REDUCING VALVE
 - V. VALVE

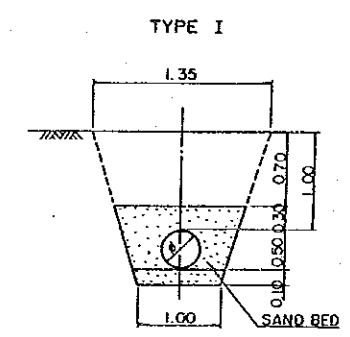
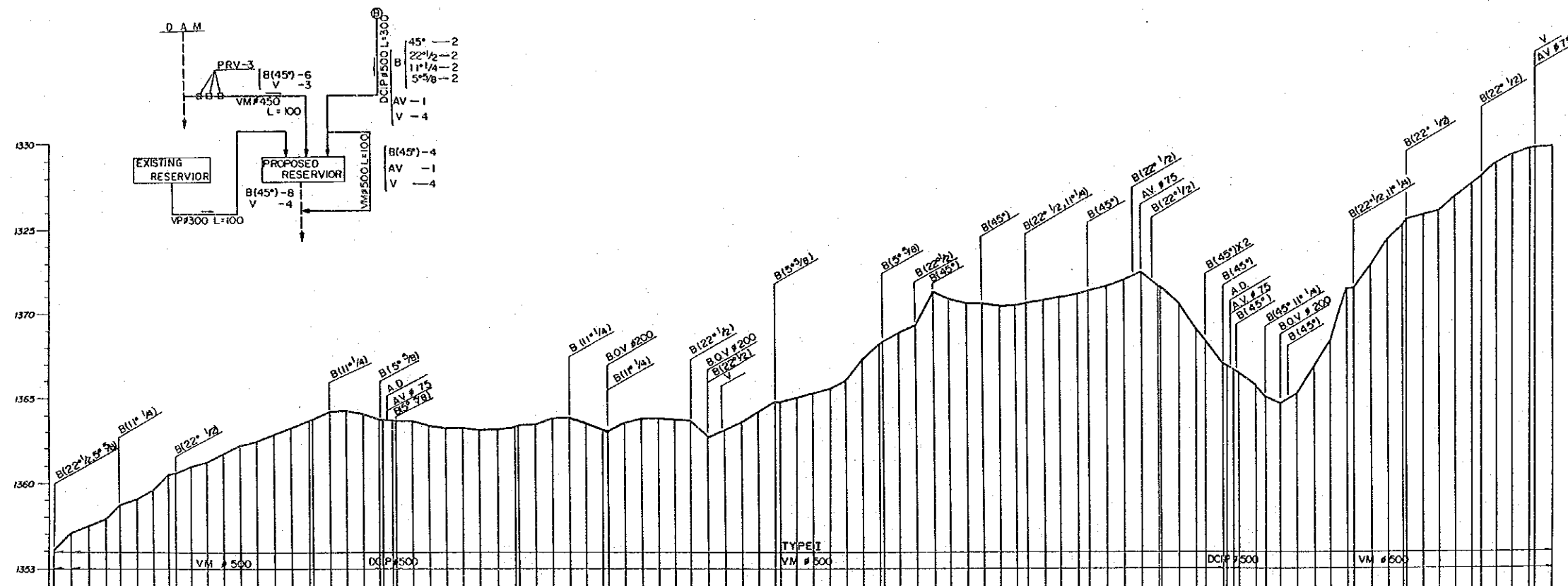
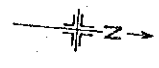
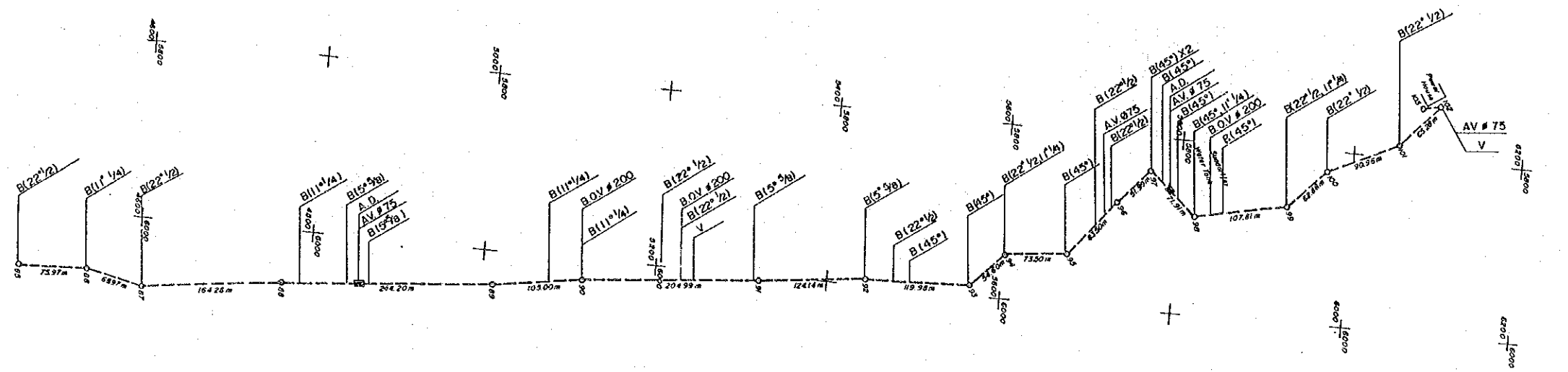
PEG NUMBER	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85
GAP DISTANCE IN METER	132.60	98.98	149.77	56.00	67.13	63.37	120.92	126.29	378.47	169.39	69.48	56.99	46.28	72.65	50.60	42.03	39.37	
TOTAL DISTANCE IN METER	132.60	231.58	381.35	437.35	504.48	567.85	688.77	815.06	1193.53	1362.92	1432.40	1489.39	1536.38	1609.03	1659.63	1701.66	1741.03	1780.40
EXISTING GROUND LEVEL	1350.93	1351.49	1349.47	1346.50	1340.77	1338.64	1336.76	1341.16	1342.94	1345.23	1346.68	1349.04	1346.38	1340.04	1337.83	1336.80	1335.97	1335.00
PROPOSED PIPE LINE LEVEL	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00	1335.00

**NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL**

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

**CONVEYANCE PIPE
PLAN AND PROFILE (4/5)**

Date	JULY, 1991	Drawing No.	M-22
JAPAN INTERNATIONAL COOPERATION AGENCY			



PEG NUMBER	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
GAP DISTANCE IN METER	75.97	68.97	154.28	244.20	103.00	204.99	124.14	119.58	54.60	73.50	85.50	51.99	71.91	107.81	62.88	50.95	69.28	25.60	
TOTAL DISTANCE IN METER																			
EXISTING GROUND LEVEL	1353.56	1358.13	1362.10	1365.87	1369.56	1373.04	1376.28	1379.28	1382.03	1384.53	1386.83	1388.83	1390.53	1391.93	1393.03	1393.83	1394.33	1394.63	1394.73
PROPOSED PIPE LINE LEVEL																			

- LEGEND**
- B BEND
 - BOV BLOW OFF VALVE
 - AV AIR VALVE
 - AD AOU DUKT
 - P.R.V PRESSURE REDUCING VALVE
 - V VALVE

NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

CONVEYANCE PIPE
PLAN AND PROFILE (5/5)

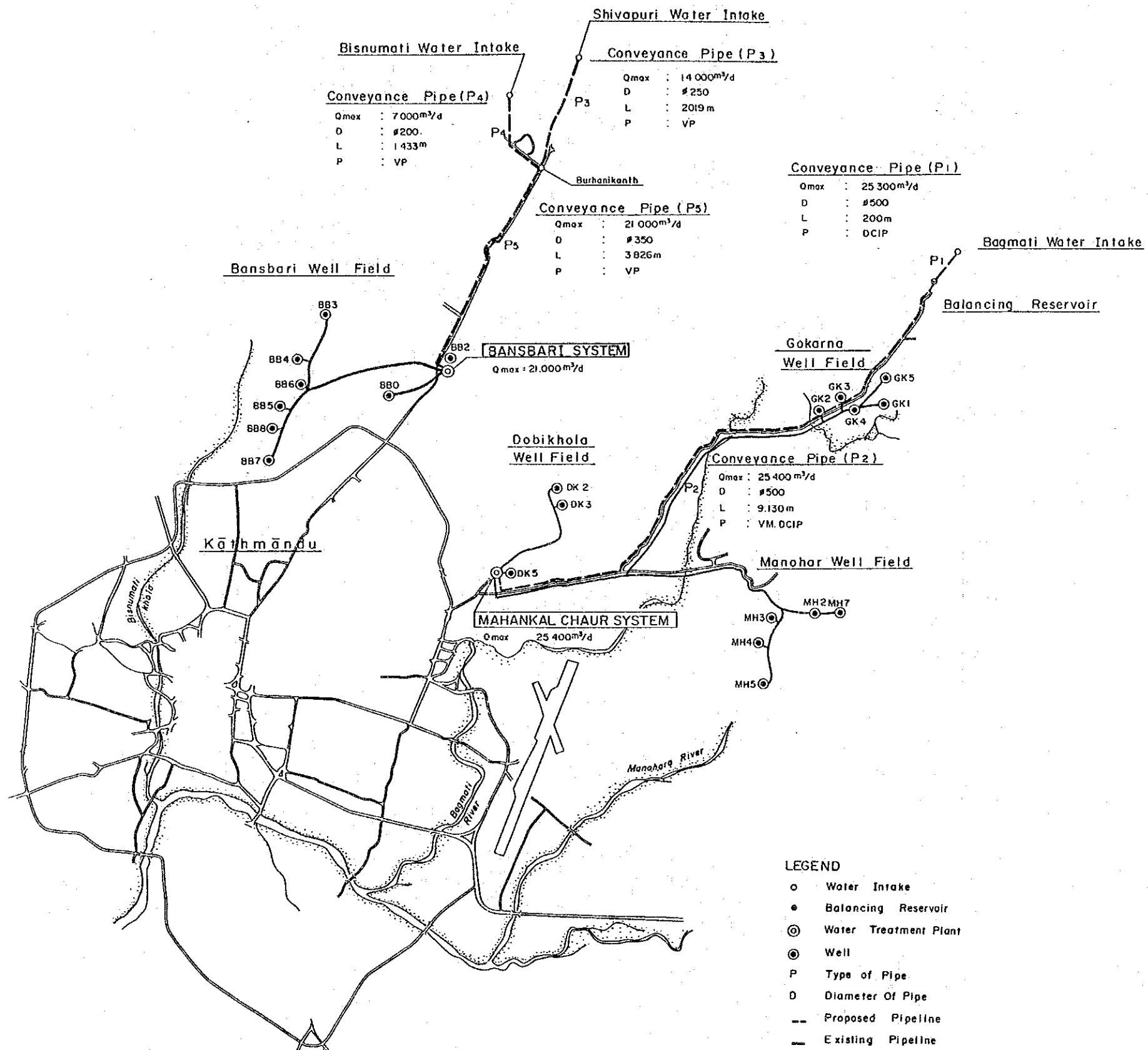
Date	JULY, 1991	Drawing No.	M-23
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JAPAN INTERNATIONAL COOPERATION AGENCY

(2) バンスバリ・プロジェクト

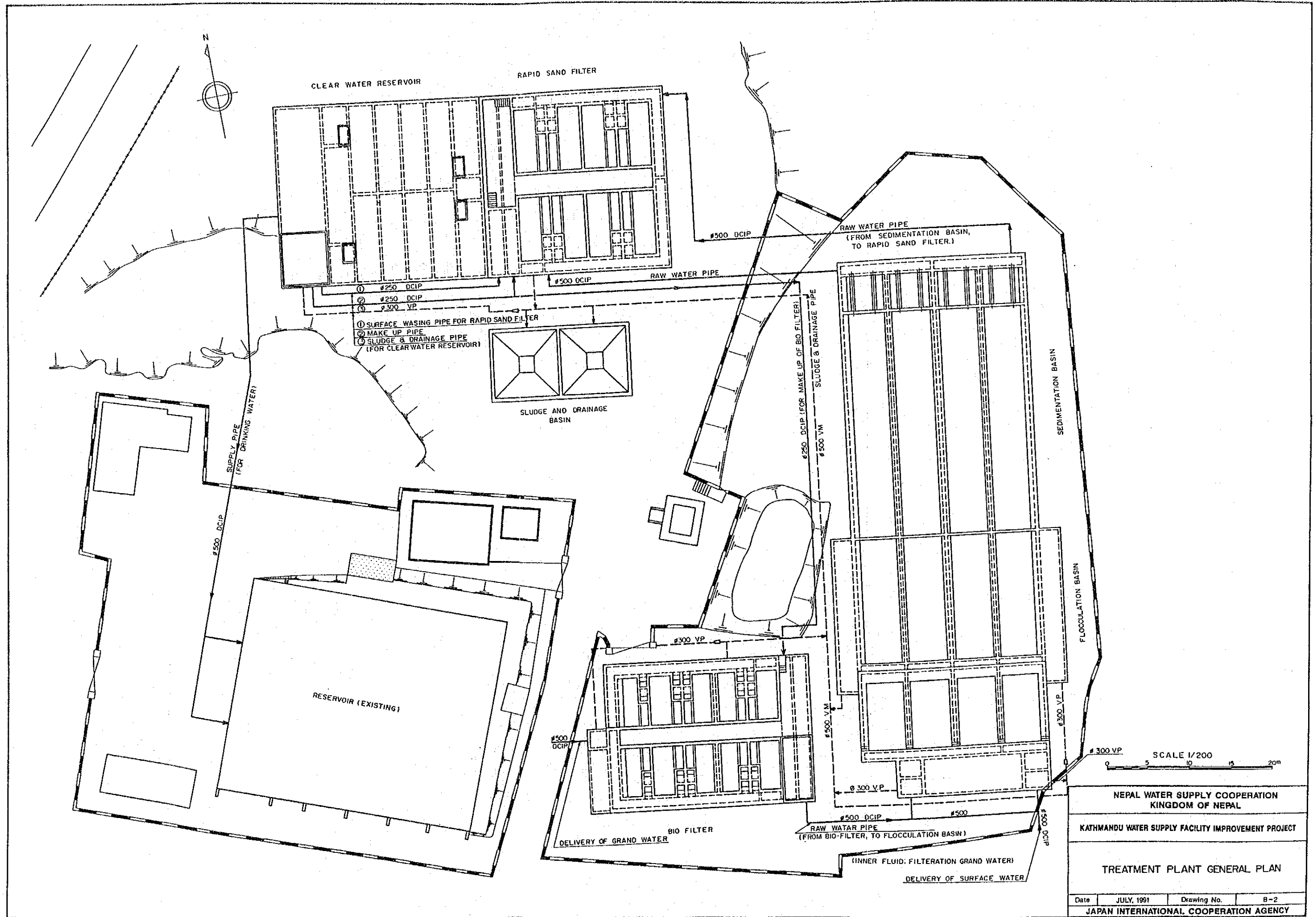
図面番号	図面名称
B-1.	一般計画平面図
B-2.	浄水場一般平面図
B-3.	浄水場水位高低図
B-4.	生物ろ過池構造図
B-5.	沈澱池構造図
B-6.	急速ろ過池構造平面図
B-7.	急速ろ過池構造断面図
B-8.	浄水池構造図
B-9.	浄水設備流れ図
B-10.	凝集剤溶解注入システム流れ図
B-11.	アルカリ剤溶解注入システム流れ図
B-12.	さらし粉溶解注入システム流れ図
B-13.	電気設備一般図
B-14.	受変電設備図
B-15.	動力制御盤及び配線一覧表
B-16.	導水管平面図および縦断図 (1/5)
B-17.	導水管平面図および縦断図 (2/5)
B-18.	導水管平面図および縦断図 (3/5)
B-19.	導水管平面図および縦断図 (4/5)
B-20.	導水管平面図および縦断図 (5/5)

