

PEOPLE'S REPUBLIC OF BANGLADESH
BANGLADESH WATER DEVELOPMENT BOARD

FEASIBILITY STUDY
ON
THE KURIGRAM IRRIGATION AND
FLOOD CONTROL PROJECT - SOUTH UNIT

VOLUME III

DRAWINGS

MARCH, 1993

Japan International Cooperation Agency
Tokyo, Japan

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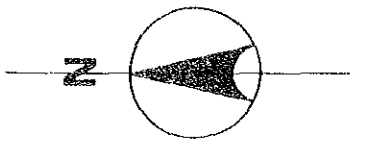
Japan International Cooperation Agency
Tokyo, Japan

**FEASIBILITY STUDY
ON
THE KURIGRAM
IRRIGATION AND FLOOD CONTROL PROJECT
- SOUTH UNIT -**

LIST OF DRAWINGS

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21.	REGULATOR OPEN TYPE - C PLAN AND SECTIONS (C-1)	42.	RAILWAY BRIDGE TYPE - A AND B PLAN AND SECTIONS

LAND TYPE MAP



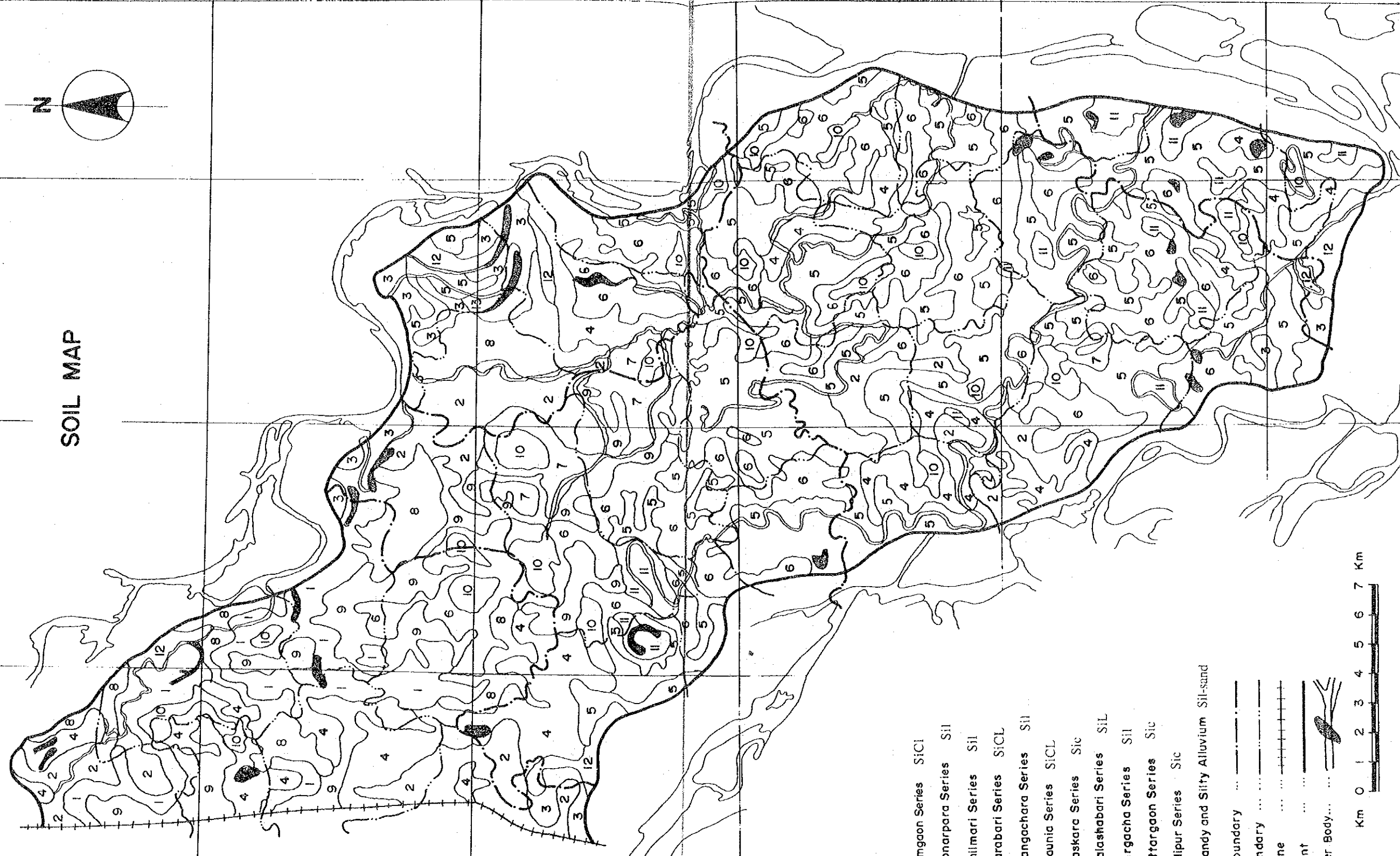
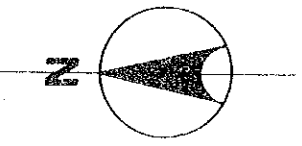
LEGEND

Mapping Symbol	Land Type	Flood Level
	Highland	0-30 cm
	Medium Highland	30-90 cm
	Medium Lowland	90-180 cm
	Lowland	> 180 cm

- Upazilla Boundary ...
- Union Boundary ...
- Railway Line ...
- Embankment ...
- River ...



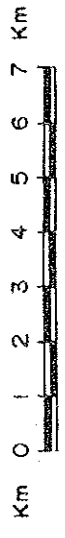
SOIL MAP



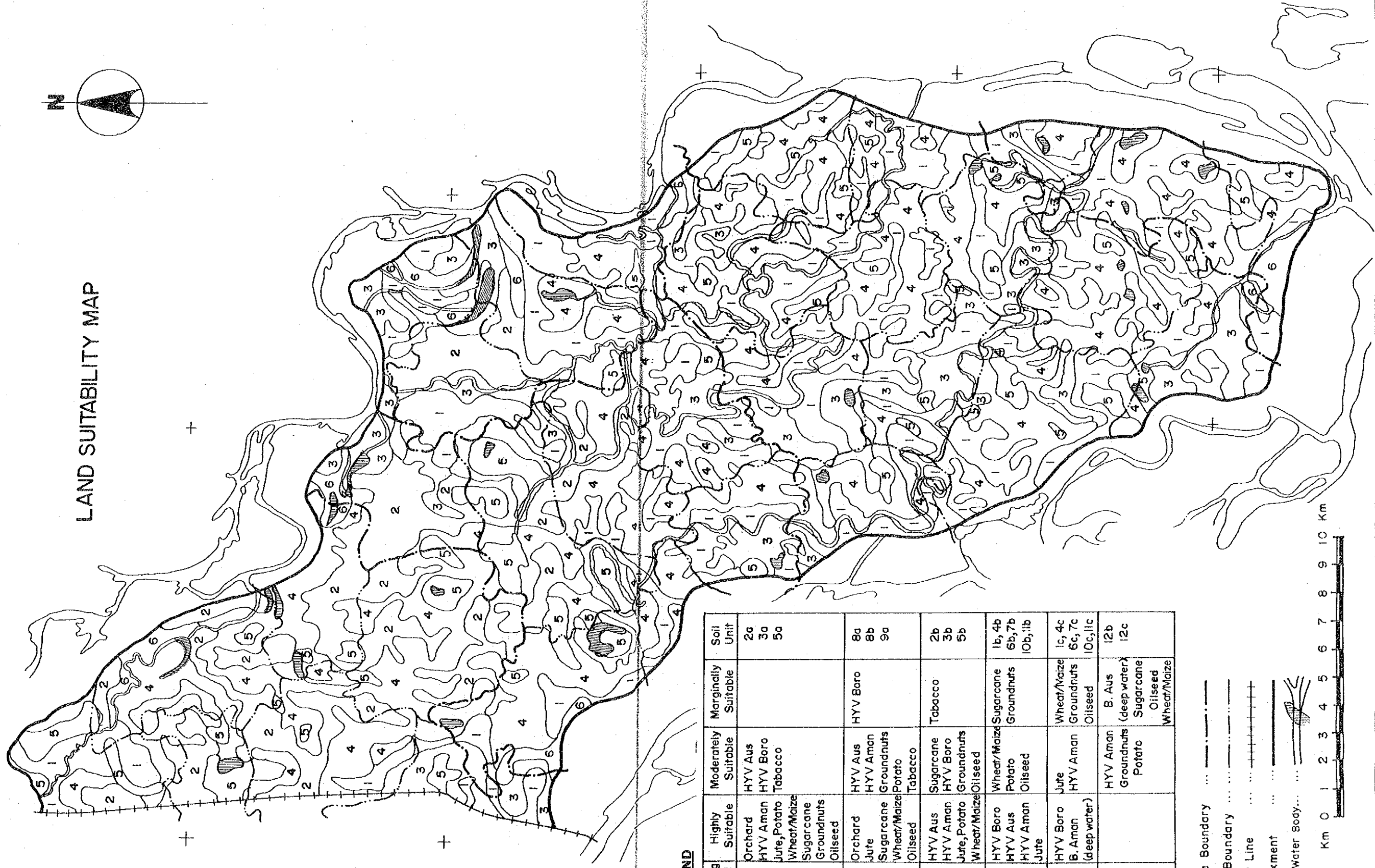
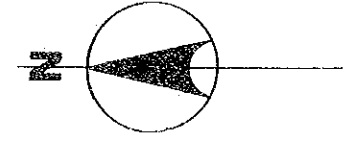
LEGEND

- 1 Amgaon Series SiCI
- 2 Bonarpara Series Sil
- 3 Chilmari Series Sil
- 4 Farabari Series SiCL
- 5 Gangachara Series Sil
- 6 Kaulia Series SiCL
- 7 Laskara Series Sic
- 8 Palashabari Series Sil
- 9 Pirgacha Series Sil
- 10 Uttargaon Series Sic
- 11 Ulipur Series Sic
- 12 Sandy and Silty Alluvium Sil-sand

- Upazilla Boundary
- Union Boundary
- Railway Line
- Embankment
- River/Water Body



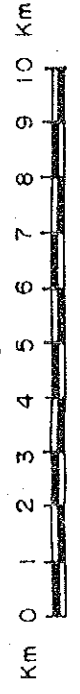
LAND SUITABILITY MAP



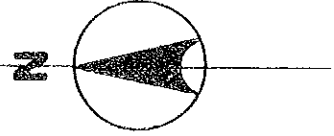
LEGEND

Mapping Symbol	Highly Suitable	Moderately Suitable	Marginally Suitable	Soil Unit
1	Orchard HYV Aman Jute, Potato Wheat/Maize Sugarcane Groundnuts Oilseed	HYV Aus HYV Baro Tobacco		2a 3a 5a
2	Orchard Jute Sugarcane Wheat/Maize Oilseed	HYV Aus HYV Aman Groundnuts Potato Tobacco	HYV Baro	8a 8b 9a
3	HYV Aus HYV Aman Jute, Potato Wheat/Maize Oilseed	Sugarcane HYV Baro Groundnuts Oilseed	Tobacco	2b 3b 5b
4	HYV Baro HYV Aus HYV Aman Jute	Wheat/Maize Potato Oilseed	Sugarcane Groundnuts	1b, 4b 6b, 7b 10b, 11b
5	HYV Baro B. Aman (deep water)	Jute HYV Aman	Wheat/Maize Groundnuts Oilseed	1c, 4c 6c, 7c 10c, 11c
6		HYV Aman Groundnuts Potato	B. Aus (deep water) Sugarcane Oilseed Wheat/Maize	12b 12c

- Upazila Boundary ... - - - - -
- Union Boundary ... - - - - -
- Railway Line ... + + + + +
- Embankment ... - - - - -
- River/Water Body ... ~ ~ ~ ~ ~



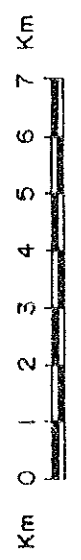
LAND USE MAP



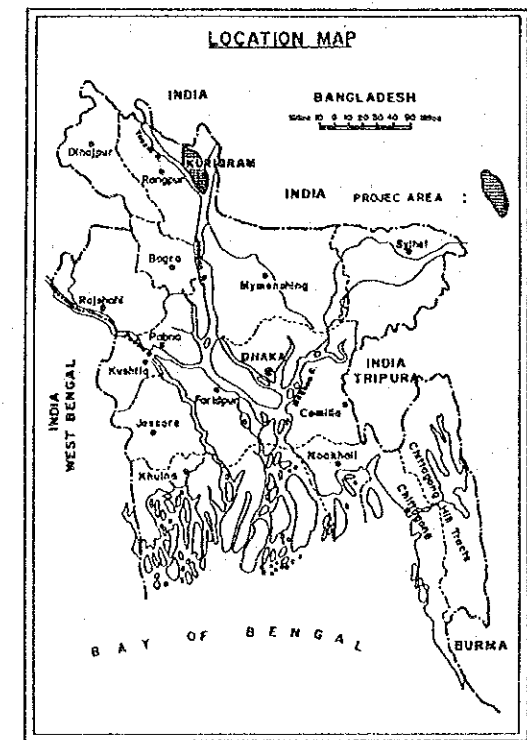
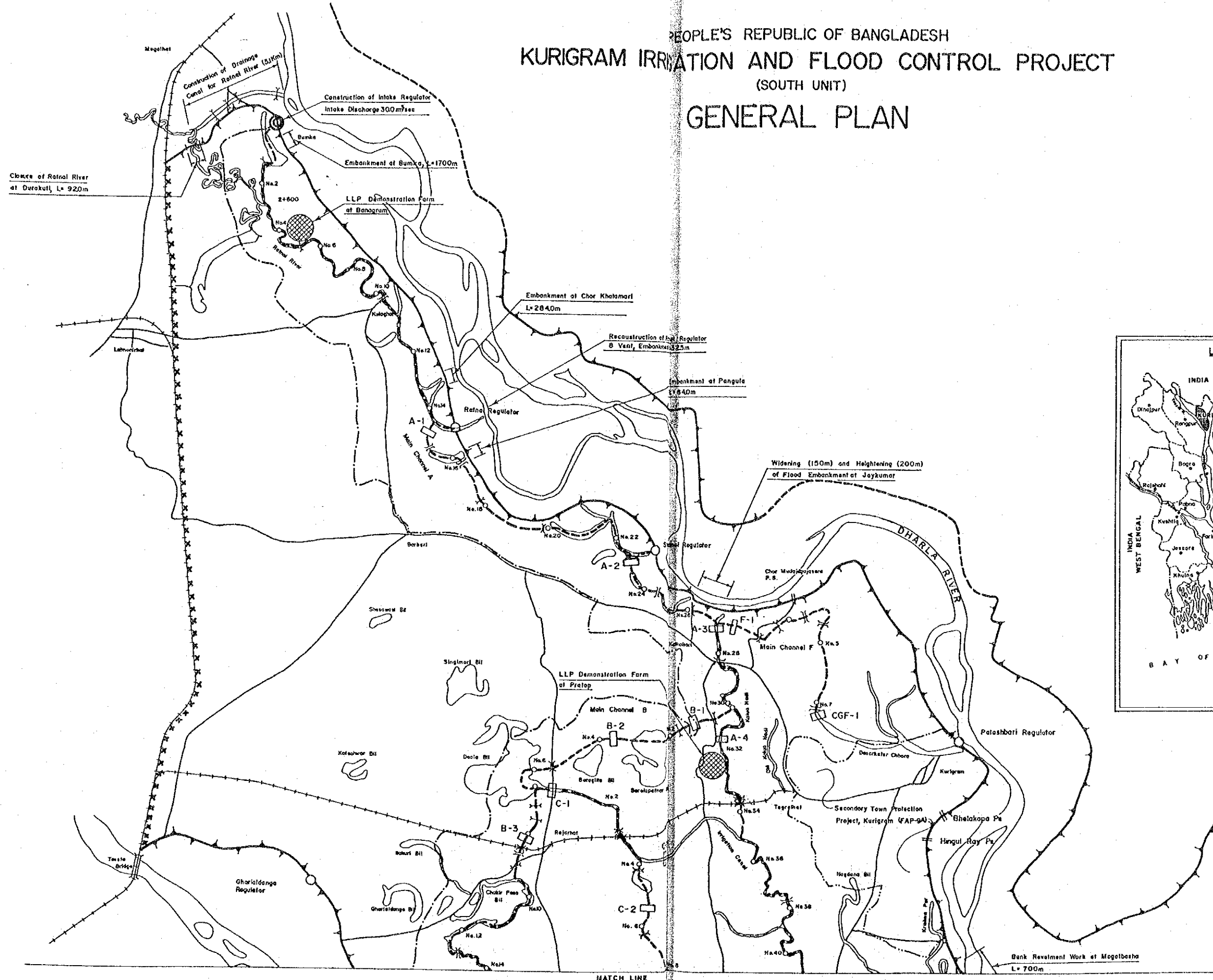
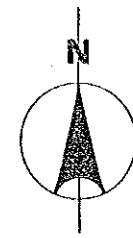
- A Aus/Jute - HYV Aman - Rabi (sugarcane)
- B Aus/Jute - HYV Aman - HYV Boro
- C Aus/Jute - HYV Aman - Rabi
- D Aus/Jute - HYV Aman (sugarcane)
- E Aus/Jute - HYV Aman
- F Aus/Jute - Rabi
- G HYV Aman - HYV Boro
- H L. T. Aman - HYV Boro
- I HYV Boro
- J HYV Boro/Rabi

LEGEND

- Settlement
- Embankment
- Railway Line
- Water Body



PEOPLE'S REPUBLIC OF BANGLADESH KURIGRAM IRRIGATION AND FLOOD CONTROL PROJECT (SOUTH UNIT) GENERAL PLAN



Project Area

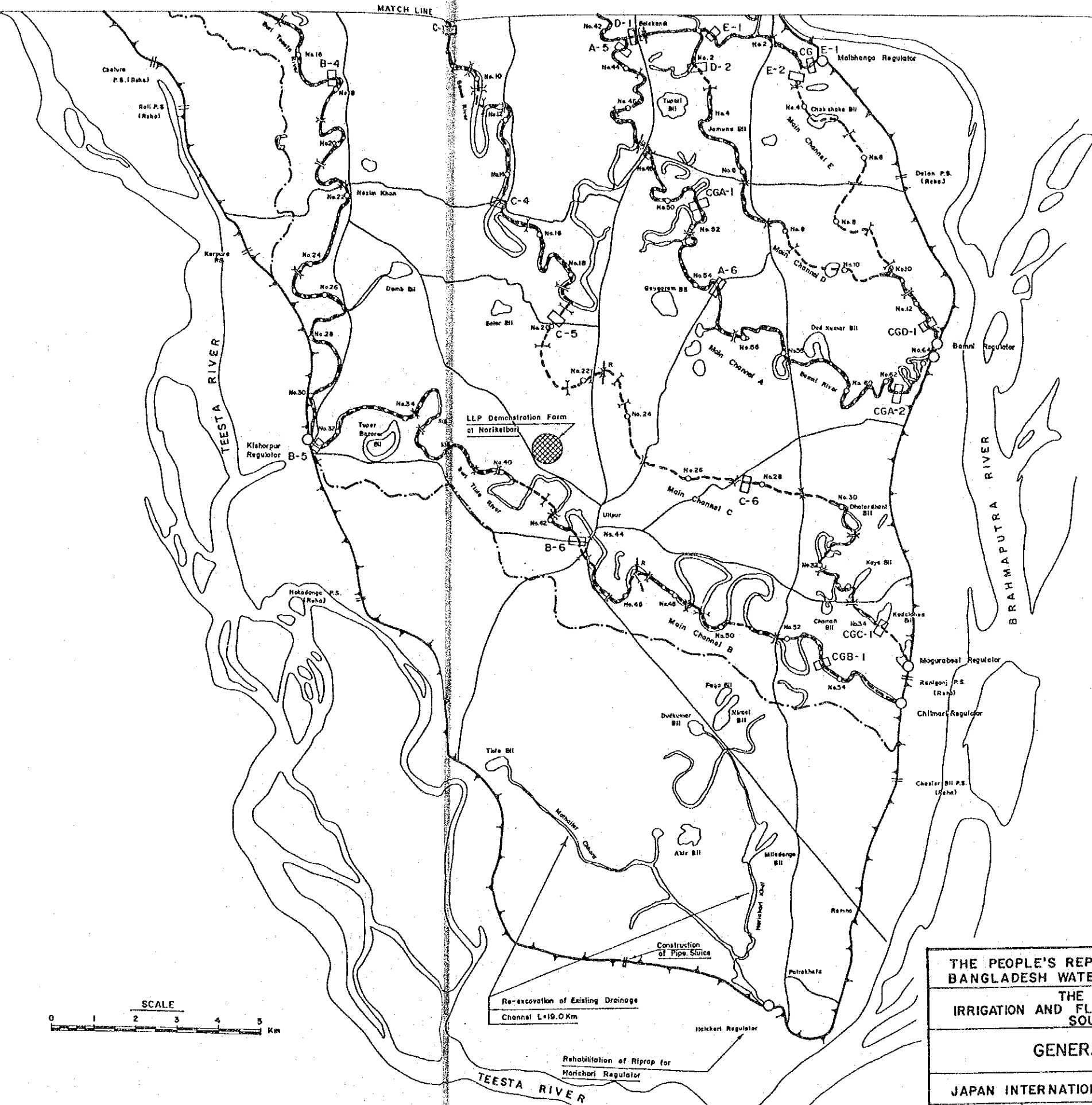
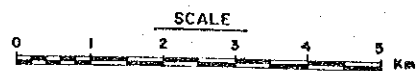
Gross Area	59,400 ha
Cultivated Area	42,800 ha
Irrigated Area	9,800 ha
LPPs Command Area	18,180 ha
STWs Command Area	7,480 ha

Main Structures :

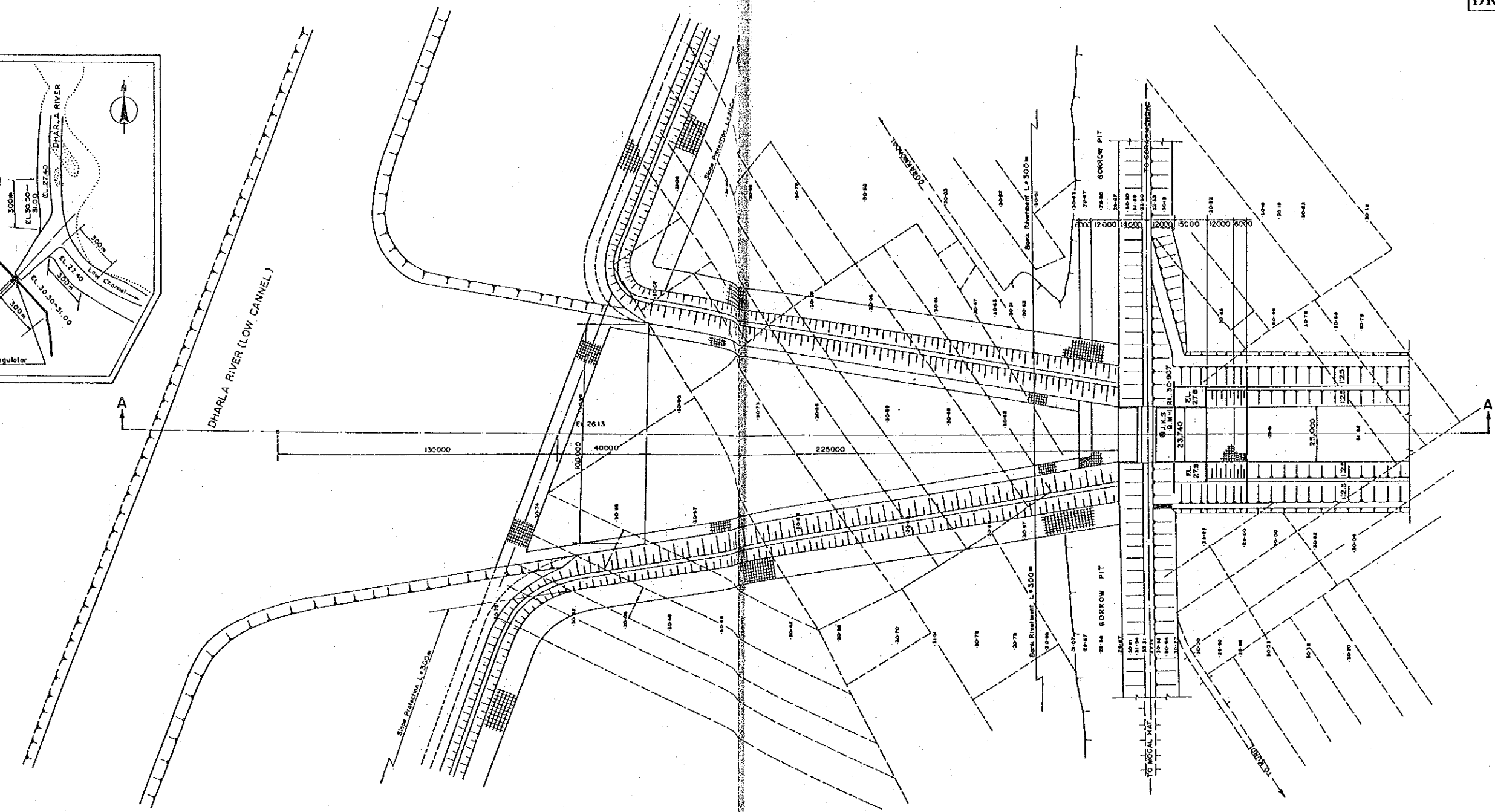
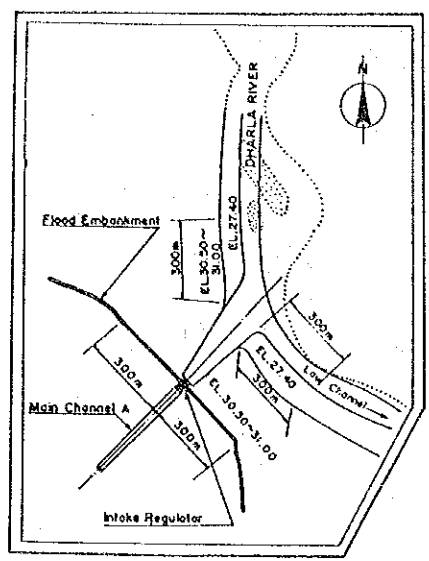
Head Work Gravity Flow I N O.	
Main Channel A	64.4 Km.
- do- B	55.9 Km.
- do- C	35.9 Km.
- do- D	13.2 Km.
- do- E	10.0 Km.
- do- F	7.9 Km.
- do- Total	187.3 Km.
Regulator :	31 Nos.
Bridges	91 Nos.
Nos of LLP (112/acc) 268 Units.	
Nos of STW (144/acc) 1497 Units.	

LEGEND

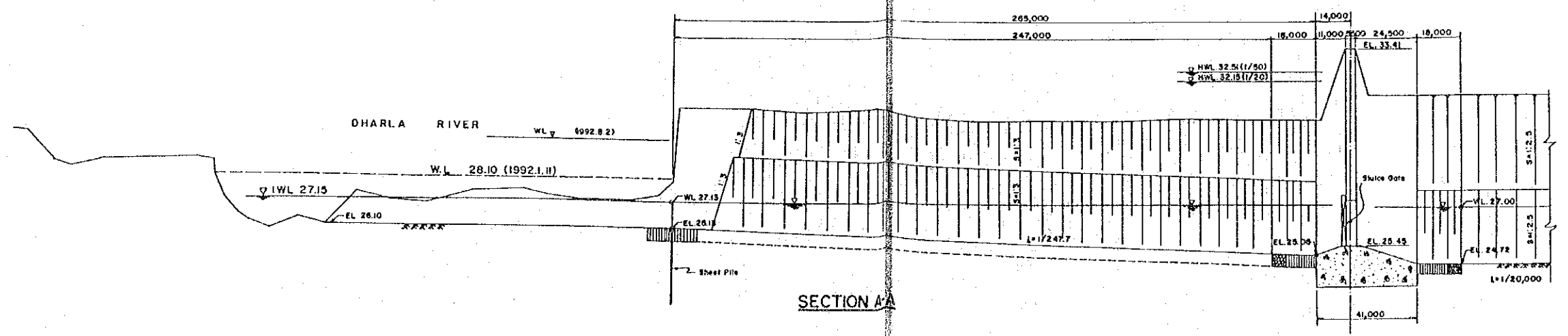
- XXXXXXX Boundary of the Project Area.
- Boundary of LLPs Command Area.
- Boundary of the Secondary Town Protection Project Area, Kurigram (FAP-9A)
- ===== Flood Embankment.
- Railway.
- Main Road.
- Main Channel.
- Drainage Regulator.
- ▬ Pipe Sluice.
- Regulator for Main Channel.
- Existing Railway Bridge.
- Existing Road Bridge.
- Existing Culvert and Proposed Road Bridge.
- River and Existing drainage channel.
- (Raha) Rehabilitation Work.



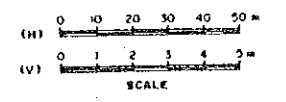
THE PEOPLE'S REPUBLIC OF BANGLADESH			
BANGLADESH WATER DEVELOPMENT BOARD			
THE KURIGRAM			
IRRIGATION AND FLOOD CONTROL PROJECT			
SOUTH UNIT			
GENERAL PLAN			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DATE	OCT. 1992	DRG. NO.	



