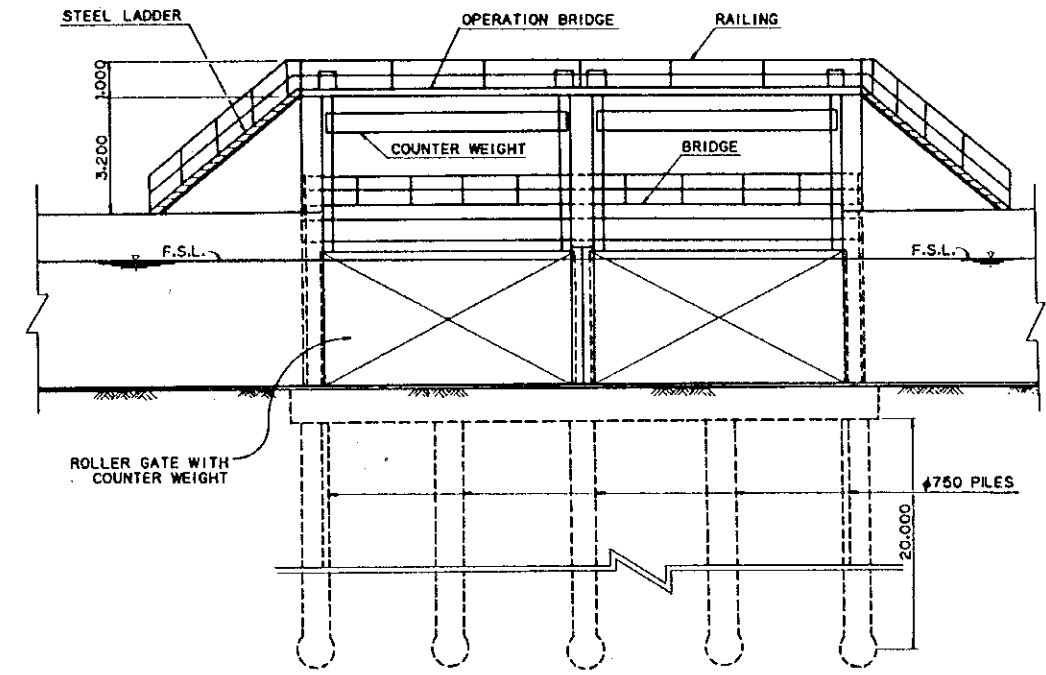
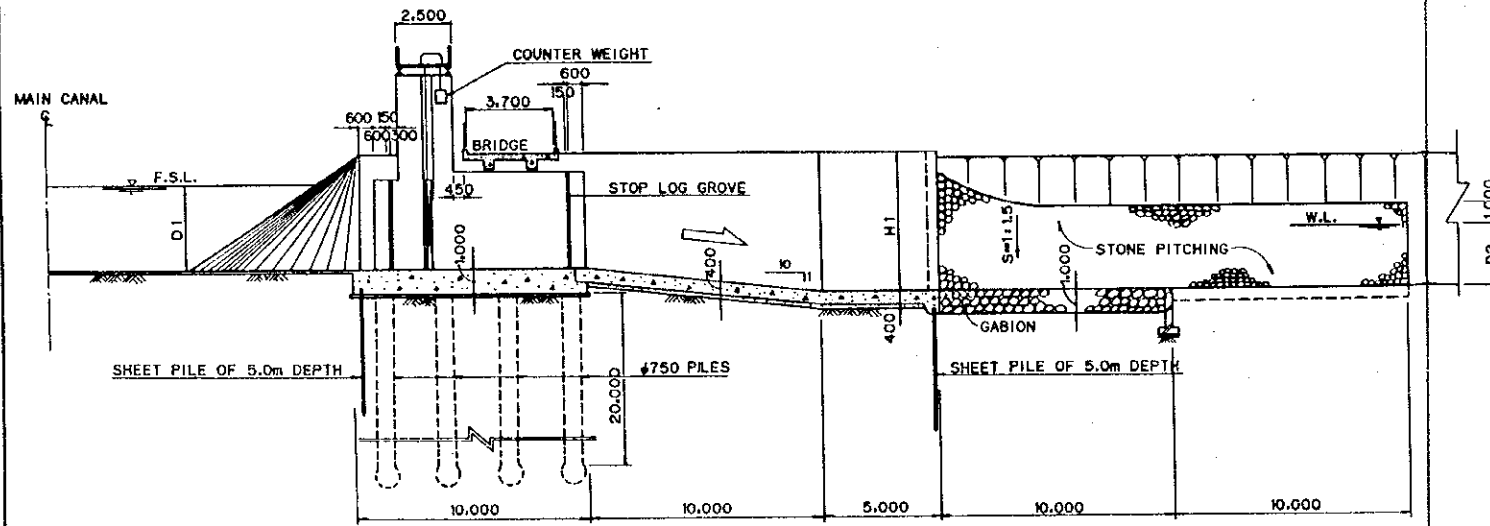


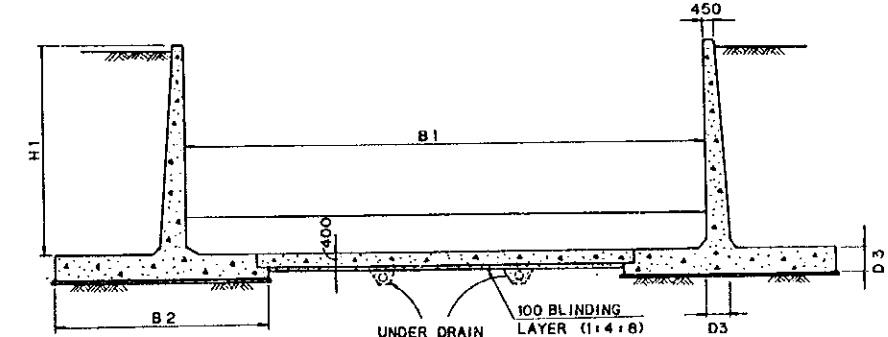
PLAN
SCALE A



SECTION B-B
SCALE B



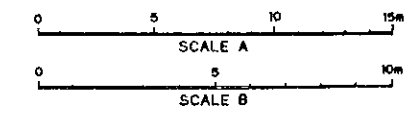
SECTION A-A
SCALE A



SECTION C-C
SCALE B

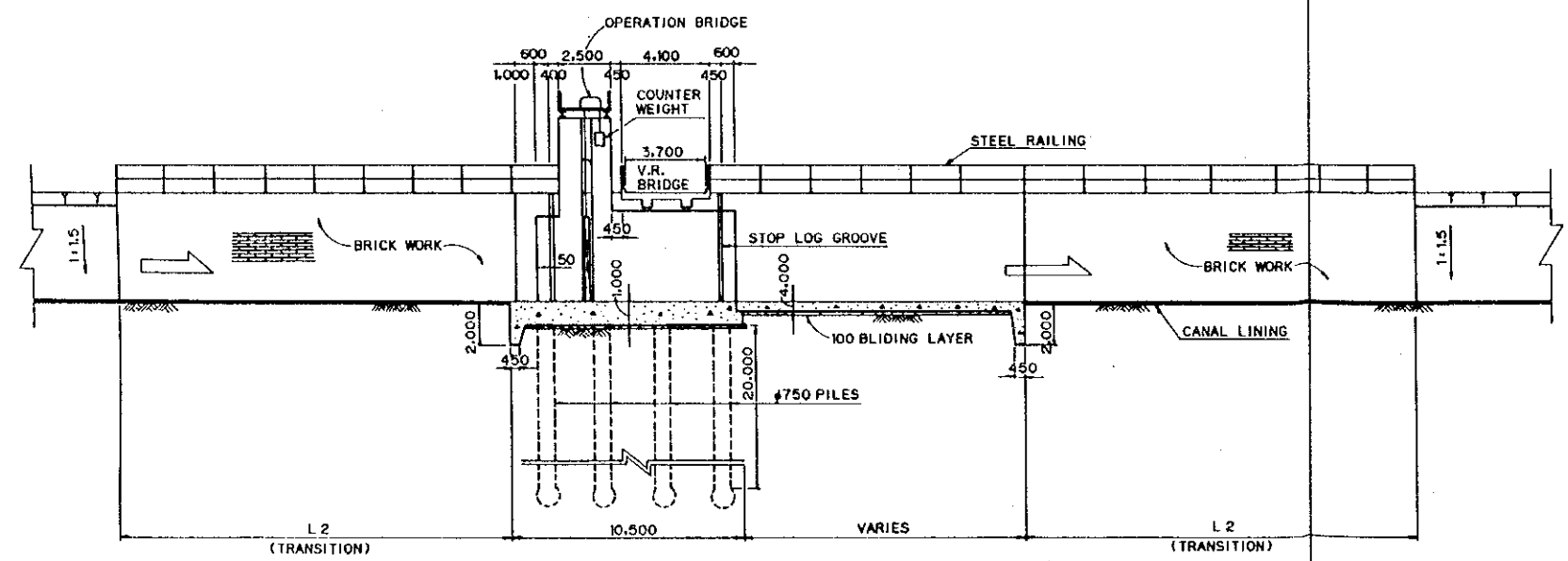
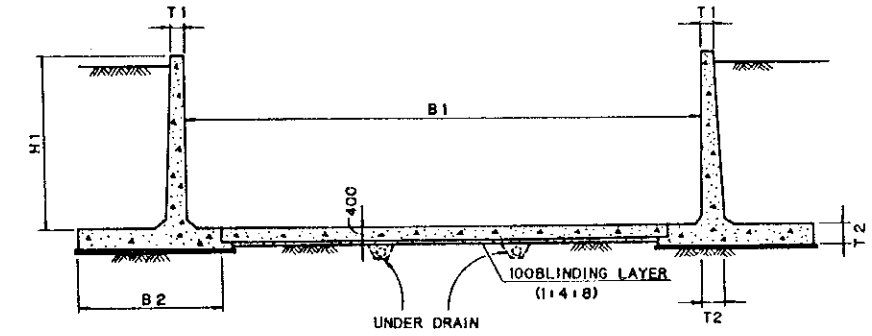
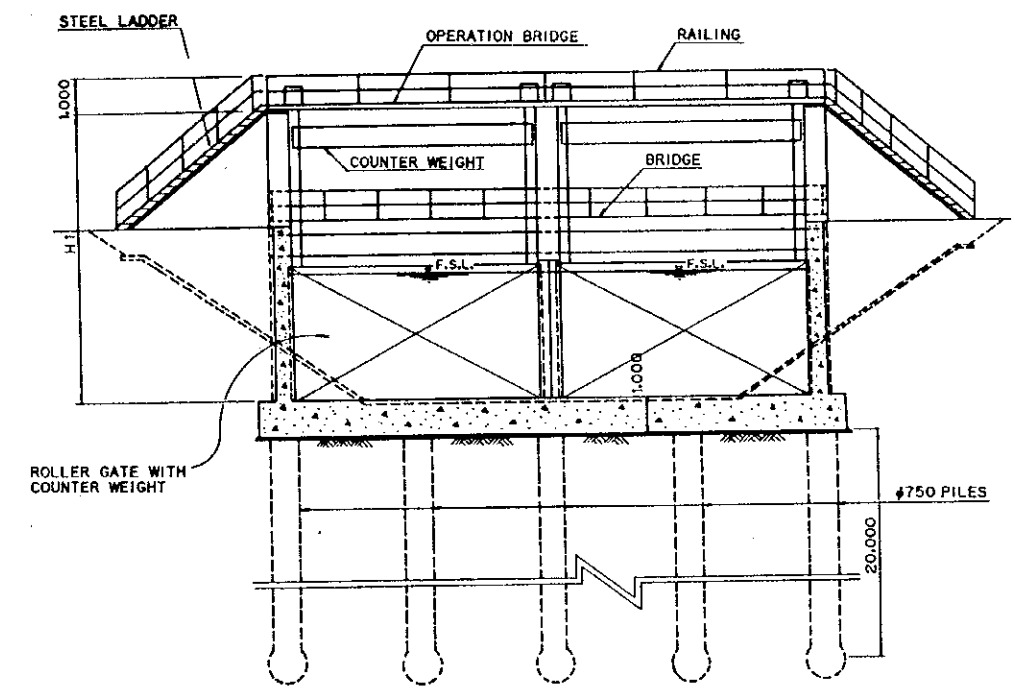
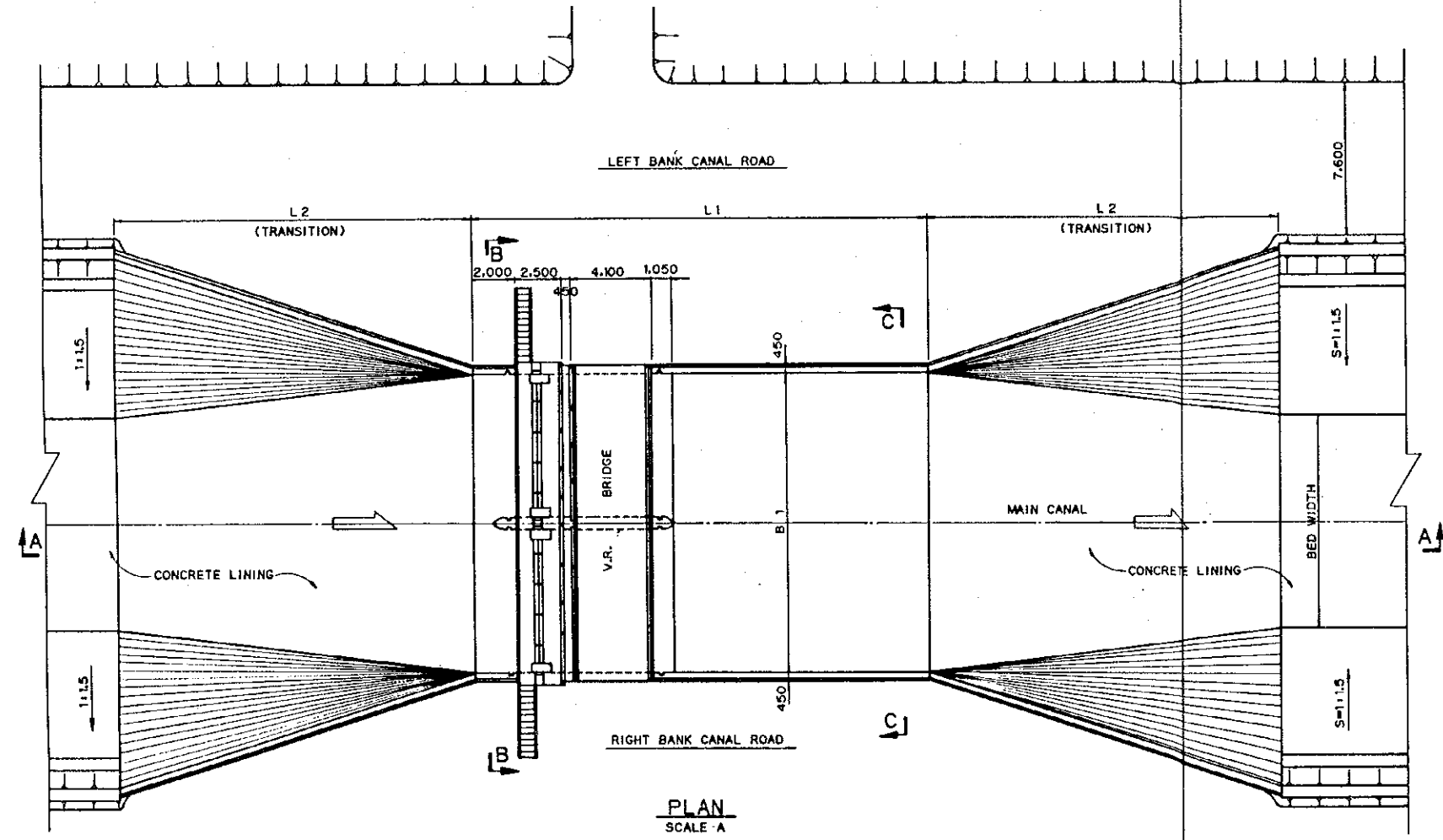
DIMENSION TABLE

STATION No.	ESCAPE No.	BED LEVEL OF CANAL	WATER DEPTH (D1)	NO OF GATES	GATE SIZE	ESCAPE & D/S CHANNEL WIDTH (B1)	HEIGHT OF RETAINING WALL (H)	BASE OF R. WALL (B2)	THICKNESS OF R. WALL BASE (D3)	WATER DEPTH IN CHANNEL (D2)	SLOPE OF CHANNEL	Q (m ³ /s)
56+550	2	200.87	3530	2	7000x3700	14600	5800	4600	700	2550	1:2000	53
75+000	3	199.45	2600	2	6000x2800	12600	4800	3800	600	2300	1:1500	30
94+300	4	196.95	2340	1	8000x2300	8000	4500	3600	500	1800	1:1000	20
113+250	5	192.75	1490	1	6000x1800	6000	4000	3200	500	1300	1:1000	10



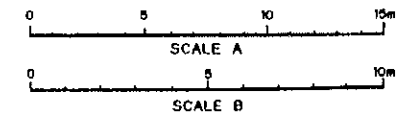
ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

ESCAPE TYPE C OF MAIN CANAL



DIMENSION TABLE

CANAL SECTION	WATER DEPTH (a)	NO OF GATES	HEIGHT OF OPERATION BRIDGE (b1)	GATE SIZE	THROAT WIDTH (b2)	THROAT LENGTH (L1)	TRANSITION LENGTH (L2)	HEIGHT OF RETAINING WALL (H2)	BASE OF R. WALL (B2)	BASE OF THICKNESS (T2)	TOP THICKNESS (T1)
1	3.940	2	9000	8000 x 4000	16600	23000	18000	5200	4000	600	450
2	3.530	2	8000	7000 x 3700	14600	20000	18000	4800	4000	600	450
3	2.800	2	6000	6000 x 2800	12600	20000	18000	3600	3000	500	300
4	2.140	2	5300	5000 x 2300	10600	15000	18000	3200	2500	400	300
5	1.490	1	4000	6000 x 1700	6000	12000	12000	2500	2000	400	300

