

Figure A.4.2 Peak Discharge for Daily Rainfall (R = 165 mm)

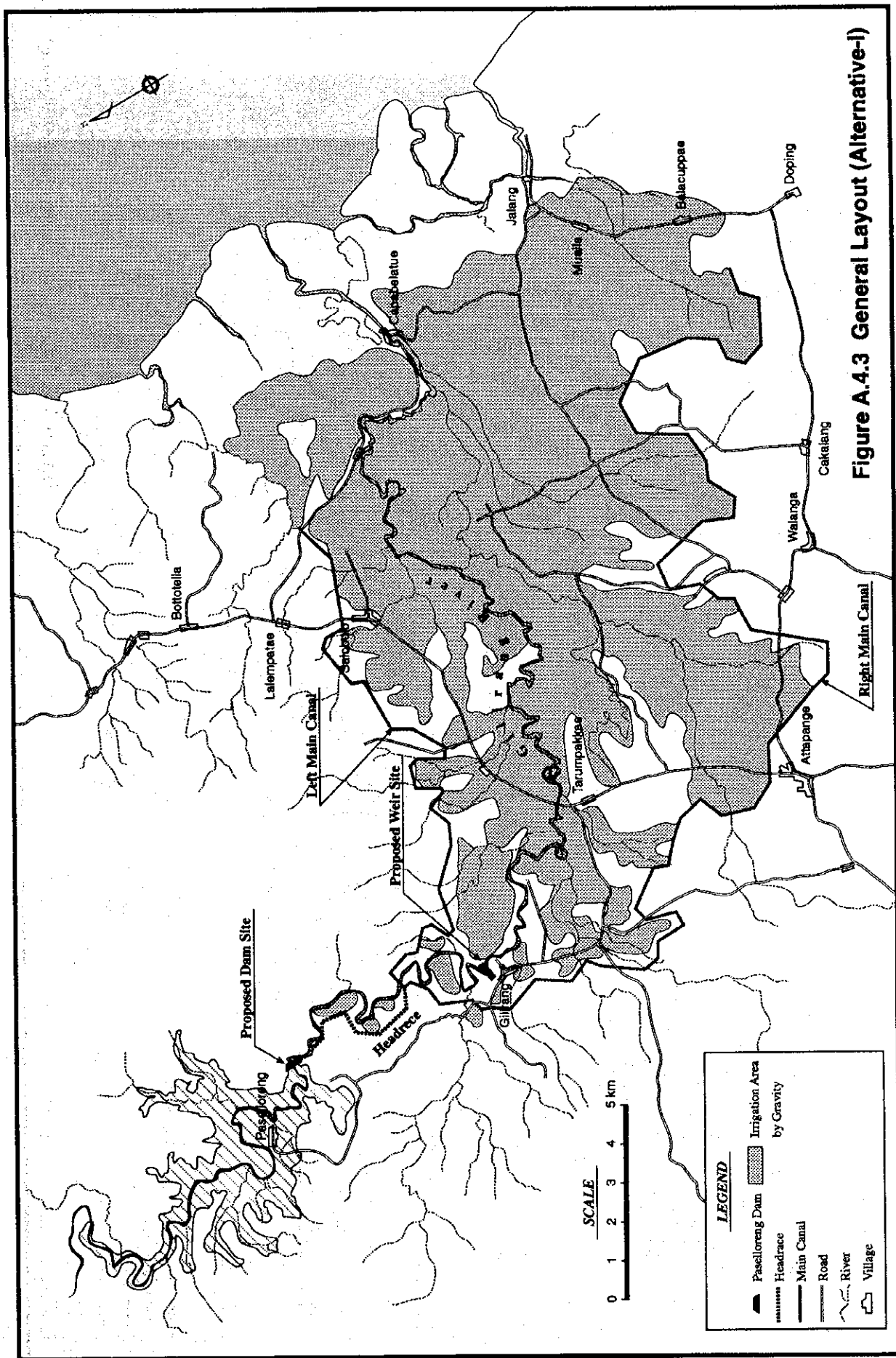


Figure A.4.3 General Layout (Alternative-1)

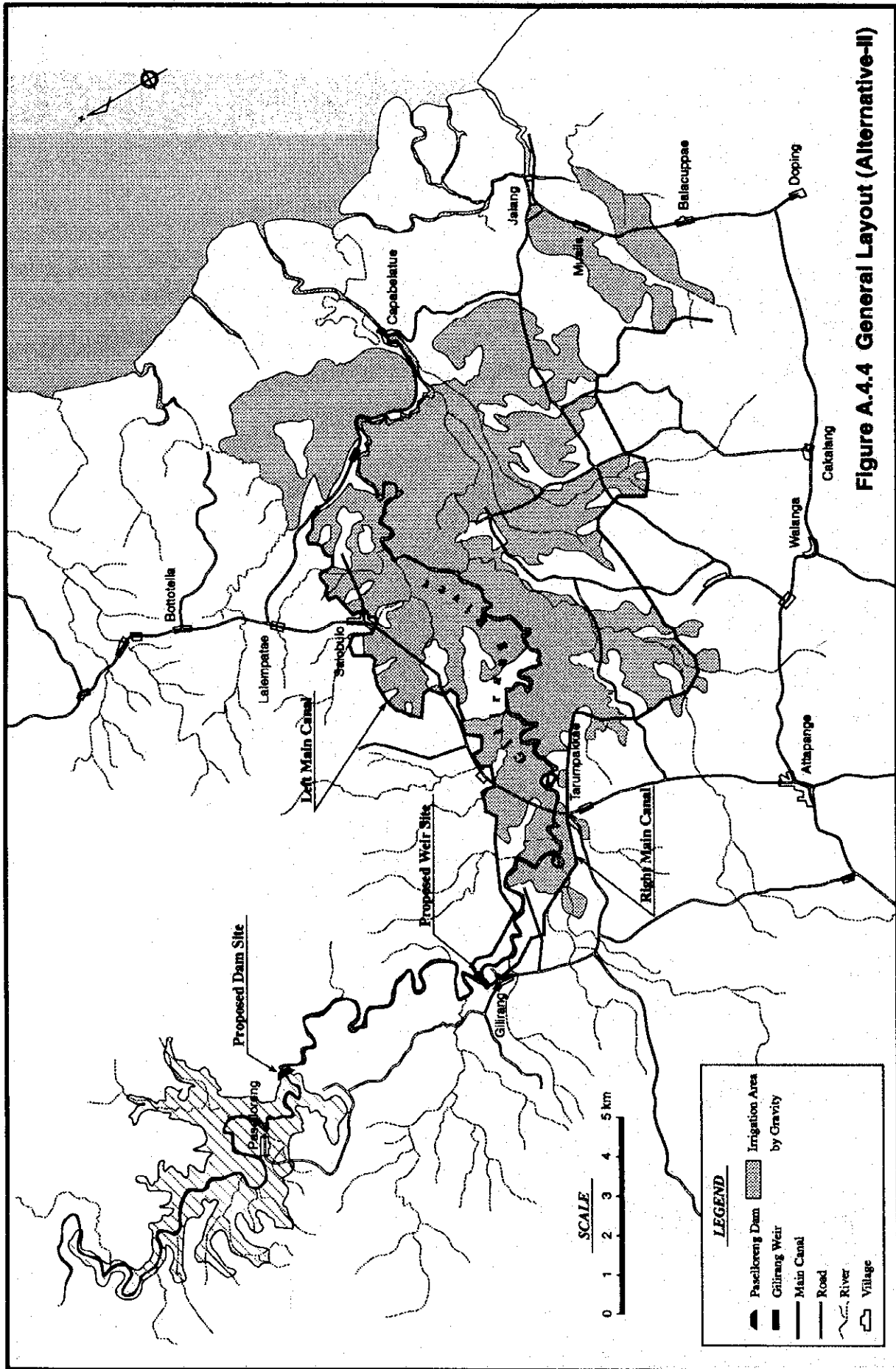


Figure A.4.4 General Layout (Alternative-II)

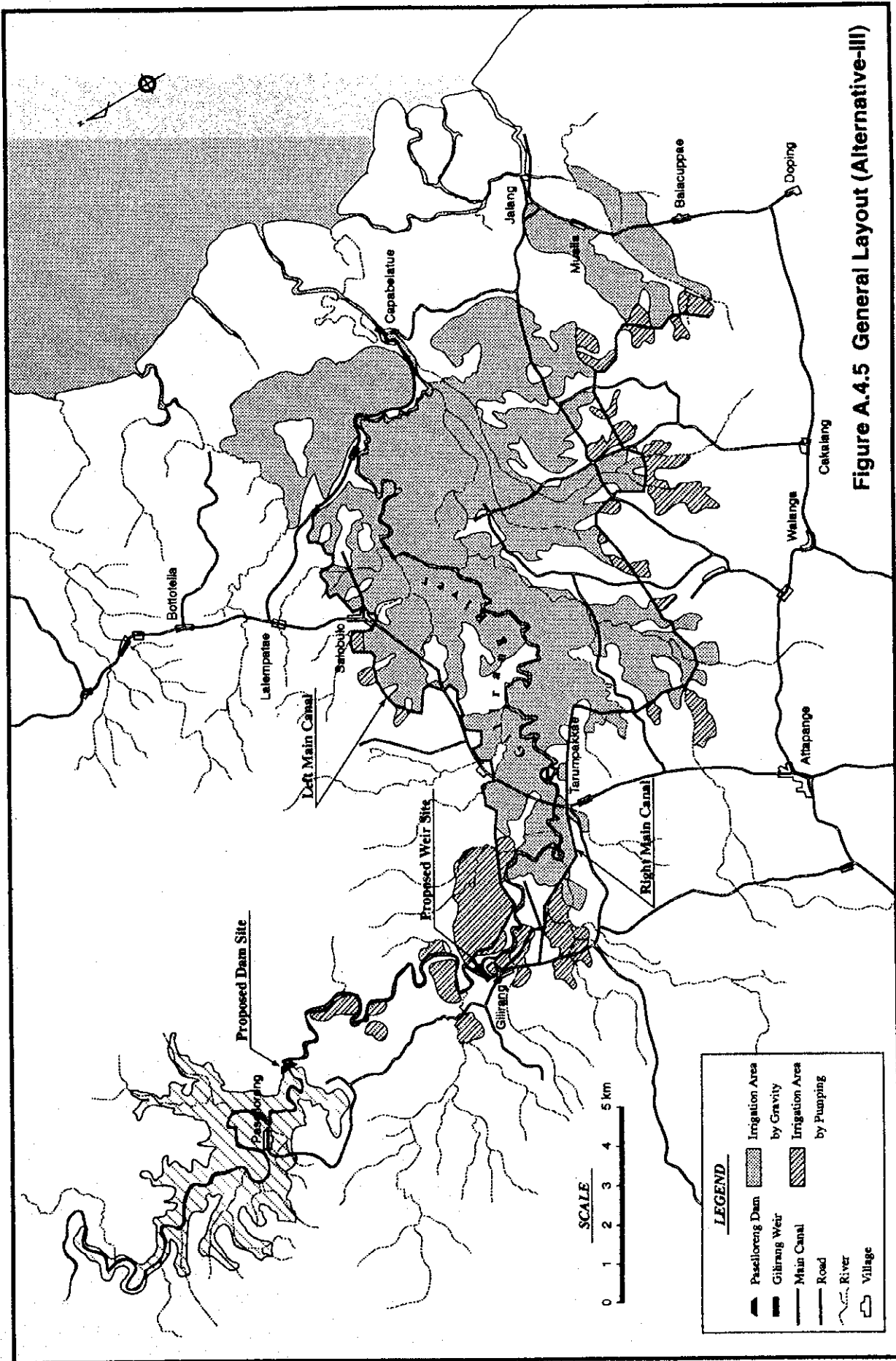
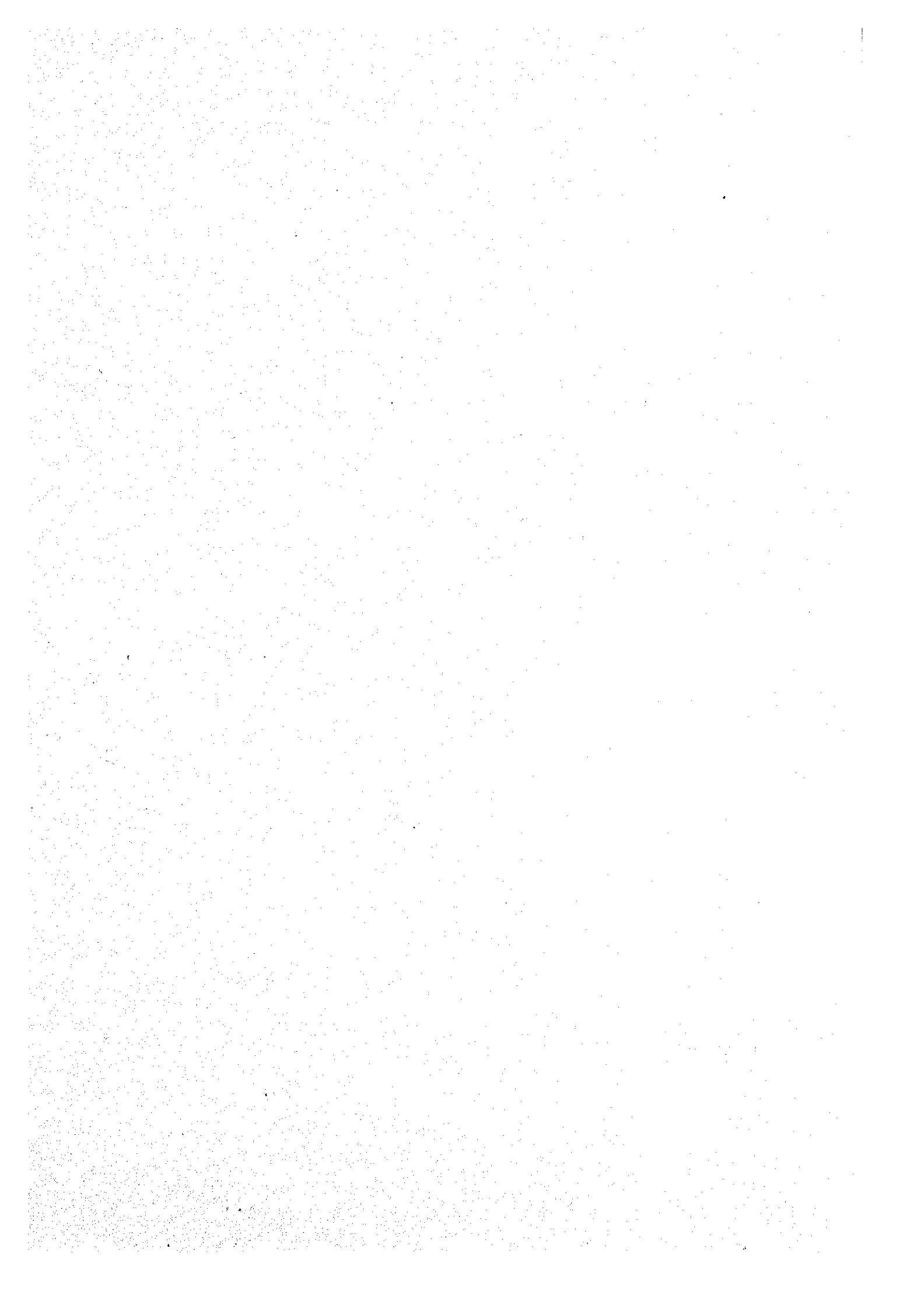
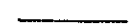

