

No. 3

MINISTRY OF IRRIGATION, POWER AND ENERGY  
THE GOVERNMENT OF THE DEMOCRATIC  
SOCIALIST REPUBLIC OF SRI LANKA

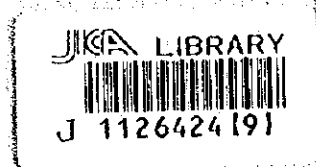
JAPAN INTERNATIONAL  
COOPERATION AGENCY

**THE FEASIBILITY STUDY ON  
THE REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEMS IN  
THE RIVER BASINS OF SOUTHERN SRI LANKA**

**VOLUME IV**

**DRAWINGS**

**SEPTEMBER 1996**



CHUO KAIHATSU CORPORATION  
AERO ASAHI CORPORATION

AFA
CR(2)
96-41



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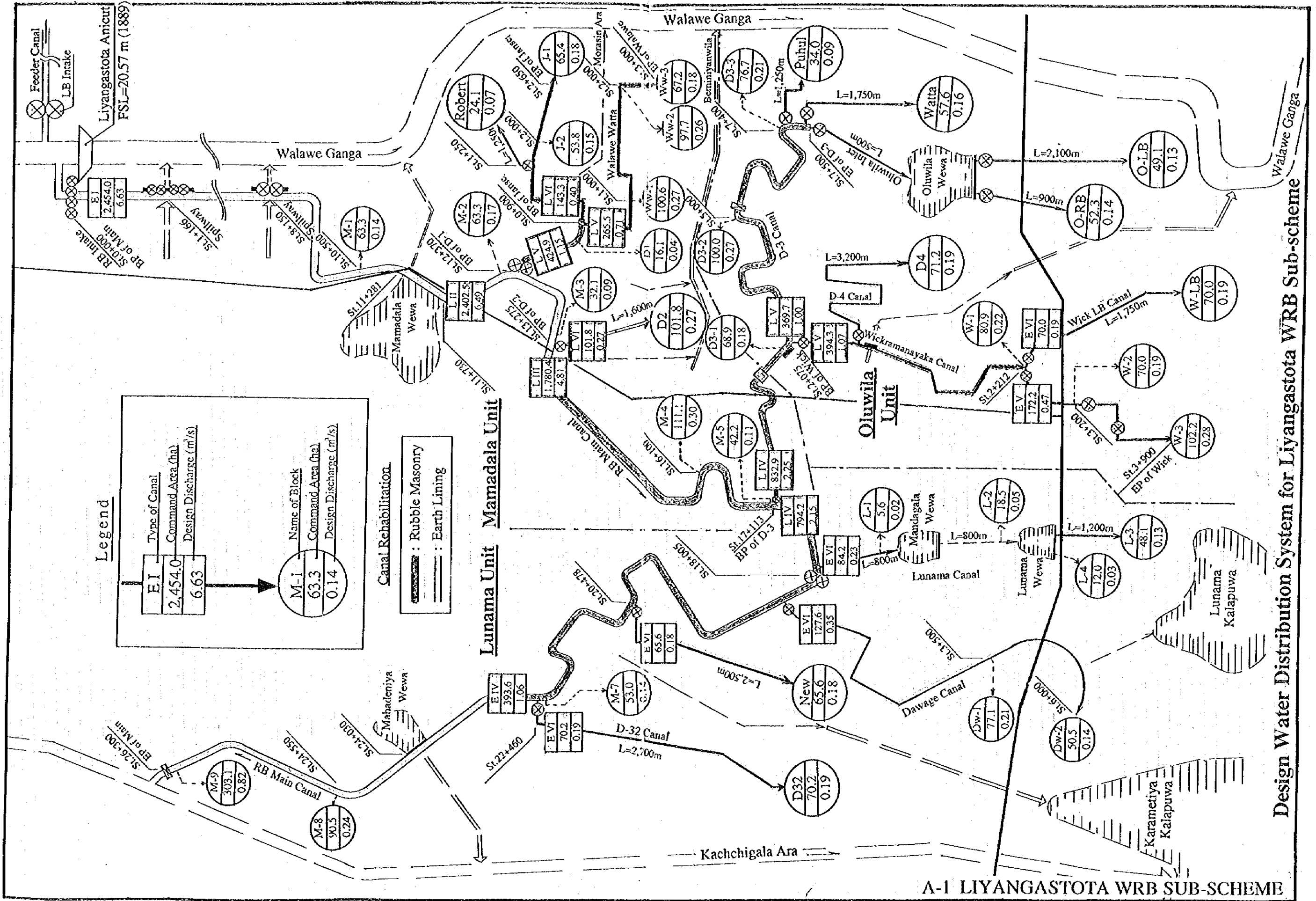
**THE FEASIBILITY STUDY ON  
THE REHABILITATION OF  
IRRIGATION AND DRAINAGE SYSTEMS IN  
THE RIVER BASINS OF SOUTHERN SRI LANKA**

