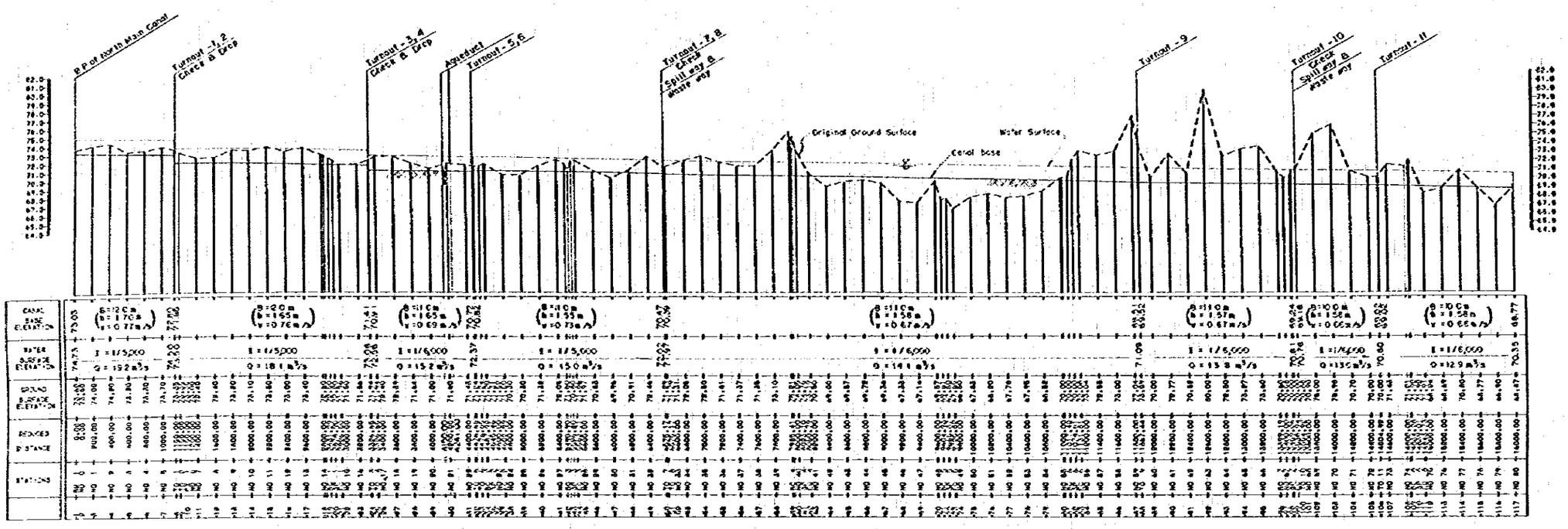
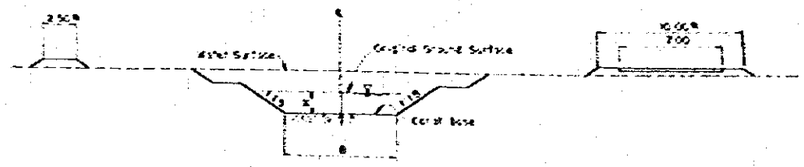
PLATE NO. 12



TYPICAL CROSS SECTION



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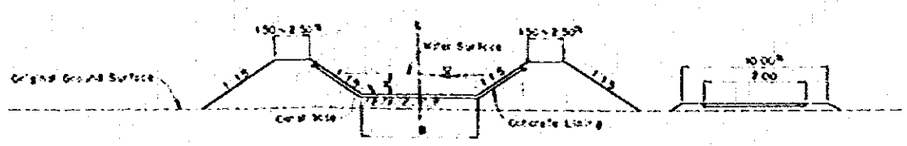


DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

KOMERING-I IRRIGATION DEVELOPMENT PROJECT

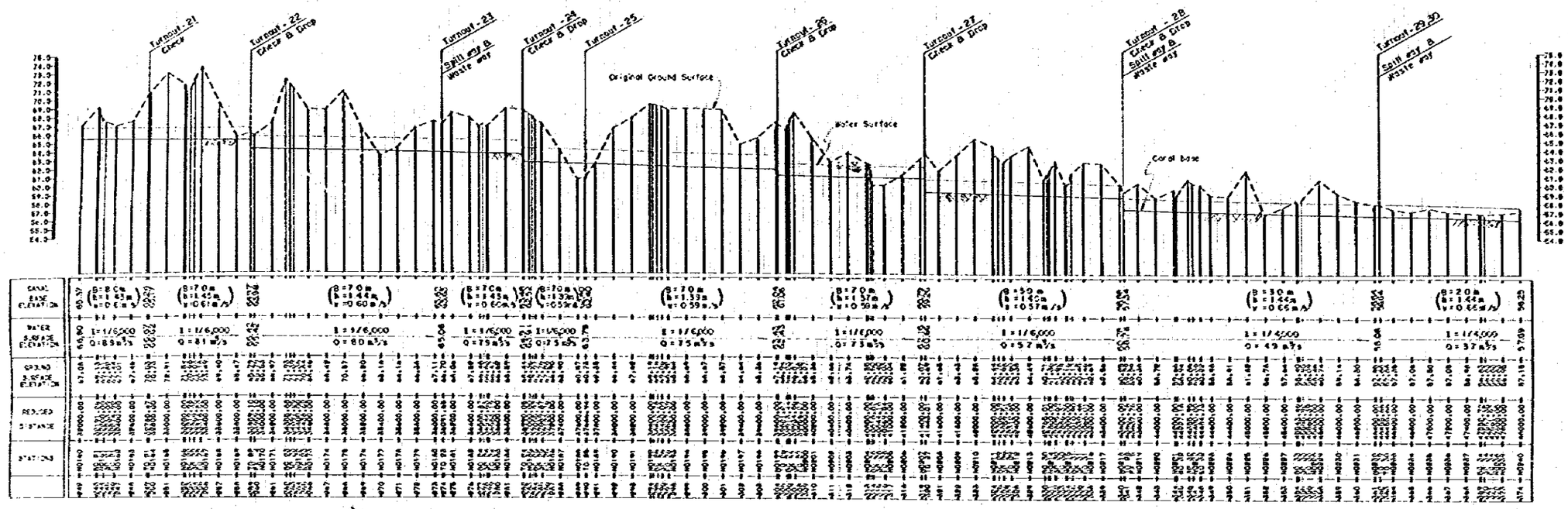
TITLE OF DRAWINGS

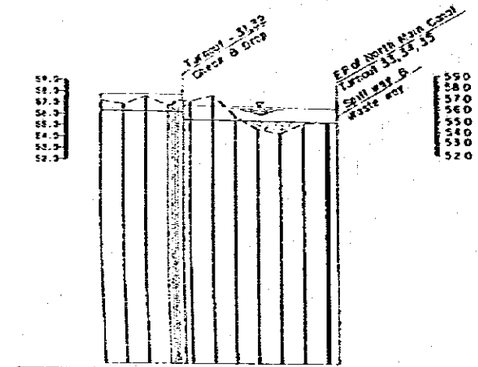
NORTH MAIN CANAL (1/2)

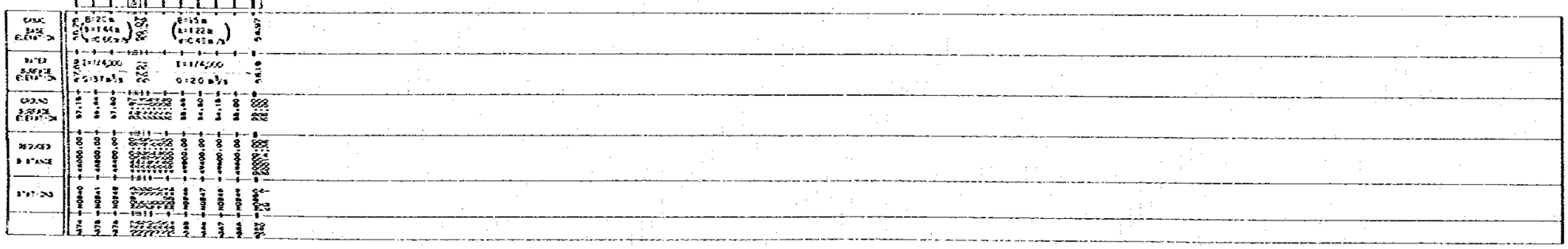
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG NO.
VI - 06

PLATE NO. 13







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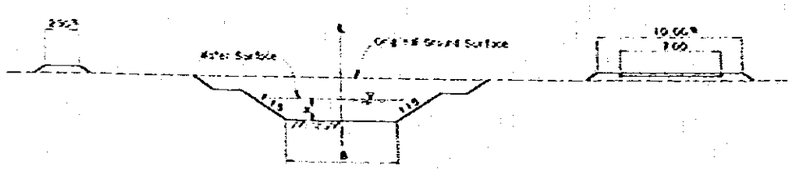

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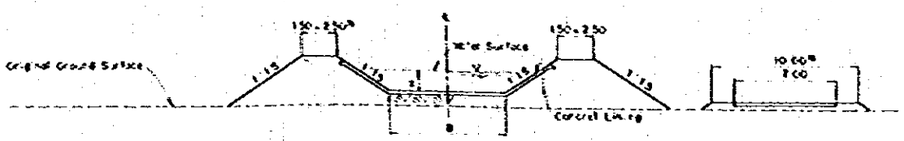


DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

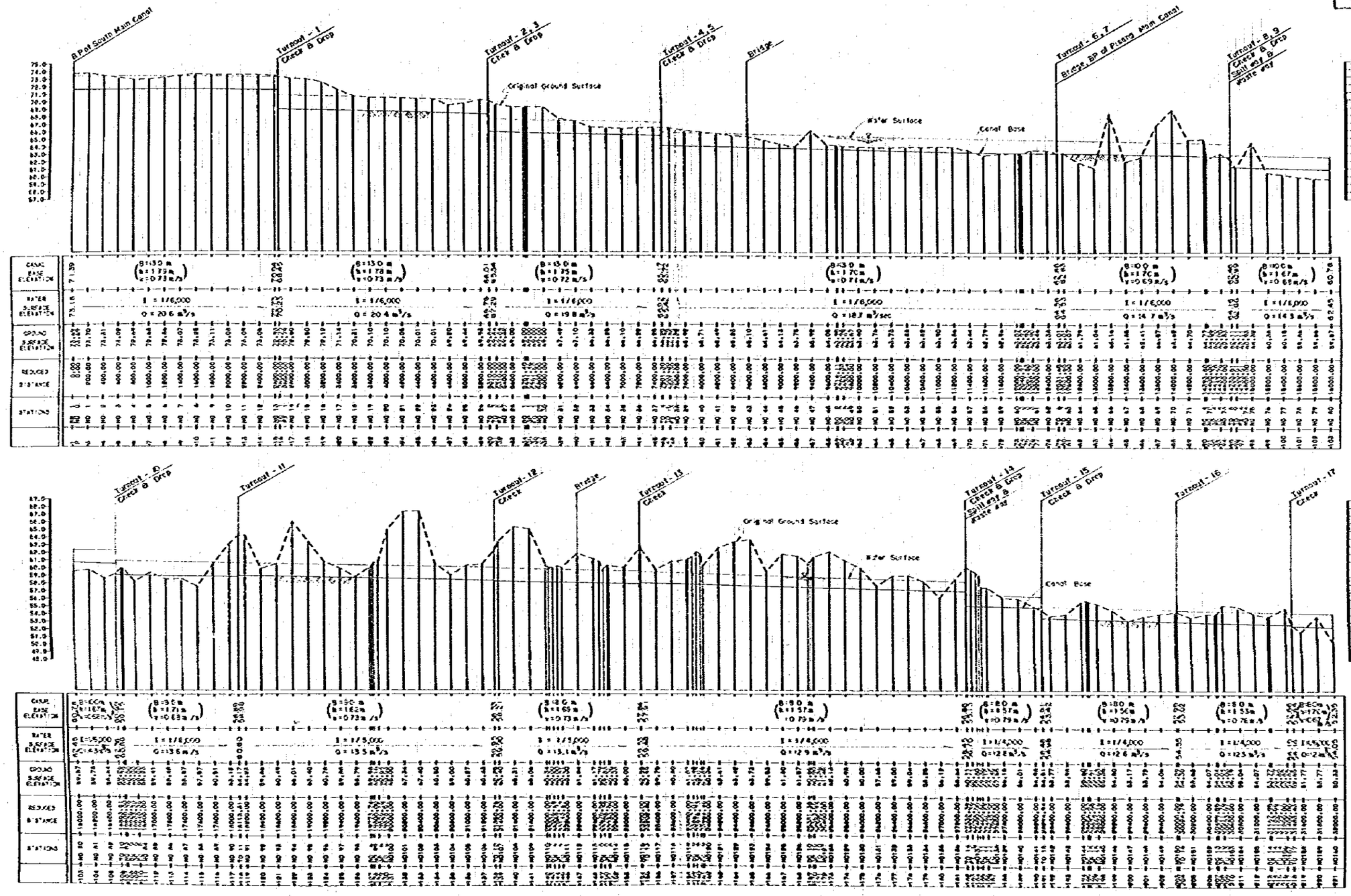
TITLE OF DRAWINGS

NORTH MAIN CANAL (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO.
VII - 07

PLATE NO. 14



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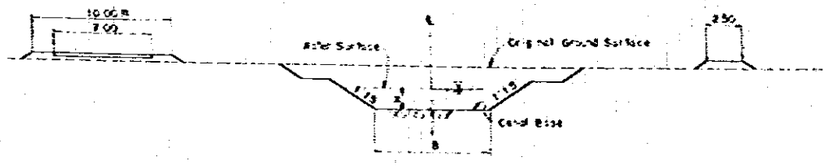

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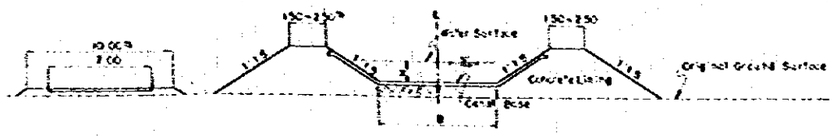


DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

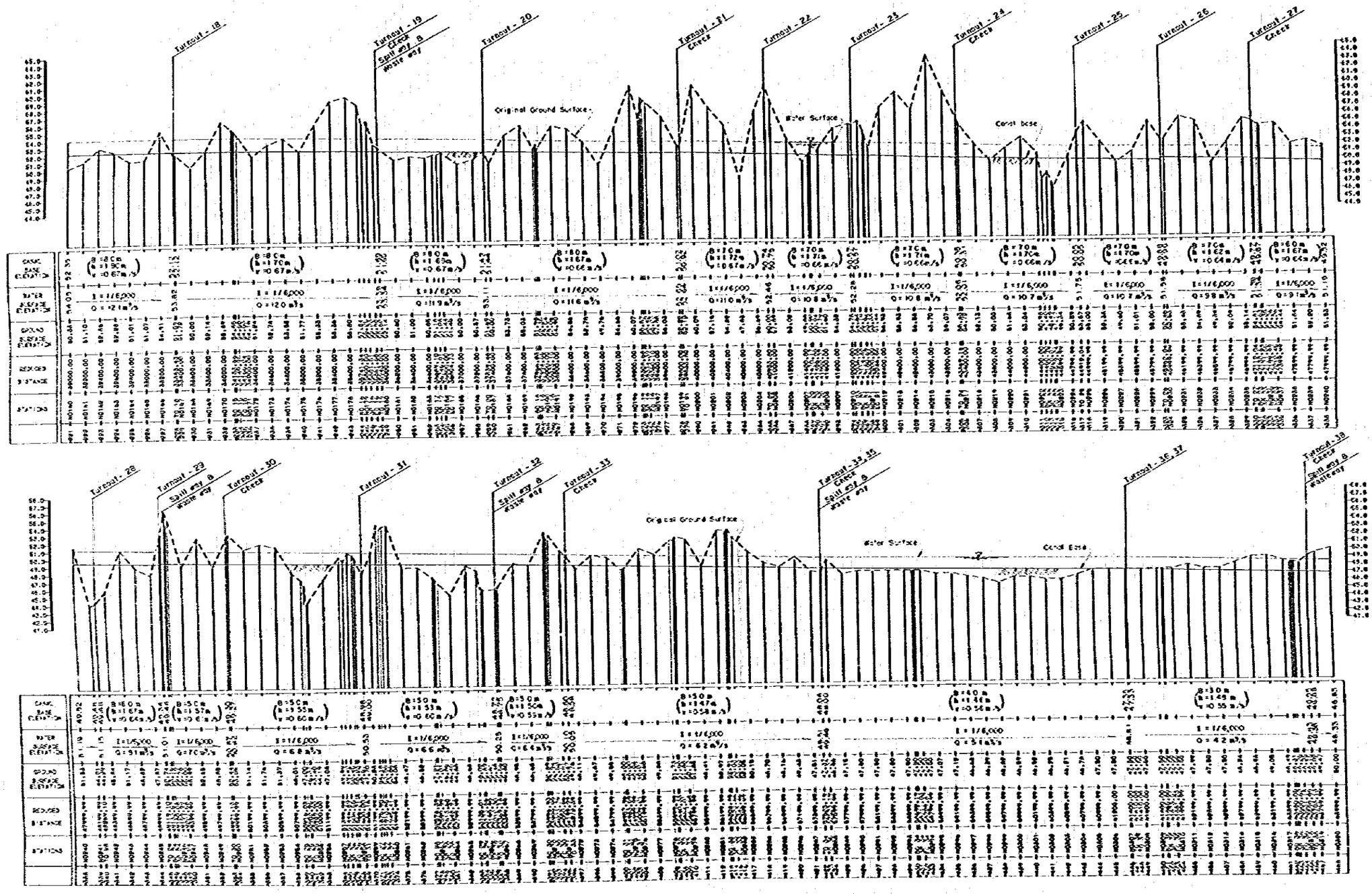
TITLE OF DRAWINGS

SOUTH MAIN CANAL (1/3)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO.
VII - 08

PLATE NO. 15



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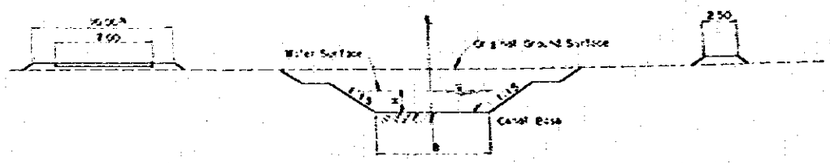

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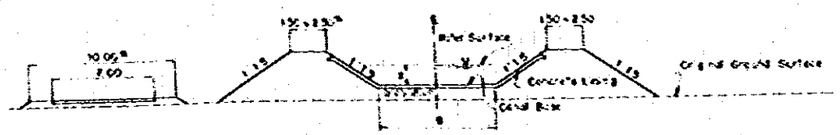


DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

KOWERING-I IRRIGATION DEVELOPMENT PROJECT

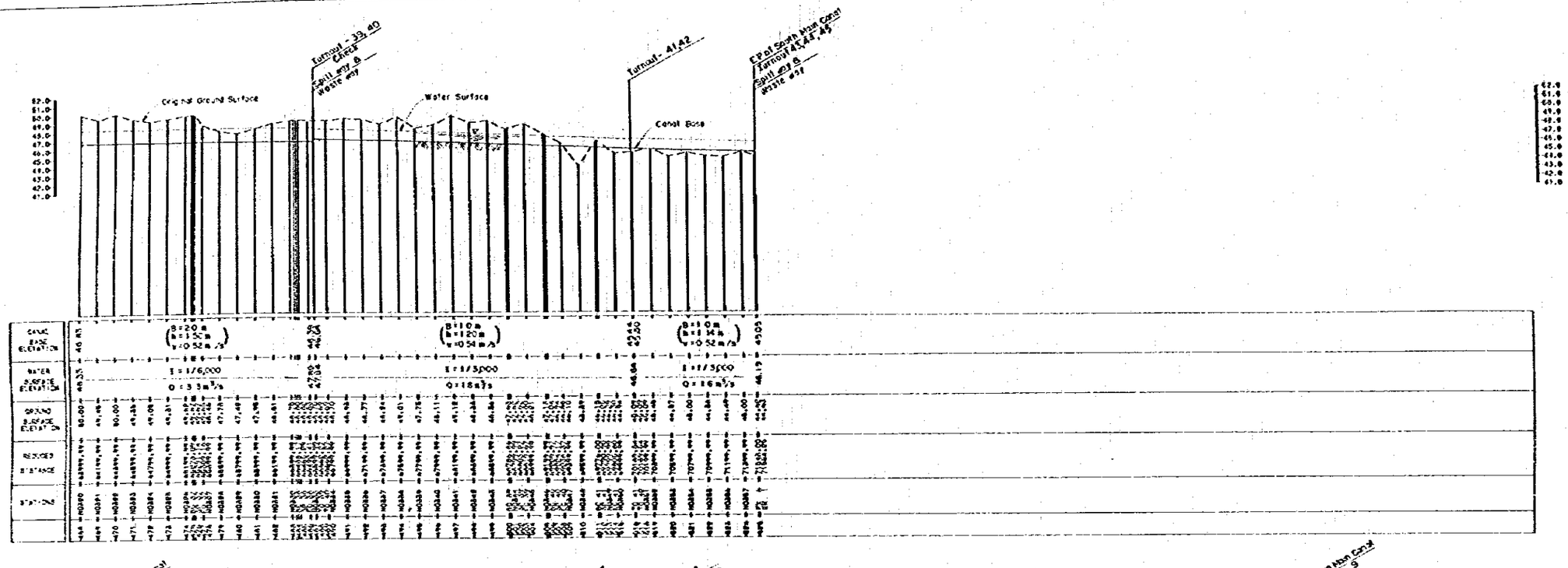
TITLE OF DRAWINGS

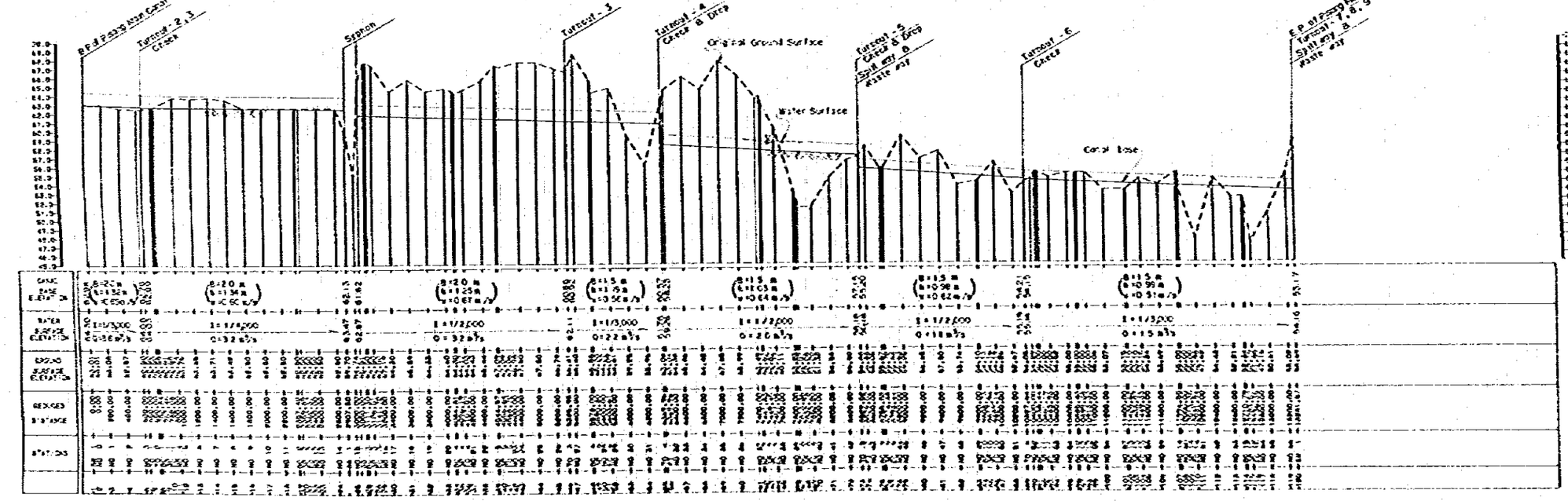
SOUTH MAIN CANAL (2/3)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO
VII - 09

PLATE NO. 16





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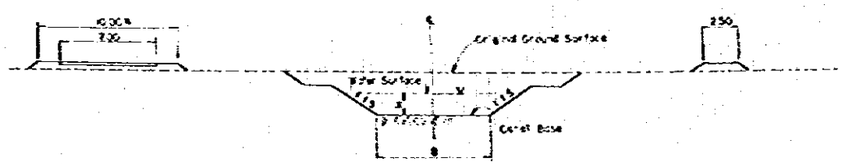

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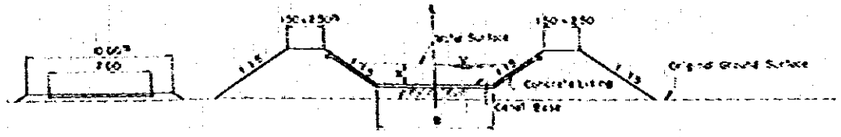


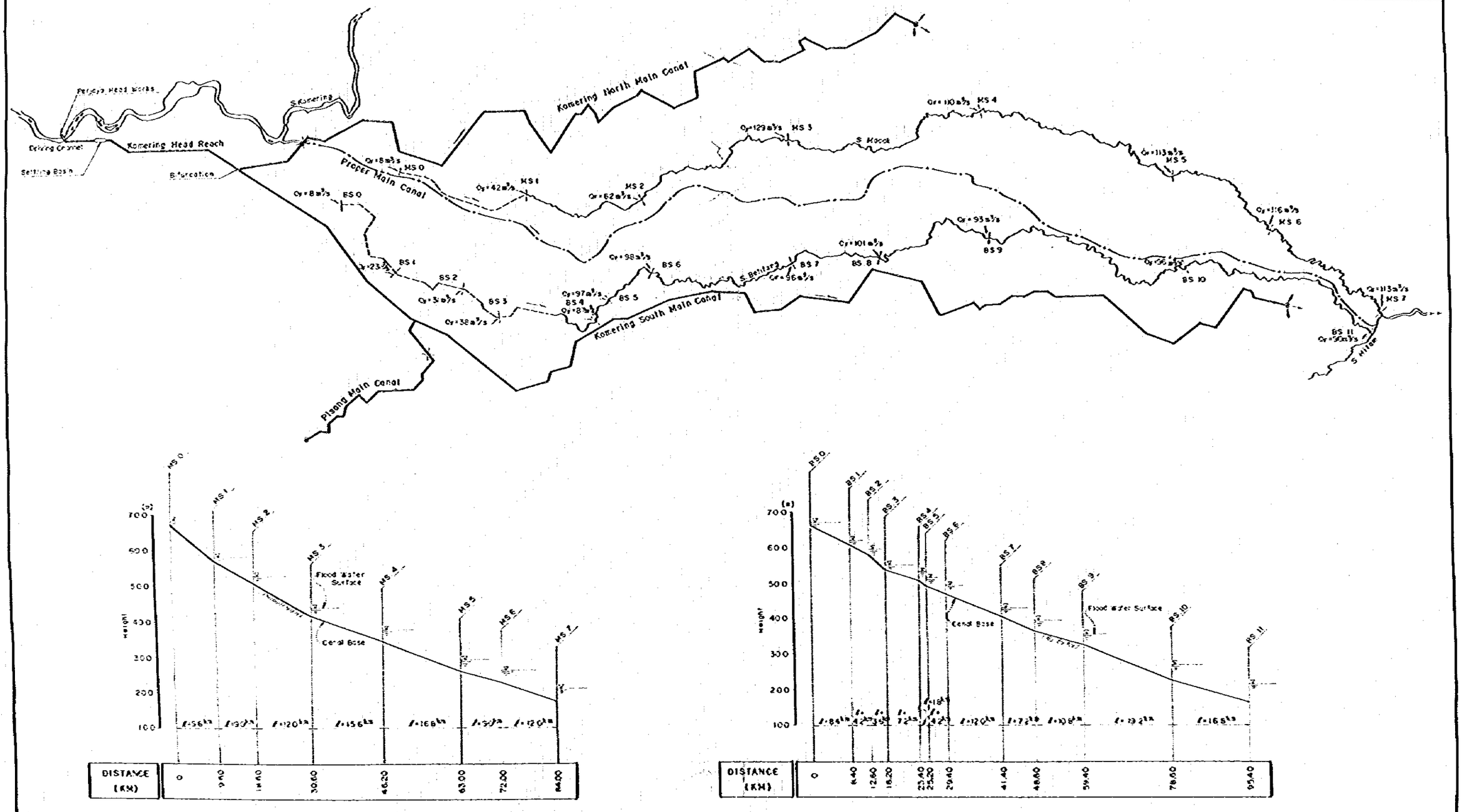
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING - I IRRIGATION DEVELOPMENT PROJECT

TITLE OF DRAWINGS
SOUTH MAIN CANAL (3/3)
PISANG MAIN CANAL (1/1)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO
VII - 10