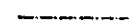

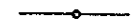
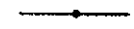

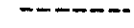


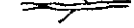





Figure A.4.5 General Layout (Alternative-III)



LEGEND

-  Main Irrigation Canal
-  Secondary Irrigation Canal
-  Tertiary Canal
-  Proposed Weir/Tertiary Strategic Canal
-  Turnout for Gravity Irrigation
-  Turnout for Pumping Irrigation
-  Existing Road
-  Proposed Road
-  Irrigation Area by Gravity
-  Irrigation Area by Pumping
-  Natural River/Stream
-  Reservoir and Gilirang Dam
-  Gilirang Weir
-  Villages

0 50 100 150 200 Km
SCALE

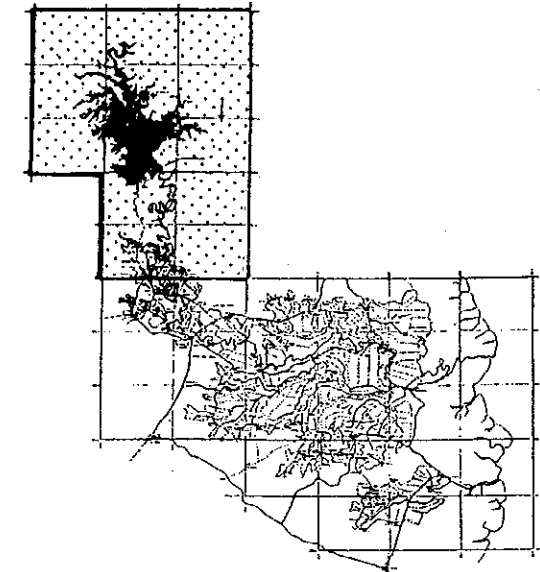
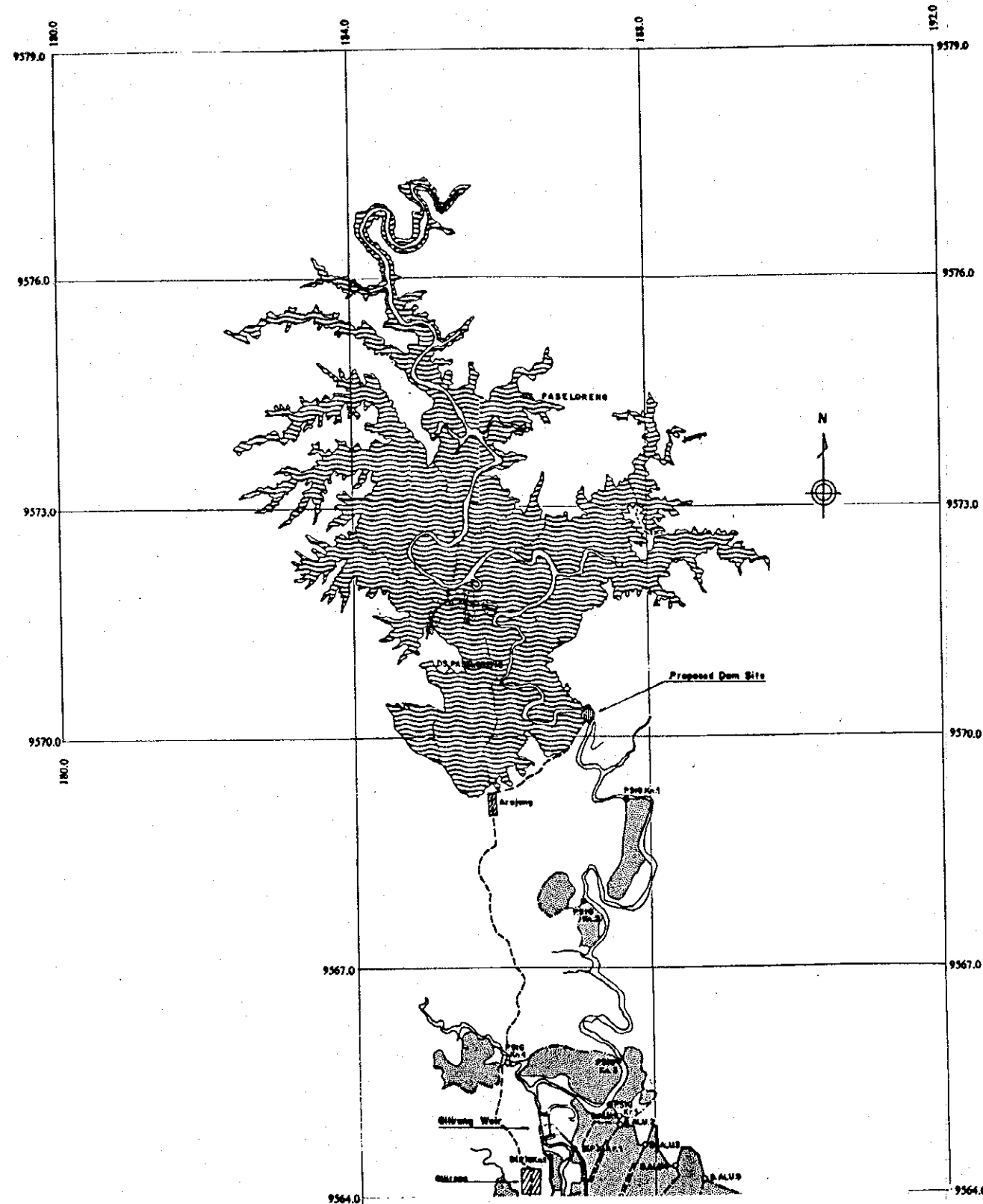
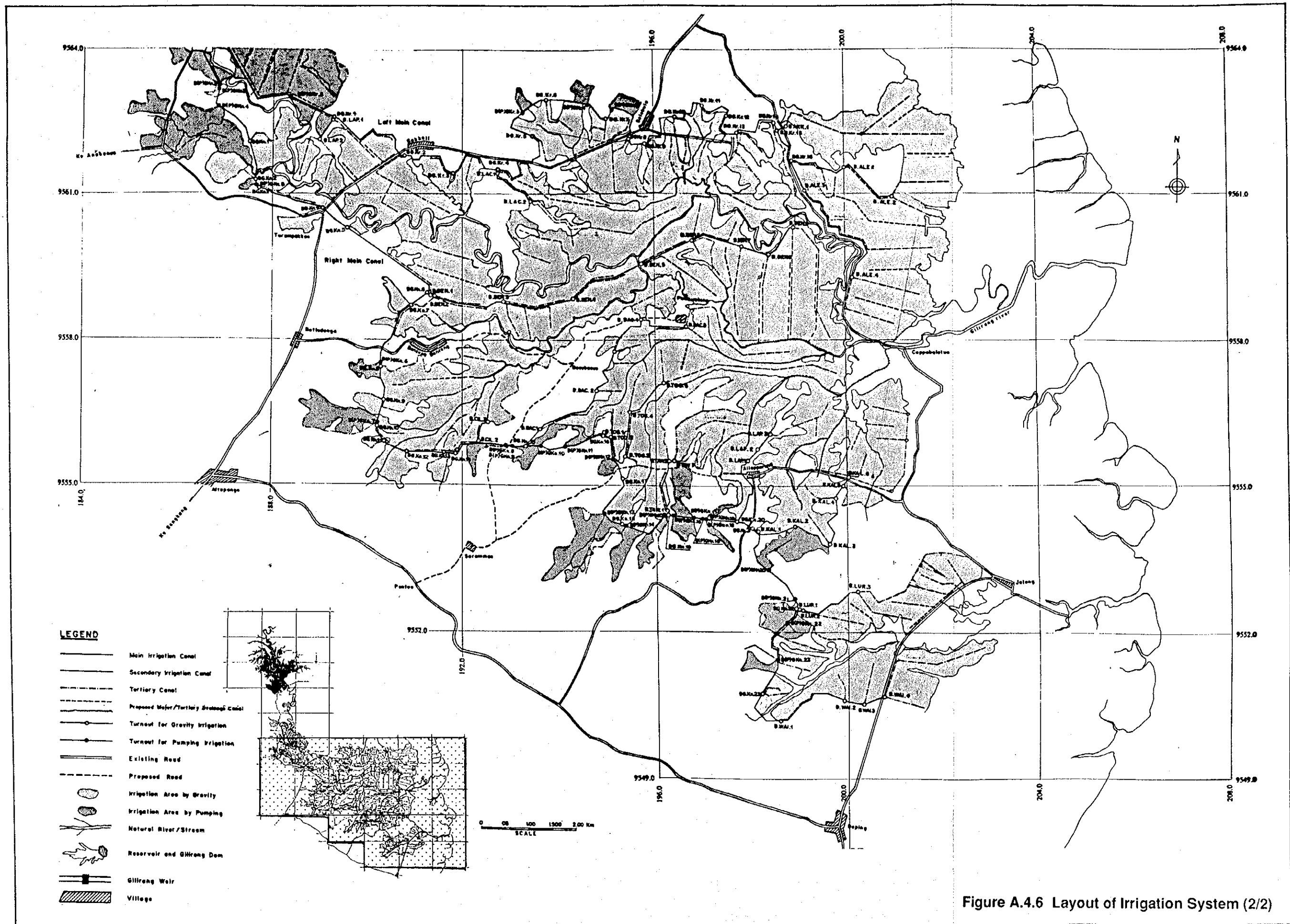


Figure A.4.6 Layout of Irrigation System (1/2)



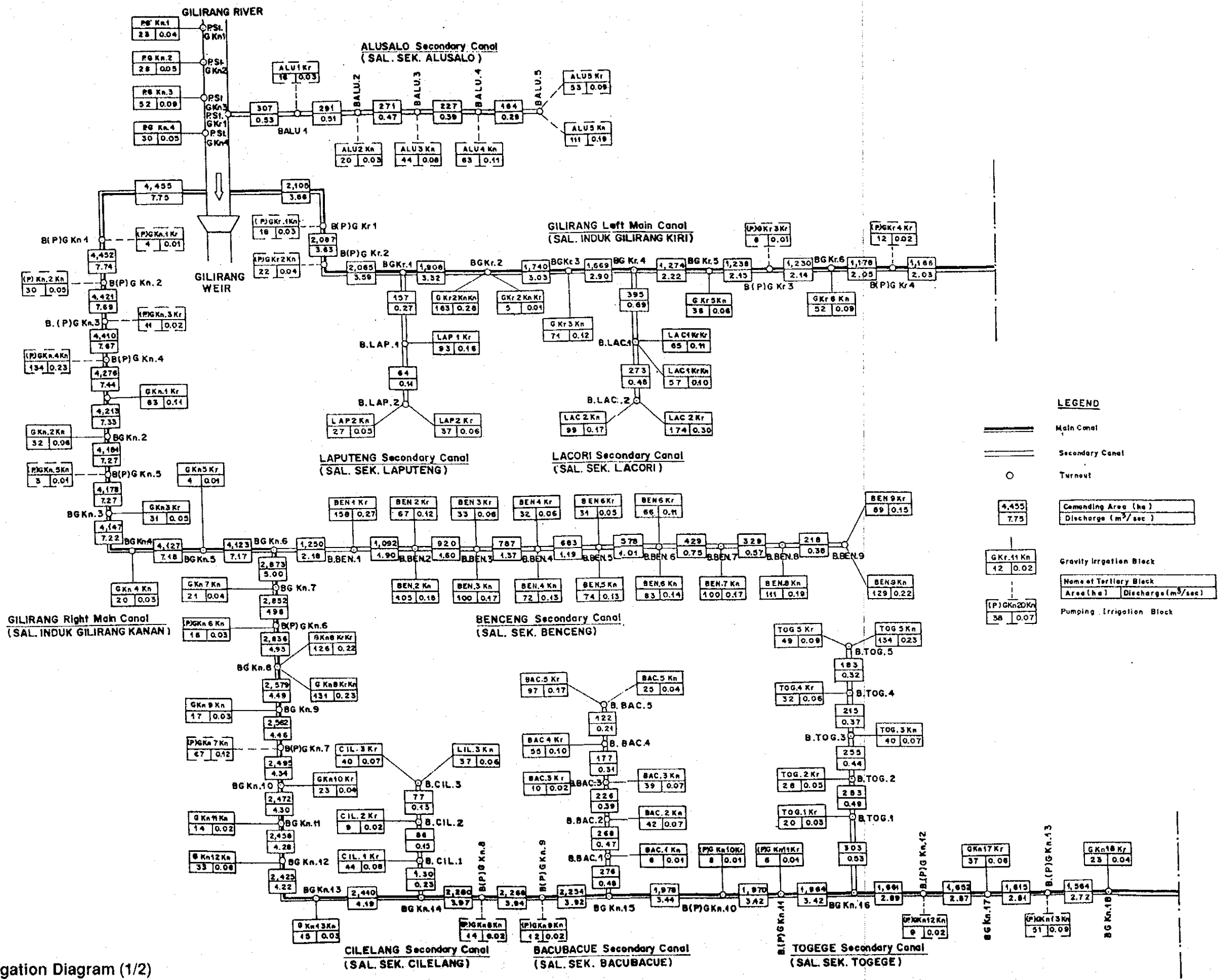


Figure A.4.7 Irrigation Diagram (1/2)