PLAN



SECTION A-A

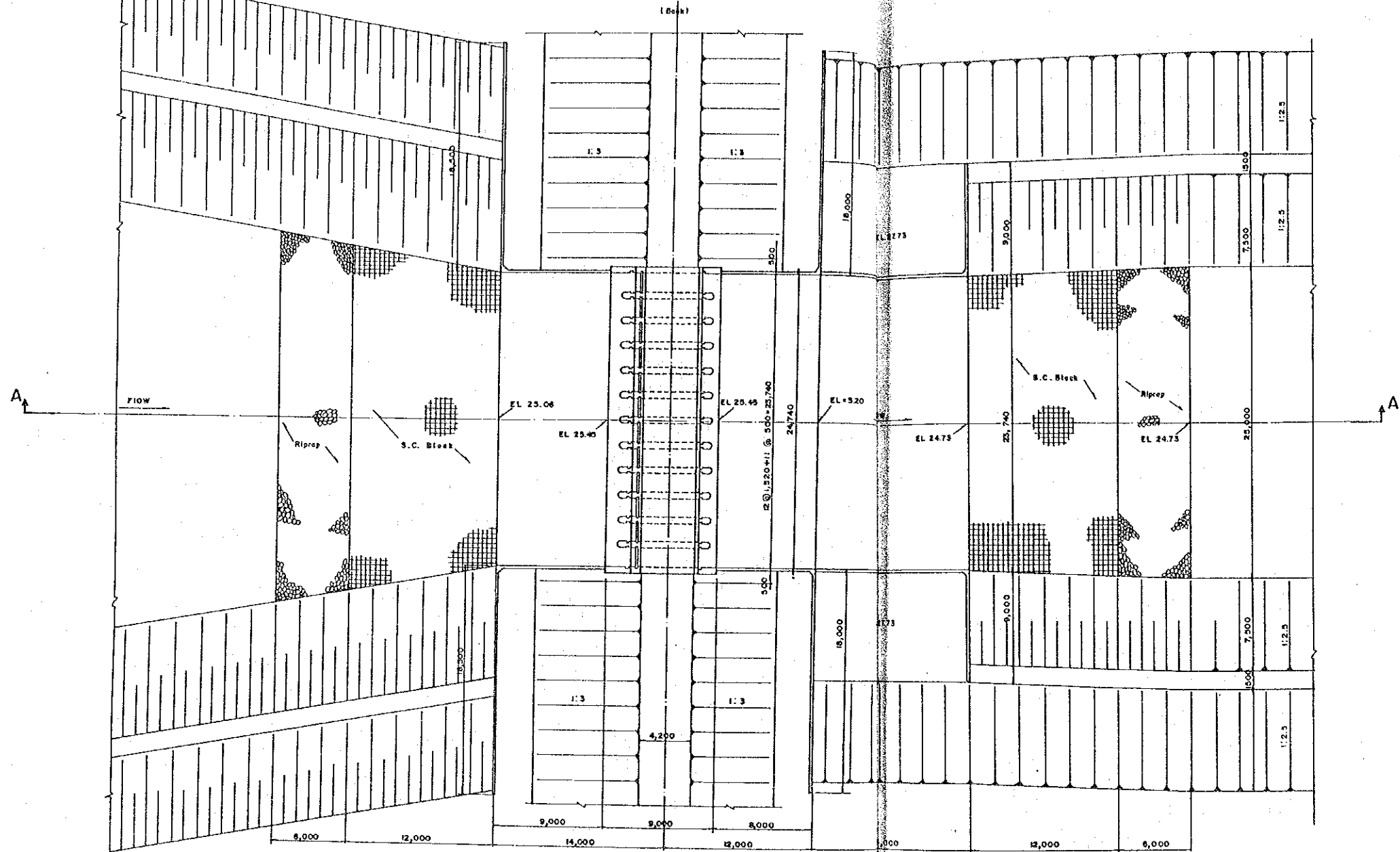


THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT

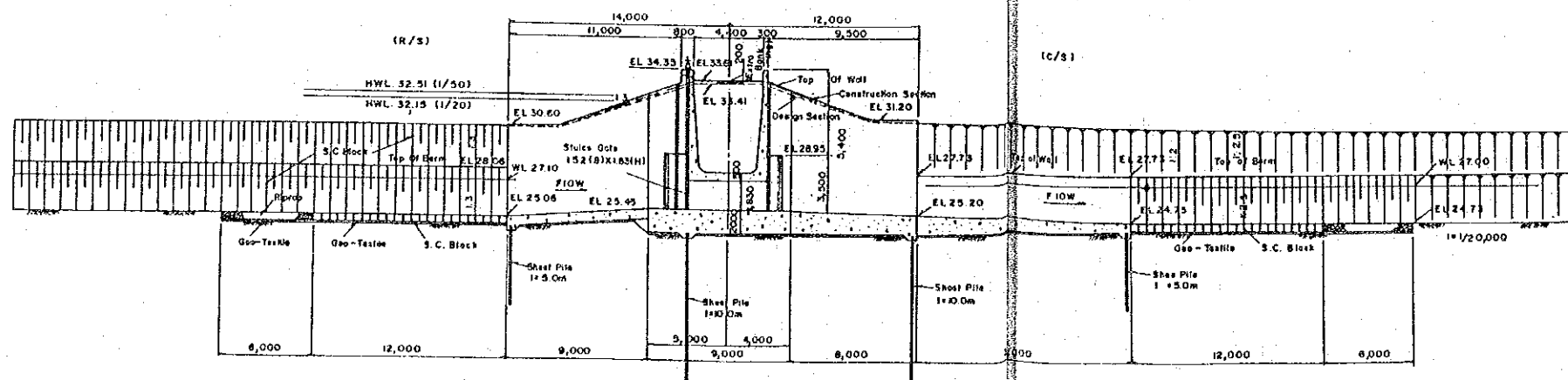
**HEAD WORKS
 GENERAL PLAN**

JAPAN INTERNATIONAL COOPERATION AGENCY

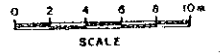
DATE	OCT. 1992	DRG. NO.
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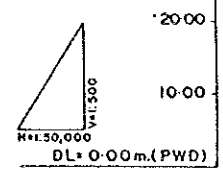
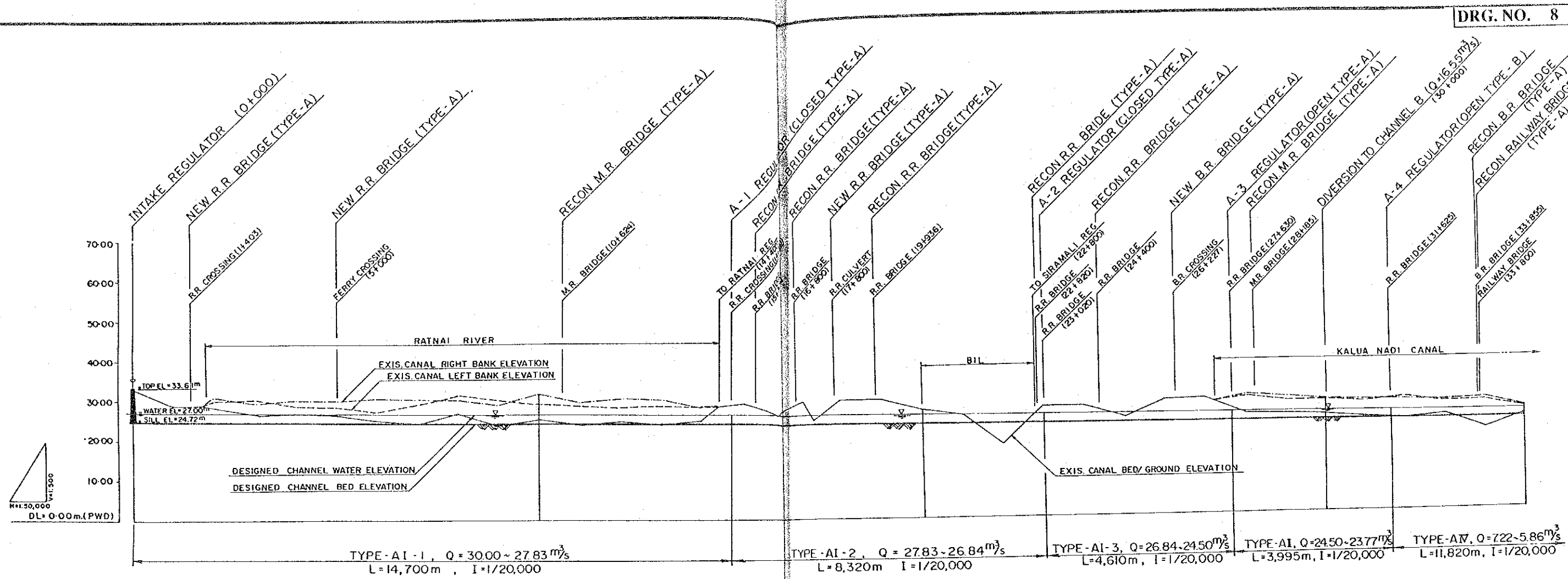
PLAN



SECTION A-A



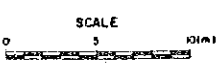
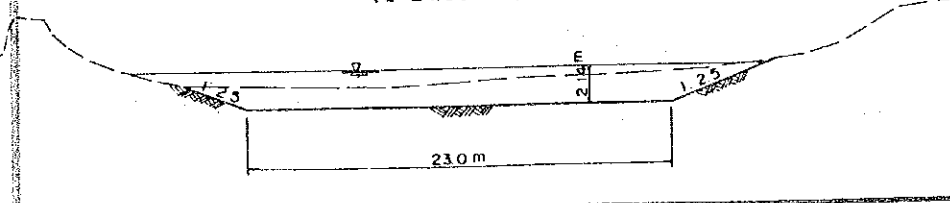
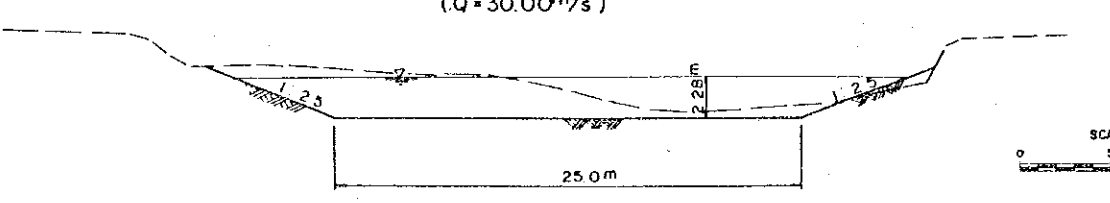
THE PEOPLE'S REPUBLIC OF BANGLADESH BANGLADESH WATER DEVELOPMENT BOARD		
THE KURIGRAM IRRIGATION AND FLOOD CONTROL PROJECT SOUTH UNIT		
INTAKE REGULATOR PLAN AND SECTION		
JAPAN INTERNATIONAL COOPERATION AGENCY		
DATE	OCT. 1992	DRGNO.



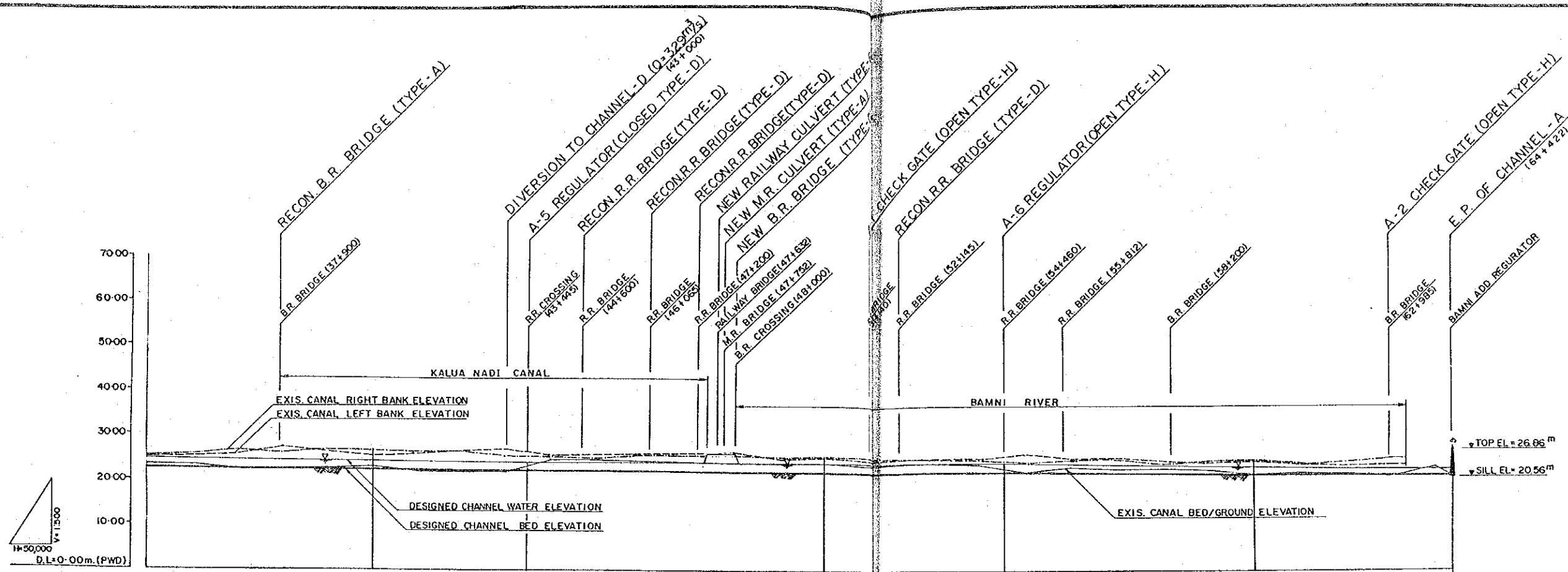
STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CHAAL BED/ GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0.00	0.00	33.151			24.720	27.000
1+000	1,000	1,000	29.202			24.670	26.945
1+403	403	1,403	29.102			24.650	26.922
2+000	993	2,000	28.125	30.998	30.226	24.620	26.889
3+000	1,000	3,000	28.479	29.369	30.470	24.570	26.854
4+000	1,000	4,000	28.620	30.120	29.920	24.520	26.776
5+000	1,000	5,000	26.508	30.003	28.300	24.470	26.723
6+000	1,000	6,000	25.036	30.542	27.726	24.420	26.667
7+000	1,000	7,000	24.271	30.403	29.144	24.370	26.612
8+000	1,000	8,000	28.751	30.141	31.340	24.320	26.556
9+000	1,000	9,000	23.602	28.939	30.069	24.270	26.501
10+000	1,000	10,000	25.380	31.699	29.100	24.220	26.446
10+624	624	10,624	26.030	30.460	28.240	24.189	26.411
11+000	376	11,000	23.686	29.315	28.381	24.170	26.390
12+000	1,000	12,000	24.555	30.283	28.130	24.120	26.335
13+000	1,000	13,000	23.720	29.820	28.969	24.070	26.279
14+000	1,000	14,000	28.108	27.920	28.233	24.020	26.224
14+700	700	14,700	28.301			23.985	26.185
15+000	300	15,000	28.802			23.935	26.135
15+304	304	15,304	27.490			23.920	26.118
16+000	696	16,000	24.770			23.905	26.101
16+800	800	16,800	30.596			23.870	26.062
17+000	200	17,000	28.968			23.830	26.017
17+800	800	17,800	25.263			23.820	26.006
18+000	200	18,000	25.461			23.780	25.961
18+938	938	18,938	27.538			23.770	25.950
19+000	84	19,000	25.533			23.730	25.912
20+000	1,000	20,000	26.847			23.670	25.838
21+000	1,000	21,000	25.404			23.620	25.782
22+000	1,000	22,000	18.141			23.570	25.726
22+800	800	22,800	25.321			23.420	25.542
23+000	200	23,000	27.458			23.400	25.511
24+000	400	24,000	27.473			23.370	25.464
25+000	600	25,000	24.241			23.320	25.386
26+000	1,000	26,000	28.516			23.309	25.368
26+227	227	26,227	28.968			23.270	25.308
27+000	773	27,000	28.819			23.238	25.259
27+630	630	27,630	25.153	27.316	28.842	23.203	25.209
28+000	370	28,000	24.511	29.220	29.139	23.050	25.184
28+183	183	28,183	24.511	28.624	29.153	23.041	25.171
29+000	1,000	29,000	25.265	28.756	27.948	23.000	25.116
30+000	1,000	30,000	21.476	27.951	27.828	22.950	25.048
31+000	1,000	31,000	28.337	27.498	27.756	22.900	24.981
31+625	625	31,625	24.540			22.869	24.938
32+000	1,000	32,000	22.892	27.647	28.041	22.810	24.863
33+000	1,000	33,000	23.824	27.263	25.960	22.760	24.793
33+855	855	33,855	21.611			22.716	24.734
34+000	145	34,000	20.559	27.645	27.033	22.710	24.724
35+000	1,000	35,000	23.377	25.074	25.034	22.660	24.654

TYPE - AI
(Q=30.00 m³/s)

TYPE - AII
(Q=24.50 m³/s)

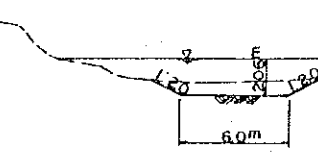


THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 MAIN CHANNEL - A
 LONGITUDINAL SECTION (1/21)
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 DRG NO



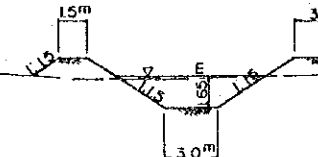
STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CANAL BED/GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
35+000	1,000	35,000	23.377	25.079	25.034	22.660	24.654
36+000	1,000	36,000	23.246	25.530	25.142	22.610	24.583
37+000	1,000	37,000	22.454	26.433	25.646	22.560	24.515
37+800	800	37,800	22.925	26.533	27.091	22.515	24.433
38+000	100	38,000	22.204	25.932	27.219	22.510	24.446
39+000	1,000	39,000	22.524	26.651	26.008	22.460	24.376
40+000	1,000	40,000	22.863	26.399	25.103	22.410	24.307
41+000	1,000	41,000	21.896	26.115	25.520	22.360	24.238
42+000	1,000	42,000	21.756	26.116	26.331	22.310	24.169
43+000	1,000	43,000	21.699	25.044	26.613	22.260	24.099
43+445	445	43,445	23.518	24.999	26.391	22.238	24.068
44+000	555	44,000	24.454	24.988	25.428	22.240	23.938
44+600	600	44,600	24.555	25.599	24.987	22.310	23.894
45+000	400	45,000	24.397	24.691	25.629	22.290	23.851
46+000	1,000	46,000	23.989	25.307	26.374	22.240	23.799
47+000	935	47,000	23.730	25.152	25.681	22.180	23.637
47+200	200	47,200	23.346	25.012	26.134	22.180	23.615
47+532	432	47,532	25.717	25.717	26.133	22.133	23.552
47+752	176	47,752	25.572	25.175	26.167	22.140	23.529
48+000	248	48,000	23.381	24.746	24.564	22.090	23.422
49+000	1,000	49,000	23.614	25.025	24.932	22.040	23.315
50+000	1,000	50,000	23.579	25.002	24.361	21.280	23.208
51+000	998	51,000	23.490	25.466	24.737	21.840	22.866
52+000	890	52,000	23.400	25.492	24.837	21.935	22.805
53+000	855	53,000	23.564	24.275	24.520	21.890	22.994
54+000	1,000	54,000	23.158	24.259	24.683	21.840	22.866
54+460	460	54,460	23.200	24.582	24.539	21.817	22.827
55+000	540	55,000	21.636	23.733	25.595	21.740	22.760
55+812	812	55,812	21.476	24.097	24.718	21.698	22.719
56+000	188	56,000	22.619	24.177	24.681	21.690	22.710
57+000	1,000	57,000	22.321	24.416	24.784	21.640	22.660
58+000	1,000	58,000	22.498	23.229	24.017	21.590	22.610
58+200	200	58,200	22.478	23.555	25.518	21.580	22.600
59+000	800	59,000	22.082	23.776	23.741	21.540	22.560
60+000	1,000	60,000	21.076	24.093	24.175	21.490	22.510
61+000	1,000	61,000	21.535	23.936	23.505	21.440	22.460
62+000	1,000	62,000	21.333	23.866	23.087	21.390	22.410
63+885	885	63,885	20.889	24.701	23.022	21.340	22.360
64+000	115	64,000	20.885	24.703	23.022	21.340	22.360
64+1000	1,000	64,1000	22.972	26.860	26.860	21.290	22.310
64+422	422	64,422	20.960	26.860	26.860	21.259	22.269

TYPE - AV
(Q = 7.22 m³/s)

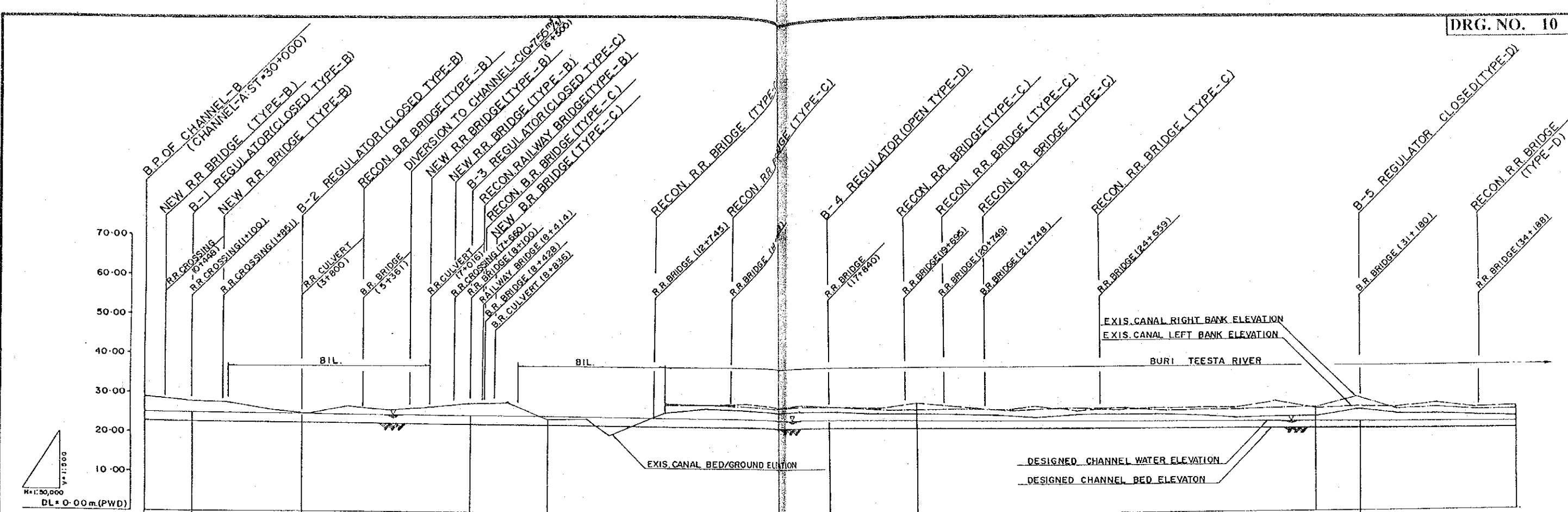


SCALE
0 50 100m

TYPE - AV
(Q = 2.57 m³/s)

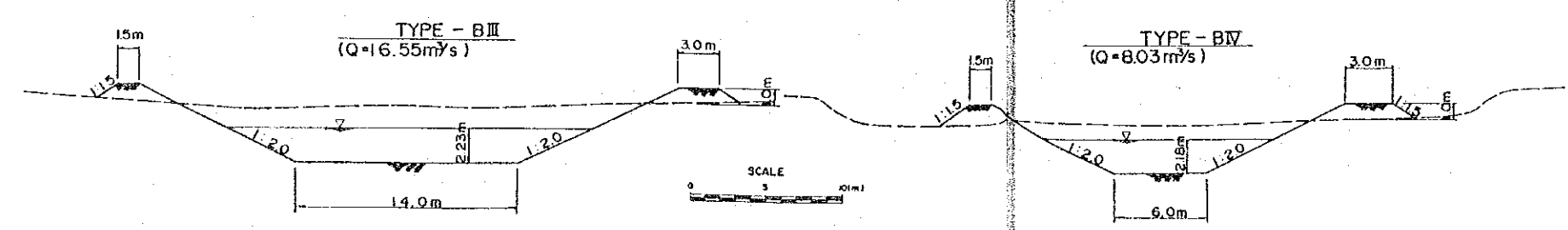


THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 MAIN CHANNEL - A
 LONGITUDINAL SECTION (2/2)
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 ORG NO

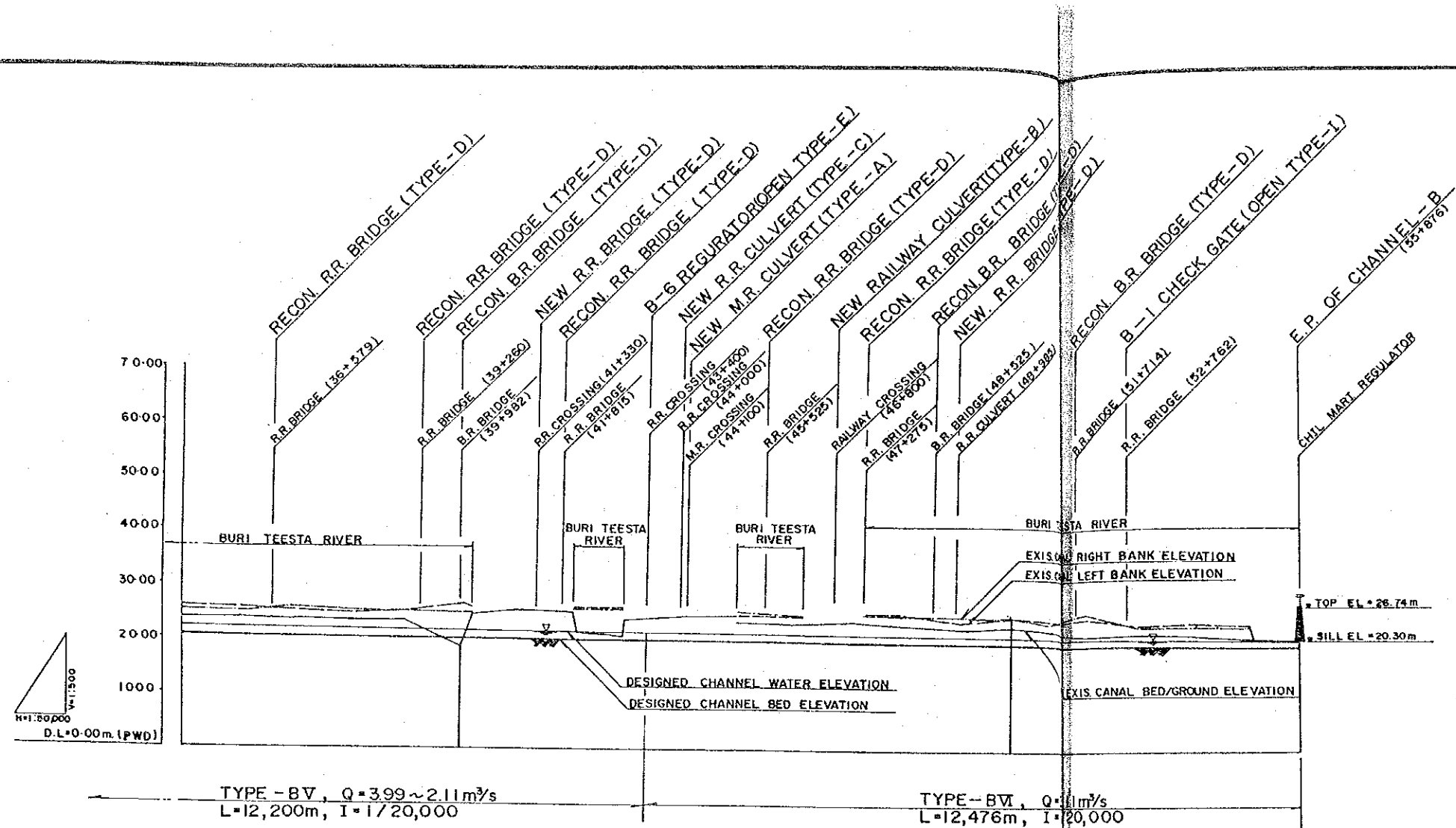


TYPE-BIII-1 Q=16.55m³/s L=1,100m I=1/20,000
 TYPE-BIII-2 Q=16.55~16.00m³/s L=2,700m I=1/20,000
 TYPE-BIII-3 Q=16.00~15.58m³/s L=4,300m I=1/20,000
 TYPE-BIV-1 Q=8.03~6.05m³/s L=9,740m I=1/20,000
 TYPE-BV-2 Q=6.05~3.99m³/s L=13,340m I=1/20,000
 TYPE-BV Q=3.99~2.11m³/s L=12,220m I=1/20,000

STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS CANAL BED/GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0	0	28.791			22.770	28.000
0+448	448	448	27.285			22.748	24.978
1+000	552	1,000	27.877			22.720	24.950
1+100	100	1,100	27.884			22.720	24.950
1+851	851	1,851	26.391			22.669	24.895
2+000	1,495	2,000	26.385			22.650	24.837
3+000	1,000	3,000	25.649			22.570	24.772
3+800	800	3,800	25.978			22.530	24.720
4+000	1,800	4,000	24.701			22.470	24.658
5+000	1,000	5,000	26.343			22.420	24.596
5+361	361	5,361	25.694			22.402	24.574
6+000	639	6,000	25.735			22.370	24.534
6+500	500	6,500	25.504			22.330	24.472
7+000	500	7,000	26.502			22.319	24.472
7+660	660	7,660	26.444			22.287	24.432
8+000	340	8,000	27.261			22.270	24.411
8+100	100	8,100	27.512			22.265	24.405
8+414	414	8,414	27.512			22.245	24.385
8+428	428	8,428	27.201			22.215	24.350
8+836	836	8,836	26.894			22.198	24.328
9+000	1,000	9,000	27.420			22.138	24.282
10+000	1,000	10,000	23.438			22.080	24.201
11+000	1,000	11,000	23.985			22.030	24.121
12+000	1,000	12,000	24.418			21.980	24.040
12+745	745	12,745	26.233			21.943	23.980
13+000	255	13,000	25.397			21.930	23.959
14+000	1,000	14,000	26.285			21.880	23.878
14+669	669	14,669	25.918			21.847	23.824
15+000	331	15,000	25.900			21.830	23.797
16+000	1,000	16,000	26.622			21.790	23.735
17+000	1,000	17,000	25.705			21.730	23.636
17+840	840	17,840	25.548			21.688	23.568
18+000	160	18,000	25.656			21.636	23.518
19+000	1,000	19,000	25.136			21.580	23.427
19+695	695	19,695	25.455			21.545	23.372
20+000	305	20,000	25.022			21.530	23.348
20+749	749	20,749	24.878			21.493	23.290
21+000	251	21,000	24.890			21.480	23.270
21+748	748	21,748	24.651			21.443	23.211
22+000	252	22,000	24.668			21.430	23.191
23+000	1,000	23,000	23.870			21.380	23.115
24+000	1,000	24,000	24.567			21.330	23.035
24+659	659	24,659	24.415			21.297	22.983
25+000	341	25,000	24.589			21.280	22.946
26+000	1,000	26,000	24.623			21.230	22.878
27+000	1,000	27,000	24.412			21.180	22.799
28+000	1,000	28,000	23.583			21.130	22.721
29+000	1,000	29,000	23.903			21.080	22.642
30+000	1,000	30,000	23.664			21.030	22.564
31+000	1,000	31,000	23.932			20.990	22.485
31+180	180	31,180	24.315			20.955	22.421
32+000	820	32,000	24.446			20.920	22.346
33+000	1,000	33,000	24.477			20.870	22.286
34+000	1,000	34,000	23.928			20.820	22.218
34+188	188	34,188	23.644			20.770	22.148
35+000	1,000	35,000	23.753			20.720	22.074