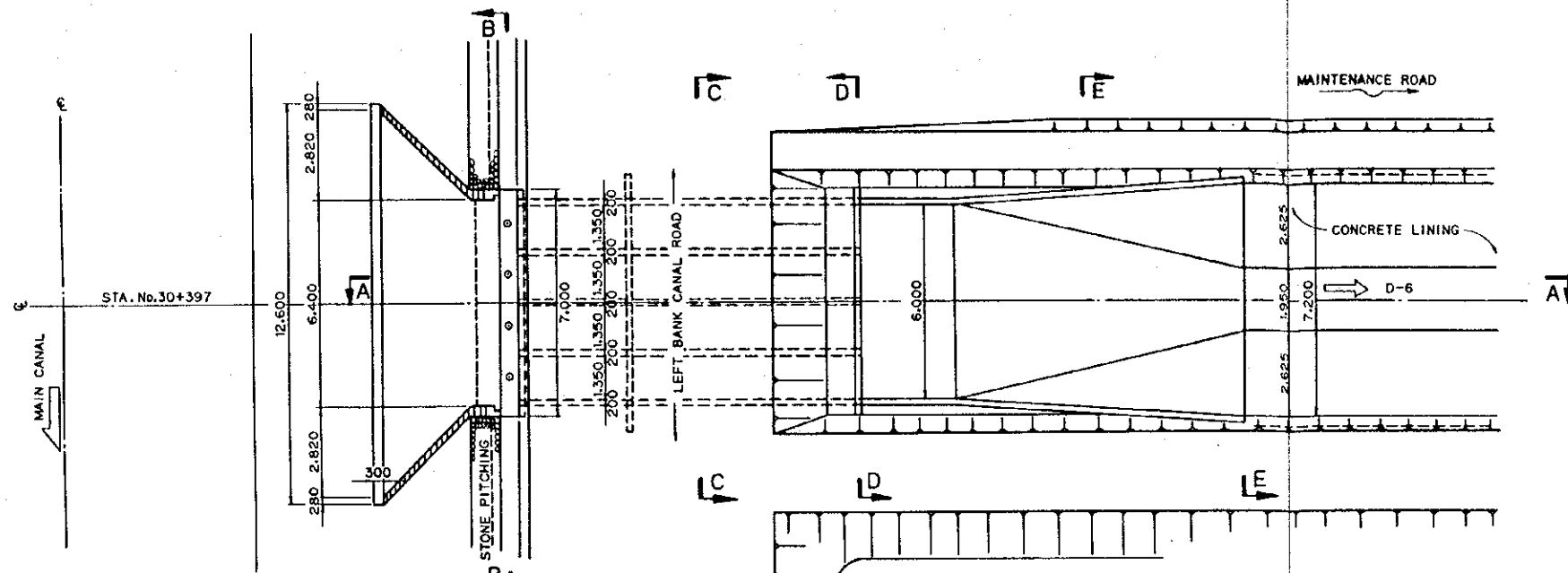


ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE

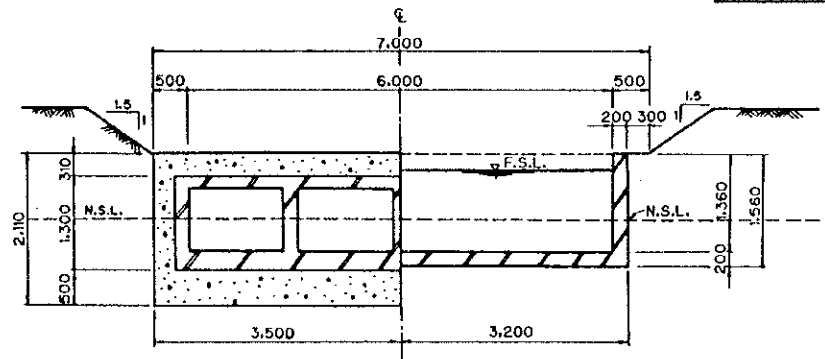
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

CROSS REGULATOR OF MAIN CANAL

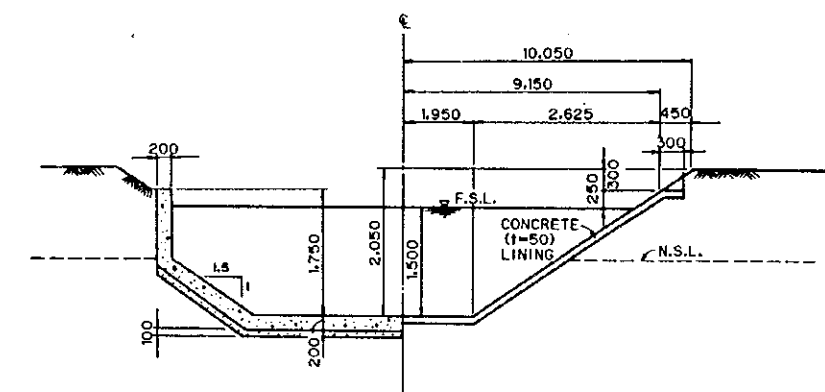
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



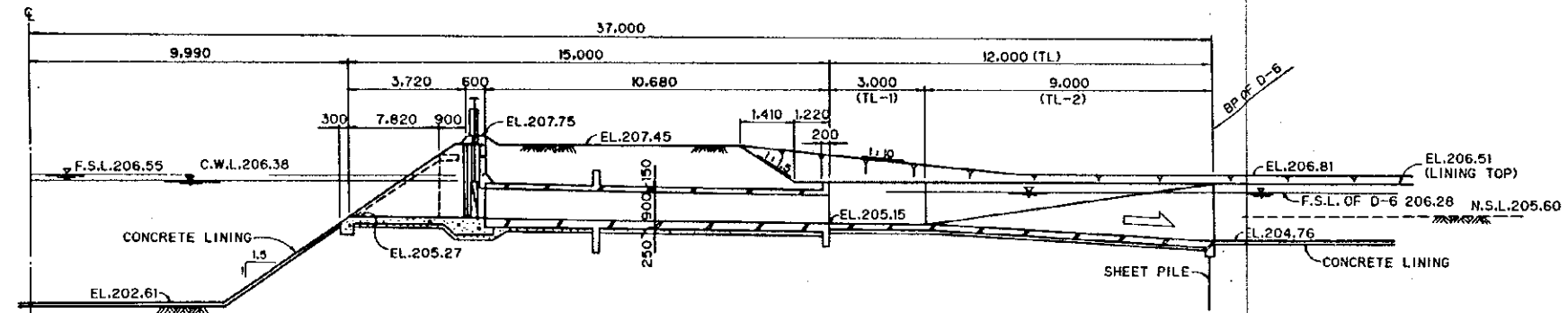
PLAN
SCALE A



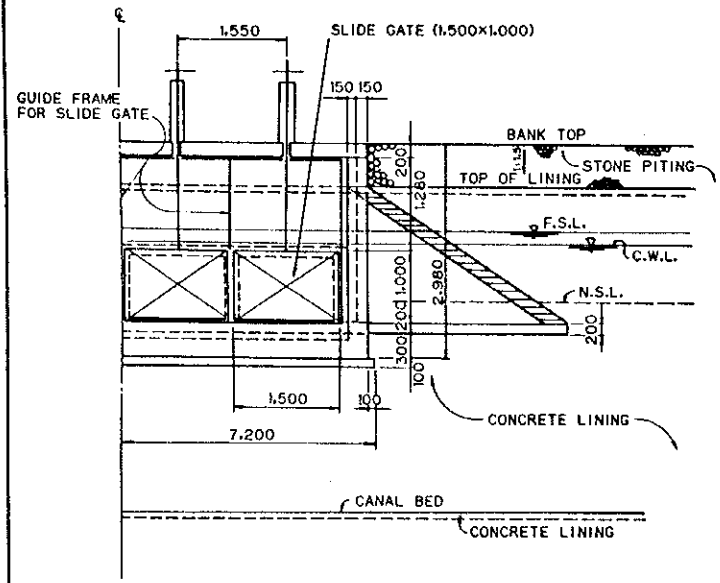
SECTION D-D
SCALE B



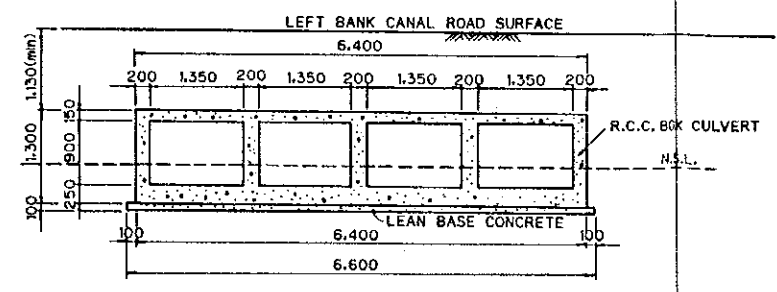
SECTION E-E
SCALE B



SECTION A-A
SCALE A



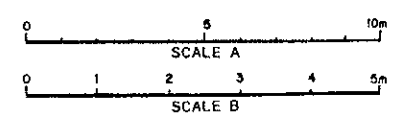
SECTION B-B
SCALE B



SECTION C-C
SCALE B

DIMENSION TABLE

TYPE	NAME OF DISTRIBUTORY CANAL	NOS OF STRUCTURE	NOS OF BARREL	TL-1	TL-2	TL
1	D-12.	1	5	3000	9000	12000
2	D-5, D-6, D-9.	3	4	3000	9000	12000
3	D-8, D-17.	2	3	1500	7500	9000
4	D-2, D-13, D-14, D-16, D-21, D-22.	6	2	-	6000	6000
5	D-1, D-3, D-4, D-7, D-10, D-11, D-15, D-18, D-19, D-20, D-23, D-24.	12	1	-	6000	6000

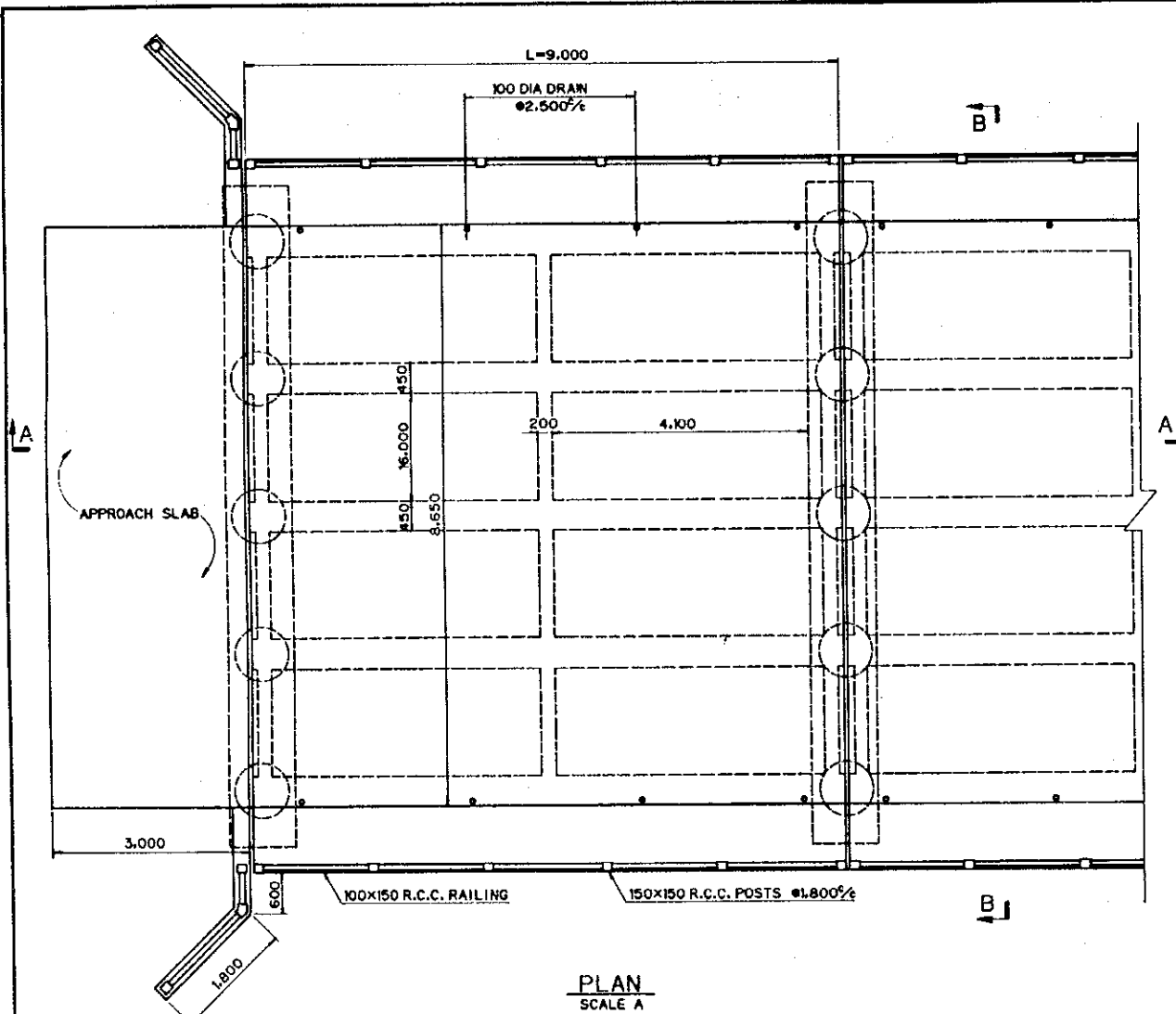


ISLAMIC REPUBLIC OF PAKISTAN
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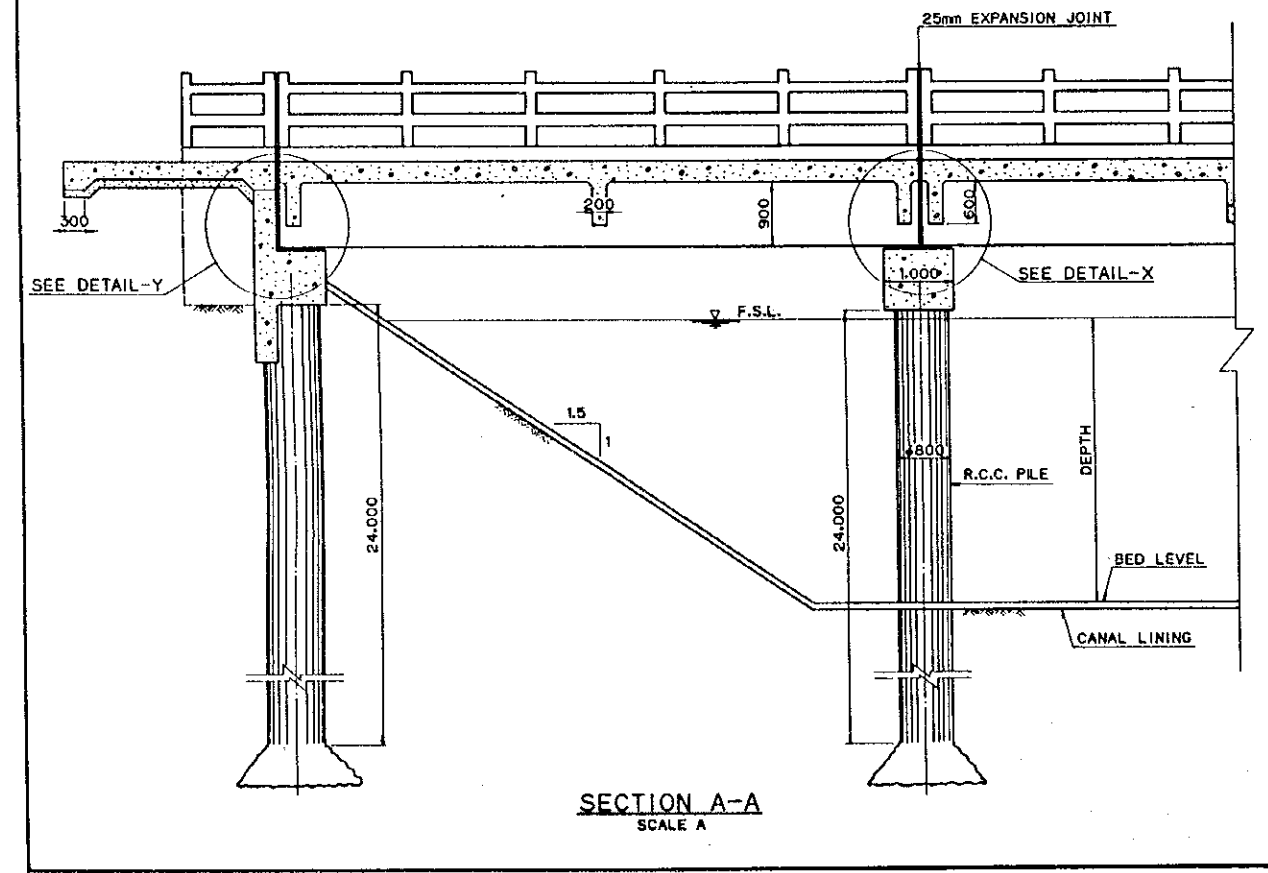
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

HEAD REGULATOR TO DISTRIBUTORY CANAL

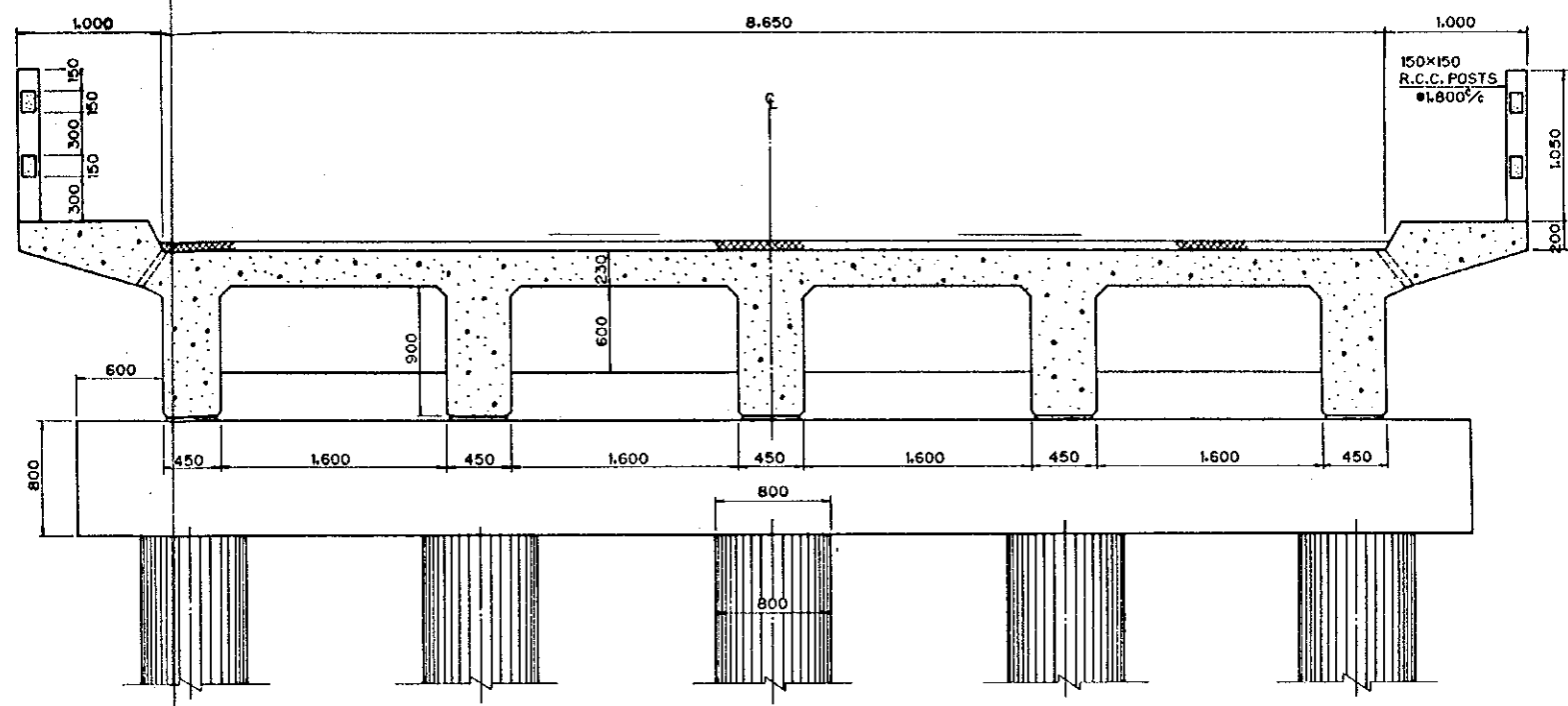
JAPAN INTERNATIONAL COOPERATION AGENCY | D.W. NO.