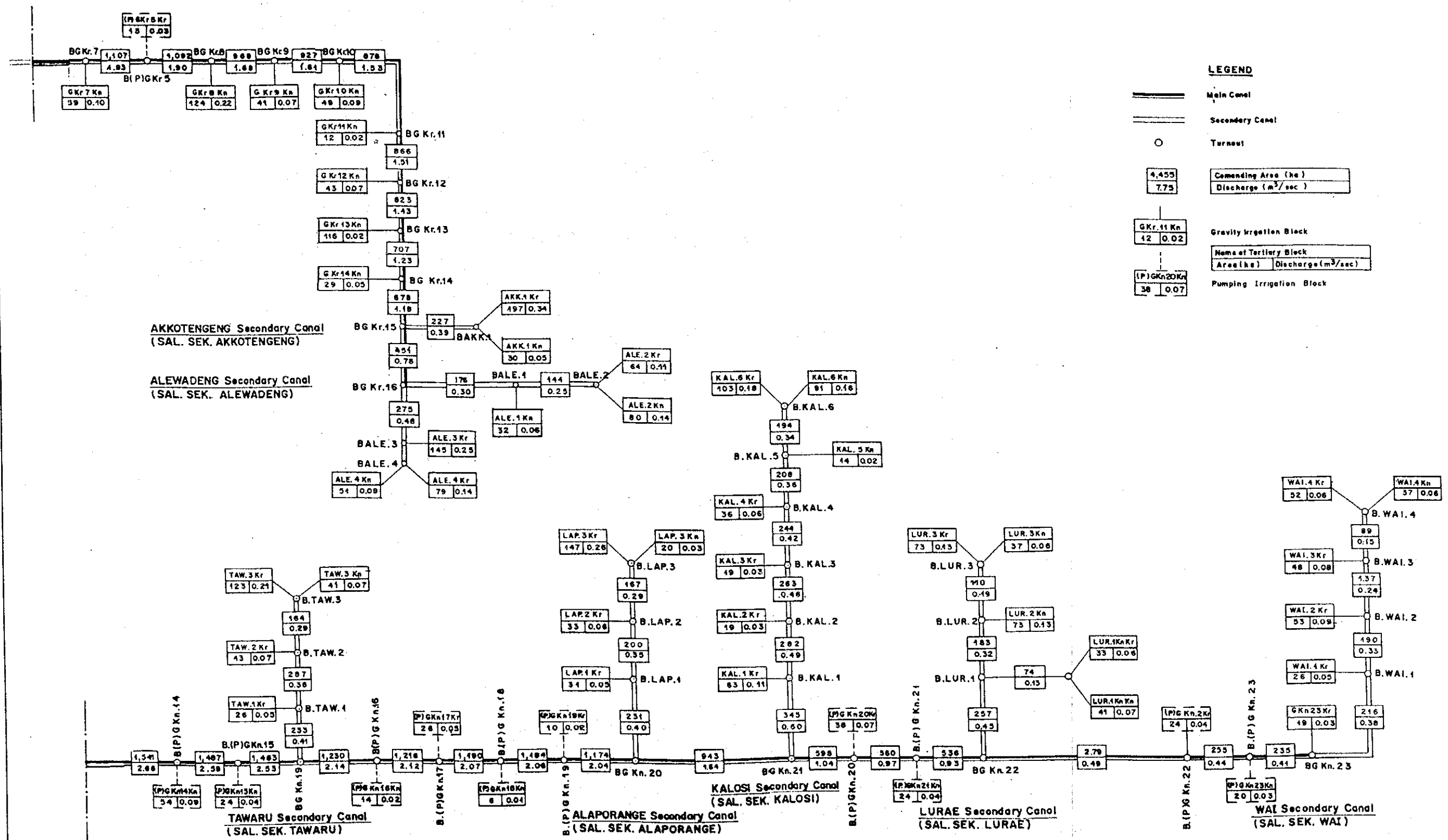
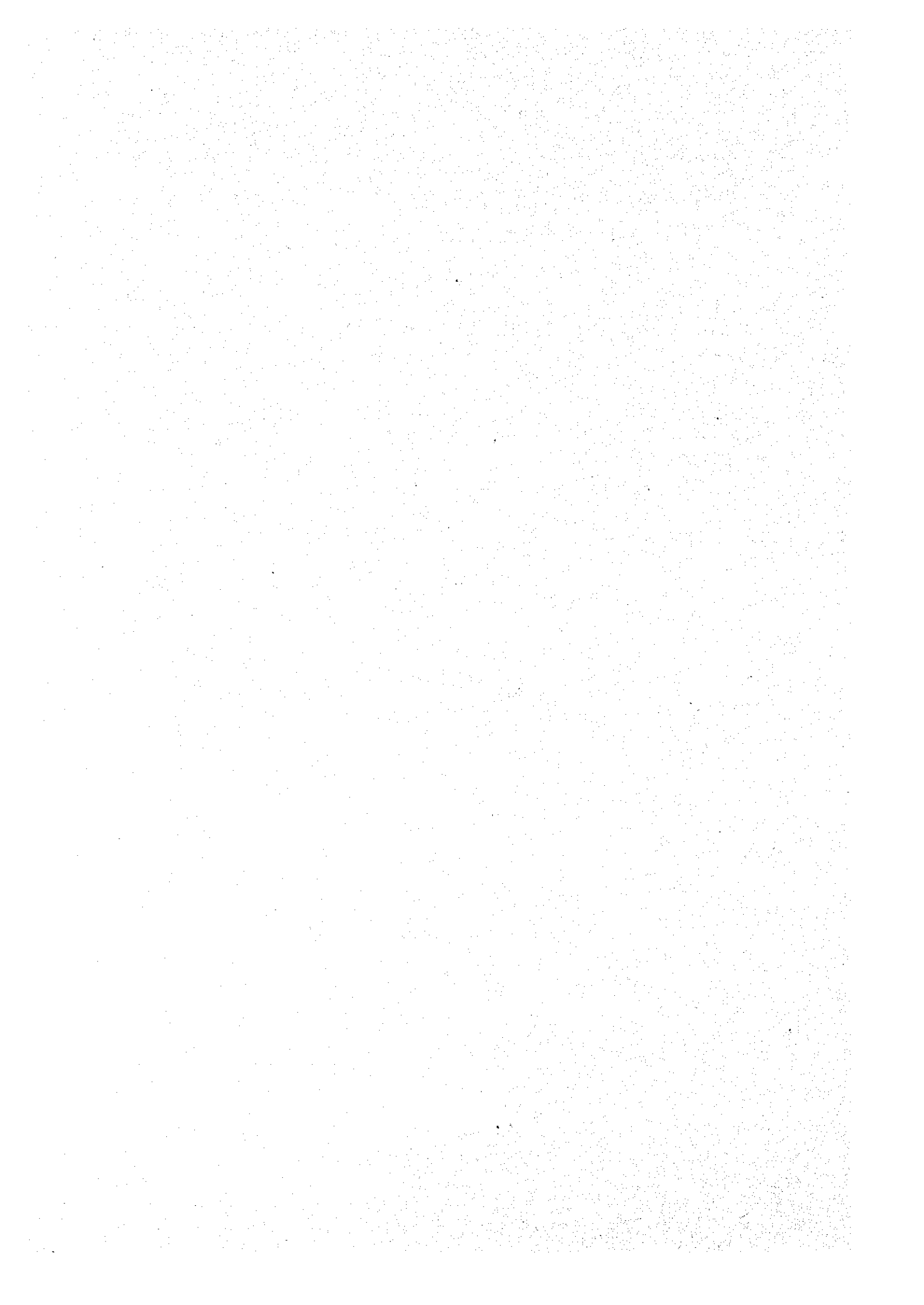
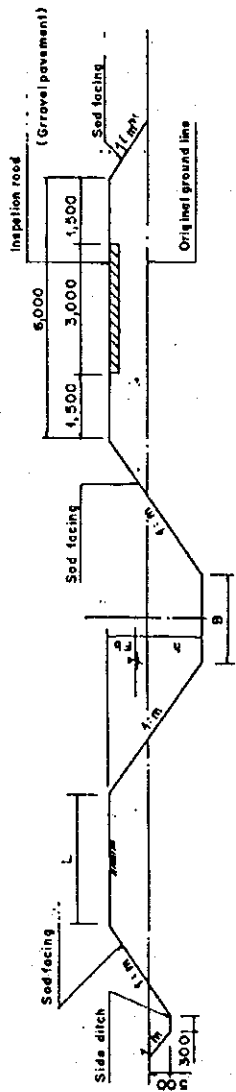


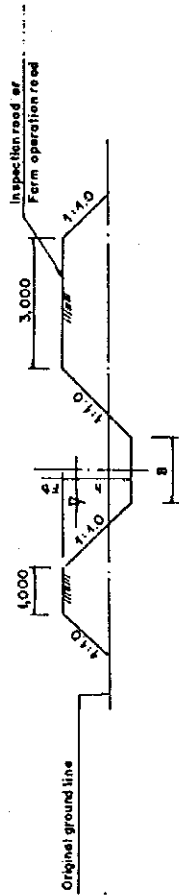
Figure A.4.7 Irrigation Diagram (2/2)



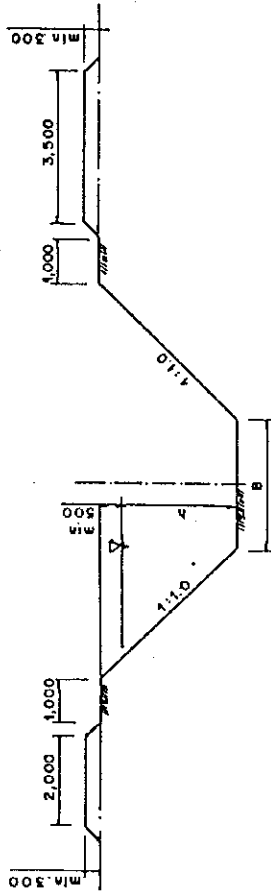
TYPICAL CROSS SECTION MAIN & SECONDARY IRRIGATION CANAL



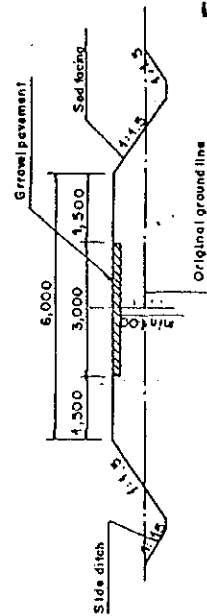
TYPICAL CROSS SECTION OF TERTIARY IRRIGATION CANAL



TYPICAL CROSS SECTION OF DRAINAGE CANAL



TYPICAL CROSS SECTION OF FARM ROAD



DIMENSION TABLE OF CANAL AND FARM ROAD

Discharge Q (m ³ /sec)	Side Slope 1 : m	Free Board		Ratio C / B / H
		F / B (mm)	Width of Bank L Main C / Secondary C (mm)	
0-0.3	1.0	500	2 500 / 1 500	1.0
0.30-0.8	1.0	500	2 800 / 1 800	1.0-1.2
0.80-1.00	1.0	500	2 900 / 1 800	1.2-1.8
1.00-1.50	1.0	500	2 800 / 1 800	1.8-1.8
1.50-2.00	1.5	500	2 800 / 2 000	1.8-2.0
2.00-3.00	1.5	500	2 800 / 2 000	2.0-2.5
3.00-4.00	1.5	500	2 800 / 2 000	2.5-3.0
4.00-5.00	1.5	500	2 800 / 2 000	3.0-4.0
5.00-10.00	1.5	1 000	3 000 / 2 000	4.0-5.0

Figure A.4.8 Typical Cross Section of Canal and Road

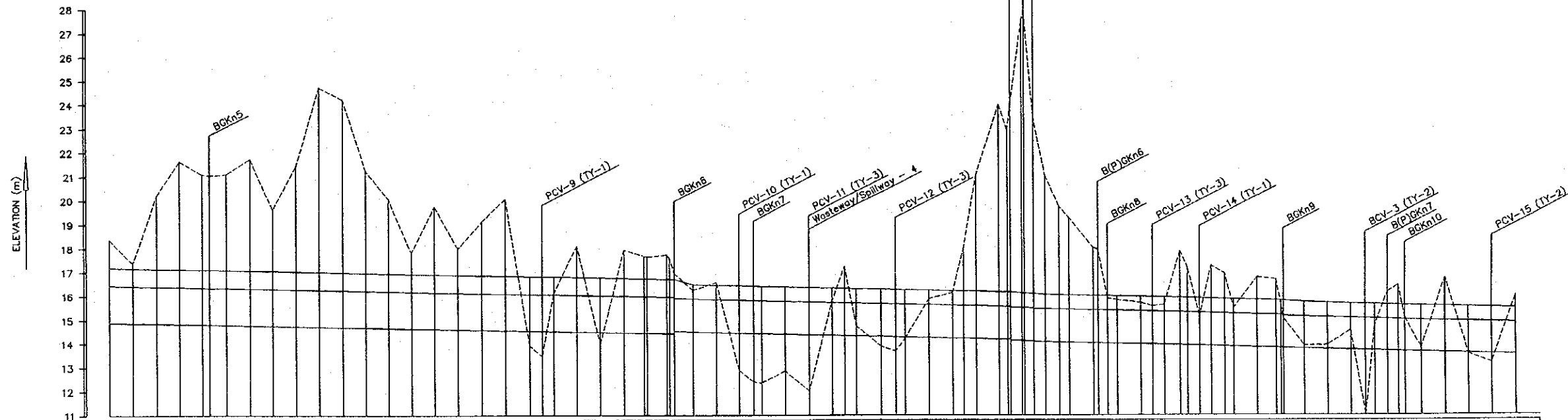
Right Main_2

ABBREVIATIONS

- BP : Beginning Point
- EP : End Point
- BGKr1 : Turnout (Gravity Irrigation Block) No.1
- B(P)GKr1 : Turnout (Pump Irrigation Block) No.1
- Kl : Left Bank
- Kr : Right Bank
- PCV-1 : Pipe Culvert No.1
- BCV-1 : Box Culvert No.1

Canal Type

- Q : Quantity of Discharge (m³/sec)
- B : Width of Canal Base (m)
- I : Longitudinal Slope
- h : Water Depth (m)
- Fb : Free Board (m)
- V : Velocity (m)