GENERAL PLAN



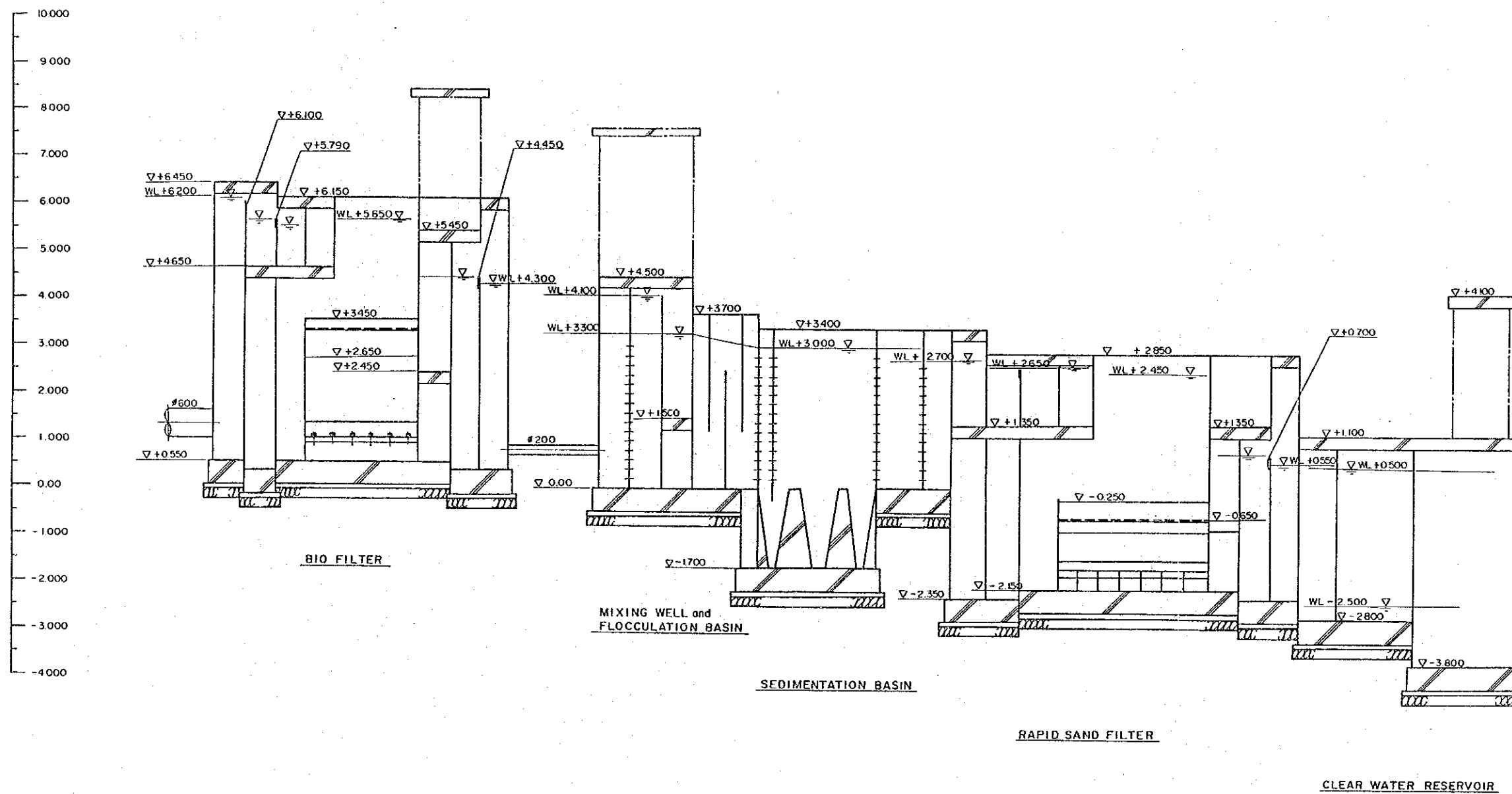
- LEGEND**
- Water Intake
 - Balancing Reservoir
 - ⊙ Water Treatment Plant
 - ⊙ Well
 - P Type of Pipe
 - D Diameter Of Pipe
 - Proposed Pipeline
 - Existing Pipeline

NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
GENERAL PLAN			
Date	JULY, 1991	Drawing No.	B-1
JAPAN INTERNATIONAL COOPERATION AGENCY			

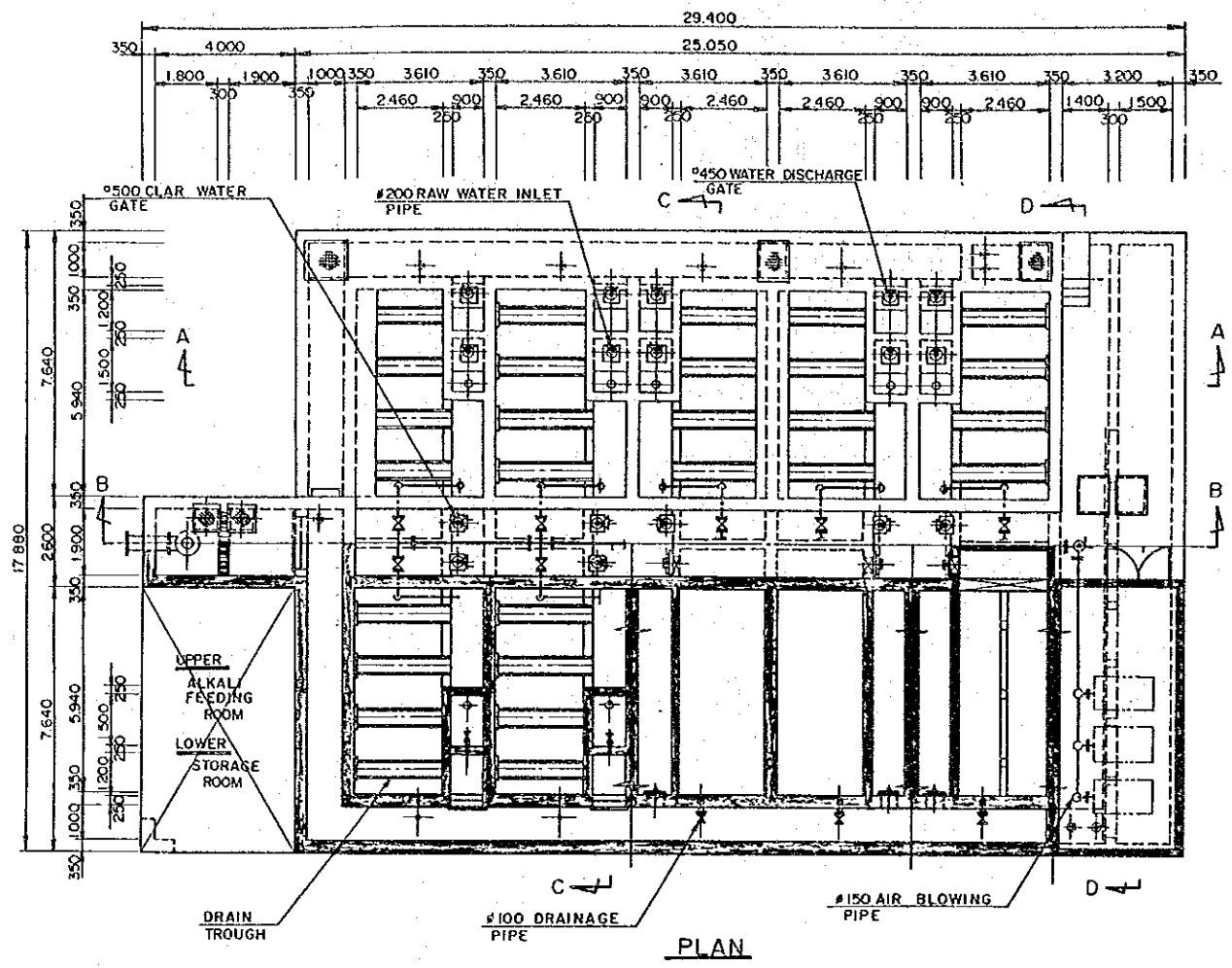


NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
TREATMENT PLANT GENERAL PLAN			
Date	JULY, 1991	Drawing No.	B-2
JAPAN INTERNATIONAL COOPERATION AGENCY			

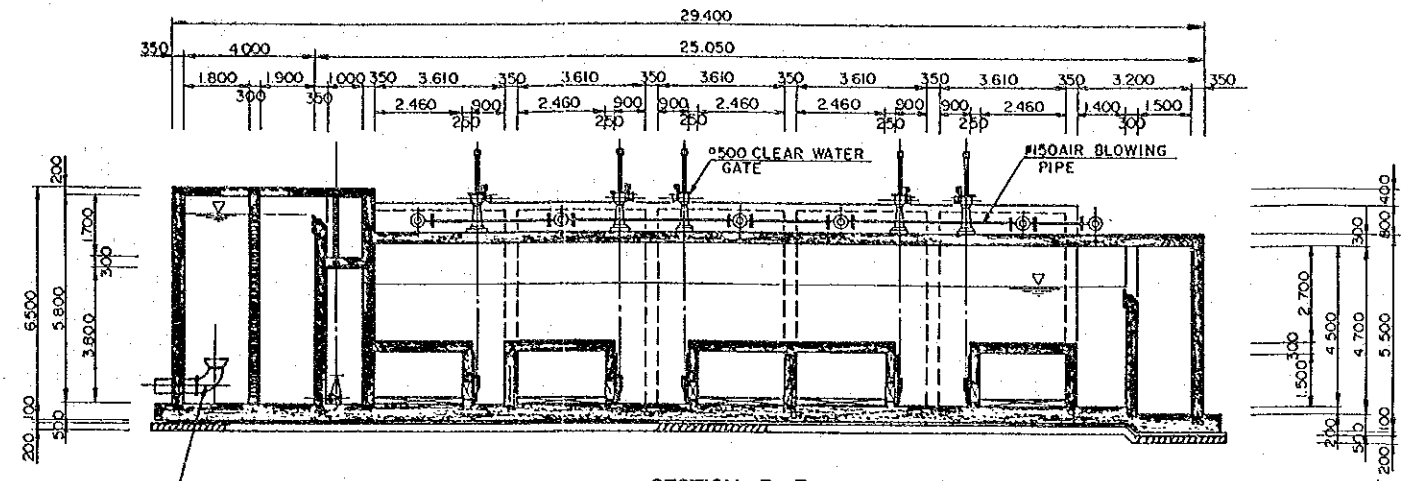
DIFFERENCE IN WATER LEVELS OF TREATMENT PLANT



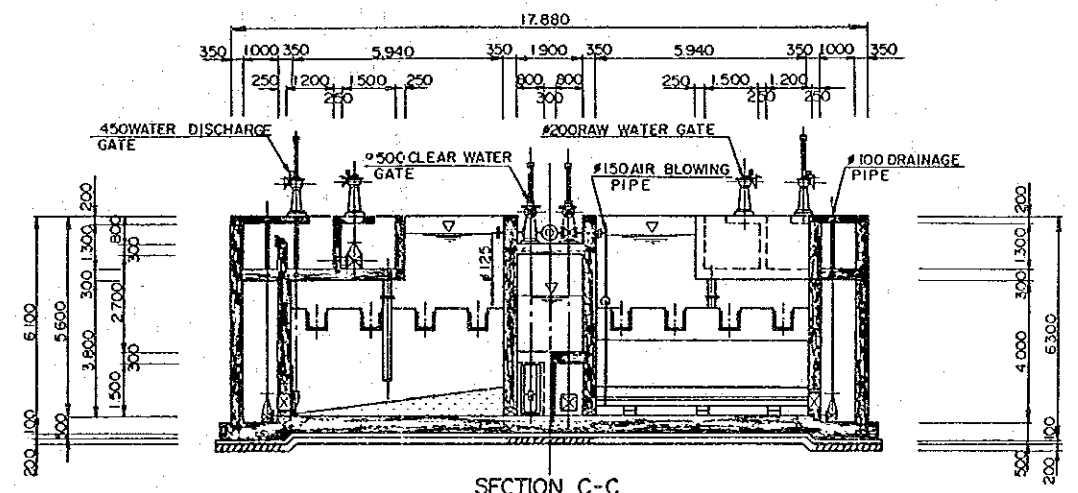
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
DIFFERENT IN WATER LEVEL OF TREATMENT PLANT			
Date	JULY, 1991	Drawing No.	8-3
JAPAN INTERNATIONAL COOPERATION AGENCY			



