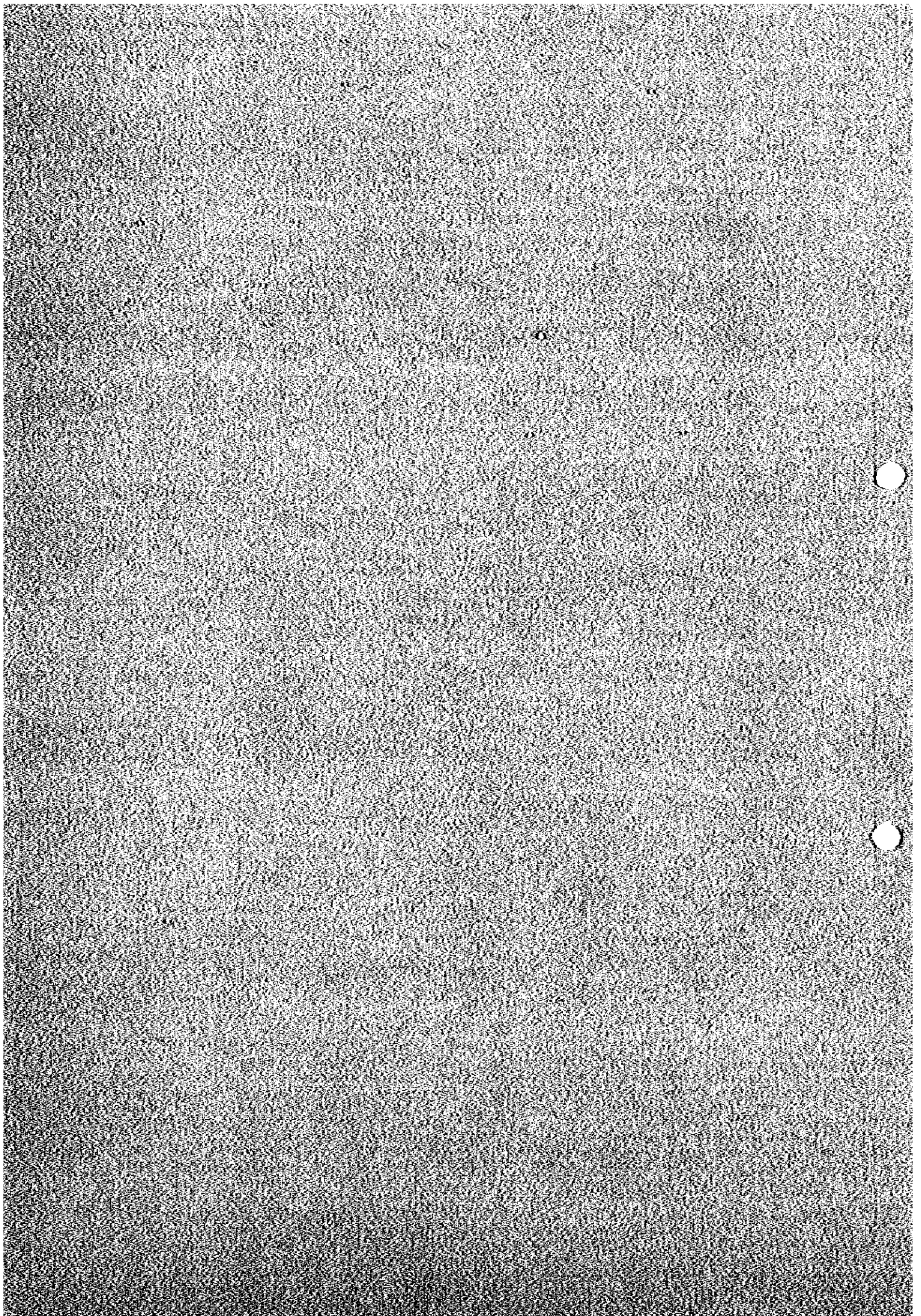
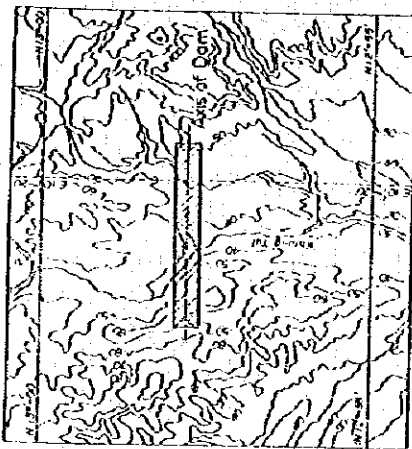