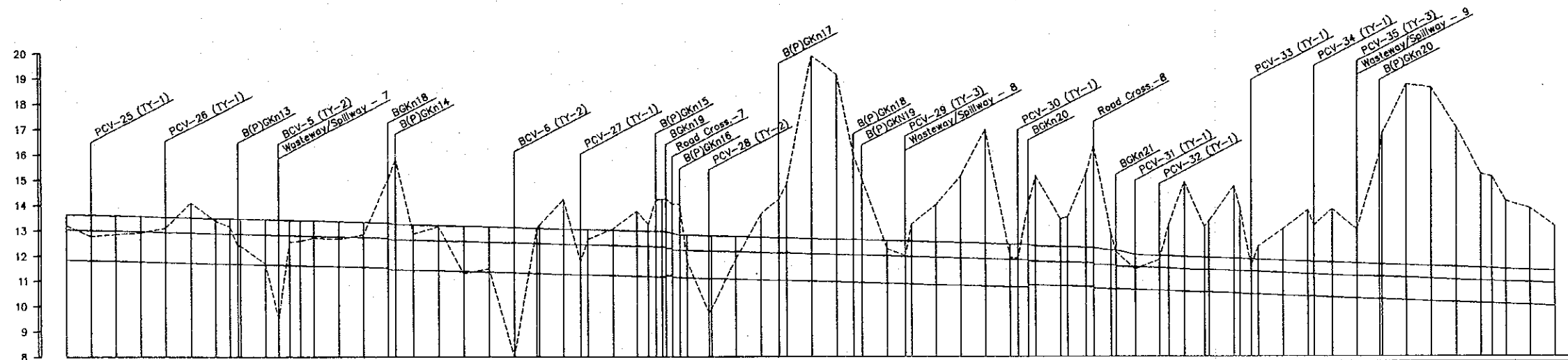
CANAL TYPE	Q=7.22 B=5.1 I=1/5000 h=1.54 Fb=0.75 V=0.63				Q=5.00 B=3.9 I=1/4000 h=1.39 Fb=0.60 V=0.60				Q=5.00 B=3.9 I=1/4000 h=1.40 Fb=0.60 V=0.92				Q=5.00 B=3.9 I=1/4000 h=1.39 Fb=0.60 V=0.60				Q=4.46 B=3.5 I=1/3800 h=1.35 Fb=0.60 V=0.60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
CANAL BANK ELEVATION	17.18	17.16	17.14	17.12	17.08	17.06	17.04	17.02	16.98	16.96	16.94	16.92	16.90	16.88	16.86	16.84	16.82	16.80	16.78	16.76	16.74	16.72	16.70	16.68	16.66	16.64	16.62	16.60	16.58	16.56	16.54	16.52	16.50	16.48	16.46	16.44	16.42	16.40	16.38	16.36	16.34	16.32	16.30	16.28	16.26	16.24	16.22	16.20	16.18	16.16	16.14	16.12	16.10	16.08	16.06	16.04	16.02	16.00	15.98	15.96	15.94	15.92	15.90	15.88	15.86	15.84	15.82	15.80	15.78	15.76	15.74	15.72	15.70	15.68	15.66	15.64	15.62	15.60	15.58	15.56	15.54	15.52	15.50	15.48	15.46	15.44	15.42	15.40	15.38	15.36	15.34	15.32	15.30	15.28	15.26	15.24	15.22	15.20	15.18	15.16	15.14	15.12	15.10	15.08	15.06	15.04	15.02	15.00	14.98	14.96	14.94	14.92	14.90	14.88	14.86	14.84	14.82	14.80	14.78	14.76	14.74	14.72	14.70	14.68	14.66	14.64	14.62	14.60	14.58	14.56	14.54	14.52	14.50	14.48	14.46	14.44	14.42	14.40	14.38	14.36	14.34	14.32	14.30	14.28	14.26	14.24	14.22	14.20	14.18	14.16	14.14	14.12	14.10	14.08	14.06	14.04	14.02	14.00	13.98	13.96	13.94	13.92	13.90	13.88	13.86	13.84	13.82	13.80	13.78	13.76	13.74	13.72	13.70	13.68	13.66	13.64	13.62	13.60	13.58	13.56	13.54	13.52	13.50	13.48	13.46	13.44	13.42	13.40	13.38	13.36	13.34	13.32	13.30	13.28	13.26	13.24	13.22	13.20	13.18	13.16	13.14	13.12	13.10	13.08	13.06	13.04	13.02	13.00	12.98	12.96	12.94	12.92	12.90	12.88	12.86	12.84	12.82	12.80	12.78	12.76	12.74	12.72	12.70	12.68	12.66	12.64	12.62	12.60	12.58	12.56	12.54	12.52	12.50	12.48	12.46	12.44	12.42	12.40	12.38	12.36	12.34	12.32	12.30	12.28	12.26	12.24	12.22	12.20	12.18	12.16	12.14	12.12	12.10	12.08	12.06	12.04	12.02	12.00	11.98	11.96	11.94	11.92	11.90	11.88	11.86	11.84	11.82	11.80	11.78	11.76	11.74	11.72	11.70	11.68	11.66	11.64	11.62	11.60	11.58	11.56	11.54	11.52	11.50	11.48	11.46	11.44	11.42	11.40	11.38	11.36	11.34	11.32	11.30	11.28	11.26	11.24	11.22	11.20	11.18	11.16	11.14	11.12	11.10	11.08	11.06	11.04	11.02	11.00	10.98	10.96	10.94	10.92	10.90	10.88	10.86	10.84	10.82	10.80	10.78	10.76	10.74	10.72	10.70	10.68	10.66	10.64	10.62	10.60	10.58	10.56	10.54	10.52	10.50	10.48	10.46	10.44	10.42	10.40	10.38	10.36	10.34	10.32	10.30	10.28	10.26	10.24	10.22	10.20	10.18	10.16	10.14	10.12	10.10	10.08	10.06	10.04	10.02	10.00	9.98	9.96	9.94	9.92	9.90	9.88	9.86	9.84	9.82	9.80	9.78	9.76	9.74	9.72	9.70	9.68	9.66	9.64	9.62	9.60	9.58	9.56	9.54	9.52	9.50	9.48	9.46	9.44	9.42	9.40	9.38	9.36	9.34	9.32	9.30	9.28	9.26	9.24	9.22	9.20	9.18	9.16	9.14	9.12	9.10	9.08	9.06	9.04	9.02	9.00	8.98	8.96	8.94	8.92	8.90	8.88	8.86	8.84	8.82	8.80	8.78	8.76	8.74	8.72	8.70	8.68	8.66	8.64	8.62	8.60	8.58	8.56	8.54	8.52	8.50	8.48	8.46	8.44	8.42	8.40	8.38	8.36	8.34	8.32	8.30	8.28	8.26	8.24	8.22	8.20	8.18	8.16	8.14	8.12	8.10	8.08	8.06	8.04	8.02	8.00	7.98	7.96	7.94	7.92	7.90	7.88	7.86	7.84	7.82	7.80	7.78	7.76	7.74	7.72	7.70	7.68	7.66	7.64	7.62	7.60	7.58	7.56	7.54	7.52	7.50	7.48	7.46	7.44	7.42	7.40	7.38	7.36	7.34	7.32	7.30	7.28	7.26	7.24	7.22	7.20	7.18	7.16	7.14	7.12	7.10	7.08	7.06	7.04	7.02	7.00	6.98	6.96	6.94	6.92	6.90	6.88	6.86	6.84	6.82	6.80	6.78	6.76	6.74	6.72	6.70	6.68	6.66	6.64	6.62	6.60	6.58	6.56	6.54	6.52	6.50	6.48	6.46	6.44	6.42	6.40	6.38	6.36	6.34	6.32	6.30	6.28	6.26	6.24	6.22	6.20	6.18	6.16	6.14	6.12	6.10	6.08	6.06	6.04	6.02	6.00	5.98	5.96	5.94	5.92	5.90	5.88	5.86	5.84	5.82	5.80	5.78	5.76	5.74	5.72	5.70	5.68	5.66	5.64	5.62	5.60	5.58	5.56	5.54	5.52	5.50	5.48	5.46	5.44	5.42	5.40	5.38	5.36	5.34	5.32	5.30	5.28	5.26	5.24	5.22	5.20	5.18	5.16	5.14	5.12	5.10	5.08	5.06	5.04	5.02	5.00	4.98	4.96	4.94	4.92	4.90	4.88	4.86	4.84	4.82	4.80	4.78	4.76	4.74	4.72	4.70	4.68	4.66	4.64	4.62	4.60	4.58	4.56	4.54	4.52	4.50	4.48	4.46	4.44	4.42	4.40	4.38	4.36	4.34	4.32	4.30	4.28	4.26	4.24	4.22	4.20	4.18	4.16	4.14	4.12	4.10	4.08	4.06	4.04	4.02	4.00	3.98	3.96	3.94	3.92	3.90	3.88	3.86	3.84	3.82	3.80	3.78	3.76	3.74	3.72	3.70	3.68	3.66	3.64	3.62	3.60	3.58	3.56	3.54	3.52	3.50	3.48	3.46	3.44	3.42	3.40	3.38	3.36	3.34	3.32	3.30	3.28	3.26	3.24	3.22	3.20	3.18	3.16	3.14	3.12	3.10	3.08	3.06	3.04	3.02	3.00	2.98	2.96	2.94	2.92	2.90	2.88	2.86	2.84	2.82	2.80	2.78	2.76	2.74	2.72	2.70	2.68	2.66	2.64	2.62	2.60	2.58	2.56	2.54	2.52	2.50	2.48	2.46	2.44	2.42	2.40	2.38	2.36	2.34	2.32	2.30	2.28	2.26	2.24	2.22	2.20	2.18	2.16	2.14	2.12	2.10	2.08	2.06	2.04	2.02	2.00	1.98	1.96	1.94	1.92	1.90	1.88	1.86	1.84	1.82	1.80	1.78	1.76	1.74	1.72	1.70	1.68	1.66	1.64	1.62	1.60	1.58	1.56	1.54	1.52	1.50	1.48	1.46	1.44	1.42	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26	1.24	1.22	1.20	1.18	1.16	1.14	1.12	1.10	1.08	1.06	1.04	1.02	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82	0.80	0.78	0.76	0.74	0.72	0.70	0.68	0.66	0.64	0.62	0.60	0.58	0.56	0.54	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.38	0.36	0.34	0.32	0.30	0.28	0.26	0.24	0.22	0.20	0.18	0.16	0.14	0.12	0.10	0.08	0.06	0.04	0.02	0.00	-0.02	-0.04	-0.06	-0.08	-0.10	-0.12	-0.14	-0.16	-0.18	-0.20	-0.22	-0.24	-0.26	-0.28	-0.30	-0.32	-0.34	-0.36	-0.38	-0.40	-0.42	-0.44	-0.46	-0.48	-0.50	-0.52	-0.54	-0.56	-0.58	-0.60	-0.62	-0.64	-0.66	-0.68	-0.70	-0.72	-0.74	-0.76	-0.78	-0.80	-0.82	-0.84	-0.86	-0.88	-0.90	-0.92	-0.94	-0.96	-0.98	-1.00	-1.02	-1.04	-1.06	-1.08	-1.10	-1.12	-1.14	-1.16	-1.18	-1.20	-1.22	-1.24	-1.26	-1.28	-1.30	-1.32	-1.34	-1.36	-1.38	-1.40	-1.42	-1.44	-1.46	-1.48	-1.50	-1.52	-1.54	-1.56	-1.58	-1.60	-1.62	-1.64	-1.66	-1.68	-1.70	-1.72	-1.74	-1.76	-1.78	-1.80	-1.82	-1.84	-1.86	-1.88	-1.90	-1.92	-1.94	-1.96	-1.98	-2.00	-2.02	-2.04	-2.06	-2.08	-2.10	-2.12	-2.14	-2.16	-2.18	-2.20	-2.22	-2.24	-2.26	-2.28	-2.30	-2.32	-2.34	-2.36	-2.38	-2.40	-2.42	-2.44	-2.46	-2.48	-2.50	-2.52	-2.54	-2.56	-2.58	-2.60	-2.62	-2.64	-2.66	-2.68	-2.70	-2.72	-2.74	-2.76	-2.78	-2.80	-2.82	-2.84	-2.86	-2.88	-2.90	-2.92	-2.94	-2.96	-2.98	-3.00	-3.02	-3.04	-3.06	-3.08	-3.10	-3.12	-3.14	-3.16	-3.18	-3.20	-3.22	-3.24	-3.26	-3.28	-3.30	-3.32	-3.34	-3.36	-3.38	-3.40	-3.42	-3.44	-3.46	-3.48	-3.50	-3.52	-3.54	-3.56	-3.58	-3.60	-3.62	-3.64	-3.66	-3.68	-3.70	-3.72	-3.74	-3.76	-3.78	-3.80	-3.82	-3.84	-3.86	-3.88	-3.90	-3.92	-3.94	-3.96	-3.98	-4.00	-4.02	-4.04	-4.06	-4.08	-4.10	-4.12	-4.14	-4.16	-4.18	-4.20	-4.22	-4.24	-4.26	-4.28	-4.30	-4.32	-4.34	-4.36	-4.38	-4.40	-4.42	-4.44	-4.46	-4.48	-4.50	-4.52	-4.54	-4.56	-4.58	-4.60	-4.62	-4.64	-4.66	-4.68	-4.70	-4.72	-4.74	-4.76	-4.78	-4.80	-4.82	-4.84	-4.86	-4.88	-4.90	-4.92	-4.94	-4.96	-4.98	-5.00	-5.02	-5.04	-5.06	-5.08	-5.10	-5.12	-5.14	-5.16	-5.18	-5.20	-5.22	-5.24	-5.26	-5.28	-5.30	-5.32	-5.34	-5.36	-5.38	-5.40	-5.42	-5.44	-5.46	-5.48	-5.50	-5.52	-5.54	-5.56	-5.58	-5.60	-5.62	-5.64	-5.66	-5.68	-5.70	-5.72	-5.74	-5.76	-5.78	-5.80	-5.82	-5.84	-5.86	-5.88	-5.90	-5.92	-5.94	-5.96	-5.98	-6.00	-6.02	-6.04	-6.06	-6.08	-6.10	-6.12	-6.14	-6.16	-6.18	-6.20	-6.22	-6.24	-6.26	-6.28	-6.30	-6.32	-6.34	-6.36	-6.38	-6.40	-6.42	-6.44	-6.46	-6.48	-6.50	-6.52	-6.54	-6.56	-6.58	-6.60	-6.62	-6.64	-6.66	-6.68	-6.70	-6.72	-6.74	-6.76	-6.78	-6.80	-6.82	-6.84	-6.86	-6.88	-6.90	-6.92	-6.94	-6.96	-6.98	-7.00	-7.02	-7.04	-7.06	-7.08	-7.10	-7.12	-7.14	-7.16	-7.18	-7.20	-7.22	-7.24	-7.26	-7.28	-7.30	-7.32	-7.34	-7.36	-7.38	-7