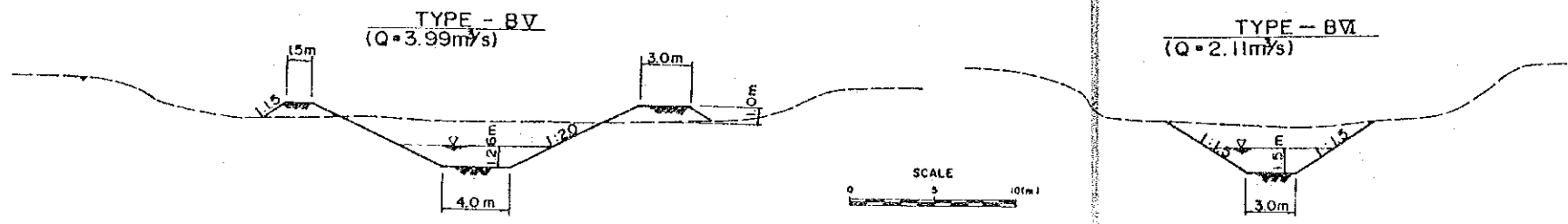
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 MAIN CHANNEL - B
 LONGITUDINAL SECTION (1/2)
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE: OCT 1992 DRG NO:



TYPE - BV, Q = 3.99 ~ 2.11 m³/s
L = 12,200m, I = 1/20,000

TYPE - B, Q = 2.11 m³/s
L = 12,476m, I = 1/20,000

STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS CANAL BED/GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
35+000	1,000	35,000	23.753	25.288	25.979	20.470	22.074
36+000	1,000	36,000	23.608	24.960	25.902	20.420	21.983
36+079	79	36,079	23.656	25.462	25.199	20.391	21.930
37+000	221	37,000	23.553	25.677	25.181	20.370	21.892
38+000	1,000	38,000	23.497	25.208	24.979	20.320	21.861
39+000	1,000	39,000	23.502	25.077	25.117	20.270	21.710
39+280	280	39,280	23.465	25.338	25.173	20.237	21.656
39+882	782	39,882	18.752	25.032	26.136	20.221	21.621
40+000	118	40,000	18.747	25.053	26.152	20.220	21.619
41+000	1,000	41,000	25.293	24.432	25.027	20.070	21.346
41+330	330	41,330	24.424	24.432	25.027	20.070	21.346
41+815	485	41,815	24.929	24.657	25.073	20.120	21.454
42+000	185	42,000	23.103	25.489	25.973	20.120	21.437
43+000	1,000	43,000	22.887	24.432	25.027	20.070	21.346
43+400	400	43,400	23.939	24.432	25.027	20.070	21.346
44+000	600	44,000	24.110	24.802	25.193	19.680	21.180
44+100	100	44,100	24.219	24.802	25.193	19.680	21.180
45+000	900	45,000	24.658	24.802	25.193	19.680	21.180
45+525	525	45,525	23.109	24.657	25.073	19.654	21.154
46+000	475	46,000	23.004	25.094	24.528	19.630	21.130
46+800	800	46,800	22.787	24.587	24.733	19.530	21.030
47+000	200	47,000	23.002	24.990	25.824	19.504	21.004
47+275	275	47,275	23.278	24.831	24.831	19.481	20.981
48+000	725	48,000	22.932	24.587	24.733	19.530	21.030
48+525	525	48,525	21.509	24.990	25.824	19.504	21.004
49+000	460	49,000	22.582	24.990	25.824	19.481	20.981
50+000	1,000	50,000	22.586	24.345	24.296	19.430	20.930
51+000	1,000	51,000	21.930	23.480	23.520	19.380	20.880
51+714	714	51,714	21.657	23.480	23.520	19.380	20.880
52+000	1,000	52,000	21.126	23.191	24.294	19.330	20.830
53+762	762	53,762	21.323	22.659	22.905	19.280	20.780
54+000	238	54,000	21.310	22.660	22.887	19.280	20.780
54+000	1,000	54,000	21.070	22.759	23.218	19.230	20.730
55+000	1,000	55,000	21.402	22.306	22.936	19.180	20.680
55+875	875	55,875	20.304	19.136	20.636	19.136	20.636

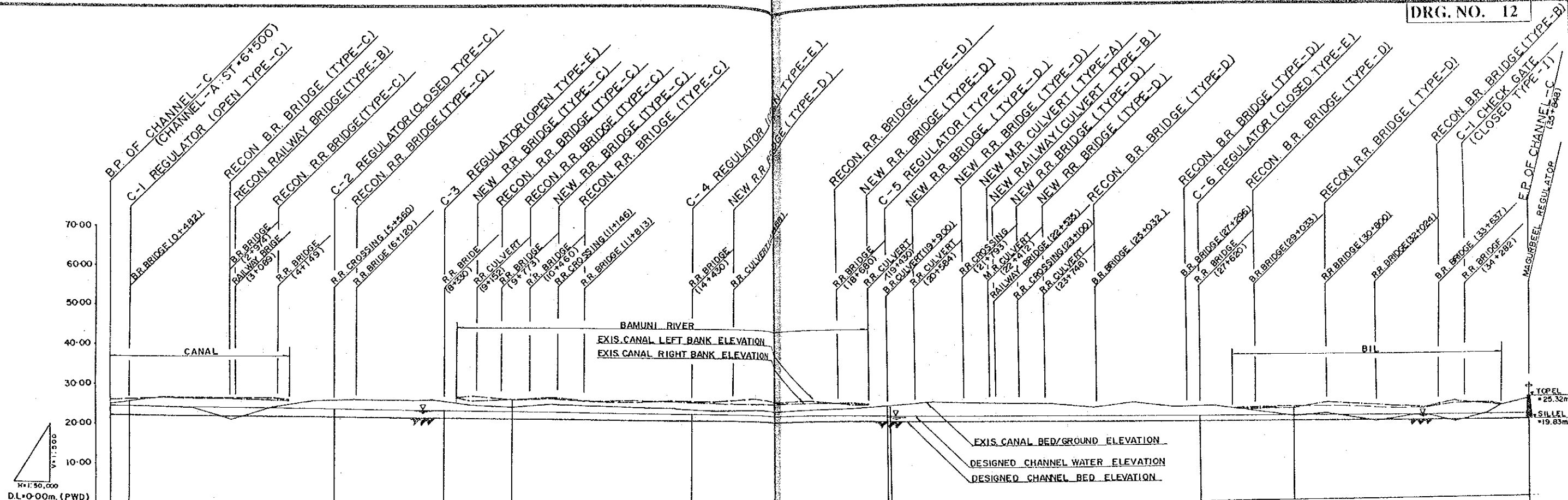


THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT

MAIN CHANNEL - B
 LONGITUDINAL SECTION (2/2)

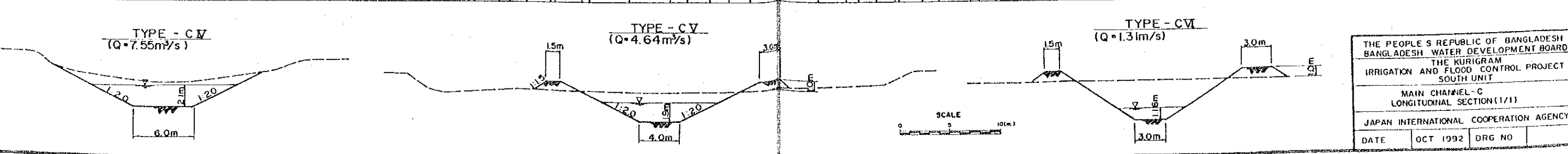
JAPAN INTERNATIONAL COOPERATION AGENCY

DATE: OCT 1992 DRG NO:

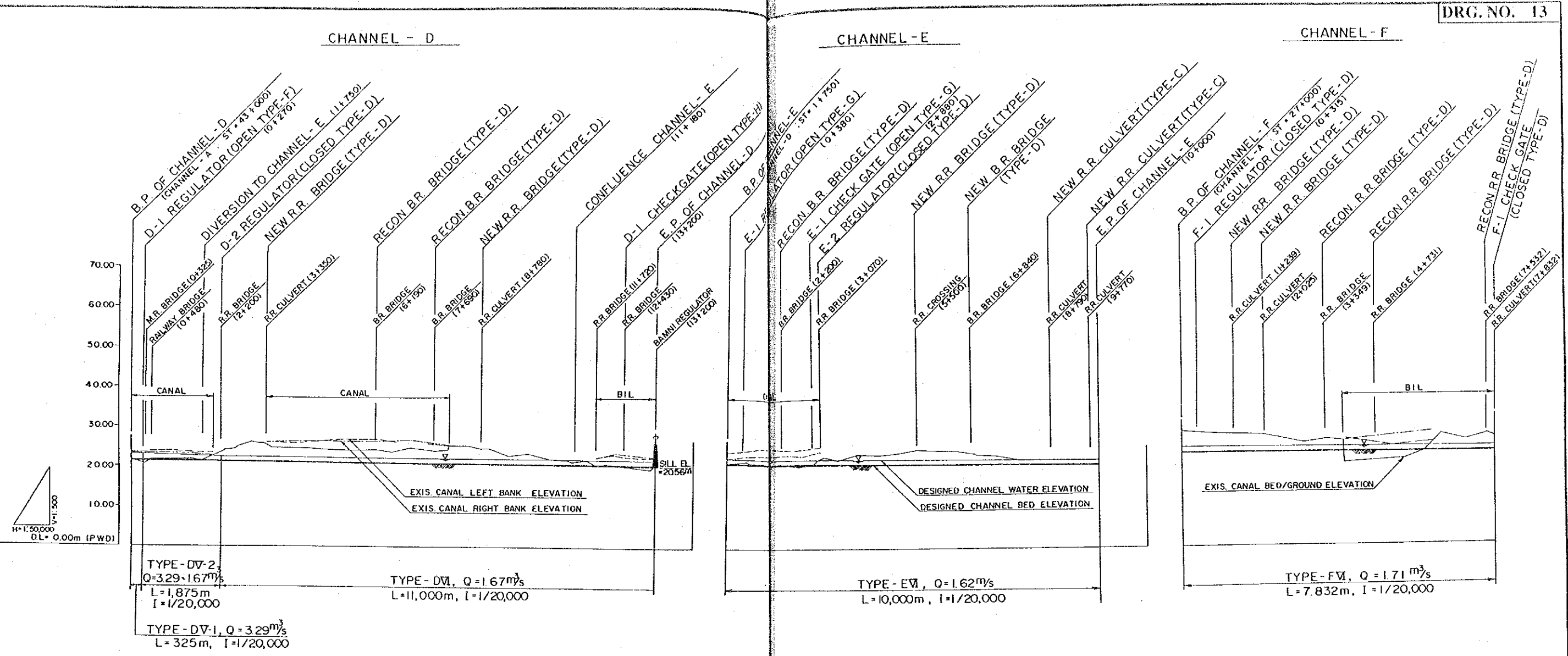


TYPE-CV-2, Q=7.55~6.55m ³ /s L=5,078m, I=1/20,000	TYPE-CV-3, Q=6.55~6.05m ³ /s L=2,770m, I=1/20,000	TYPE-CV-4, Q=6.05~4.64m ³ /s L=6,100m, I=1/20,000	TYPE-CV, Q=4.64~2.90m ³ /s L=5,470m, I=1/20,000	TYPE-CV-1, Q=2.90~1.31m ³ /s L=7,720m, I=1/20,000	TYPE-CV-2, Q=1.31m ³ /s L=8,228m, I=1/20,000
TYPE-CI-1, Q=7.55m ³ /s L=482m, I=1/20,000					

STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CANAL BED/GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0.00	0.00	24.439	25.029	25.069	25.350	24.450
0+482	482	482	24.285	26.544	27.053	25.326	24.326
1+000	1,000	1,000	24.401	26.539	26.544	25.276	24.376
2+000	2,000	2,000	24.139	26.928	26.412	25.250	24.256
2+482	2,482	2,482	22.028	26.294	26.550	25.181	24.183
2+964	2,964	2,964	22.561	26.294	26.550	25.146	24.194
3+000	3,000	3,000	24.211	26.023	26.519	25.100	24.103
3+482	3,482	3,482	23.753	25.979	26.782	25.053	24.051
4+000	4,000	4,000	25.731	25.882	27.032	25.000	24.000
5+000	5,000	5,000	25.551	26.526	26.366	24.942	23.942
5+560	5,560	5,560	25.551	26.397	26.313	24.882	23.882
6+000	6,000	6,000	25.640	26.357	26.300	24.822	23.822
6+120	6,120	6,120	25.640	26.469	27.119	24.762	23.762
7+000	7,000	7,000	26.169	26.845	26.459	24.702	23.702
8+000	8,000	8,000	26.210	26.468	26.160	24.642	23.642
8+330	8,330	8,330	25.184	26.441	25.686	24.582	23.582
9+000	9,000	9,000	24.932	26.441	25.686	24.522	23.522
9+152	9,152	9,152	24.932	25.801	25.851	24.462	23.462
10+000	10,000	10,000	24.623	26.367	25.842	24.402	23.402
10+400	10,400	10,400	24.560	25.914	25.201	24.342	23.342
11+000	11,000	11,000	25.063	26.670	26.445	24.282	23.282
11+146	11,146	11,146	26.792	26.479	25.906	24.222	23.222
12+000	12,000	12,000	24.786	26.261	25.786	24.162	23.162
13+000	13,000	13,000	24.266	25.305	26.766	24.102	23.102
14+000	14,000	14,000	24.411	25.479	25.906	24.042	23.042
14+430	14,430	14,430	24.394	25.479	25.906	23.982	22.982
15+000	15,000	15,000	23.689	25.261	25.786	23.922	22.922
16+000	16,000	16,000	23.953	25.305	26.766	23.862	22.862
17+000	17,000	17,000	23.693	25.510	26.320	23.802	22.802
18+000	18,000	18,000	23.003	26.423	25.464	23.742	22.742
19+000	19,000	19,000	23.998	25.689	25.291	23.682	22.682
20+000	20,000	20,000	24.469	20.679	22.395	23.622	22.622
21+000	21,000	21,000	24.971	20.855	22.335	23.562	22.562
22+000	22,000	22,000	24.764	20.532	22.272	23.502	22.502
23+000	23,000	23,000	24.979	20.491	22.198	23.442	22.442
24+000	24,000	24,000	25.490	20.470	22.145	23.382	22.382
25+000	25,000	25,000	25.006	20.430	22.043	23.322	22.322
26+000	26,000	26,000	25.250	20.420	22.017	23.262	22.262
27+000	27,000	27,000	24.349	20.399	21.964	23.202	22.202
28+000	28,000	28,000	24.795	20.370	21.899	23.142	22.142
29+000	29,000	29,000	25.052	20.360	21.876	23.082	22.082
30+000	30,000	30,000	24.375	20.333	21.794	23.022	22.022
31+000	31,000	31,000	24.138	20.320	21.761	22.962	21.962
32+000	32,000	32,000	23.898	20.270	21.634	22.902	21.902
33+000	33,000	33,000	23.643	20.268	21.630	22.842	21.842
34+000	34,000	34,000	24.992	20.220	21.506	22.782	21.782
35+000	35,000	35,000	23.955	20.170	21.378	22.722	21.722
36+000	36,000	36,000	22.612	20.155	21.340	22.662	21.662
37+000	37,000	37,000	23.462	20.139	21.299	22.602	21.602
38+000	38,000	38,000	23.986	20.089	21.249	22.542	21.542
39+000	39,000	39,000	21.123	20.070	21.230	22.482	21.482
40+000	40,000	40,000	22.457	20.033	21.180	22.422	21.422
41+000	41,000	41,000	22.344	20.016	21.178	22.362	21.362
42+000	42,000	42,000	21.197	20.000	21.130	22.302	21.302
43+000	43,000	43,000	21.803	20.484	23.484	22.242	21.242
44+000	44,000	44,000	20.786	22.712	22.987	22.182	21.182
45+000	45,000	45,000	19.683	23.957	22.995	22.122	21.122
46+000	46,000	46,000	19.821	23.620	23.620	22.062	21.062
47+000	47,000	47,000	21.123	22.941	23.162	22.002	21.002
48+000	48,000	48,000	21.297	23.503	23.073	21.942	20.942
49+000	49,000	49,000	19.320	24.541	23.690	21.882	20.882
50+000	50,000	50,000	21.234	23.046	23.713	21.822	20.822
51+000	51,000	51,000	21.091	23.494	23.620	21.762	20.762
52+000	52,000	52,000	21.635	23.678	23.678	21.702	20.702



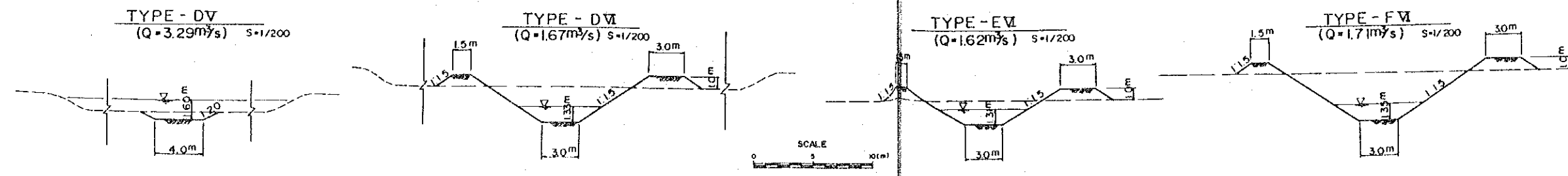
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 MAIN CHANNEL - C
 LONGITUDINAL SECTION (1/11)
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 DRG NO



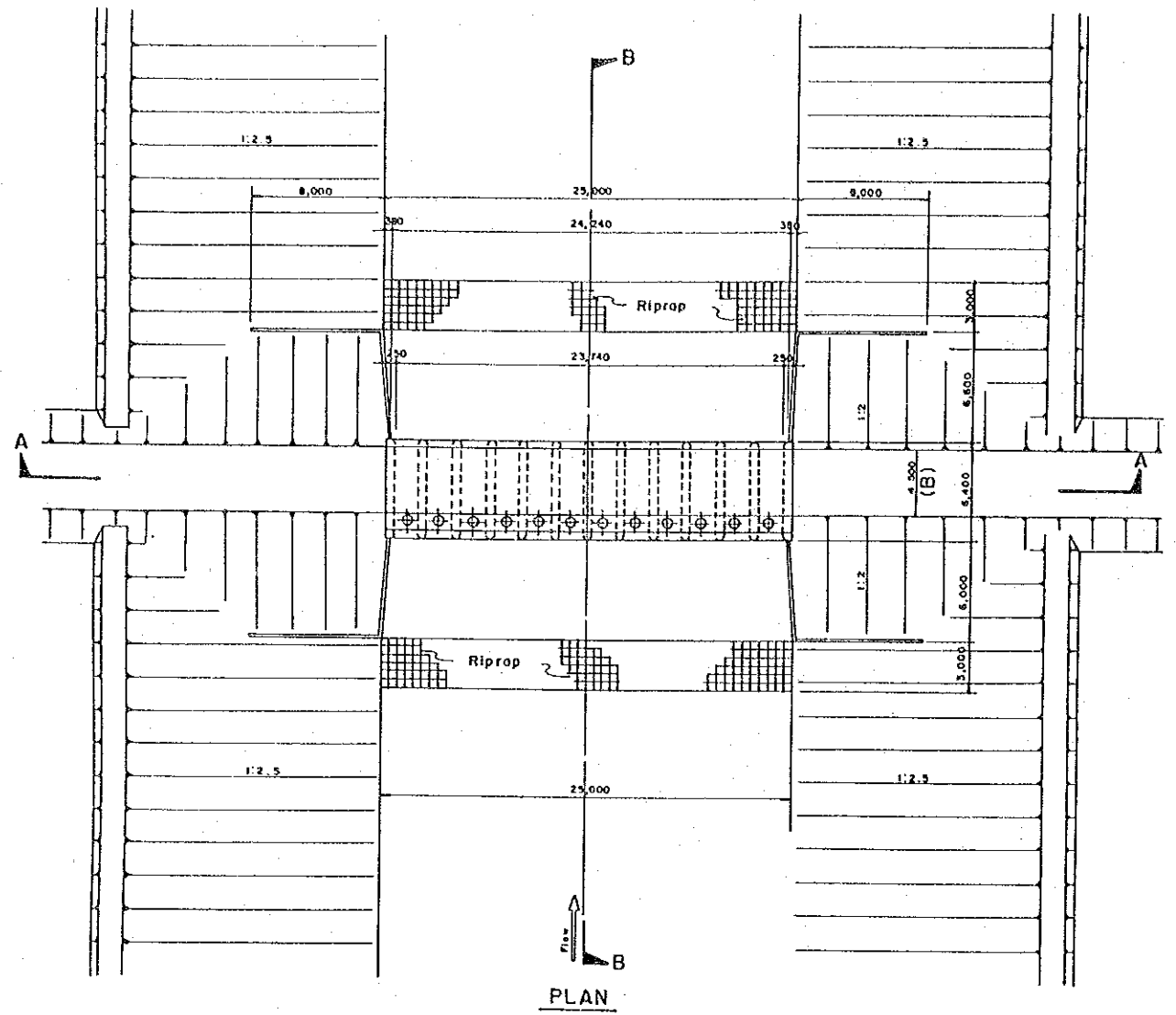
STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CANAL BED / GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0	0	21.700	23.240	23.870	21.300	21.100
0+100	270	270	21.300	23.240	23.870	21.300	21.100
0+200	135	405	21.650	23.100	23.850	21.400	22.818
1+000	520	1,000	21.650	23.100	23.850	21.400	22.818
1+750	750	1,750	21.480	22.840	23.370	21.353	22.595
2+000	250	2,000	22.760	22.840	23.370	21.350	22.580
2+200	200	2,200	23.620	25.990	21.023	21.080	22.410
3+000	800	3,000	26.230	25.940	21.040	21.040	22.370
3+350	150	3,350	23.530	25.940	21.023	21.023	22.353
4+000	650	4,000	24.760	25.320	20.990	20.990	22.320
5+000	1,000	5,000	24.400	26.440	20.940	20.940	22.270
6+190	1,190	6,190	24.320	26.420	21.030	20.981	22.211
7+000	810	7,000	23.950	26.770	20.910	20.940	22.170
7+690	690	7,690	24.000	25.320	20.806	20.806	22.136
8+000	310	8,000	25.330	25.320	20.790	20.790	22.120
8+780	780	8,780	24.720	22.680	20.751	20.751	22.081
9+000	200	9,000	24.630	22.510	20.740	20.740	22.070
10+000	1,000	10,000	23.400	22.510	20.690	20.690	22.020
11+000	1,000	11,000	21.750	22.510	20.640	20.640	21.970
11+180	180	11,180	21.490	22.510	20.631	20.631	21.961
11+720	540	11,720	20.590	22.420	20.604	20.604	21.934
12+000	280	12,000	20.800	22.370	20.590	20.590	21.920
12+430	430	12,430	20.300	22.370	20.569	20.569	21.899
13+000	370	13,000	19.750	22.370	20.540	20.540	21.870
13+200	200	13,200	20.560	22.370	20.530	20.530	21.860

STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CANAL BED / GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0	0	21.480	22.630	24.020	21.252	22.562
0+380	380	380	21.240	22.630	24.020	21.233	22.543
1+000	620	1,000	21.400	23.240	25.190	21.192	22.462
2+000	1,000	2,000	21.290	23.420	24.930	21.102	22.412
2+880	880	2,880	20.860	24.220	25.460	21.058	22.368
3+070	190	3,070	22.550	25.460	25.460	21.059	22.359
4+000	930	4,000	23.600	25.460	25.460	20.992	22.262
5+000	1,000	5,000	23.780	25.460	25.460	20.902	22.212
5+500	500	5,500	24.540	25.460	25.460	20.977	22.187
6+000	500	6,000	24.290	25.460	25.460	20.852	22.162
6+840	840	6,840	23.700	25.460	25.460	20.810	22.120
7+000	160	7,000	23.280	25.460	25.460	20.802	22.112
8+000	1,000	8,000	22.060	25.460	25.460	20.752	22.062
8+790	790	8,790	22.100	25.460	25.460	20.713	22.023
9+000	210	9,000	22.030	25.460	25.460	20.703	22.012
9+770	770	9,770	21.530	25.460	25.460	20.664	21.974
10+000	230	10,000	21.460	25.460	25.460	20.652	21.962

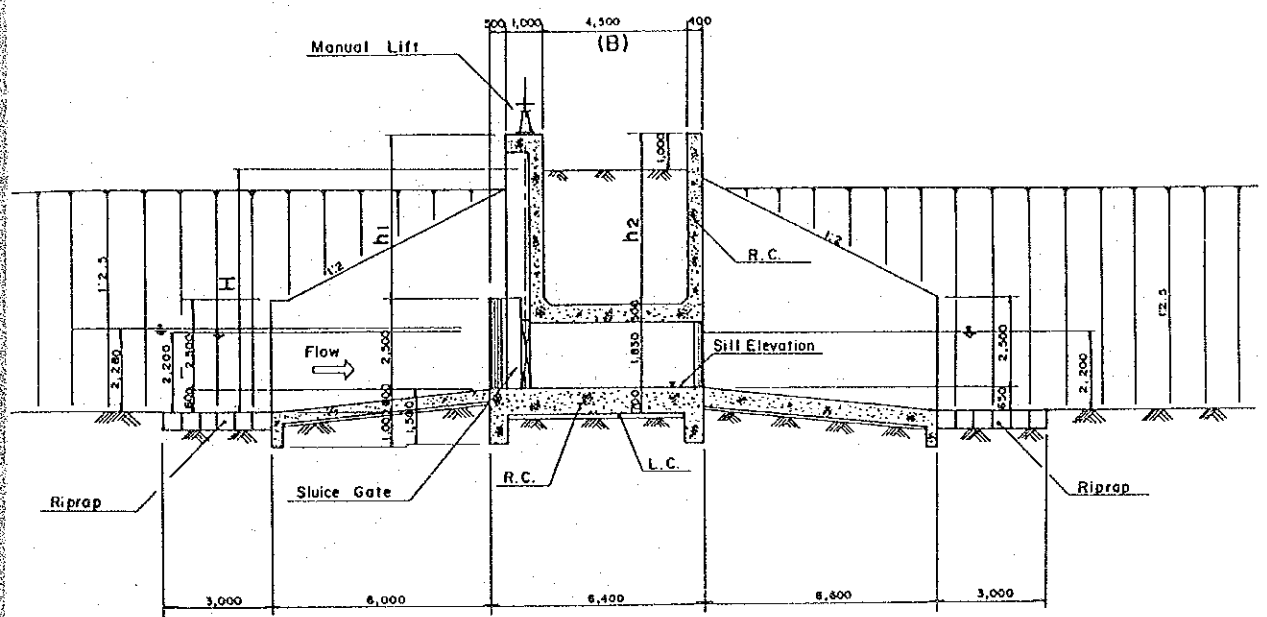
STATION	DISTANCE	ACCUMULATED DISTANCE	EXIS. CANAL BED / GROUND ELEVATION	EXISTING RIGHT BANK ELEVATION	EXISTING LEFT BANK ELEVATION	DESIGNED CHANNEL BED ELEVATION	DESIGNED CHANNEL WATER ELEVATION
0+000	0	0	28.785	26.247	26.553	23.290	24.640
0+315	315	315	28.047	26.247	26.553	23.140	24.490
1+000	1,000	1,000	28.107	26.247	26.553	23.253	24.603
1+239	239	1,239	27.474	26.247	26.553	23.240	24.590
2+025	1,025	2,025	26.883	26.247	26.553	23.190	24.540
3+000	975	3,000	25.765	26.247	26.553	23.140	24.490
3+349	349	3,349	26.467	26.247	26.553	23.113	24.463
4+000	651	4,000	20.426	26.247	26.553	23.094	24.446
4+731	731	4,731	22.663	26.247	26.553	23.040	24.390
5+000	269	5,000	21.315	26.247	26.553	23.000	24.300
6+000	1,000	6,000	23.300	26.247	26.553	22.950	24.250
7+000	1,000	7,000	26.019	26.247	26.553	22.900	24.200
7+532	532	7,532	26.130	26.247	26.553	22.850	24.150
7+832	832	7,832	27.277	26.247	26.553	22.800	24.100



THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 MAIN CHANNEL D, E AND F
 LONGITUDINAL SECTION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 DRG NO