DRAWINGS





KEY MAP

Proposed Relocation Road



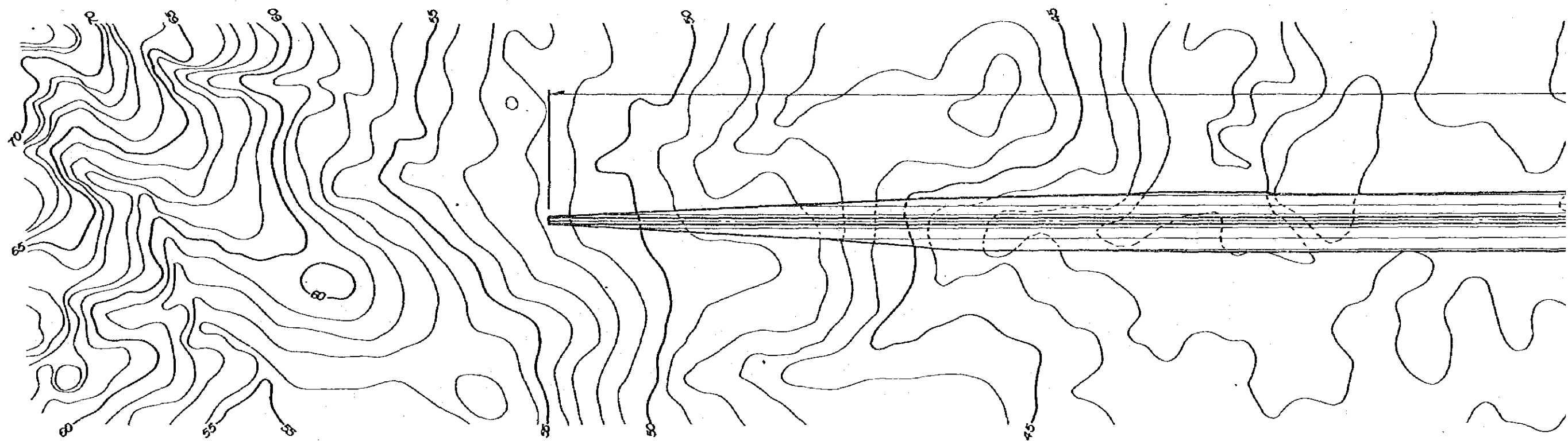
Khlong Yai Dam

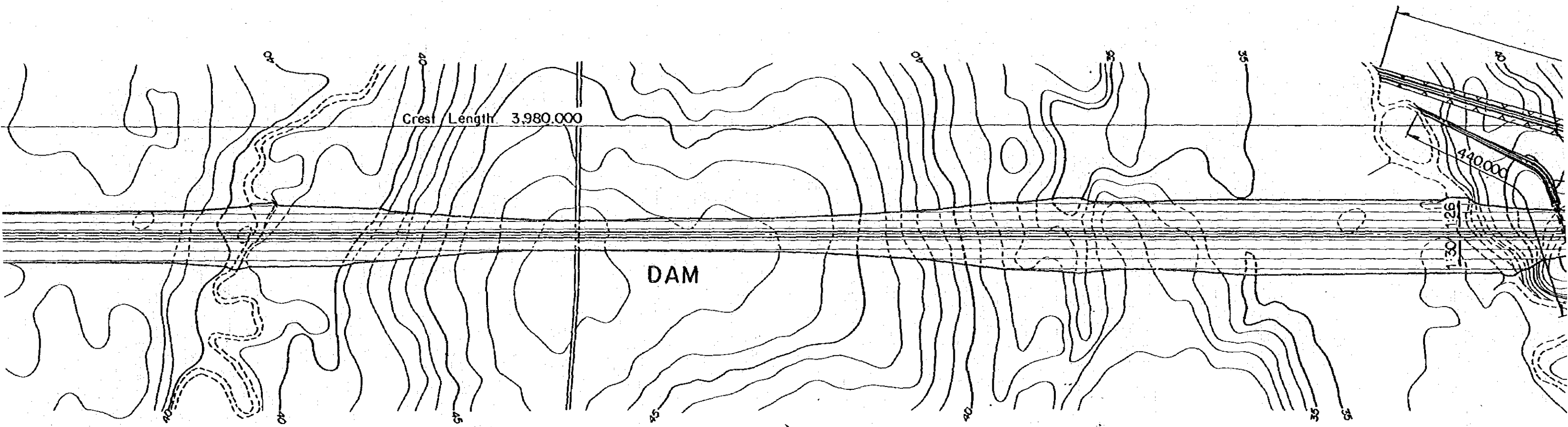
KINGDOM OF THAILAND
THE EAST COAST WATER RESOURCES
DEVELOPMENT PROJECT PHASE II

KHLONG YAI
MAP OF RESERVOIR AREA

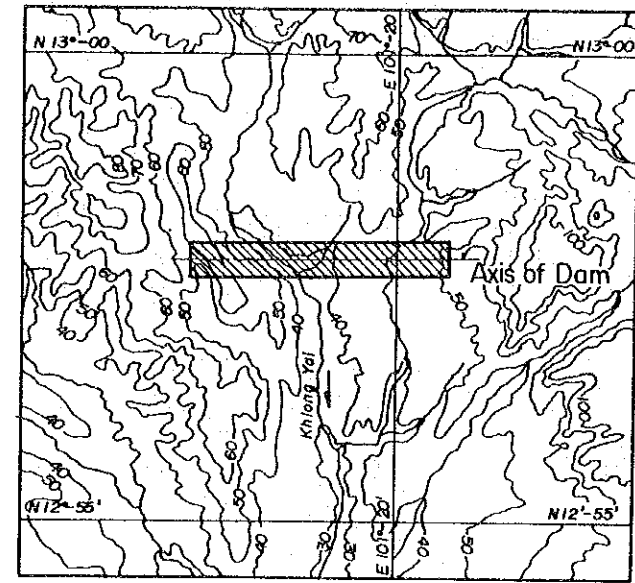
JAPAN INTERNATIONAL COOPERATION AGENCY

DWG. NO. 1 - 1

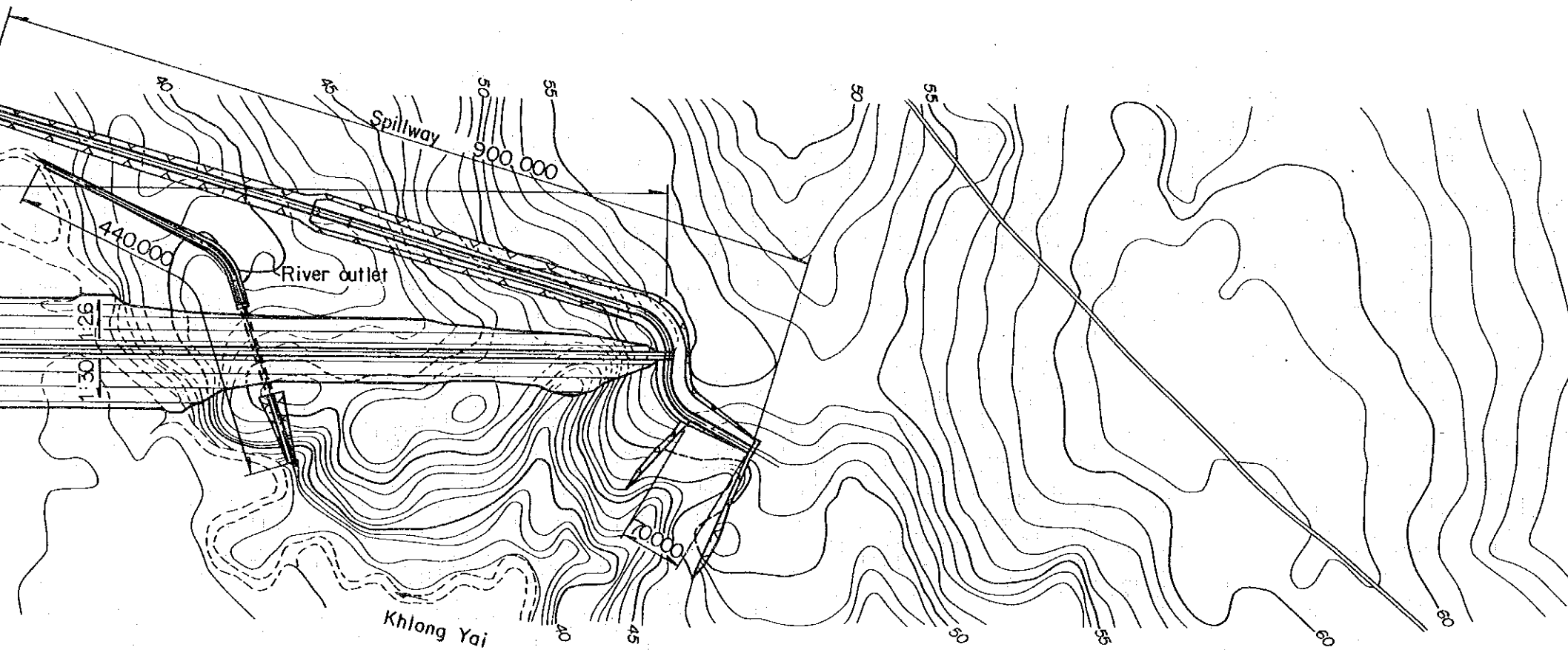




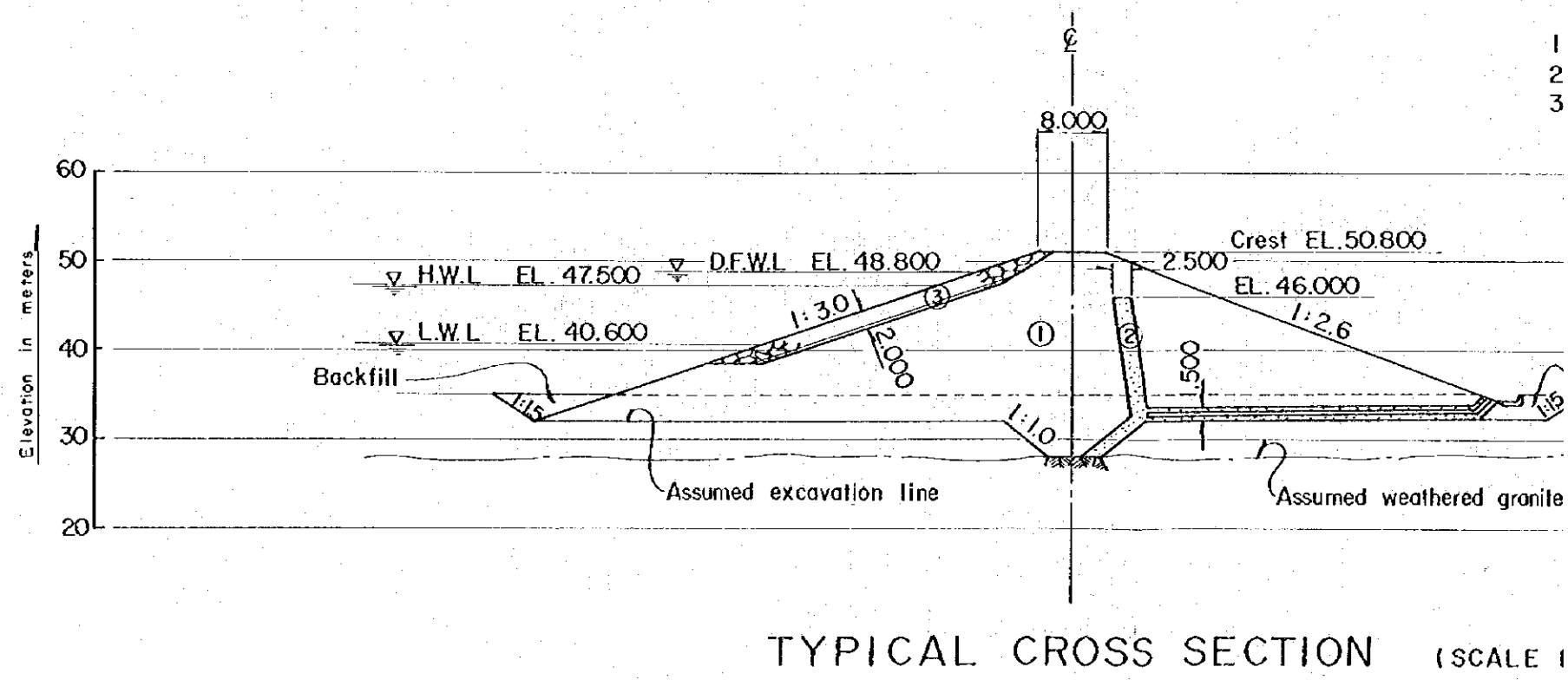
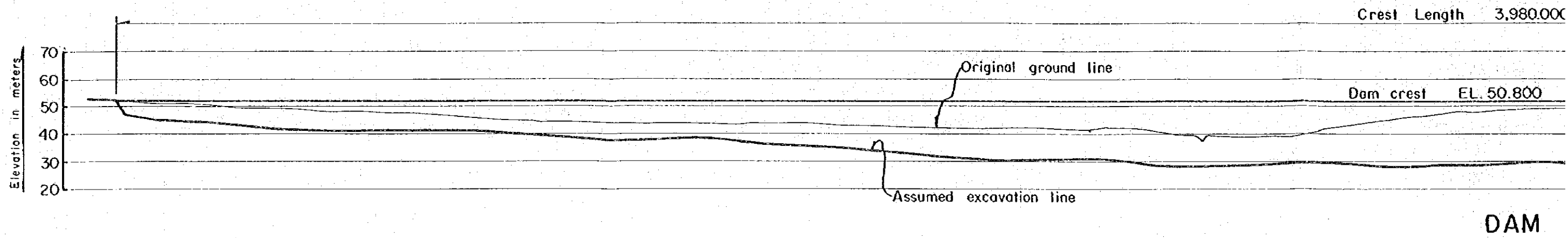
PLAN (SCALE A)



KEY MAP



KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	KHLONG YAI DAM PLAN, PROFILE AND TYPICAL CROSS SECTION(1/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	D.W.G. NO. 1-2



Length 3,980,000

est EL. 50.800

H.W.L EL. 47600
L.W.L EL. 40600

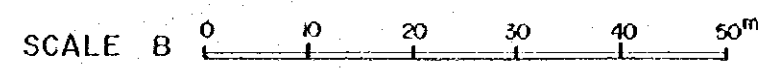
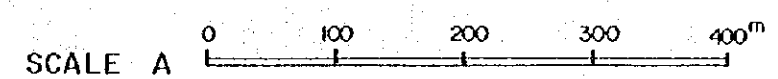
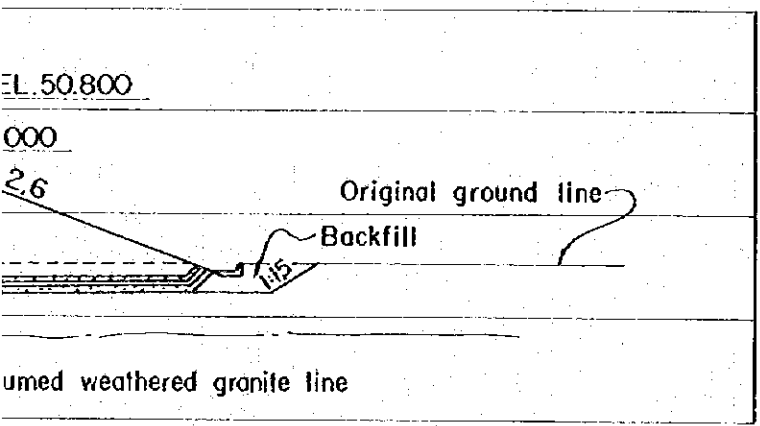
Spillway
Backfill

DAM

PROFILE (SCALE A)

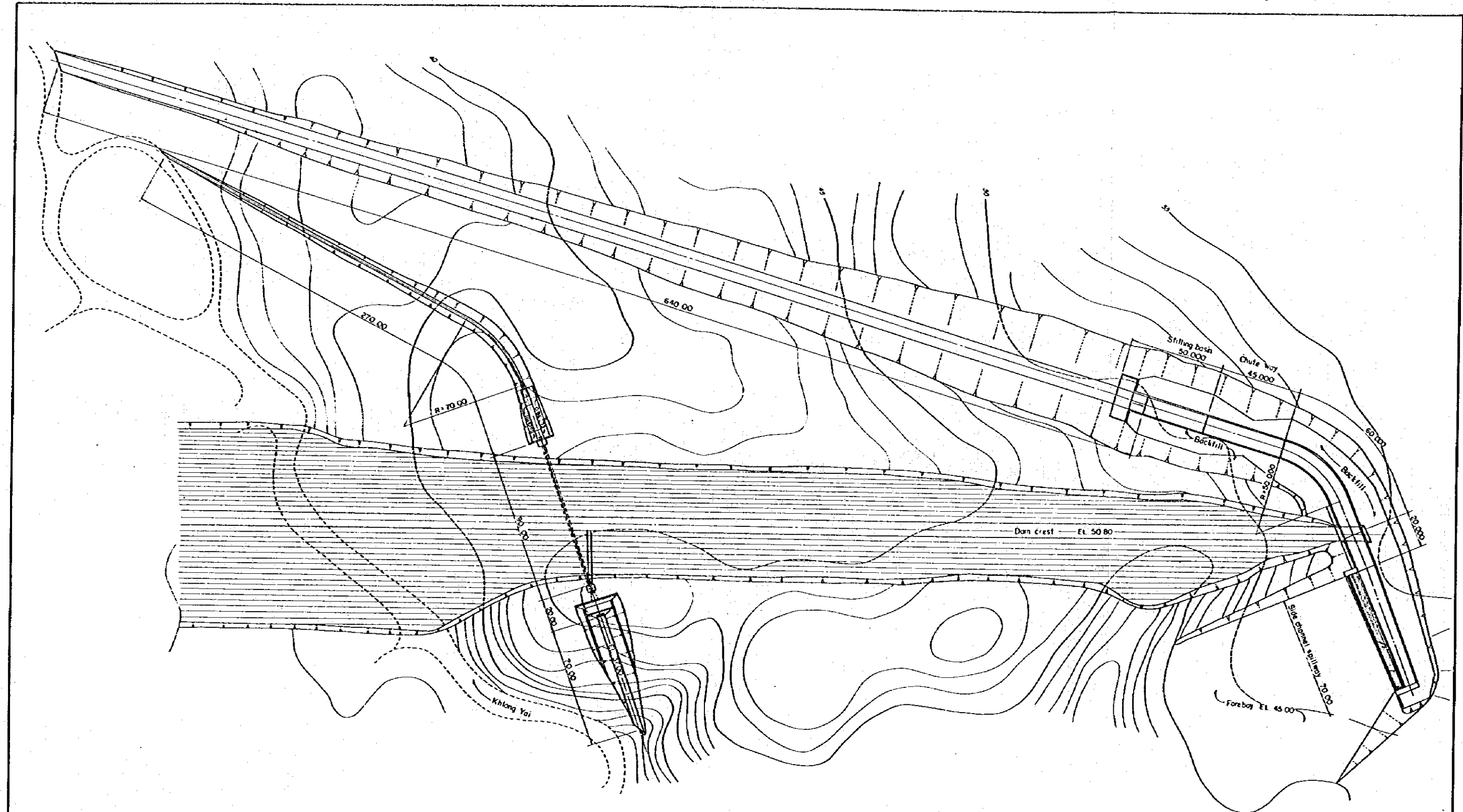
LEGEND

- 1 Impervious core
- 2 Filter
- 3 Riprap

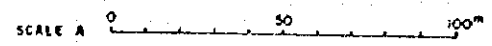


ON (SCALE B)

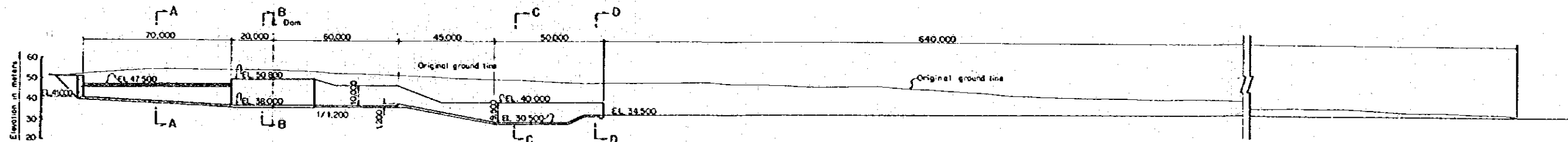
KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	KHLONG YAI DAM PLAN, PROFILE AND TYPICAL CROSS SECTION(2/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	D.W.G. NO. 1-2



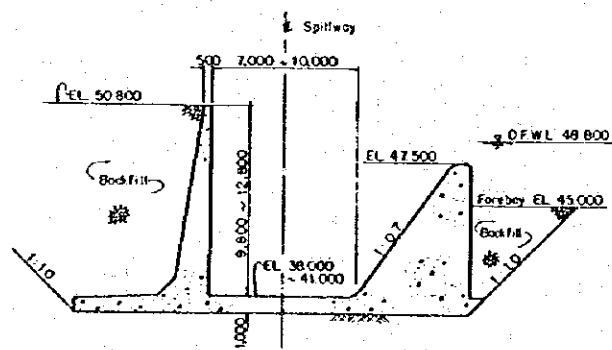
PLAN SCALE A



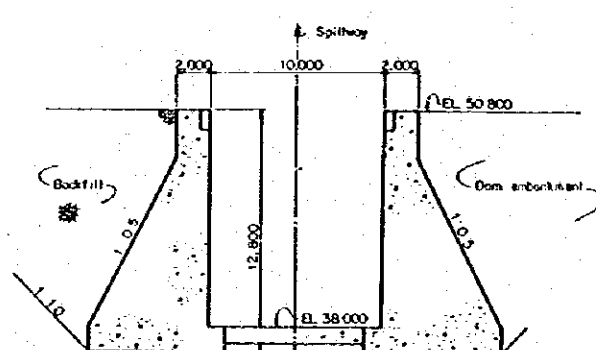
KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	KHLONG YAI SPILLWAY PLAN AND PROFILE (1/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 1-3