Right Main_4

ABBREVIATIONS

- BP : Beginning Point
 - EP : End Point
 - BGKr1 : Turnout (Gravity Irrigation Block) No.1
 - B(P)GKr1 : Turnout (Pump Irrigation Block) No.1
 - Kr : Left Bank
 - Kn : Right Bank
 - PCV-1 : Pipe Culvert No.1
 - BCV-1 : Box Culvert No.1
- Canal Type
 - Q : Quantity of Discharge (m3/sec)
 - B : Width of Canal Base (m)
 - I : Longitudinal Slope
 - h : Water Depth (m)
 - Fb : Free Board (m)
 - V : Velocity (m)

ELEVATION (m)



CANAL TYPE	Q=2.89 B=2.7 I=1/3800 h=1.19 Fb=0.60 V=0.54		Q=2.68 B=2.4 I=1/3800 h=1.20 Fb=0.60 V=0.53		Q=2.14 B=2.1 I=1/3500 h=1.10 Fb=0.60 V=0.52		Q=1.64 B=1.9 I=1/3000 h=0.95 Fb=0.60 V=0.52		Q=1.04 B=1.4 I=1/2600 h=0.89 Fb=0.50 V=0.51	
CANAL BANK ELEVATION	13.64	13.65	13.59	13.56	13.53	13.51	13.48	13.46	13.42	13.38
WATER SURFACE ELEVATION	13.04	13.01	12.99	12.96	12.93	12.91	12.88	12.86	12.82	12.78
CANAL BASE ELEVATION	11.85	11.82	11.80	11.77	11.74	11.72	11.69	11.67	11.63	11.59
GROUND SURFACE ELEVATION	13.21	12.78	12.86	12.92	13.10	14.10	13.38	13.16	12.82	12.67
REDUCED DISTANCE	18000.00	19100.00	19200.00	19300.00	19400.00	19500.00	19600.00	19700.00	19800.00	19900.00
DISTANCE	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
STATION NO.	No.181	No.182	No.183	No.184	No.185	No.186	No.187	No.188	No.189	No.190
CURVE										

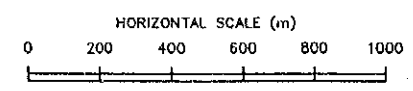
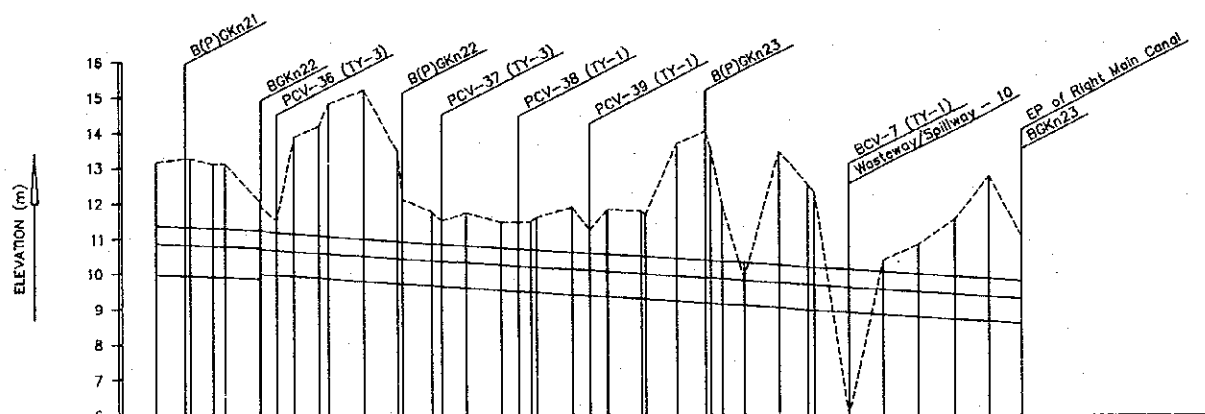


Figure A.4.9 Longitudinal Profile of Main Canal (8/9)

Right Main_5

ABBREVIATIONS

- BP : Beginning Point
 - EP : End Point
 - BGKr1 : Turnout (Gravity Irrigation Block) No.1
 - B(P)GKr1 : Turnout (Pump Irrigation Block) No.1
 - Kr : Left Bank
 - Kn : Right Bank
 - PCV-1 : Pipe Culvert No.1
 - BCV-1 : Box Culvert No.1
- Canal Type
 - Q : Quantity of Discharge (m3/sec)
 - B : Width of Canal Base (m)
 - I : Longitudinal Slope
 - h : Water Depth (m)
 - Fb : Free Board (m)
 - V : Velocity (m)



CANAL TYPE	Q=1.04 B=1.4 I=1/2600 h=0.89 Fb=0.50 V=0.51	Q=0.49 B=0.8 I=1/1600 h=0.71 Fb=0.50 V=0.46
CANAL BANK ELEVATION	11.37 11.33 11.30 11.29 11.28 11.27 11.26 11.25 11.24 11.23 11.22 11.21 11.20 11.19 11.18 11.17 11.16 11.15 11.14 11.13 11.12 11.11 11.10	10.83 10.77 10.71 10.65 10.59 10.53 10.47 10.41 10.35 10.29 10.23 10.17 10.11 10.05 10.01 9.95 9.90 9.84 9.78 9.72 9.66 9.60 9.54 9.48 9.42 9.36 9.30 9.24 9.18 9.12 9.06 9.00 8.94 8.88 8.82 8.76 8.70 8.64 8.58 8.52 8.46 8.40 8.34 8.28 8.22 8.16 8.10 8.04 7.98 7.92 7.86 7.80 7.74 7.68 7.62 7.56 7.50 7.44 7.38 7.32 7.26 7.20 7.14 7.08 7.02 6.96 6.90 6.84 6.78 6.72 6.66 6.60 6.54 6.48 6.42 6.36 6.30 6.24 6.18 6.12 6.06 6.00 5.94 5.88 5.82 5.76 5.70 5.64 5.58 5.52 5.46 5.40 5.34 5.28 5.22 5.16 5.10 5.04 4.98 4.92 4.86 4.80 4.74 4.68 4.62 4.56 4.50 4.44 4.38 4.32 4.26 4.20 4.14 4.08 4.02 3.96 3.90 3.84 3.78 3.72 3.66 3.60 3.54 3.48 3.42 3.36 3.30 3.24 3.18 3.12 3.06 3.00 2.94 2.88 2.82 2.76 2.70 2.64 2.58 2.52 2.46 2.40 2.34 2.28 2.22 2.16 2.10 2.04 1.98 1.92 1.86 1.80 1.74 1.68 1.62 1.56 1.50 1.44 1.38 1.32 1.26 1.20 1.14 1.08 1.02 1.00
WATER SURFACE ELEVATION	10.87 10.83 10.79 10.75 10.71 10.67 10.63 10.59 10.55 10.51 10.47 10.43 10.39 10.35 10.31 10.27 10.23 10.19 10.15 10.11 10.07 10.03 9.99 9.95 9.91 9.87 9.83 9.79 9.75 9.71 9.67 9.63 9.59 9.55 9.51 9.47 9.43 9.39 9.35 9.31 9.27 9.23 9.19 9.15 9.11 9.07 9.03 8.99 8.95 8.91 8.87 8.83 8.79 8.75 8.71 8.67 8.63 8.59 8.55 8.51 8.47 8.43 8.39 8.35 8.31 8.27 8.23 8.19 8.15 8.11 8.07 8.03 7.99 7.95 7.91 7.87 7.83 7.79 7.75 7.71 7.67 7.63 7.59 7.55 7.51 7.47 7.43 7.39 7.35 7.31 7.27 7.23 7.19 7.15 7.11 7.07 7.03 6.99 6.95 6.91 6.87 6.83 6.79 6.75 6.71 6.67 6.63 6.59 6.55 6.51 6.47 6.43 6.39 6.35 6.31 6.27 6.23 6.19 6.15 6.11 6.07 6.03 5.99 5.95 5.91 5.87 5.83 5.79 5.75 5.71 5.67 5.63 5.59 5.55 5.51 5.47 5.43 5.39 5.35 5.31 5.27 5.23 5.19 5.15 5.11 5.07 5.03 4.99 4.95 4.91 4.87 4.83 4.79 4.75 4.71 4.67 4.63 4.59 4.55 4.51 4.47 4.43 4.39 4.35 4.31 4.27 4.23 4.19 4.15 4.11 4.07 4.03 3.99 3.95 3.91 3.87 3.83 3.79 3.75 3.71 3.67 3.63 3.59 3.55 3.51 3.47 3.43 3.39 3.35 3.31 3.27 3.23 3.19 3.15 3.11 3.07 3.03 2.99 2.95 2.91 2.87 2.83 2.79 2.75 2.71 2.67 2.63 2.59 2.55 2.51 2.47 2.43 2.39 2.35 2.31 2.27 2.23 2.19 2.15 2.11 2.07 2.03 1.99 1.95 1.91 1.87 1.83 1.79 1.75 1.71 1.67 1.63 1.59 1.55 1.51 1.47 1.43 1.39 1.35 1.31 1.27 1.23 1.19 1.15 1.11 1.07 1.03 1.00	10.87 10.83 10.79 10.75 10.71 10.67 10.63 10.59 10.55 10.51 10.47 10.43 10.39 10.35 10.31 10.27 10.23 10.19 10.15 10.11 10.07 10.03 9.99 9.95 9.91 9.87 9.83 9.79 9.75 9.71 9.67 9.63 9.59 9.55 9.51 9.47 9.43 9.39 9.35 9.31 9.27 9.23 9.19 9.15 9.11 9.07 9.03 8.99 8.95 8.91 8.87 8.83 8.79 8.75 8.71 8.67 8.63 8.59 8.55 8.51 8.47 8.43 8.39 8.35 8.31 8.27 8.23 8.19 8.15 8.11 8.07 8.03 7.99 7.95 7.91 7.87 7.83 7.79 7.75 7.71 7.67 7.63 7.59 7.55 7.51 7.47 7.43 7.39 7.35 7.31 7.27 7.23 7.19 7.15 7.11 7.07 7.03 6.99 6.95 6.91 6.87 6.83 6.79 6.75 6.71 6.67 6.63 6.59 6.55 6.51 6.47 6.43 6.39 6.35 6.31 6.27 6.23 6.19 6.15 6.11 6.07 6.03 5.99 5.95 5.91 5.87 5.83 5.79 5.75 5.71 5.67 5.63 5.59 5.55 5.51 5.47 5.43 5.39 5.35 5.31 5.27 5.23 5.19 5.15 5.11 5.07 5.03 4.99 4.95 4.91 4.87 4.83 4.79 4.75 4.71 4.67 4.63 4.59 4.55 4.51 4.47 4.43 4.39 4.35 4.31 4.27 4.23 4.19 4.15 4.11 4.07 4.03 3.99 3.95 3.91 3.87 3.83 3.79 3.75 3.71 3.67 3.63 3.59 3.55 3.51 3.47 3.43 3.39 3.35 3.31 3.27 3.23 3.19 3.15 3.11 3.07 3.03 2.99 2.95 2.91 2.87 2.83 2.79 2.75 2.71 2.67 2.63 2.59 2.55 2.51 2.47 2.43 2.39 2.35 2.31 2.27 2.23 2.19 2.15 2.11 2.07 2.03 1.99 1.95 1.91 1.87 1.83 1.79 1.75 1.71 1.67 1.63 1.59 1.55 1.51 1.47 1.43 1.39 1.35 1.31 1.27 1.23 1.19 1.15 1.11 1.07 1.03 1.00
CANAL BASE ELEVATION	9.98 9.94 9.90 9.86 9.82 9.78 9.74 9.70 9.66 9.62 9.58 9.54 9.50 9.46 9.42 9.38 9.34 9.30 9.26 9.22 9.18 9.14 9.10 9.06 9.02 8.98 8.94 8.90 8.86 8.82 8.78 8.74 8.70 8.66 8.62 8.58 8.54 8.50 8.46 8.42 8.38 8.34 8.30 8.26 8.22 8.18 8.14 8.10 8.06 8.02 7.98 7.94 7.90 7.86 7.82 7.78 7.74 7.70 7.66 7.62 7.58 7.54 7.50 7.46 7.42 7.38 7.34 7.30 7.26 7.22 7.18 7.14 7.10 7.06 7.02 6.98 6.94 6.90 6.86 6.82 6.78 6.74 6.70 6.66 6.62 6.58 6.54 6.50 6.46 6.42 6.38 6.34 6.30 6.26 6.22 6.18 6.14 6.10 6.06 6.02 5.98 5.94 5.90 5.86 5.82 5.78 5.74 5.70 5.66 5.62 5.58 5.54 5.50 5.46 5.42 5.38 5.34 5.30 5.26 5.22 5.18 5.14 5.10 5.06 5.02 4.98 4.94 4.90 4.86 4.82 4.78 4.74 4.70 4.66 4.62 4.58 4.54 4.50 4.46 4.42 4.38 4.34 4.30 4.26 4.22 4.18 4.14 4.10 4.06 4.02 3.98 3.94 3.90 3.86 3.82 3.78 3.74 3.70 3.66 3.62 3.58 3.54 3.50 3.46 3.42 3.38 3.34 3.30 3.26 3.22 3.18 3.14 3.10 3.06 3.02 2.98 2.94 2.90 2.86 2.82 2.78 2.74 2.70 2.66 2.62 2.58 2.54 2.50 2.46 2.42 2.38 2.34 2.30 2.26 2.22 2.18 2.14 2.10 2.06 2.02 1.98 1.94 1.90 1.86 1.82 1.78 1.74 1.70 1.66 1.62 1.58 1.54 1.50 1.46 1.42 1.38 1.34 1.30 1.26 1.22 1.18 1.14 1.10 1.06 1.02 0.98 0.94 0.90 0.86 0.82 0.78 0.74 0.70 0.66 0.62 0.58 0.54 0.50 0.46 0.42 0.38 0.34 0.30 0.26 0.22 0.18 0.14 0.10 0.06 0.02 0.00	9.98 9.94 9.90 9.86 9.82 9.78 9.74 9.70 9.66 9.62 9.58 9.54 9.50 9.46 9.42 9.38 9.34 9.30 9.26 9.22 9.18 9.14 9.10 9.06 9.02 8.98 8.94 8.90 8.86 8.82 8.78 8.74 8.70 8.66 8.62 8.58 8.54 8.50 8.46 8.42 8.38 8.34 8.30 8.26 8.22 8.18 8.14 8.10 8.06 8.02 7.98 7.94 7.90 7.86 7.82 7.78 7.74 7.70 7.66 7.62 7.58 7.54 7.50 7.46 7.42 7.38 7.34 7.30 7.26 7.22 7.18 7.14 7.10 7.06 7.02 6.98 6.94 6.90 6.86 6.82 6.78 6.74 6.70 6.66 6.62 6.58 6.54 6.50 6.46 6.42 6.38 6.34 6.30 6.26 6.22 6.18 6.14 6.10 6.06 6.02 5.98 5.94 5.90 5.86 5.82 5.78 5.74 5.70 5.66 5.62 5.58 5.54 5.50 5.46 5.42 5.38 5.34 5.30 5.26 5.22 5.18 5.14 5.10 5.06 5.02 4.98 4.94 4.90 4.86 4.82 4.78 4.74 4.70 4.66 4.62 4.58 4.54 4.50 4.46 4.42 4.38 4.34 4.30 4.26 4.22 4.18 4.14 4.10 4.06 4.02 3.98 3.94 3.90 3.86 3.82 3.78 3.74 3.70 3.66 3.62 3.58 3.54 3.50 3.46 3.42 3.38 3.34 3.30 3.26 3.22 3.18 3.14 3.10 3.06 3.02 2.98 2.94 2.90 2.86 2.82 2.78 2.74 2.70 2.66 2.62 2.58 2.54 2.50 2.46 2.42 2.38 2.34 2.30 2.26 2.22 2.18 2.14 2.10 2.06 2.02 1.98 1.94 1.90 1.86 1.82 1.78 1.74 1.70 1.66 1.62 1.58 1.54 1.50 1.46 1.42 1.38 1.34 1.30 1.26 1.22 1.18 1.14 1.10 1.06 1.02 0.98 0.94 0.90 0.86 0.82 0.78 0.74 0.70 0.66 0.62 0.58 0.54 0.50 0.46 0.42 0.38 0.34 0.30 0.26 0.22 0.18 0.14 0.10 0.06 0.02 0.00
GROUND SURFACE ELEVATION	13.16 13.27 13.11 13.13 12.08 11.92 11.52 14.21 14.83 15.23 13.51 12.14 11.89 11.50 11.76 11.50 11.49 11.63 11.63 11.91 11.28 11.86 11.80 11.72 13.71 14.06 11.58 9.87 13.48 12.57 12.35 6.00 10.41 10.87 11.58 12.82 11.13	13.16 13.27 13.11 13.13 12.08 11.92 11.52 14.21 14.83 15.23 13.51 12.14 11.89 11.50 11.76 11.50 11.49 11.63 11.63 11.91 11.28 11.86 11.80 11.72 13.71 14.06 11.58 9.87 13.48 12.57 12.35 6.00 10.41 10.87 11.58 12.82 11.13
REDUCED DISTANCE	24000.00 24085.00 24100.00 24166.00 24200.00 24300.00 24350.00 24400.00 24500.00 24600.00 24700.00 24715.00 24800.00 24830.00 24800.00 25000.00 25050.00 25084.00 25100.00 25200.00 25250.00 25300.00 25400.00 25412.00 25500.00 25585.00 25634.00 25700.00 25800.00 25882.00 25900.00 26000.00 26100.00 26200.00 26300.00 26400.00 26487.00	24000.00 24085.00 24100.00 24166.00 24200.00 24300.00 24350.00 24400.00 24500.00 24600.00 24700.00 24715.00 24800.00 24830.00 24800.00 25000.00 25050.00 25084.00 25100.00 25200.00 25250.00 25300.00 25400.00 25412.00 25500.00 25585.00 25634.00 25700.00 25800.00 25882.00 25900.00 26000.00 26100.00 26200.00 26300.00 26400.00 26487.00
DISTANCE	0.00 85.00 166.00 334.00 100.00 5.00 45.00 72.00 28.00 100.00 100.00 15.00 65.00 30.00 70.00 100.00 50.00 34.00 16.00 100.00 50.00 3.00 87.00 12.00 88.00 85.00 14.00 66.00 100.00 82.00 18.00 100.00 100.00 100.00 100.00 100.00 100.00 87.00	0.00 85.00 166.00 334.00 440.00 445.00 490.00 562.00 590.00 690.00 790.00 805.00 870.00 900.00 970.00 1070.00 1120.00 1154.00 1170.00 1186.00 1236.00 1239.00 1339.00 1426.00 1438.00 1526.00 1611.00 1677.00 1743.00 1809.00 1827.00 1927.00 2027.00 2127.00 2227.00 2327.00 2427.00 2527.00 2627.00 2727.00 2827.00
STATION NO.	No.241 IP-36 No.242 No.243 +50.00 No.244 IP-35 No.245 No.246 No.247 +10.00 No.248 +30.00 No.249 No.250 +50.00 IP-30 No.251 No.252 +50.00 No.253 IP-21 No.254 IP-42 No.255 +85.00 No.256 IP-44 No.259 No.260 No.261 No.262 No.263 No.264 +97.00	No.241 IP-36 No.242 No.243 +50.00 No.244 IP-35 No.245 No.246 No.247 +10.00 No.248 +30.00 No.249 No.250 +50.00 IP-30 No.251 No.252 +50.00 No.253 IP-21 No.254 IP-42 No.255 +85.00 No.256 IP-44 No.259 No.260 No.261 No.262 No.263 No.264 +97.00
CURVE		