**LIST OF DRAWINGS**

<u>DRG.NO.</u>	<u>DESCRIPTION</u>	<u>DRG.NO.</u>	<u>DESCRIPTION</u>
<b>A. FIGURES OF DESIGN WATER DISTRIBUTION SYSTEM</b>		<b>M. MURUTHAWELA RESERVOIR SCHEME</b>	
<b>A-1 LIYANGASTOTA WRB SUB-SCHEME</b>		<b>ML. MURUTHAWELA LB SUB-SCHEME</b>	
A-2	LIYANGASTOTA WLB SUB-SCHEME	ML-1	GENERAL PLAN OF THE SCHEME
A-3	MURUTHAWELA LB SUB-SCHEME	ML-2	LB MAIN CANAL (1/7) L.S. ( 0 ~ 3 km) & C.S.
A-4	URUBOKKA/KIRAMA OYA SUB-SCHEMES	ML-3	LB MAIN CANAL (2/7) L.S. ( 3 ~ 6 km) & C.S.
A-5	BADAGIRIYA SCHEME	ML-4	LB MAIN CANAL (3/7) L.S. ( 6 ~ 9 km) & C.S.
<b>B. TYPICAL CROSS SECTIONS</b>		ML-5	LB MAIN CANAL (4/7) L.S. ( 9 ~ 12 km) & C.S.
<b>L. LIYANGASTOTA SCHEME</b>		ML-6	LB MAIN CANAL (5/7) L.S. (12 ~ 14.4 km) & C.S.
<b>LR. WALAWE RB SUB-SCHEME</b>		ML-7	LB MAIN CANAL (6/7) CROSS SECTIONS (1/2)
LR-1	GENERAL PLAN OF THE SCHEME (1/2)	ML-8	LB MAIN CANAL (7/7) CROSS SECTIONS (2/2)
LR-2	GENERAL PLAN OF THE SCHEME (2/2)	<b>MU. URUBOKKA OYA SUB-SCHEME</b>	
LR-3	RB MAIN CANAL (1/11) L.S. ( 0 ~ 3 km) & C.S.	MU-1	GENERAL PLAN OF THE SCHEME (1/3)
LR-4	RB MAIN CANAL (2/11) L.S. ( 3 ~ 6 km) & C.S.	MU-2	GENERAL PLAN OF THE SCHEME (2/3)
LR-5	RB MAIN CANAL (3/11) L.S. ( 6 ~ 9 km) & C.S.	MU-3	GENERAL PLAN OF THE SCHEME (3/3)
LR-6	RB MAIN CANAL (4/11) L.S. ( 9 ~ 12 km) & C.S.	MU-4	HIGH LEVEL CANAL (1/5) L.S. ( 0 ~ 3 km) & C.S.
LR-7	RB MAIN CANAL (5/11) L.S. (12 ~ 15 km) & C.S.	MU-5	HIGH LEVEL CANAL (2/5) L.S. ( 3 ~ 6 km) & C.S.
LR-8	RB MAIN CANAL (6/11) L.S. (15 ~ 18 km) & C.S.	MU-6	HIGH LEVEL CANAL (3/5) L.S. ( 6 ~ 9 km) & C.S.
LR-9	RB MAIN CANAL (7/11) L.S. (18 ~ 21 km) & C.S.	MU-7	HIGH LEVEL CANAL (4/5) L.S. ( 9 ~ 12 km) & C.S.
LR-10	RB MAIN CANAL (8/11) L.S. (21 ~ 24 km) & C.S.	MU-8	HIGH LEVEL CANAL (5/5) L.S. (12 ~ 14 km) & C.S.
LR-11	RB MAIN CANAL (9/11) L.S. (24 ~ 24.7 km) & C.S.	<b>MK. KIRAMA OYA SUB-SCHEME</b>	
LR-12	RB MAIN CANAL (10/11) CROSS SECTIONS (1/2)	MK-1	GENERAL PLAN OF THE SCHEME (1/2)
LR-13	RB MAIN CANAL (11/11) CROSS SECTIONS (2/2)	MK-2	GENERAL PLAN OF THE SCHEME (2/2)
<b>LL. WALAWE LB SUB-SCHEME</b>		<b>B. BADAGIRIYA SCHEME</b>	
LL-1	GENERAL PLAN OF THE SCHEME	B-1	GENERAL PLAN OF THE SCHEME
LL-2	LB MAIN CANAL (1/6) L.S. ( 0 ~ 3 km) & C.S.	B-2	MAIN CANAL (1/4) L.S. ( 0 ~ 3 km) & C.S.
LL-3	LB MAIN CANAL (2/6) L.S. ( 3 ~ 6 km) & C.S.	B-3	MAIN CANAL (2/4) L.S. ( 3 ~ 6 km) & C.S.
LL-4	LB MAIN CANAL (3/6) L.S. ( 6 ~ 9 km) & C.S.	B-4	MAIN CANAL (3/4) L.S. ( 6 ~ 8.6 km) & C.S.
LL-5	LB MAIN CANAL (4/6) L.S. ( 9 ~ 12.2 km) & C.S.	B-5	MAIN CANAL (4/4) CROSS SECTIONS
LL-6	LB MAIN CANAL (5/6) CROSS SECTIONS (1/2)		
LL-7	LB MAIN CANAL (6/6) CROSS SECTIONS (2/2)		