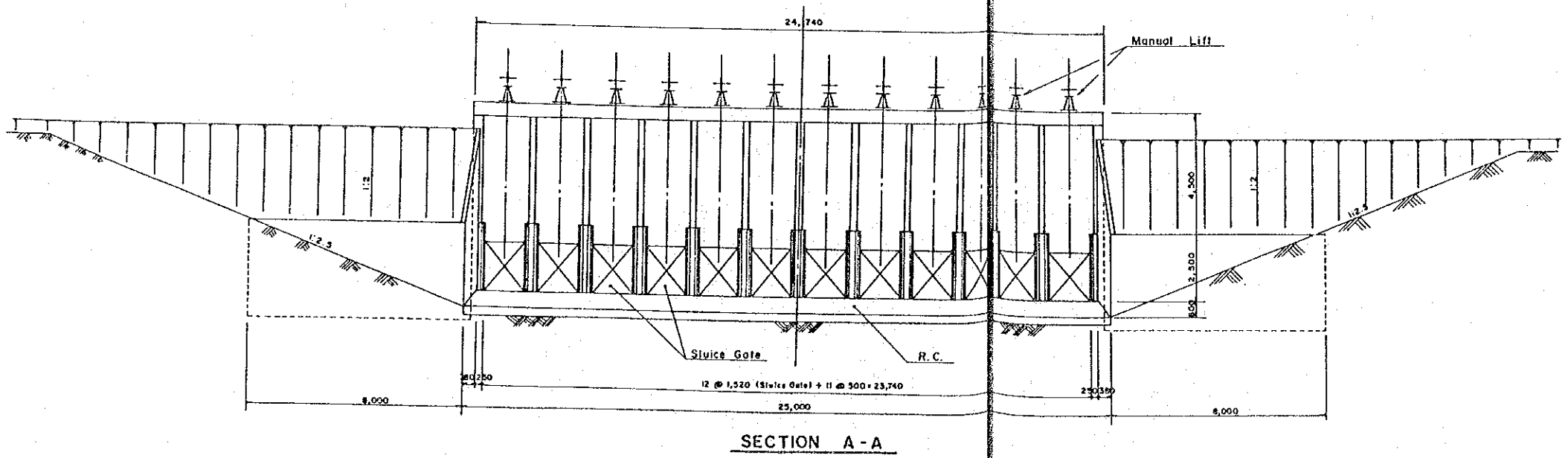
PLAN



SECTION B-B

Dimensions

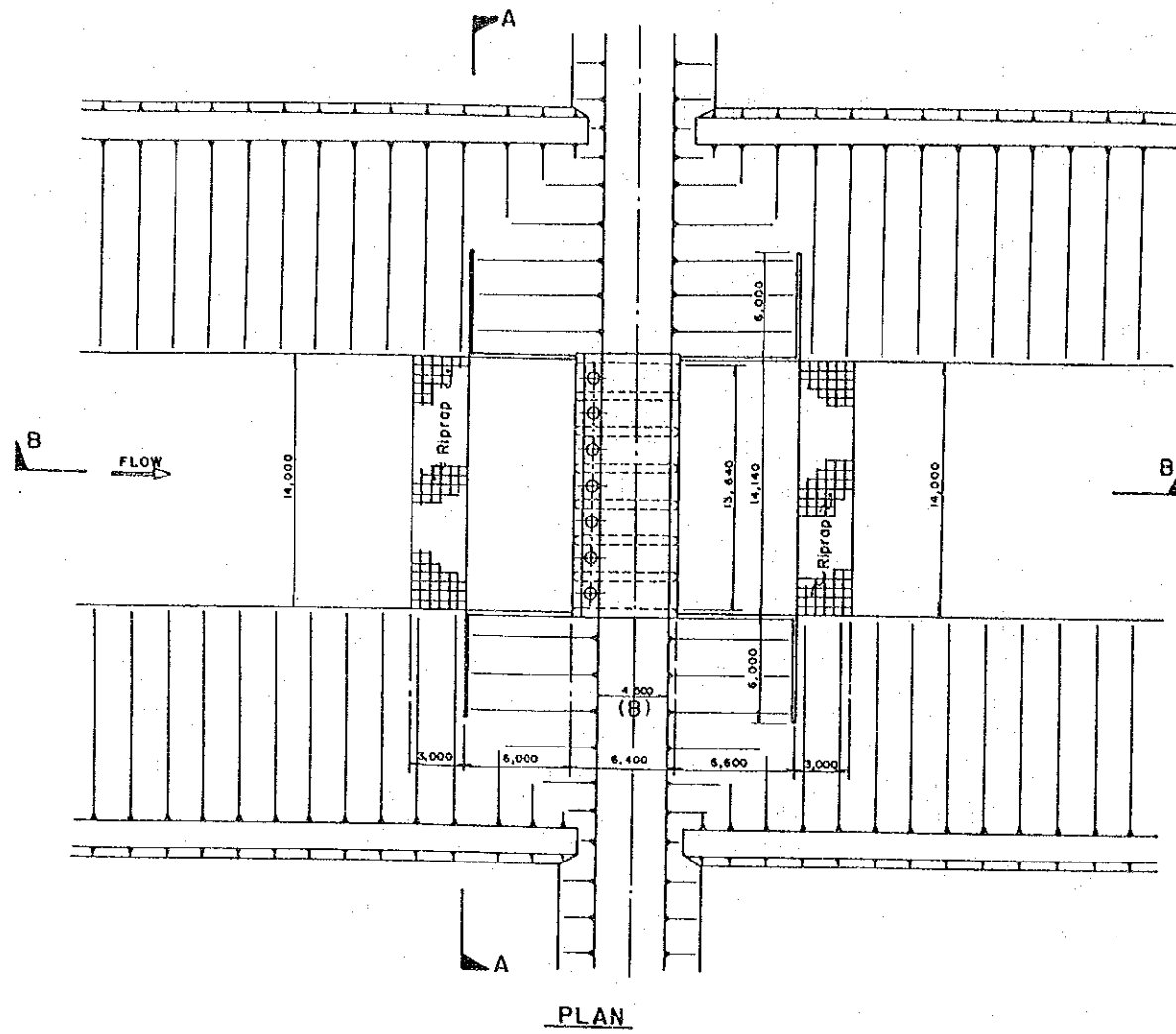
Reg. Name	B	H	h ₁	h ₂	Sill EL.
A - 1	4.5	6.0	3.90	4.07	24.585
A - 2	4.5	7.0	4.90	5.07	24.119



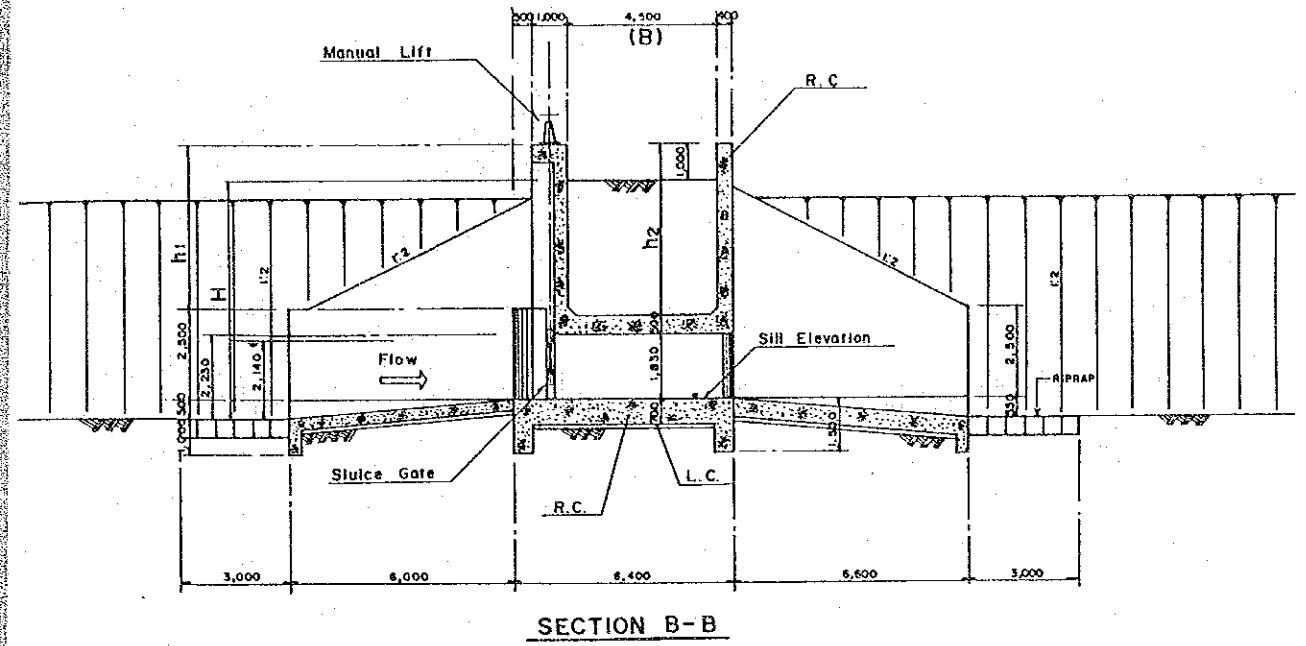
SECTION A-A

THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR, CLOSED TYPE - A
 PLAN AND SECTIONS
 JAPAN INTERNATIONAL COOPERATION AGENCY

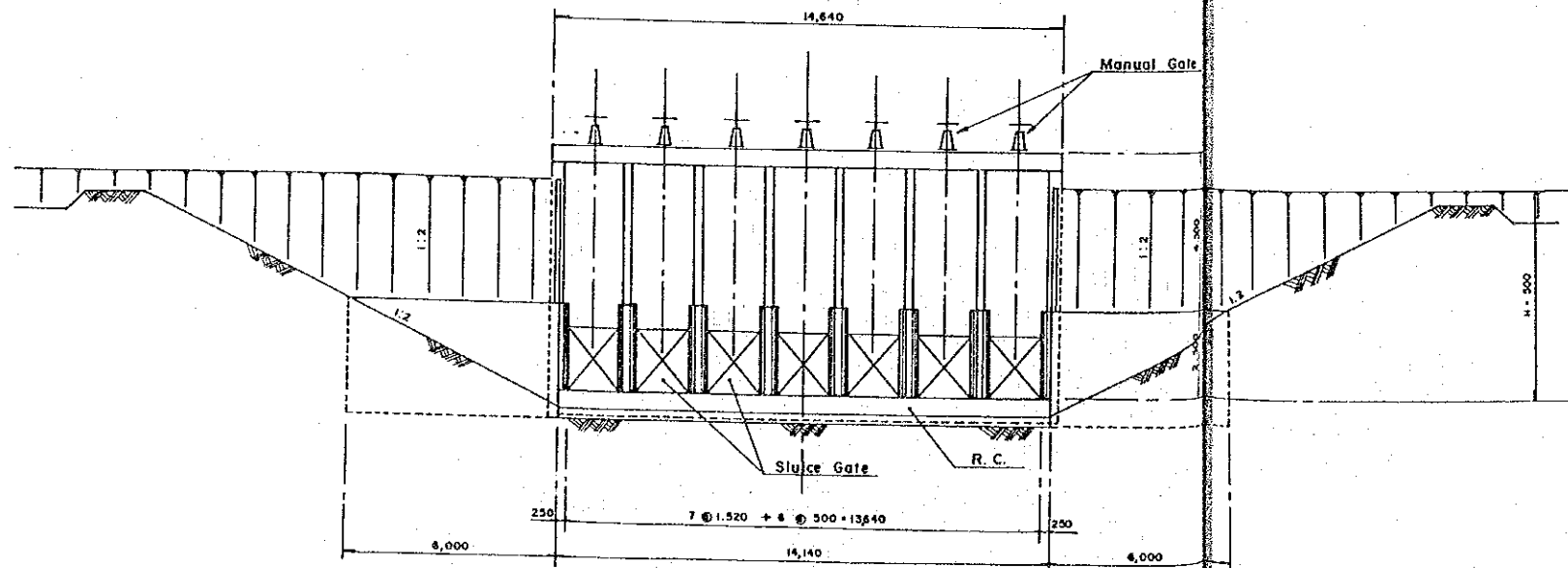
DATE OCT. 1992 ORG. NO.



PLAN



SECTION B-B

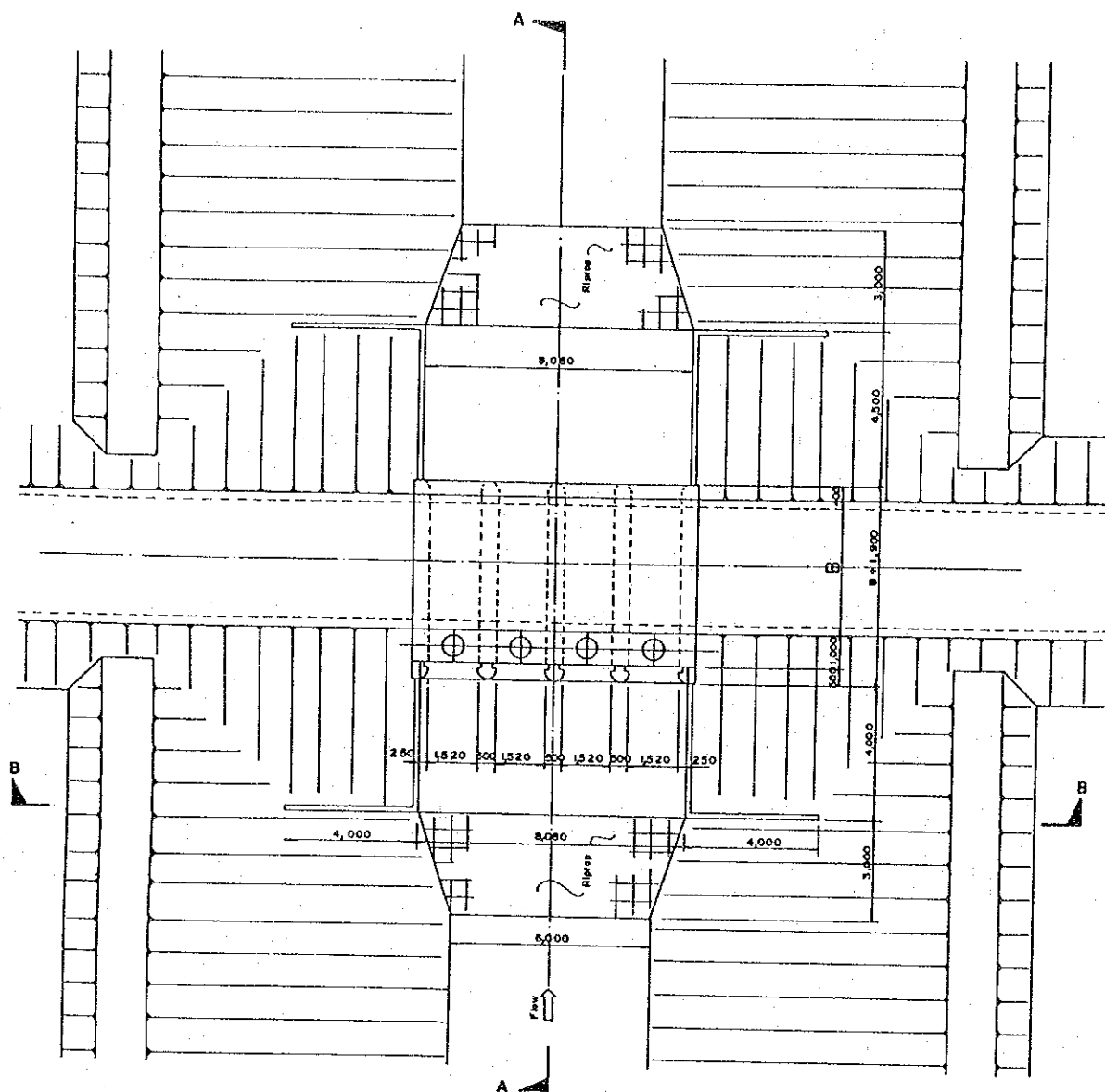


SECTION A-A

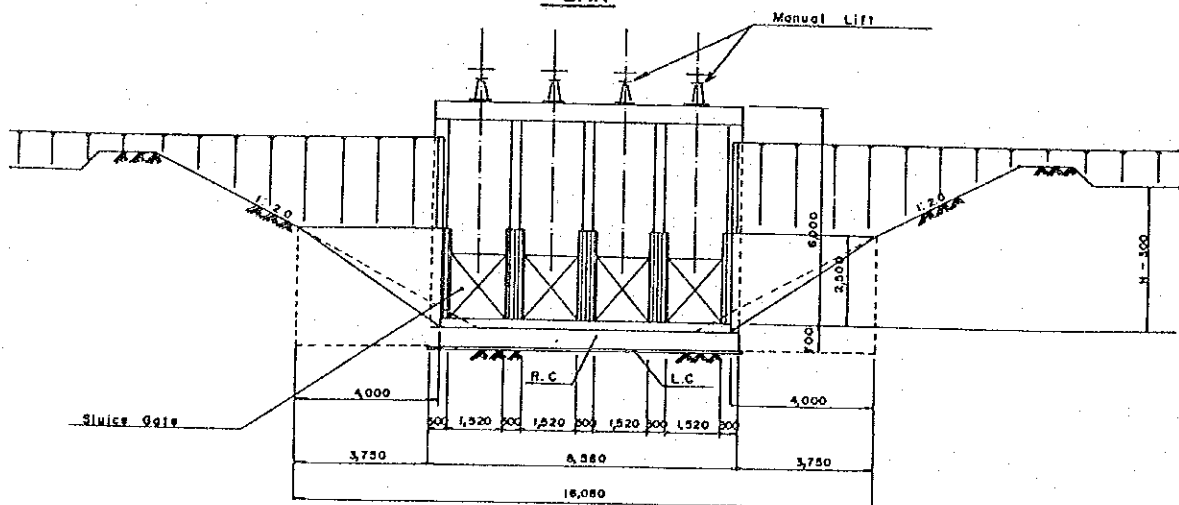
Dimensions

Reg. Name	B	H	h ₁	h ₂	Sill EL.
B-1	4.5	6.5	4.50	4.67	22.215
B-2	4.5	6.0	4.00	4.17	21.980

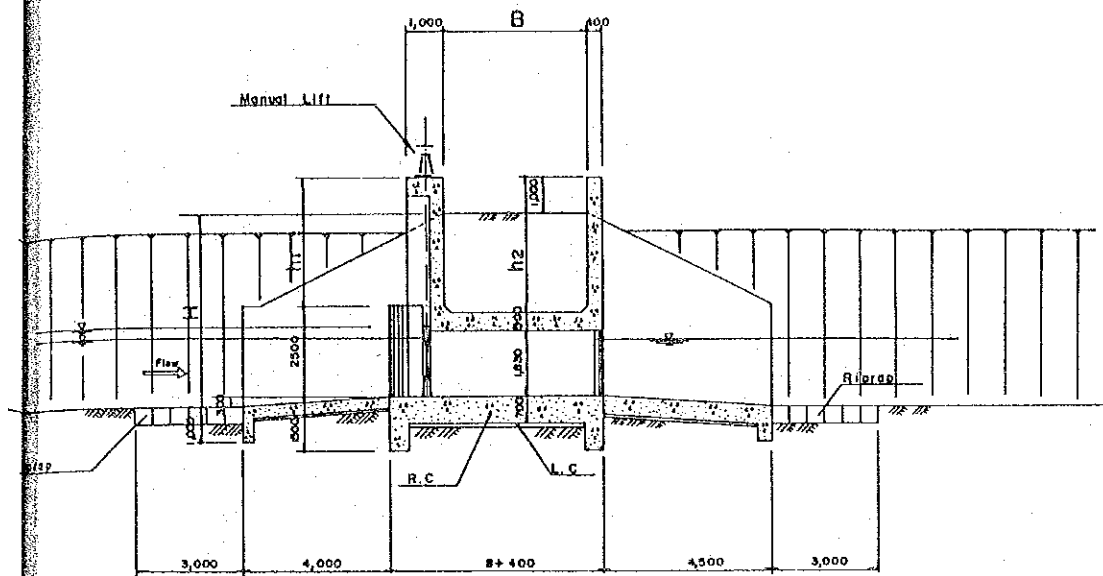
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
**REGULATOR CLOSED TYPE-B
 PLAN AND SECTIONS**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 DRG. NO.



PLAN



SECTION B-B



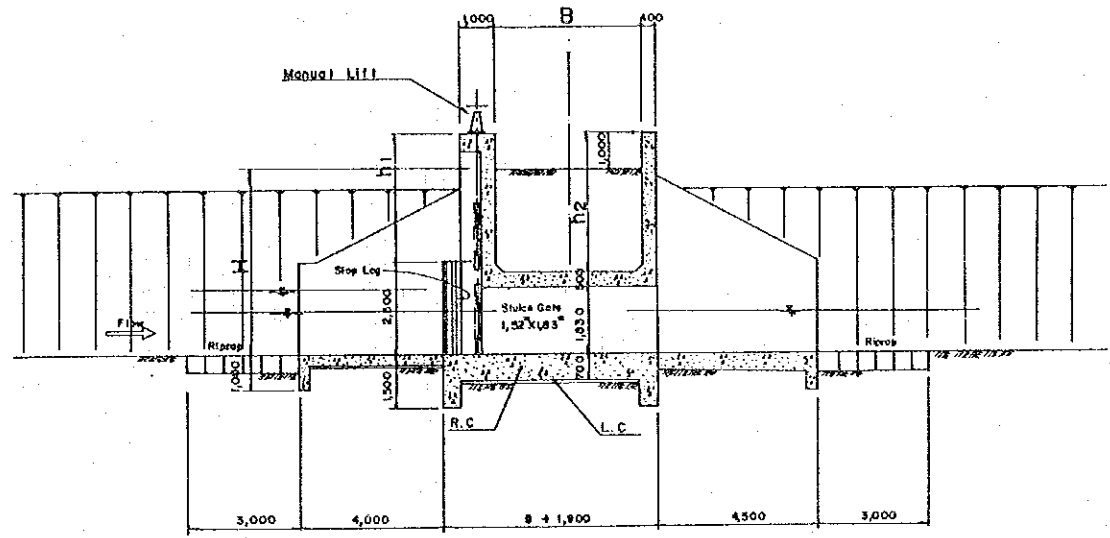
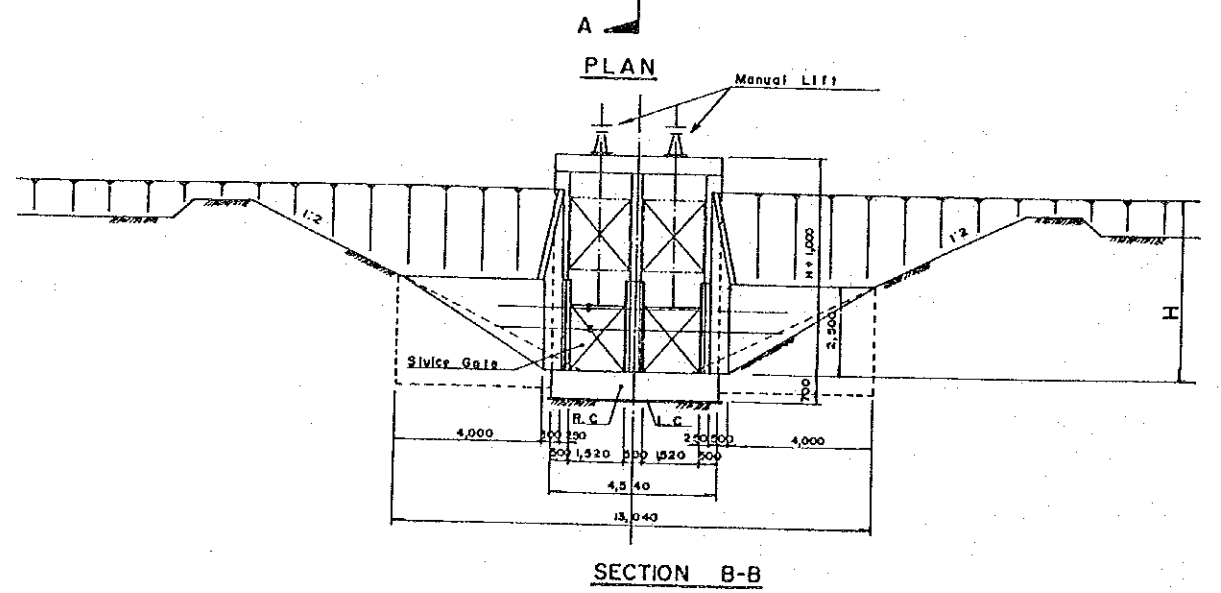
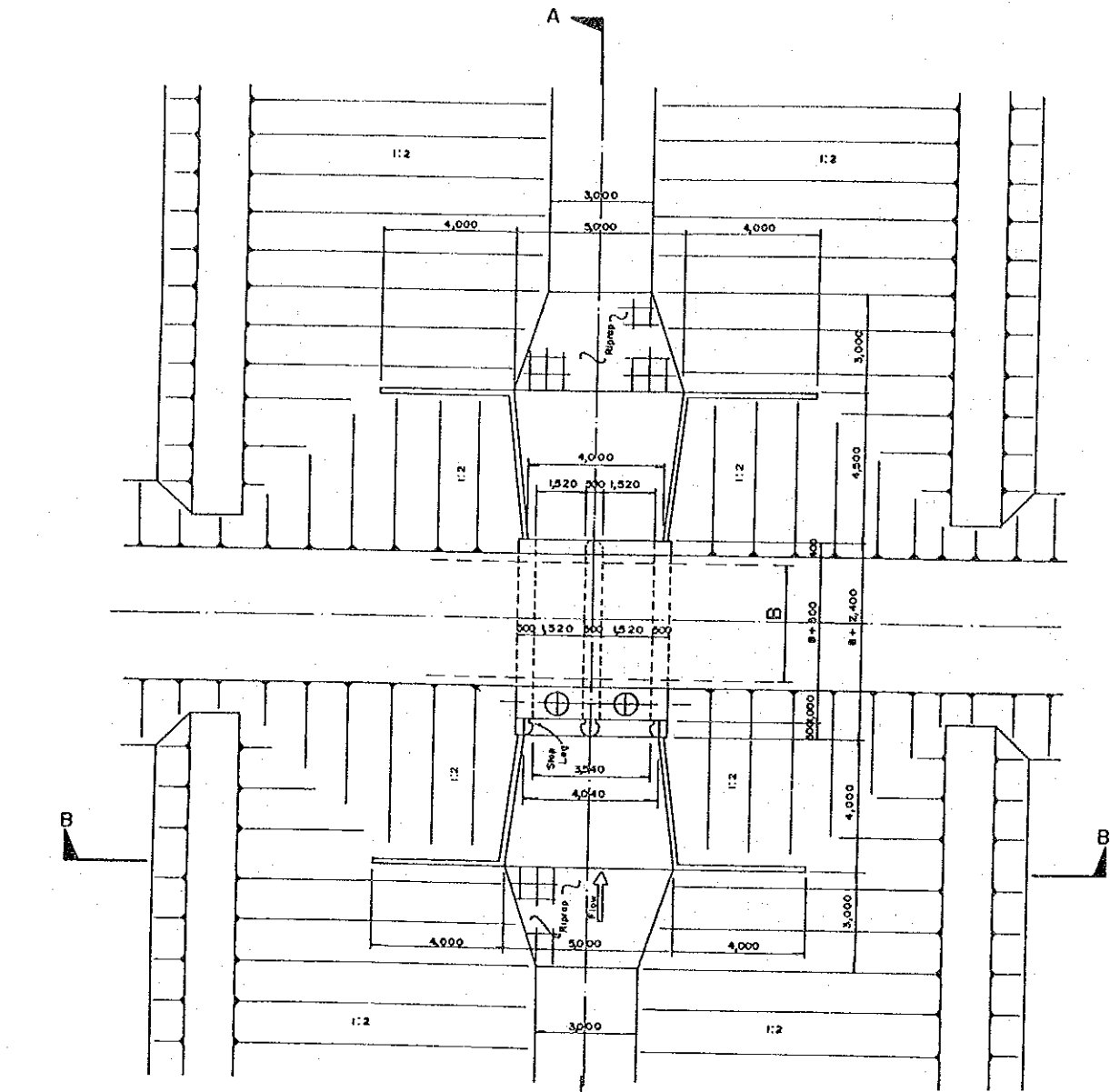
SECTION A-A

Dimensions

Reg. Name	B	H	h ₁	h ₂	Sill E.L.
B - 3	4.5	6.8	4.80	4.97	21.965
C - 2	3.0	5.5	3.70	3.86	22.022

(Unit: m)

THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
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 SOUTH UNIT
**REGULATOR CLOSED TYPE - C
 PLAN AND SECTIONS**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT. 1992 DRG NO.