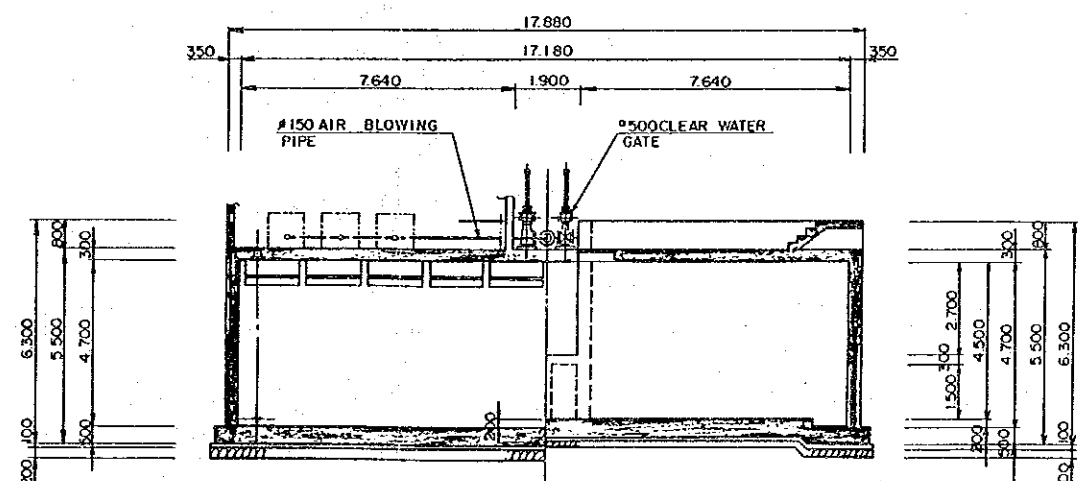
PLAN



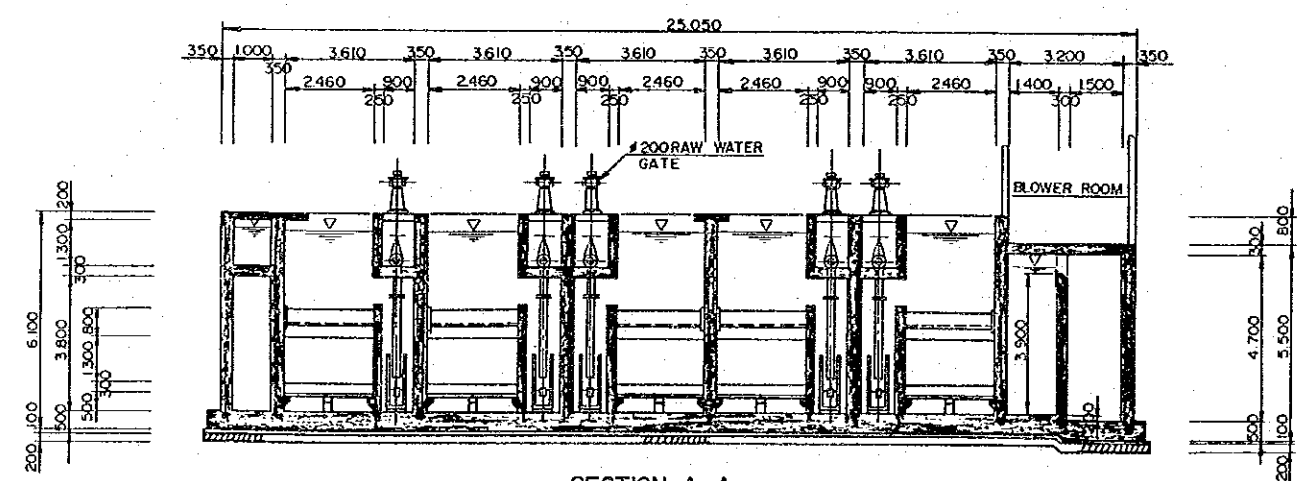
SECTION B-B



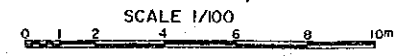
SECTION C-C



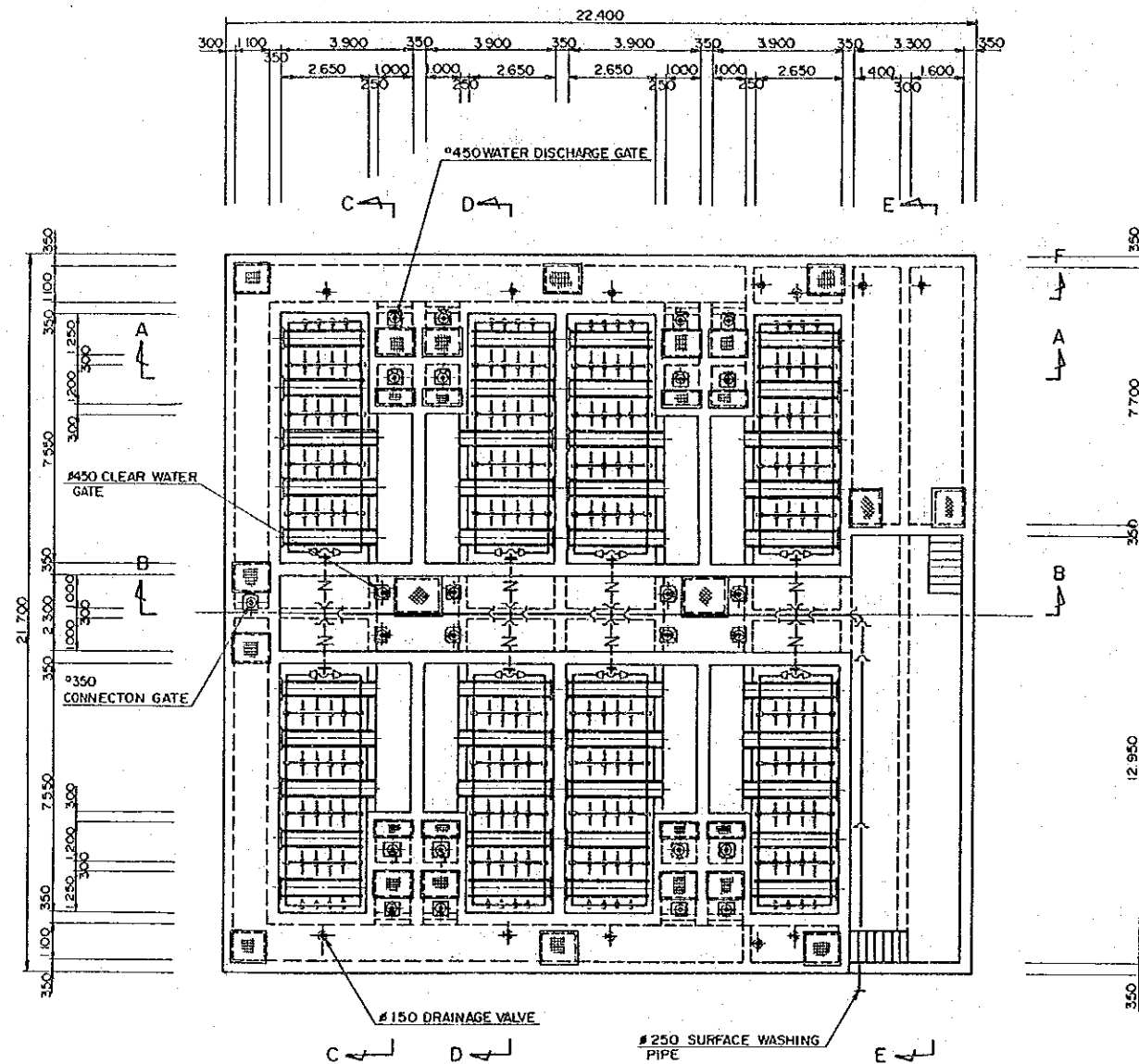
SECTION D-D



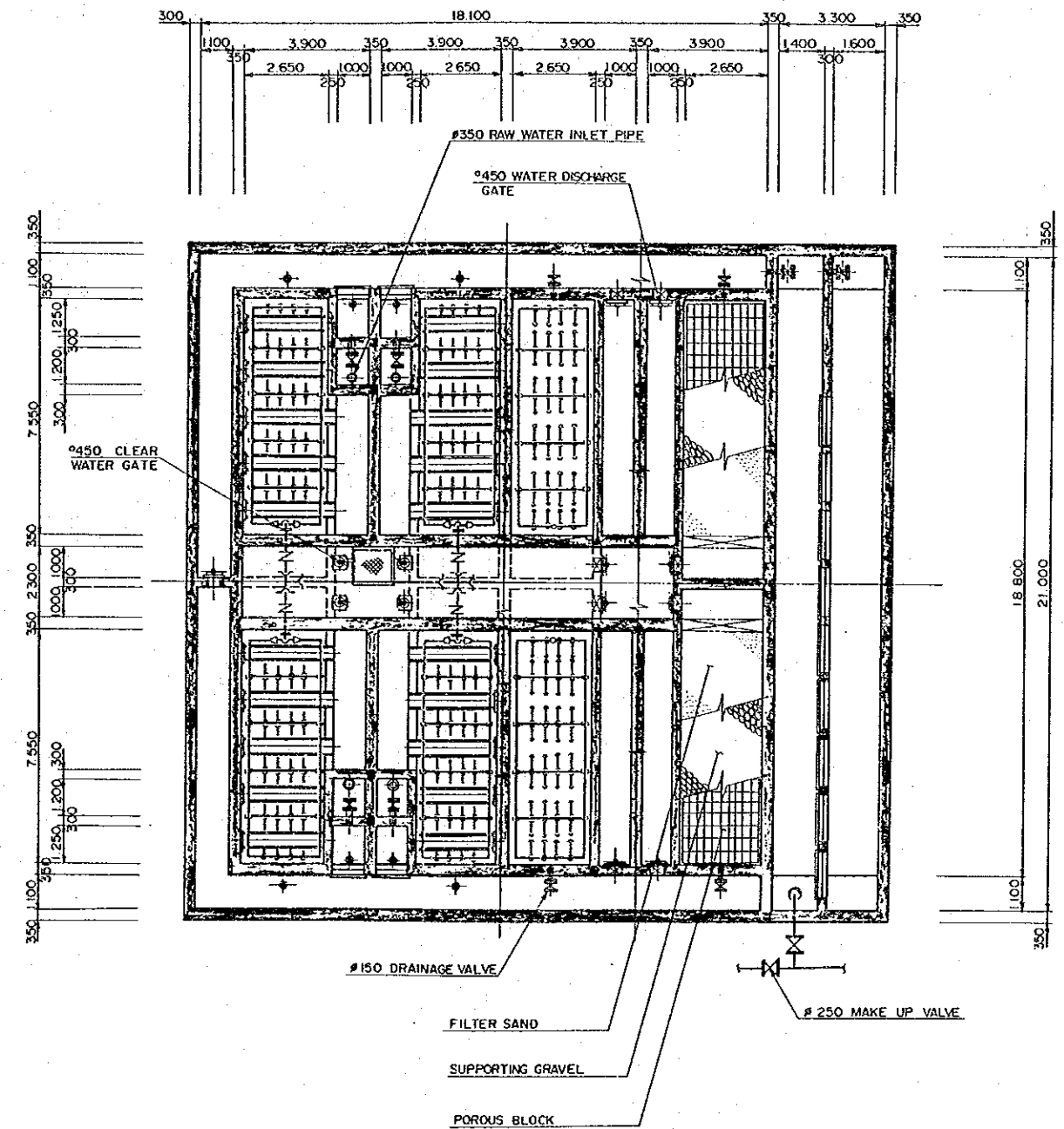
SECTION A-A



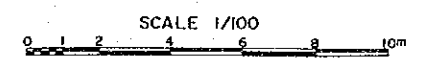
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
BIO FILTER PLAN AND SECTION			
Date	JULY, 1991	Drawing No.	B-4
JAPAN INTERNATIONAL COOPERATION AGENCY			



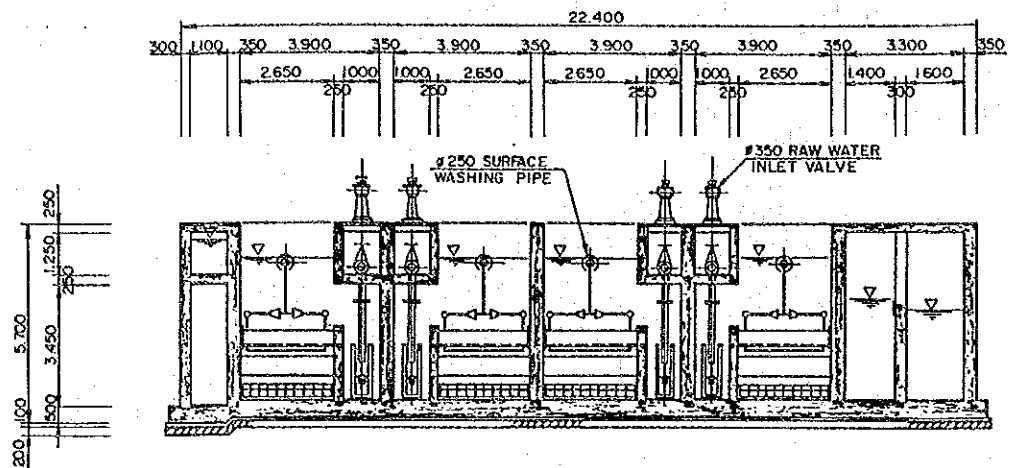
PLAN



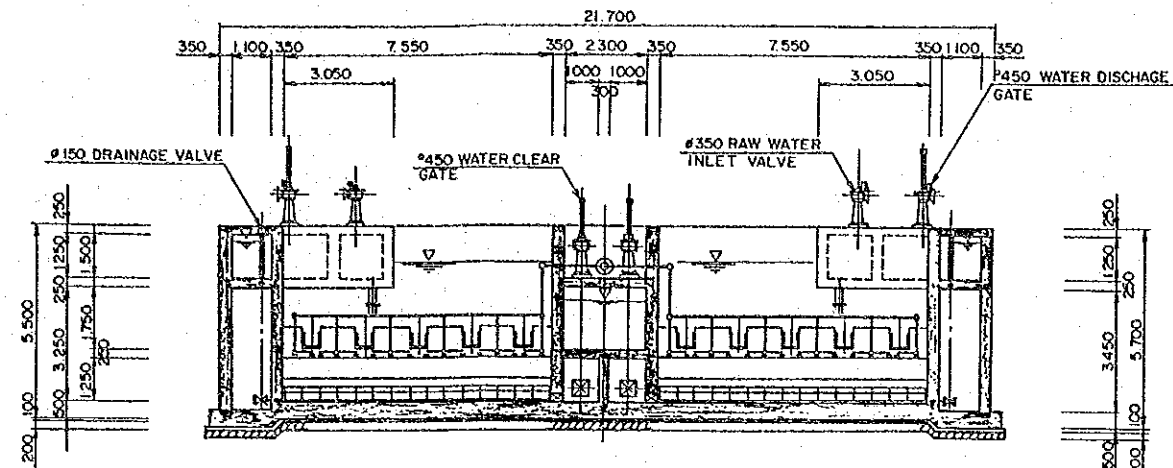
PLAN



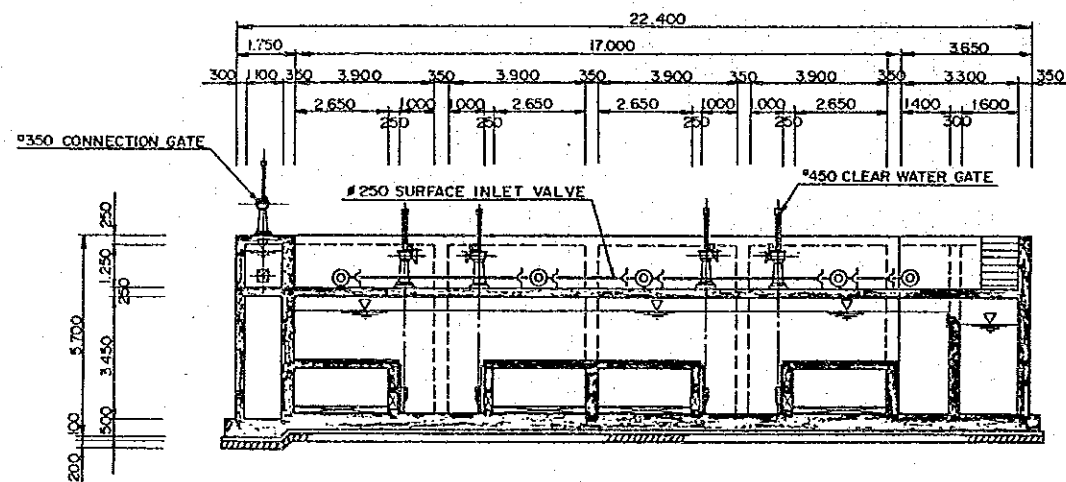
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
RAPID SAND FILTER PLAN			
Date	JULY, 1991	Drawing No.	B-6
JAPAN INTERNATIONAL COOPERATION AGENCY			