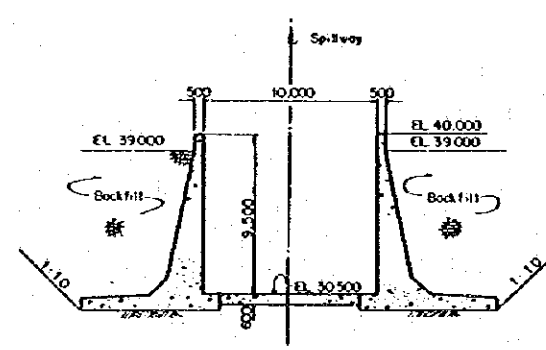
PROFILE OF SPILLWAY
SCALE : A



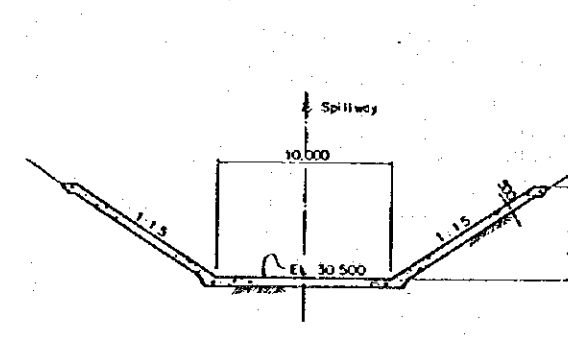
SECTION A-A
SCALE : B



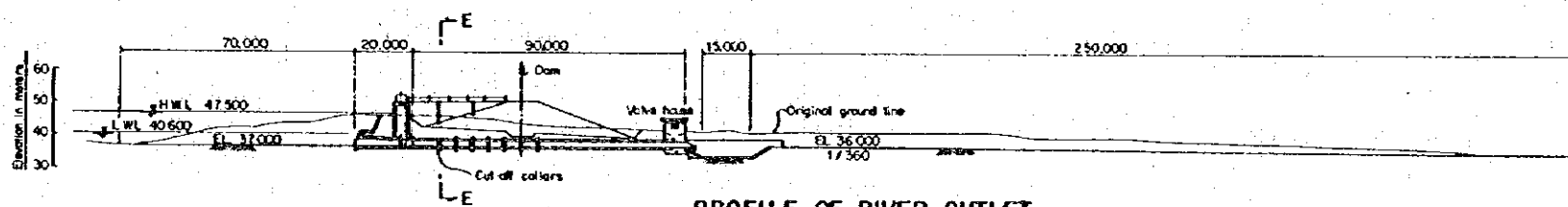
SECTION B-B
SCALE : B



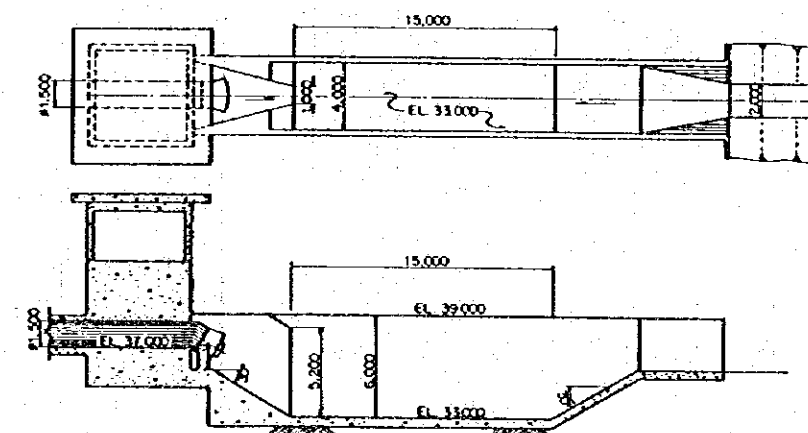
SECTION C-C
SCALE : B



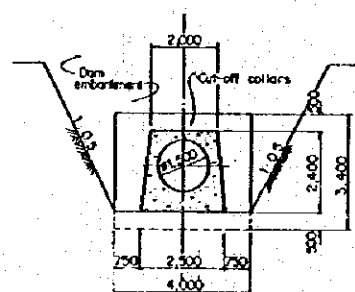
SECTION D-D
SCALE : B



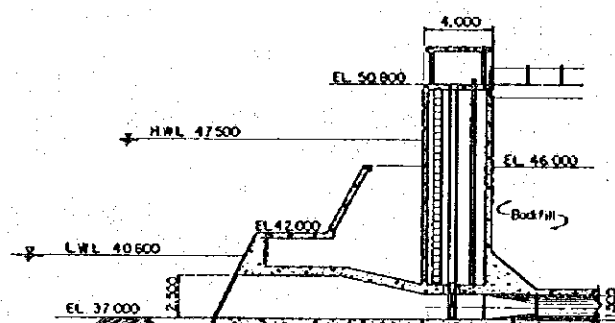
PROFILE OF RIVER OUTLET
SCALE : A



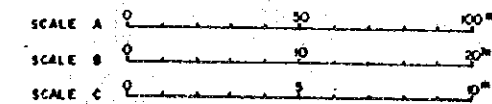
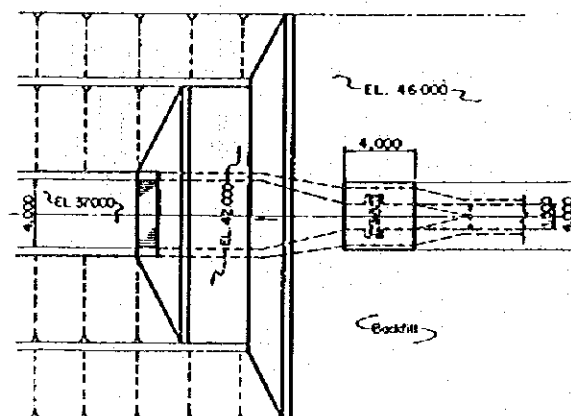
OUTLET OF RIVER OUTLET
SCALE : B



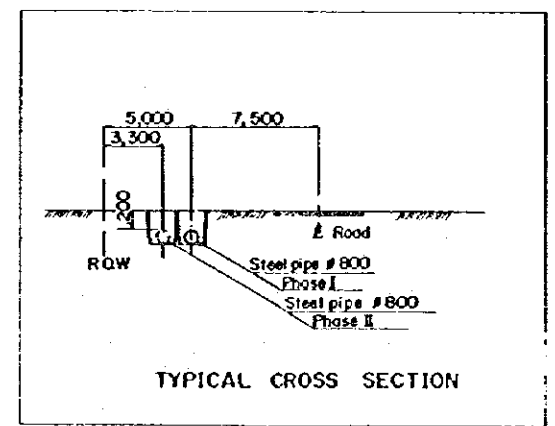
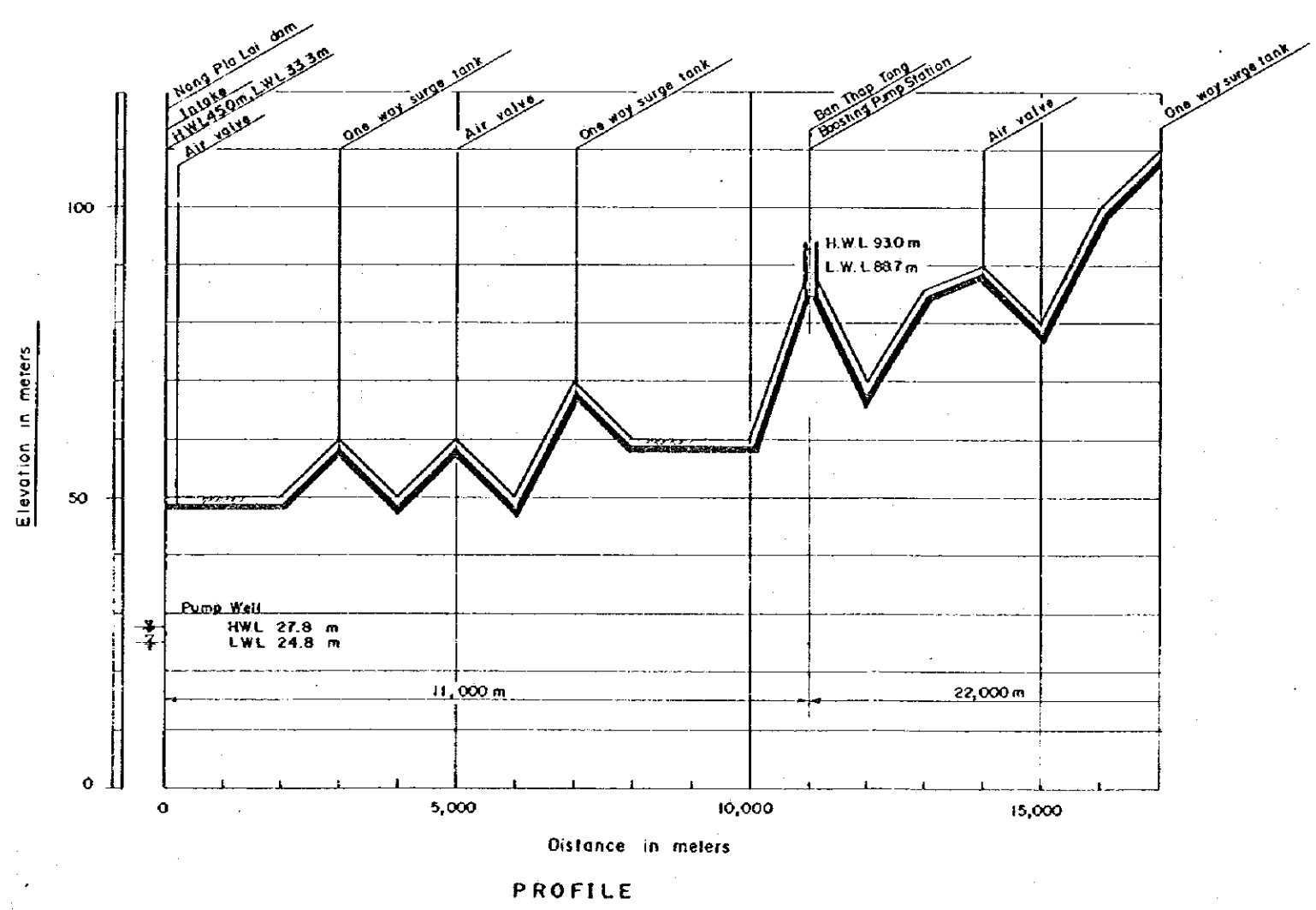
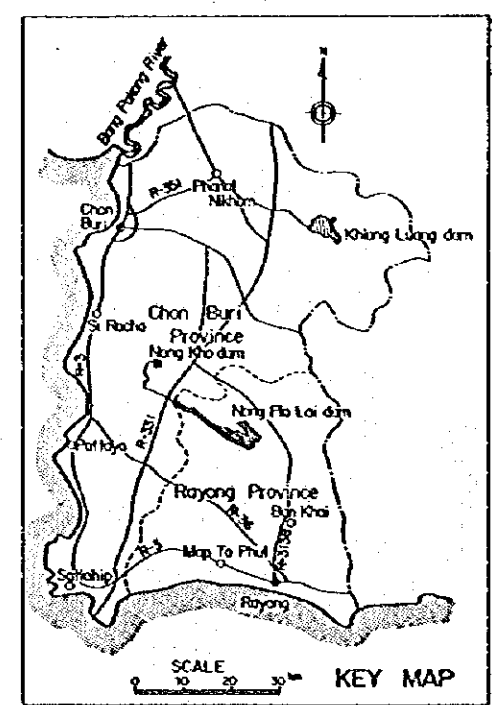
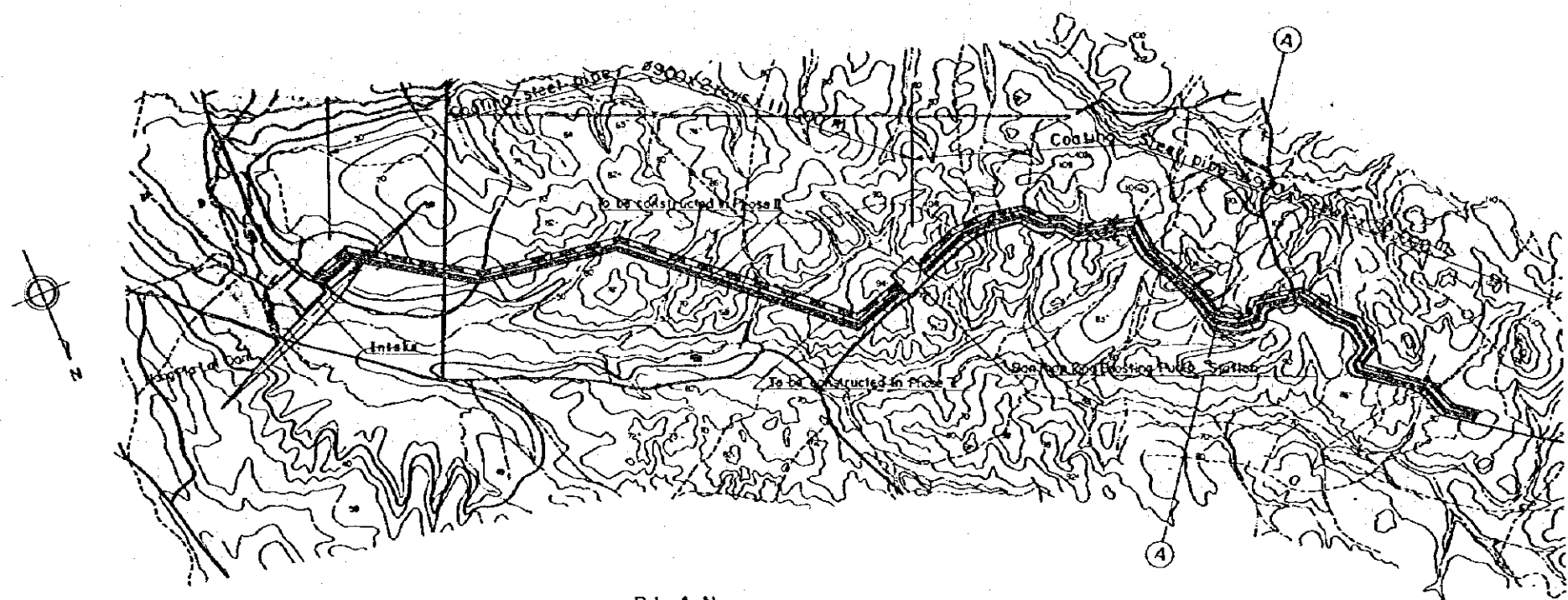
SECTION E-E
SCALE : C