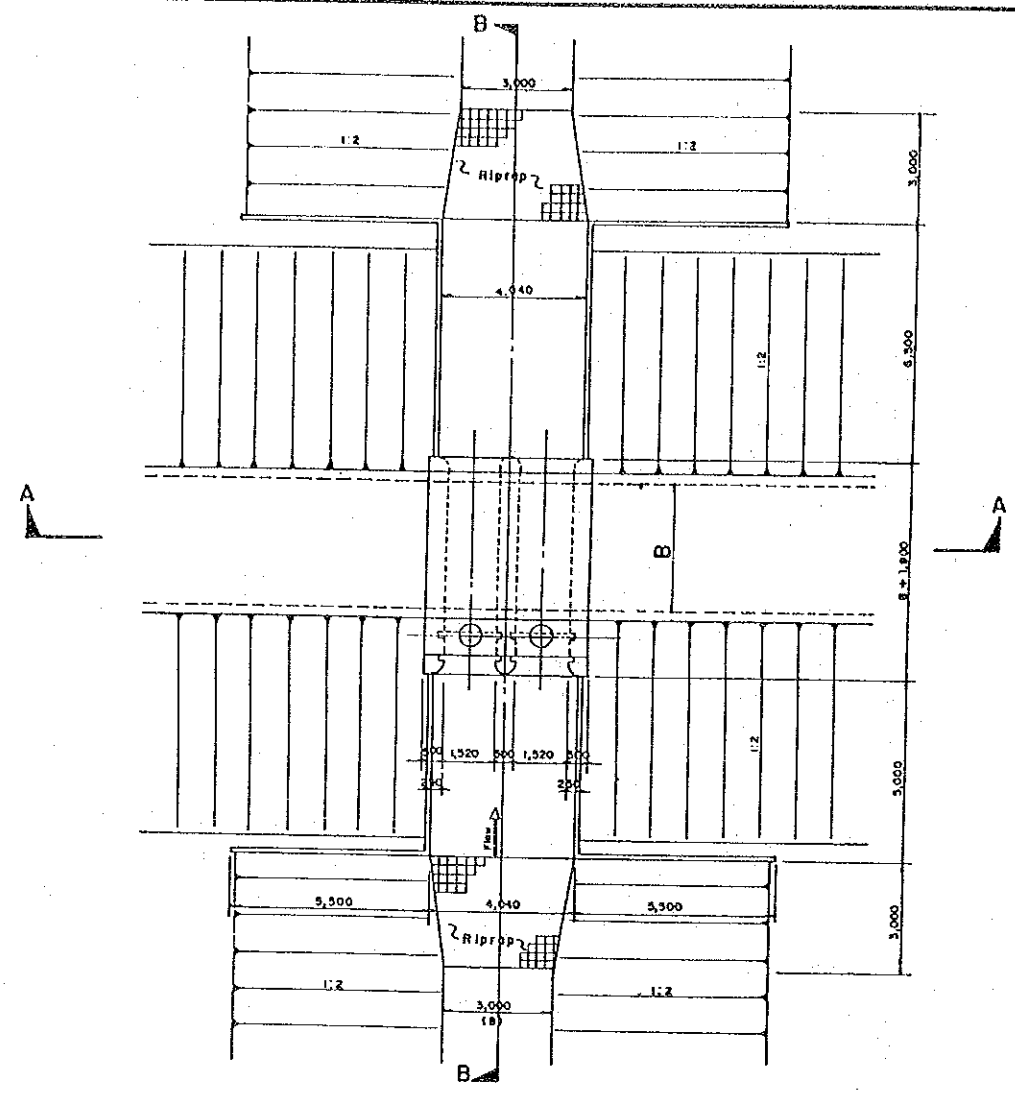


SECTION A-A

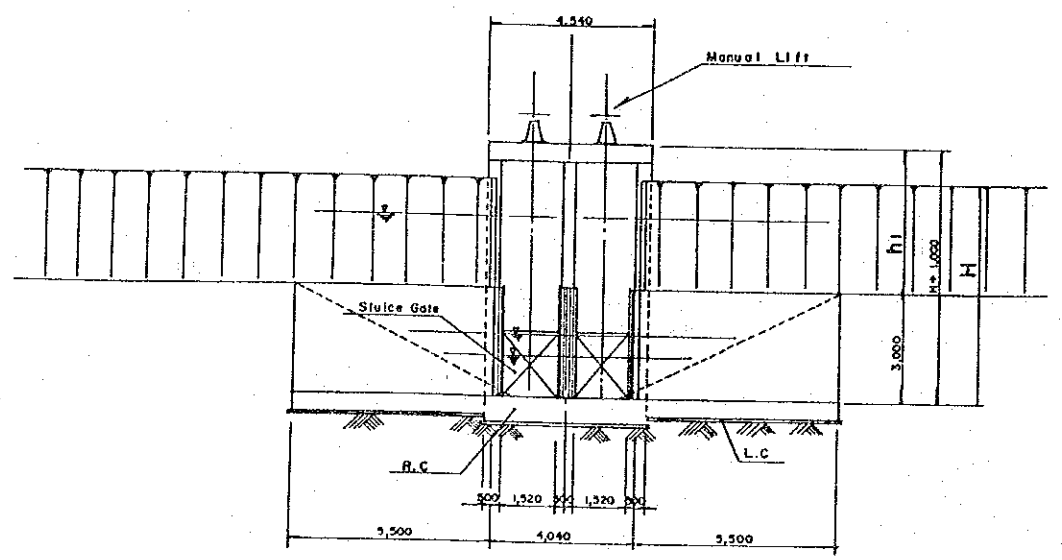
Dimensions

Reg. Name	B	H	h1	h2	Sill E. L.
A - 5	3.0	4.2	2.70	2.87	22.258
B - 5	4.5	6.5	5.00	5.17	20.971
C - 5	4.5	5.6	4.10	4.27	20.855
D - 2	3.0	4.8	3.30	3.47	21.340
E - 2	4.5	5.6	4.10	4.27	21.049
F - 1	3.0	5.3	3.80	3.97	23.524
CGF-1	3.0	4.3	2.80	2.97	23.098

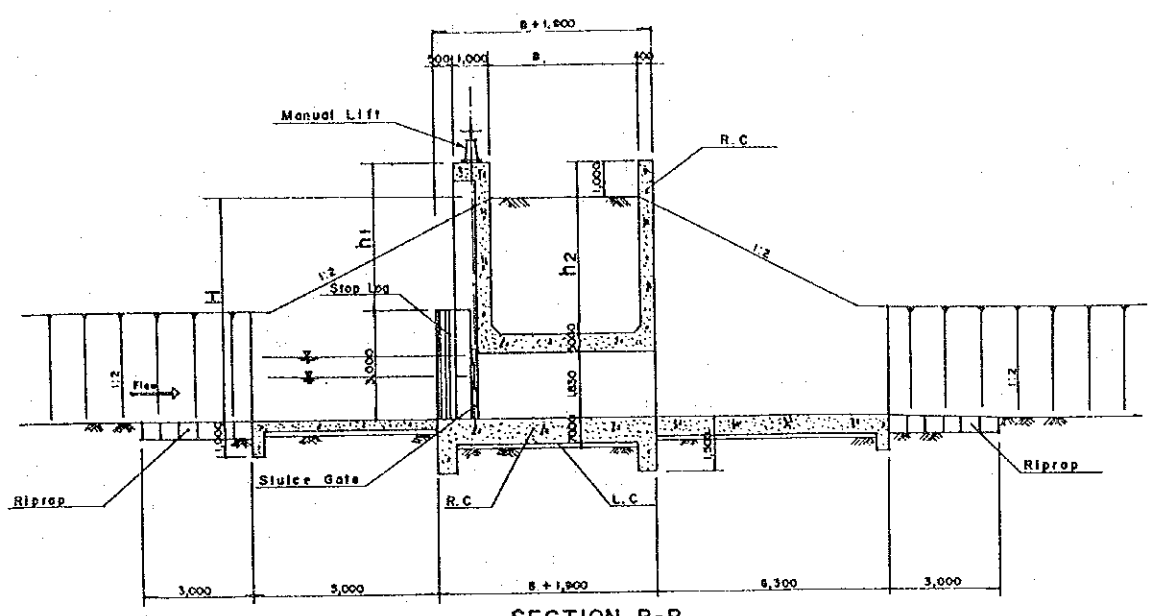
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR CLOSED TYPE - D
 PLAN AND SECTIONS
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT.1992 DRG. NO.



PLAN



SECTION-A-A



SECTION B-B

Dimensions

(Unit : m)

Reg. Name	B	H	h ₁	h ₂	SIH E.L.
B - 6	3.0	5.3	3.30	3.97	20.050
C - 6	4.5	6.0	4.00	4.67	20.139

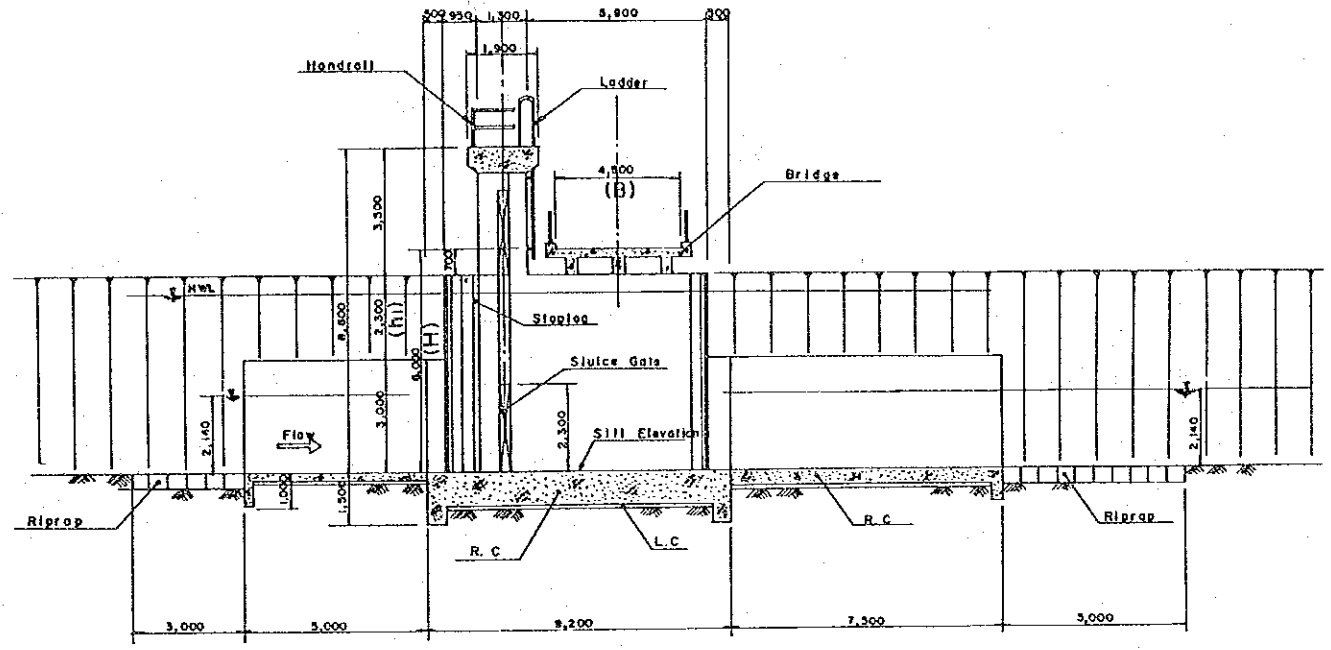
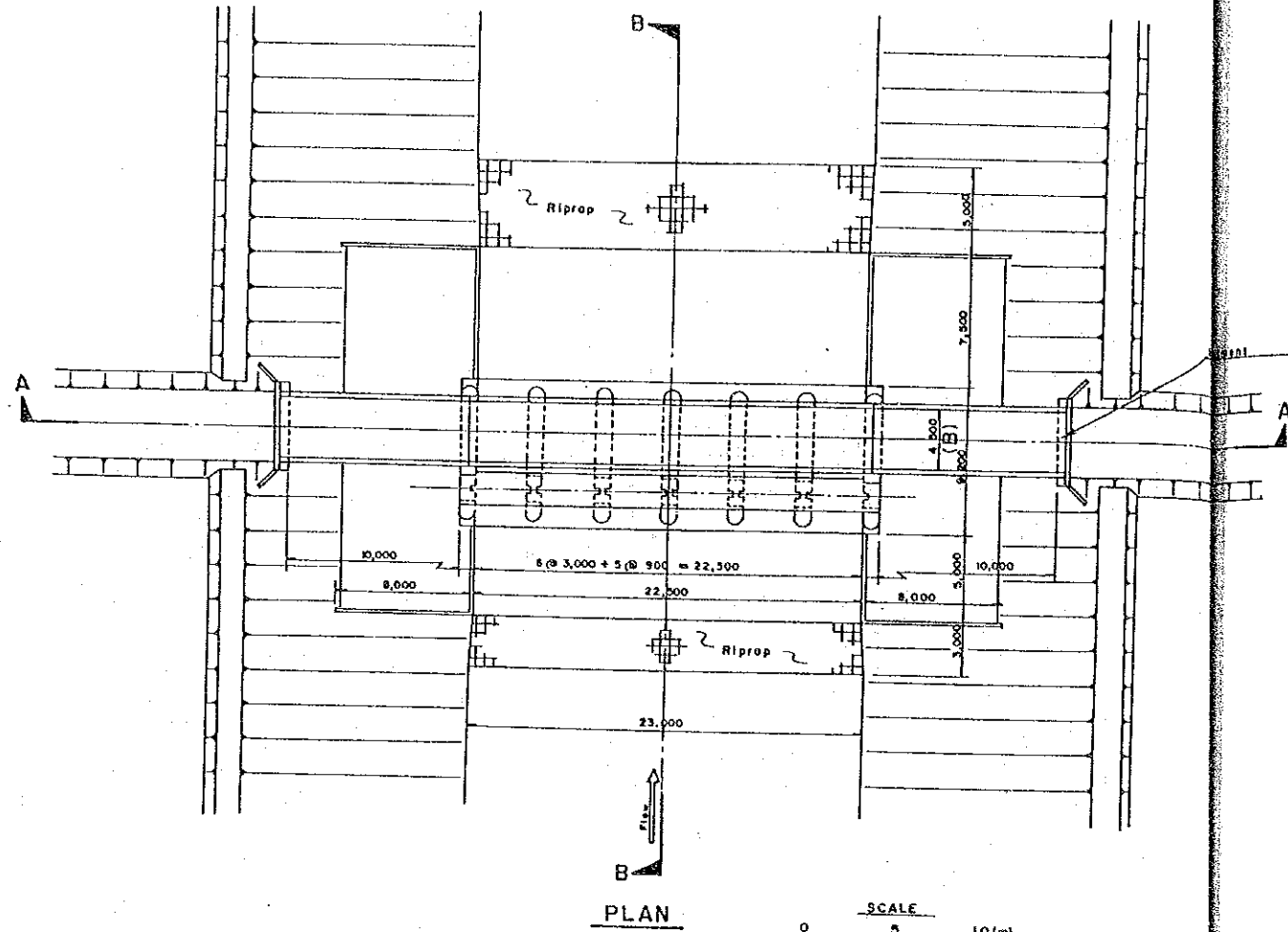
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD

THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT

REGULATOR, CLOSED TYPE - E
 PLAN AND SECTIONS

JAPAN INTERNATIONAL COOPERATION AGENCY

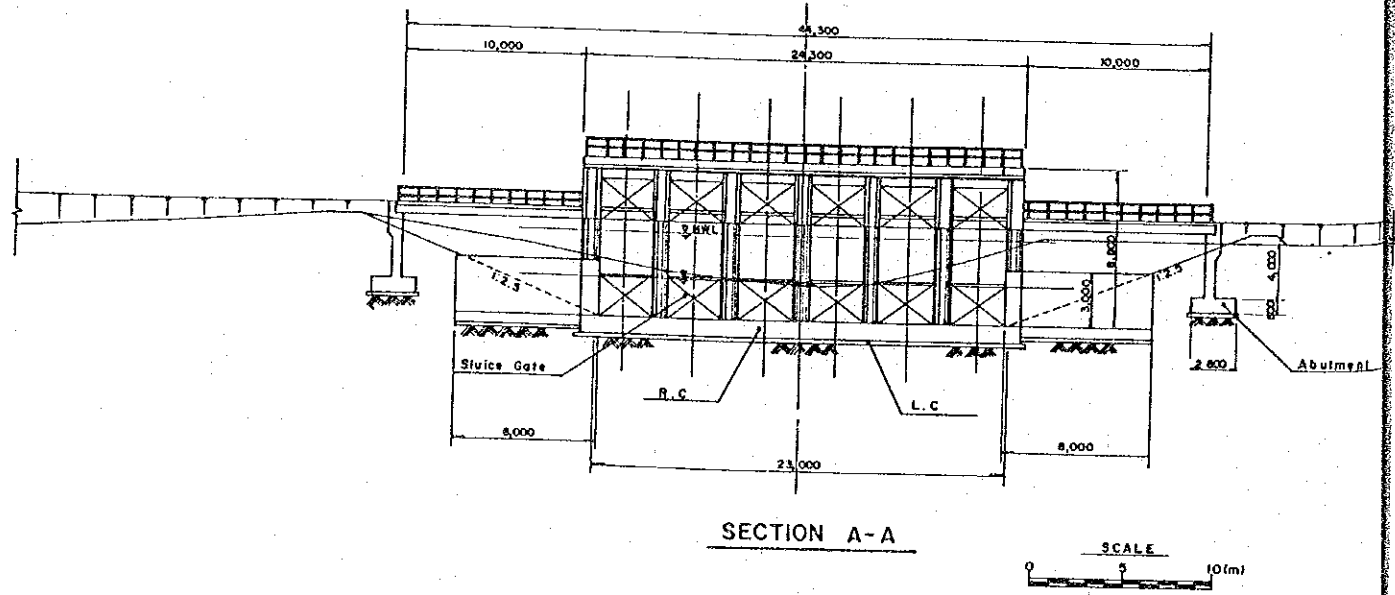
DATE	OCT. 1992	DRG. NO.	
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Dimensions

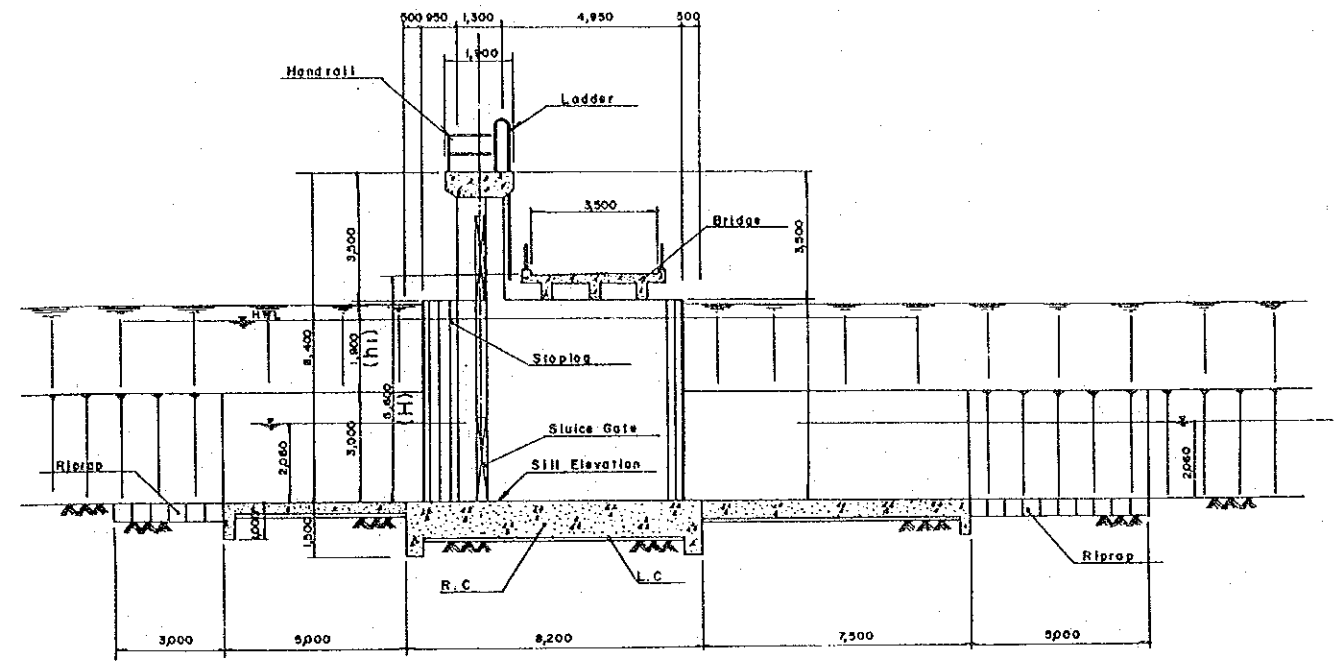
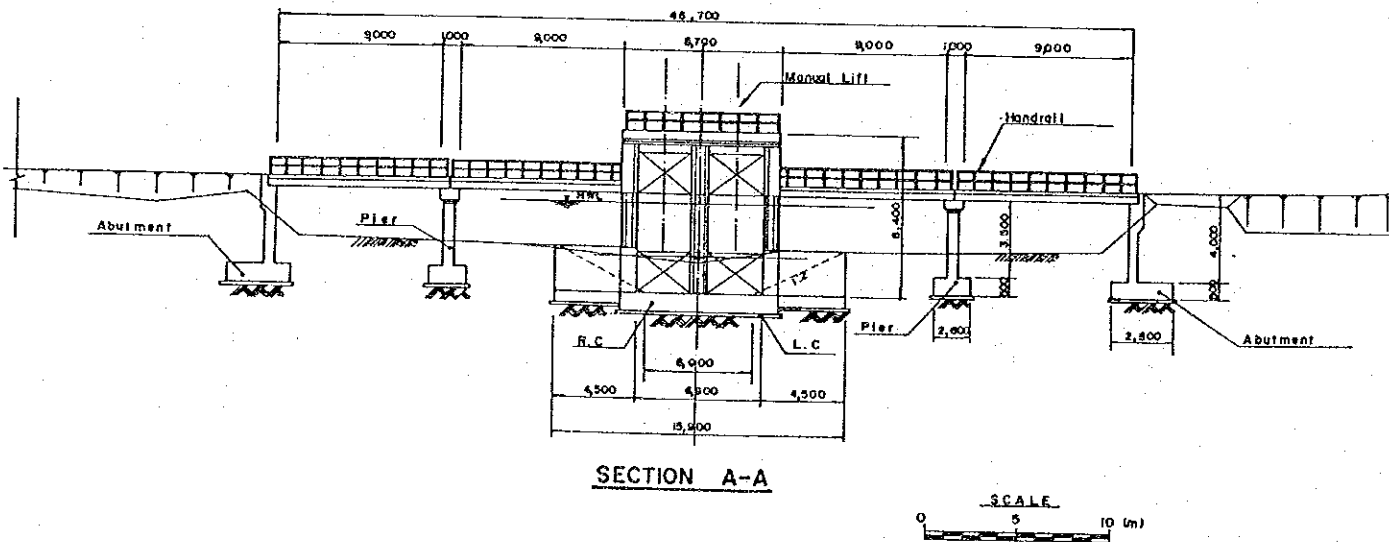
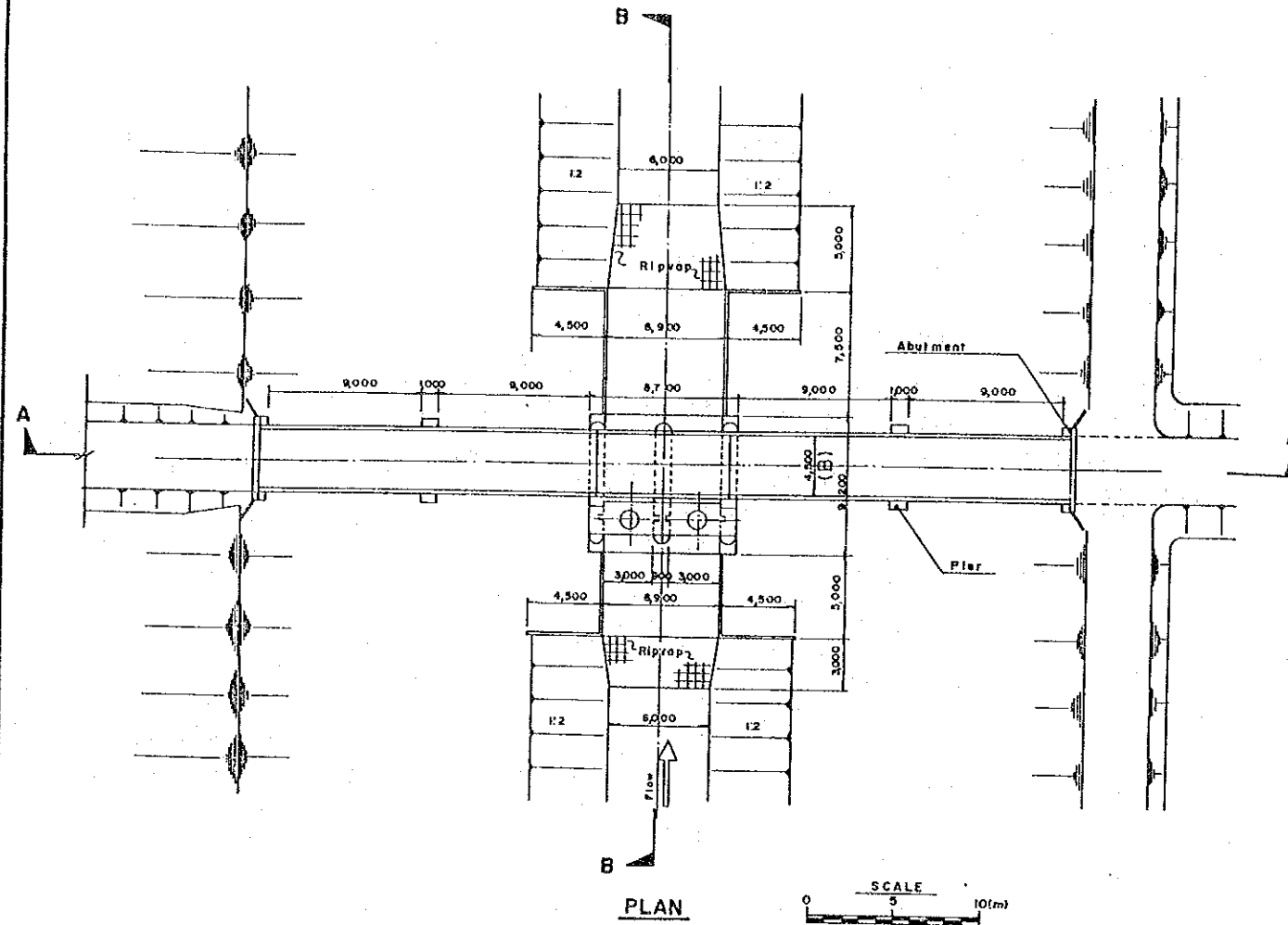
Reg Name	B	H	h ₁	Sill E.L.
A - 3	4.5	6.0	2.30	23.239

(Unit : m)



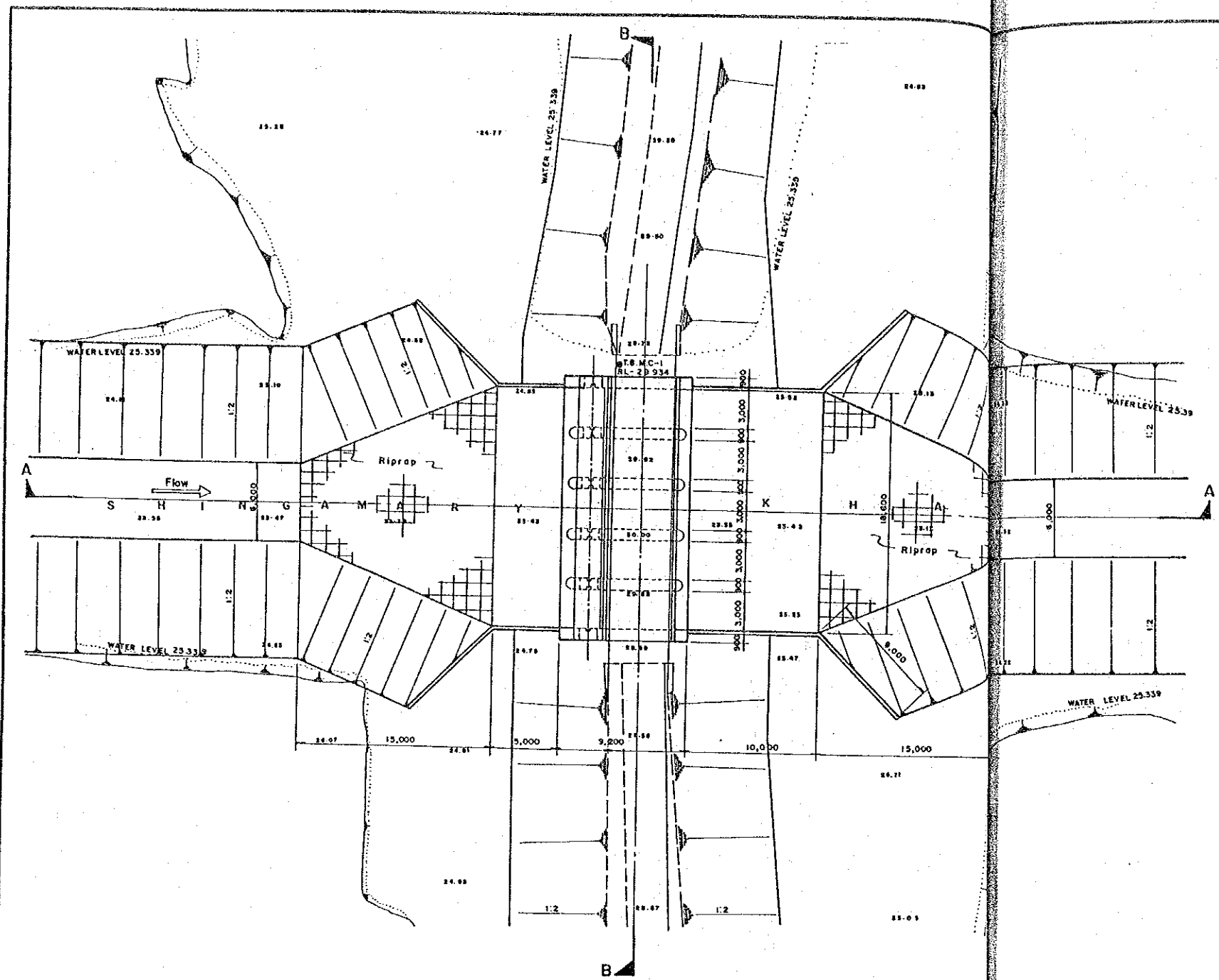
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR, OPEN TYPE - A
 PLAN AND SECTIONS
 JAPAN INTERNATIONAL COOPERATION AGENCY

DATE	OCT 1992	DRG NO.	
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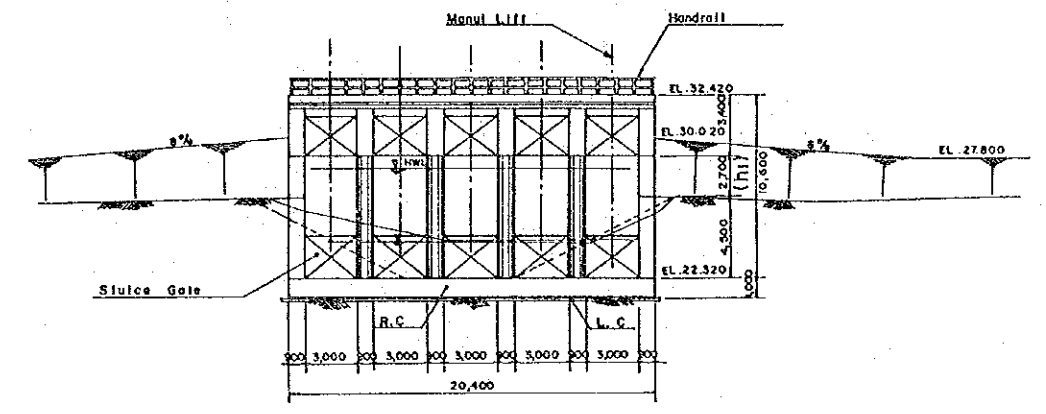


Dimensions (Unit : m)

Reg. Name	B	H	h ₁	Sill E. L.
A - 4	4.5	5.6	1.90	22.869



PLAN SCALE 0 5 10 (m)

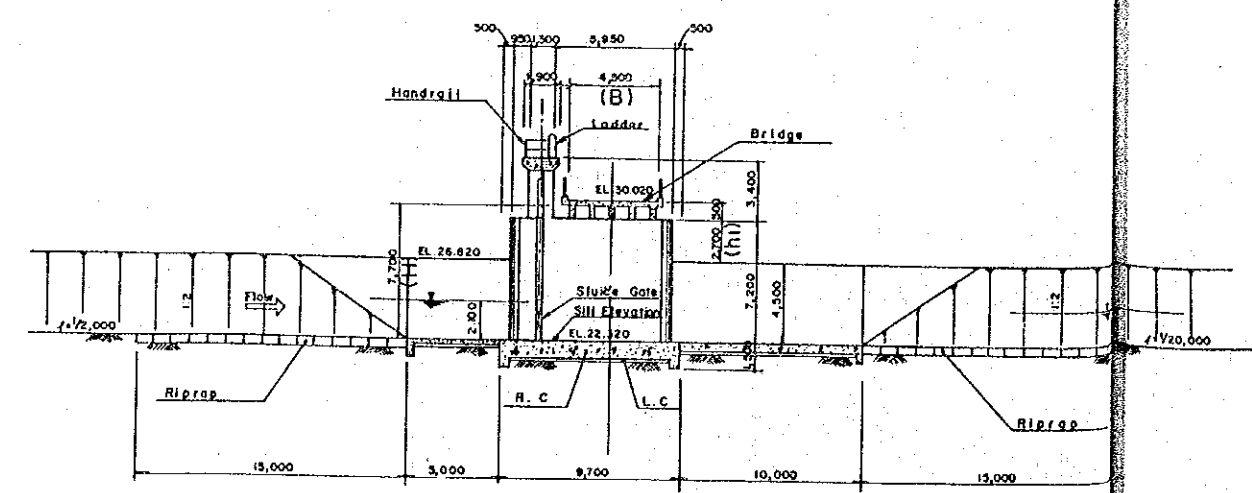


SECTION-B-B SCALE 0 5 10 (m)