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**Legend**

Type of Canal	
EI	Command Area (tha) 2,454.0 Design Discharge (m³/s) 6.63

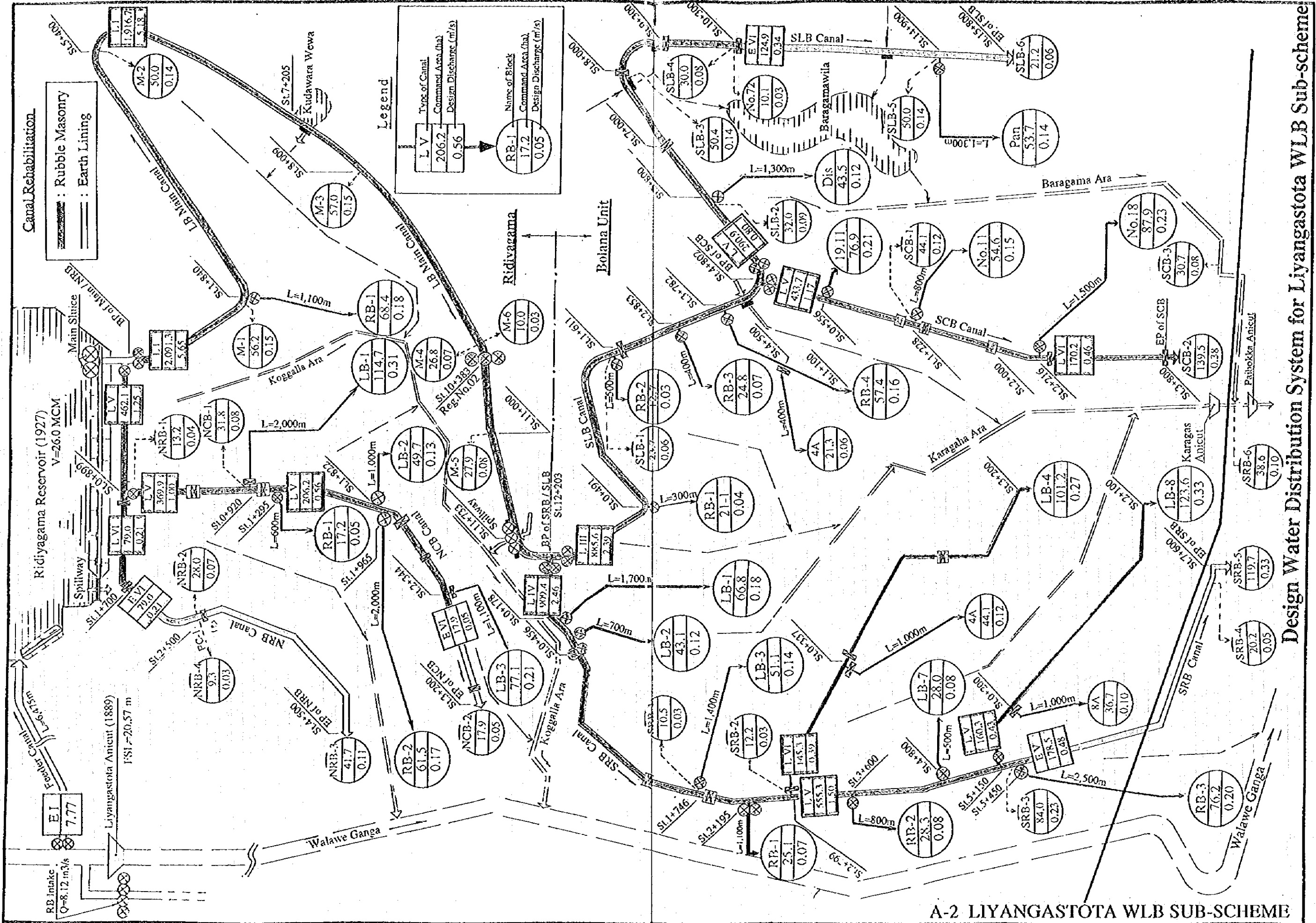
  

Name of Block	
M-1	Command Area (tha) 63.3 Design Discharge (m³/s) 0.14