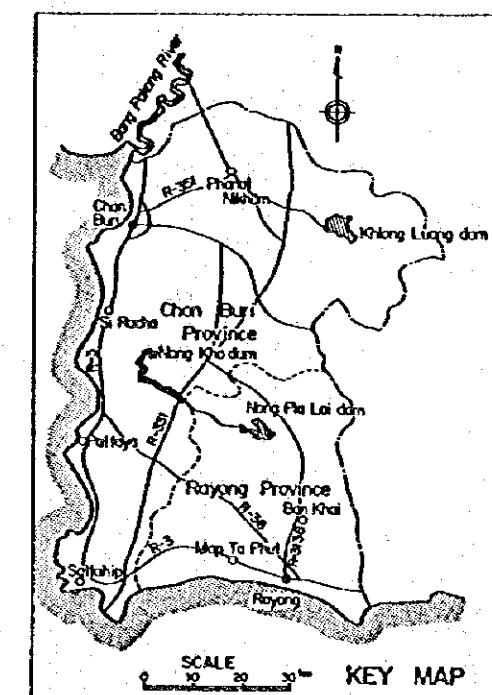
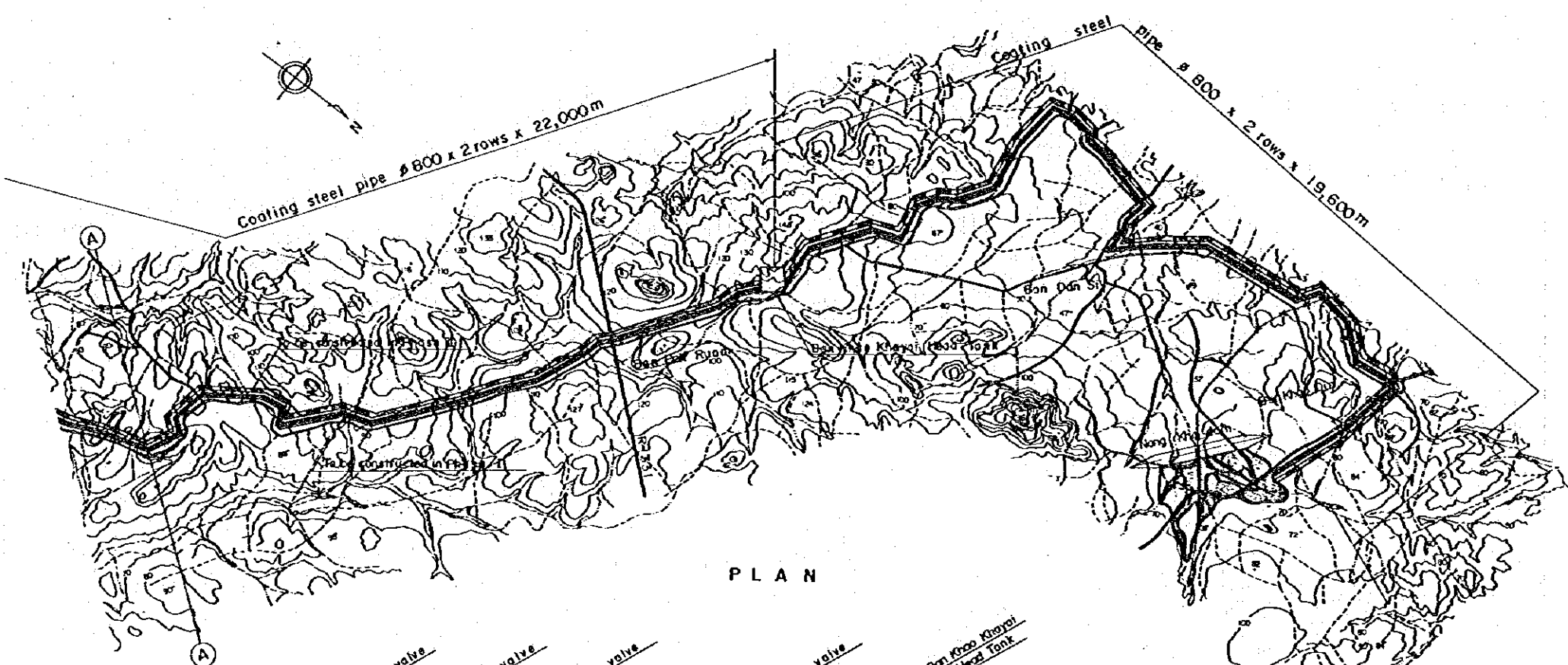
INLET OF RIVER OUTLET
SCALE : B



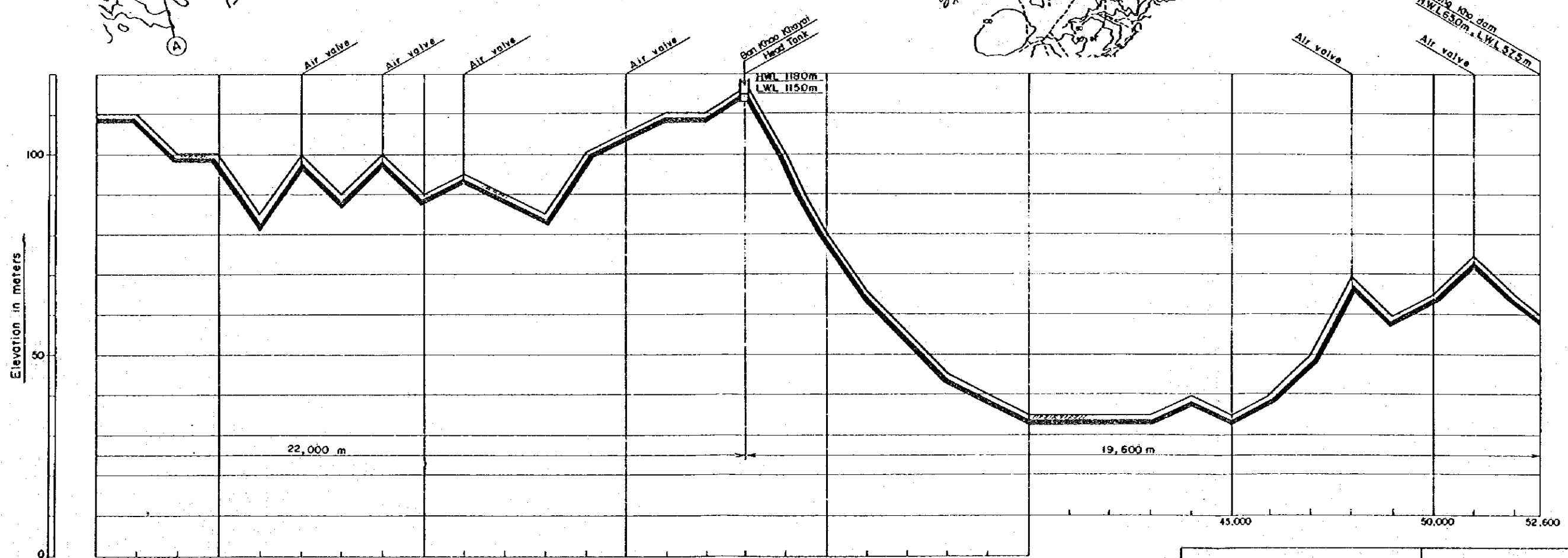
KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	KHLONG YAI SPILLWAY PLAN AND PROFILE (2/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	OWG. NO. 1-3



KINGDOM OF THAILAND	NONG PLA LAI
THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	PIPELINE PLAN AND PROFILE (1/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 2-1

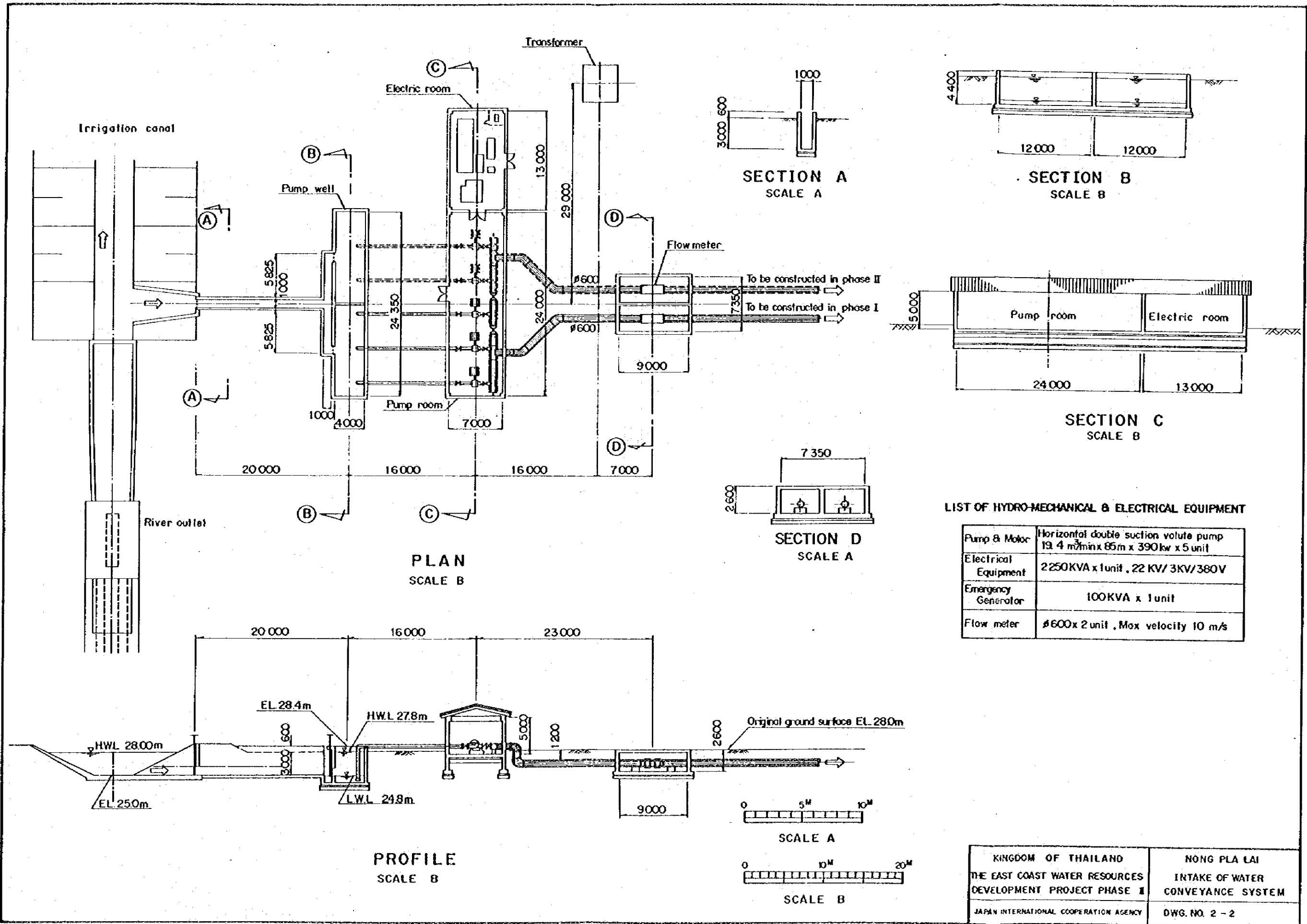


PLAN



PROFILE

KINGDOM OF THAILAND	NONG PLA LAI
THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	PIPELINE PLAN AND PROFILE (2/2)
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 2-1



PLAN
SCALE B

PROFILE
SCALE B

SECTION A
SCALE A

SECTION B
SCALE B

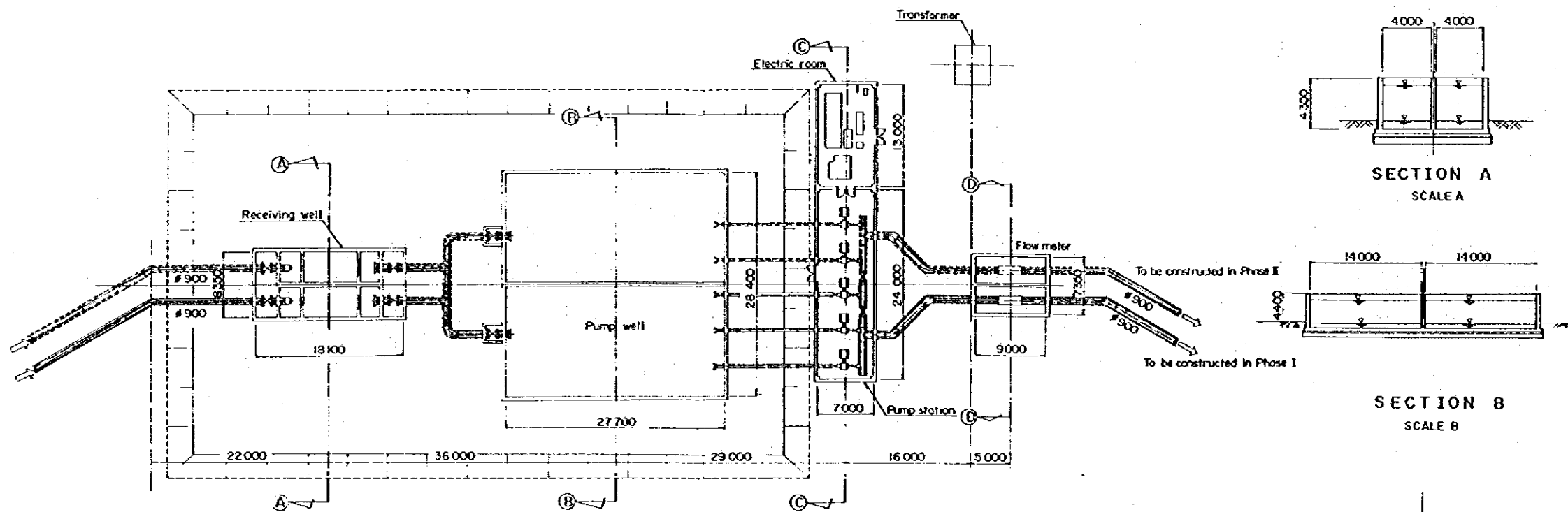
SECTION C
SCALE B

SECTION D
SCALE A

LIST OF HYDRO-MECHANICAL & ELECTRICAL EQUIPMENT

Pump & Motor	Horizontal double suction volute pump 19.4 m ³ /min x 85m x 390kw x 5 unit
Electrical Equipment	2250KVA x 1unit, 22 KV/ 3KV/380V
Emergency Generator	100KVA x 1unit
Flow meter	∅600x 2 unit, Max velocity 10 m/s

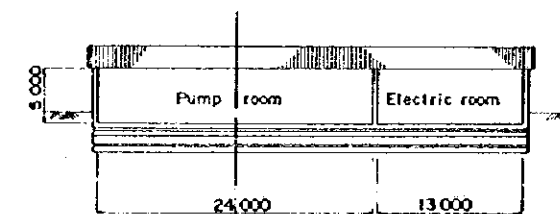
KINGDOM OF THAILAND	NONG PLA LAI
THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	INTAKE OF WATER CONVEYANCE SYSTEM
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 2 - 2



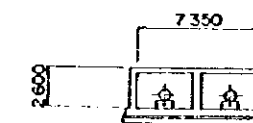
PLAN
SCALE B

LIST OF HYDRO-MECHAICAL & ELECTRICAL EQUIPMENT

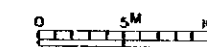
Pump & Motor	Horizontal double suction volute pump 19.4 m ³ /min x 65m x 290kw x 5unit
Electrical Equipment	1,700 KVA x 1unit, 22KV/3KV/380V
Emergency Generator	100 KVA x 1unit
Flow meter	∅ 900 x 2unit, Max velocity 10m/s