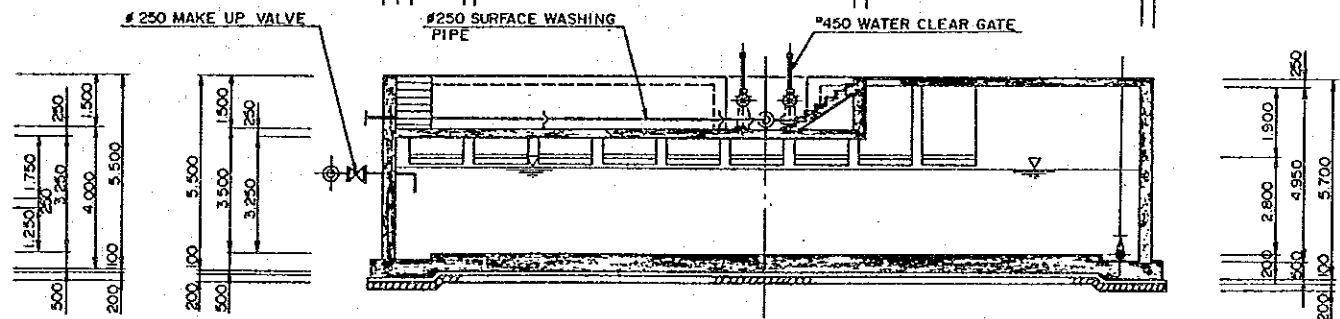
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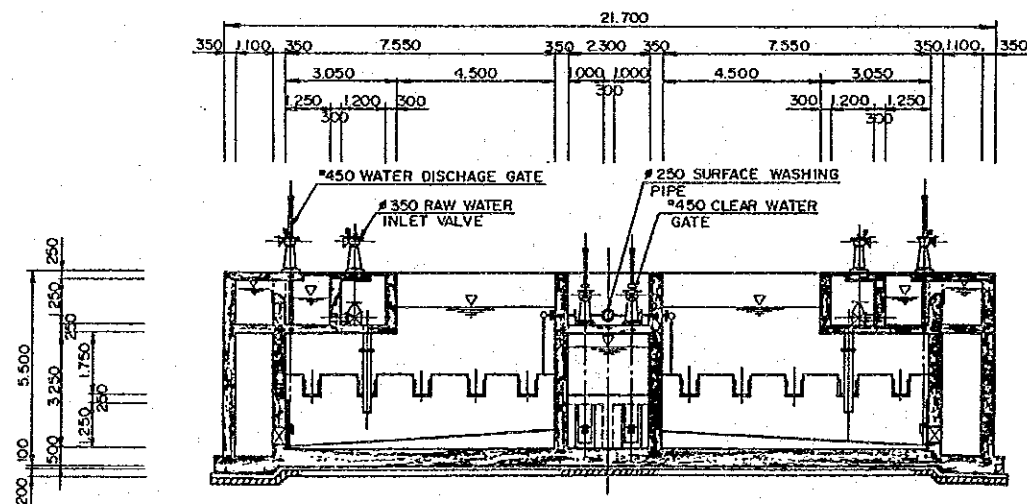
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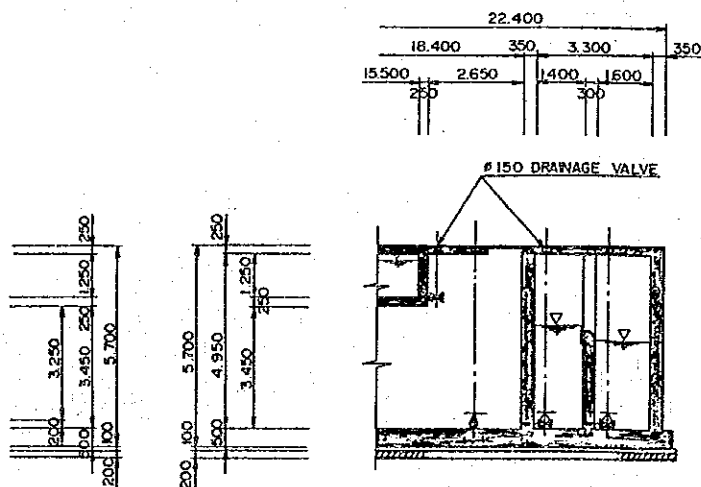
SECTION B-B



SECTION E-E



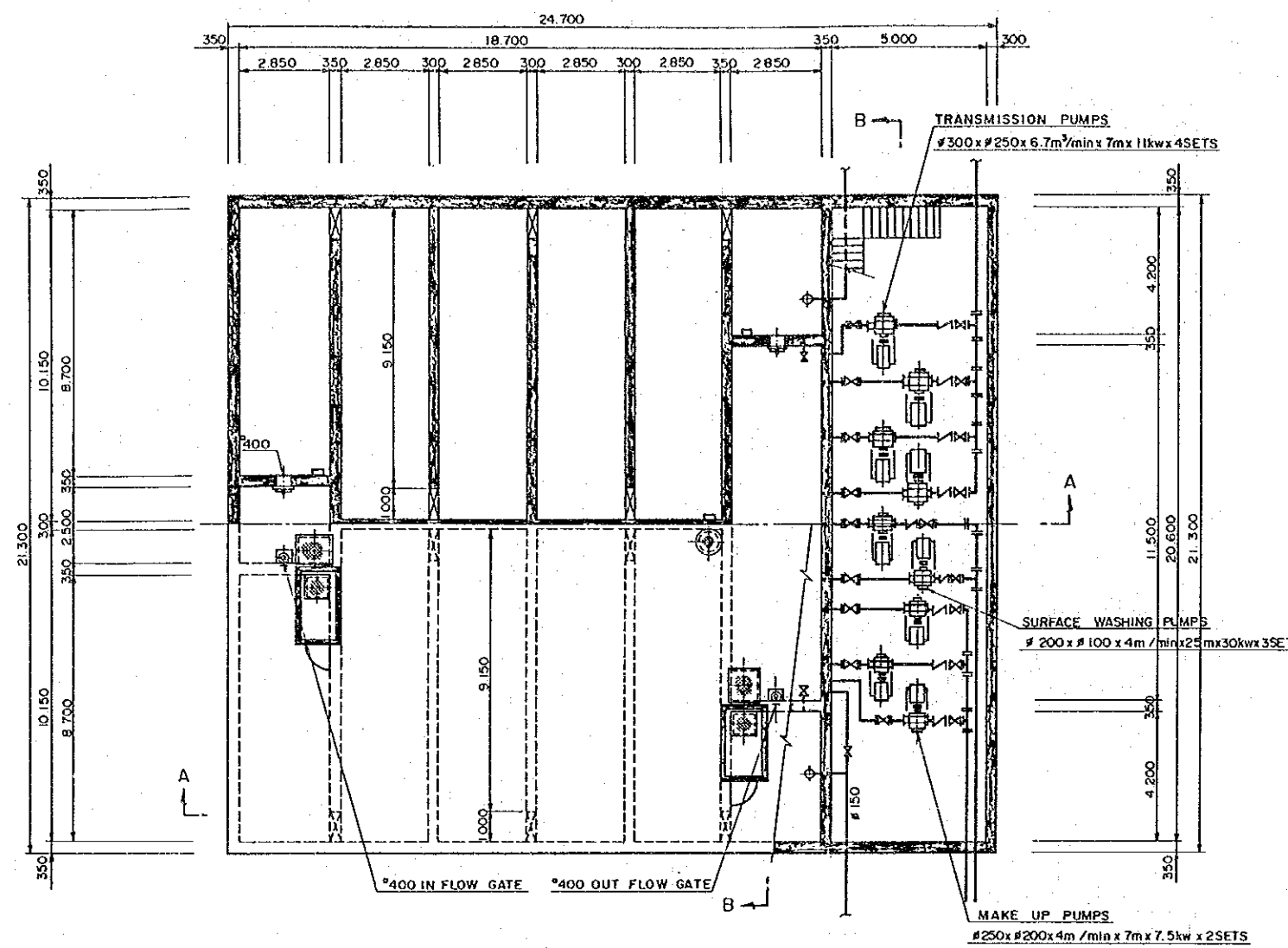
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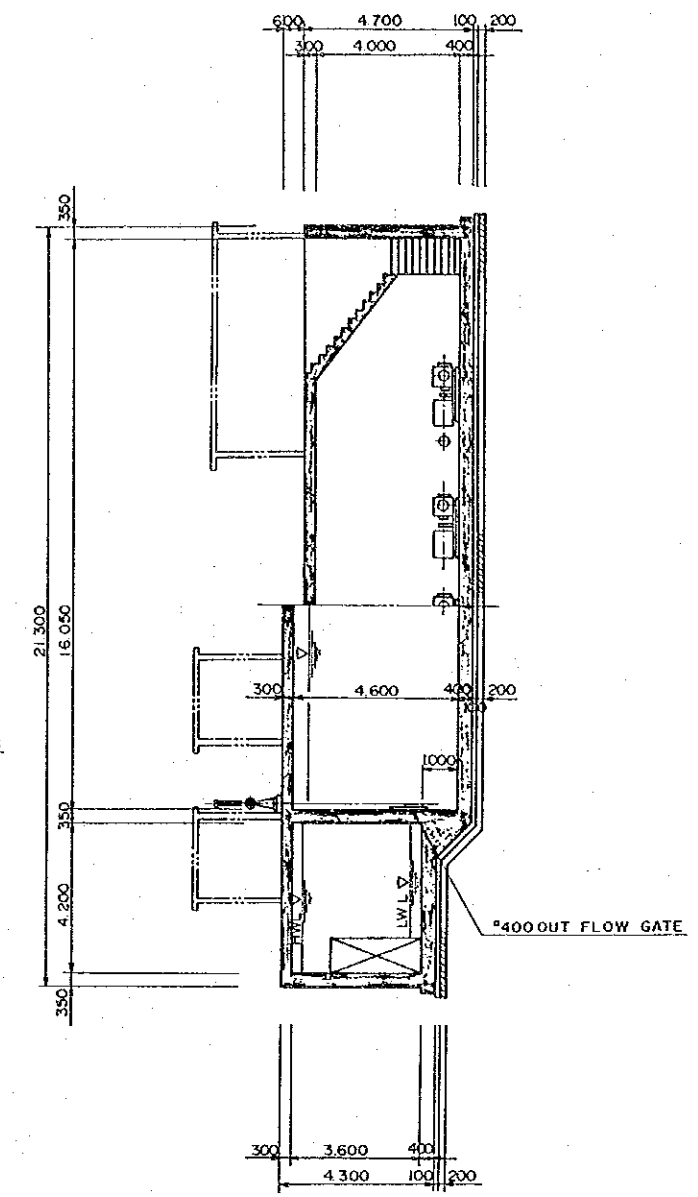
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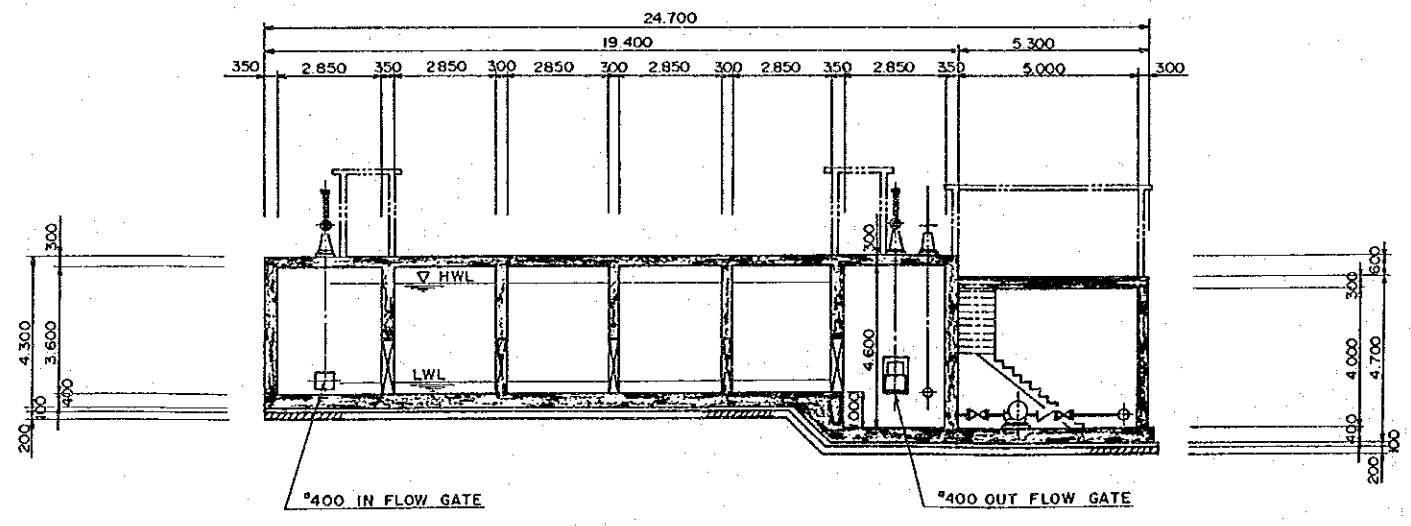
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
RAPID SAND FILTER SECTION			
Date	JULY, 1991	Drawing No.	B-7
JAPAN INTERNATIONAL COOPERATION AGENCY			