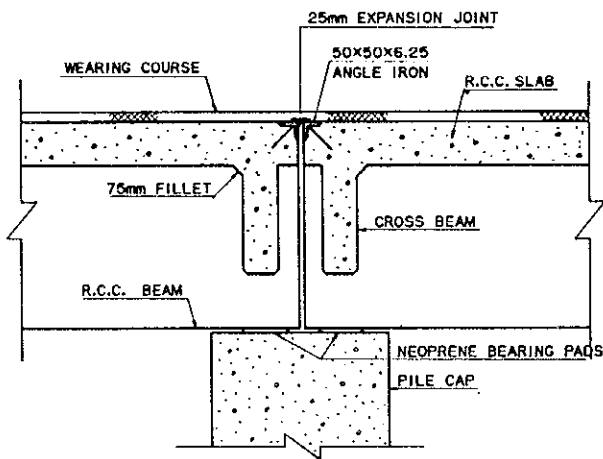
PLAN
SCALE A



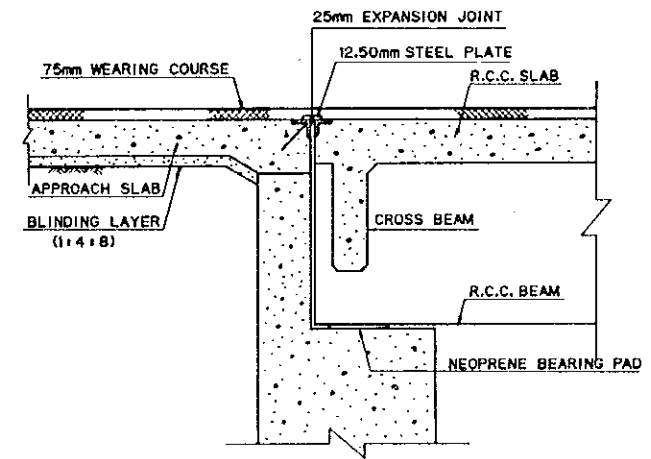
SECTION A-A
SCALE A



SECTION B-B
SCALE B



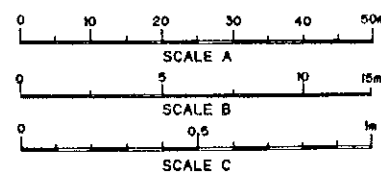
DETAIL-X
SCALE C



DETAIL-Y
SCALE C

LOCATION AND DIMENSIONS OF A.R. BRIDGE

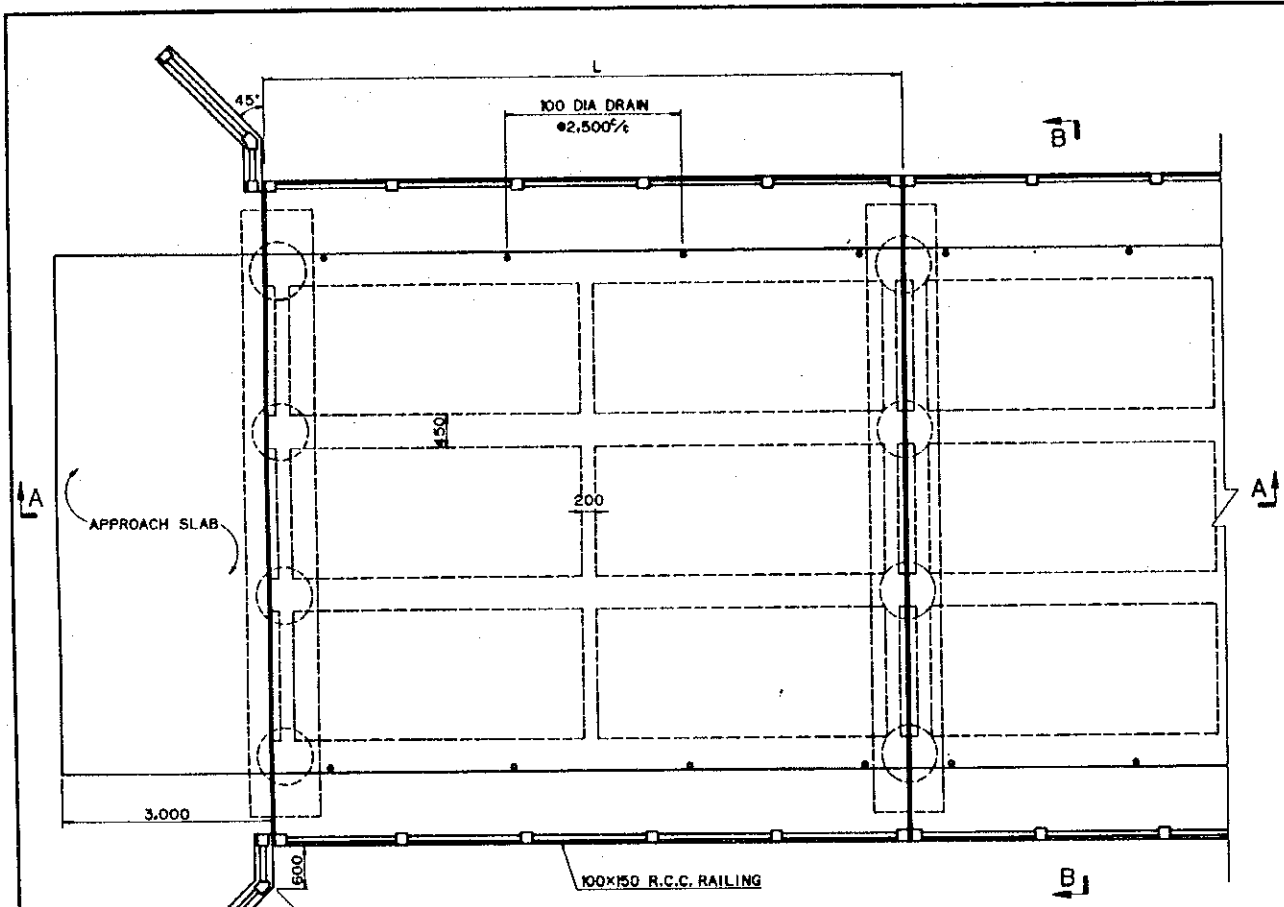
TYPE	CANAL/DRAIN	STA. No.	NO OF SPANS	SPAN LENGTH(M)	NO OF BRIDGE
I	MAIN	16+600	3.0	9000	1
II	DRAIN-5	-	10.0	9000	1
III	DRAIN-5C	-	7.0	9000	1



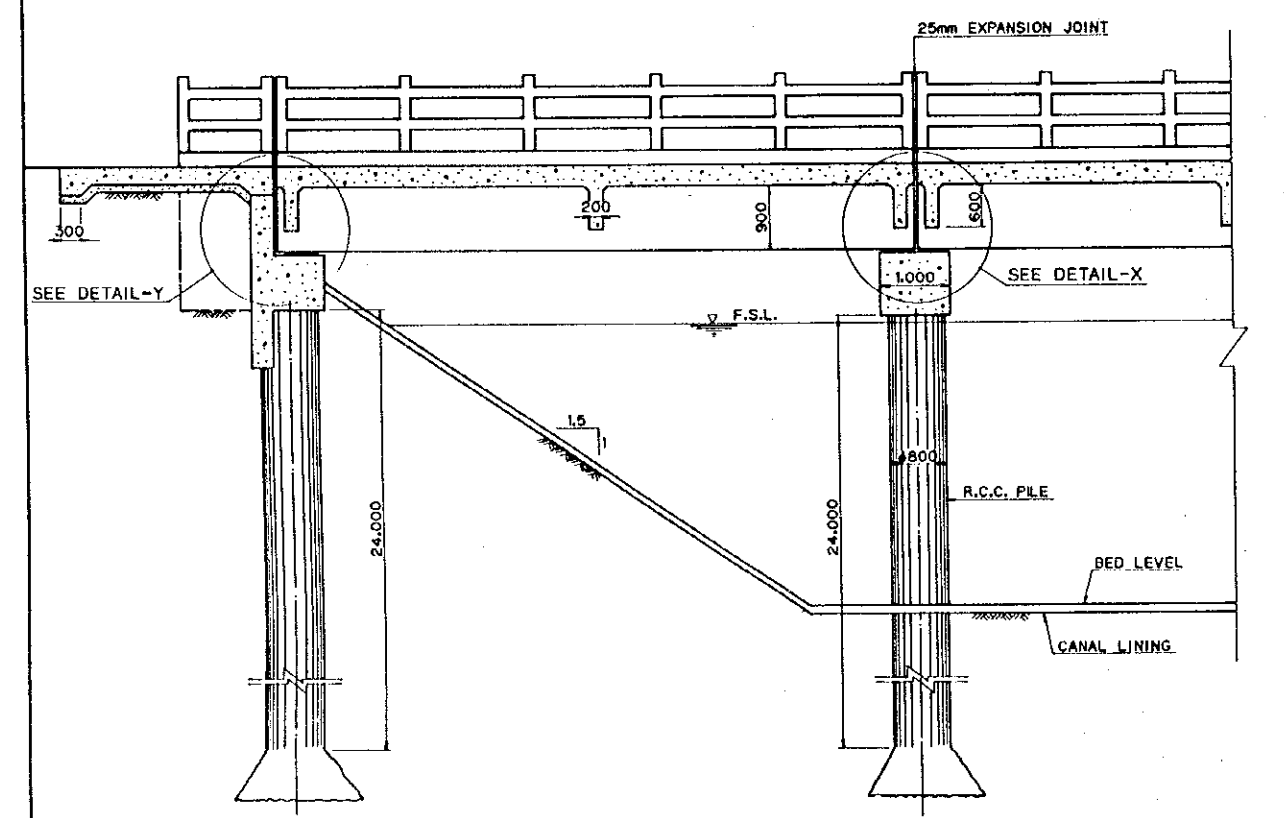
ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

A.R. BRIDGE

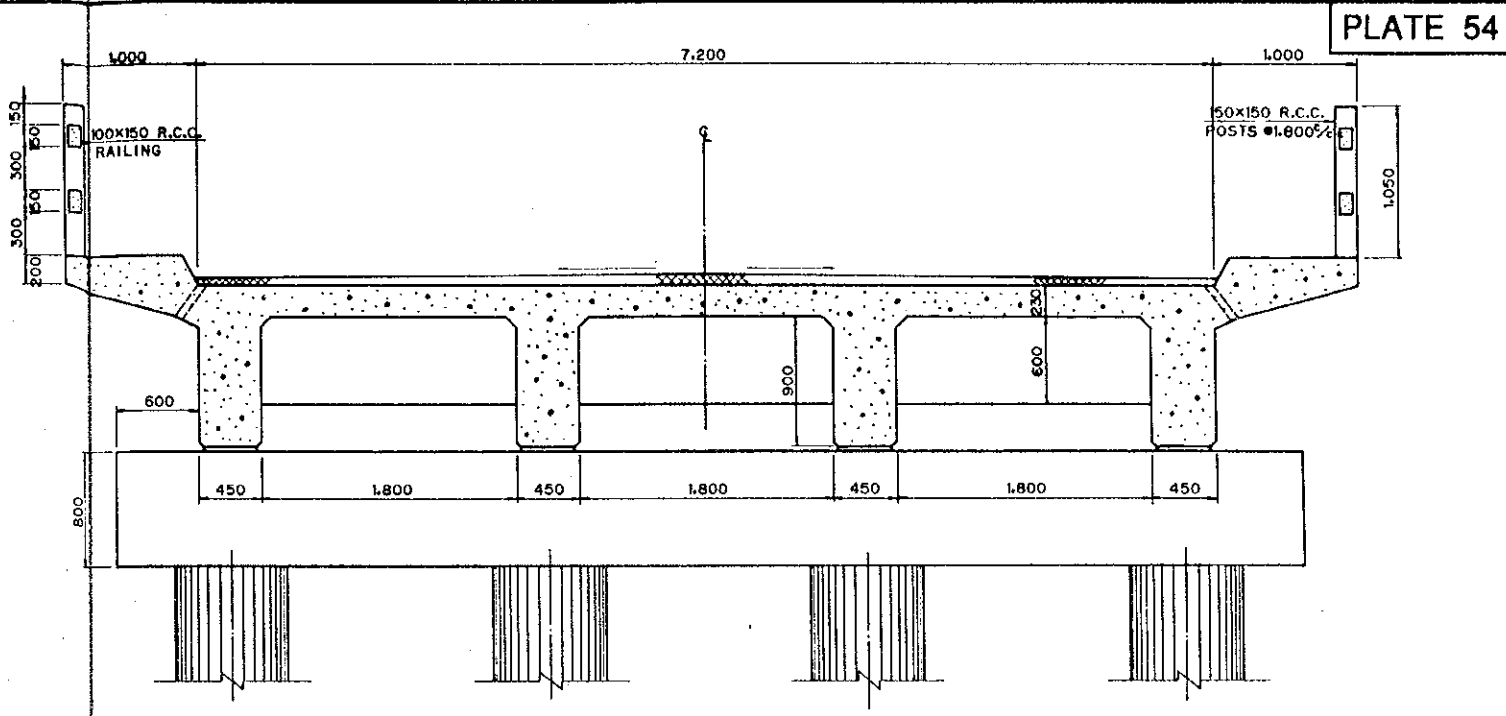
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