PLATE NO. 17



PROFILE OF S. MATJA

PROFILE OF S. BETITANG

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

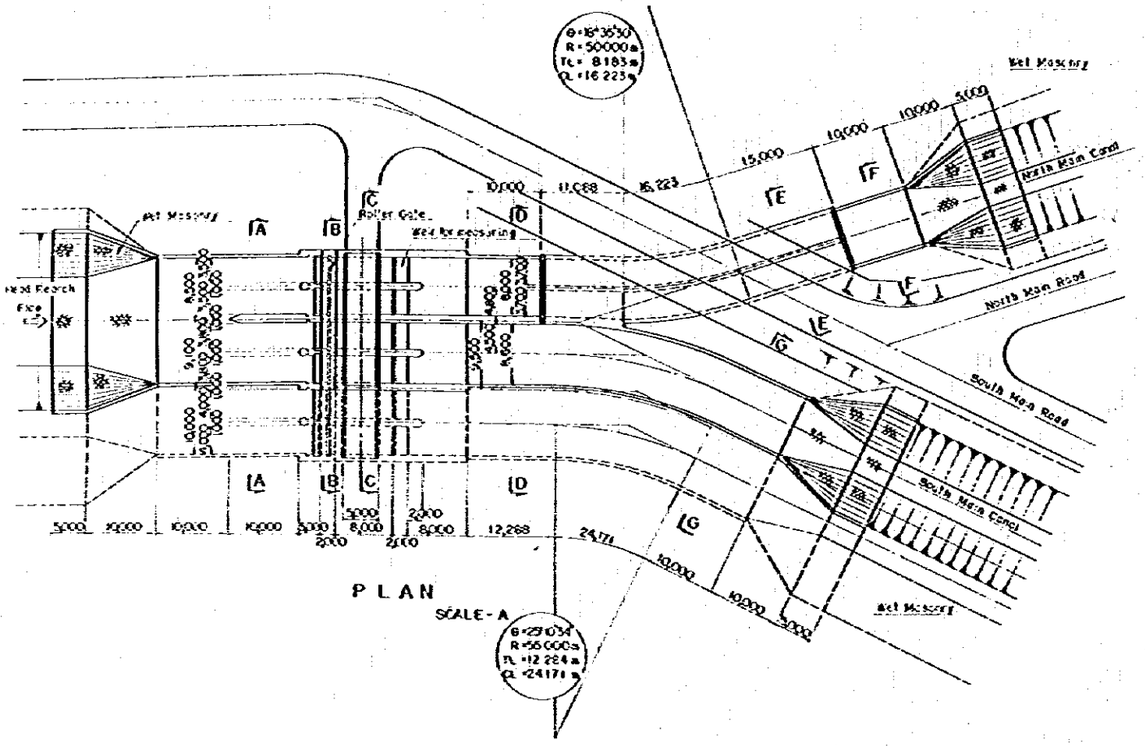
TITLE OF DRAWINGS

MAIN DRAINS PROFILE

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

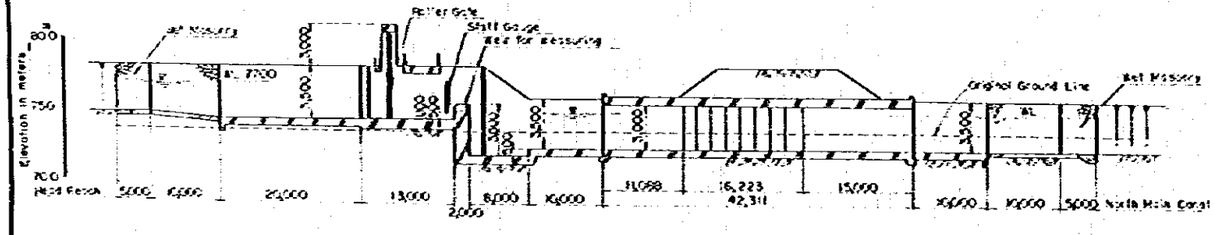
DWG. NO.
VII - 11

PLATE NO. 18

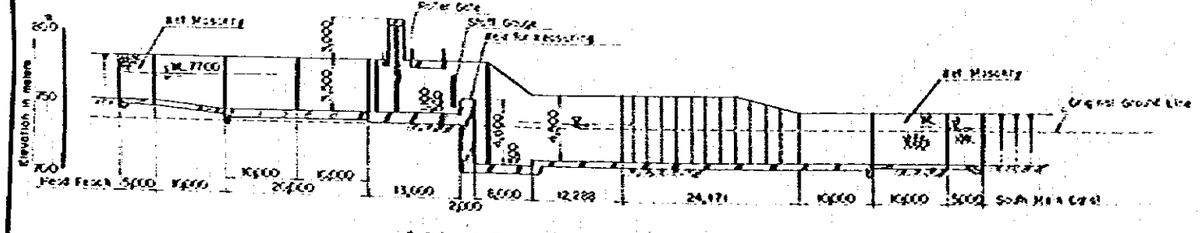


PLAN
SCALE - A

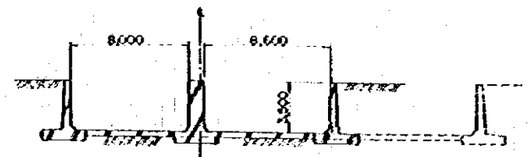
NORTH MAIN CANAL SIDE



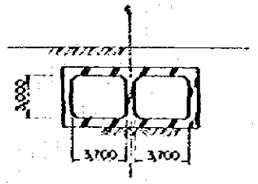
SOUTH MAIN CANAL SIDE



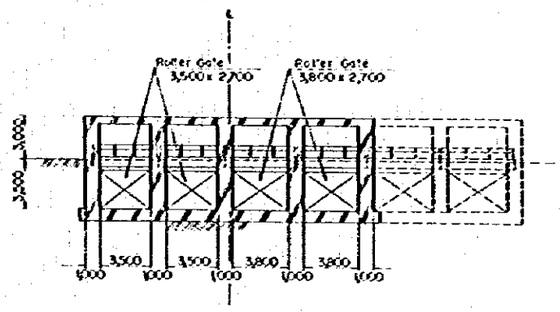
PROFILE VERTICAL SCALE - B
HORIZONTAL SCALE - A



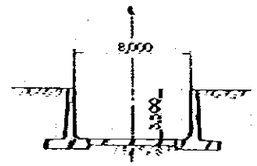
SECTION A-A
SCALE - B



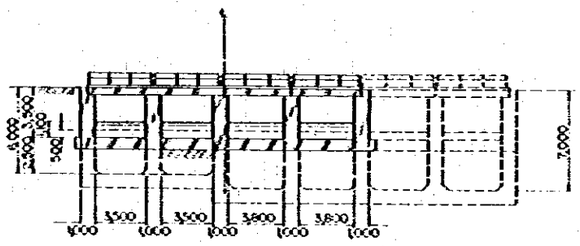
SECTION E-E
SCALE - B



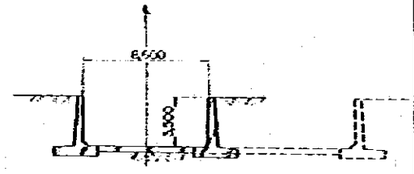
SECTION B-B
SCALE - B



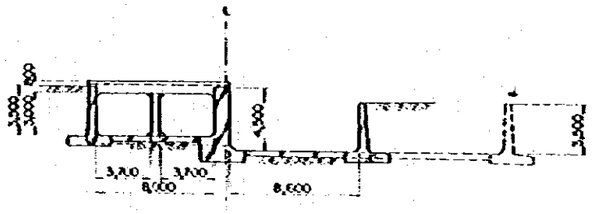
SECTION F-F
SCALE - B



SECTION C-C
SCALE - B



SECTION G-G
SCALE - B



SECTION D-D
SCALE - B

SCALE - A
0 10 20 30 40M

SCALE - B
0 10 20M

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING - I IRRIGATION DEVELOPMENT PROJECT

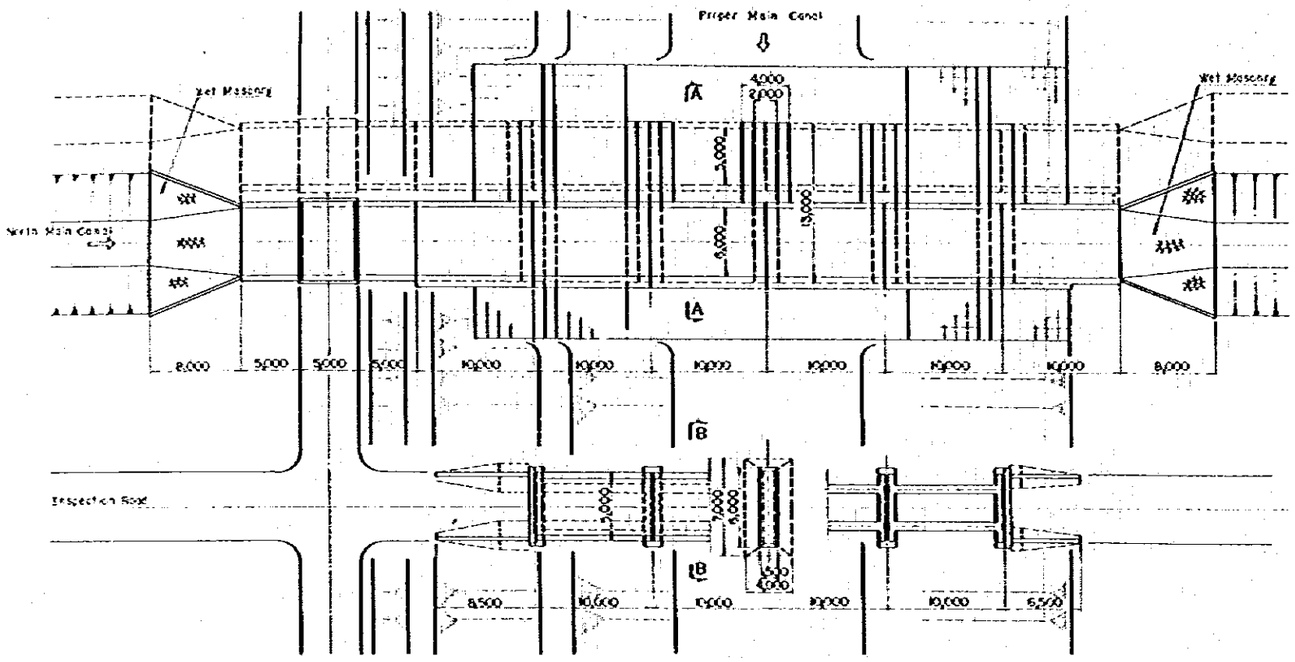
TITLE OF DRAWINGS

BIFURCATION

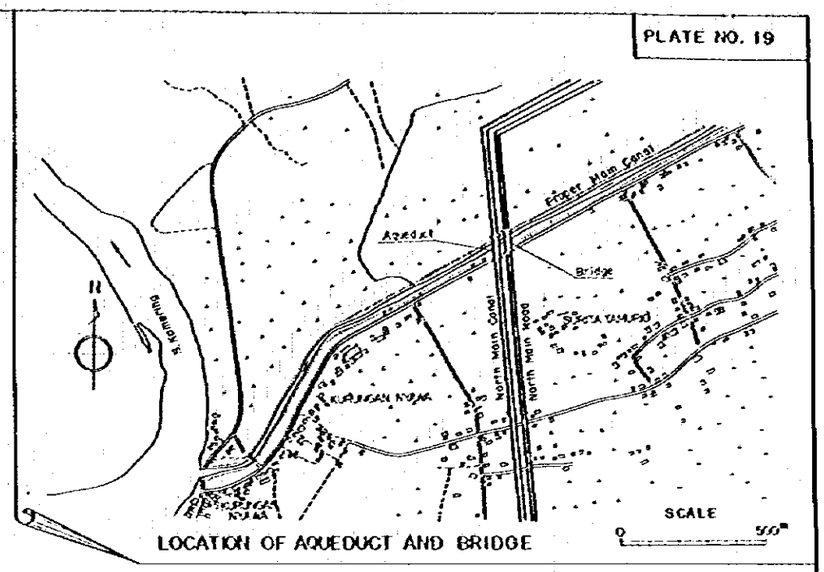
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

D&G NO.
VI - 12

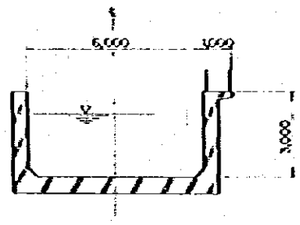
PLATE NO. 19



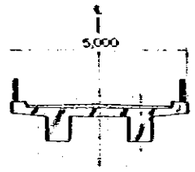
PLAN
SCALE - A



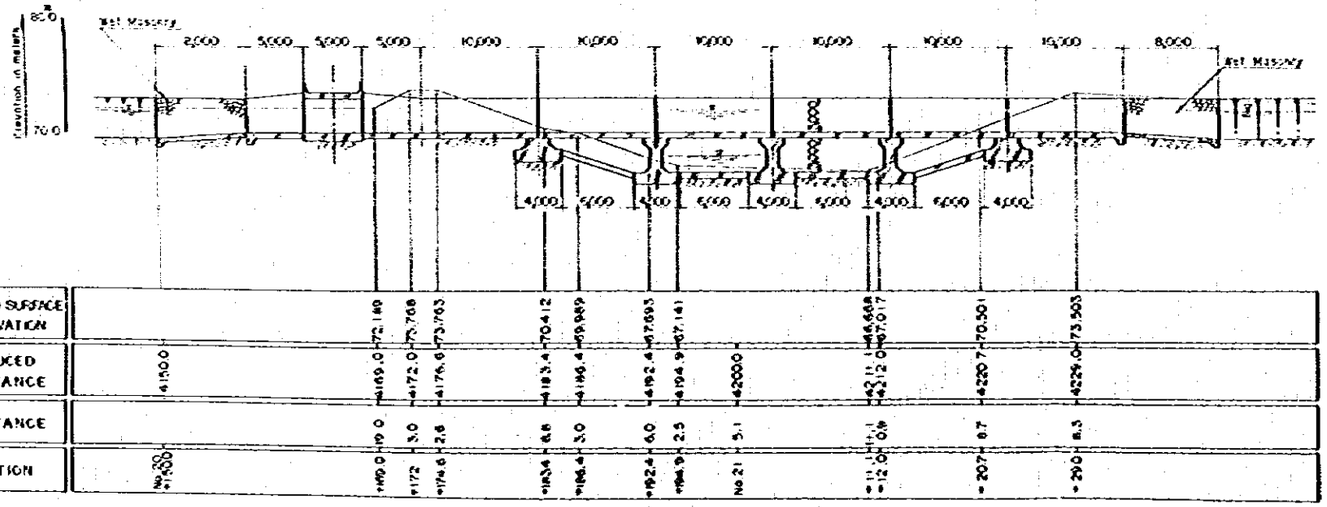
LOCATION OF AQUEDUCT AND BRIDGE



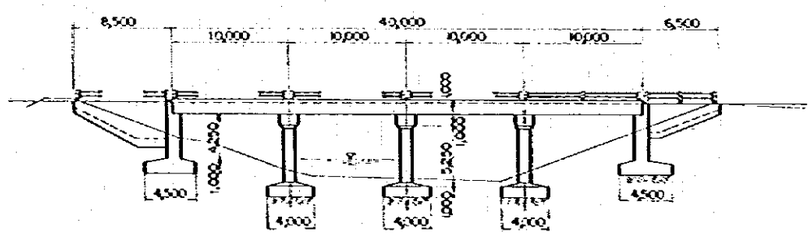
SECTION A-A
SCALE - B



SECTION B-B
SCALE - B



PROFILE
SCALE - A



PROFILE
SCALE - A

SCALE - A
0 5 10 15 20m

SCALE - B
0 5 10m

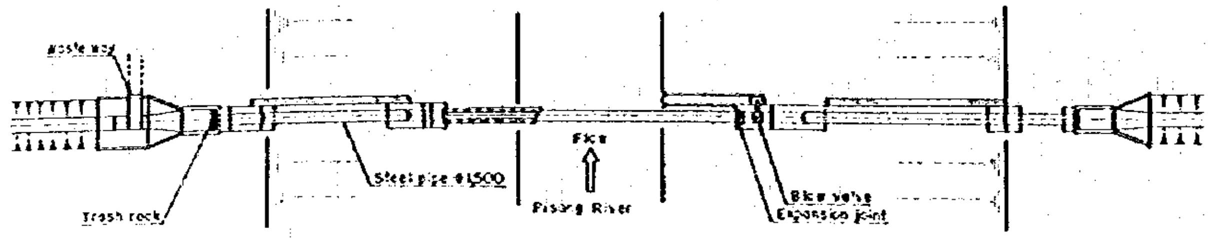
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