**Canal Rehabilitation**

: Rubble Masonry  
 : Earth Lining

**Design Water Distribution System for Liyangastota WRB Sub-scheme**

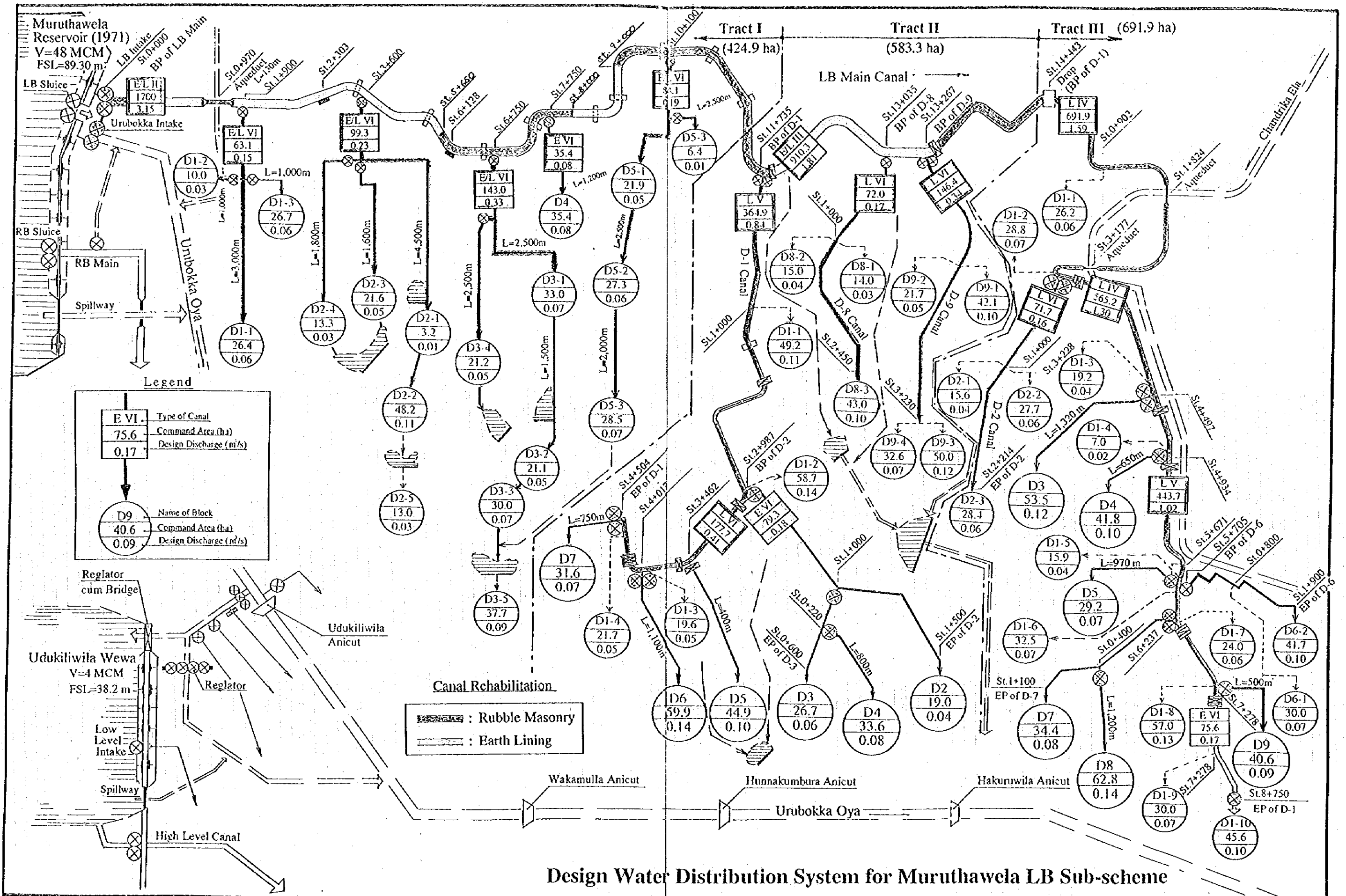


**Legend**

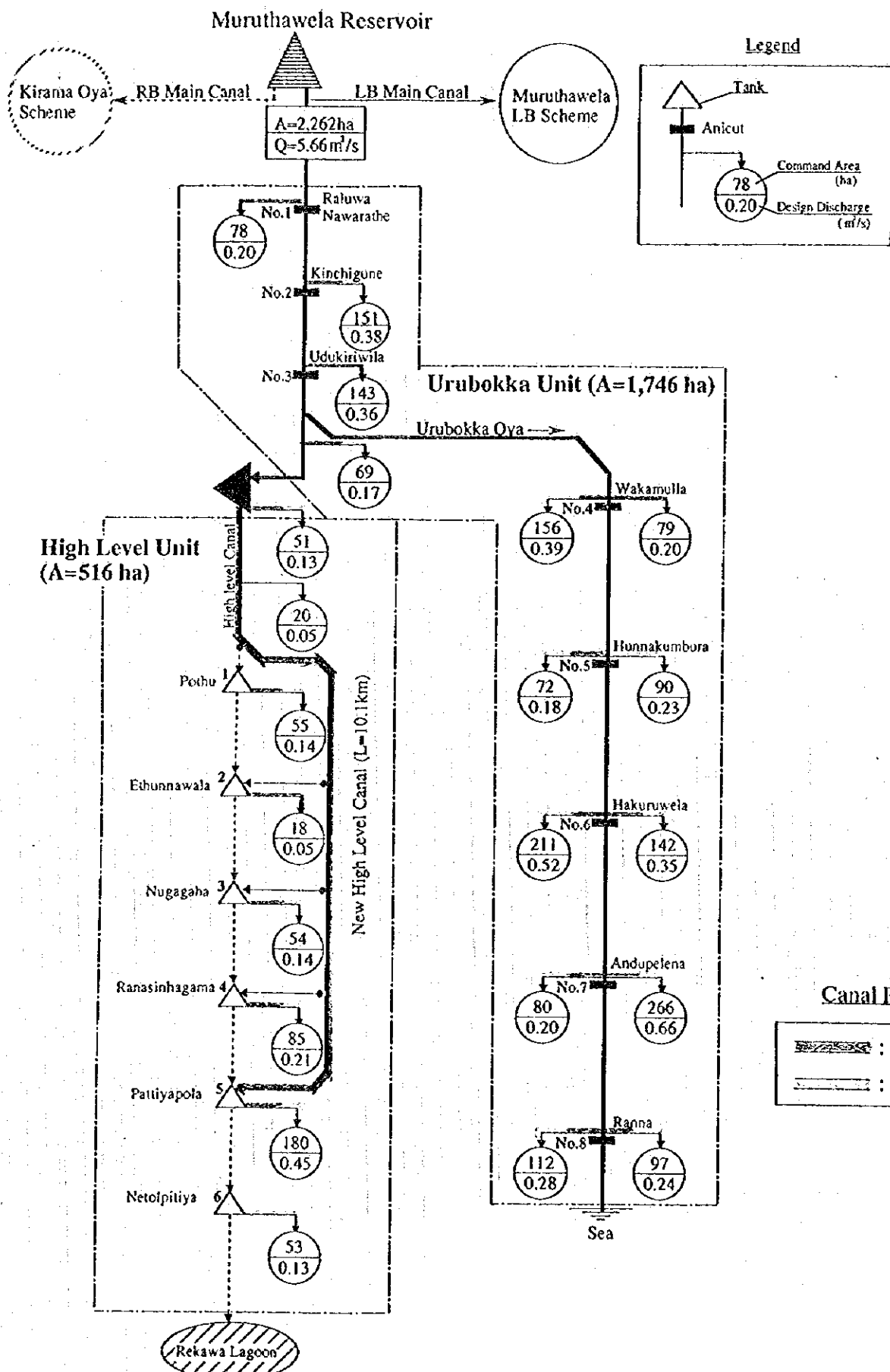
Type of Canal	Name of Block
LV 206.2 0.56	RB-1 17.2 0.05