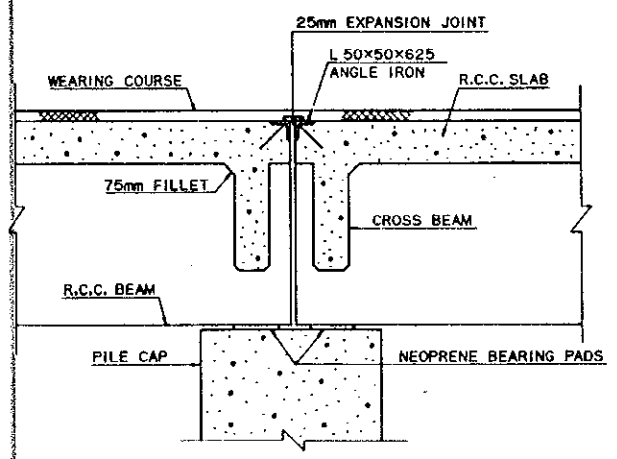
PLAN
SCALE A



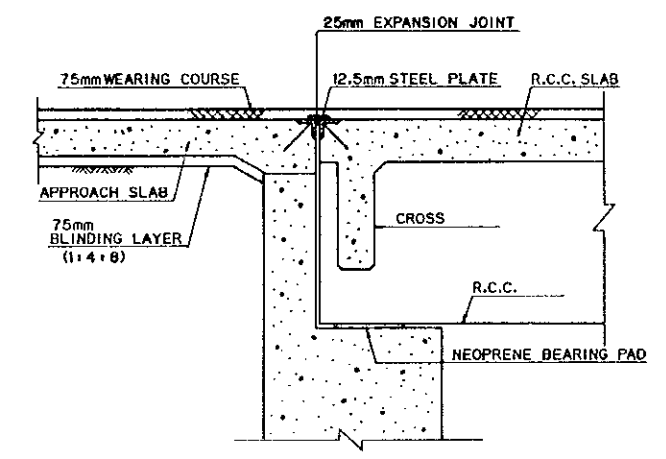
SECTION A-A
SCALE A



SECTION B-B
SCALE B



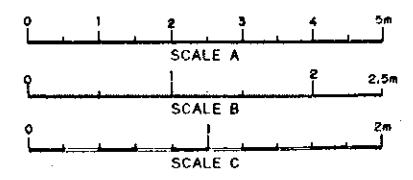
DETAIL-X
SCALE C



DETAIL-Y
SCALE C

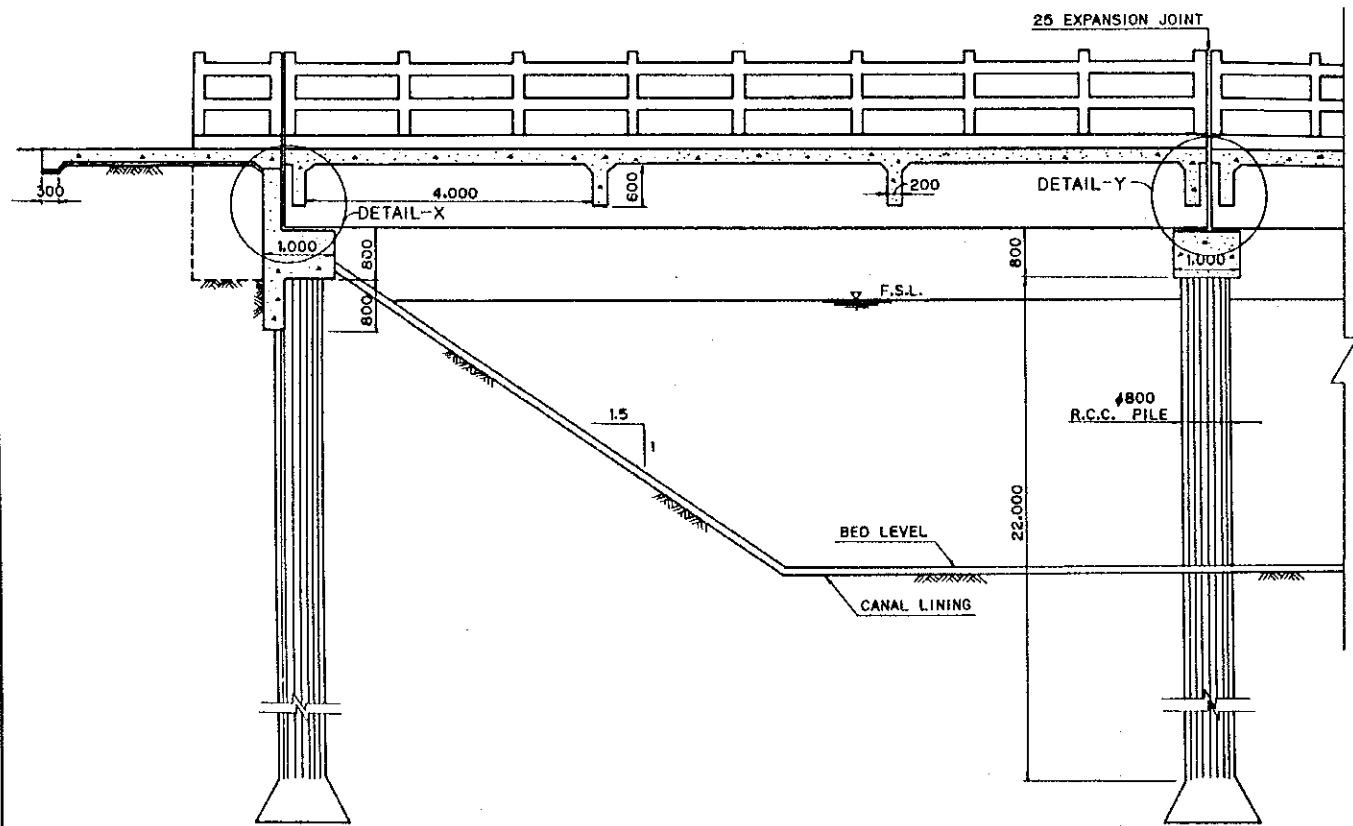
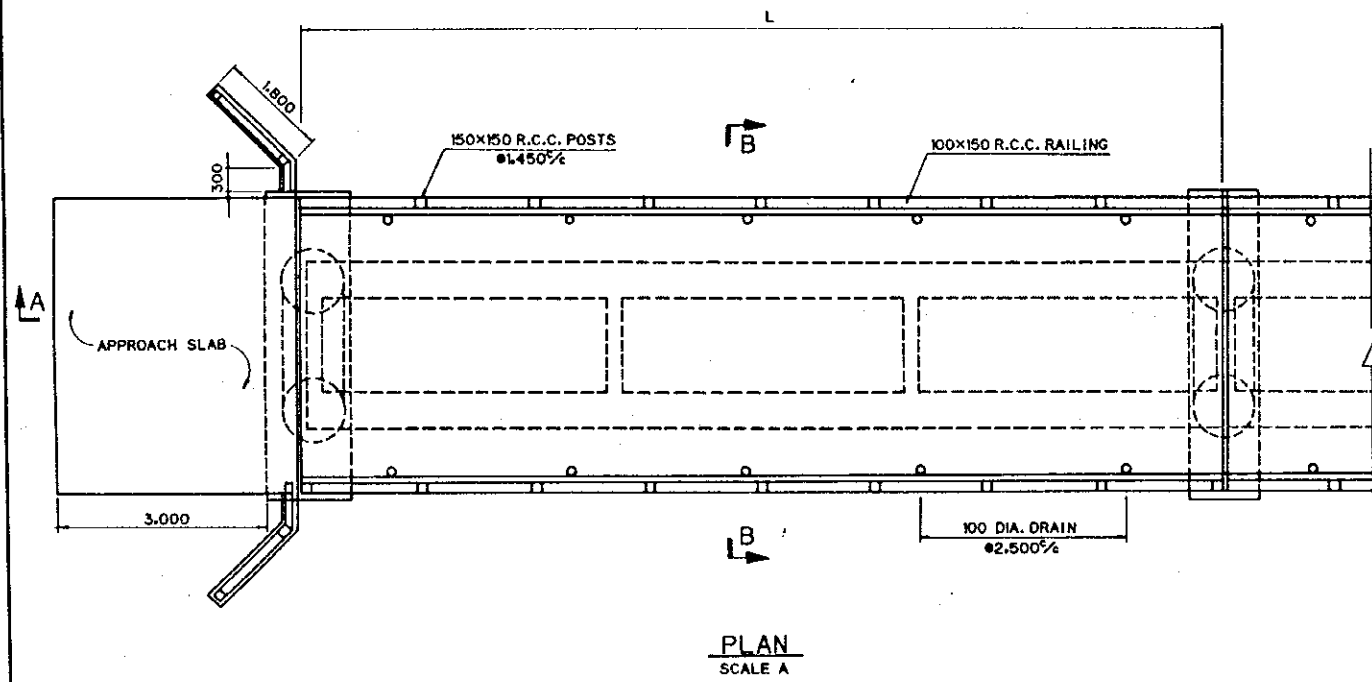
LOCATION AND DIMENSIONS OF D.R. BRIDGE

TYPE	CANAL/ DRAIN	STA. No.	NO OF SPANS	SPAN LENGTH(L)	NO OF BRIDGE
I	FEEDER	31+380	3.0	8500	1
II	MAIN	38+465 55+550	3.0	8000	2
III	MAIN	65+710 88+730	2.0	9500	2
IV	DRAIN 9 DRAIN 9-B	-	17.0	9000	2
V	DRAIN 10 DRAIN 10B	-	19.0	9000	2
VI	DRAIN 12A	-	2.80	9000	1
VII	DRAIN 12B	-	39.0	9000	1
VIII	DRAIN 13A	-	13.0	9000	1

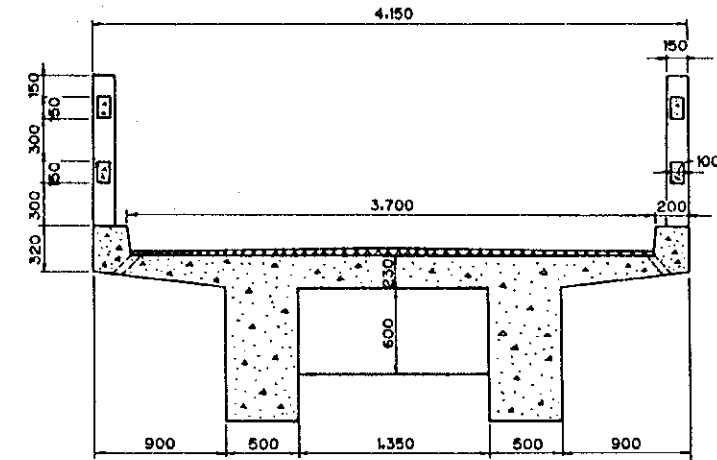


ISLAMIC REPUBLIC OF PAKISTAN
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CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

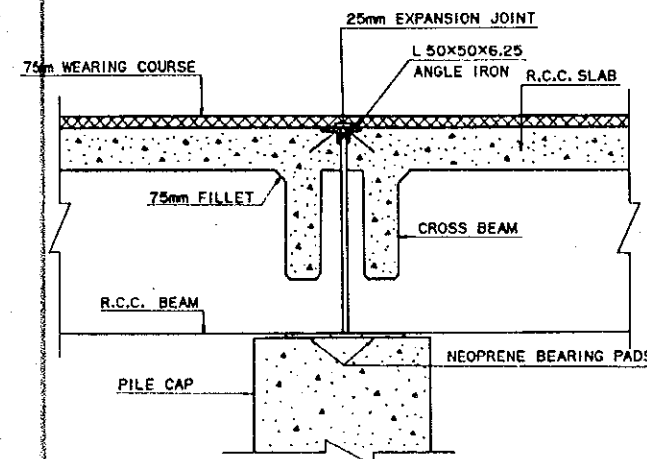
D.R. BRIDGE
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



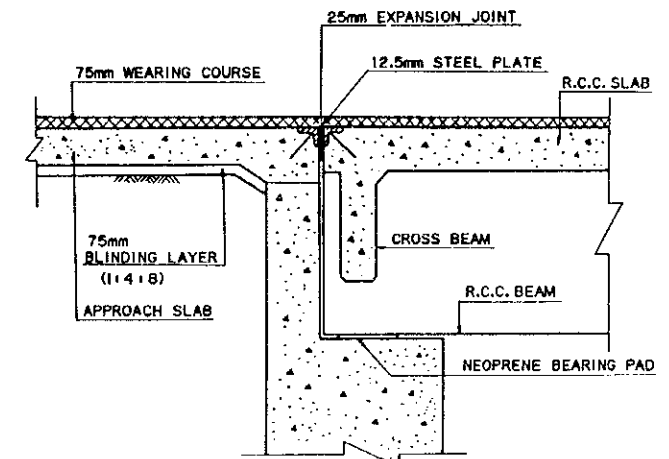
SECTION A-A
SCALE A



SECTION B-B
SCALE B



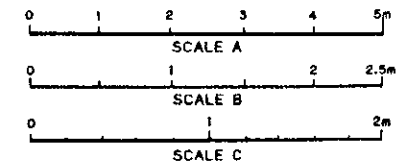
DETAIL-X
SCALE C



DETAIL-Y
SCALE C

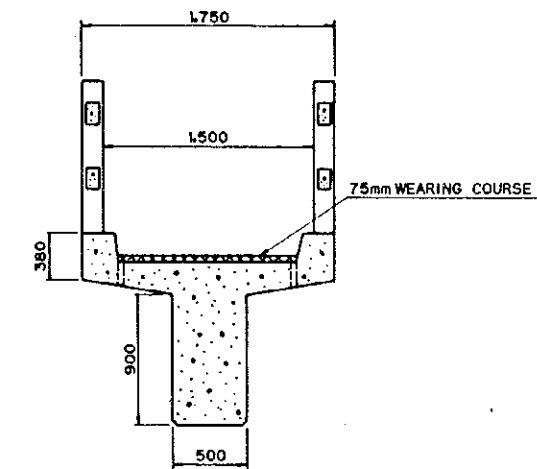
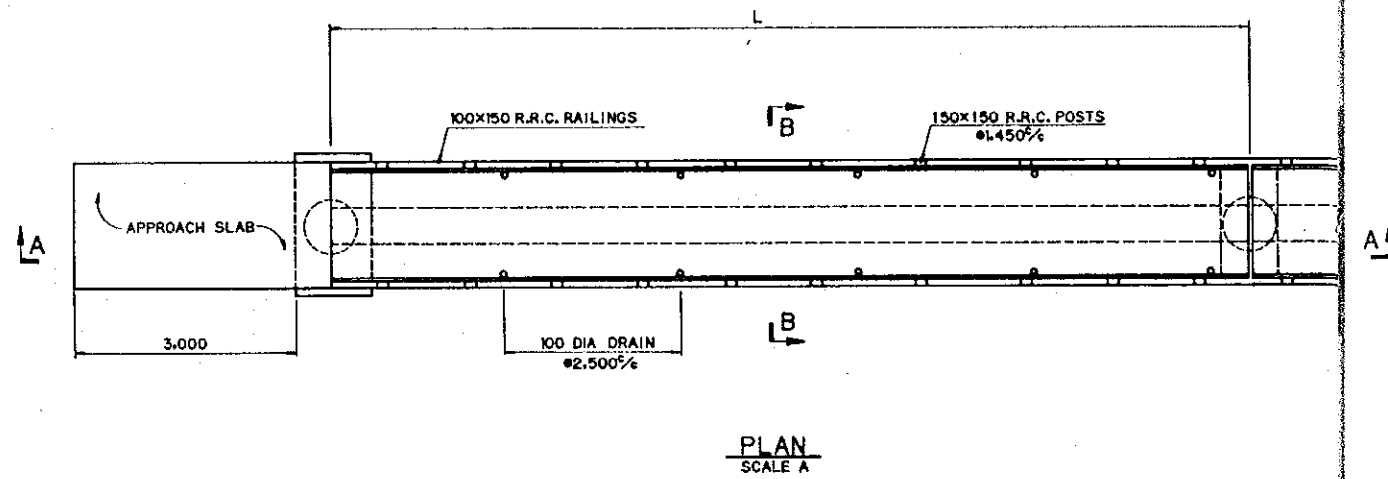
LOCATION AND DIMENSIONS OF V.R. BRIDGE

TYPE	CANAL APPLIED	NO OF SPANS	SPAN LENGTH(L)	NO OF BRIDGE	REMARKS
1	FEEDER	2	13.0	17	VR-1(0+350), VR-2(3+210), VR-3(6+460), VR-4(8+670), VR-5(13+700), VR-6(17+150), VR-7(17+850), VR-8(21+650), VR-9(25+240), VR-10(29+900), VR-11(37+700), VR-12(39+980), VR-13(42+340), VR-14(45+450), VR-15(48+500), VR-16(50+240), VR-17(56+700)
2	MAIN CANAL	2	1.35	4	VR-1(3+350), VR-2(3+750), VR-3(13+800), VR-4(23+450)
3	-	2	12.5	3	VR-5(44+650), VR-6(46+200), VR-7(51+600)
4	-	2	9.5	1	VR-8(74+850)
5	-	1	15	2	VR-9(77+000), VR-10(82+000)
6	-	1	10	1	VR-11(100+900)
7	DRAIN	2	13.50	5	DRAIN No. 4, 14, 15, 16, 17.
8	DRAIN	4	12.50	1	No.3
9	DRAIN	3	12.50	1	No.20