TITLE OF DRAWINGS
AQUEDUCT AND BRIDGE - 1
(PROPER MAIN CANAL)

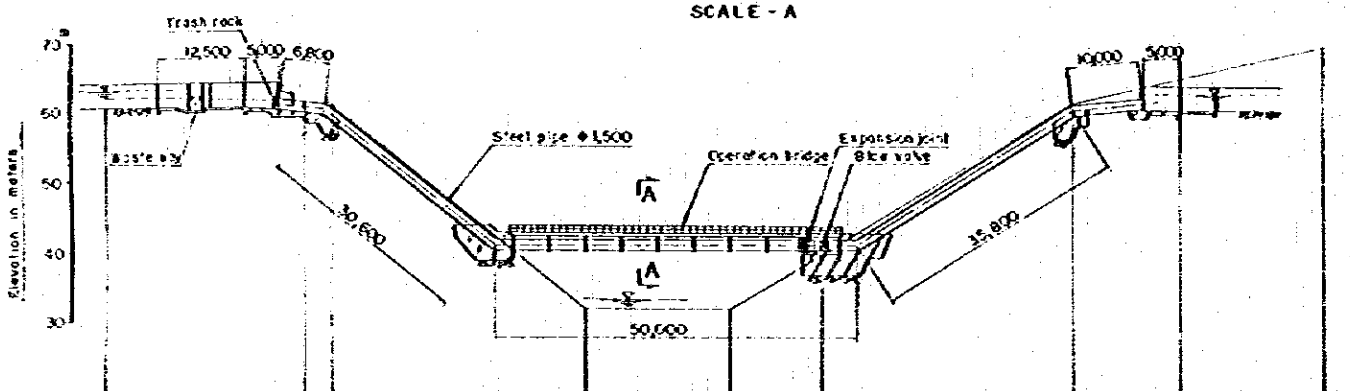
JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO.
VII - 13

AQUEDUCT

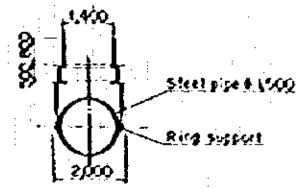


PLAN
SCALE - A

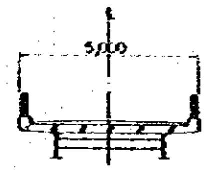


GROUND SURFACE ELEVATION	62.04	61.30	60.09	31.56	31.68		61.14	64.45	69.29
REDUCED DISTANCE	2900.0	2928.8	2932.4	2967.4	2987.4	3000.0	3035.0	3050.0	3070.0
DISTANCE		20.8	3.6	35.0	20.0	12.6	35.0	15.0	20.0
STATION	No.14 +100.0	+128.0	+132.4	+167.4	+187.4	No.15	+35.0	+50.0	+70.0

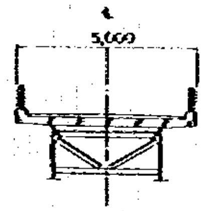
PROFILE
SCALE - A



SECTION A - A
SCALE - C

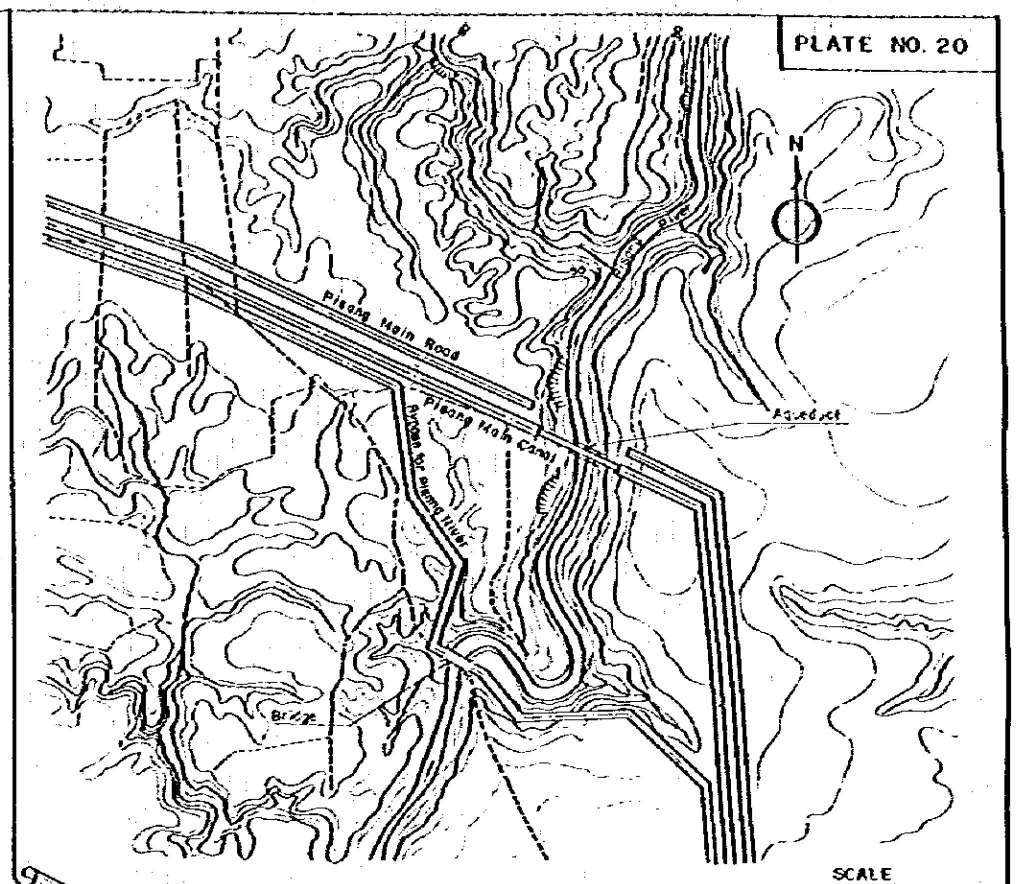


SECTION B - B
SCALE - C



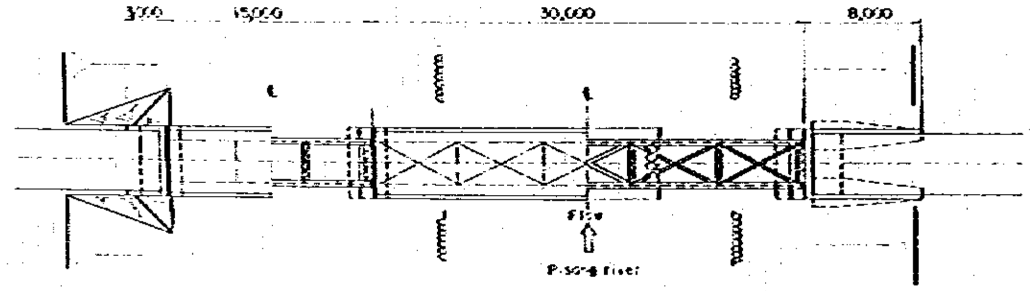
SECTION C - C
SCALE - C

PLATE NO. 20

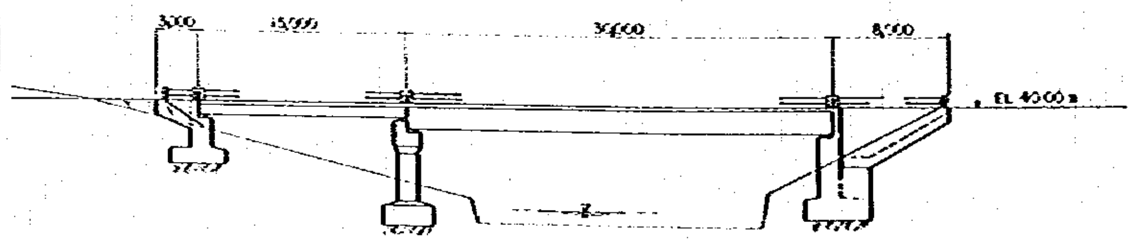


LOCATION MAP OF AQUEDUCT AND BRIDGE
SCALE 0 100 200 300m

BRIDGE



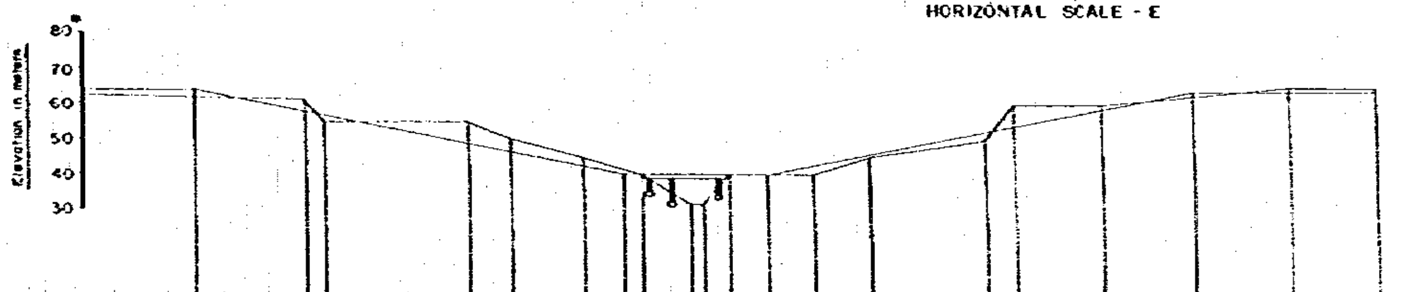
PLAN
SCALE - B



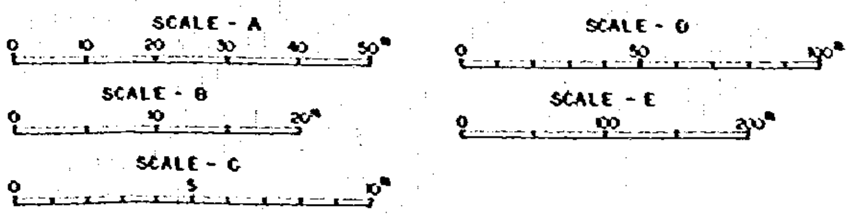
PROFILE
SCALE - B

PROFILL OF BYPASS

VERTICAL SCALE - D
HORIZONTAL SCALE - E



ROAD SURFACE ELEVATION	Level	63.6					i=0.08 l=298.0m								40.0	Level l=100.0m	40.0			i=0.08 l=236.0m				63.7		Level	
GROUND SURFACE ELEVATION				61.3	55.0		55.0	50.0	45.0		40.0	51.2	51.1	40.0	40.0	40.0	45.0		50.0	60.0	60.0			65.0	65.0
REDUCED DISTANCE		78.0		156.0	169.0		269.0	299.0	349.0	377.0	389.0	422.8	432.0	449.0	477.0	500.0	549.0		629.0	649.0	709.0	772.0		839.0	899.0
DISTANCE		78.0		78.0	13.0		100.0	30.0	50.0	28.0	12.0	33.8	10.0	17.0	28.0	32.0	40.0		80.0	20.0	60.0	63.0		67.0	60.0
STATION	No.0 [illegible]	+78.0	No.1	+56.0	+69.0	No.2	+69.0	+99.0 No.3	+49.0	+77.0	+89.0 No.4	+22.8	+32.0	+49.0	+77.0	No.5 +0.0	+49.0	No.6	+29.0	+49.0	No.7 +9.0	+72.0	No.8	+39.0	+99.0 (No.1(n))



DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING - II IRRIGATION DEVELOPMENT PROJECT

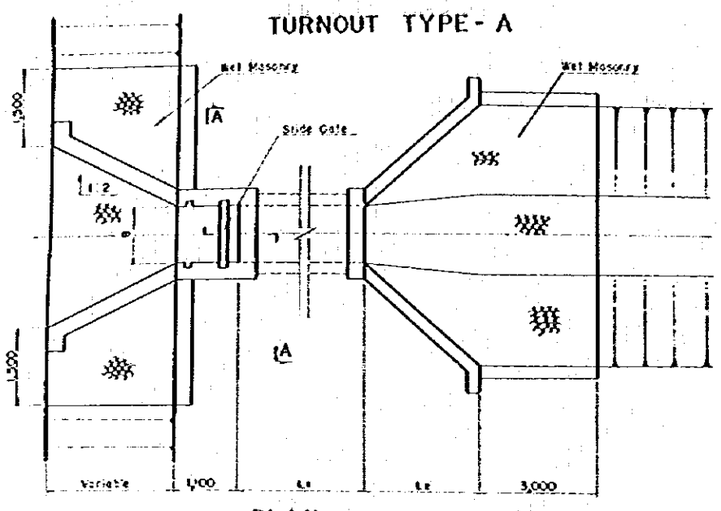
TITLE OF DRAWINGS
AQUEDUCT AND BRIDGE - II
(PISANG RIVER)

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

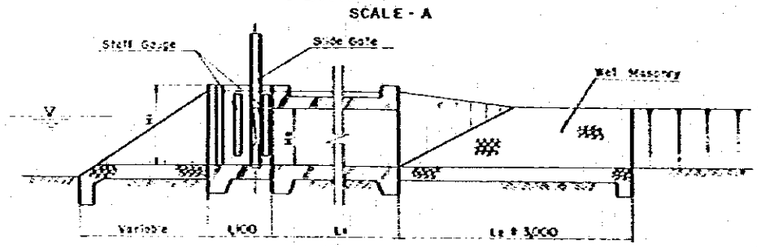
DWG. NO.
VI - 14

PLATE NO. 21

TURNOUT TYPE - A



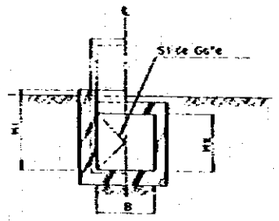
PLAN
SCALE - A



PROFILE
SCALE - A

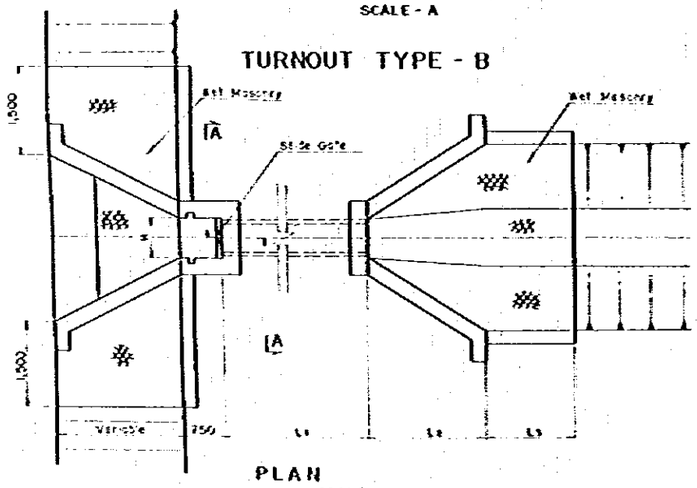
DIMENSIONS OF TURNOUTS TYPE - A

Discharge (m³/s)	L1	L2	B	H1	H2	Gate
3.60	20,000	4,000	2,000	3,000	2,200	20×20
2.88	27,000	"	"	2,500	1,800	20×16
2.50~2.00	20,000	"	1,500	"	"	15×16
2.00~1.50	27,000 20,000	"	"	2,200	1,500	15×15
1.50~1.00	27,000 20,000 6,000 1,000	3,000	1,300	2,000	1,300	13×13
1.00~0.80	27,000 20,000 6,000 1,000	"	1,100	1,800	1,100	11×11
0.80~0.60	27,000 20,000 6,000 1,000	"	1,000	1,700	1,000	10×10

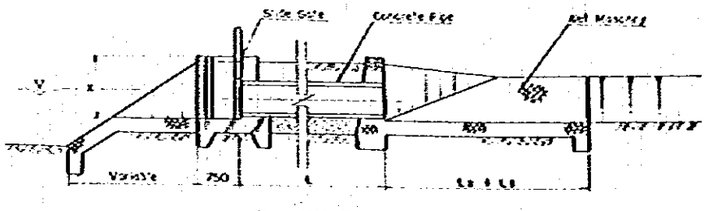


SECTION A-A
SCALE - A

TURNOUT TYPE - B



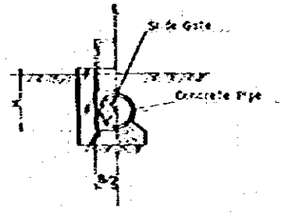
PLAN
SCALE - A



PROFILE
SCALE - A

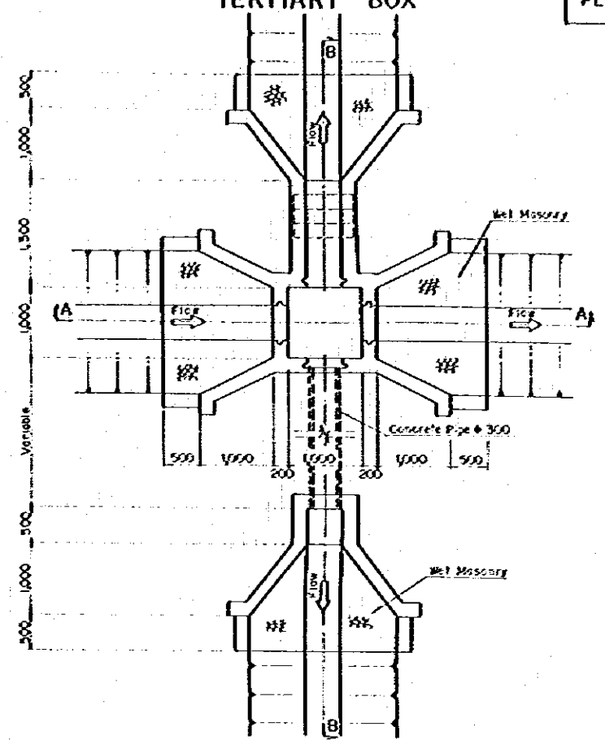
DIMENSIONS OF TURNOUTS TYPE - B

Discharge (m³/s)	L1	L2	L3	B	H	Pipe ϕ	Gate
0.60~0.40	27,000 20,000 6,000 1,000	3,000	3,000	1,100	1,800	ϕ500	ϕ500
0.40~0.20	27,000 20,000 6,000 1,000	"	"	900	1,600	ϕ700	ϕ700
0.20~0.10	27,000 20,000 6,000 1,000	"	"	700	1,400	ϕ500	ϕ500
0.10~0.05	27,000 20,000 6,000 1,000	2,000	2,000	600	1,300	ϕ400	ϕ400
0.05~	27,000 20,000 6,000 1,000	"	"	500	1,200	ϕ300	ϕ300

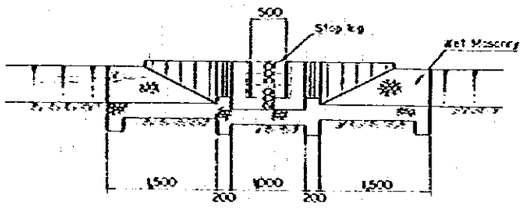


SECTION A-A
SCALE - A

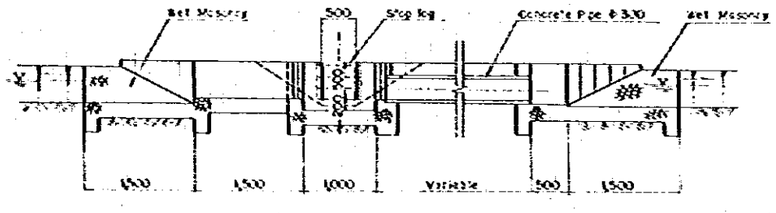
TERTIARY BOX



PLAN
SCALE - B



SECTION A-A
SCALE - B



SECTION B-B
SCALE - B

SCALE - A
0 5 10m

SCALE - B
0 1 2 3 4 5m

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-1 IRRIGATION DEVELOPMENT PROJECT

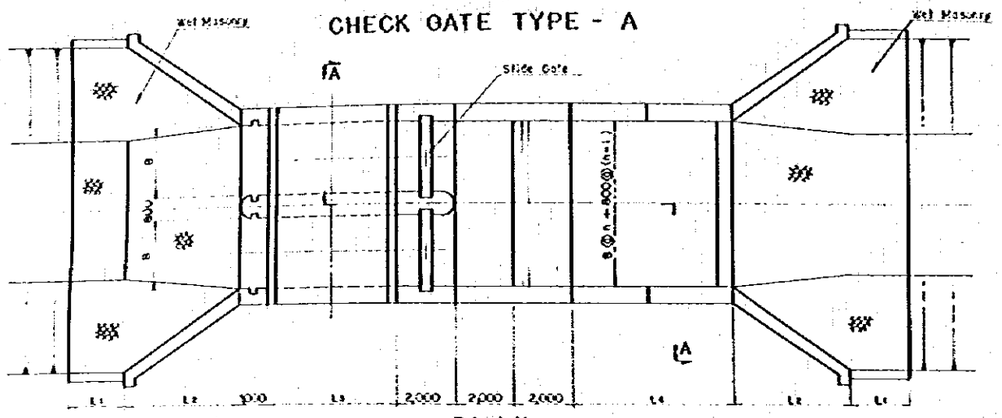
TITLE OF DRAWINGS
TURNOUT AND TERTIARY BOX