A-2 LIYANGASTOTA WLB SUB-SCHEME

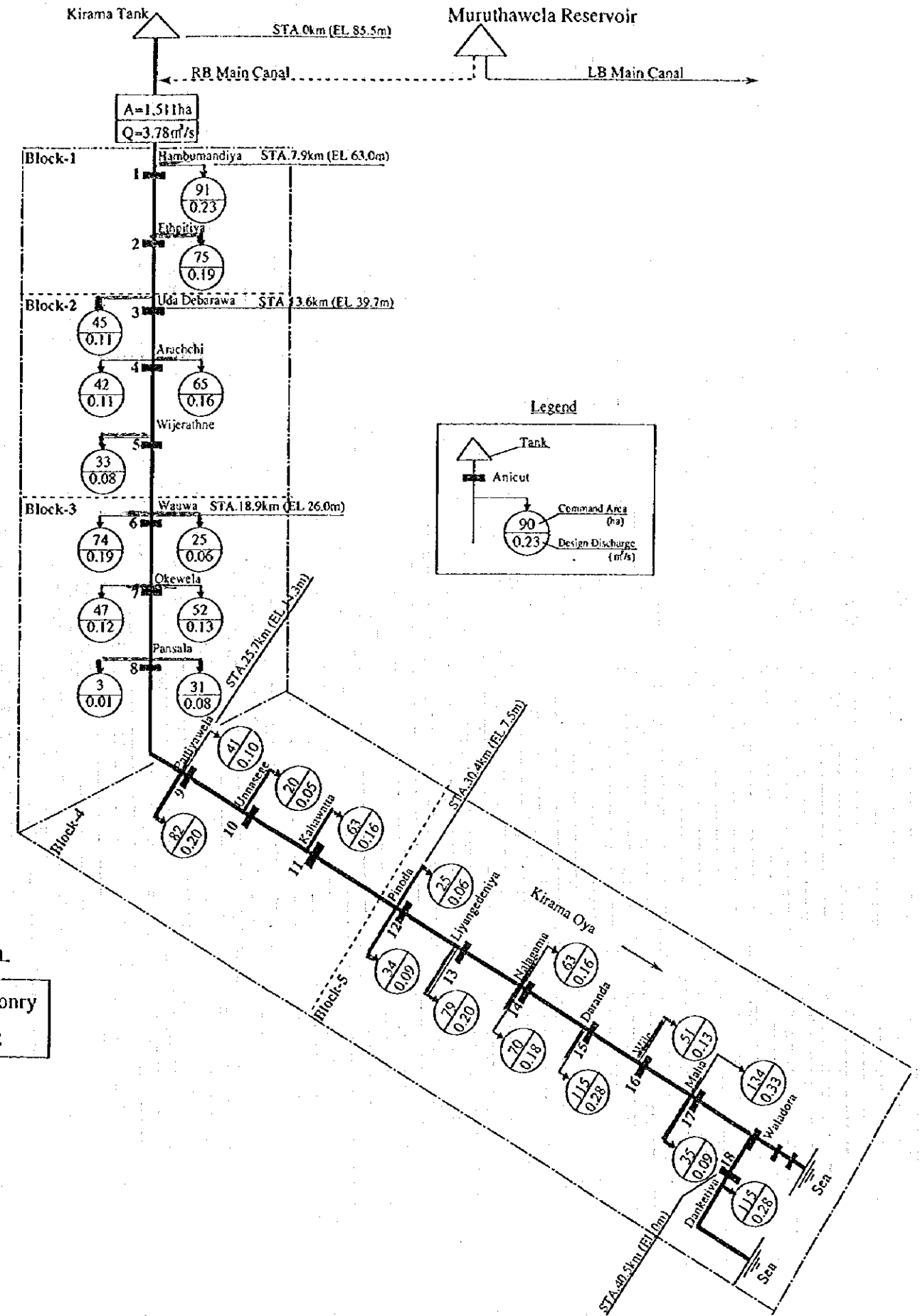
Design Water Distribution System for Liyangastota WLB Sub-scheme



A-3 MURUTHAWELA LB SUB-SCHEME



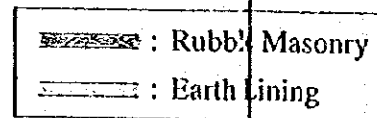
Design Water Distribution System for Urubokka Oya Sub-scheme



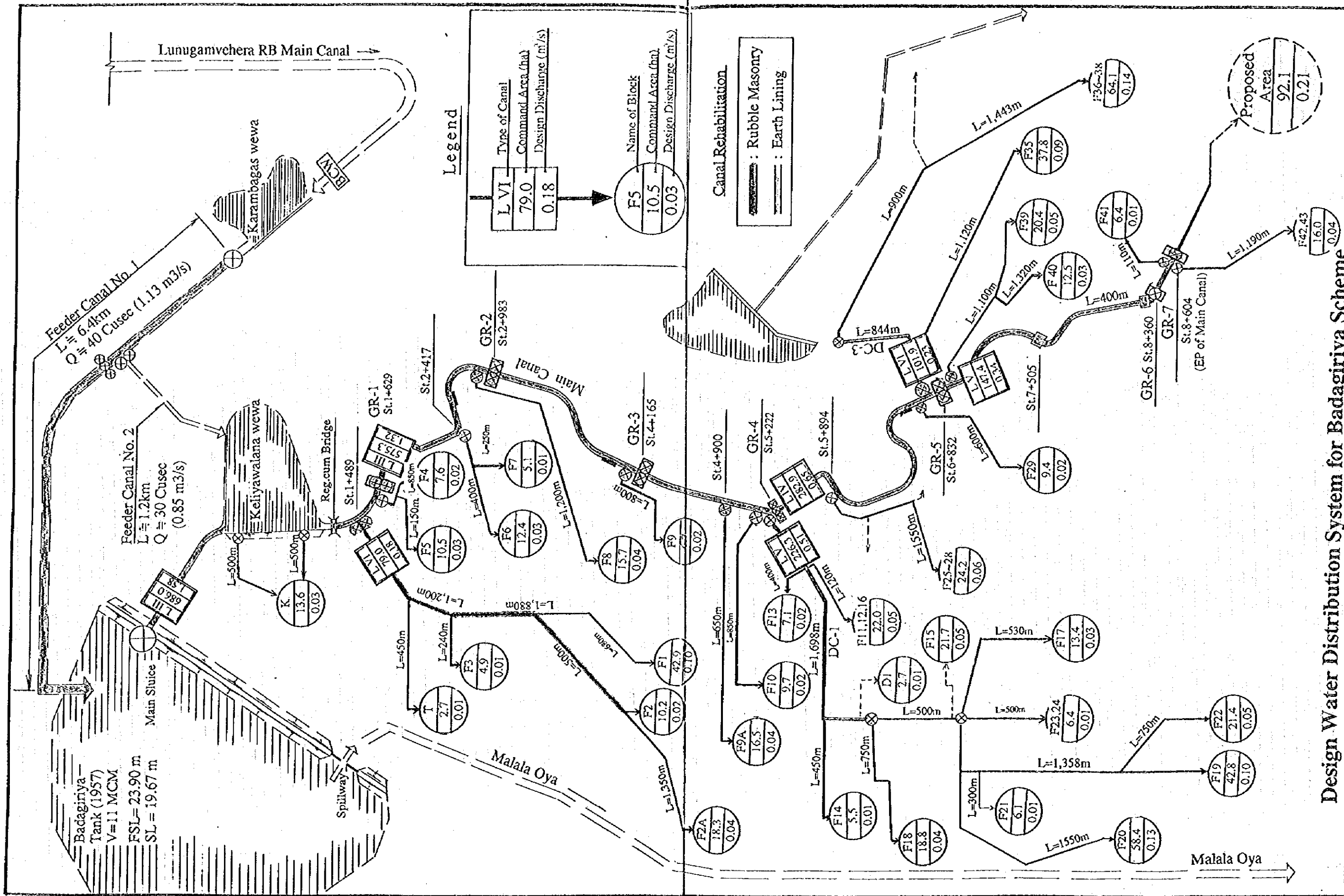
Design Water Distribution System for Kirama Oya Sub-scheme