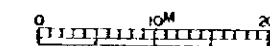
SECTION C
SCALE B



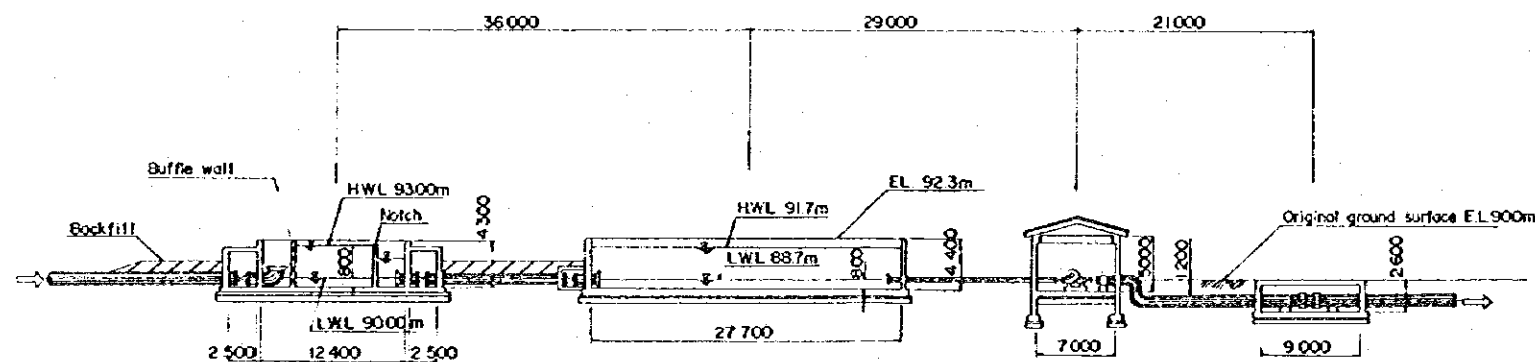
SECTION D
SCALE A



SCALE A

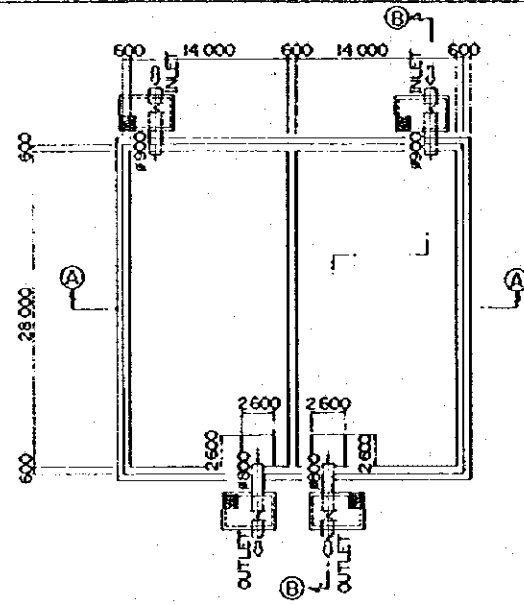


SCALE B

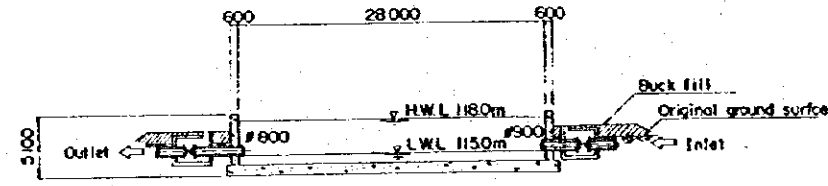


PROFILE
SCALE B

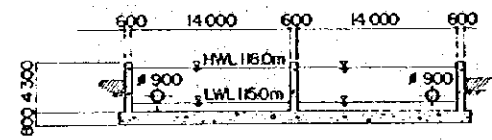
KINGDOM OF THAILAND	MONG FLA LAI
THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	BOOSTING PUMP STATION OF WATER CONVEYANCE SYSTEM
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 2 - 3



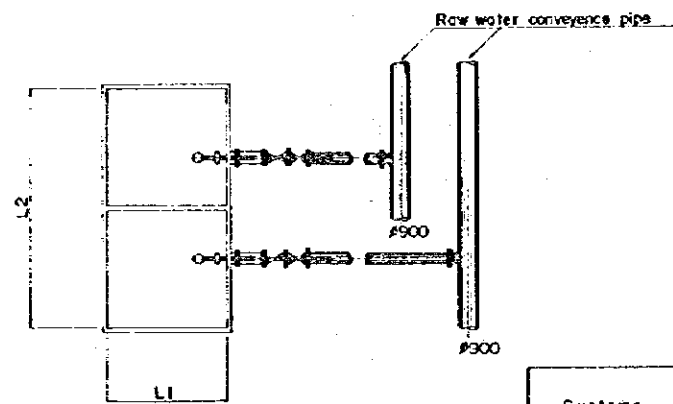
HEAD TANK PLAN
SCALE B



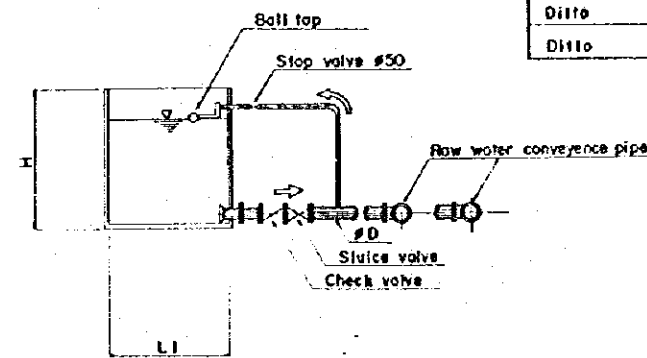
HEAD TANK SECTION B
SCALE B



HEAD TANK SECTION-A
SCALE B



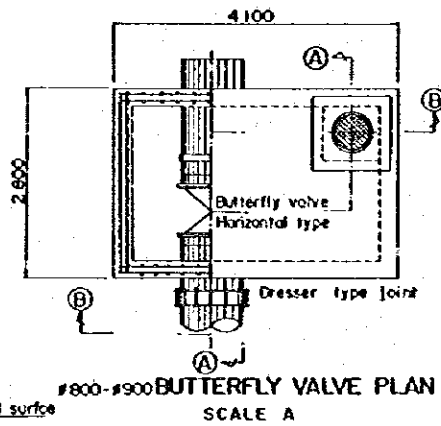
SURGE TANK PLAN



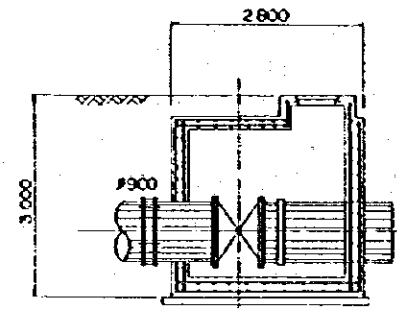
SURGE TANK SECTION

DIMENSIONS OF SURGE TANK

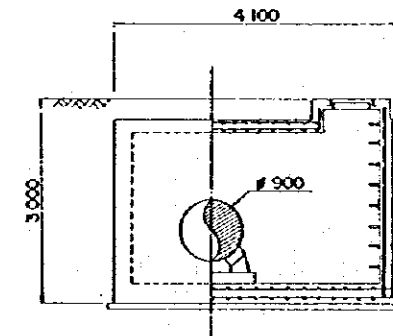
Systems	Site	Volume (m ³)	Dimensions (m)			
			L1	L2	H	# D
Nong Pla Lai dam	3 km from intake pump	16.0	3000	6000	900	80
Ditto	7 km from intake pump	4.0	2000	4000	600	80
Ditto	17 km from intake pump	60.0	3500	7000	2500	100



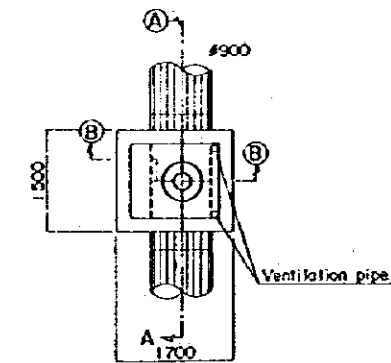
#800-#900 BUTTERFLY VALVE SECTION-B
SCALE A



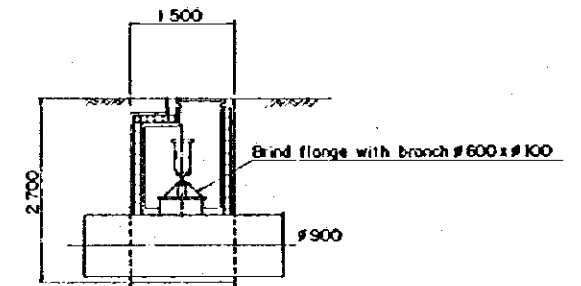
#800-#900 BUTTERFLY VALVE SECTION-B
SCALE A



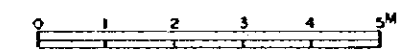
#800-#900 BUTTERFLY VALVE SECTION-B
SCALE A



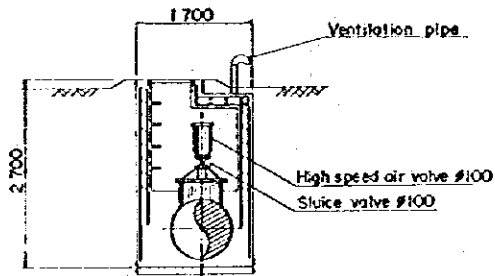
#800-#900 AIR VALVE PLAN
SCALE A



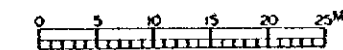
#800-#900 AIR VALVE SECTION-A
SCALE A



SCALE A

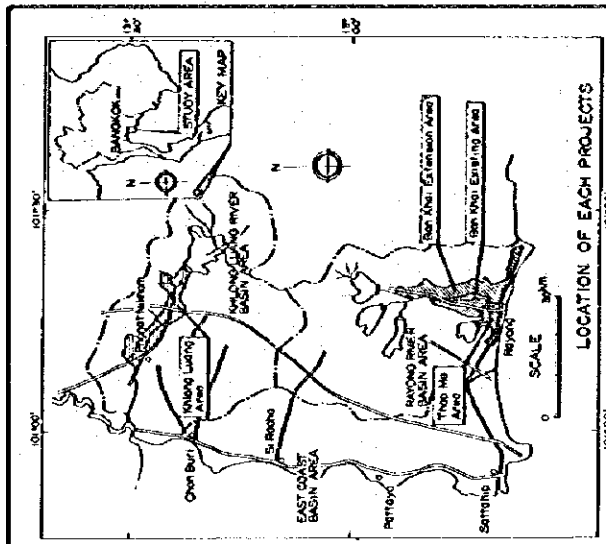


#800-#900 AIR VALVE SECTION-B
SCALE A

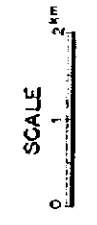
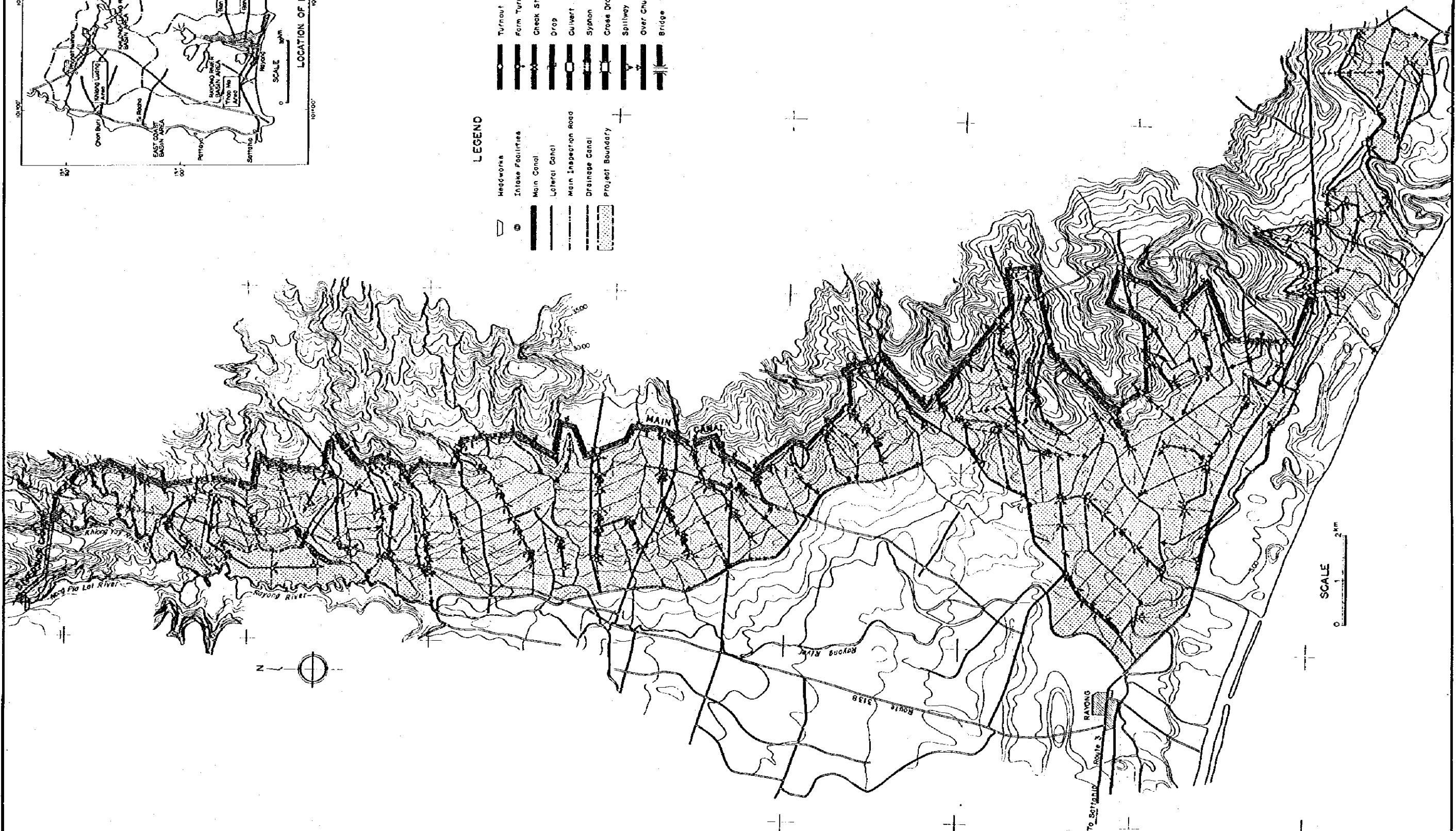