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

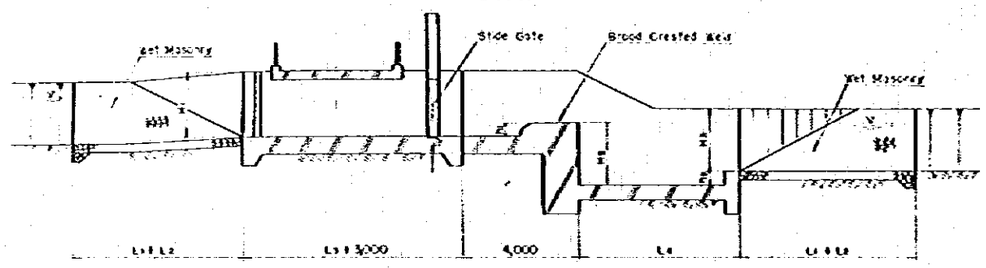
DWG. NO.
VII - 15

PLATE NO. 22

CHECK GATE TYPE - A

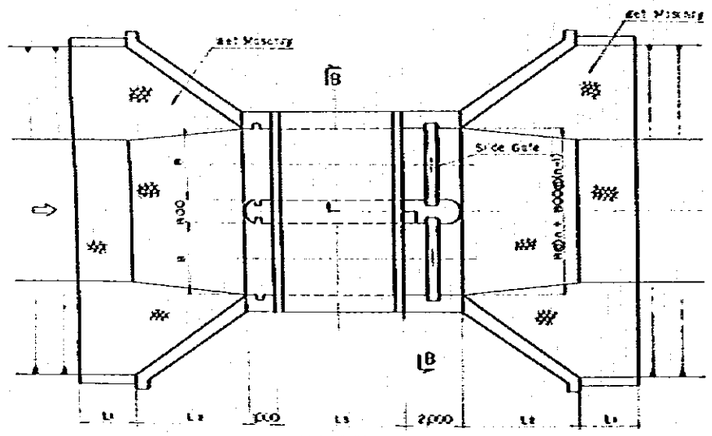


PLAN

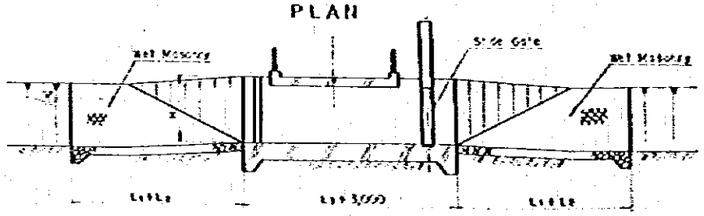


PROFILE

CHECK GATE TYPE - B

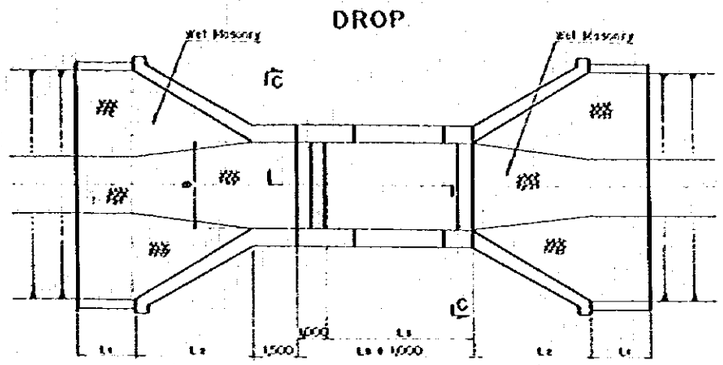


PLAN

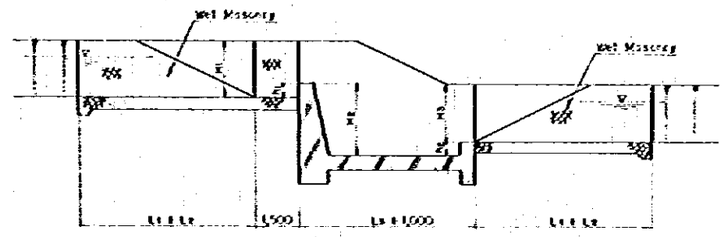


PROFILE

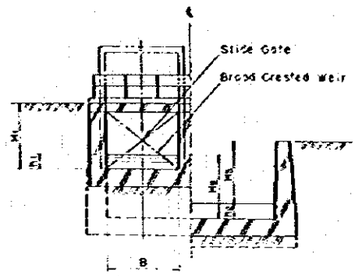
DROP



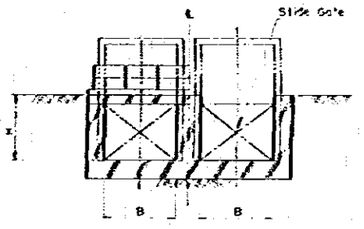
PLAN



PROFILE



SECTION A-A



SECTION B-B

DIMENSIONS OF CHECK GATES

TYPE - A

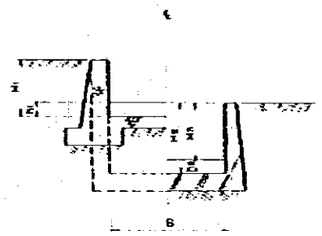
Discharge (m³/s)	L1	L2	L3	L4	B	n	H1	H2 Org=20s	H2 Org=15s	H2 Org=10s	H2 Org=05s	H3	P1	P2	Gate
200 ~ 150	3,000	4,000	4,500	7,000	2,500	4	2,500	3,200	2,700	2,200	1,700	2,500	750	500	25×20
150 ~ 100	"	"	"	"	"	3	"	"	"	"	"	"	"	"	"
100 ~ 50	"	"	"	"	"	2	"	"	"	"	"	"	"	"	"
50 ~ 20	"	"	"	"	"	1	"	"	"	"	"	"	650	"	"
20 ~ 10	"	3,000	"	6,000	1,500	1	1,800	-	-	-	-	1,800	450	"	15×15

TYPE - B

Discharge (m³/s)	L1	L2	L3	B	n	H	Gate
200 ~ 150	3,000	4,000	4,500	2,500	4	2,500	25×20
150 ~ 100	"	"	"	"	3	"	"
100 ~ 50	"	"	"	"	2	"	"
50 ~ 20	"	"	"	"	1	"	"
20 ~ 10	"	3,000	"	1,500	1	1,800	15×15
10 ~ 05	"	"	"	1,000	1	1,500	10×10
05 ~	1,500	2,000	3,000	600	1	800	—

DIMENSIONS OF DROPS

Discharge (m³/s)	L1	L2	L3	B	H1	H2 Org=20s	H2 Org=15s	H2 Org=10s	H3	P1	P2
30 ~ 20	3,000	4,000	6,000	2,000	2,000	3,300	2,800	2,300	2,000	800	500
20 ~ 12	"	3,000	"	1,500	1,800	3,100	2,600	2,100	1,800	600	"
12 ~ 08	"	"	4,000	1,200	1,500	2,900	2,400	1,900	1,500	400	"
08 ~ 06	2,000	2,000	"	1,000	1,200	2,600	2,100	1,600	1,200	300	300
06 ~ 04	"	"	3,000	"	1,000	2,500	2,000	1,500	1,000	200	"
04 ~ 02	"	"	"	"	800	2,300	1,800	1,300	800	—	"
02 ~ 0.1	"	"	"	"	500	"	"	"	500	—	"



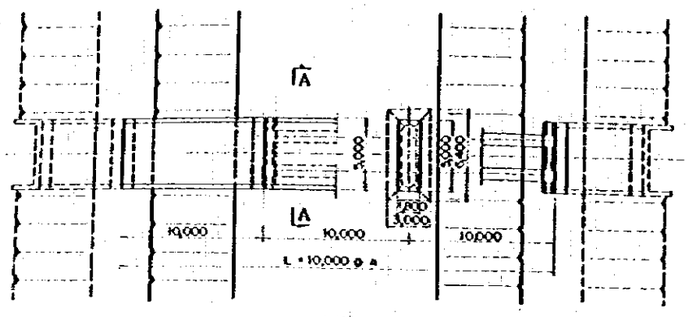
SECTION C-C

SCALE

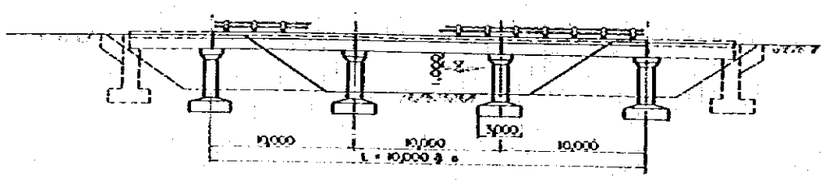
0 5 10m

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT KOMERING - I IRRIGATION DEVELOPMENT PROJECT	
TITLE OF DRAWINGS CHECK GATE AND DROP	
JAPAN INTERNATIONAL COOPERATION AGENCY TOKYO	DWG. NO. VI - 16

BRIDGE TYPE - A

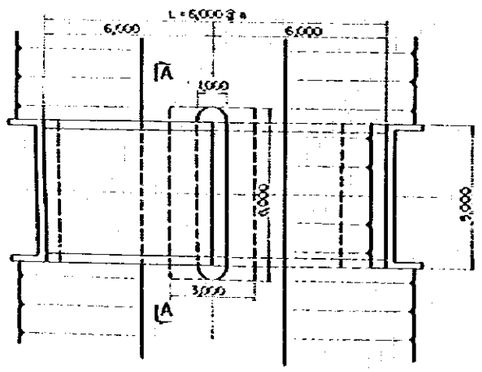


PLAN
SCALE - A

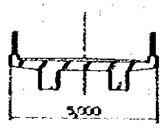


PROFILE
SCALE - A

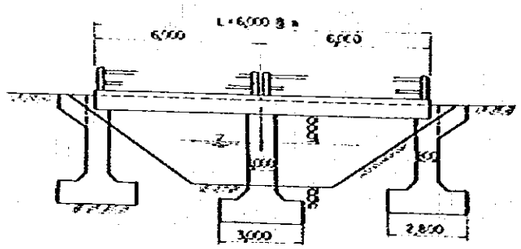
BRIDGE TYPE - B



PLAN
SCALE - B



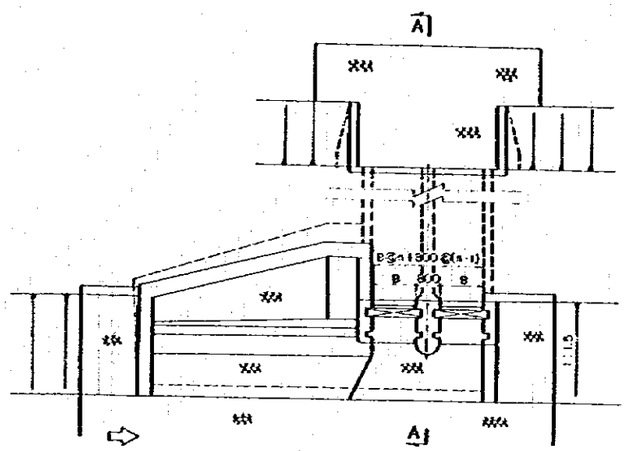
SECTION A-A
SCALE - B



PROFILE
SCALE - B

SECTION A-A
SCALE - B

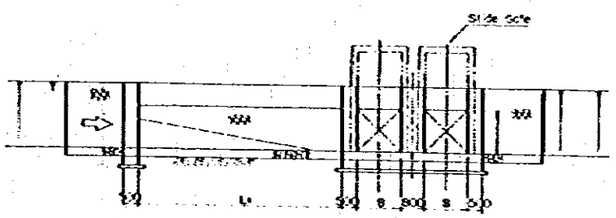
SPILL WAY AND WASTE WAYS



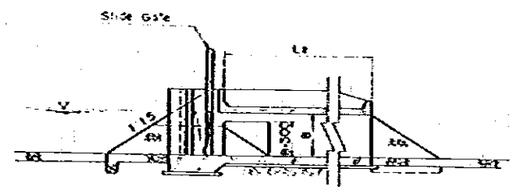
PLAN
SCALE - B

DIMENSIONS OF SPPILL WAY & WASTE WAYS

Discharge (m^3/s)	B	n	L_1	L_2
30 ~ 90	2,000	2	15,000~10,000	15,000 ~ 5,000
90 ~ 45	1,500	2	15,000 ~ 5,000	15,000 ~ 5,000
45 ~ 25	1,500	1	10,000 ~ 5,000	15,000 ~ 5,000
25 ~ 20	1,200	1	10,000 ~ 5,000	15,000 ~ 5,000
20 ~ 10	1,000	1	10,000 ~ 5,000	15,000 ~ 5,000