A-4 URUBOKKA/KIRAMA OYA SUB-SCHEMES

**Canal Rehabilitation**







**Legend**

Type of Canal	Command Area (ha)	Design Discharge (m <sup>3</sup> /s)
L VI	79.0	0.18

Name of Block	Command Area (ha)	Design Discharge (m <sup>3</sup> /s)
F5	10.5	0.03

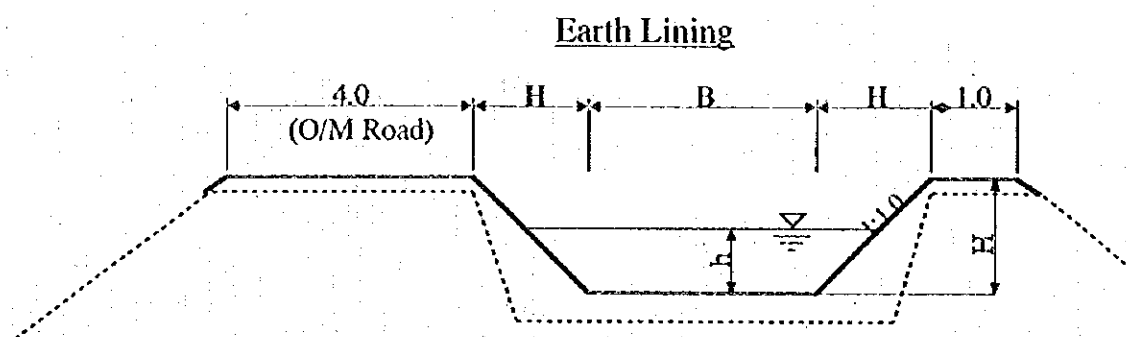
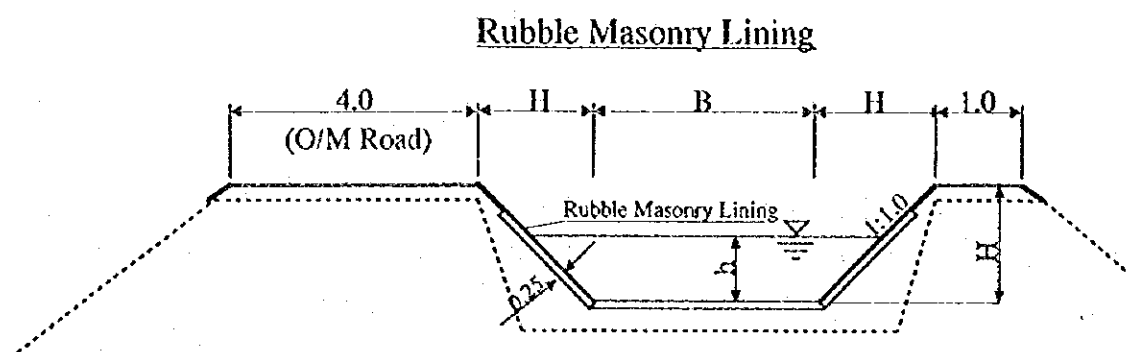
**Canal Rehabilitation**

- ▨ : Rubble Masonry
- ▨ : Earth Lining

A-5 BADAGIRIYA SCHEME

Design Water Distribution System for Badagiriya Scheme

## TYPICAL CROSS SECTIONS



**Dimensions**







Lining	Type	B (m)	H (m)	h (m)
Rubble Masonry (n=0.0020)	L I	8.0	1.7	0.85
	L II	5.0	1.5-2.4	0.75-1.20
	L III	4.0	1.3-2.3	0.65-1.15
	L IV	3.0	1.0-1.9	0.50-0.95
	L V	2.0	0.9-1.9	0.45-0.95
	L VI	1.0	0.4-1.3	0.20-0.65
Earth Lining (n=0.0035)	E I	8.0	2.6-2.8	1.30-1.40
	E II	5.0	2.0-2.3	1.00-1.15
	E III	4.0	1.8-2.0	0.90-1.00
	E IV	3.0	1.5	0.75
	E V	2.0	1.2-1.4	0.60-0.70
	E VI	1.0	0.2-1.5	0.10-0.75