SCALE B

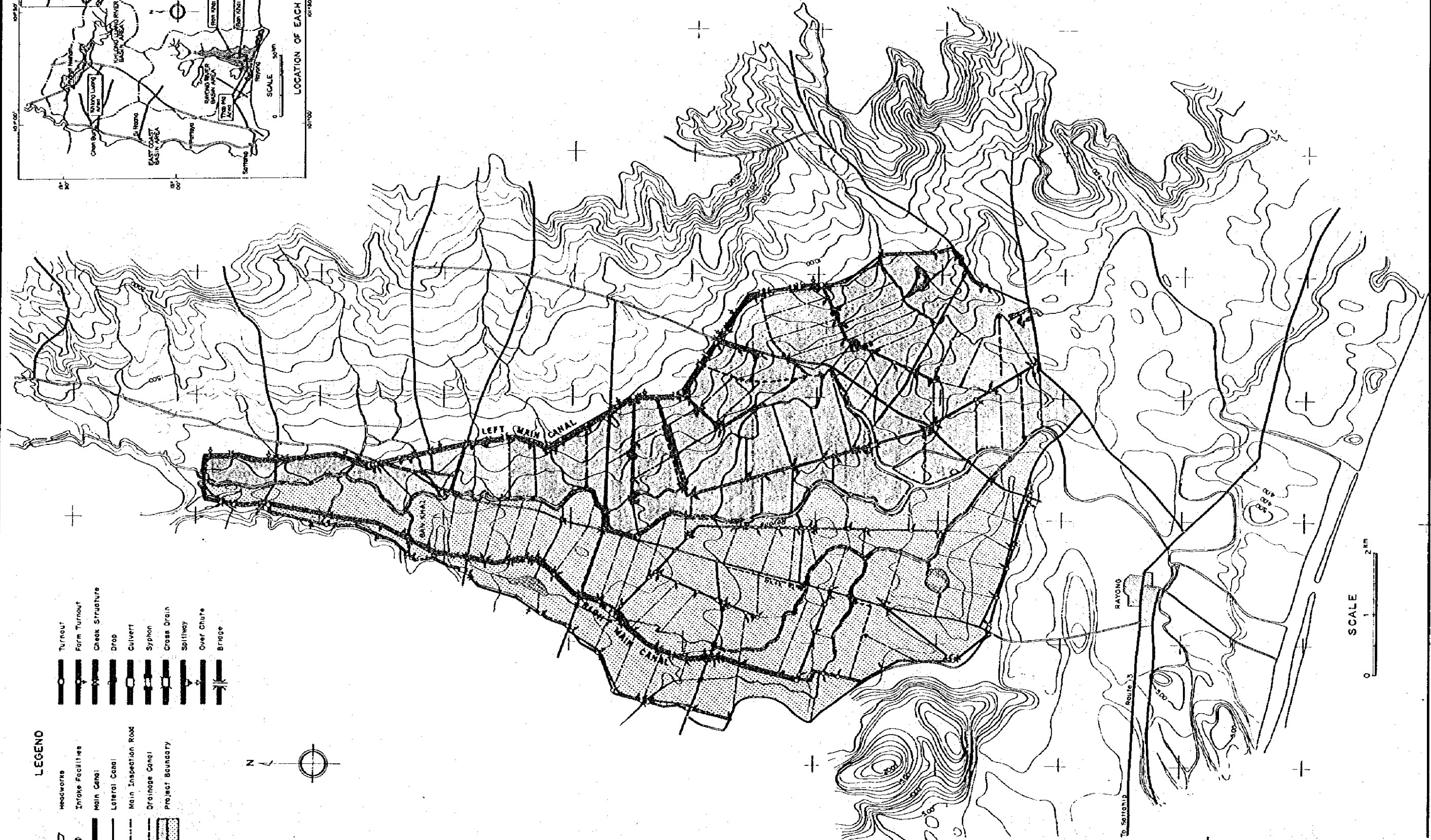
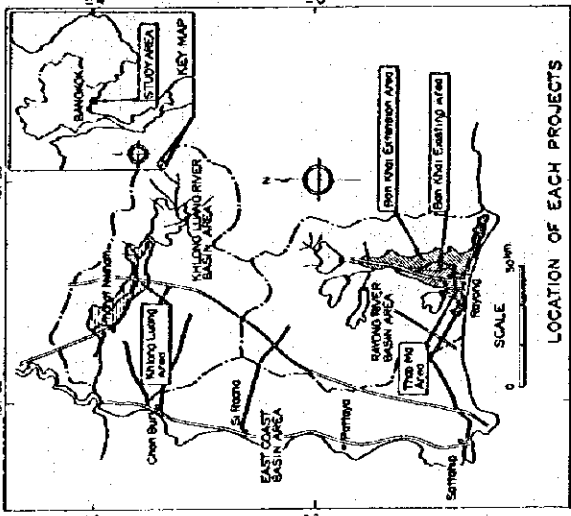
KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	NONG PLA LAI HEAD TANK AND APPURTENANT FACILITIES OF WATER CONVEYANCE SYSTEM
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 2-4



- LEGEND**
- Headworks
 - Intake Facilities
 - Main Canal
 - Lateral Canal
 - Main Inspection Road
 - Drainage Canal
 - Project Boundary
 - Turnout
 - Form Turnout
 - Check Structure
 - Drop
 - Culvert
 - Syphon
 - Cross Drain
 - Spillway
 - Over Chute
 - Bridge

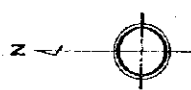


KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II	BAN KHAI EXTENSION LAYOUT MAP OF IRRIGATION SCHEME
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO. 3 - 1



LEGEND

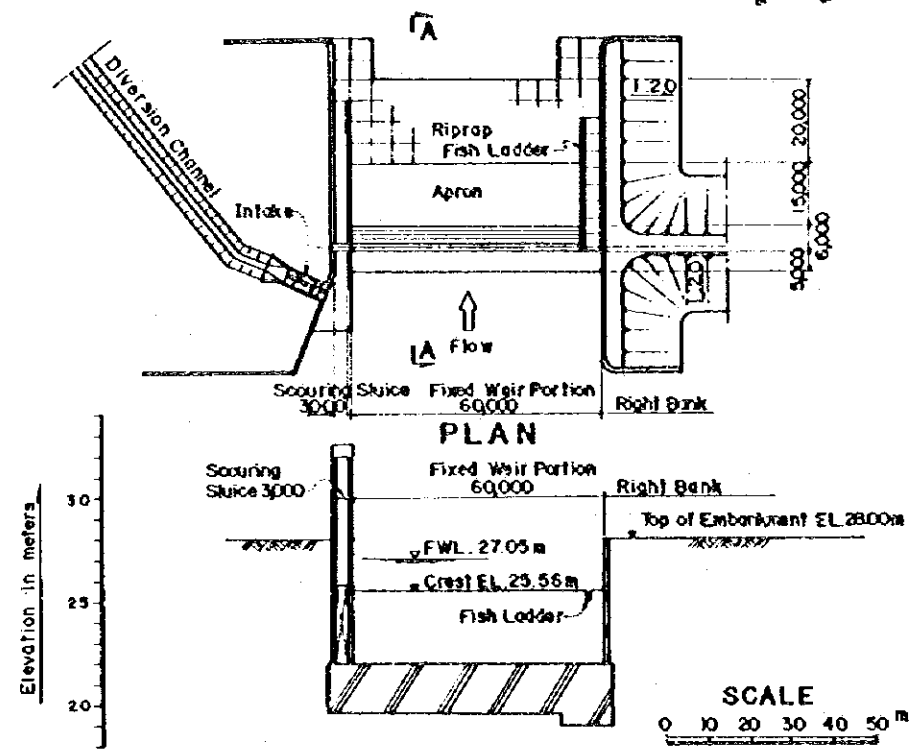
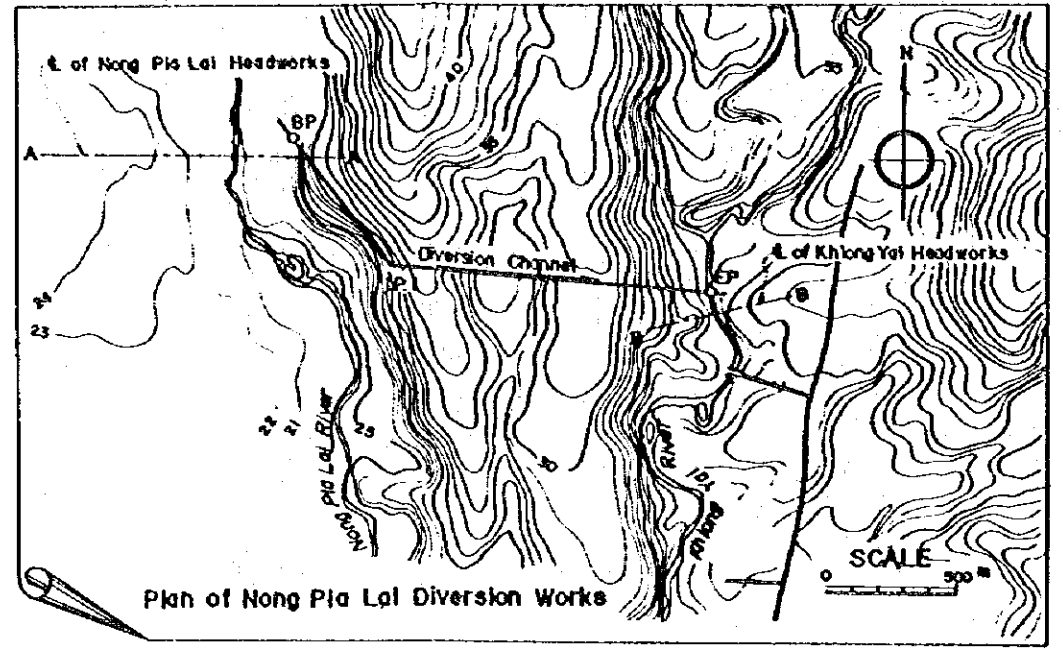
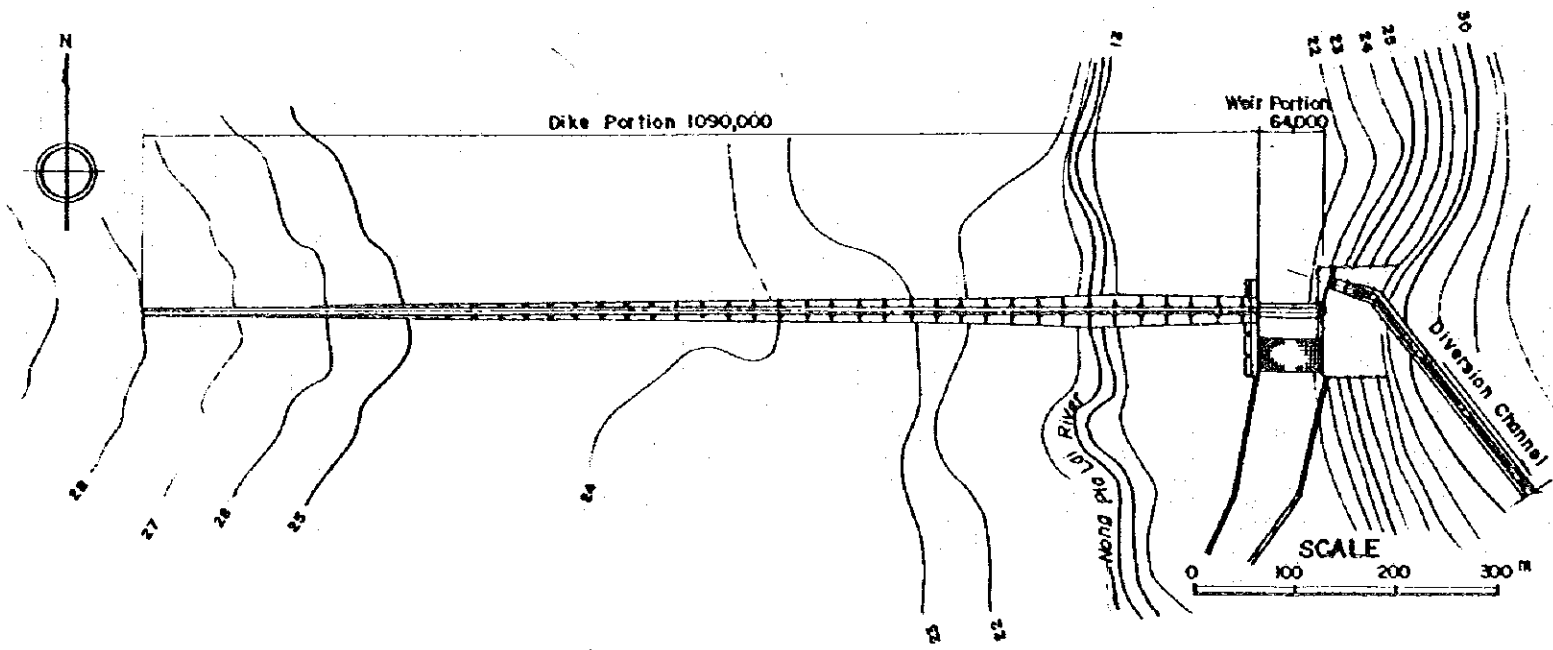
- | | |
|--|----------------------|
| | Headworks |
| | Intake Facilities |
| | Main Canal |
| | Lateral Canal |
| | Main Inspection Road |
| | Drainage Canal |
| | Project Boundary |
| | Turnout |
| | Farm Turnout |
| | Check Structure |
| | Drop |
| | Culvert |
| | Syphon |
| | Cross Drain |
| | Spillway |
| | Over Chute |
| | Bridge |



KINGDOM OF THAILAND
 THE EAST COAST WATER RESOURCES
 DEVELOPMENT PROJECT PHASE II
 JAPAN INTERNATIONAL COOPERATION AGENCY

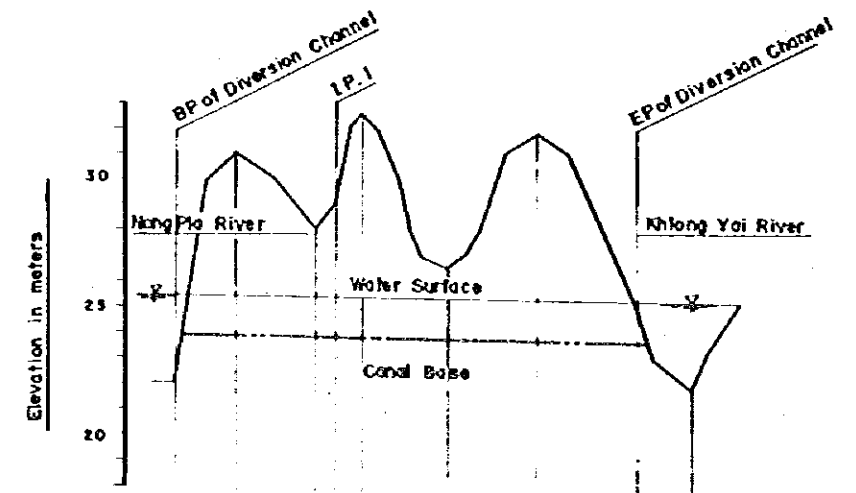
**BAN KHAI EXISTING
 LAYOUT MAP OF IRRIGATION
 SCHEME**
 DWG. NO. 3-2