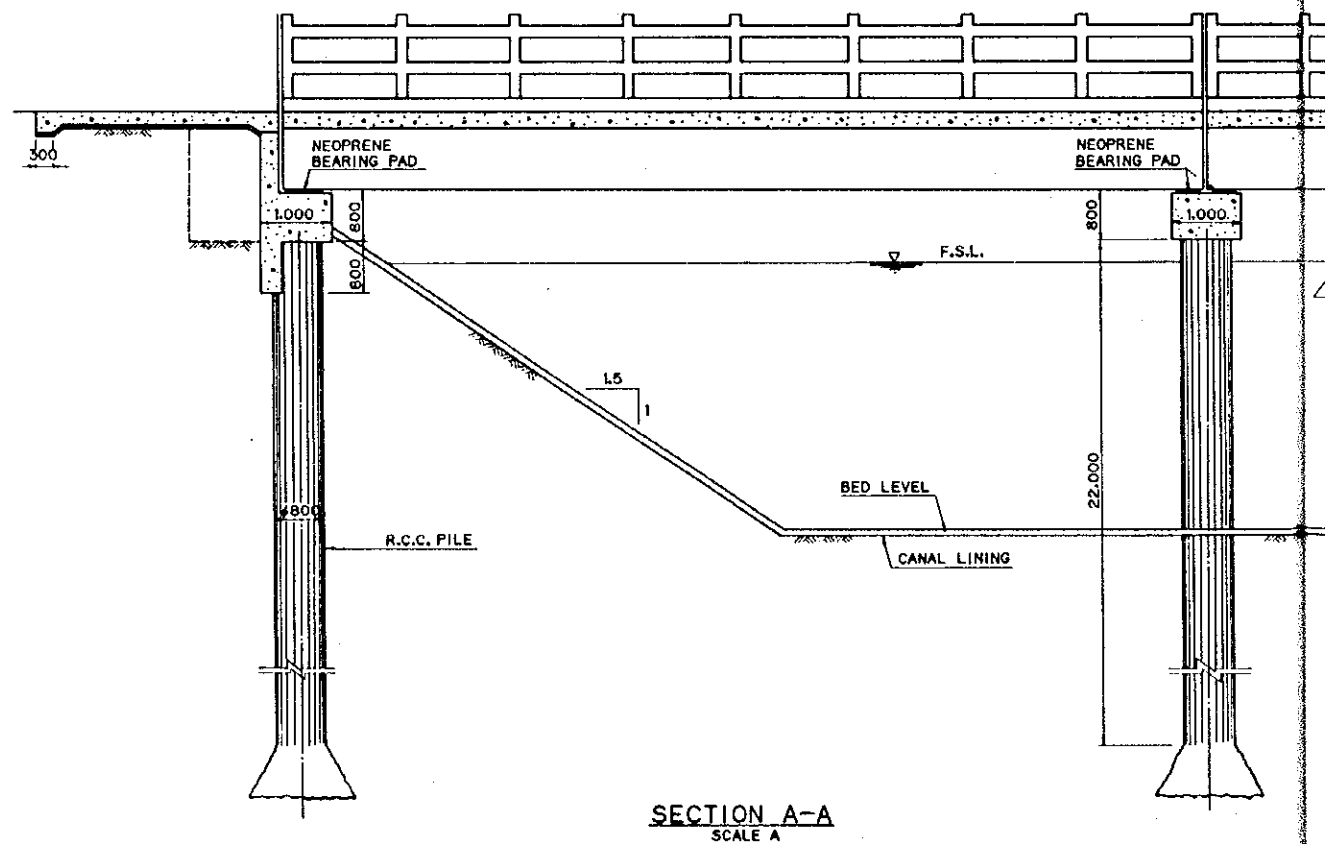


ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

V.R. BRIDGE



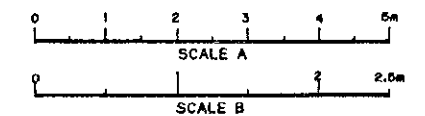
SECTION B-B
SCALE B



SECTION A-A
SCALE A

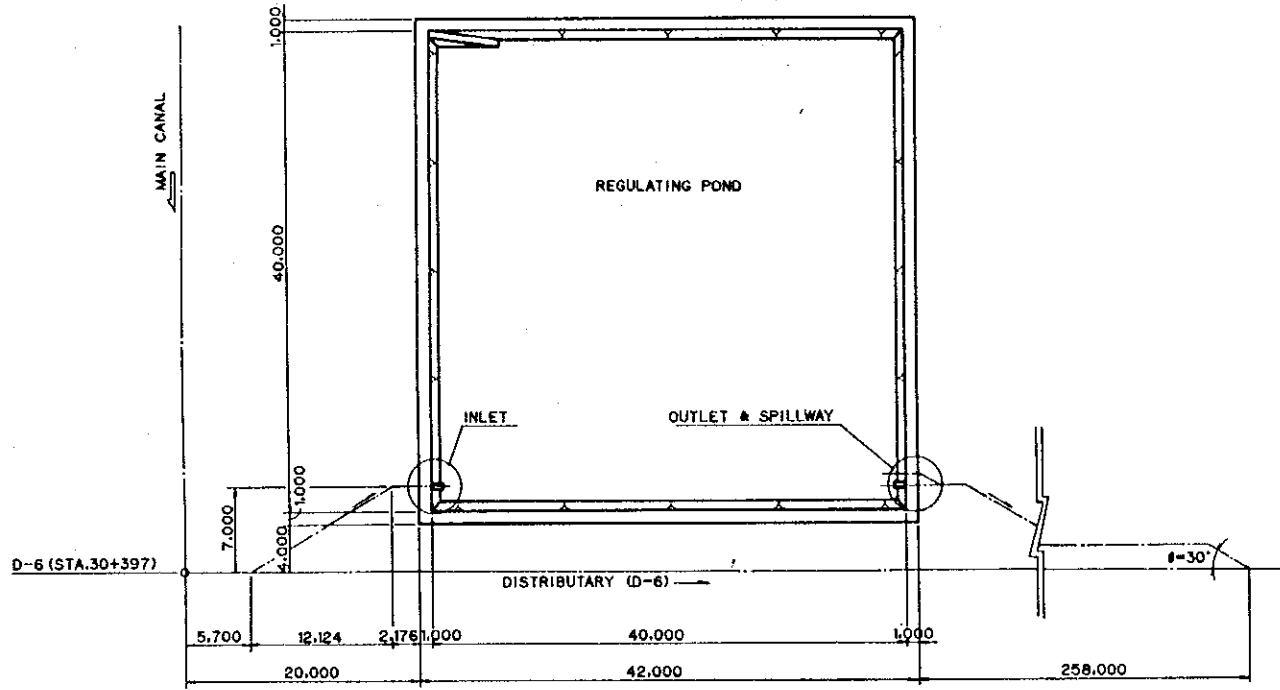
LOCATION AND DIMENSIONS OF FOOTPATH BRIDGE

TYPE	CANAL APPLIED	NO OF SPANS	SPAN LENGTH(L)	NO OF BRIDGES	REMARKS
1	FEEDER	2	13	11	FP-1(5+150), FP-2(10+540), FP-3(12+110), FP-4(15+420), FP-5(16+60), FP-6(19+420), FP-7(20+750), FP-8(23+910), FP-9(27+360), FP-10(35+240), FP-11(53+610).
2	MAIN CANAL	2	13.5	1	FP-1 (SECTION-1)
3	"	2	12.5	1	FP-2 (SECTION-2)
4	"	1	10	2	FP-3 (SECTION-5)



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CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

FOOTPATH BRIDGE
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.

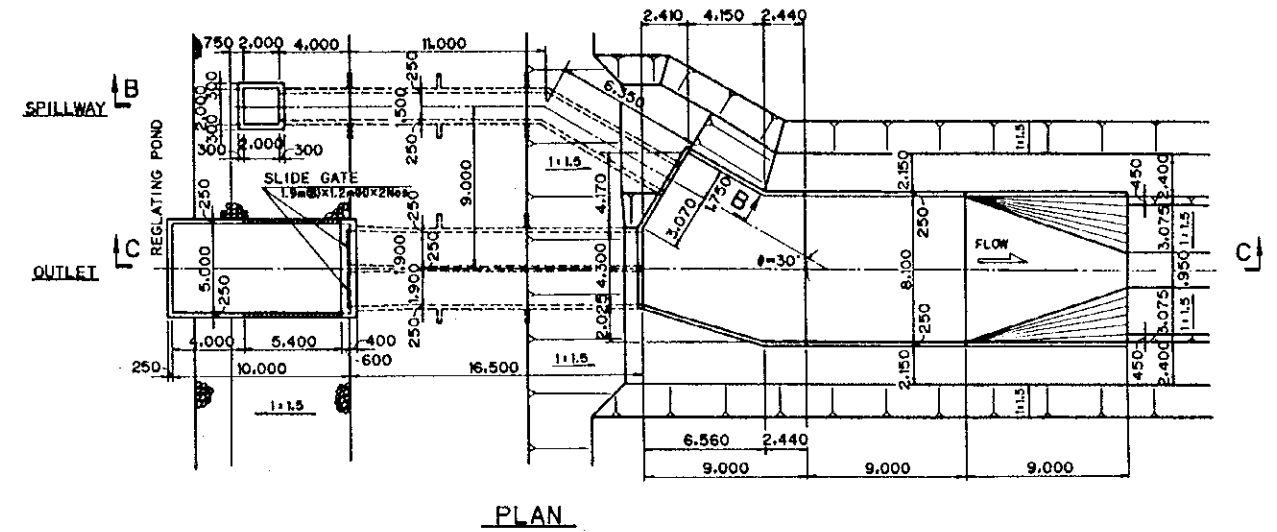


LAYOUT OF REGULATING POND
SCALE A

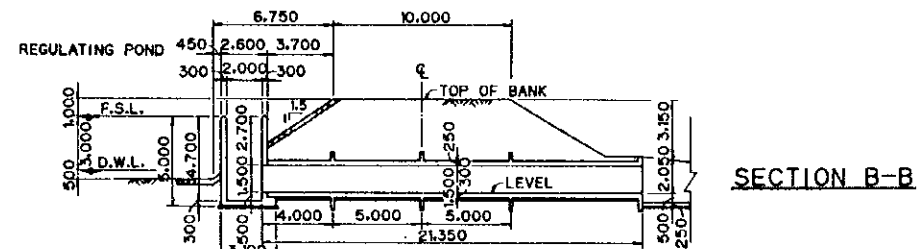
DIMENSION TABLE

DISTRIBUTARY No.	DISCHARGE (m ³ /s)	CAPACITY			WATER DEPTH			SIZE (*) (m) x (m)
		DEAD (m ³ /s)	EFFECTIVE (m ³ /s)	TOTAL (m ³ /s)	DEAD (m)	EFFECTIVE (m)	TOTAL (m)	
D-1	1.72	23.600	148.600	172.200				230x230
D-2	2.27	33.100	206.800	239.900				270x270
D-3	1.76	25.800	162.200	188.000				240x240
D-4	0.66	9.400	61.000	70.400				150x150
D-5	4.87	71.200	439.000	510.200				390x390
D-6	5.33	76.000	462.200	537.200				400x400
D-7	1.26	17.500	111.200	128.700				200x200
D-8	3.70	53.500	331.700	385.200				340x340
D-9	5.98	87.000	535.600	622.600				430x430
D-10	1.25	17.500	111.200	128.700				200x200
D-11	1.40	19.500	123.100	142.600				210x210
D-12	7.15	104.500	641.800	746.300	0.5	3.0	3.5	470x470
D-13	3.27	47.200	293.000	340.200				320x320
D-14	1.90	28.100	176.500	204.600				250x250
D-15	0.98	14.000	89.300	103.300				180x180
D-16	3.10	44.200	274.600	318.800				310x310
D-17	4.80	67.400	416.300	483.700				380x380
D-18	1.34	19.500	123.100	142.600				210x210
D-19	1.34	19.500	123.100	142.600				210x210
D-20	1.28	17.500	111.200	128.700				200x200
D-21	1.92	28.100	176.500	204.600				250x250
D-22	1.95	28.100	176.500	204.600				250x250
D-23	0.62	9.400	61.000	70.400				150x150
D-24	1.67	23.600	148.600	172.200				230x230
D-25	2.53	35.700	222.800	258.500				280x280

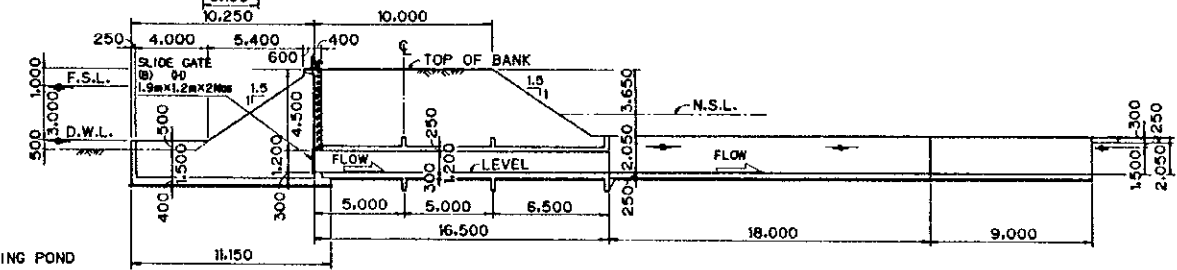
(*) LENGTH: TOP OF BANK
SIDE SLOPE: 1:1.5