Dimensions

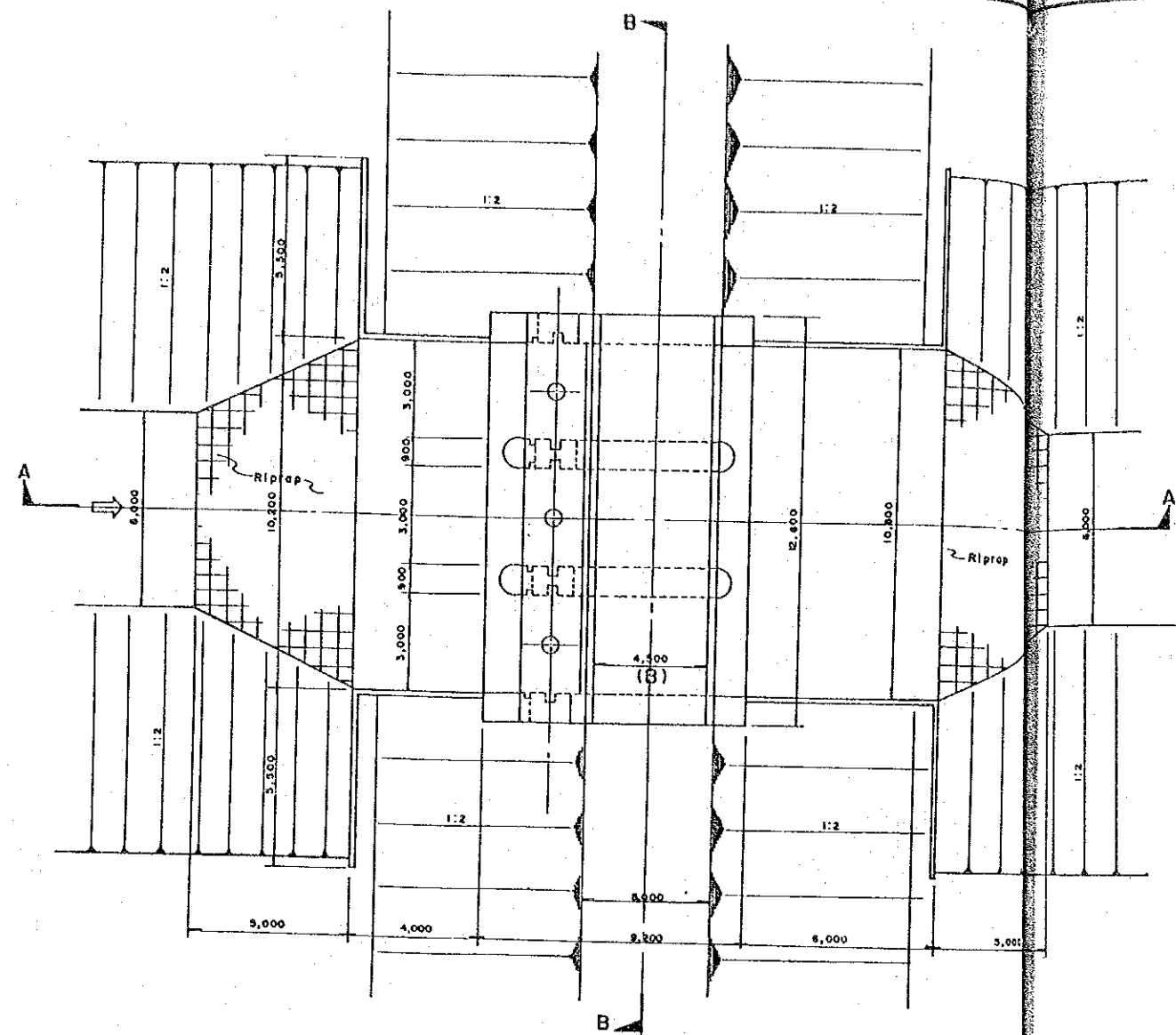
Reg Name	B	H	h ₁	Sill E.L.
C-1	4.5	7.7	2.70	22.326

(Unit : m)

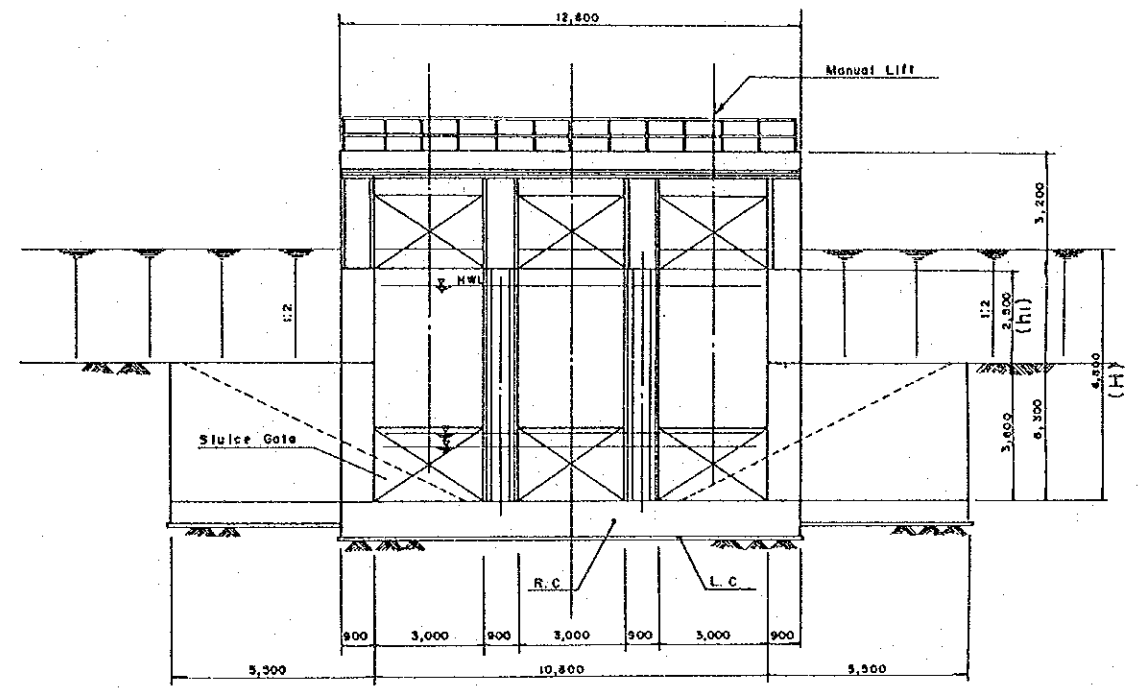


SECTION A-A SCALE 0 5 10 (m)

THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
**REGULATOR OPEN TYPE - C
 PLAN AND SECTIONS**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT, 1992 DWG NO



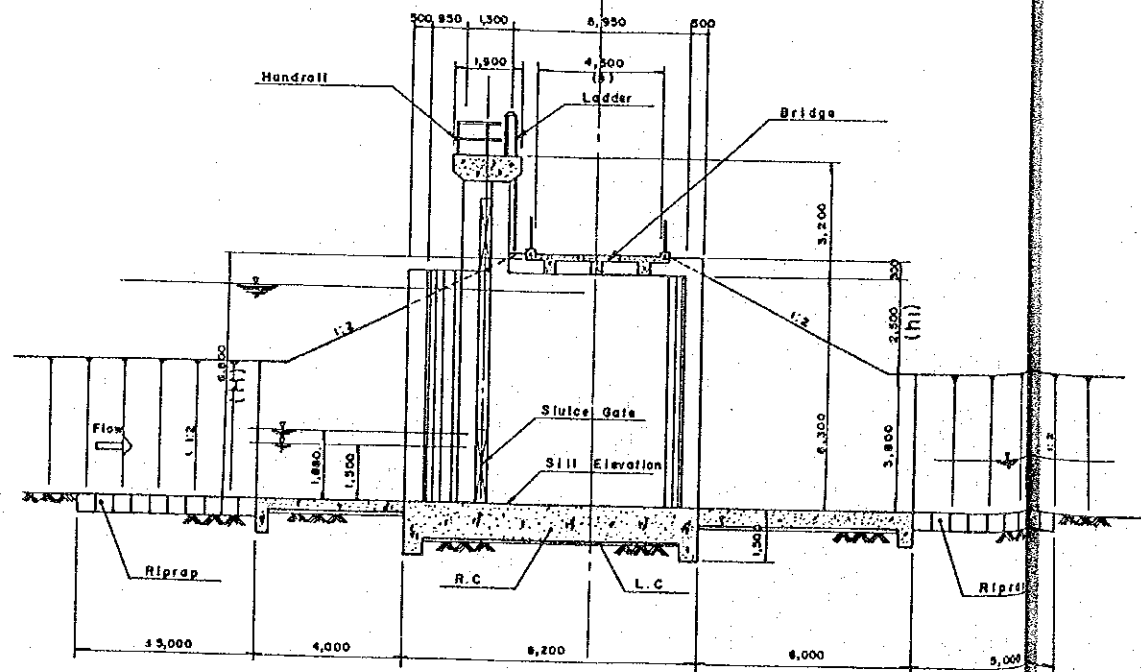
PLAN (1/100) SCALE 0 5(m)



SECTION B-B SCALE 0 5(m)

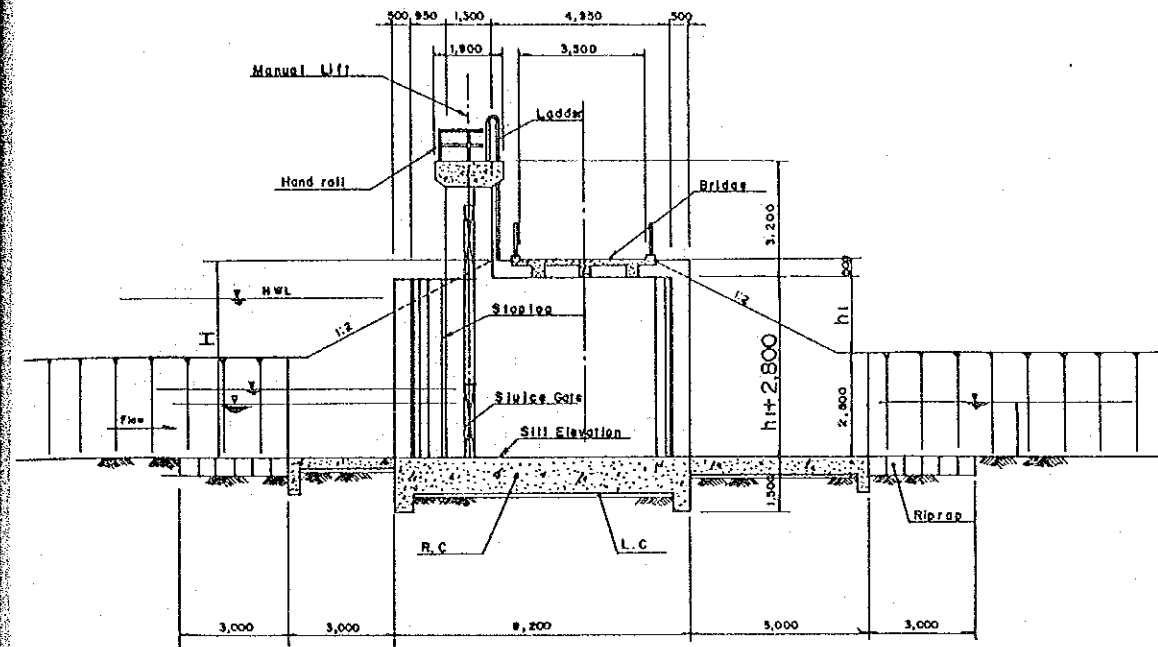
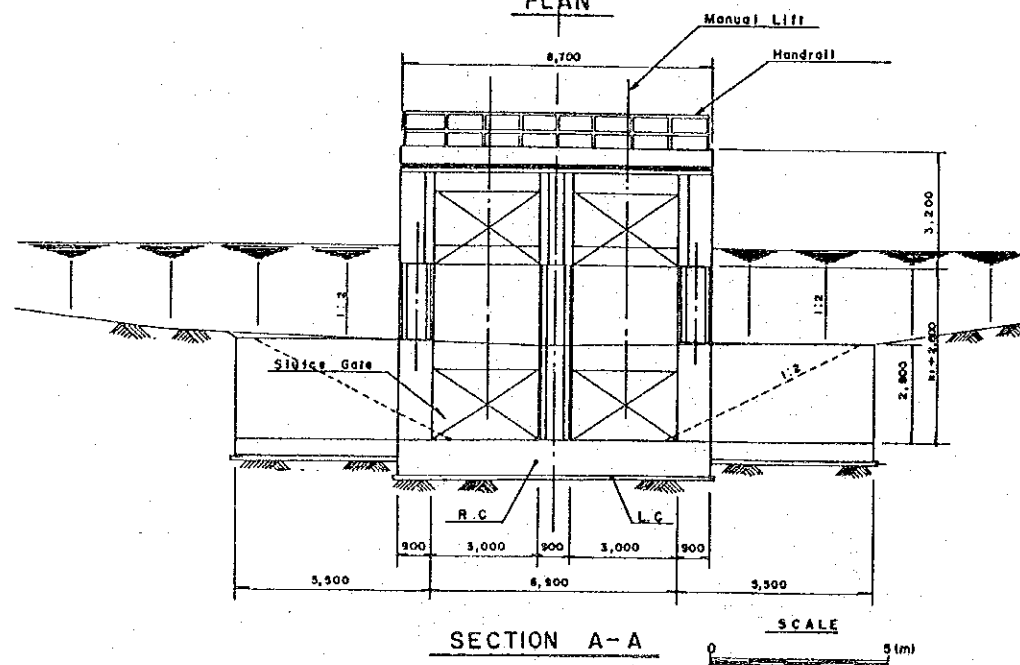
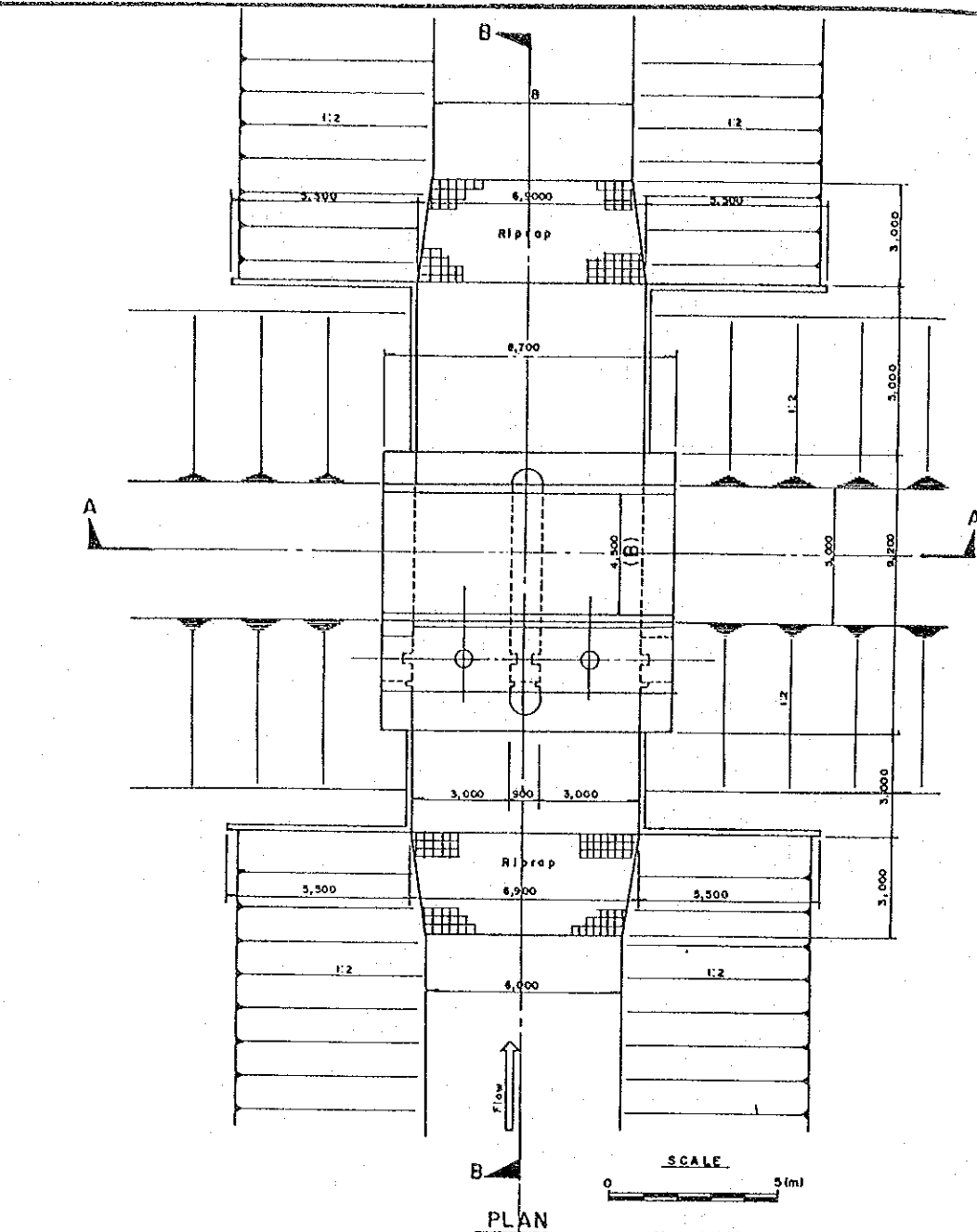
Dimensions (Unit : m)

Reg Name	B	H	h	Sill E.L
B - 4	4.5	6.3	2.50	21.688



SECTION A-A SCALE 0 5(m)

THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
**REGULATOR OPEN TYPE - D
 PLAN AND SECTIONS**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT. 1992 DRG. NO.

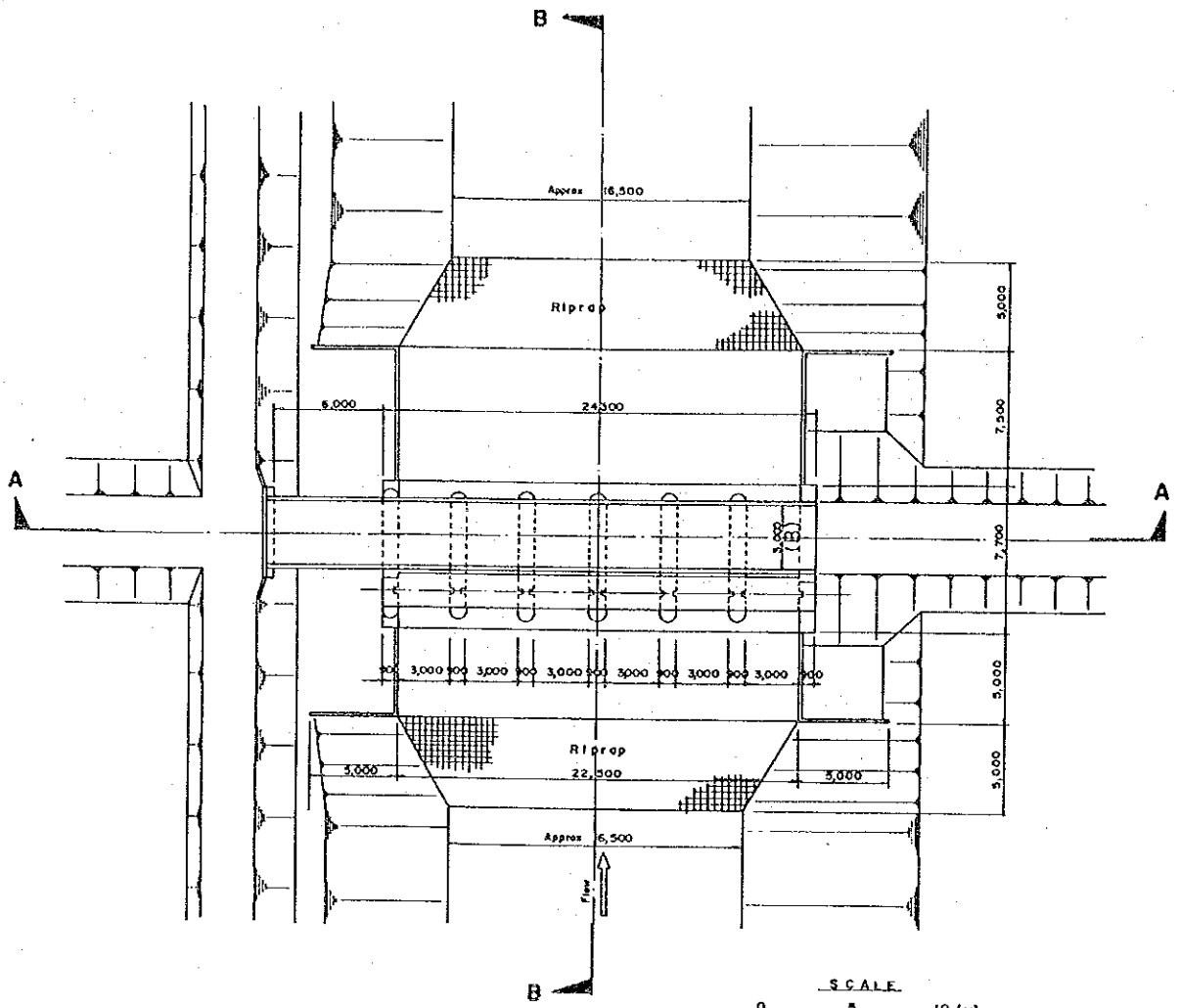


Dimensions

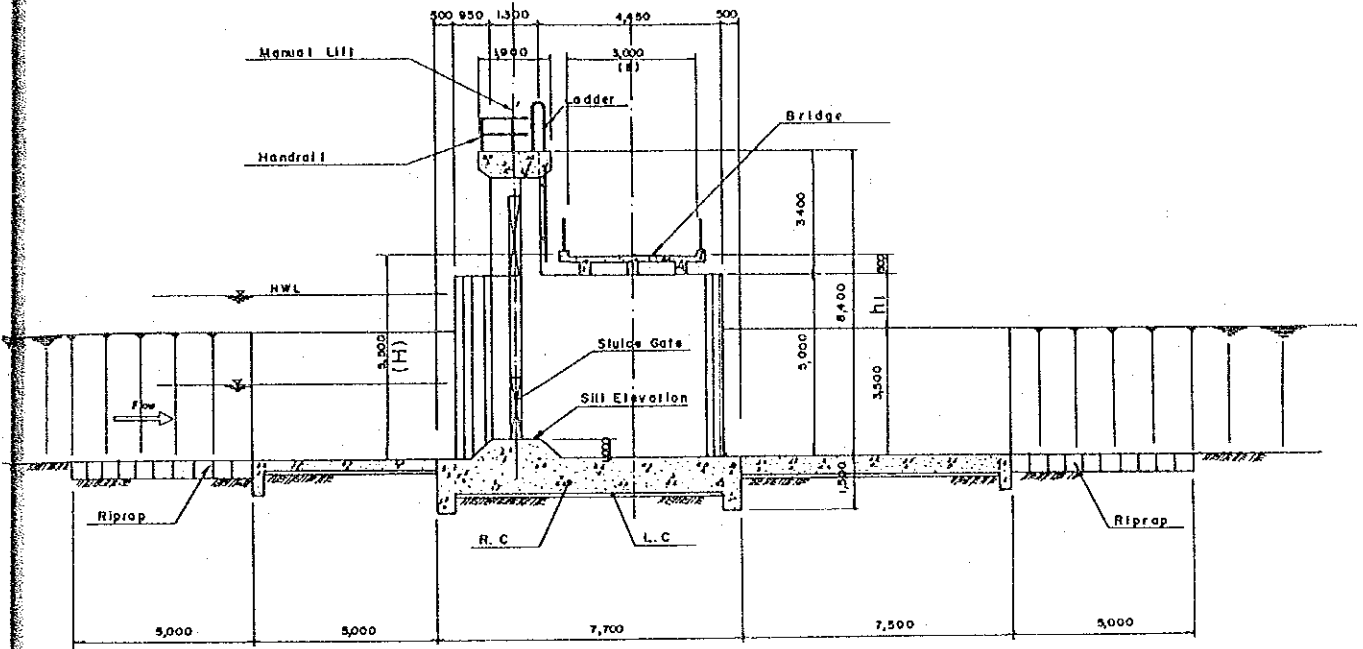
Reg. Name	B	H	h	Sill E.L.
C - 3	4.5	5.3	2.00	21.834
C - 4	4.5	4.9	1.60	21.479

THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR OPEN TYPE-E
 PLAN AND SECTIONS
 JAPAN INTERNATIONAL COOPERATION AGENCY

DATE OCT.1992 DRG.NO.



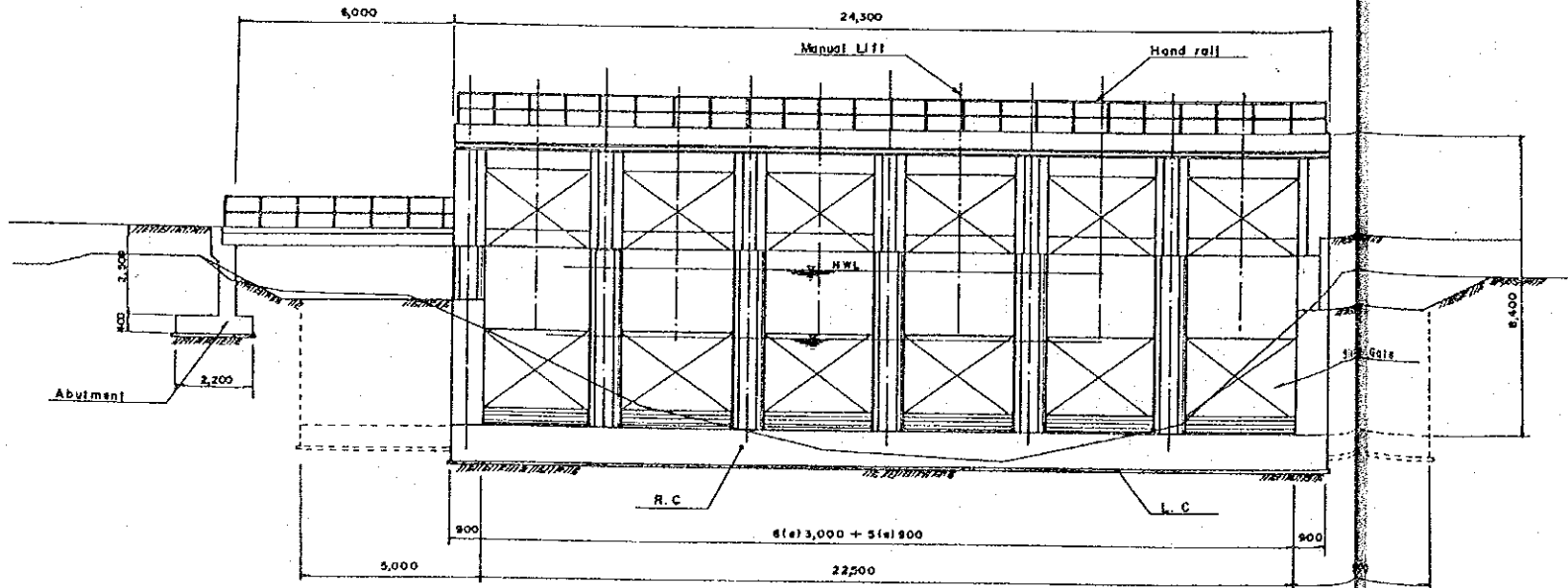
PLAN



SECTION B-B

Dimensions (Unit: m)

Reg Name	B	H	h	Sill E.L
D - I	3.0	5.5	1.50	21.487

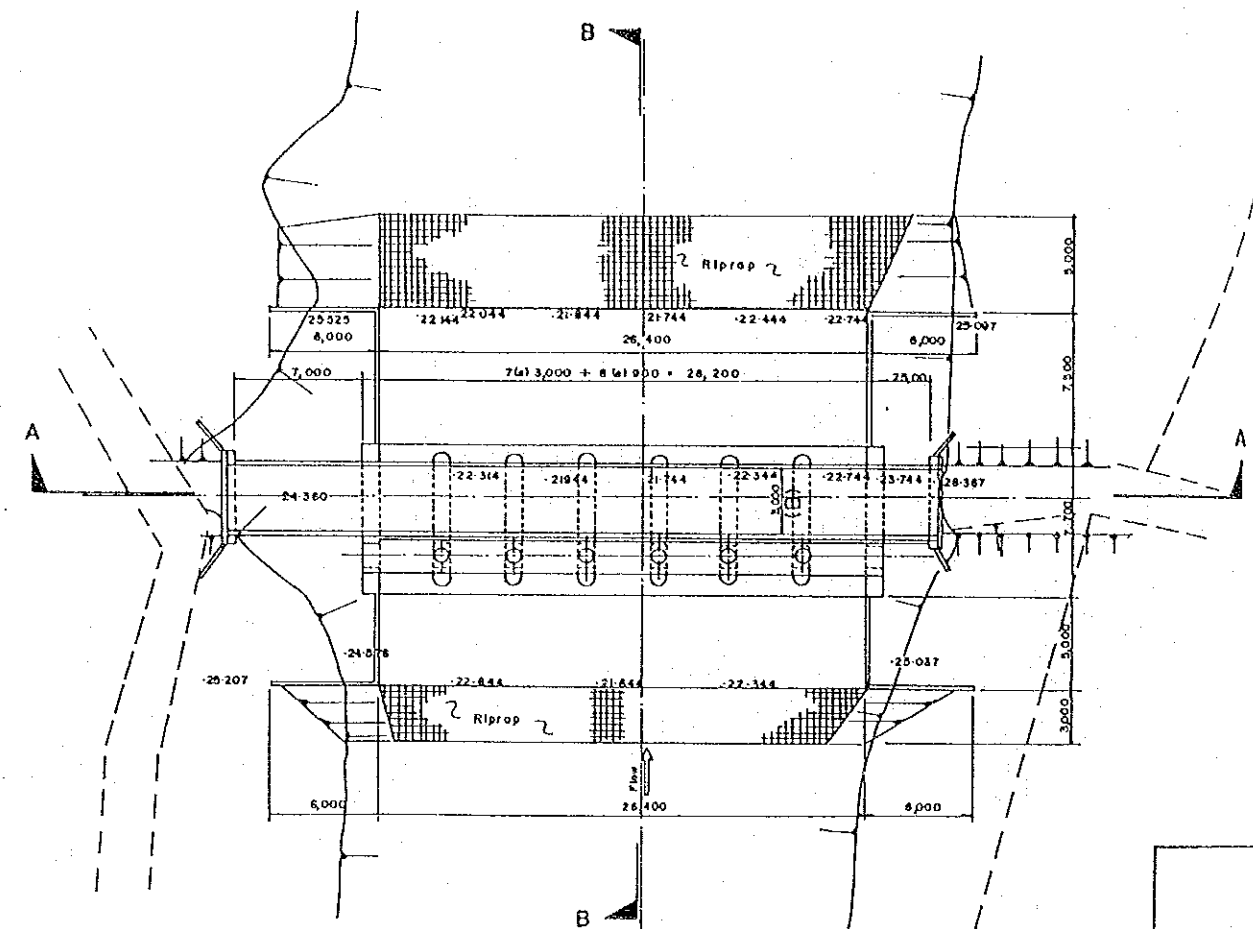


SECTION A-A

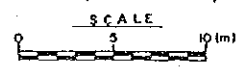
THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
**REGULATOR OPEN TYPE - F
 PLAN AND SECTION**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT. 1992 DRG NO.