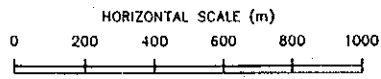
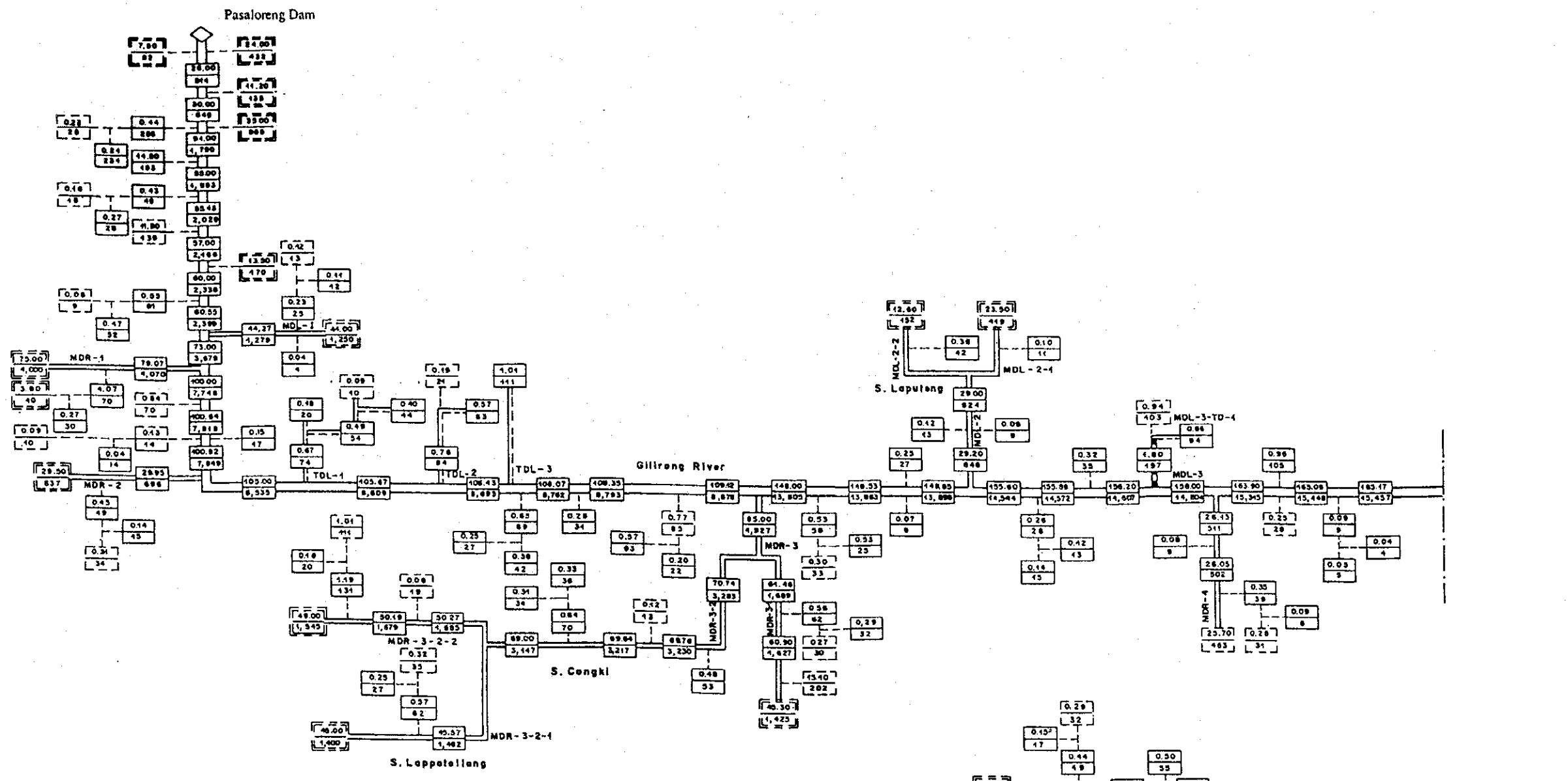

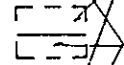
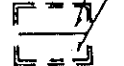
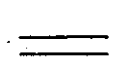

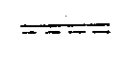

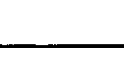


Figure A.4.9 Longitudinal Profile of Main Canal (9/9)



LEGEND

-  Drain from Paddy Field in the Project Area
(Drain Discharge in m³/sec)
-  Drain from Paddy Field out of the Project Area
(Drainage Area in ha)
-  Drain from Upland Field out of the Project Area
-  Natural Drain (Gilirang River)
-  Natural Drain / Stream (Tributaries, Small Rivers)
-  Natural Drain / Stream (Proposed Major Drain to be exc)
-  Proposed Tertiary Drain to be accepted
-  Direct Drain without Tertiary Drain

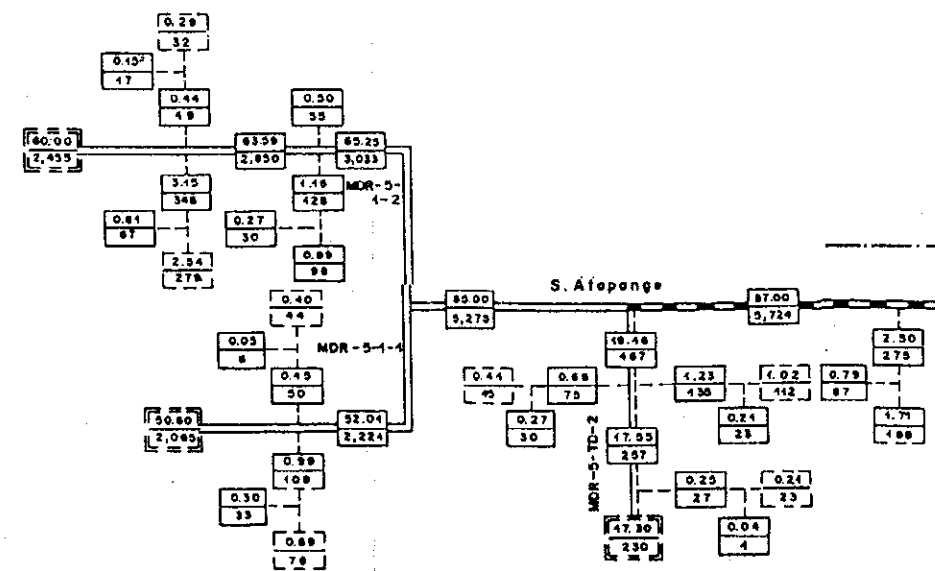
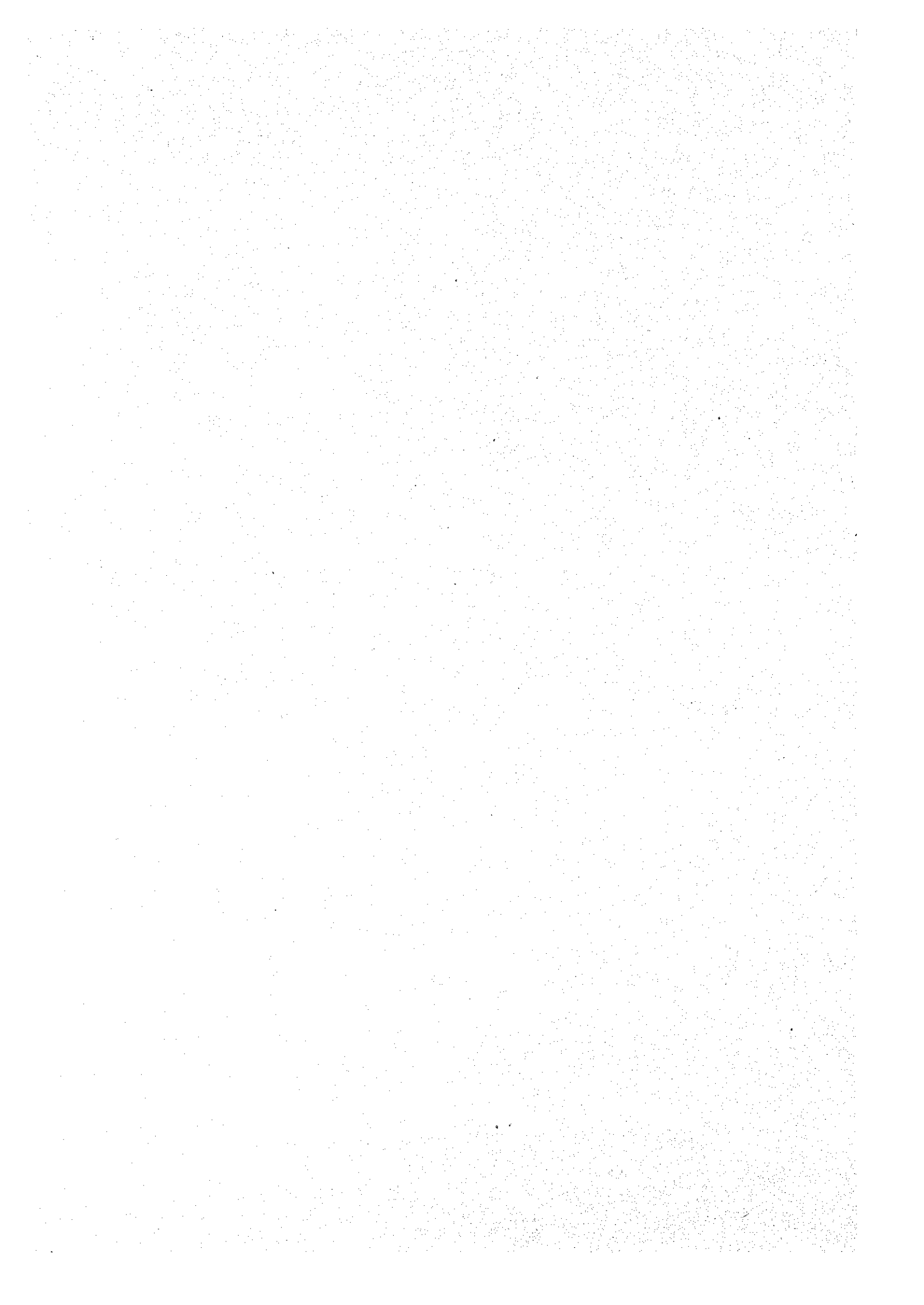