PLAN

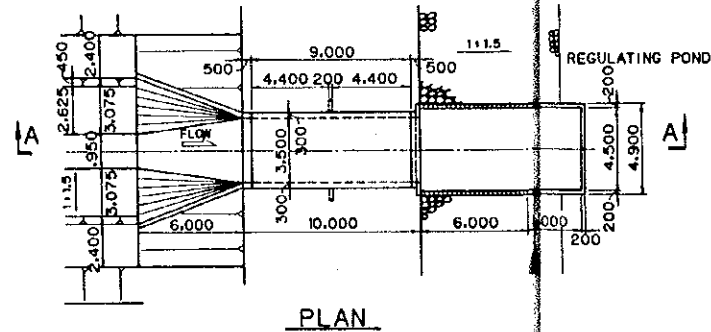


SECTION B-B

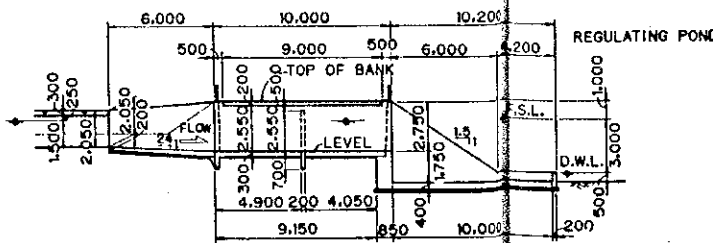


SECTION C-C

OUTLET & SPILLWAY
SCALE B

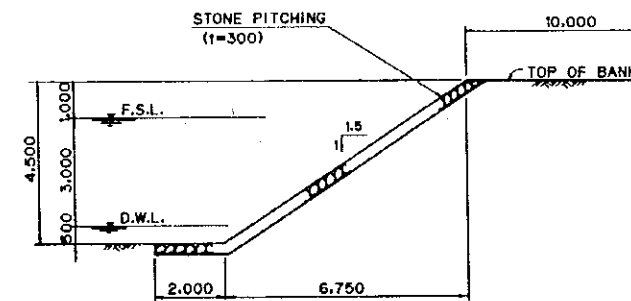


PLAN

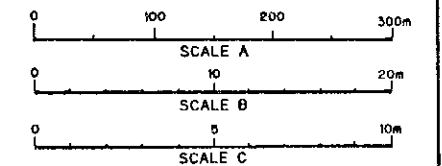


SECTION A-A

INLET
SCALE B

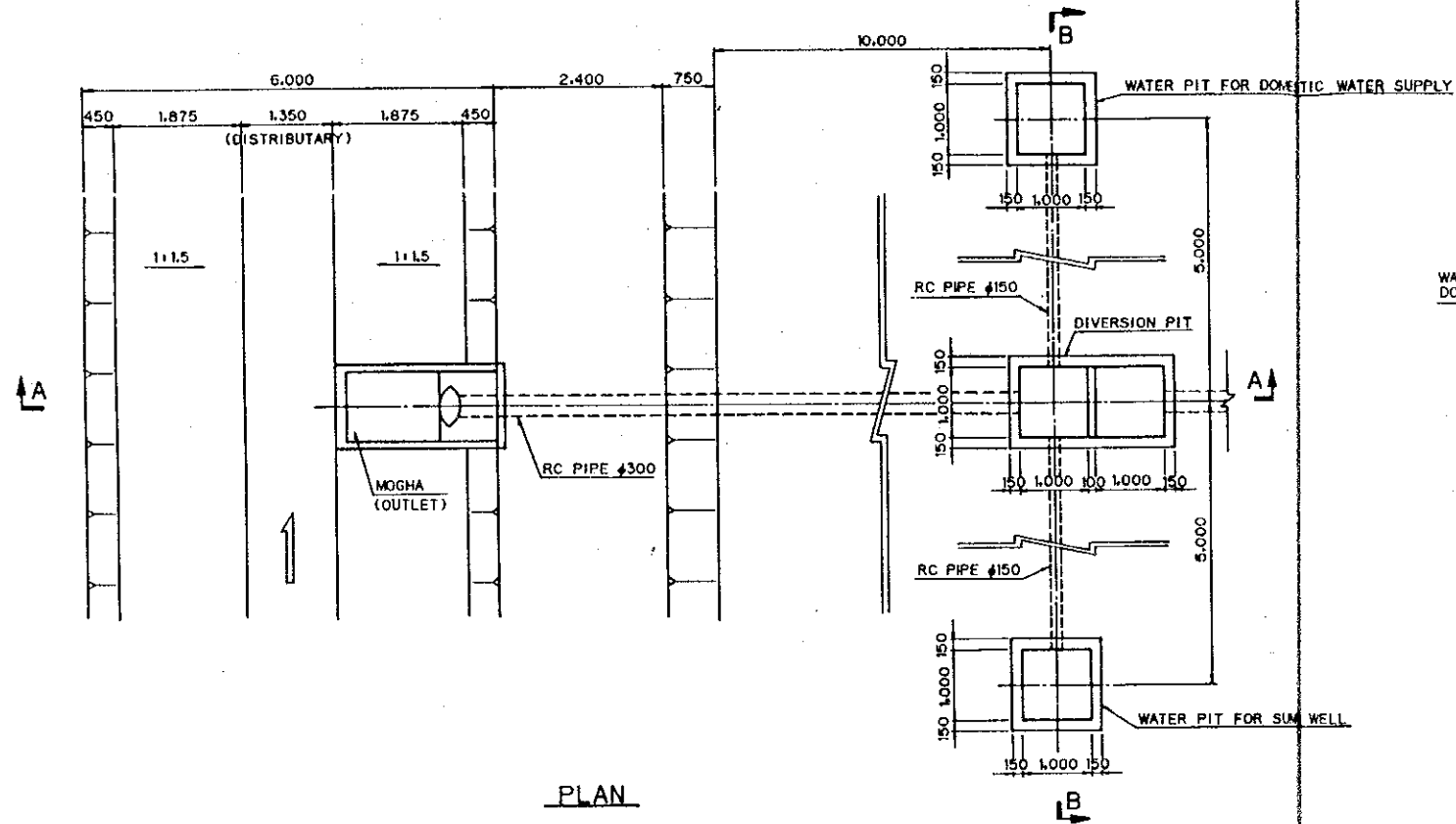


TYPICAL SECTION OF PROTECTION DIKE
SCALE C

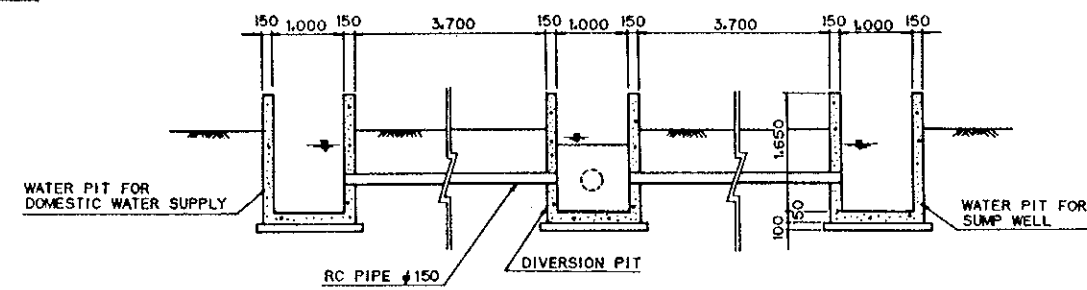


ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

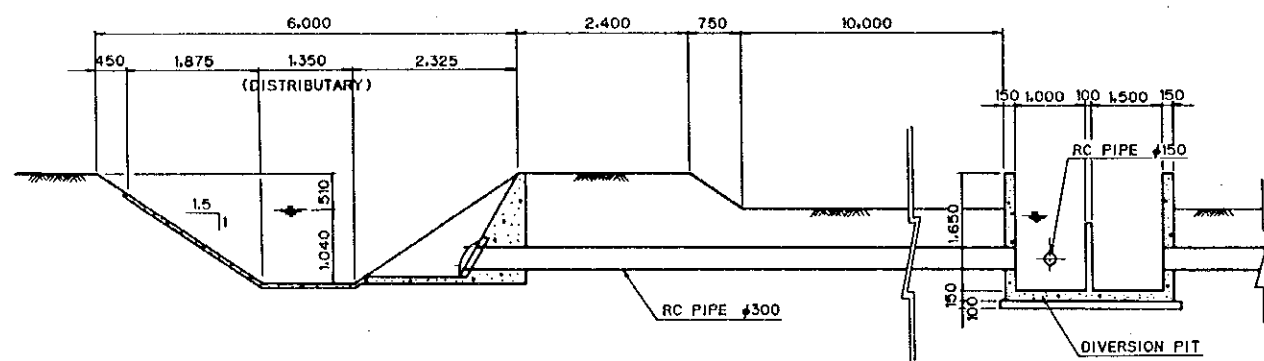
REGULATING POND OF
DISTRIBUTARY CANAL



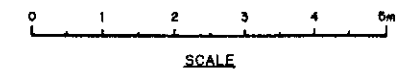
PLAN



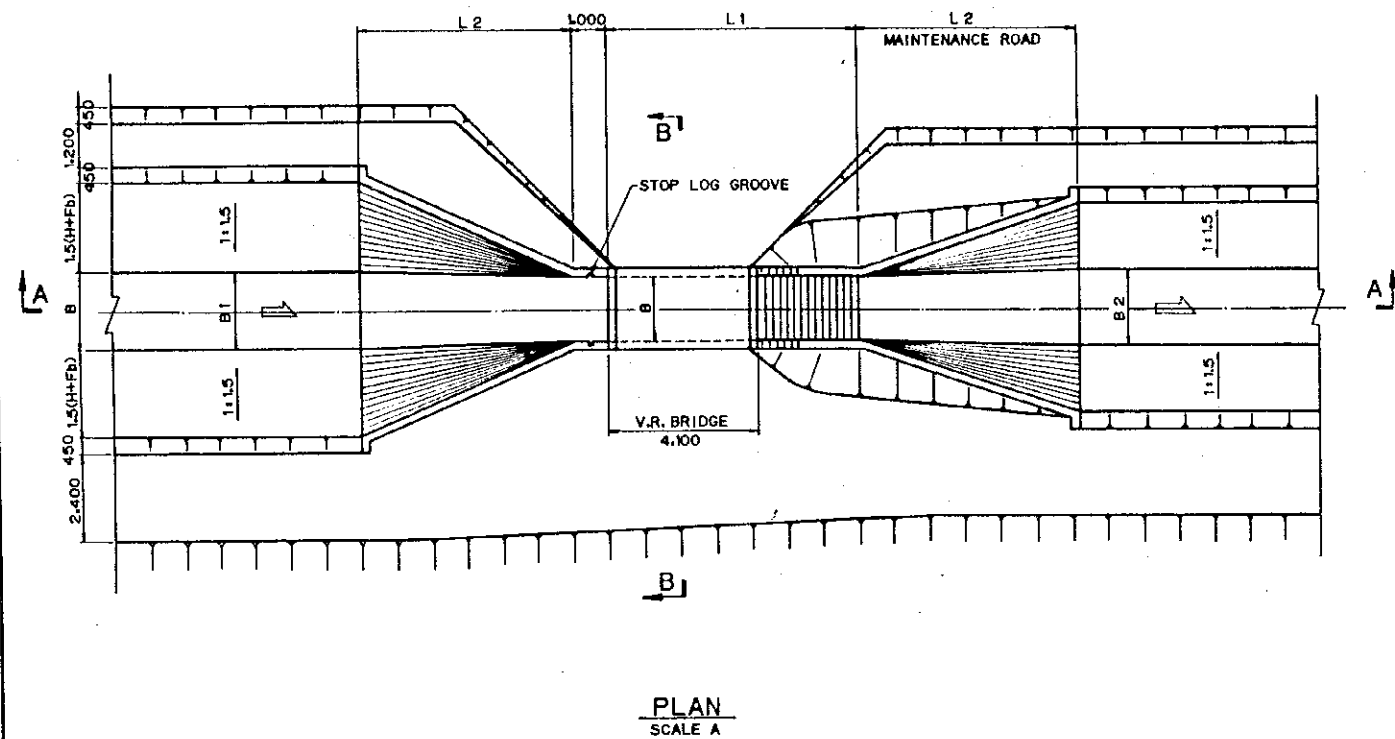
SECTION B-B



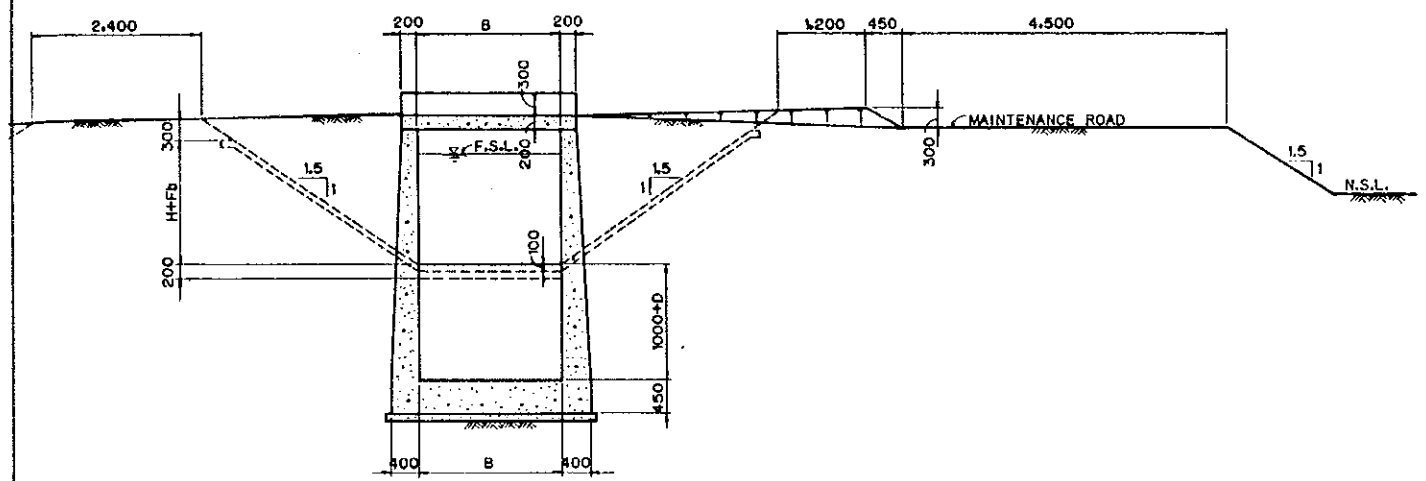
SECTION A-A



ISLAMIC REPUBLIC OF PAKISTAN GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT
SUMP WELL AND DOMESTIC WATER SUPPLY OF DISTRIBUTARY CANAL
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



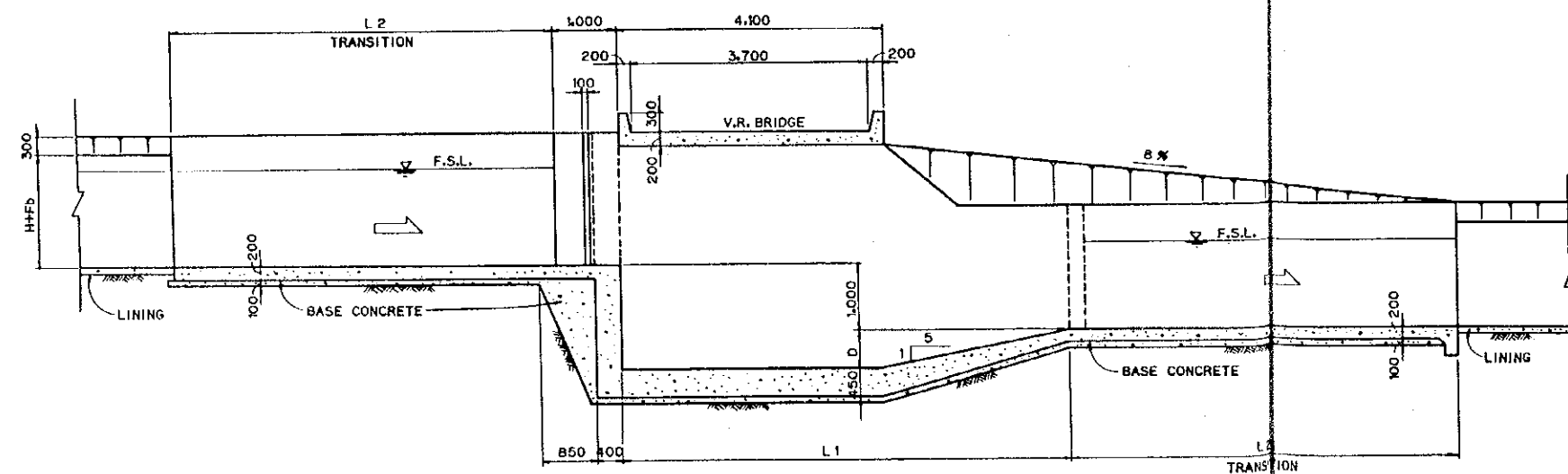
PLAN
SCALE A



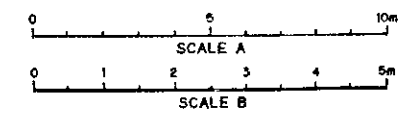
SECTION B-B
SCALE B

DIMENSION TABLE

TYPE	DISCHARGE (m ³ /s)	CISTERN LENGTH L 1 (m)	CISTERN DEPTH D (m)	BED WIDTH B (m)	WATER DEPTH H (m)	FREE BOARD Fb (m)	TRANSITION LENGTH L 2 (m)
1	4-7	7.0	0.6	1.95	1.5	0.25	6
2	2-4	6.0	0.5	1.35	1.04	0.21	4
3	0-2	5.0	0.40	0.80	0.58	0.17	2



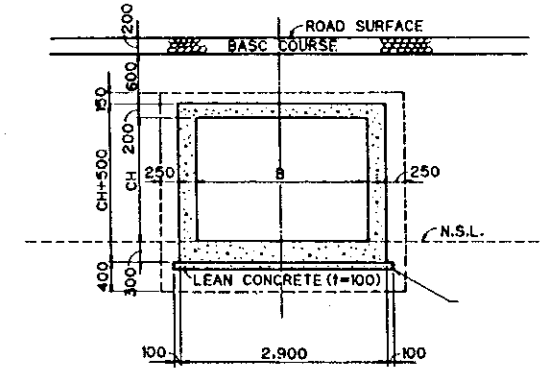
SECTION A-A
SCALE B



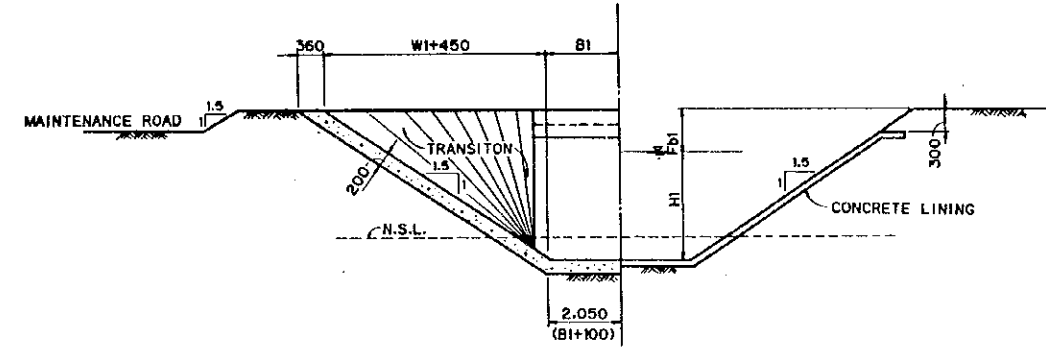
ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT
FALL OF DISTRIBUTARY AND MINOR CANAL
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.

LEGEND

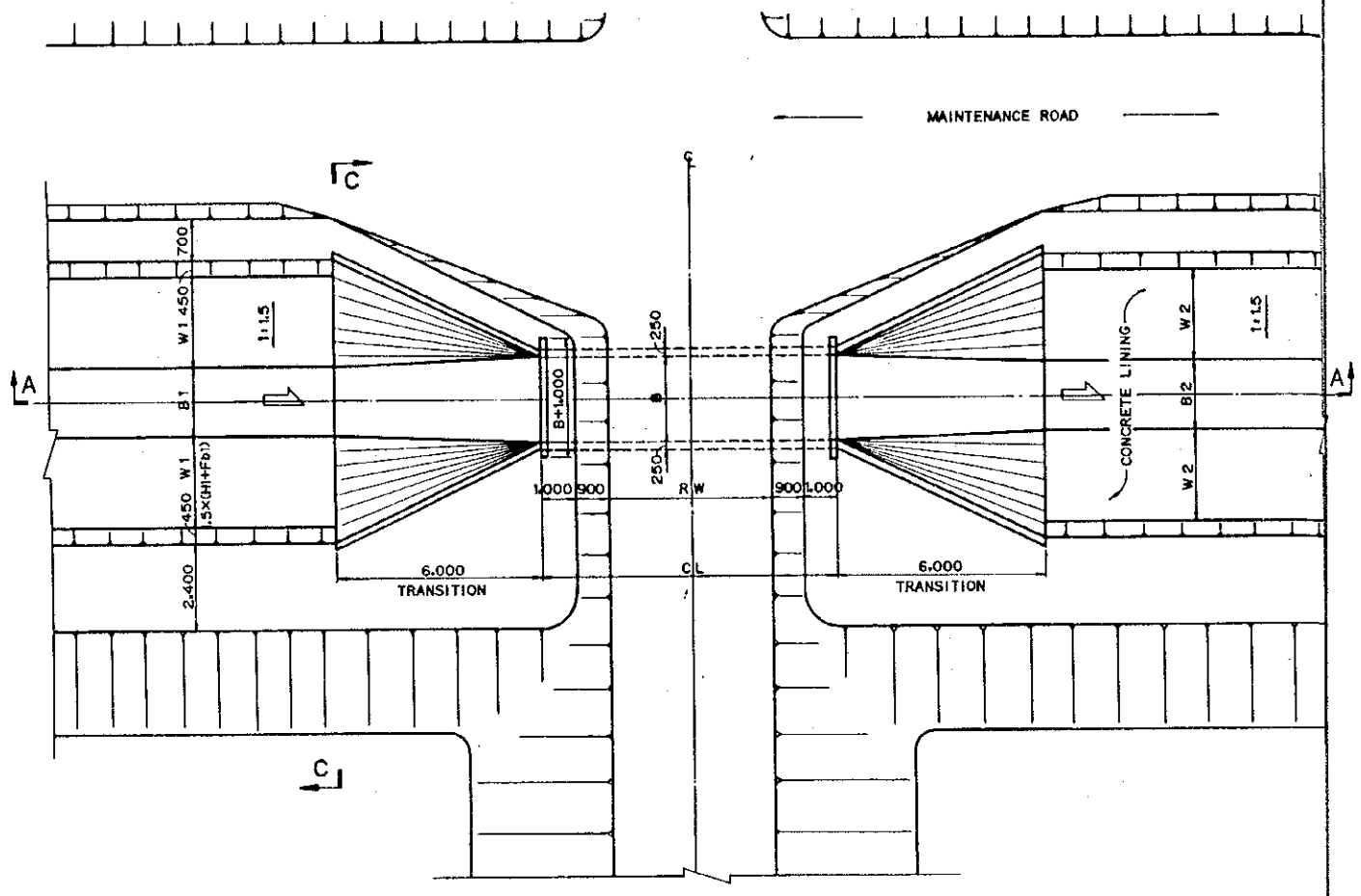
- CH : CULVERT HEIGHT (INSIDE)
- CL : CULVERT LENGTH
- B : CULVERT WIDTH
- B1, B2 : BED WIDTH OF CANAL
- H1, H2 : WATER DEPTH OF CANAL
- Fb1, Fb2 : FREEBOARD OF CANAL
- RW : ROAD WIDTH



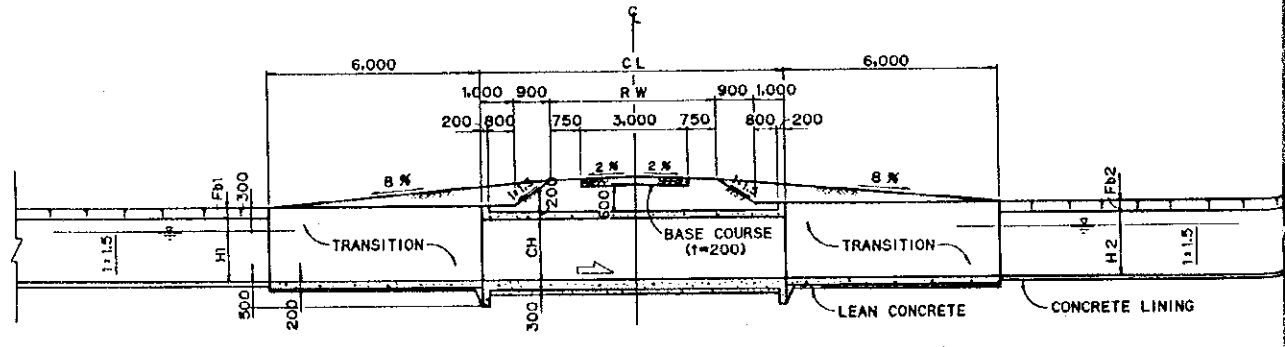
SECTION B-B
SCALE B



SECTION C-C
SCALE B



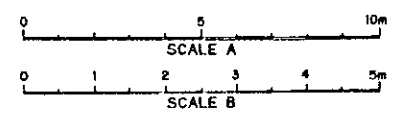
PLAN
SCALE A



SECTION A-A
SCALE A

DIMENSION TABLE

CASE	KIND OF ROAD	RW	CL	CH	B	B1	B2	W1	W2	H1	H2	Fb1	Fb2
1	D.R.	7500	11300	1450	2300	1600	1600	2380	2380	1200	1200	550	550
2	V.R.	4500	8300	1600	2400	1800	1800	2400	2400	1360	1360	540	540