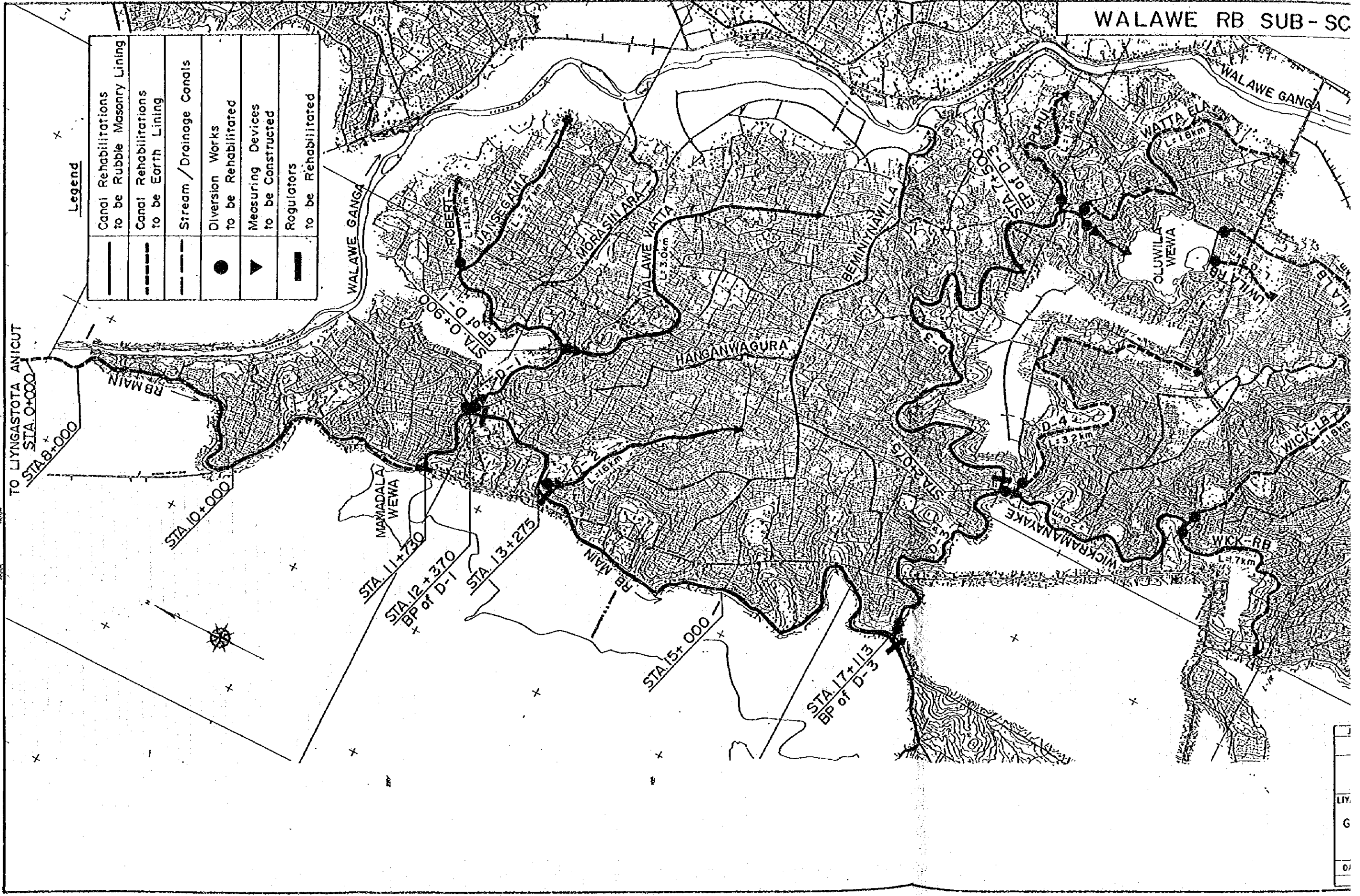
## Designed Canal Type for Respective Canal Sections

Sub-scheme	Canal	Station	Q (m <sup>3</sup> /s)	I	Type			
Liyangastota Scheme	Walawe RB	RB Main	0+000 ~ 6+000	6.63	0.0004	E I-a		
			6+000 ~ 11+730	6.63	0.0003	E I-b		
			11+730 ~ 13+275	6.49	0.0004	L II		
			13+275 ~ 17+113	4.81	0.0004	L III		
			17+113 ~ 22+460	2.14	0.0004	L IV		
			22+460 ~ 26+300	1.06	0.0004	E IV		
		D-1	0+000 ~ 0+900	1.15	0.0004	L V		
		Jansegama	0+000 ~ 2+650	0.39	0.0004	L VI		
		Walawe Waita	0+000 ~ 3+000	0.72	0.0004	L V		
		D-2	0+000 ~ 1+600	0.27	0.0004	L V		
		D-3	0+000 ~ 2+075	2.25	0.0004	L IV		
			2+075 ~ 7+500	1.00	0.0004	L V		
		Wickramanayake	0+000 ~ 2+212	1.06	0.0004	L V		
	Wick RB	0+000 ~ 3+200	0.46	0.0004	E V			
	Wick LB	0+000 ~ 1+750	0.19	0.0004	E VI			
Lunama	0+000 ~ 0+800	0.23	0.0004	E VI				
Dawage	0+000 ~ 6+000	0.34	0.0004	E VI				
New Canal	0+000 ~ 2+500	0.18	0.0004	E VI				
D-32	0+000 ~ 2+700	0.19	0.0004	E VI				
Muruthawela Reservoir Scheme	Walawe LB	Feeder Canal	0+000 ~ 6+475	7.77	0.00035	Resectioning		
		LB Main	0+000 ~ 12+203	5.65	0.00035	L I		
		NRB	0+000 ~ 0+899	1.25	0.00035	L V		
			0+000 ~ 1+700	0.21	0.00035	L VI		
		NCB	1+700 ~ 4+500	0.21	0.00035	E VI		
			0+000 ~ 2+344	1.00	0.00035	L V		
		SLB	2+344 ~ 3+200	0.05	0.00035	E VI		
			0+000 ~ 4+802	2.39	0.00035	L III		
		SCB	4+802 ~ 10+300	0.79	0.00035	L V		
			10+300 ~ 15+800	0.34	0.00035	E VI		
		SRB	0+000 ~ 2+216	1.17	0.00035	L V		
			2+216 ~ 3+800	0.46	0.00035	L VI		
Badagiriya Scheme	Kirama Oya	Anicut Scheme	0+000 ~ 2+799	2.46	0.00035	L IV		
			2+799 ~ 5+450	1.50	0.00035	L V		
			5+450 ~ 7+600	0.48	0.00035	E V		
			Muruthawela LB	LB Main	0+000 ~ 0+550	3.15	0.0003	L II
					0+550 ~ 0+905	3.15	0.0003	E II
					0+905 ~ 1+035	3.15	0.0003	Aqueduct
					1+035 ~ 5+650	3.15	0.0003	E II
					5+650 ~ 8+000	2.44	0.0003	L II
					8+000 ~ 9+000	2.44	0.0003	E II
					9+000 ~ 11+735	2.44	0.0003	L II
11+735 ~ 13+267	1.81	0.0003			E III			
13+267 ~ 14+443	1.59	0.0003			L III			
Tract II D-1	0+000 ~ 2+987	0.84			0.0004	L V		
	2+987 ~ 4+504	0.41	0.0004	L VI				
Tract III D-1	High Level	0+000 ~ 4+934	1.59	0.0004	L IV			
		4+934 ~ 7+278	1.02	0.0004	L V			
		7+278 ~ 8+750	0.17	0.0004	E VI			
Tract III D-2	New High Level	0+000 ~ 2+214	0.16	0.0004	L VI			
		3+900 ~ 14+000	1.12	0.0004	L VI			
Urubokka Oya	Anicut Scheme	-	-	0.0004	L VI, E VI			
		-	-	0.0004	L VI, E VI			
Badagiriya Scheme	Kirama Oya	Anicut Scheme	-	-	0.0004	L VI, E VI		
			Feeder No.1	0+000 ~ 6+400	1.13		L III	
				Main Canal	0+000 ~ 5+222	1.58	0.0002	L III
					5+222 ~ 6+832	0.65	0.0002	L IV
			6+832 ~ 8+604	0.34	0.0002	L V		
			DC-1	0+000 ~ 1+698	0.52	0.0004	L V	
			DC-3	0+000 ~ 0+844	0.23	0.0004	L VI	
FC-1	0+000 ~ 1+880	0.18	0.0004	L VI				