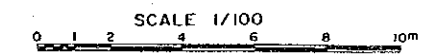
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SECTION B-B

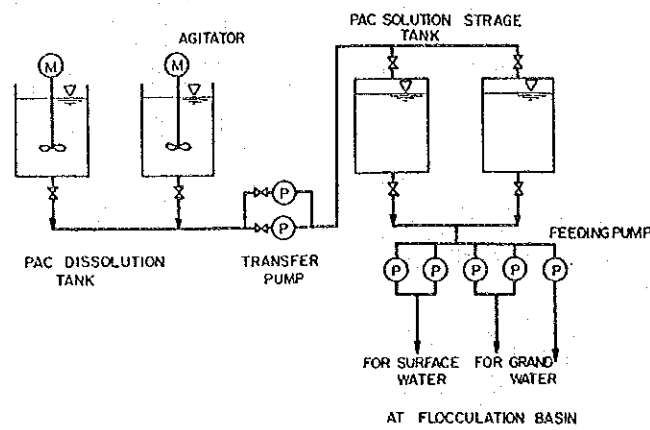


SECTION A-A

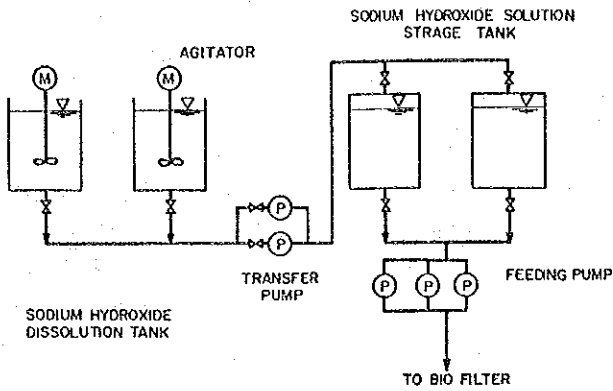


NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
CLEAR WATER RESERVOIR PLAN AND SECTION			
Date	JULY, 1991	Drawing No.	B-8
JAPAN INTERNATIONAL COOPERATION AGENCY			

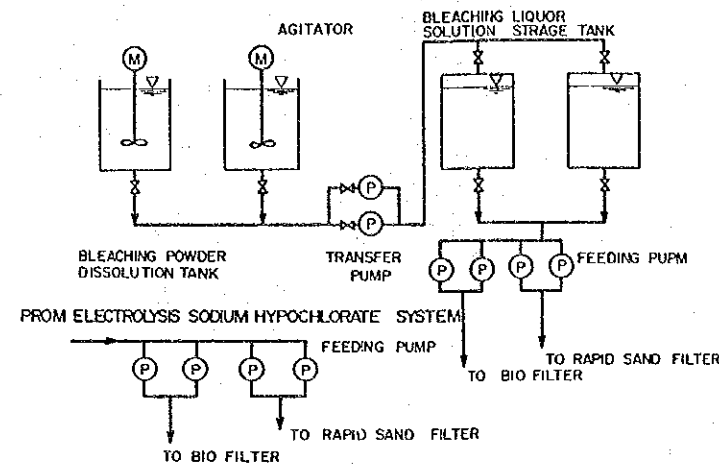
AGGLUTINATION REAGENT FEEDING SYSTEM
PAC(SOLID) FEEDING SYSTEM



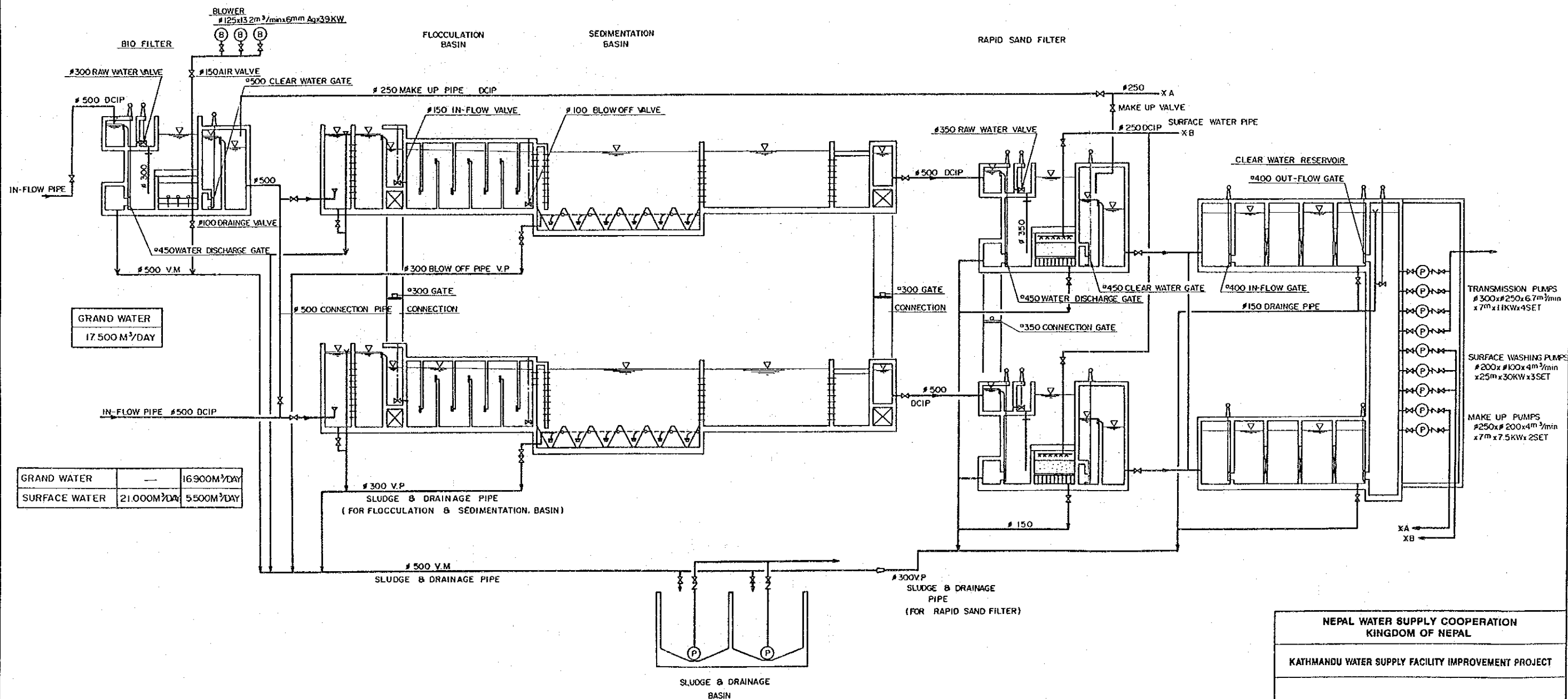
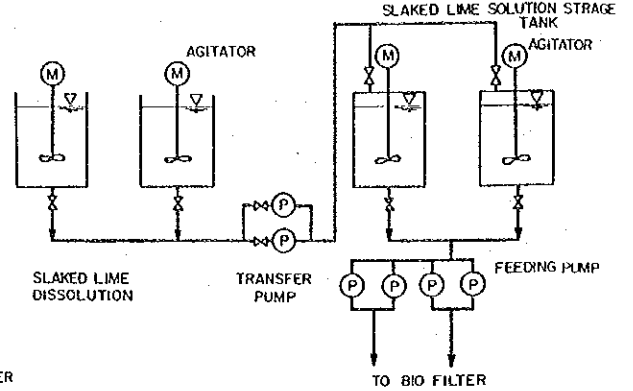
ALKALI REAGENT FEEDING SYSTEM (1)
SODIUM HYDROXIDE FEEDING SYSTEM



CHLORINATION SYSTEM
BLEACHING POWDER FEEDING SYSTEM



ALKALI REAGENT FEEDING SYSTEM (2)
SLAKED LIME FEEDING SYSTEM

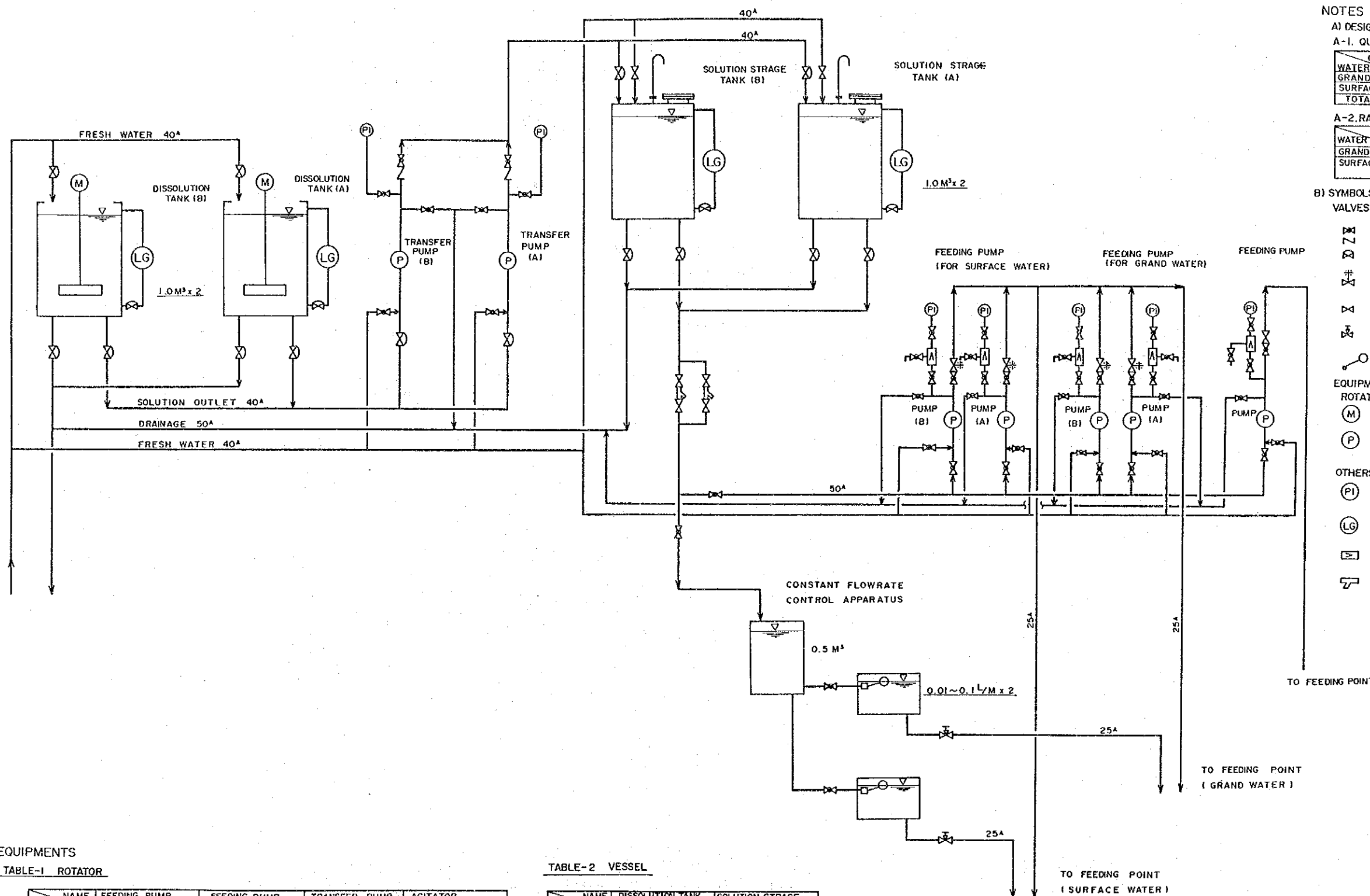


**NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL**

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

FLOW SHEET

Date	JULY, 1991.	Drawing No.	8-9
JAPAN INTERNATIONAL COOPERATION AGENCY			



NOTES

A) DESIGN ITEMS

A-1. QUANTITY OF FLOW

CASE	1	2
WATER		
GRAND	16,900m ³ /day	—
SURFACE	5,500m ³ /day	21,000m ³ /day
TOTAL	22,400m ³ /day	21,000m ³ /day

A-2. RATE OF FEEDING

ITEM	SEASON	MEAN	MAXIMUM
WATER			
GRAND	—	15.6mg/l	—
SURFACE	RAIN-FALL	22.2mg/l	40mg/l
	DRY	15.6mg/l	—

B) SYMBOLS

VALVES

- BALL VALVE
- CHECK VALVE
- DIAPHRAGM VALVE
- BACK PRESSURE REGULATION VALVE
- GATE VALVE
- FLOW CONTROL VALVE
- BALL TAP

EQUIPMENTS

ROTATOR

- MOTOR
- PUMP

OTHERS

- PRESSURE GAUGE
- LEVEL GAUGE
- AIR CHAMBER
- Y-TYPE STRAINER

EQUIPMENTS

TABLE-1 ROTATOR

ITEM	FEEDING PUMP	FEEDING PUMP	TRANSFER PUMP	AGITATOR
NAME	DIAPHRAGM	DIAPHRAGM	MAGNET	OSCILLATION
TYPE	DIAPHRAGM	DIAPHRAGM	MAGNET	OSCILLATION
ELECTRICAL	0.2KWx200Vx50Hz	0.2KWx200Vx50Hz	0.4KWx200Vx50Hz	2.2KWx200Vx50Hz
CAPACITY	1.7 l/min	0.85 l/min	40 l/min x 12m	196 cpm
QUANTITY	1	4	2	2
SIZE	10A	10A	25A	—
TAG NO		A, B, C, D	A, B	A, B
DESCRIPTION		FEEDING FOR GRAND WATER & SURFACE WATER	TRANSFER OF PAC SOLUTION	AGITATOR OF PAC HYDROLYSIS