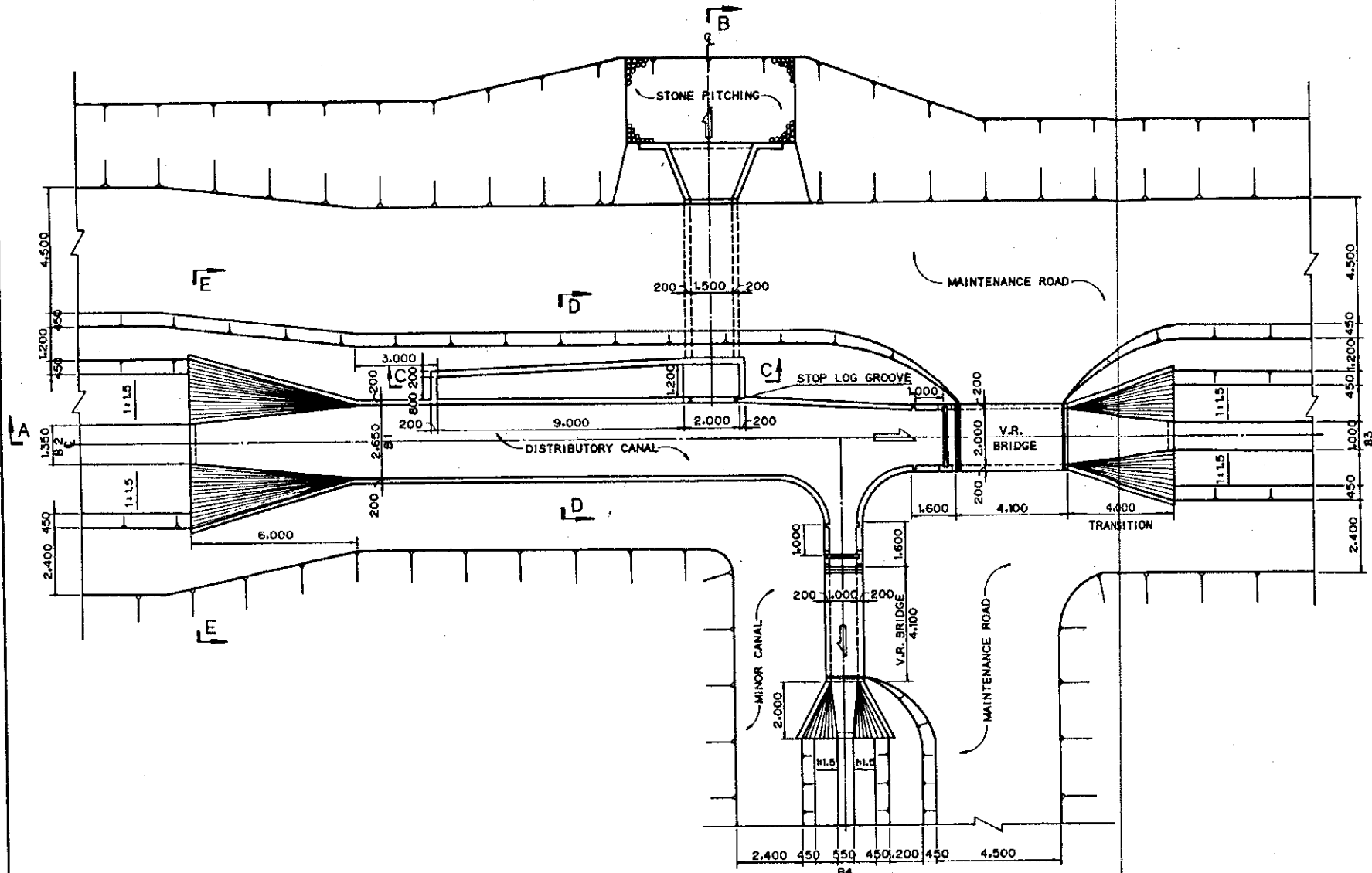


ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE

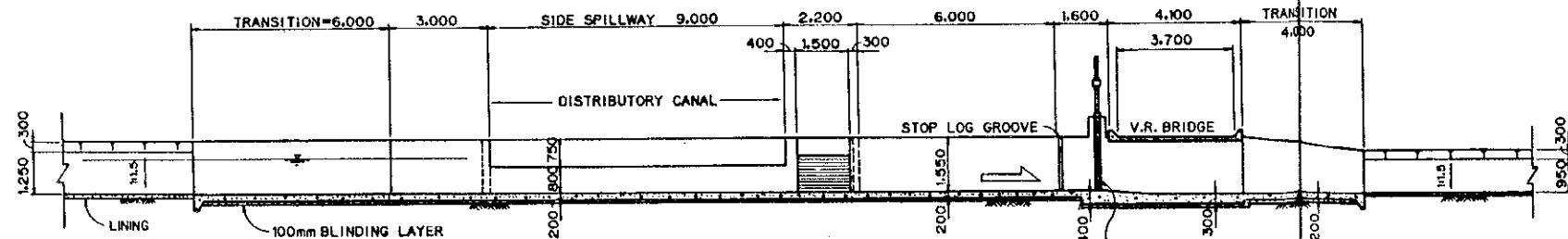
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

CANAL CULVERT OF DISTRIBUTARY AND MINOR CANAL

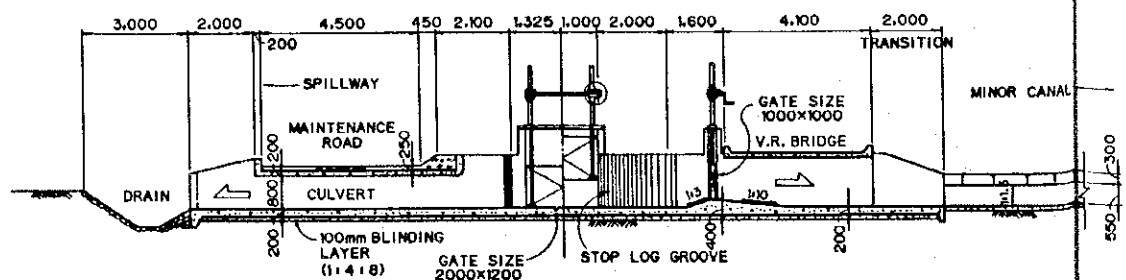
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



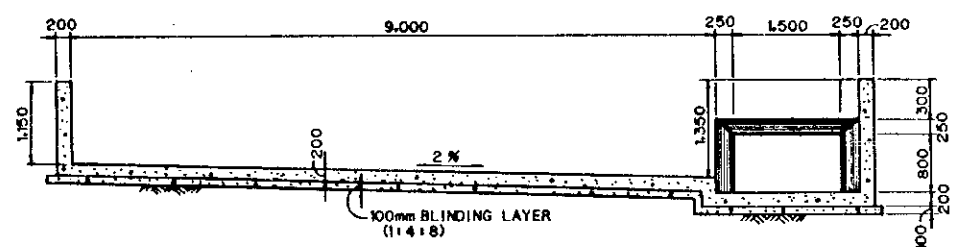
PLAN
SCALE A



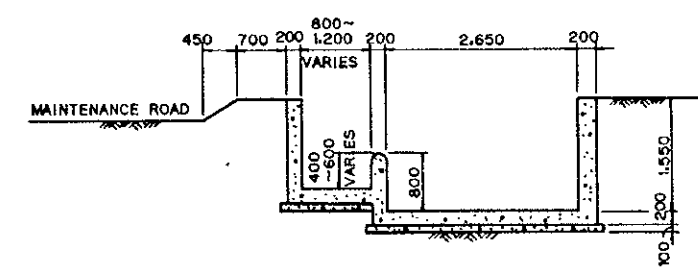
SECTION A-A
SCALE A



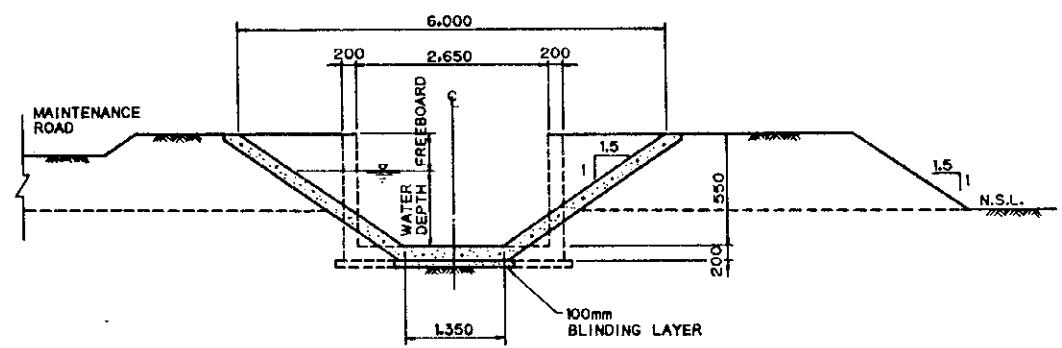
SECTION B-B
SCALE A



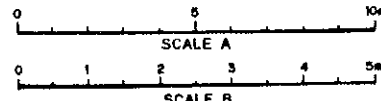
SECTION C-C
SCALE B



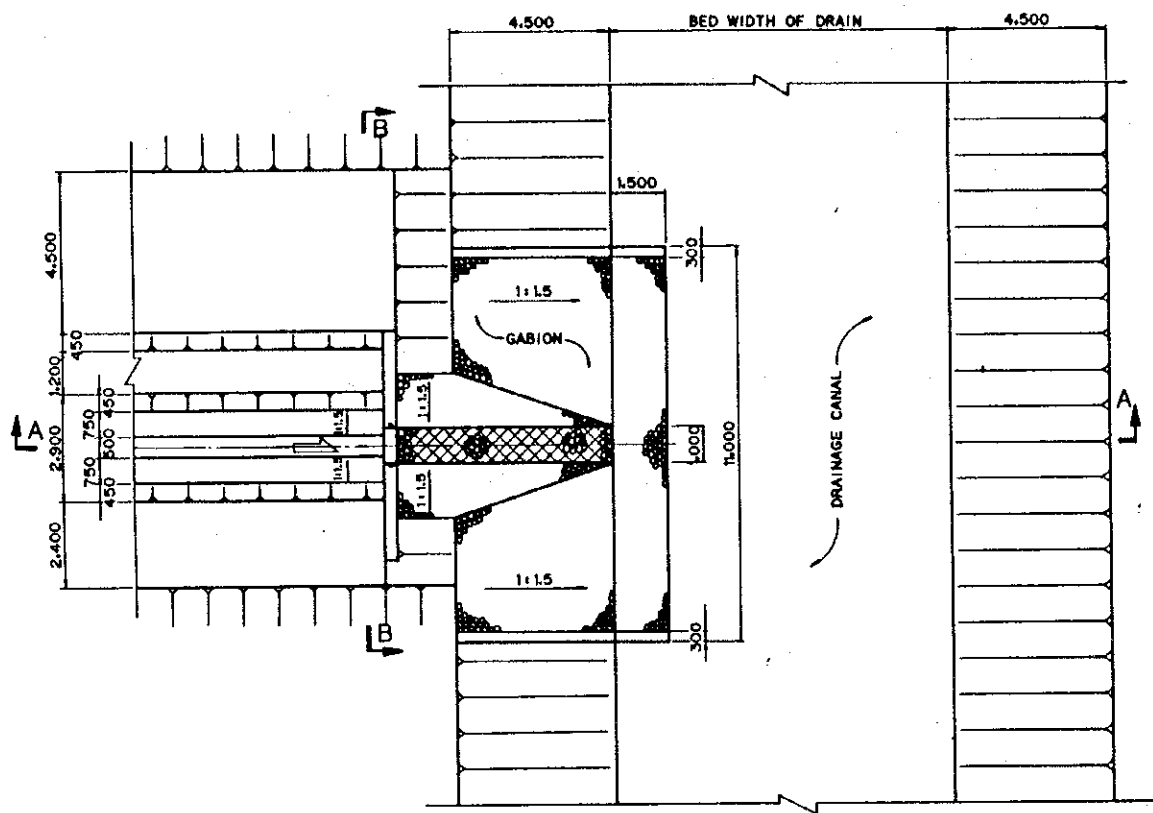
SECTION D-D
SCALE B



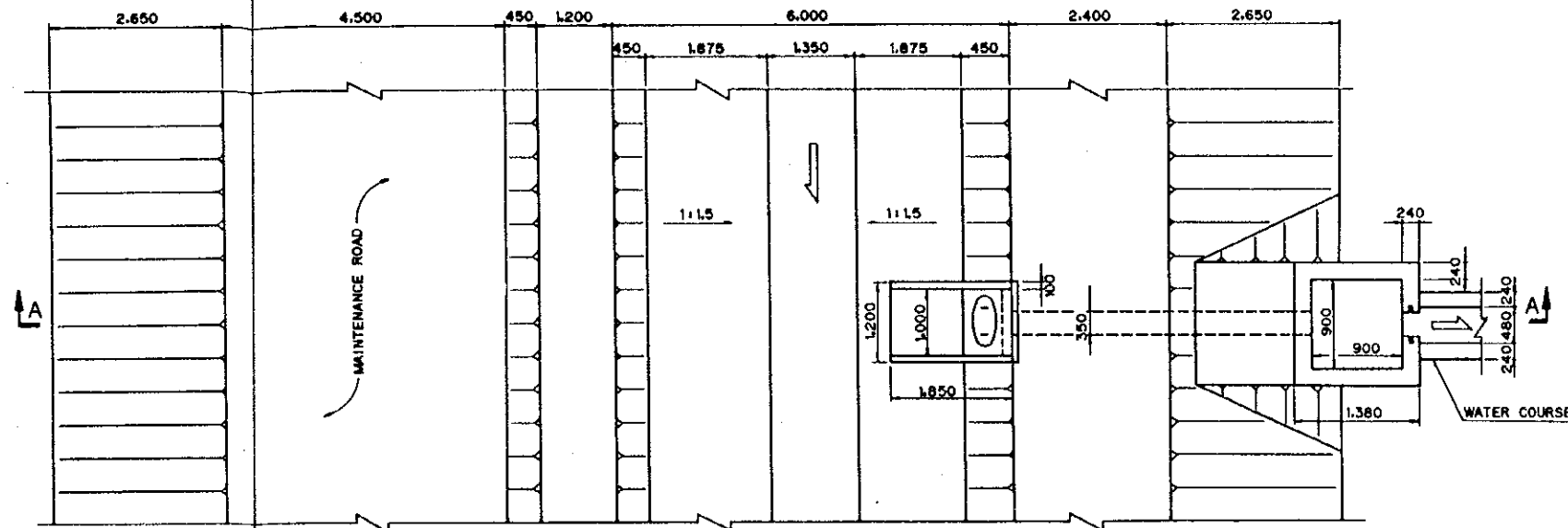
SECTION E-E
SCALE B



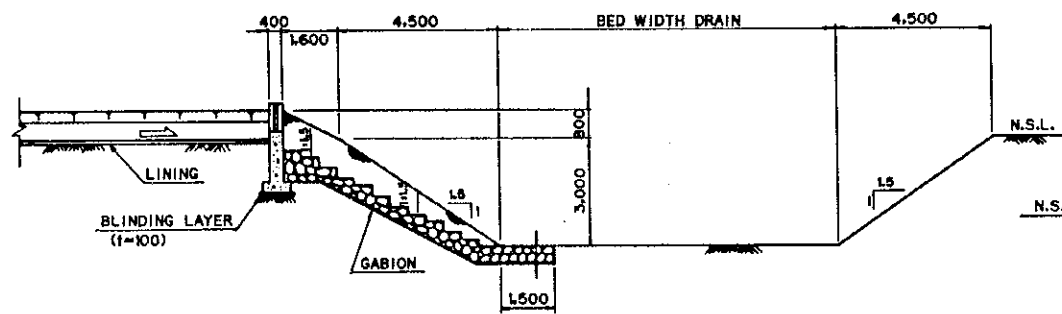
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GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT
HEAD REGULATOR TO MINOR CANAL
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