PROFILE
SCALE - B



SECTION A-A
SCALE - B

SCALE - A
0 5 10 15 20m

SCALE - B
0 5 10m

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

TITLE OF DRAWINGS

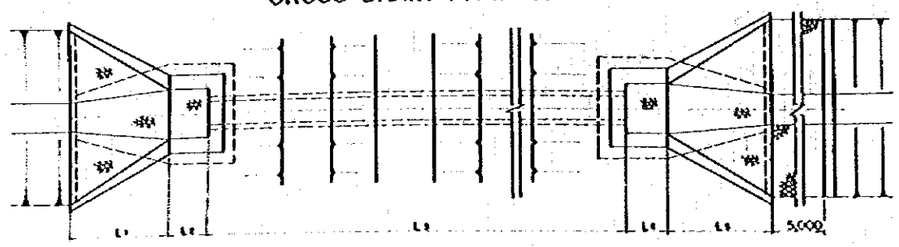
BRIDGE, SPILL WAY AND WASTE WAY

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

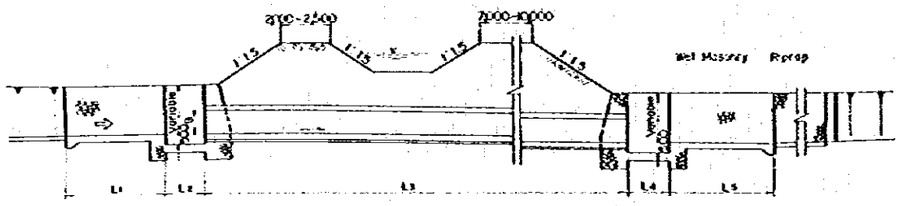
D/WG. NO.
VII - 17

PLATE NO. 24

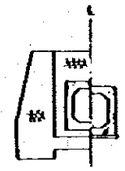
CROSS DRAIN TYPE - A



PLAN
SCALE - A

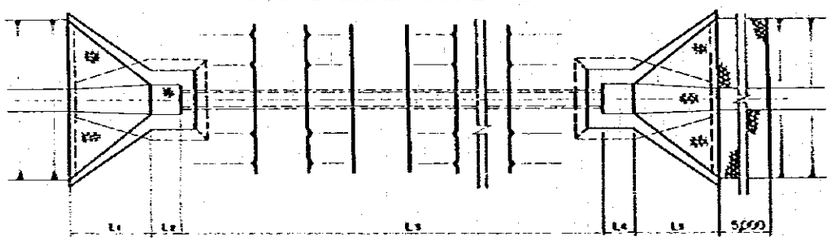


PROFILE
SCALE - A

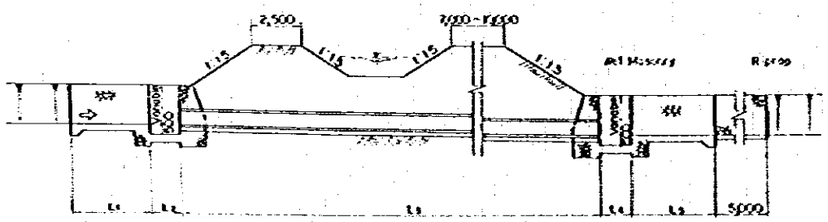


SECTION A - A
SCALE - C

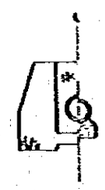
CROSS DRAIN TYPE - B



PLAN
SCALE - A



PROFILE
SCALE - A



SECTION B - B
SCALE - C

DIMENSION OF CROSS DRAINS

TYPE	Culvert Discharge (m³/sec)	L1	L2	L3	L4	L5	B	n
TYPE - A	60 ~ 30	7,000	3,000	40,000 ~ 30,000	3,000	7,000	2,500	1
	30 ~ 20	6,000	2,500	40,000 ~ 30,000	2,500	6,000	2,000	1
	20 ~ 12	5,000	2,000	40,000 ~ 30,000	2,000	5,000	1,500	1
	12 ~ 08	5,000	2,000	40,000 ~ 30,000	2,000	5,000	1200	1
	08 ~ 06	4,500	1,500	40,000 ~ 30,000	1,500	4,500	1000	1
TYPE - B	06 ~ 04	4,000	1,500	40,000 ~ 25,000	1,500	4,000	ϕ 900	1
	04 ~ 02	4,000	1,500	40,000 ~ 25,000	1,500	4,000	ϕ 700	1

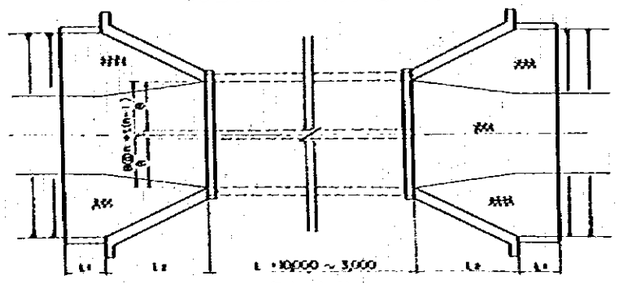
SCALE - A
0 5 10 15 20m

SCALE - B
0 5 10m

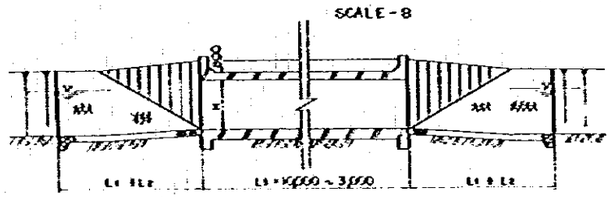
SCALE - C
0 5 10m

SCALE - D
0 5m

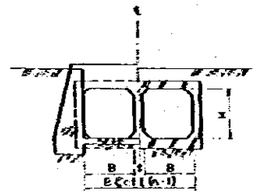
CULVERT TYPE - A



PLAN
SCALE - B

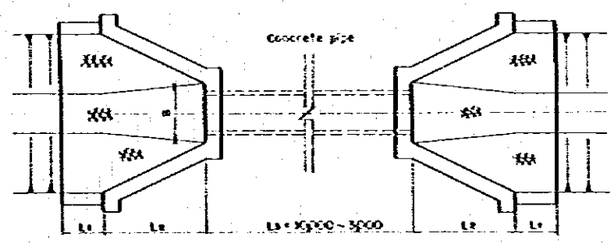


PROFILE
SCALE - B

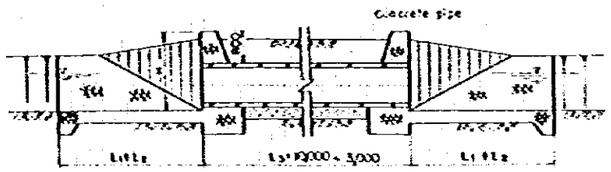


SECTION A - A
SCALE - A

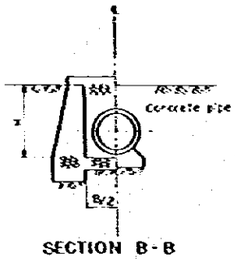
CULVERT TYPE - B



PLAN
SCALE - D



PROFILE
SCALE - D



SECTION B - B
SCALE - B

DEMENSIONS OF CULVERTS

TYPE	Discharge (m³/sec)	L1	L2	B	H	t	Pipe ϕ	n
TYPE - A	100 - 60	2,000	5,000	2,500	2,500	300	—	2
	60 - 30	"	"	"	"	"	—	1
	30 - 20	"	"	2,000	2,000	250	—	1
	20 - 10	1,500	4,000	1,500	1,500	"	—	1
	10 - 06	"	"	1,000	1,000	200	—	1
TYPE - B	06 - 04	1,000	3,000	1,300	2,000	—	ϕ 900	—
	04 - 01	"	"	1,100	1,830	—	ϕ 700	—

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING - I IRRIGATION DEVELOPMENT PROJECT

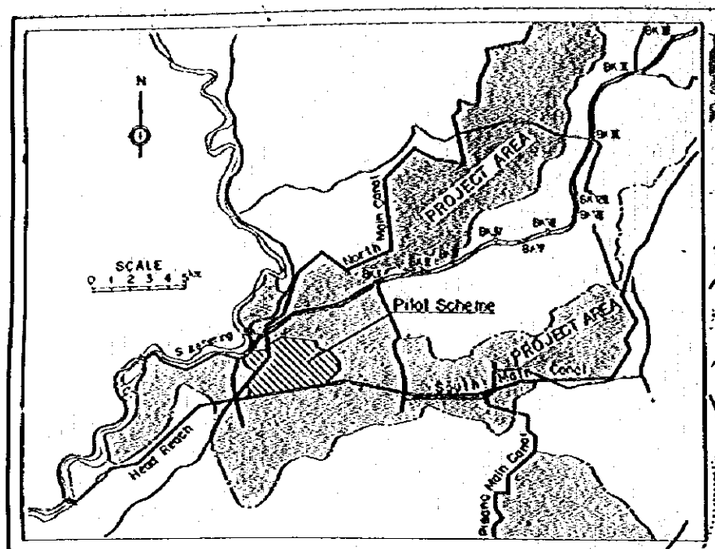
TITLE OF DRAWINGS

CULVERT AND CROSS DRAINS

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DRG. NO.
VE - 18

PLATE NO. 25



LEGEND

- Pump Station
- Secondary Canal
- Tertiary Canal
- Secondary Drain
- Tertiary Drain
- Inspection Road
- Boundary

GROSS AREA 870 ha

NET AREA 700 ha

1 PEAK WATER REQUIRMENTS
100 m³/sec

2 PUMP STATION
Design Discharge 300m³/min
Pump Type Double Suction Volute Pump (22kv)
Actual Pump Head 10.0m

SCALE
0 500 1000m

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
KOMERING-I IRRIGATION DEVELOPMENT PROJECT

TITLE OF DRAWINGS
LAYOUT MAP OF PILOT SCHEME

JAPAN INTERNATIONAL COOPERATION AGENCY
TOKYO

DWG. NO.
XII - 01

JICA