TABLE-2 VESSEL

ITEM	DISSOLUTION TANK	SOLUTION STRAGE TANK
NAME	DISSOLUTION TANK	SOLUTION STRAGE TANK
TYPE	ROUND-VERTICAL	ROUND-VERTICAL
CAPACITY	0.5 m ³	1.0 m ³
SIZE	φ890mm x H1040mm	φ1140mm x H2000mm
MATERIAL	PE	PE
QUANTITY	2	2
TAG NO	A, B	A, B
DESCRIPTION	OPEN TYPE PAC(SOLID) HYDROLYSIS	CLOSE TYPE STRAGE OF PAC SOLUTION

NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

FLOW DIAGRAM OF PAC FEEDING SYSTEM

Date JULY, 1991 Drawing No. B-10

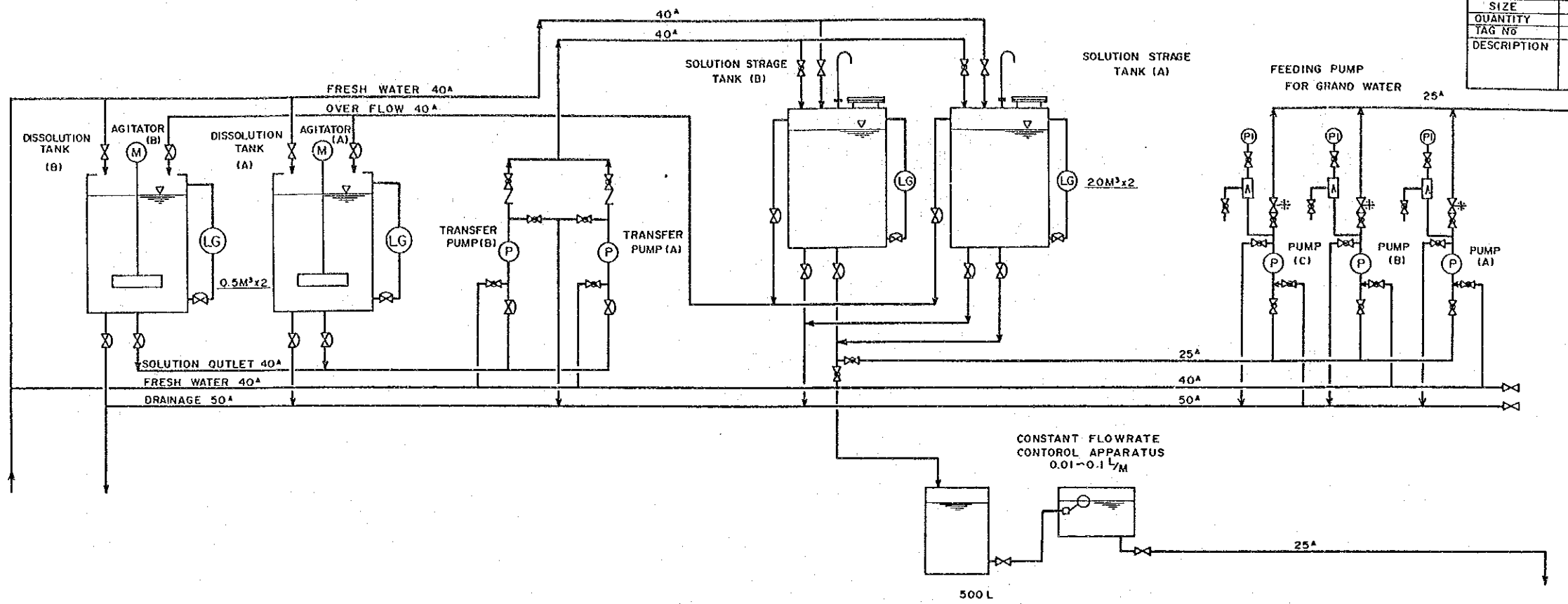
JAPAN INTERNATIONAL COOPERATION AGENCY

NOTE A) EQUIPMENTS

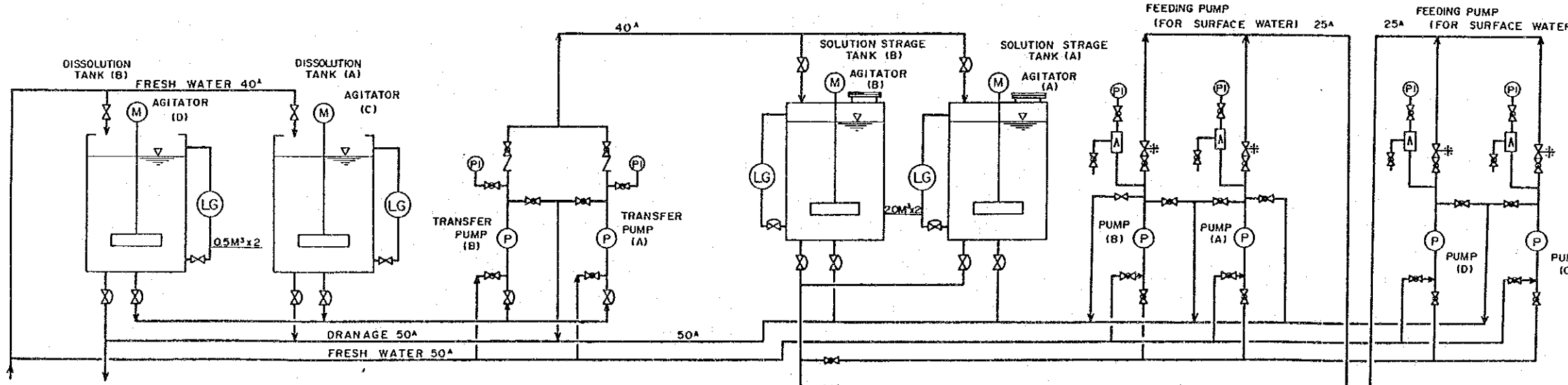
ITEM	FEEDING PUMP	SOLUTION STRAGE TANK
NAME	DIAPHRAGM	ROUND - VERTICAL
TYPE	0.2KW x 200V x 50Hz	2.0m ³
ELECTRICAL CAPACITY	0.85 1/min	2.0m ³
SIZE	10 A	φ 1400mm x H 1580mm
QUANTITY	3	2
TAG N ^o	A, B, C	A, B
DESCRIPTION		MATERIAL PE

NOTE OTHER EQUIPMENTS SEE SHEET OF FLOW DIAGRAM SODIUM HYPOCHLORATE

B) DESIGN ITEM
 B-1. QUANTITY OF FLOW
 GRAND WATER 17,600m³/day
 B-2. RATE OF FEEDING
 MEAN 20mg/l



FLOW DIAGRAM FOR SLAKED LIME FEEDING



NOTE A) EQUIPMENTS

ITEM	TRANSFER PUMP	FEEDING PUMP	AGITATOR	SOLUTION STRAGE TANK
NAME	MAGNET	DIAPHRAGM	OSCILLATION	ROUND - VERTICAL
TYPE	3.7KW x 200V x 50Hz	0.2KW x 200V x 50Hz	2.2KW x 200V x 50Hz	2.0m ³
ELECTRICAL CAPACITY	40 1/min x 12m	0.85 1/min 0.50 1/min	196 cpm	2.0m ³
SIZE	25 A	10 A 10 A	-	φ 1400mm x H 1580mm
QUANTITY	2	2	4	2
TAG N ^o	A, B	A, B C, D	A, B, C, D	A, B
DESCRIPTION	TRANSFER OF SLAKED LIME Sol.	FOR SURFACE WATER	AGITATOR OF SLAKED LIME HYDROLYSIS	STRAGE OF SLAKED LIME SOLUTION

B) DESIGN ITEMS

B-1. QUANTITY OF FLOW

WATER ITEM	MINIMUM	MAXIMUM
SURFACE	5,500 m ³ /day	21,000 m ³ /day

B-2. RATE OF DOSING

WATER ITEM	SEASON	MEAN
SURFACE	RAIN-FALL DRY	20mg/l 5mg/l

NOTE OTHER EQUIPMENTS (DISSOLUTION TANK, etc) SEE SHEET OF FLOW DIAGRAM SODIUM HYPOCHLORATE.

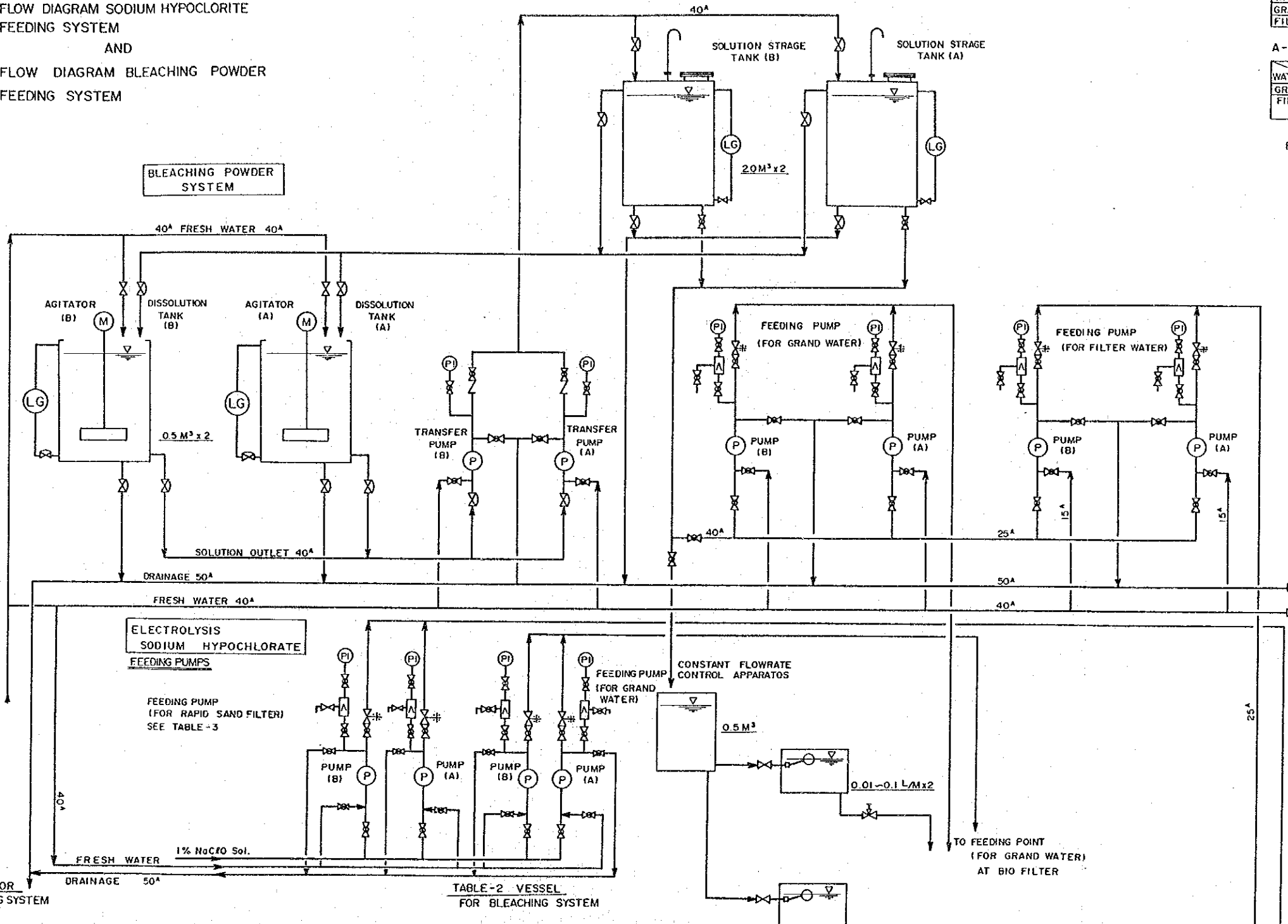
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

FLOW DIAGRAM OF SOLIDUM HYPOCHIORITE FEEDING SYSTEM

Date JULY, 1991 Drawing No. B-11 JAPAN INTERNATIONAL COOPERATION AGENCY

BANSBARY
FLOW DIAGRAM SODIUM HYPOCHLORITE
FEEDING SYSTEM
AND
FLOW DIAGRAM BLEACHING POWDER
FEEDING SYSTEM



NOTES

A) DESIGN ITEMS
A-1. QUANTITY OF FLOW

ITEM	MINIMUM	MAXIMUM	DESCRIPTION
WATER			
GRAND	—	17,600m ³ /day	OXIDATION
FILTER	21,000m ³ /day	22,400m ³ /day	STERILIZE

A-2. RATE OF DOSING

ITEM	SEASON	MEAN QUANTITY	DESCRIPTION
WATER			
GRAND	—	2.1 mg/l	OXIDATION
FILTER	RAIN-FALL	2.5 mg/l	STERILIZE
	DRY	1.5 mg/l	STERILIZE

B) SYMBOLS
SEE, SHEET OF FLOW DIAGRAM PAC FEEDING SYSTEM

EQUIPMENTS
TABLE-1 ROTATOR FOR BLEACHING SYSTEM

ITEM	NAME	FEEDING PUMP	FEEDING PUMP	TRANSFER PUMP	AGITATOR
	TYPE	DIAPHRAGM	DIAPHRAGM	MAGNET	OSCILLATION
	ELECTRICAL	0.2KW x 200V x 50Hz	0.2KW x 200V x 50Hz	0.4KW x 200V x 50Hz	2.2KW x 200V x 50Hz
	CAPACITY	0.85 l/min	0.50 l/min	40 l/min x 12m	196 cpm
	QUANTITY	2	2	2	2
	SIZE	10A	10A	25A	2
	TAG No	A, B	A, B	A, B	A, B
	DESCRIPTION	FEEDING FOR FILTER WATER	FEEDING FOR GRAND WATER	TRANSFER OF BLEACHING LIQUOR	AGITATOR OF BLEACHING POWDER HYDROLYSIS

TABLE-2 VESSEL FOR BLEACHING SYSTEM

ITEM	NAME	DISSOLUTION TANK	SOLUTION STRAGE TANK
	TYPE	ROUND-VERTICAL	ROUND-VERTICAL
	CAPACITY	0.5 m ³	1.0 m ³
	SIZE	Ø890mm x 1040mm	Ø1140mm x 1200
	MATERIAL	PE	PE
	QUANTITY	2	2
	TAG No	A, B	A, B
	DESCRIPTION	OPEN TYPE BLEACHING POWDER HYDROLYSIS	CLOSE TYPE STRAGE OF BLEACHING LIQUOR