NONG PLA LAI HEADWORKS

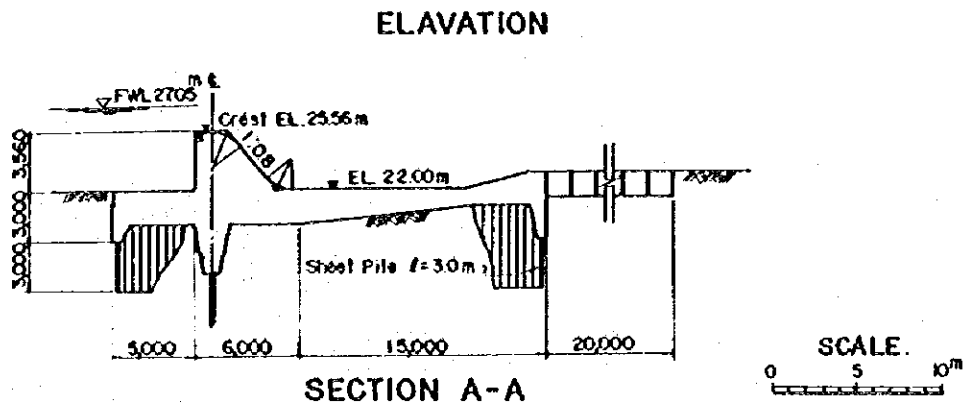


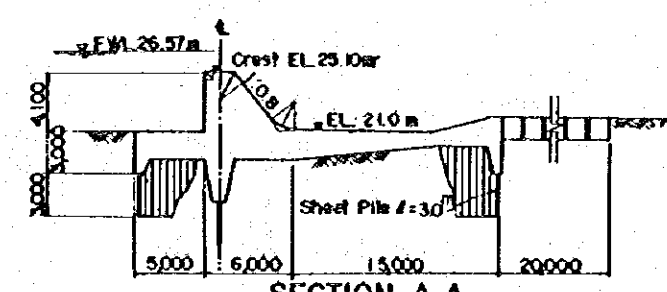
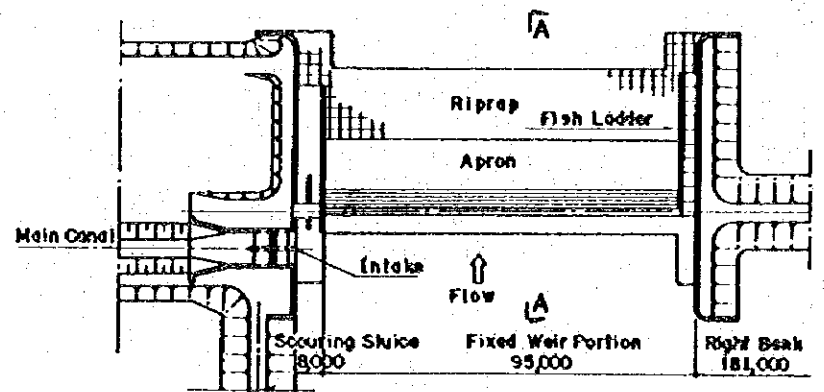
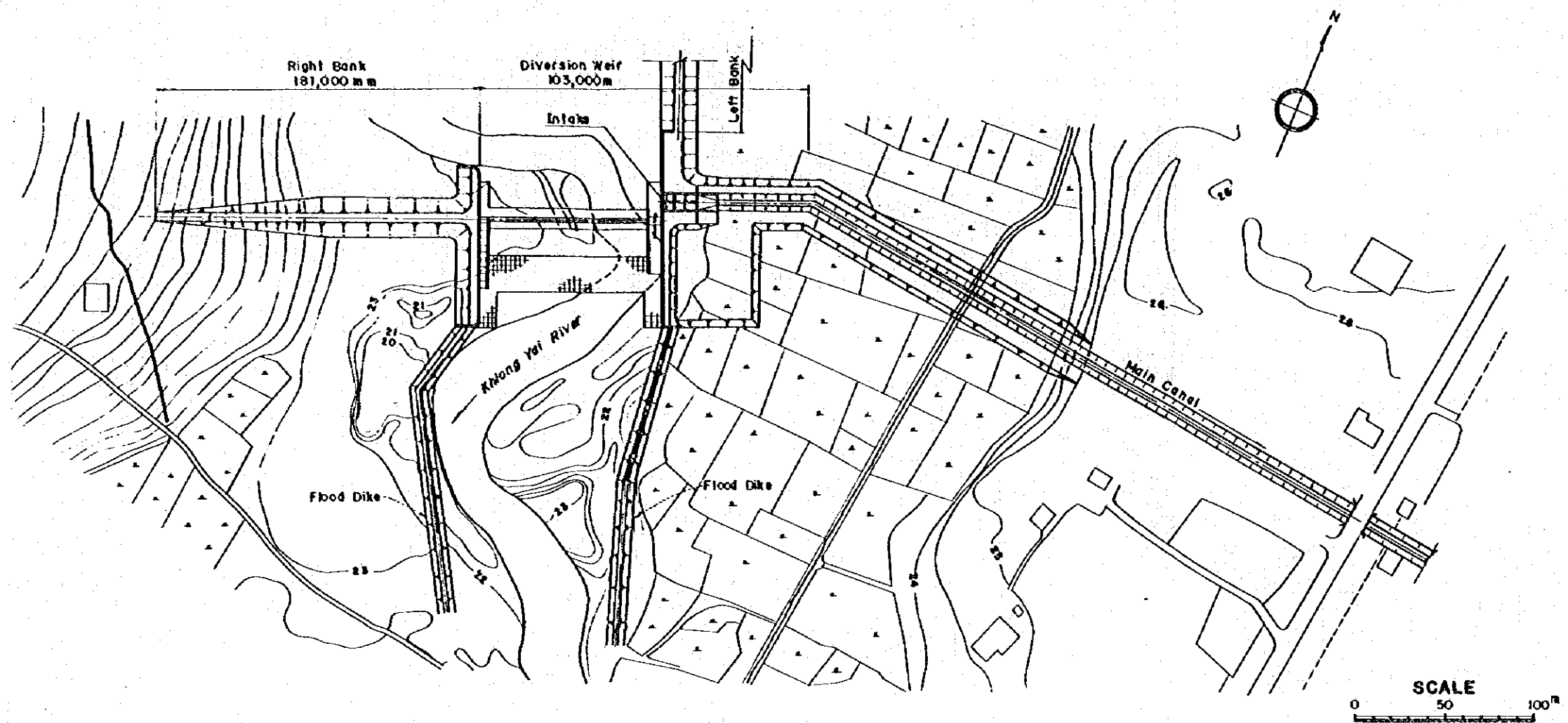
FEATURES OF DIVERSION WORKS

- 1) Headworks
 - 1.1 Fixed Weir Portion
 - Length 60.0 m
 - Height 3.56 m
 - Crest EL 25.56 m
 - Design Flood Discharge 200 m³/sec
 - Design Flood Water Level - FWL 27.05 m
 - 1.2 Movable Weir Portion
 - Gate (B x H) 3,000 x 4,000
 - No. 1
 - Bed EL EL 22.0 m
 - 1.3 Dike Portion
 - Length 1,090.0 m
 - Height 7.5 m
 - Slop 1:2.0
 - Crest EL EL 28.0 m
 - Width 5.0 m
 - 1.4 Intake
 - Gate 2,500 x 2,000 x 2 Nos.
 - Design Intake Discharge 4.90 m³/sec
 - Design Intake Water Level - IWL 25.46 m
 - Bed EL 23.96 m
- 2) Diversion Channel
 - Canal Type Concrete Lining
 - Gradient 1/5,000
 - Base Width 2.0 m
 - Height 2.1 m
 - Length 1,800.0 m
 - Design Discharge 4.90 m³/sec



No.	Reduced Distance	Ground Height	Water Level	Canal Base
BP	0.0	22.0	25.46	24.03
+230	230.0	31.0	25.41	23.98
No. 1	400.0	29.7	25.38	23.93
+150	550.0	28.0	25.35	23.92
IP. 1	630.0	29.0	25.33	23.90
+330	730.0	32.6	25.31	23.88
No. 2	800.0	31.7	25.30	23.87
+270	1,070.0	26.5	25.25	23.82
No. 3	1,200.0	28.2	25.22	23.79
+210	1,410.0	31.8	25.18	23.75
No. 4	1,600.0	29.4	25.14	23.71
EP	1,800.0	25.0	25.10	23.67
	2,010.0	21.6	25.10	23.67

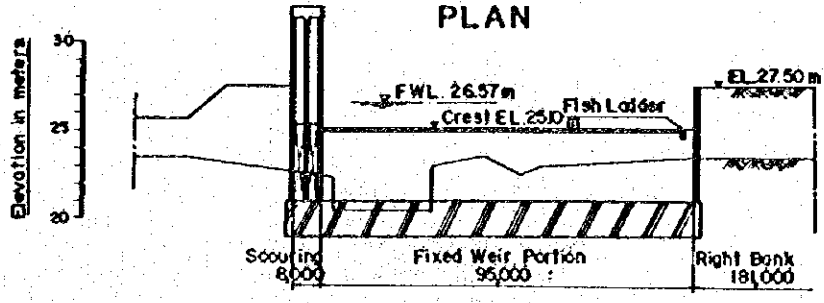




SECTION A-A
SCALE 0 5 10m

FEATURES OF KHLONG YAI HEADWORKS

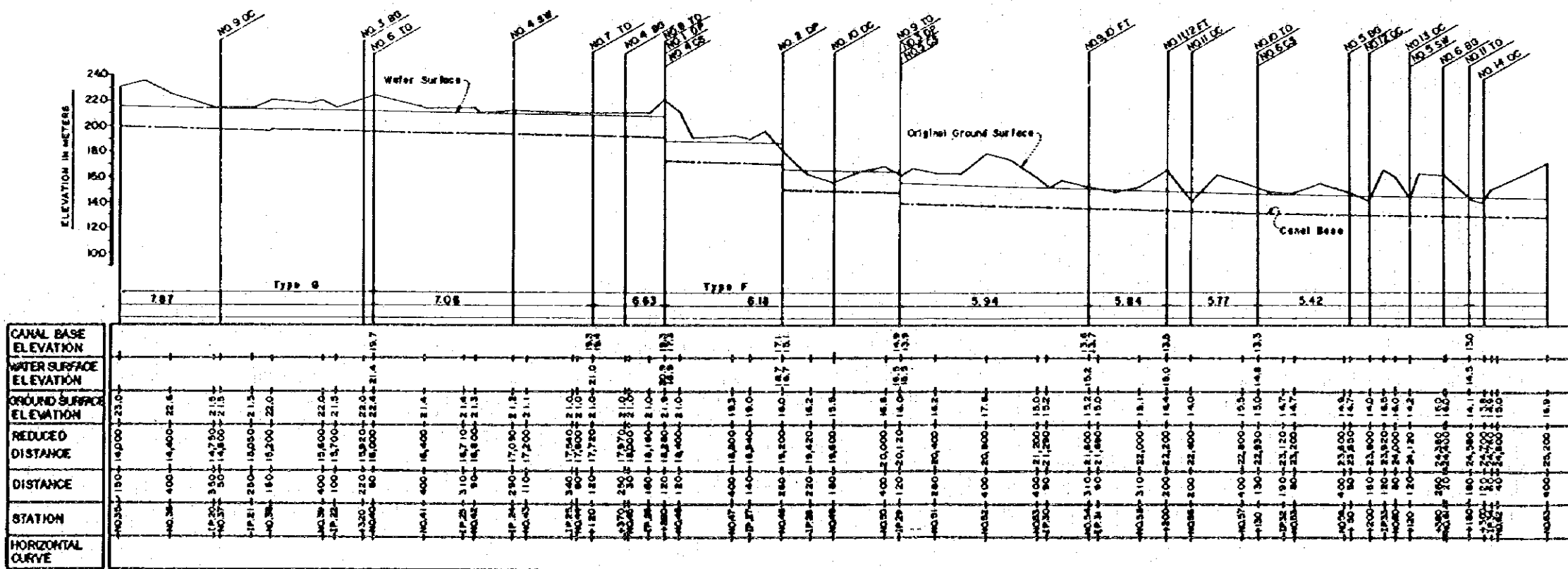
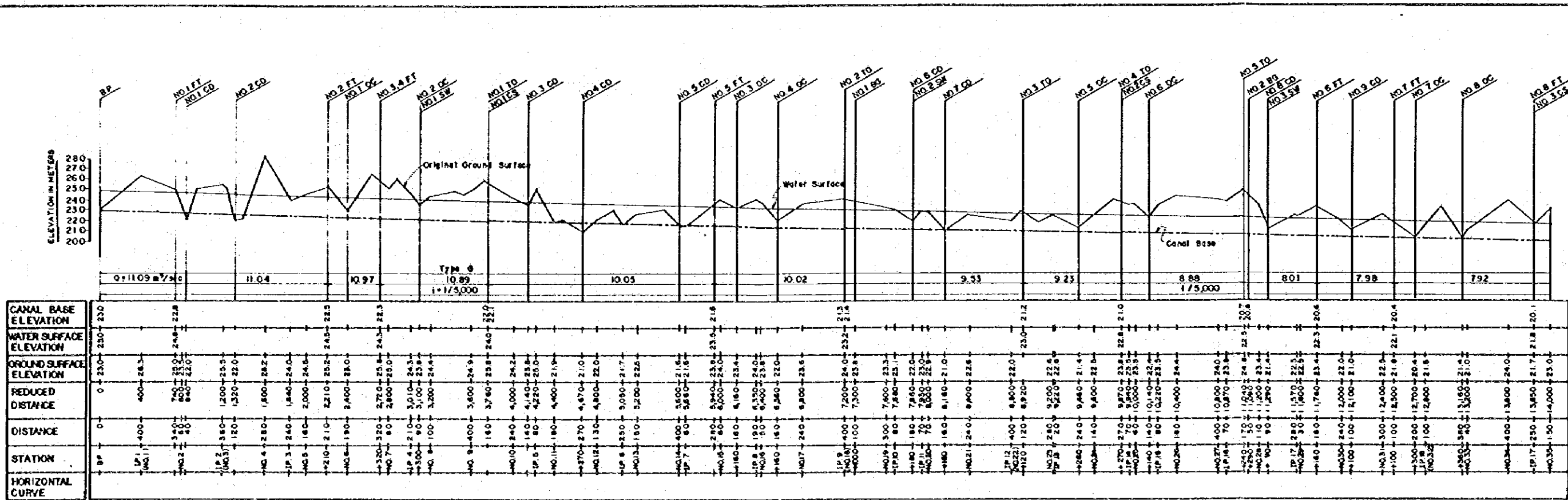
1. Fixed Weir (Flood Way Portion)
 - Length ————— 95.0 m
 - Height ————— 3.5 m
 - Crest EL. ————— EL. 24.5 m
 - Design Flood Discharge — 280 m³/sec
 - Design Flood Water Level — FWL 25.98 m
2. Movable Weir Portion
 - Gate (B x H) ————— 3,000 x 4,400
 - Nos. ————— 2
 - Bed EL. ————— EL. 21.0 m
3. Dike Portion
 - 1) Right Bank
 - Length ————— 181 m
 - Height ————— 4.5 m
 - Slope ————— 1:2.0
 - Crest EL. ————— EL. 27.5 m
 - Width ————— 5.0 m
 - 2) Left Bank
 - Length ————— 700.0 m
 - Height ————— 4.5 m
 - Slope ————— 1:2.0
 - Crest EL. ————— EL. 27.5 m
 - Width ————— 5.0 m
4. Intake
 - Gate (B x H) ————— 4,000 x 3,000
 - Nos. ————— 2
 - Design Intake Discharge — 11.09 m³/sec
 - Design Intake Water Level — IWL 25.00 m
 - Bed EL. ————— EL. 23.00 m