Figure A.4.10 Drainage Diagram (1/2)



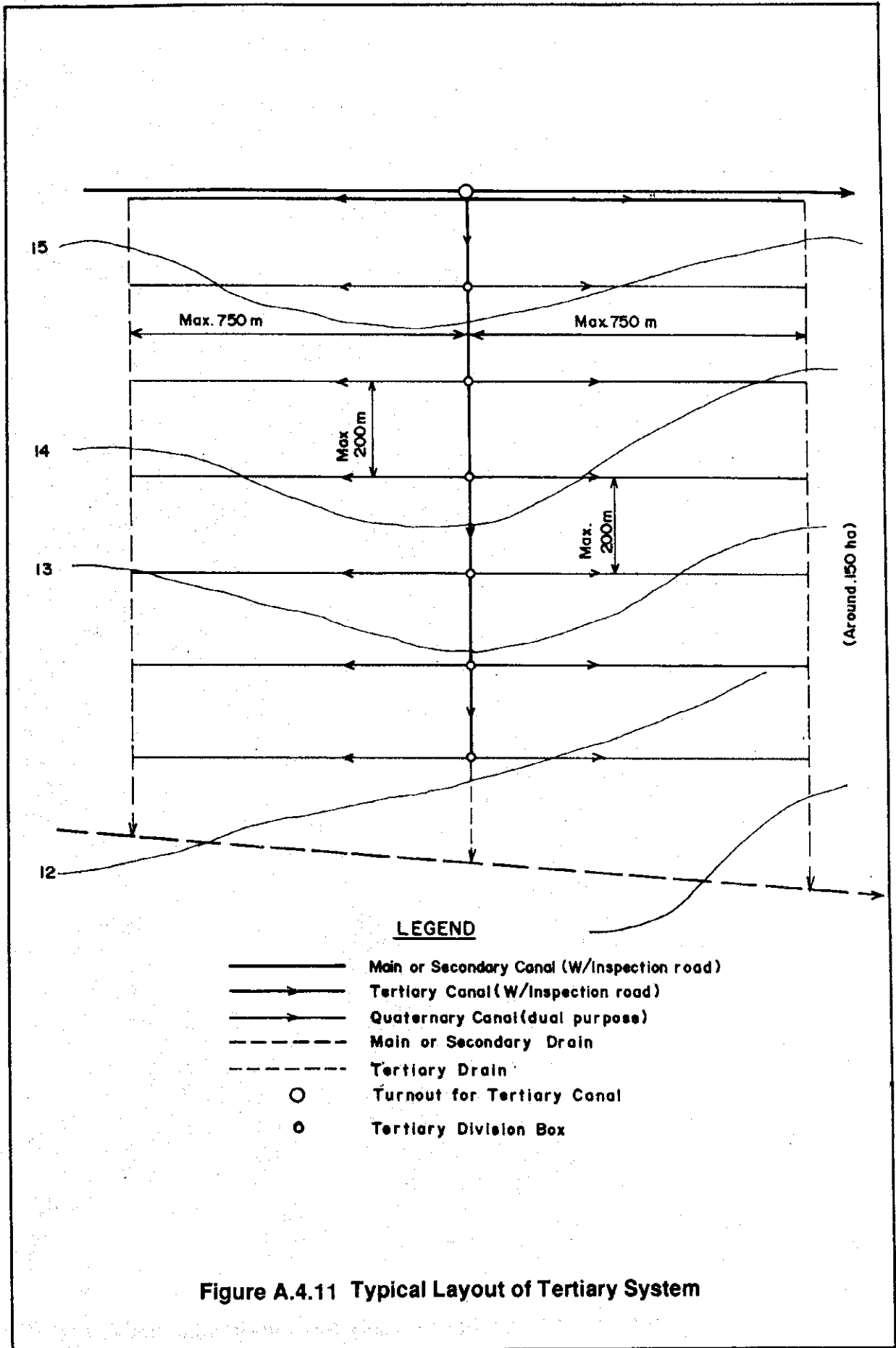


Figure A.4.11 Typical Layout of Tertiary System

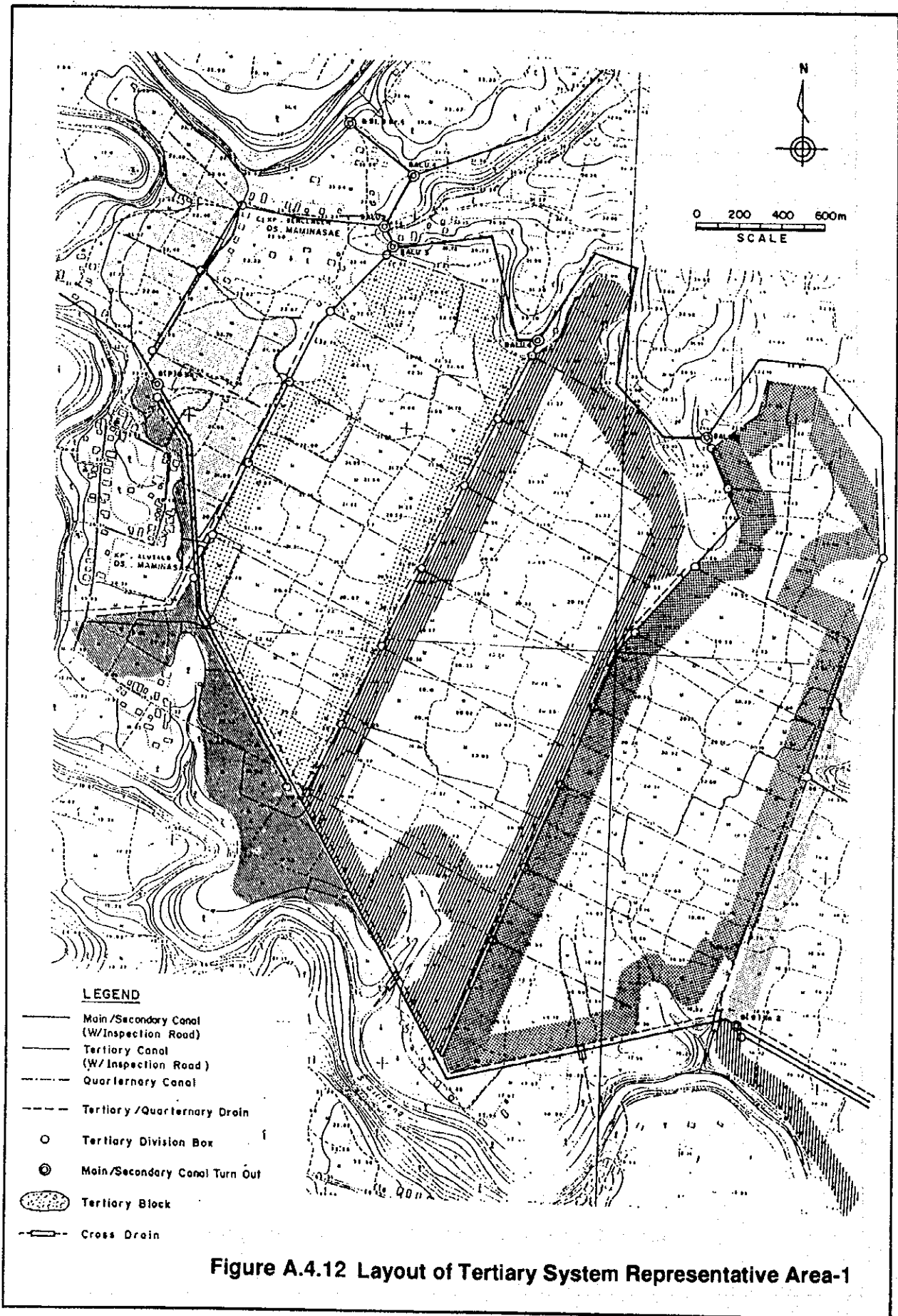


Figure A.4.12 Layout of Tertiary System Representative Area-1

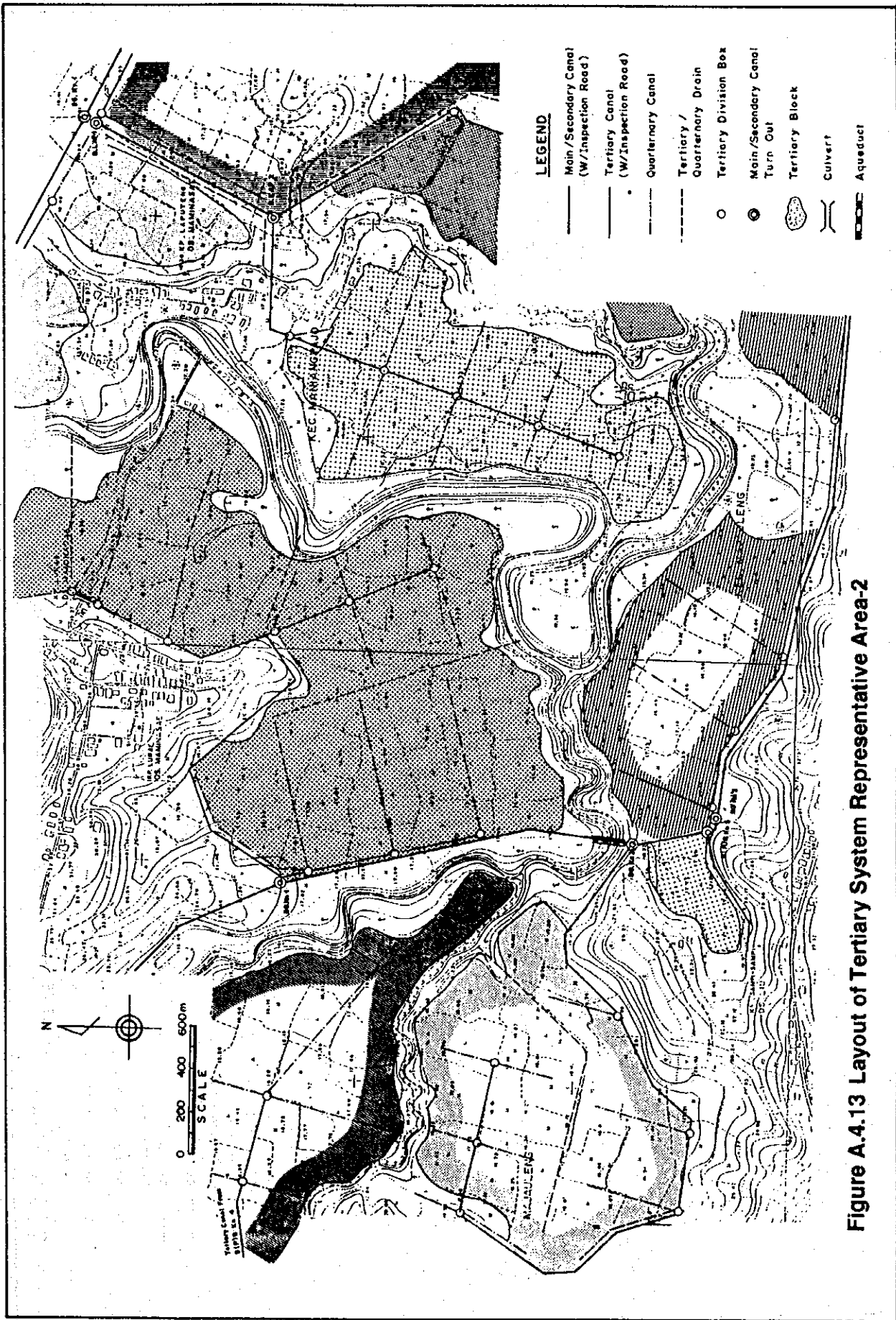


Figure A.4.13 Layout of Tertiary System Representative Area-2

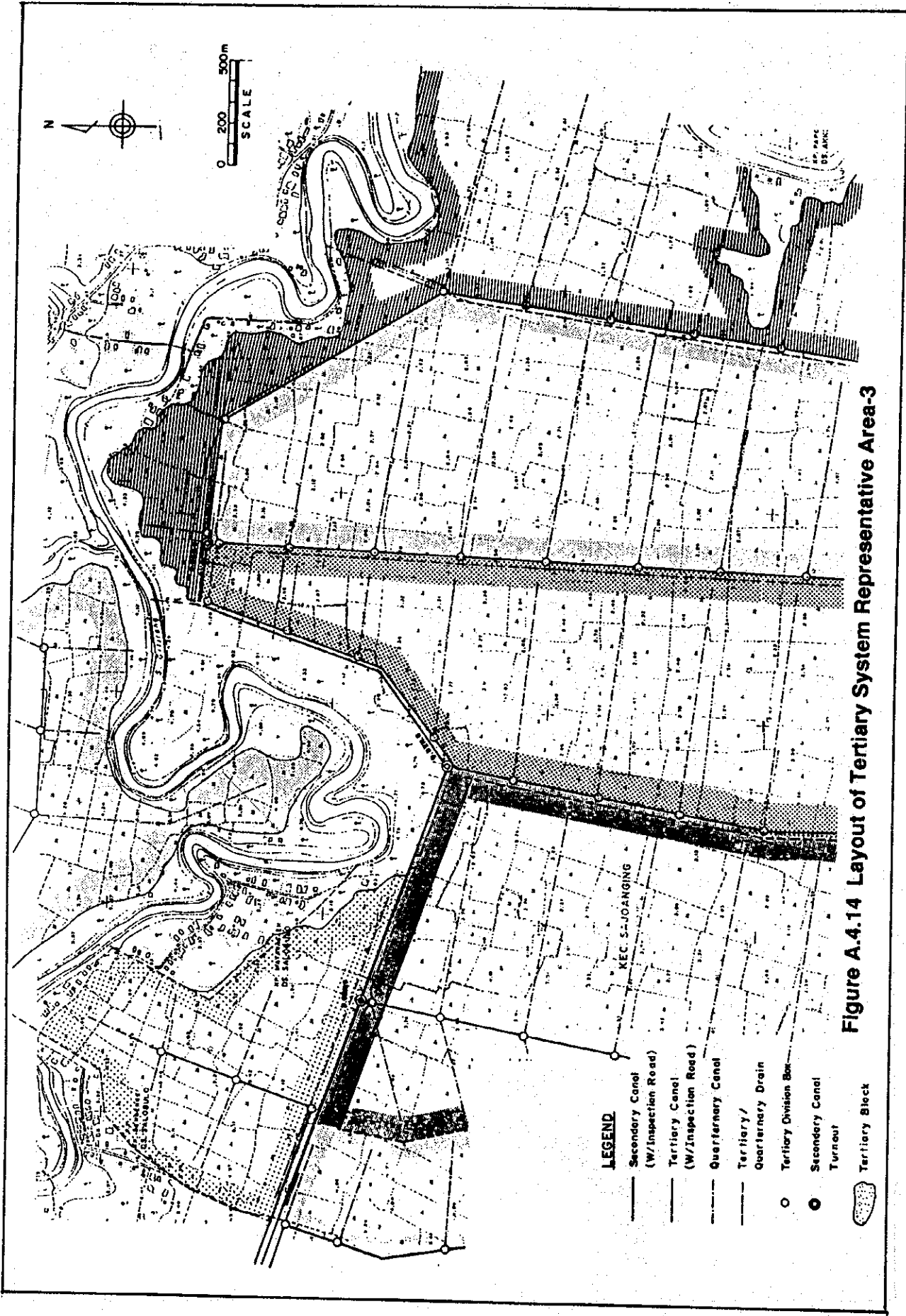