TABLE-3. FEEDING PUMPS (ELECTOLYSIS SODIUM HYPOCHLORATE)

ITEM	NAME	FEEDING PUMP	FEEDING PUMP
	TYPE	DIAPHRAGM	DIAPHRAGM
	ELECTRICAL	0.2KW x 200V x 50Hz	0.2KW x 200V x 50Hz
	CAPACITY	6.0 l/min	2.8 l/min
	QUANTITY	2	2
	SIZE	10A	10A
	TAG No	A, B	A, B
	DESCRIPTION	FEEDING FOR GRAND WATER	FEEDING FOR FILTER WATER

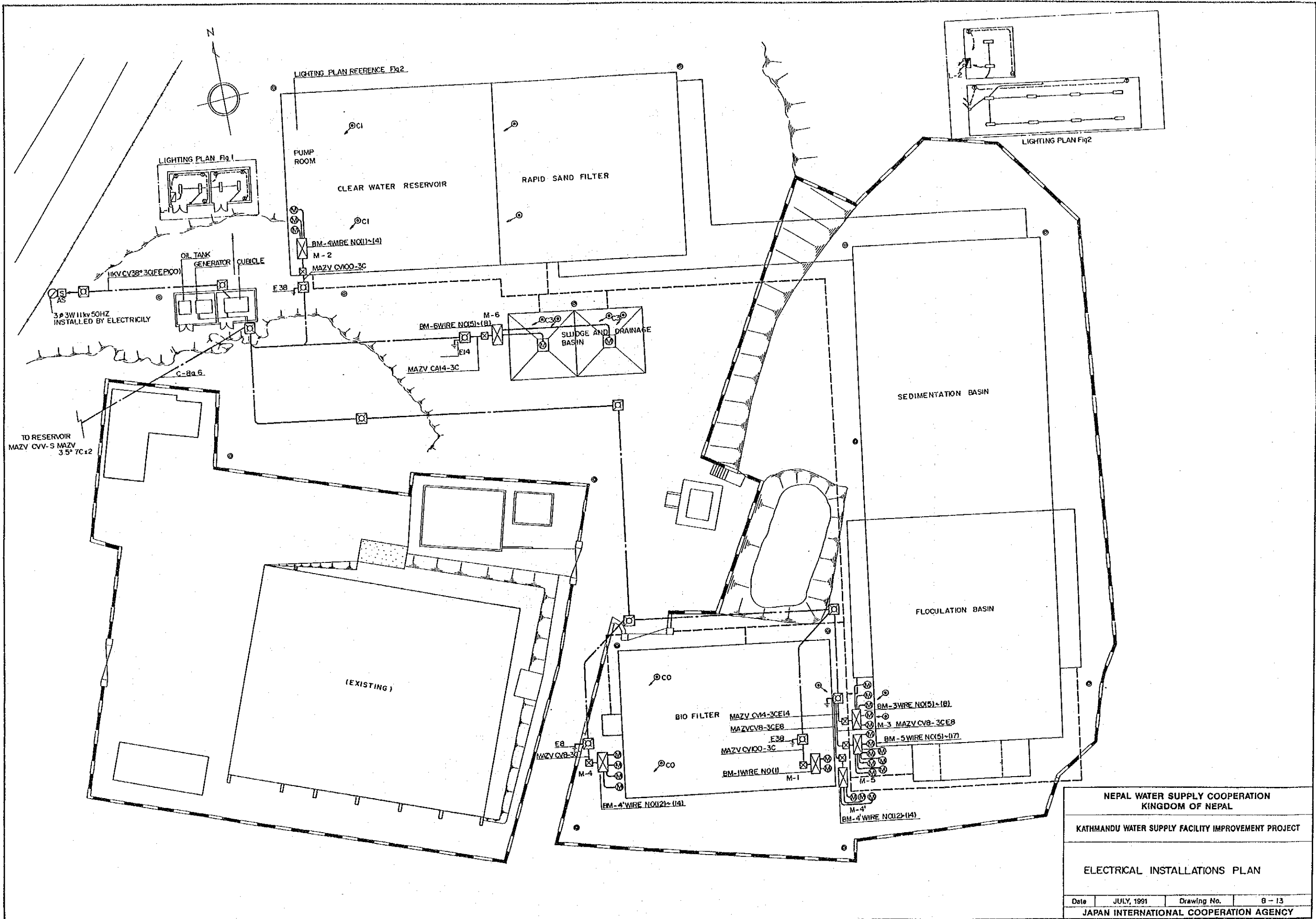
NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

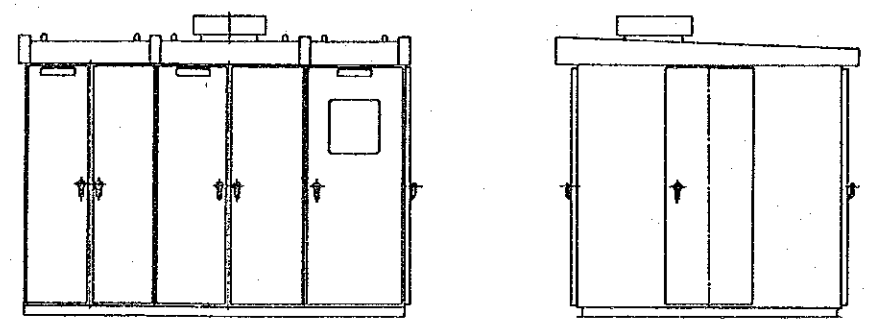
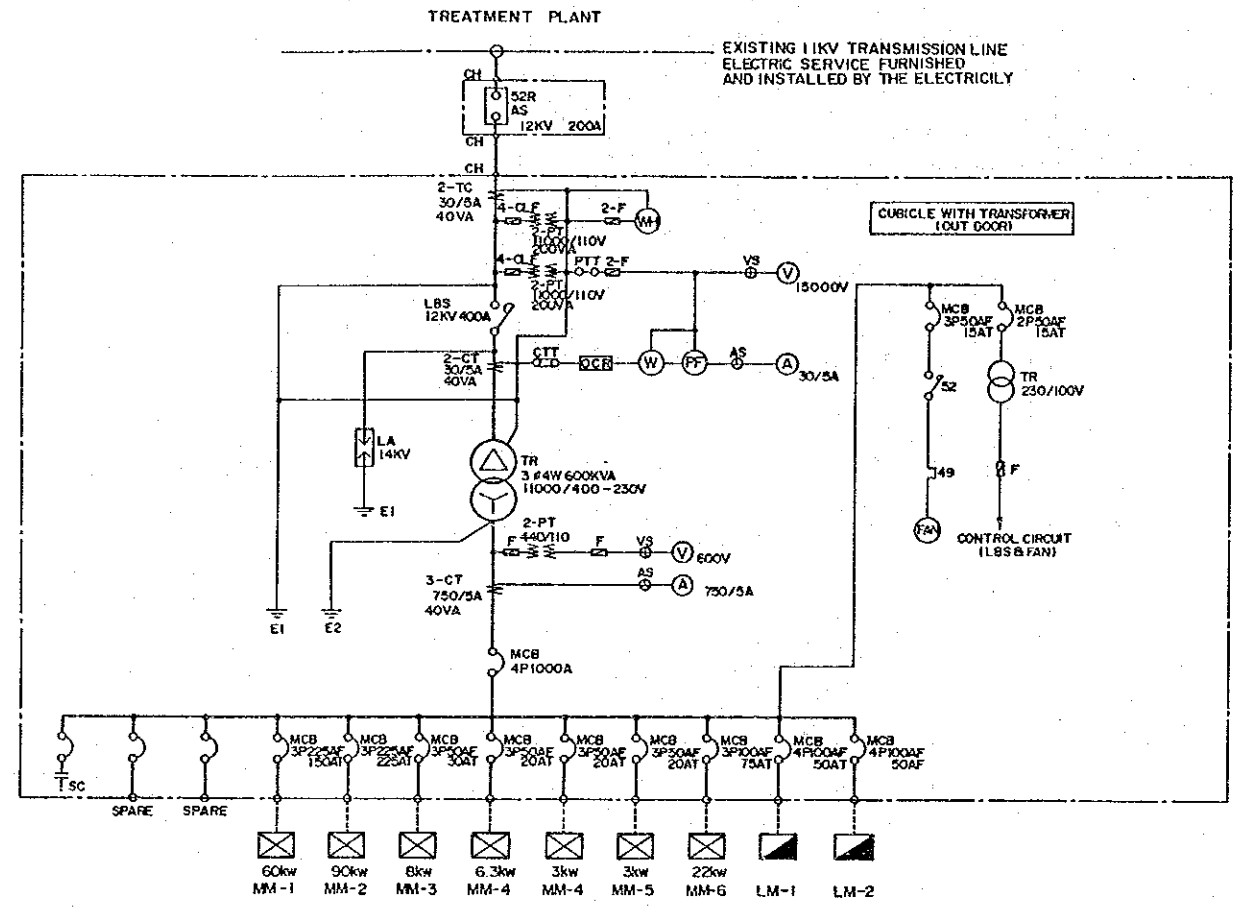
FLOW DIAGRAM OF SODIUM HYPOCHLORITE FEEDING SYSTEM AND BLEACHING POWDER FEEDING SYSTEM

Date	JULY, 1991	Drawing No.	B-12
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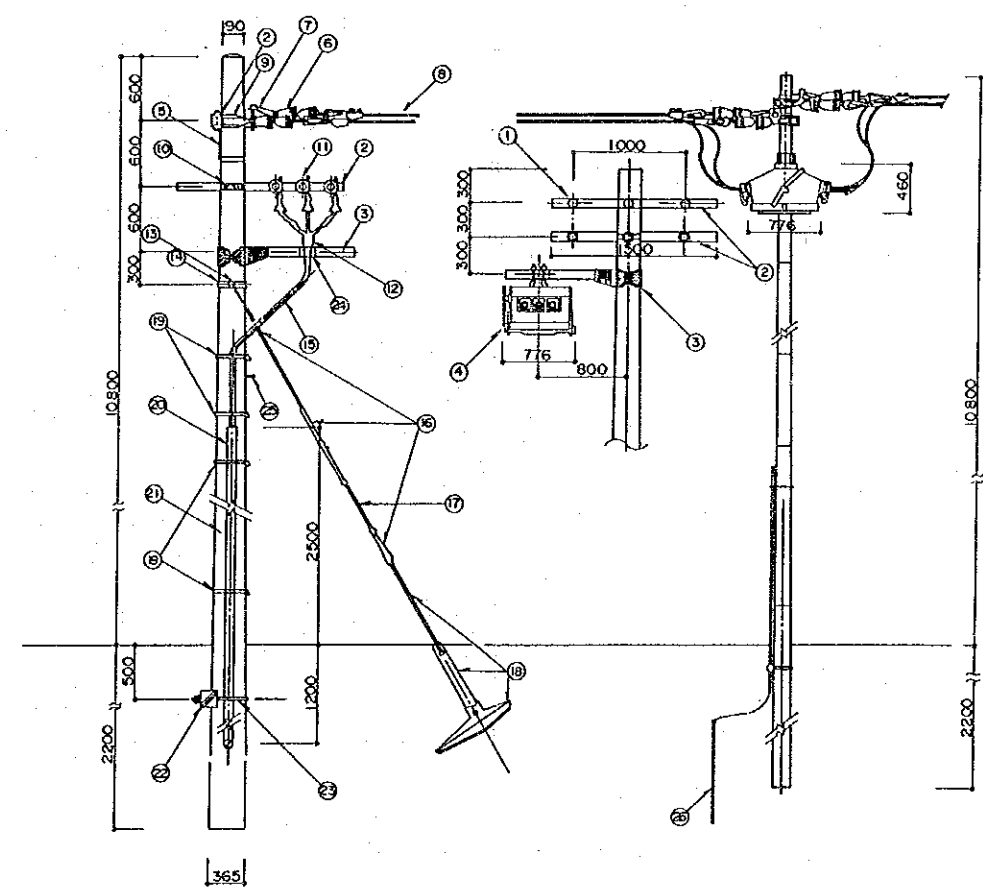
JAPAN INTERNATIONAL COOPERATION AGENCY



NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
ELECTRICAL INSTALLATIONS PLAN			
Date	JULY, 1991	Drawing No.	8 - 13
JAPAN INTERNATIONAL COOPERATION AGENCY			