Dimensions

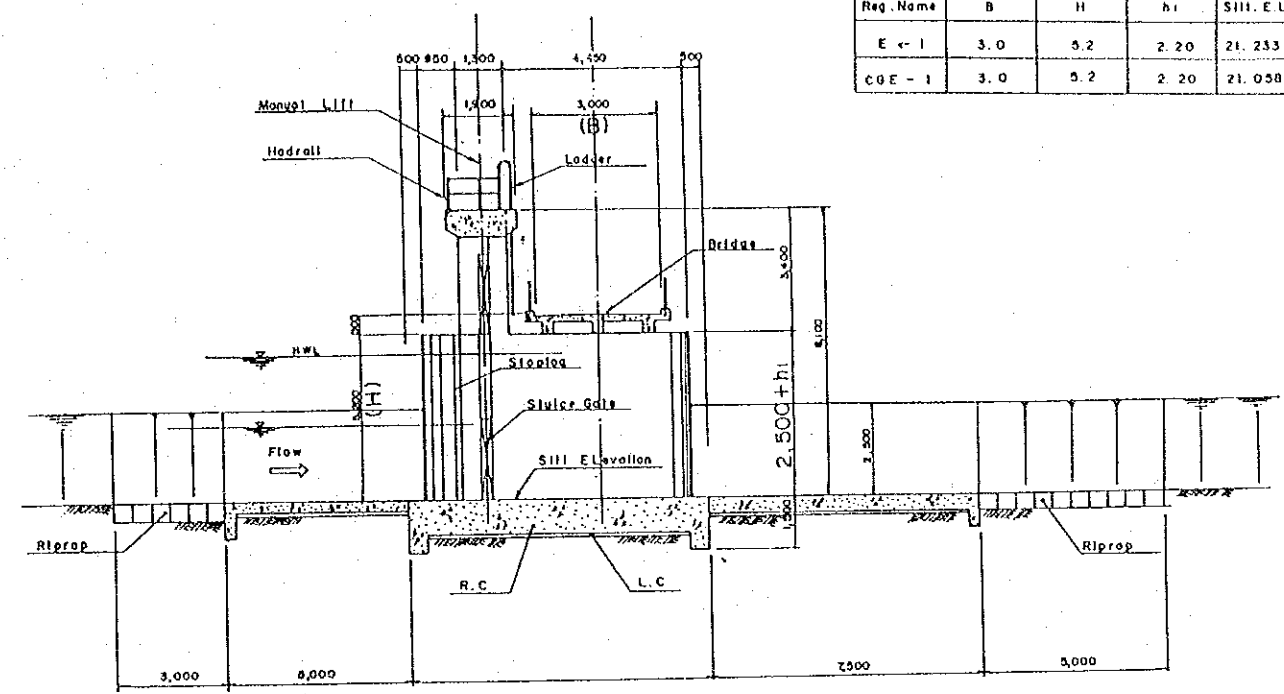
Reg. Name	B	H	h ₁	Sill. E.L.
E ← 1	3.0	5.2	2.20	21.233
C0E ← 1	3.0	5.2	2.20	21.058



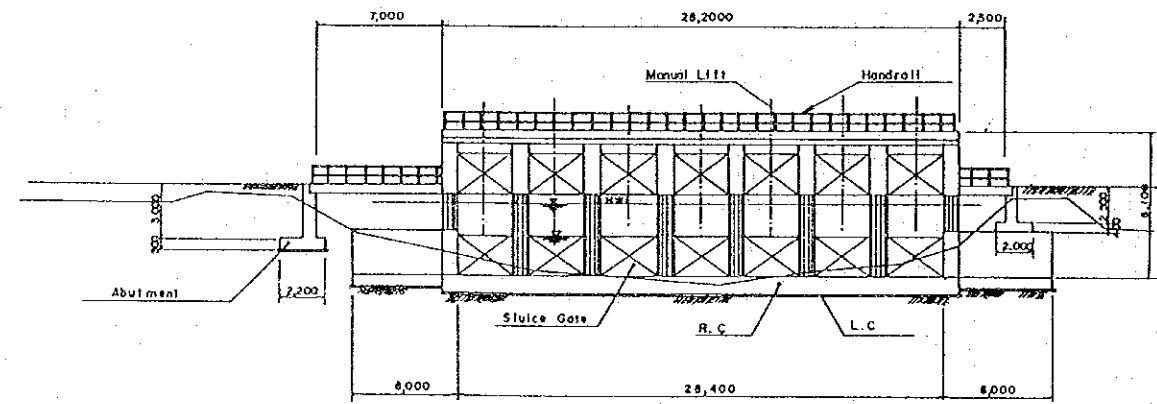
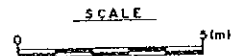
PLAN



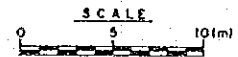
TYPE - G



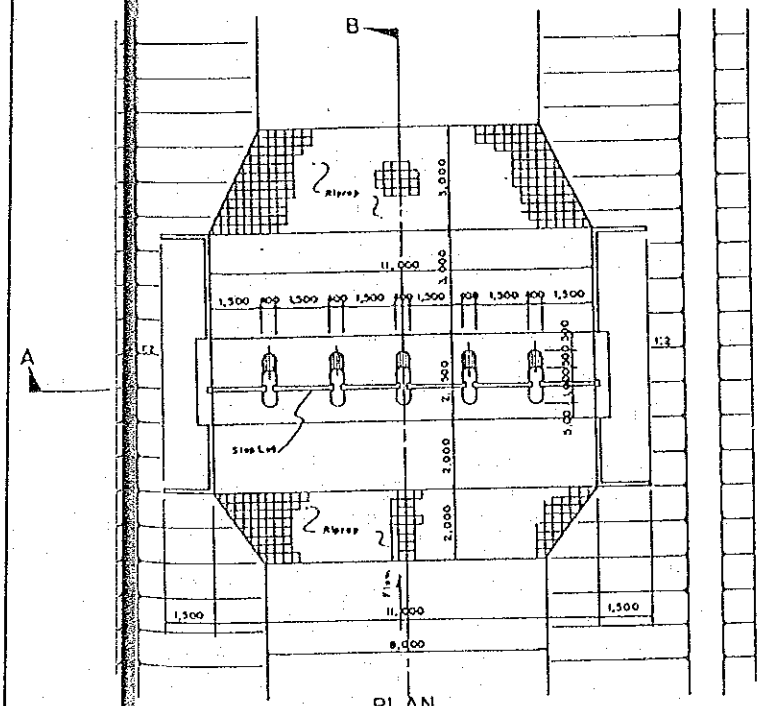
SECTION B-B



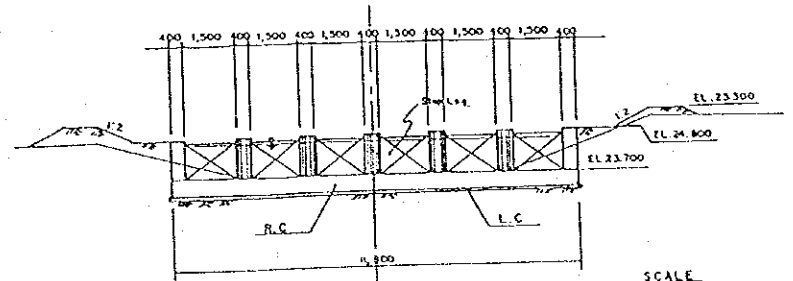
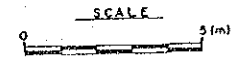
SECTION A-A



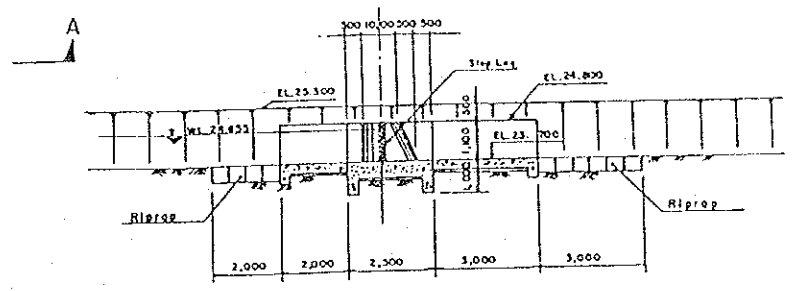
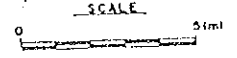
OPEN TYPE - J



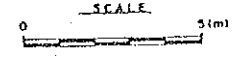
PLAN



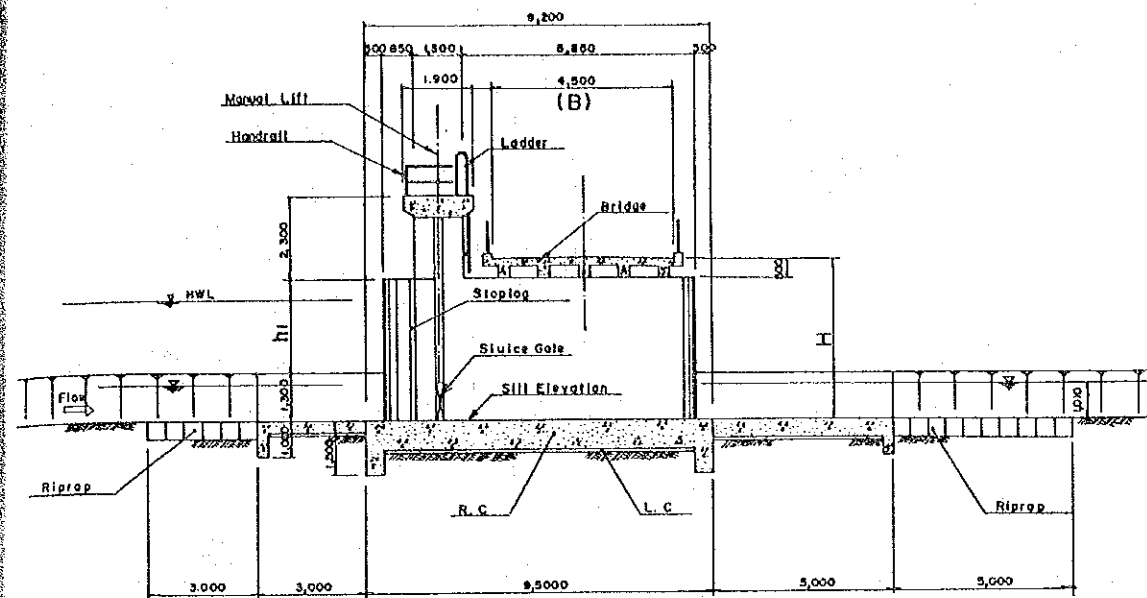
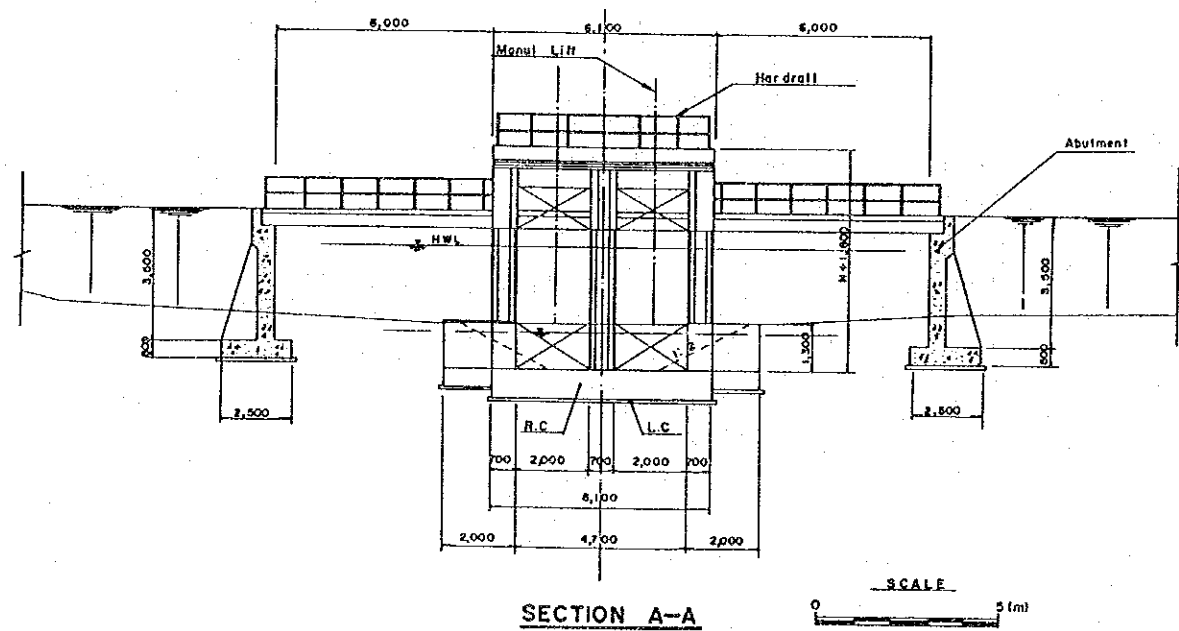
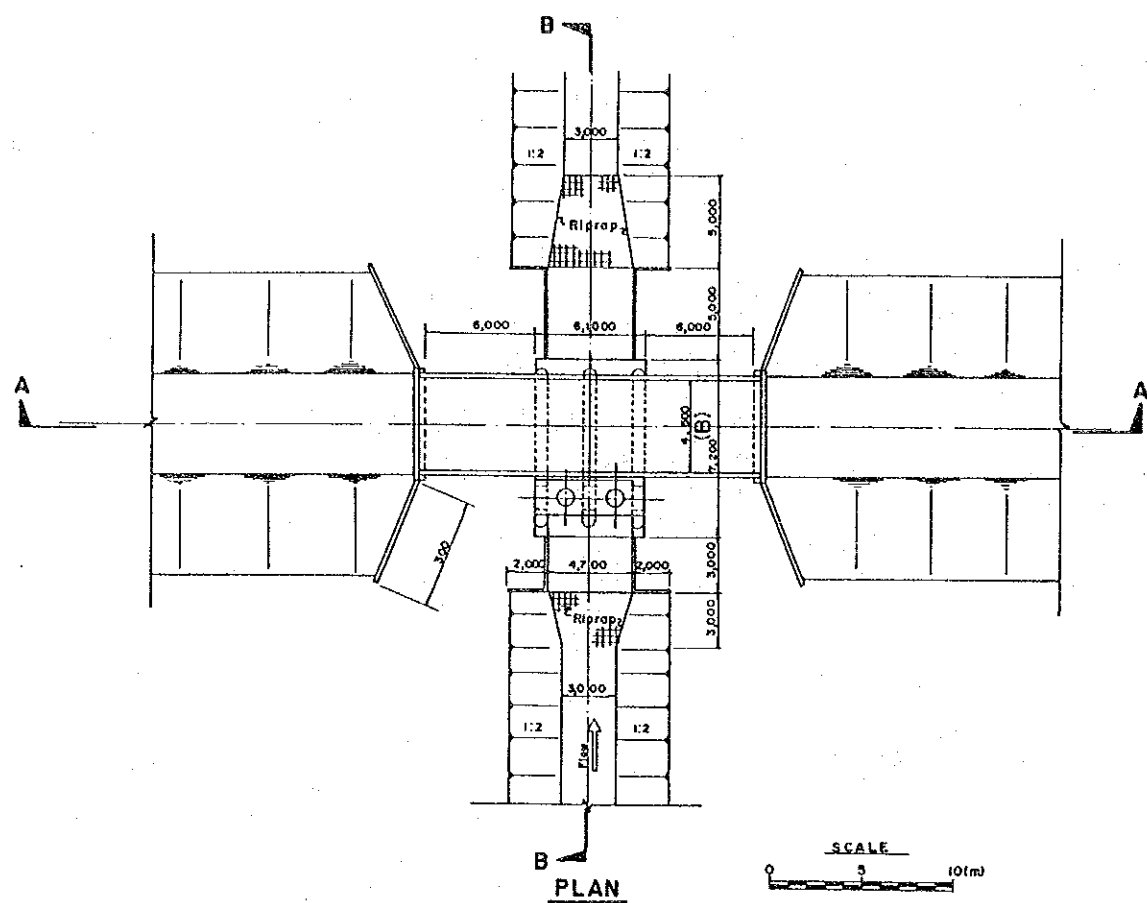
SECTION A-A



SECTION B-B



THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR OPEN TYPE - G AND J
 PLAN AND SECTION
 JAPAN INTERNATIONAL COOPERATION AGENCY
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SECTION B-B (1/100)

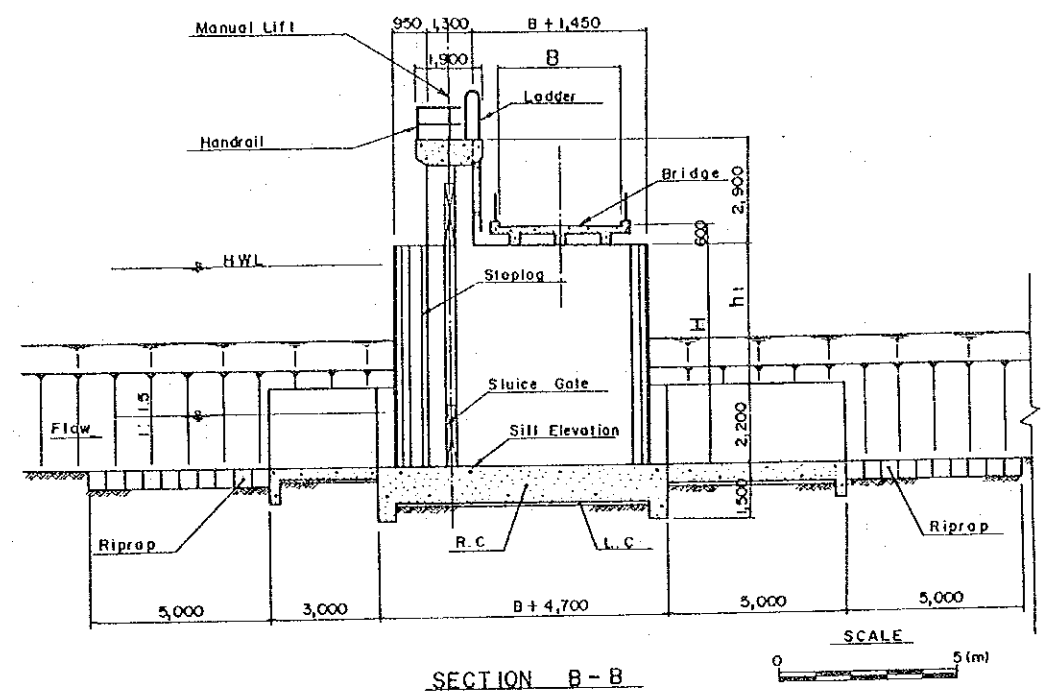
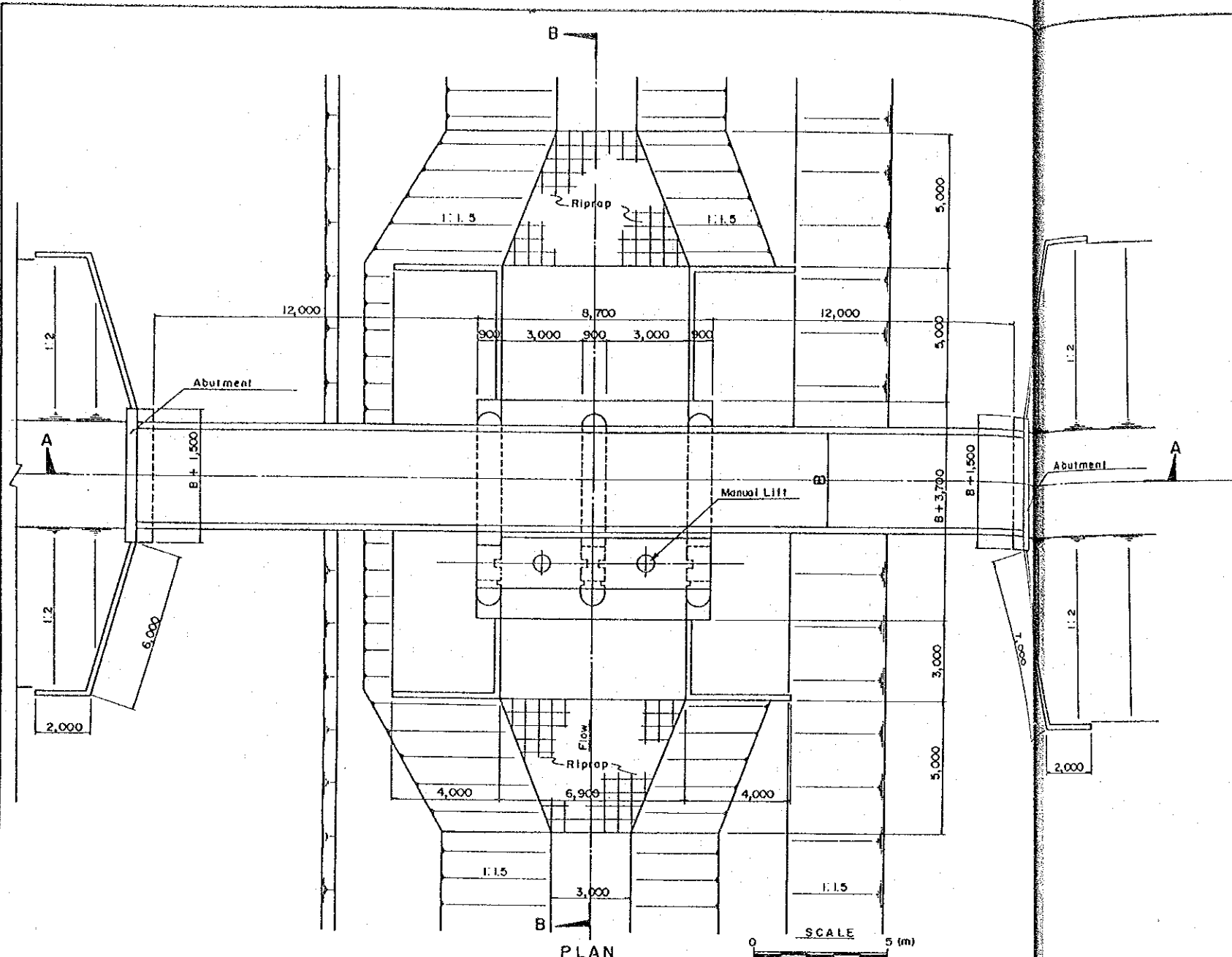
SCALE 5(m)

Dimensions

Reg Name	B	H	h _i	Sill E. L.
A - 6	4.5	4.3	2.50	21.817
CGA - 1	4.5	4.5	2.70	21.982
CGA - 2	4.5	5.0	3.20	21.341
CGD - 1	4.5	3.2	1.40	20.569

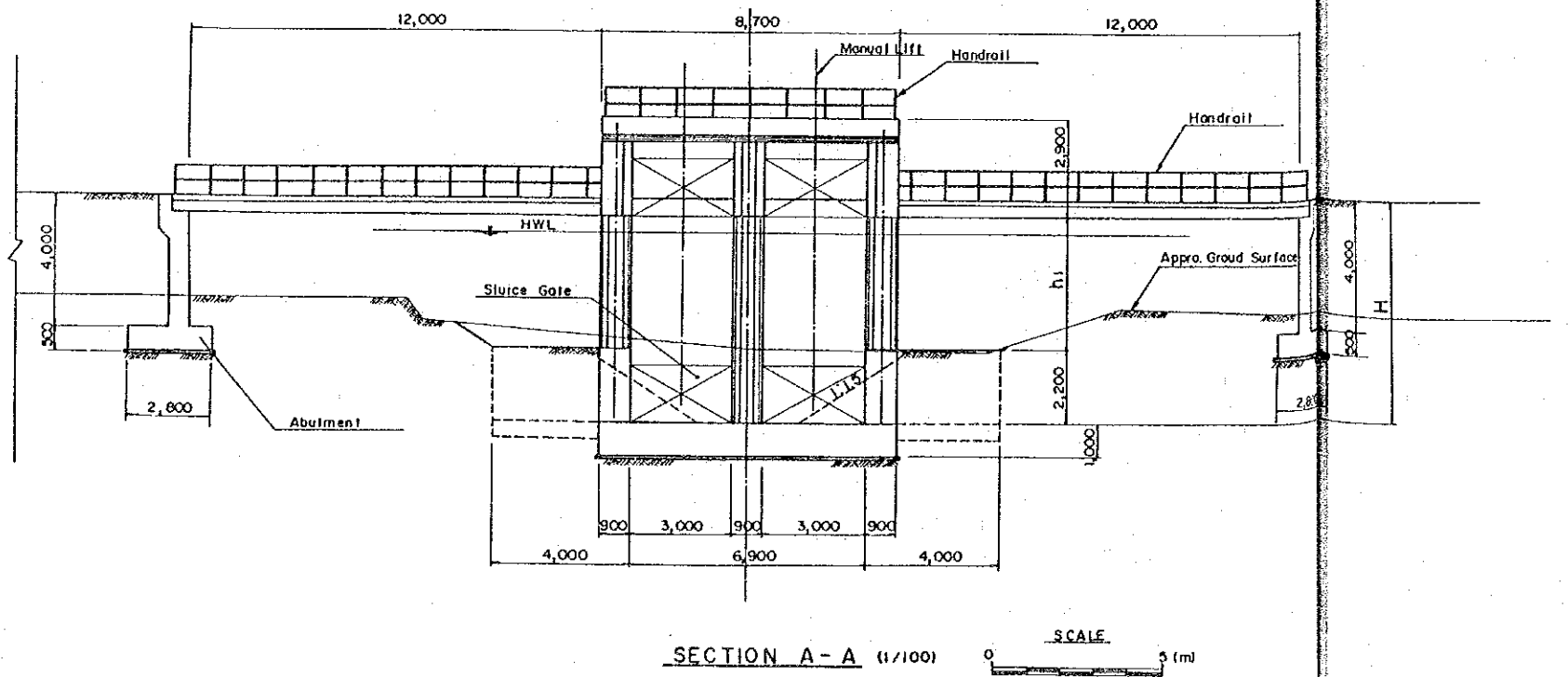
(Unit: m)

THE PEOPLES REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR OPEN TYPE - H
 PLAN AND SECTION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT.1992 DRG NO.