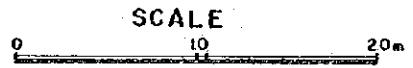
ELEVATION

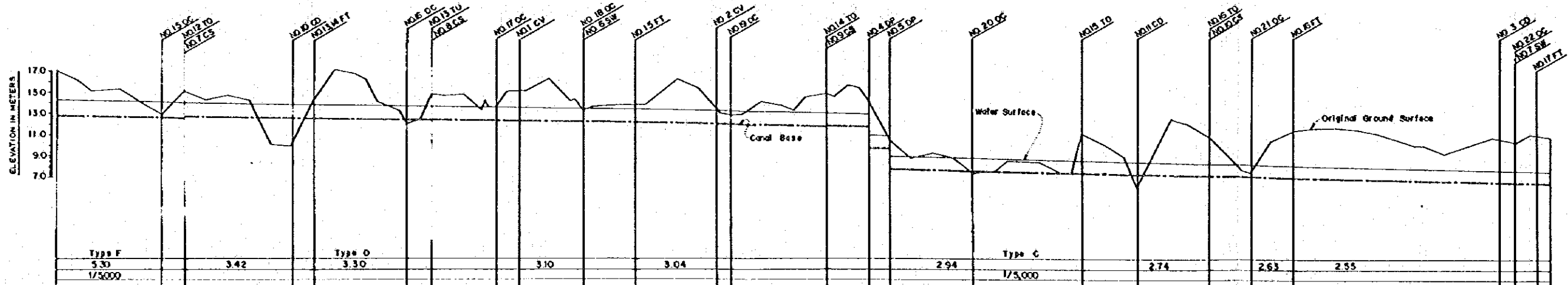
SCALE 0 10 20 30 40 50

KINGDOM OF THAILAND THE EAST COAST WATER RESOURCES DEVELOPMENT PROJECT PHASE II JAPAN INTERNATIONAL COOPERATION AGENCY	KHLONG YAI GENERAL FEATURE OF KHLONG YAI HEADWORKS DWG. NO 3-4
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- ABBREVIATION**
- TO : Turnout
 - FT : Farm Turnout
 - CS : Check Structure
 - OC : Ogee Structure
 - SY : Inverted Siphon
 - BS : Bridge
 - CY : Culvert
 - SW : Spilling
 - OC : Over Chute
 - CD : Cross Drain
 - BP : Beginning Point
 - IP : Intersection Point
 - EP : End Point





CANAL BASE ELEVATION	WATER SURFACE ELEVATION	GROUND SURFACE ELEVATION	REDUCED DISTANCE	DISTANCE	STATION	HORIZONTAL CURVE
170.00	170.00	169.00	0.00	23,200	170+00	
170.00	170.00	151.00	19.00	25,600	170+400	
170.00	170.00	139.00	31.00	28,000	170+800	
170.00	170.00	128.00	42.00	30,400	171+200	
170.00	170.00	118.00	52.00	32,800	171+600	
170.00	170.00	108.00	62.00	35,200	172+000	
170.00	170.00	98.00	72.00	37,600	172+400	
170.00	170.00	88.00	82.00	40,000	172+800	
170.00	170.00	78.00	92.00	42,400	173+200	
170.00	170.00	68.00	102.00	44,800	173+600	
170.00	170.00	58.00	112.00	47,200	174+000	
170.00	170.00	48.00	122.00	49,600	174+400	
170.00	170.00	38.00	132.00	52,000	174+800	
170.00	170.00	28.00	142.00	54,400	175+200	
170.00	170.00	18.00	152.00	56,800	175+600	
170.00	170.00	8.00	162.00	59,200	176+000	
170.00	170.00	-2.00	172.00	61,600	176+400	
170.00	170.00	-12.00	182.00	64,000	176+800	
170.00	170.00	-22.00	192.00	66,400	177+200	
170.00	170.00	-32.00	202.00	68,800	177+600	
170.00	170.00	-42.00	212.00	71,200	178+000	
170.00	170.00	-52.00	222.00	73,600	178+400	
170.00	170.00	-62.00	232.00	76,000	178+800	
170.00	170.00	-72.00	242.00	78,400	179+200	
170.00	170.00	-82.00	252.00	80,800	179+600	
170.00	170.00	-92.00	262.00	83,200	180+000	
170.00	170.00	-102.00	272.00	85,600	180+400	
170.00	170.00	-112.00	282.00	88,000	180+800	
170.00	170.00	-122.00	292.00	90,400	181+200	
170.00	170.00	-132.00	302.00	92,800	181+600	
170.00	170.00	-142.00	312.00	95,200	182+000	
170.00	170.00	-152.00	322.00	97,600	182+400	
170.00	170.00	-162.00	332.00	100,000	182+800	
170.00	170.00	-172.00	342.00	102,400	183+200	
170.00	170.00	-182.00	352.00	104,800	183+600	
170.00	170.00	-192.00	362.00	107,200	184+000	
170.00	170.00	-202.00	372.00	109,600	184+400	
170.00	170.00	-212.00	382.00	112,000	184+800	
170.00	170.00	-222.00	392.00	114,400	185+200	
170.00	170.00	-232.00	402.00	116,800	185+600	
170.00	170.00	-242.00	412.00	119,200	186+000	
170.00	170.00	-252.00	422.00	121,600	186+400	
170.00	170.00	-262.00	432.00	124,000	186+800	
170.00	170.00	-272.00	442.00	126,400	187+200	
170.00	170.00	-282.00	452.00	128,800	187+600	
170.00	170.00	-292.00	462.00	131,200	188+000	
170.00	170.00	-302.00	472.00	133,600	188+400	
170.00	170.00	-312.00	482.00	136,000	188+800	
170.00	170.00	-322.00	492.00	138,400	189+200	
170.00	170.00	-332.00	502.00	140,800	189+600	
170.00	170.00	-342.00	512.00	143,200	190+000	
170.00	170.00	-352.00	522.00	145,600	190+400	
170.00	170.00	-362.00	532.00	148,000	190+800	
170.00	170.00	-372.00	542.00	150,400	191+200	
170.00	170.00	-382.00	552.00	152,800	191+600	
170.00	170.00	-392.00	562.00	155,200	192+000	
170.00	170.00	-402.00	572.00	157,600	192+400	
170.00	170.00	-412.00	582.00	160,000	192+800	
170.00	170.00	-422.00	592.00	162,400	193+200	
170.00	170.00	-432.00	602.00	164,800	193+600	
170.00	170.00	-442.00	612.00	167,200	194+000	
170.00	170.00	-452.00	622.00	169,600	194+400	
170.00	170.00	-462.00	632.00	172,000	194+800	
170.00	170.00	-472.00	642.00	174,400	195+200	
170.00	170.00	-482.00	652.00	176,800	195+600	
170.00	170.00	-492.00	662.00	179,200	196+000	
170.00	170.00	-502.00	672.00	181,600	196+400	
170.00	170.00	-512.00	682.00	184,000	196+800	
170.00	170.00	-522.00	692.00	186,400	197+200	
170.00	170.00	-532.00	702.00	188,800	197+600	
170.00	170.00	-542.00	712.00	191,200	198+000	
170.00	170.00	-552.00	722.00	193,600	198+400	
170.00	170.00	-562.00	732.00	196,000	198+800	
170.00	170.00	-572.00	742.00	198,400	199+200	
170.00	170.00	-582.00	752.00	200,800	199+600	
170.00	170.00	-592.00	762.00	203,200	200+000	
170.00	170.00	-602.00	772.00	205,600	200+400	
170.00	170.00	-612.00	782.00	208,000	200+800	
170.00	170.00	-622.00	792.00	210,400	201+200	
170.00	170.00	-632.00	802.00	212,800	201+600	
170.00	170.00	-642.00	812.00	215,200	202+000	
170.00	170.00	-652.00	822.00	217,600	202+400	
170.00	170.00	-662.00	832.00	220,000	202+800	
170.00	170.00	-672.00	842.00	222,400	203+200	
170.00	170.00	-682.00	852.00	224,800	203+600	
170.00	170.00	-692.00	862.00	227,200	204+000	
170.00	170.00	-702.00	872.00	229,600	204+400	
170.00	170.00	-712.00	882.00	232,000	204+800	
170.00	170.00	-722.00	892.00	234,400	205+200	
170.00	170.00	-732.00	902.00	236,800	205+600	
170.00	170.00	-742.00	912.00	239,200	206+000	
170.00	170.00	-752.00	922.00	241,600	206+400	
170.00	170.00	-762.00	932.00	244,000	206+800	
170.00	170.00	-772.00	942.00	246,400	207+200	
170.00	170.00	-782.00	952.00	248,800	207+600	
170.00	170.00	-792.00	962.00	251,200	208+000	
170.00	170.00	-802.00	972.00	253,600	208+400	
170.00	170.00	-812.00	982.00	256,000	208+800	
170.00	170.00	-822.00	992.00	258,400	209+200	
170.00	170.00	-832.00	1002.00	260,800	209+600	
170.00	170.00	-842.00	1012.00	263,200	210+000	
170.00	170.00	-852.00	1022.00	265,600	210+400	
170.00	170.00	-862.00	1032.00	268,000	210+800	
170.00	170.00	-872.00	1042.00	270,400	211+200	
170.00	170.00	-882.00	1052.00	272,800	211+600	
170.00	170.00	-892.00	1062.00	275,200	212+000	
170.00	170.00	-902.00	1072.00	277,600	212+400	
170.00	170.00	-912.00	1082.00	280,000	212+800	
170.00	170.00	-922.00	1092.00	282,400	213+200	
170.00	170.00	-932.00	1102.00	284,800	213+600	
170.00	170.00	-942.00	1112.00	287,200	214+000	
170.00	170.00	-952.00	1122.00	289,600	214+400	
170.00	170.00	-962.00	1132.00	292,000	214+800	
170.00	170.00	-972.00	1142.00	294,400	215+200	
170.00	170.00	-982.00	1152.00	296,800	215+600	
170.00	170.00	-992.00	1162.00	299,200	216+000	
170.00	170.00	-1002.00	1172.00	301,600	216+400	
170.00	170.00	-1012.00	1182.00	304,000	216+800	
170.00	170.00	-1022.00	1192.00	306,400	217+200	
170.00	170.00	-1032.00	1202.00	308,800	217+600	
170.00	170.00	-1042.00	1212.00	311,200	218+000	
170.00	170.00	-1052.00	1222.00	313,600	218+400	
170.00	170.00	-1062.00	1232.00	316,000	218+800	
170.00	170.00	-1072.00	1242.00	318,400	219+200	
170.00	170.00	-1082.00	1252.00	320,800	219+600	
170.00	170.00	-1092.00	1262.00	323,200	220+000	
170.00	170.00	-1102.00	1272.00	325,600	220+400	
170.00	170.00	-1112.00	1282.00	328,000	220+800	
170.00	170.00	-1122.00	1292.00	330,400	221+200	
170.00	170.00	-1132.00	1302.00	332,800	221+600	
170.00	170.00	-1142.00	1312.00	335,200	222+000	
170.00	170.00	-1152.00	1322.00	337,600	222+400	
170.00	170.00	-1162.00	1332.00	340,000	222+800	
170.00	170.00	-1172.00	1342.00	342,400	223+200	
170.00	170.00	-1182.00	1352.00	344,800	223+600	
170.00	170.00	-1192.00	1362.00	347,200	224+000	
170.00	170.00	-1202.00	1372.00	349,600	224+400	
170.00	170.00	-1212.00	1382.00	352,000	224+800	
170.00	170.00	-1222.00	1392.00	354,400	225+200	
170.00	170.00	-1232.00	1402.00	356,800	225+600	
170.00	170.00	-1242.00	1412.00	359,200	226+000	
170.00	170.00	-1252.00	1422.00	361,600	226+400	
170.00	170.00	-1262.00	1432.00	364,000	226+800	
170.00	170.00	-1272.00	1442.00	366,400	227+200	
170.00	170.00	-1282.00	1452.00	368,800	227+600	
170.00	170.00	-1292.00	1462.00	371,200	228+000	
170.00	170.00	-1302.00	1472.00	373,600	228+400	
170.00	170.00	-1312.00	1482.00	376,000	228+800	
170.00	170.00	-1322.00	1492.00	378,400	229+200	
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170.00	170.00	-1392.00	1562.00	395,200	232+000	
170.00	170.00	-1402.00	1572.00			