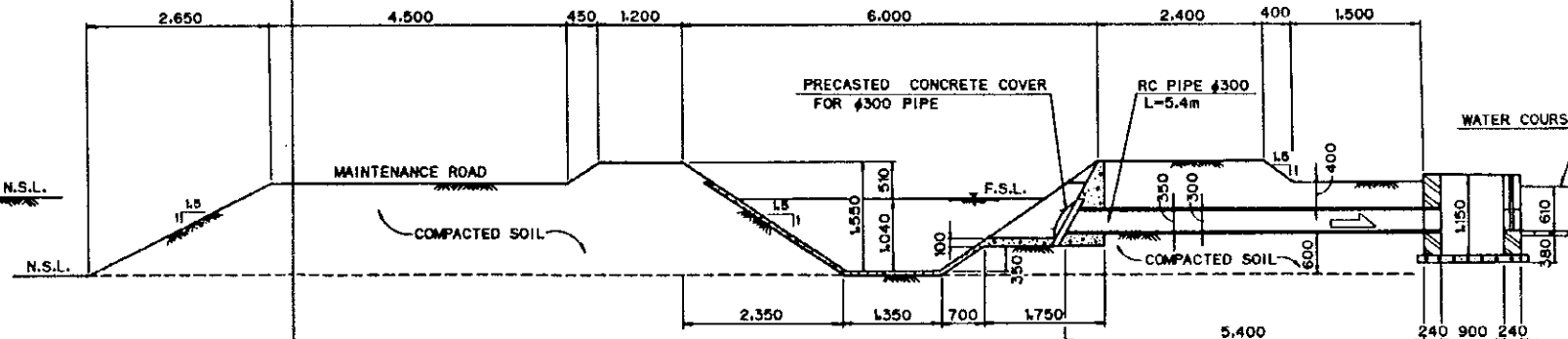
PLAN
SCALE A



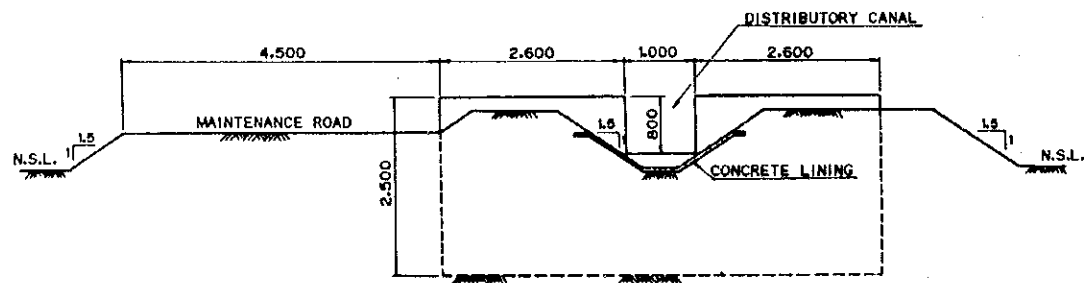
PLAN
SCALE B



SECTION A-A
SCALE A



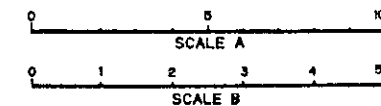
SECTION A-A
SCALE B



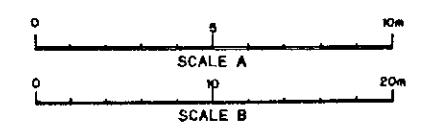
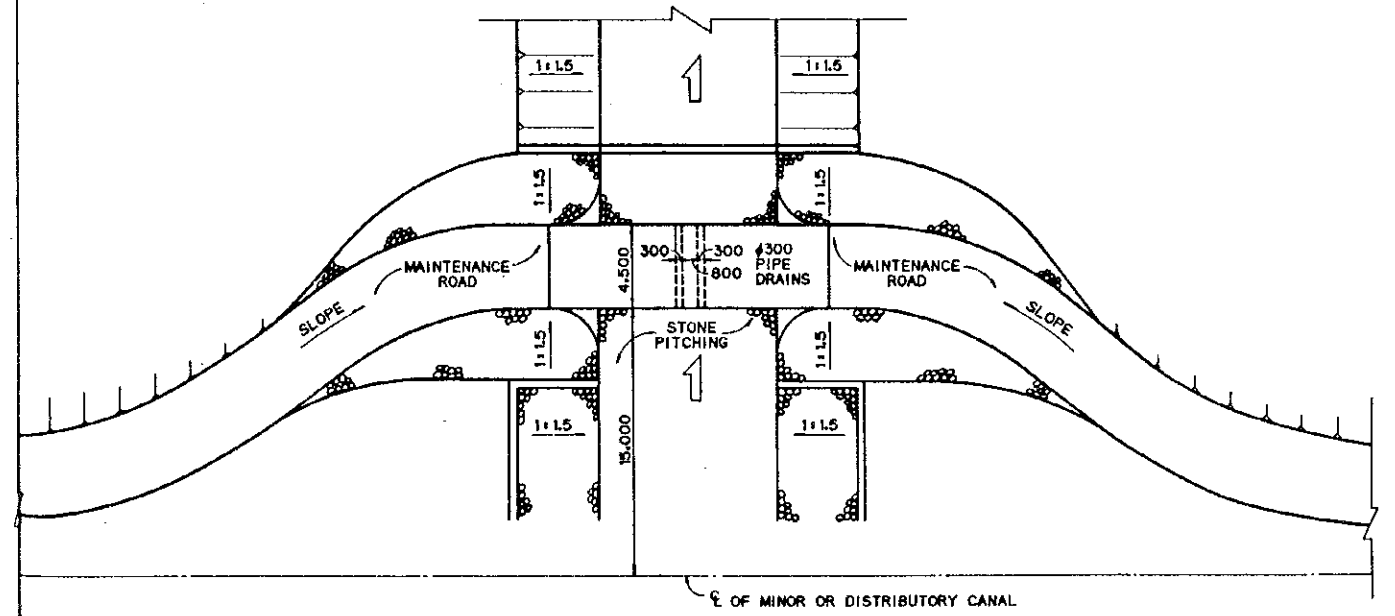
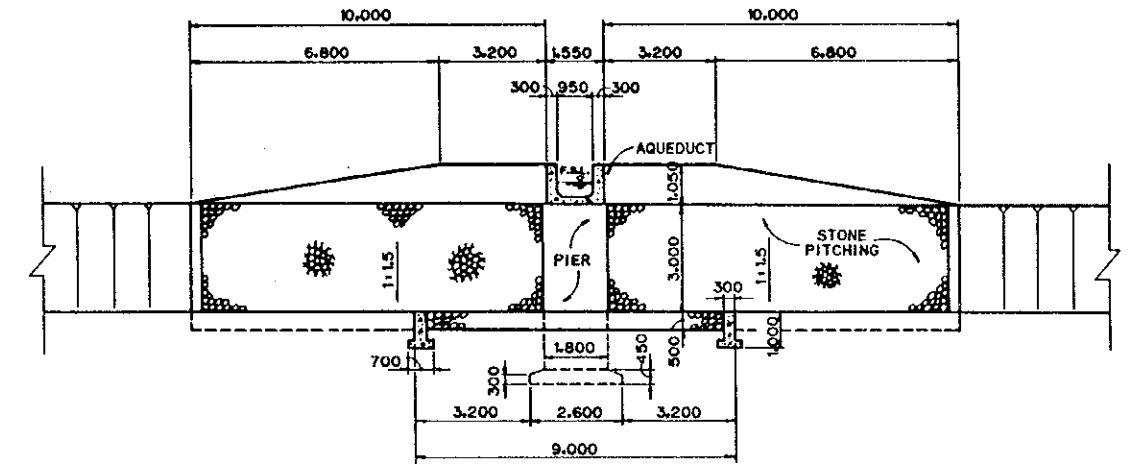
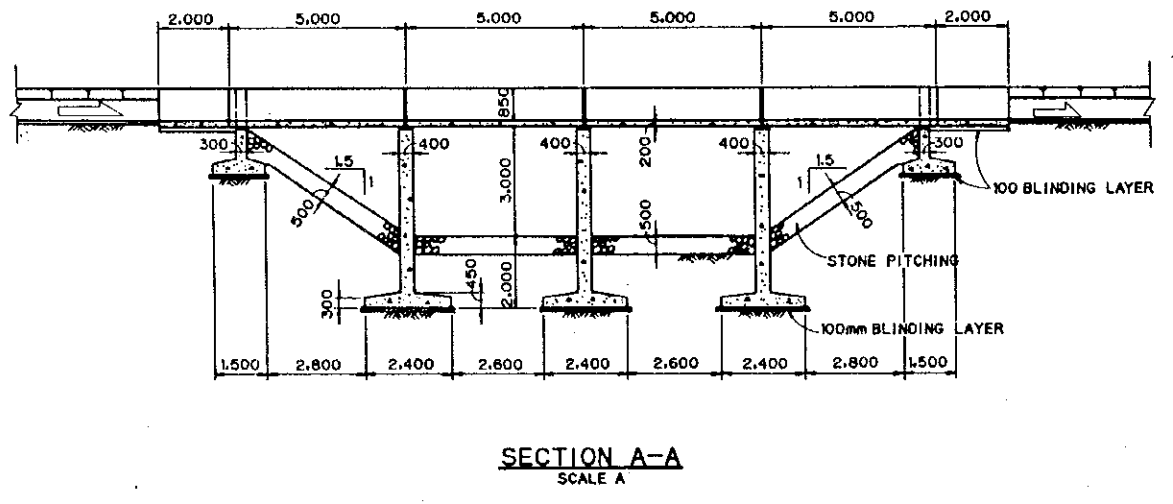
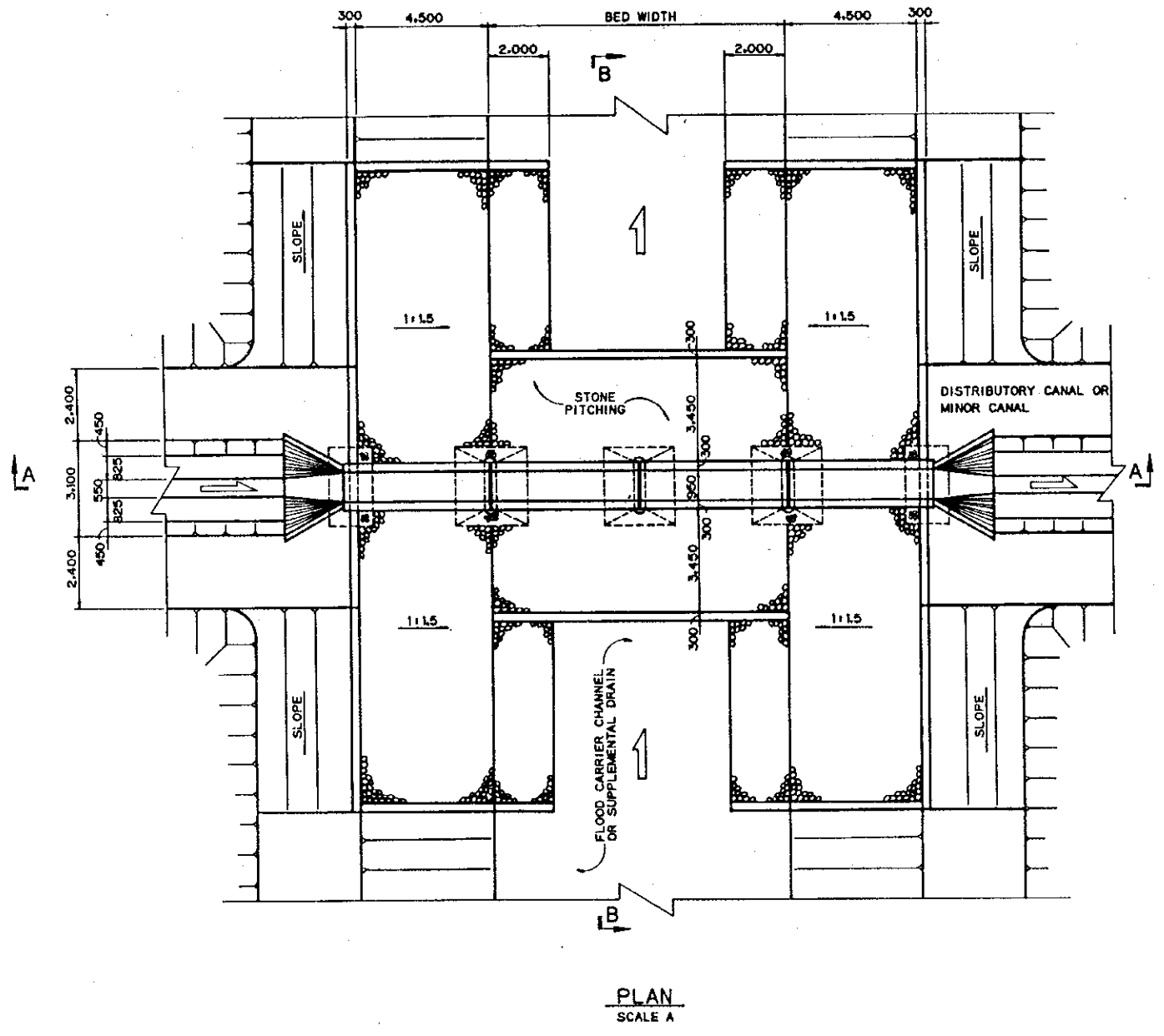
SECTION B-B
SCALE B

TAIL CLUSTER

MOGHA (OUTLET)



ISLAMIC REPUBLIC OF PAKISTAN GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT
MOGHA (OFFTAKE TO MAIN WATERCOURSE) AND TAIL CLUSTER
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.

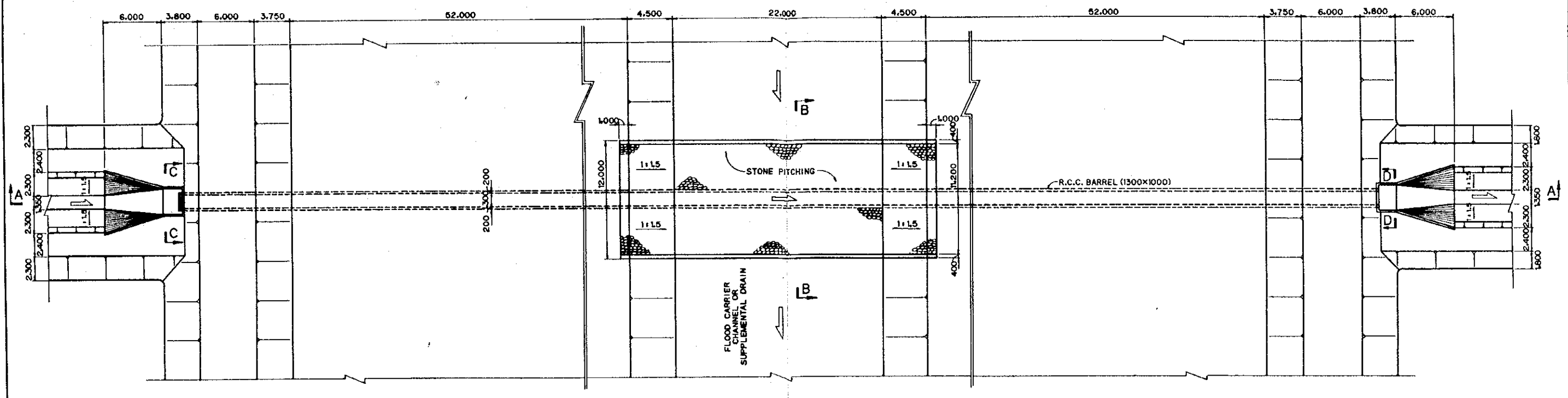


ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE

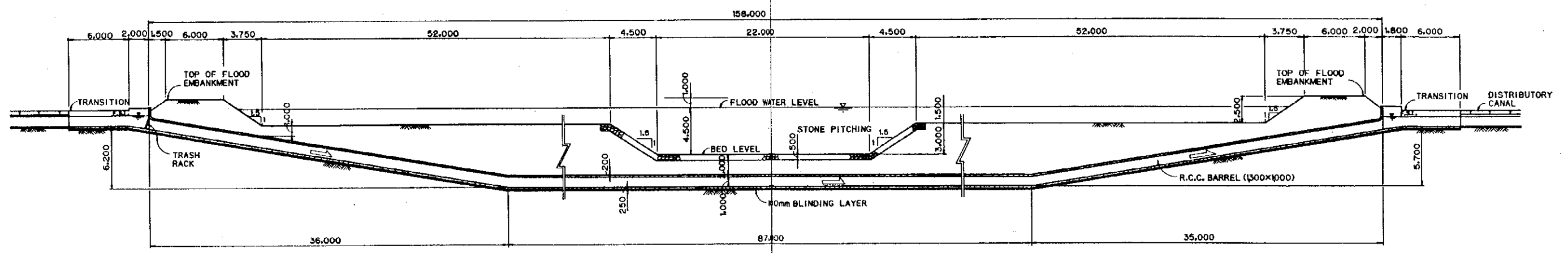
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT

AQUEDUCT AND CAUSEWAY OF
DISTRIBUTORY CANAL

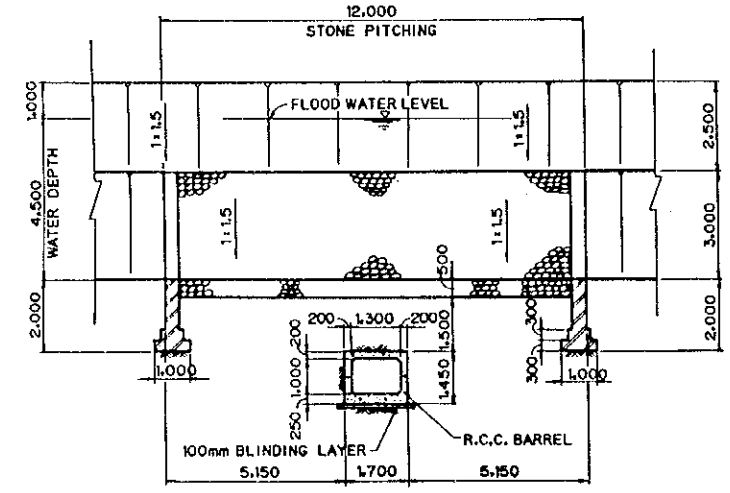
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.



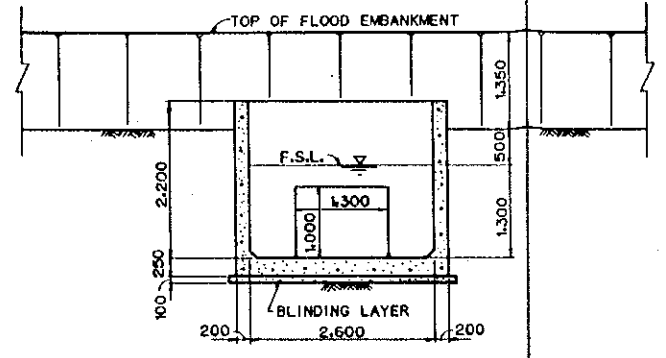
PLAN
SCALE A



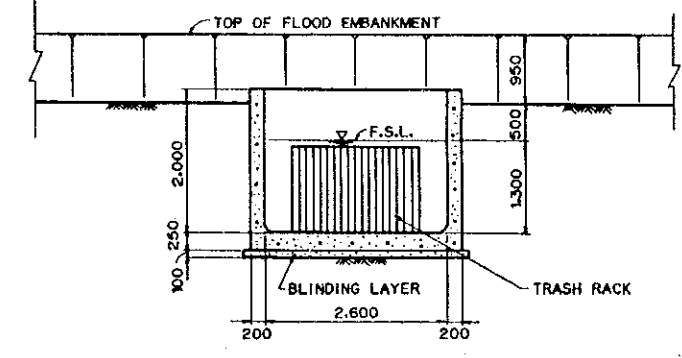
SECTION A-A
SCALE A



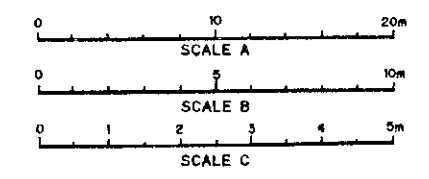
SECTION B-B
SCALE B



SECTION D-D
SCALE C



SECTION C-C
SCALE C



ISLAMIC REPUBLIC OF PAKISTAN
GOVERNMENT OF NORTH WEST FRONTIER PROVINCE
CHASHMA RIGHT BANK 1ST LIFT IRRIGATION PROJECT
SIPHON OF DISTRIBUTORY CANAL
JAPAN INTERNATIONAL COOPERATION AGENCY D.W. NO.