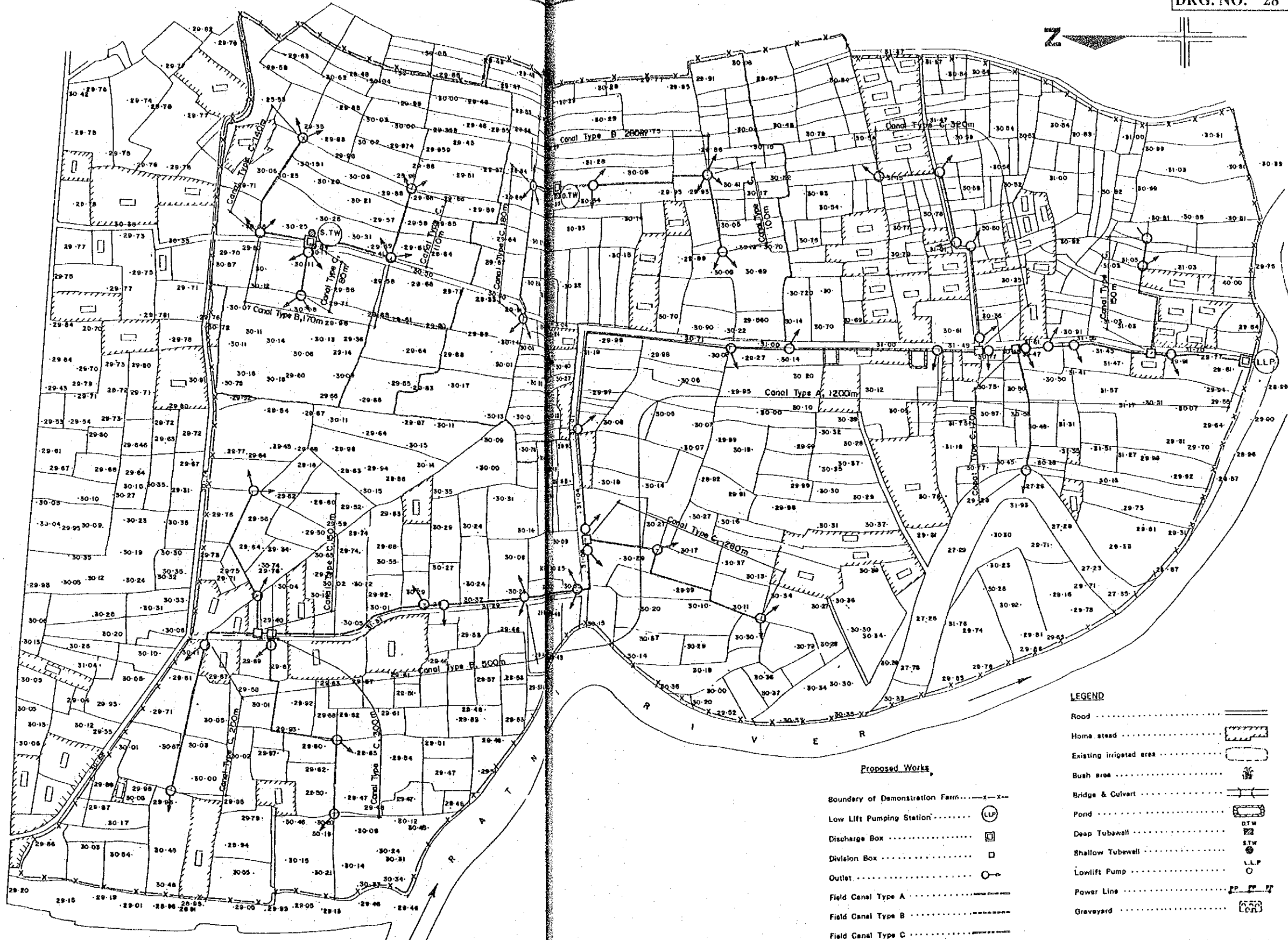


Dimensions (Unit: m)

Reg Name	B	H	h _i	Sill E.L.
CGB - I	3.0	6.6	3.80	19.292
CGC - I	4.5	5.7	2.90	19.756



THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
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 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 REGULATOR OPEN TYPE - I
 PLAN AND SECTION
 JAPAN INTERNATIONAL COOPERATION AGENCY
 DATE OCT 1992 DRG NO



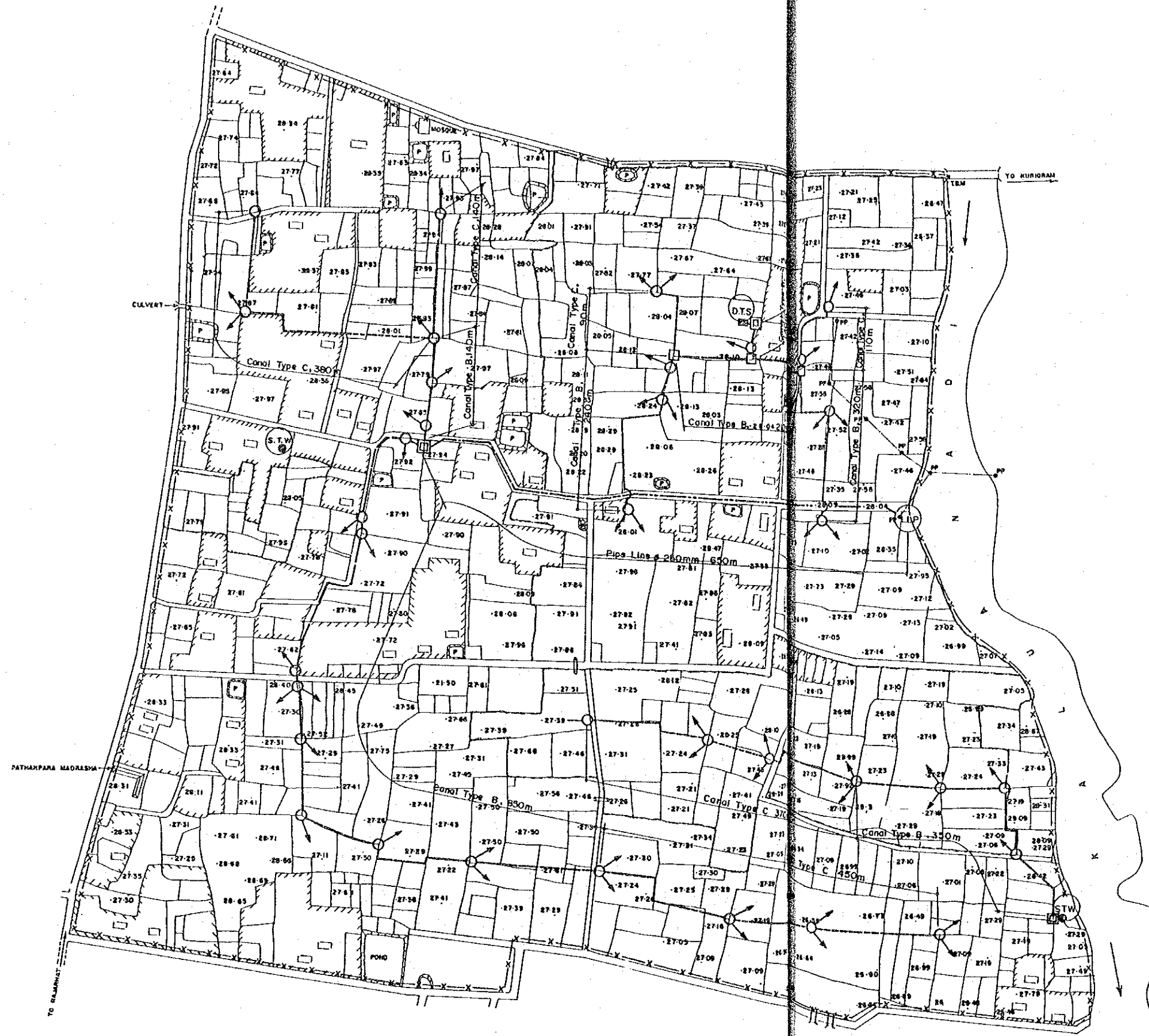
- LEGEND**
- Road
 - Home stead
 - Existing irrigated area
 - Bush area
 - Bridge & Culvert
 - Pond
 - Deep Tubewell
 - Shallow Tubewell
 - Lowlift Pump
 - Power Line
 - Graveyard
- Proposed Works**
- Boundary of Demonstration Farm
 - Low Lift Pumping Station (LLP)
 - Discharge Box
 - Division Box
 - Outlet
 - Field Canal Type A
 - Field Canal Type B
 - Field Canal Type C

Gross Area	121.6ha
Homestead & etc	21.6ha
Exist. DTW	17.5ha
Exist. DTW	13.5ha
LLP Farm	70.0ha
Total Area of Farm	101.0ha



THE PEOPLE'S REPUBLIC OF BANGLADESH
 BANGLADESH WATER DEVELOPMENT BOARD
 THE KURIGRAM
 IRRIGATION AND FLOOD CONTROL PROJECT
 SOUTH UNIT
 LLP DEMONSTRATION FARM
 GENERAL PLAN - BANAGRAM -
 JAPAN INTERNATIONAL COOPERATION AGENCY

DATE	OCT. 1992	DWG NO.	
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Proposed Works

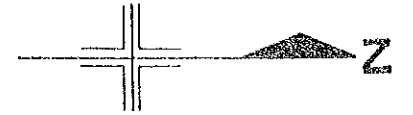
- Boundary of Demonstration Farm —X—X—
- Low Lift Pumping Station (LLP)
- Discharge Box
- Division Box
- Outlet
- Field Canal Type B
- Field Canal Type C
- Pipeline (ø 250mm)
- Gross Area 95.6ha
- Homestead & etc 26.3ha
- Exist. DTW 24.8ha
- Exist. DTW 10.6ha
- LLP Farm 34.0ha
- Total Area of Farm 69.3ha

LEGEND

- Flood
- Home stead
- Existing irrigated area
- Bush area
- Bridge & Culvert
- Pond
- Deep Tubewell (DTW)
- Shallow Tubewell (STW)
- Lowlift Pump (LLP)
- Power Line
- Gravayard



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THE KURIGRAM IRRIGATION AND FLOOD CONTROL PROJECT SOUTH UNIT		
LLP DEMONSTRATION FARM GENERAL GENERAL PLAN - PRATAP--		
JAPAN INTERNATIONAL COOPERATION AGENCY		
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Proposed Works

- Boundary of Demonstration Farm
 - Low Lift Pumping Station (LLP)
 - Discharge Box
 - Division Box
 - Outlet
 - Field Canal Type B
 - Field Canal Type C
 - Pipeline (# 250mm)
- | | |
|---------------------------|---------------|
| Gross Area | 108.2ha |
| Homestead & etc | 19.3ha |
| Exist. STW | 19.8ha |
| LLP Farm | 69.1ha |
| Total Area of Farm | 68.9ha |

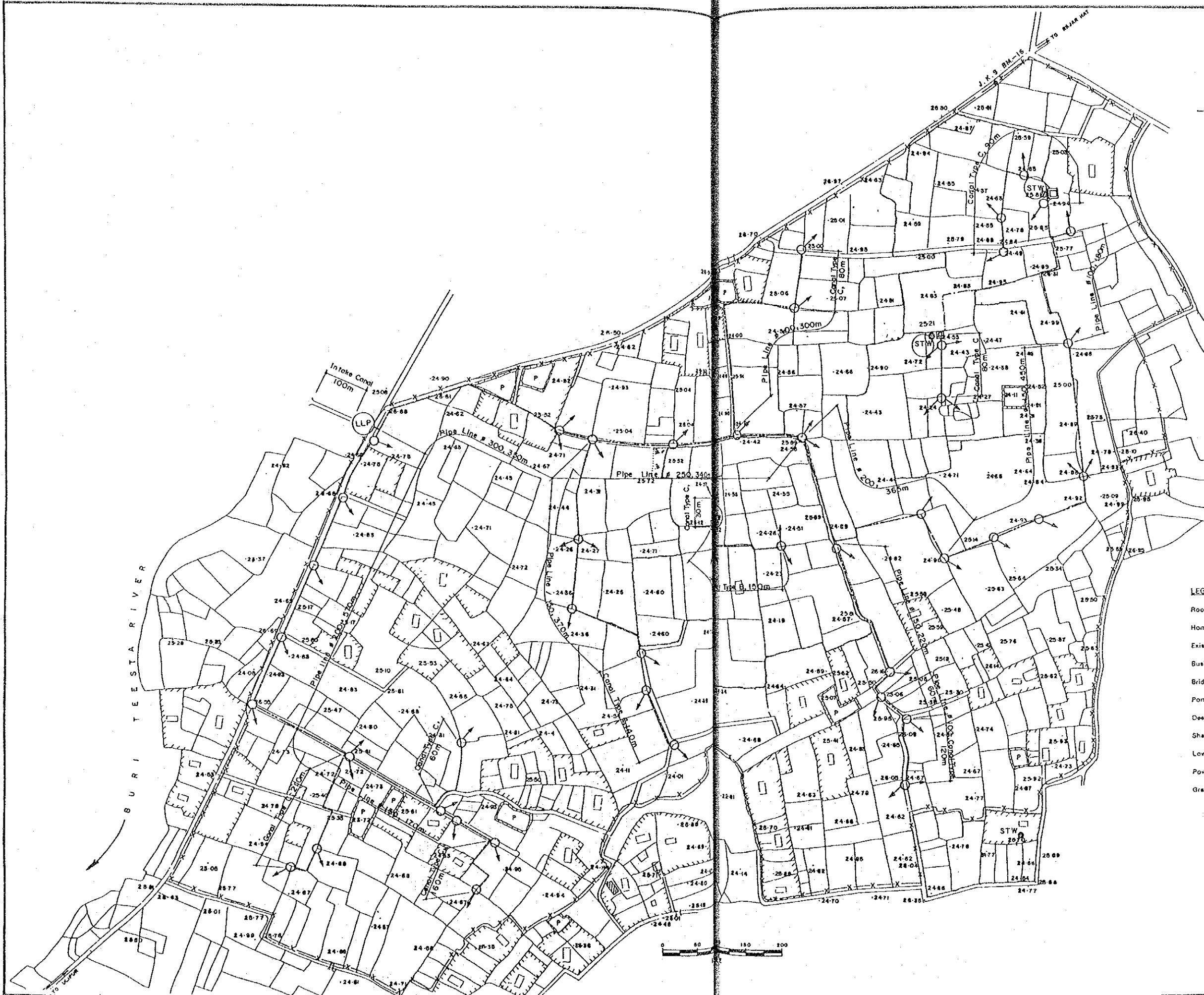
LEGEND

- Road
- Home stead
- Existing irrigated area
- Bush area
- Bridge & Culvert
- Pond
- Deep Tubewell (DTW)
- Shallow Tubewell (STW)
- Lowlift Pump (LLP)
- Power Line
- Graveyard



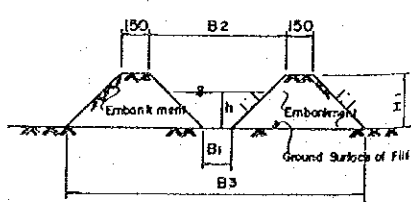
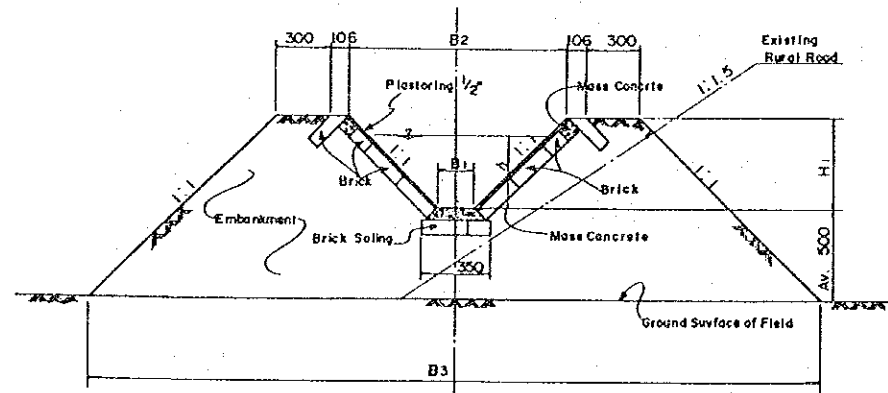
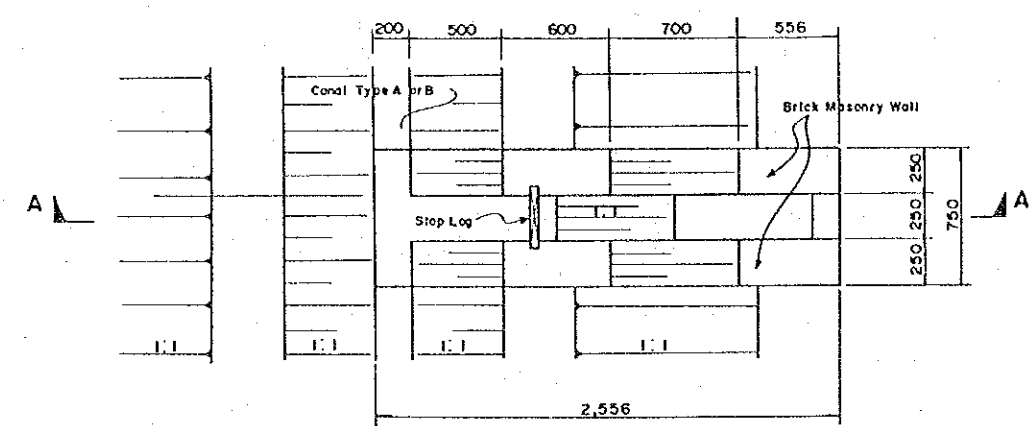
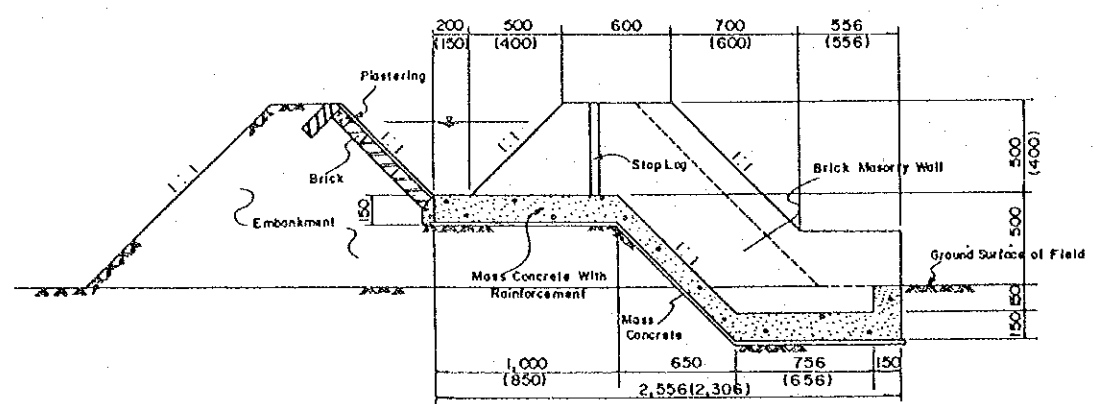
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 SOUTH UNIT
 LLP DEMONSTRATION FARM
 GENERAL PLAN - NARIKELBARI -
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FIELD CANAL

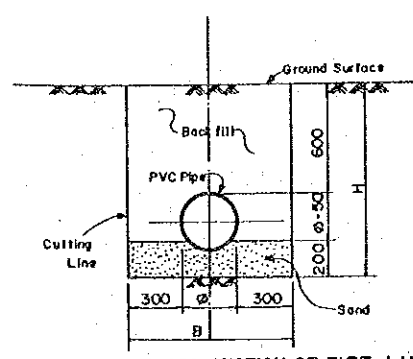
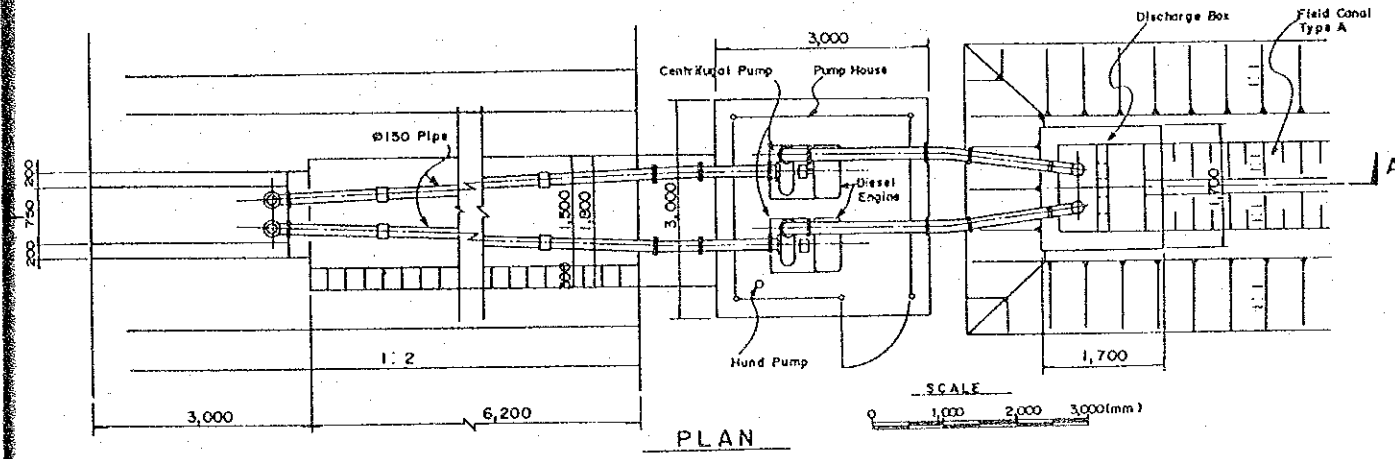
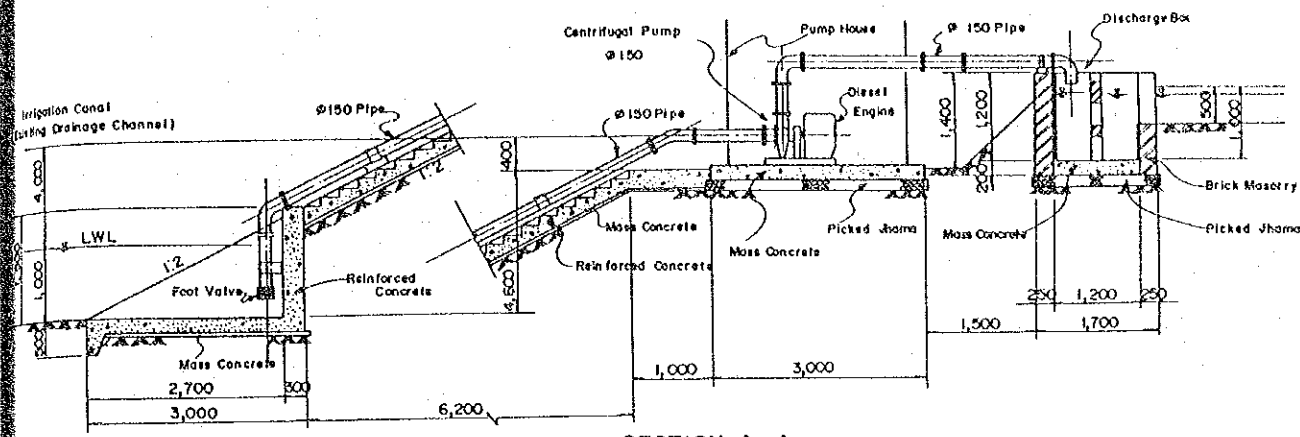
Outlet from Canal Type A and B (600): Type B



Main Features of Type A, B and C Canal

Type	q (m³/s)	V (m/s)	Lining	h (m)	H ₁ (m)	B ₁ (m)	B ₂ (m)	B ₃ (m)
A	56 ~ 112	1/1.500	Mortar Lining	0.27-0.37	0.50	0.20	1.20	4.02
B	15 ~ 56	1/1.500	Mortar Lining	0.15-0.29	0.40	0.18	0.96	3.36
C	0 ~ 15	1/1.000	unlined	0.20	0.30	0.18	0.76	1.65

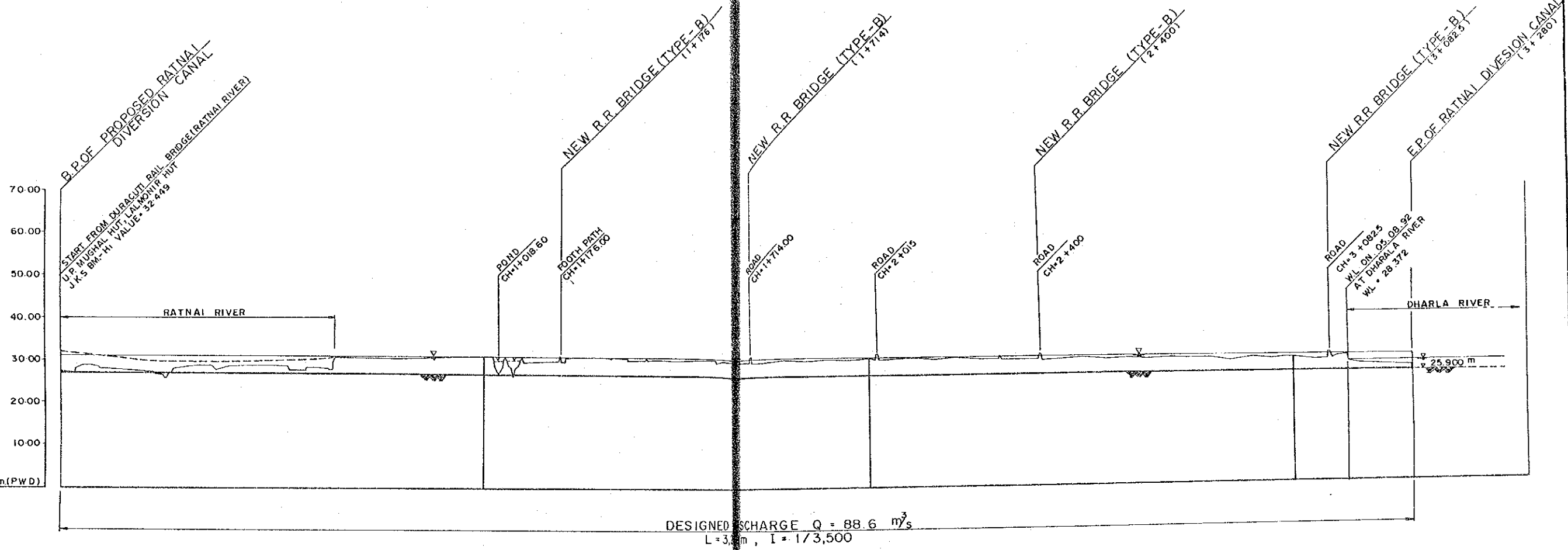
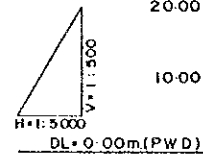
LOW LIFT PUMPING STATION



Main Features of Pipe Line

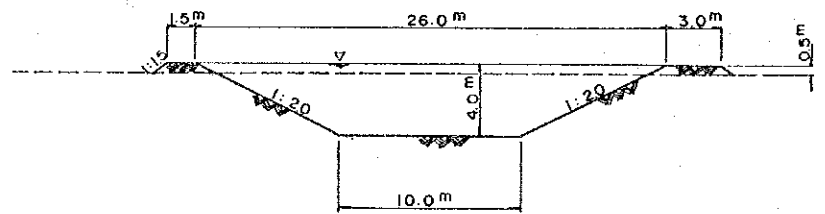
φ (mm)	B (m)	H (m)
300	0.90	1.05
250	0.85	1.00
200	0.80	0.95
150	0.75	0.90
100	0.70	0.85

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 FIELD CANAL AND LLP STATION
 JAPAN INTERNATIONAL COOPERATION AGENCY
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STATION	DISTANCE	ACCUMULATED DISTANCE	EXISTING BANK ELEVATION	EXISTING CANAL BED ELEVATION	DESIGNED CANAL BED ELEVATION	DESIGNED CANAL WATER ELEVATION
0+000	0.00	0.00	32.111	27.101	26.937	30.937
0+050	27.00	27.00	28.714	28.714	26.937	30.937
0+100	54.00	54.00	28.664	28.664	26.937	30.937
0+150	81.00	81.00	27.898	27.898	26.908	30.908
0+200	108.00	108.00	27.413	27.413	26.878	30.878
0+250	135.00	135.00	29.852	29.852	26.878	30.878
0+300	162.00	162.00	27.252	27.252	26.851	30.851
0+350	189.00	189.00	28.462	28.462	26.851	30.851
0+400	216.00	216.00	28.680	28.680	26.823	30.823
0+450	243.00	243.00	27.671	27.671	26.823	30.823
0+500	270.00	270.00	29.561	29.561	26.823	30.823
0+550	297.00	297.00	28.273	28.273	26.794	30.794
0+600	324.00	324.00	28.638	28.638	26.794	30.794
0+650	351.00	351.00	27.547	27.547	26.766	30.766
0+700	378.00	378.00	30.007	28.289	26.766	30.766
0+750	405.00	405.00	30.635	27.734	26.737	30.737
0+800	432.00	432.00	30.438	30.438	26.737	30.737
0+850	459.00	459.00	30.507	30.507	26.708	30.708
0+900	486.00	486.00	30.326	30.326	26.708	30.708
0+950	513.00	513.00	30.471	30.471	26.681	30.681
1+000	540.00	540.00	30.634	30.634	26.681	30.681
1+050	567.00	567.00	30.772	30.772	26.646	30.646
1+100	594.00	594.00	30.877	30.877	26.626	30.626
1+150	621.00	621.00	29.706	29.706	26.594	30.594
1+200	648.00	648.00	30.594	30.594	26.594	30.594
1+250	675.00	675.00	30.602	30.602	26.566	30.566
1+300	702.00	702.00	30.516	30.516	26.537	30.537
1+350	729.00	729.00	30.012	30.012	26.508	30.508
1+400	756.00	756.00	30.074	30.074	26.480	30.480
1+450	783.00	783.00	29.880	29.880	26.447	30.447
1+500	810.00	810.00	30.534	30.534	26.423	30.423
1+550	837.00	837.00	30.510	30.510	26.394	30.394
1+600	864.00	864.00	29.566	29.566	26.366	30.366
1+650	891.00	891.00	30.071	30.071	26.337	30.337
1+700	918.00	918.00	29.797	29.797	26.308	30.308
1+750	945.00	945.00	30.021	30.021	26.280	30.280
1+800	972.00	972.00	29.880	29.880	26.251	30.251
1+850	1000.00	1000.00	30.045	30.045	26.223	30.223
1+900	1027.00	1027.00	29.737	29.737	26.194	30.194
1+950	1054.00	1054.00	30.101	30.101	26.166	30.166
2+000	1081.00	1081.00	29.776	29.776	26.137	30.137
2+050	1108.00	1108.00	29.506	29.506	26.108	30.108
2+100	1135.00	1135.00	29.619	29.619	26.080	30.080
2+150	1162.00	1162.00	29.488	29.488	26.056	30.056
2+200	1189.00	1189.00	29.578	29.578	26.034	30.034
2+250	1216.00	1216.00	29.931	29.931	26.008	30.008
2+300	1243.00	1243.00	29.499	29.499	26.000	30.000
2+350	1270.00	1270.00	29.703	29.703	26.000	30.000
2+400	1297.00	1297.00	29.447	29.447	26.000	30.000
2+450	1324.00	1324.00	29.651	29.651	26.000	30.000
2+500	1351.00	1351.00	29.450	29.450	26.000	30.000
2+550	1378.00	1378.00	29.439	29.439	26.000	30.000
2+600	1405.00	1405.00	26.994	26.994	26.000	30.000
2+650	1432.00	1432.00	29.503	29.503	26.000	30.000
2+700	1459.00	1459.00	29.132	29.132	26.000	30.000
2+750	1486.00	1486.00	29.433	29.433	26.000	30.000
2+800	1513.00	1513.00	30.064	30.064	26.056	30.056
2+850	1540.00	1540.00	28.231	28.231	26.034	30.034
2+900	1567.00	1567.00	28.872	28.872	26.000	30.000
2+950	1594.00	1594.00	27.351	27.351	26.000	30.000
3+000	1621.00	1621.00	27.210	27.210	26.000	30.000
3+050	1648.00	1648.00	25.950	25.950	26.000	30.000
3+100	1675.00	1675.00	26.000	26.000	26.000	30.000
3+150	1702.00	1702.00	26.000	26.000	26.000	30.000
3+200	1729.00	1729.00	26.000	26.000	26.000	30.000
3+250	1756.00	1756.00	26.000	26.000	26.000	30.000

TYPICAL CROSS SECTION



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RATNAI DIVERSION CANAL
 LOGITUDINAL AND CROSS SECTION
 JAPAN INTERNATIONAL COOPERATION AGENCY
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