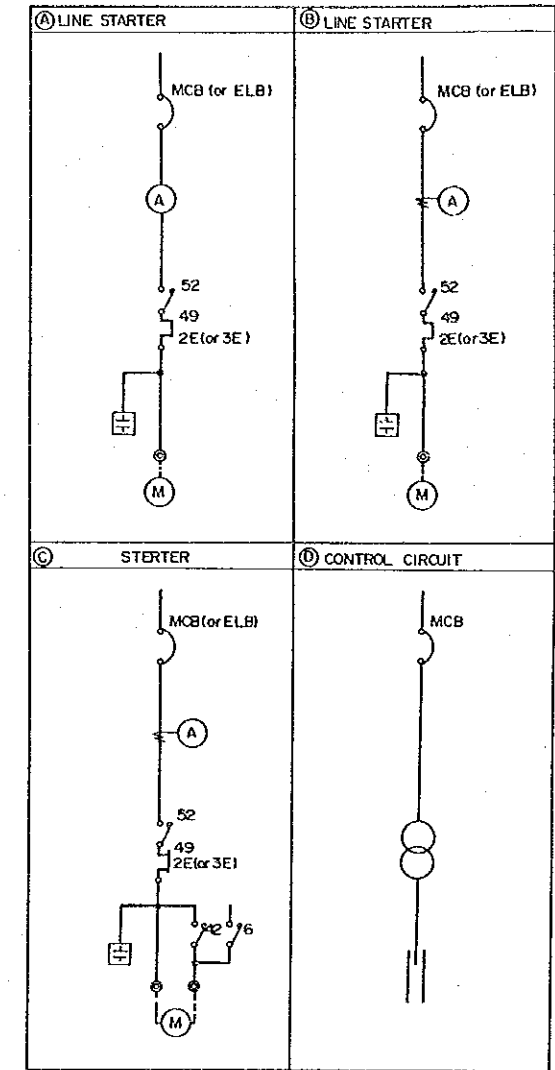
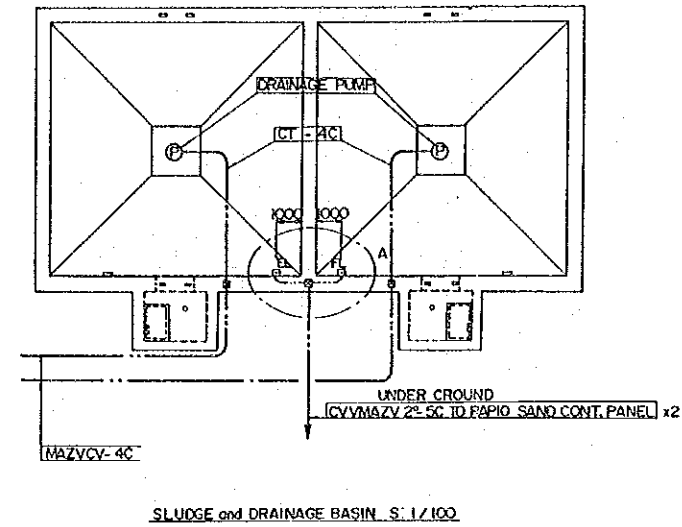
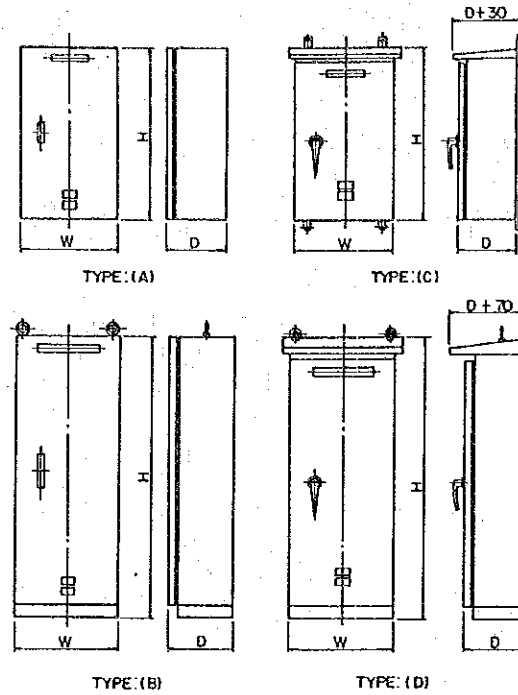
NO	DESCRIPTION	NO	DESCRIPTION
1	SIDE PIN INSULATOR	19	CABLE BAND(SUS-TYPE)
2	ARM C-75 (LGA)	20	(FP 100)
3	ARM (ALS)	21	CONCRETE POLE 13M
4	AIR LOAD-BREAK SWITCH	22	STOPPER ARM FOR POLE
5	ARM TIE (AMT-O)	23	U-BOLT
6	INSULATOR 3SETS	24	CABLE HANGER
7	MAIN WIRE HANGER	25	STEPPING BOLT
8	H.V 15kV OC - CABLE	26	EARTH 14#X1500
9	TWIST STRIPE (TSTP)		
10	ARM-BAND (UAGD)		
11	SIDE PIN INSULATOR		
12	HV 12kv XLPE CABLE HEAD		
13	THIMBL		
14	U-BAND(SPRIT-TYPE)		
15	HV 12kv XLPE CABLE		
16	GRIP FOR WIRE		
17	STEEL WIRE 30M ²		
18	STAY ROD		



NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL			
KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT			
SUB - STATION			
Date	JULY, 1991	Drawing No.	B - 14
JAPAN INTERNATIONAL COOPERATION AGENCY			

SIZE and TYPE of POWER CONTROL PANEL

PANELE	SIZE			TYPE	REM
	W	H	D		
BM - 1	1000	2250	500	B	
BM - 2	1600	2250	500	B	
BM - 3	1000	2150	400	D	
BM - 4	1000	2150	400	D	
BM - 4'	800	2150	400	D	
BM - 5	800	2150	400	D	
BM - 6	700	1300	300	C	



WIRING LIST

MOTOR CONTROL PANEL	Boushori EQUIPMENT NAME	LOAD CAP. (KW)	WIRE No.	POWER WIRE CY. C	PIPE	CONTROL	CONT. WIRE No.	Control WIRE CY. C	FS	
BM 1	BIO FILTER BLOWER	30	1	22x3	8	BIO FILTER FULL of OFF SIGNAL	00	2-3C	P1	
BM 2	CLEAR WATER RESERVOIR SURFACE WASHING PUMPS	30	2	22x3	8	CLEAR WATER RESERVOIR LOW of OFF SIGNAL	01	2-3C	P1	
	MAKE UP PUMPS	7.5	3	5.5x3	20	RAPID SAND FILTER FULL of OFF SIGNAL	02	2-3C	P1	
	TRANSMISSION PUMPS	7.5	4	8x3	5.5	39	BIO FILTER FULL of OFF SIGNAL	03	2-3C	P1
							CLEAR WATER RESERVOIR LOW of OFF SIGNAL	04	2-3C	P1
BM 3	ALUMINUM SULFATE FEEDING SYSTEM MIXER	2.2	5	5.5x3	20	ALUMINUM SULFATE TANK LOW of OFF SIGNAL	10	2-3C	P10	
	TRANSFER PUMPS	0.4	6	5.5x3	20	ALUMINUM SULFATE TANK LOW HI of ON OFF	11	2-3C	P10	
	FEEDING PUMPS	0.2	7	5.5x3	20	ALUMINUM SULFATE SOLUTION TANK LOW of OFF	12	2-3C	P10	
	FEEDING PUMPS	0.2	8	5.5x3	20	PH Meter ALUMINUM SULFATE TANK LOW of OFF	13	2-3C	P10	
BM 4	ALKARI AGENT FEEDING SYSTEM MIXER	2.2	9	5.5x3	20	ALKARI AGENT TANK LOW of OFF SIGNAL	16	2-3C	P17	
	TRANSFER PUMPS	3.7	10	5.5x3	20	ALKARI AGENT TANK LOW HI of ON OFF	17	2-3C	P17	
	FEEDING PUMPS	0.2	11	5.5x3	20	31	ALKARI AGENT SOLUTION TANK LOW of OFF	18	2-3C	P17
							PH Meter ALKARI AGENT TANK LOW of OFF	19	2-3C	P17
BM 4'	ALKARI AGENT FEEDING SYSTEM MIXER	2.2	12	5.5x3	20	ALKARI AGENT TANK LOW of OFF SIGNAL	21	2-3C	P22	
	TRANSFER PUMPS	0.4	13	5.5x3	20	ALKARI AGENT TANK LOW HI of ON OFF	22	2-3C	P22	
	FEEDING PUMPS	0.2	14	5.5x3	20	31	ALKARI AGENT SOLUTION TANK LOW of OFF	23	2-3C	P22
							PH Meter ALKARI AGENT TANK LOW of OFF	24	2-3C	P22
BM 5	BLEACHING POWDER FEEDING SYSTEM MIXER	2.2	15	5.5x3	20	BLEACHING TANK LOW of OFF SIGNAL	26	2-3C	P27	
	TRANSFER PUMPS	0.4	16	5.5x3	20	ALKARI AGENT TANK LOW HI of ON OFF	27	2-3C	P27	
	FEEDING PUMPS	0.2	17	5.5x3	20	31	ALKARI AGENT SOLUTION TANK LOW of OFF	28	2-3C	P27
							PH Meter ALKARI AGENT TANK LOW of OFF	29	2-3C	P27
BM 6	WASTE WATER BASIN	11	18	22x3	5	WASTE WATER BASIN LOW HI of ON OFF	31	2-3C	P2	

MOTOR CONTROL PANEL	II. Boushori EQUIPMENT NAME	LOAD CAP. (KW)	FIX. CAP. (KVA)	SP. LOAD (Q/h)	NON-FIX. LOAD (Q/h)	TOTAL LOAD (KW)	LOC. ON-OFF	MANUAL DRIV.	OVERLOAD	REMARKS
BM 1	BIO FILTER BLOWER	30	2	1	0	60				C
BM 2	CLEAR WATER RESERVOIR SURFACE WASHING PUMPS	30	2	1	0	60				C
	MAKE UP PUMPS	7.5	1	1	0	7.5				B
	TRANSMISSION PUMPS	7.5	3	1	0	22.5				B
BM 3	ALUMINUM SULFATE FEEDING SYSTEM MIXER	2.2	2	0	0	4.4				B
	TRANSFER PUMPS	0.4	1	1	0	0.4				B
	FEEDING PUMPS	0.2	3	2	0	0.6				B
	FEEDING PUMPS	0.2	2	1	0	0.4				B
BM 4	ALKARI AGENT FEEDING SYSTEM MIXER	2.2	4	0	0	8.8				B
	TRANSFER PUMPS	3.7	1	1	0	3.7				B
	FEEDING PUMPS	0.2	4	0	0	0.8				B
BM 4'	ALKARI AGENT FEEDING SYSTEM MIXER	2.2	2	0	0	4.4				B
	TRANSFER PUMPS	0.4	1	1	0	0.4				B
	FEEDING PUMPS	0.2	2	1	0	0.4				B
BM 5	BLEACHING POWDER FEEDING SYSTEM MIXER	2.2	2	0	0	4.4				B
	TRANSFER PUMPS	0.4	1	1	0	0.4				B
	FEEDING PUMPS	0.2	4	1	0	0.8				B
BM-6	WASTE WATER BASIN	11	2	1	0	22				C

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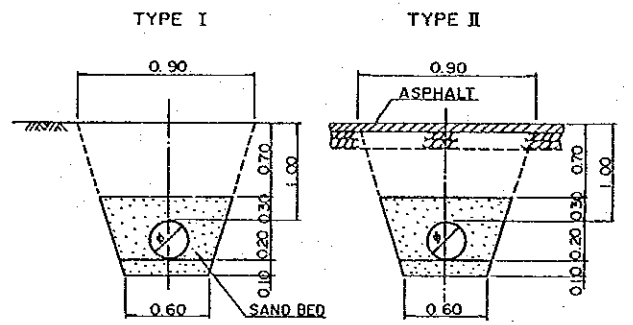
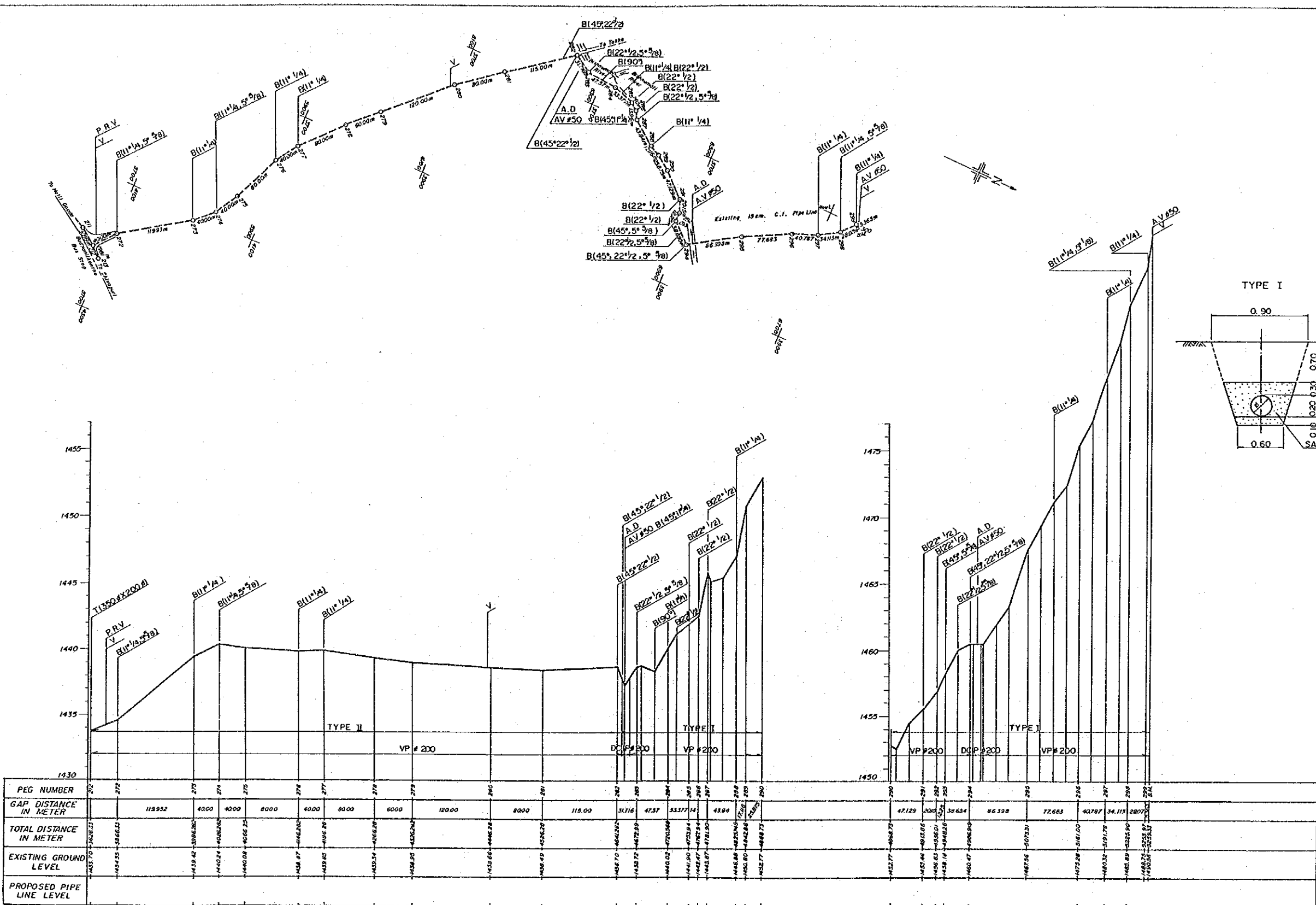
NEPAL WATER SUPPLY COOPERATION KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

WIRING LIST AND POWER CONTROL PANEL

Date: JULY, 1991 Drawing No. B-15

JAPAN INTERNATIONAL COOPERATION AGENCY



LEGEND

- B BEND
- B.O.V BLOW OFF VALVE
- A.V AIR VALVE
- A.D ACUE DUKT
- P.R.V PRESSURE REDUCING VALVE
- V VALVE

NEPAL WATER SUPPLY COOPERATION
KINGDOM OF NEPAL

KATHMANDU WATER SUPPLY FACILITY IMPROVEMENT PROJECT

CONVEYANCE PIPE
PLAN AND PROFILE (3/5)

Date: JULY, 1991 Drawing No. B-18

JAPAN INTERNATIONAL COOPERATION AGENCY