Figure A.4.14 Layout of Tertiary System Representative Area-3

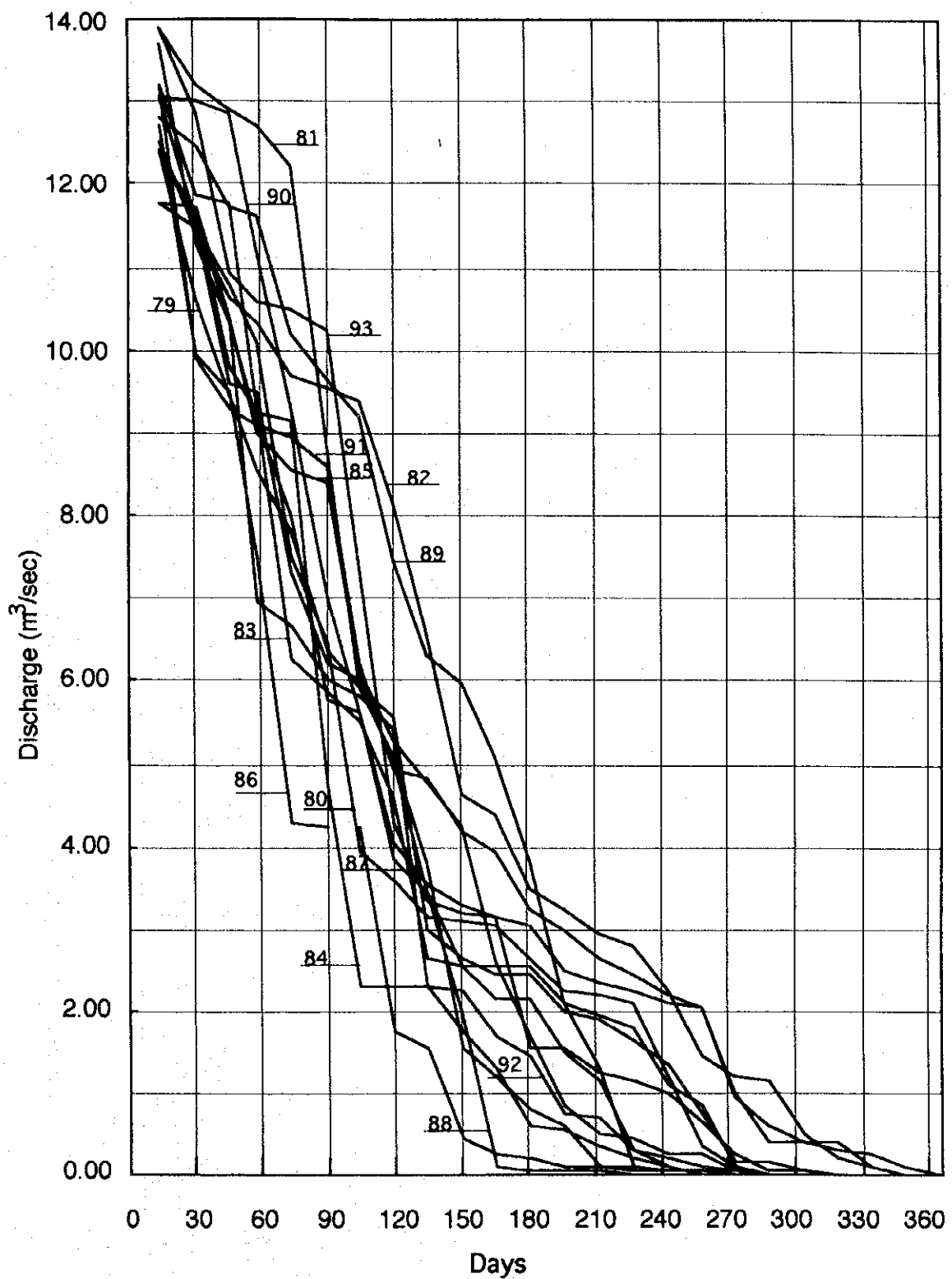


Figure A.4.15 Released Flow-duration Curve (1979 - 1993)

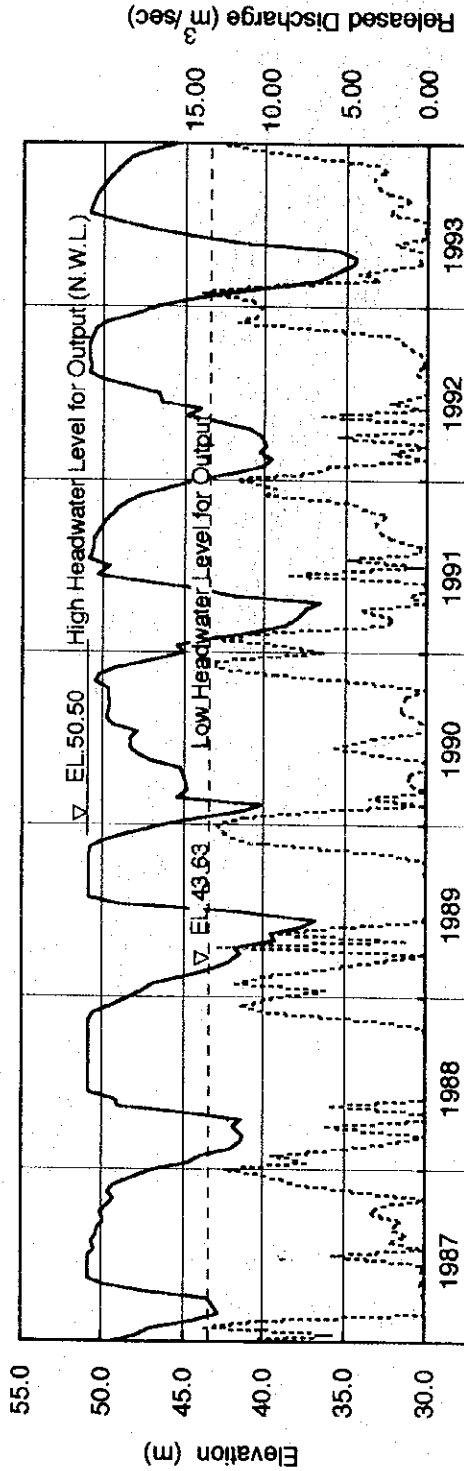
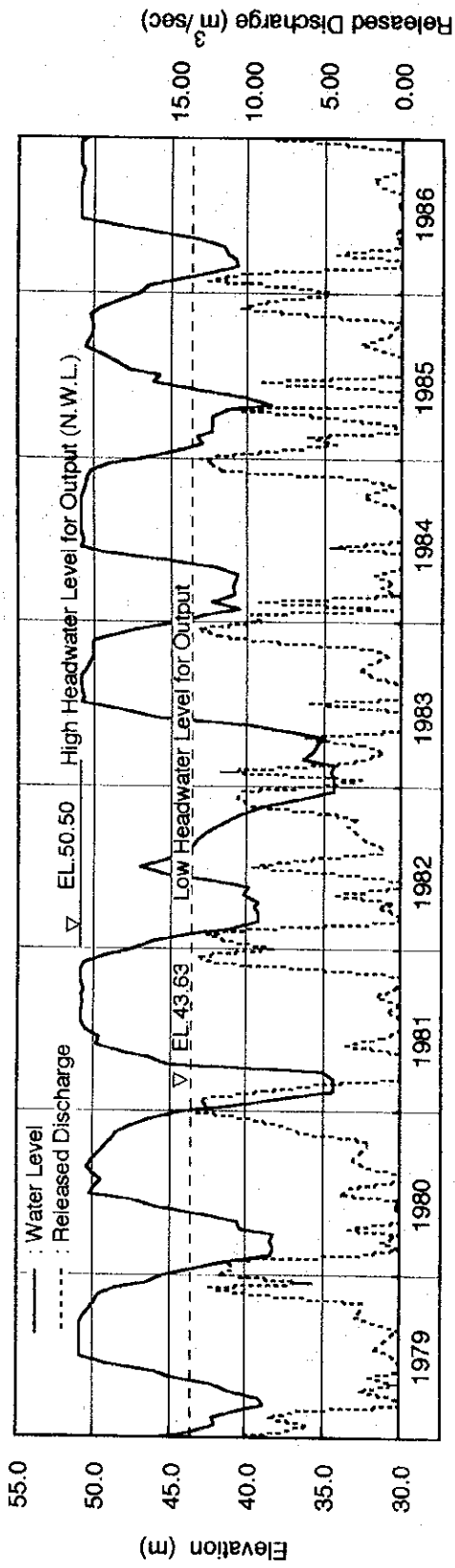


Figure A.4.16 Headwater Level and Released Discharge (1979 - 1993)

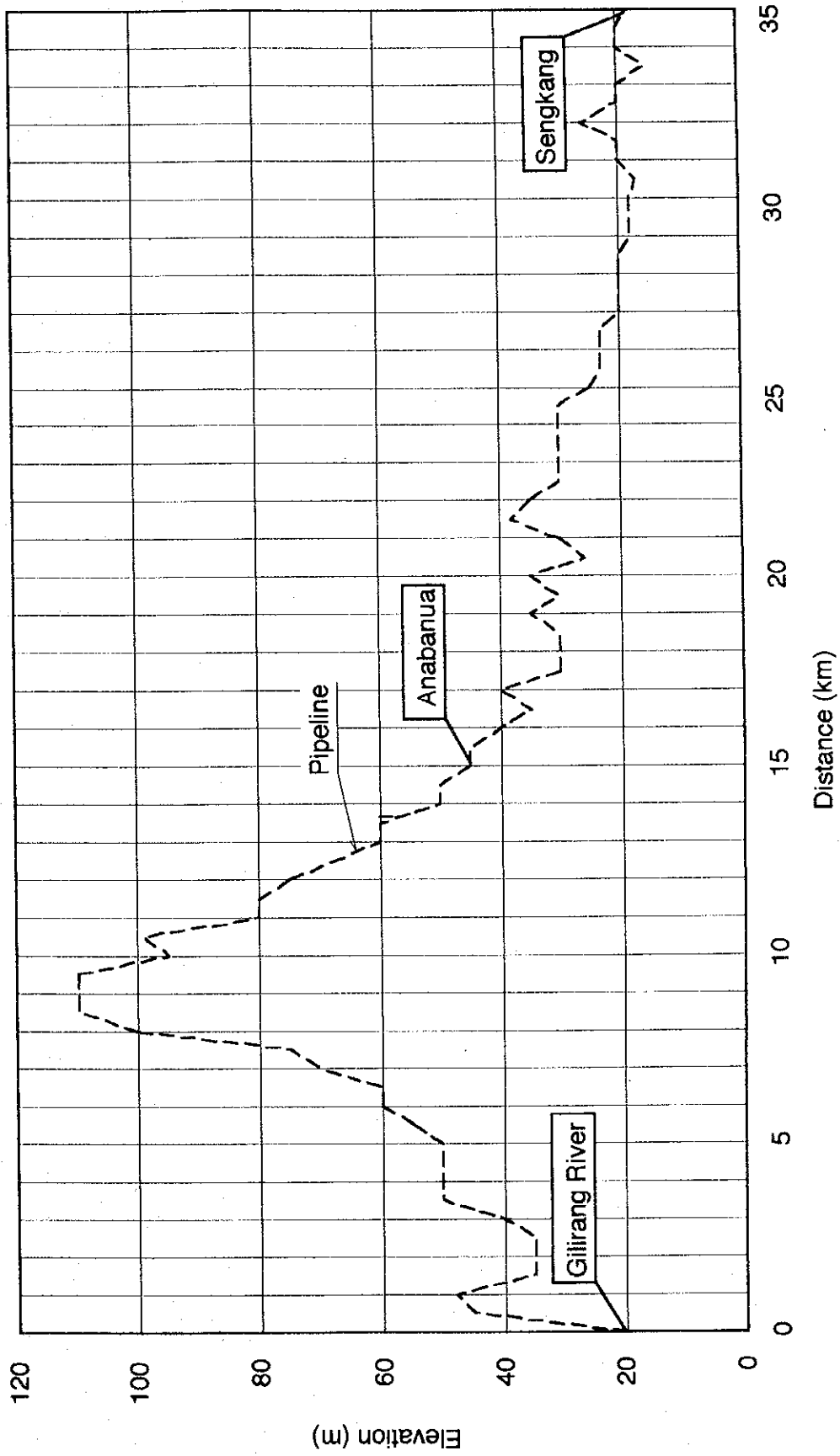


Figure A.4.17 Profile of Pipeline

JICA