## B. TYPICAL CROSS SECTIONS

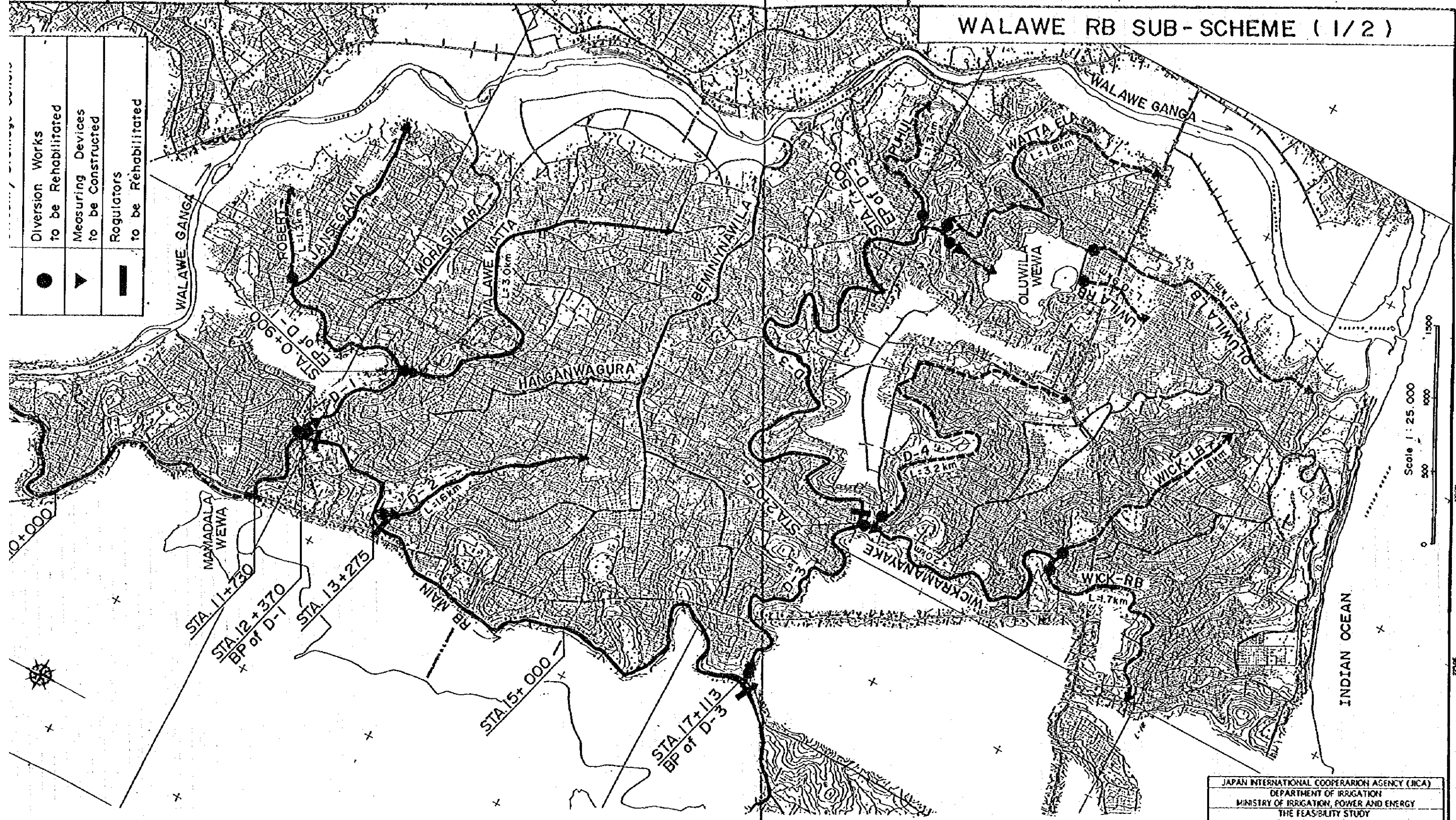
WALAWE RB SUB-SC

Legend	
	Canal Rehabilitations to be Rubble Masonry Lining
	Canal Rehabilitations to be Earth Lining
	Stream / Drainage Canals
	Diversion Works to be Rehabilitated
	Measuring Devices to be Constructed
	Regulators to be Rehabilitated



WALawe RB SUB-SCHEME (1/2)

●	Diversion Works to be Rehabilitated
▲	Measuring Devices to be Constructed
—	Regulators to be Rehabilitated



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 LIYANGASTOTA SCHEME <WALawe RB>







GENERAL PLAN OF THE SCHEME (1/2)

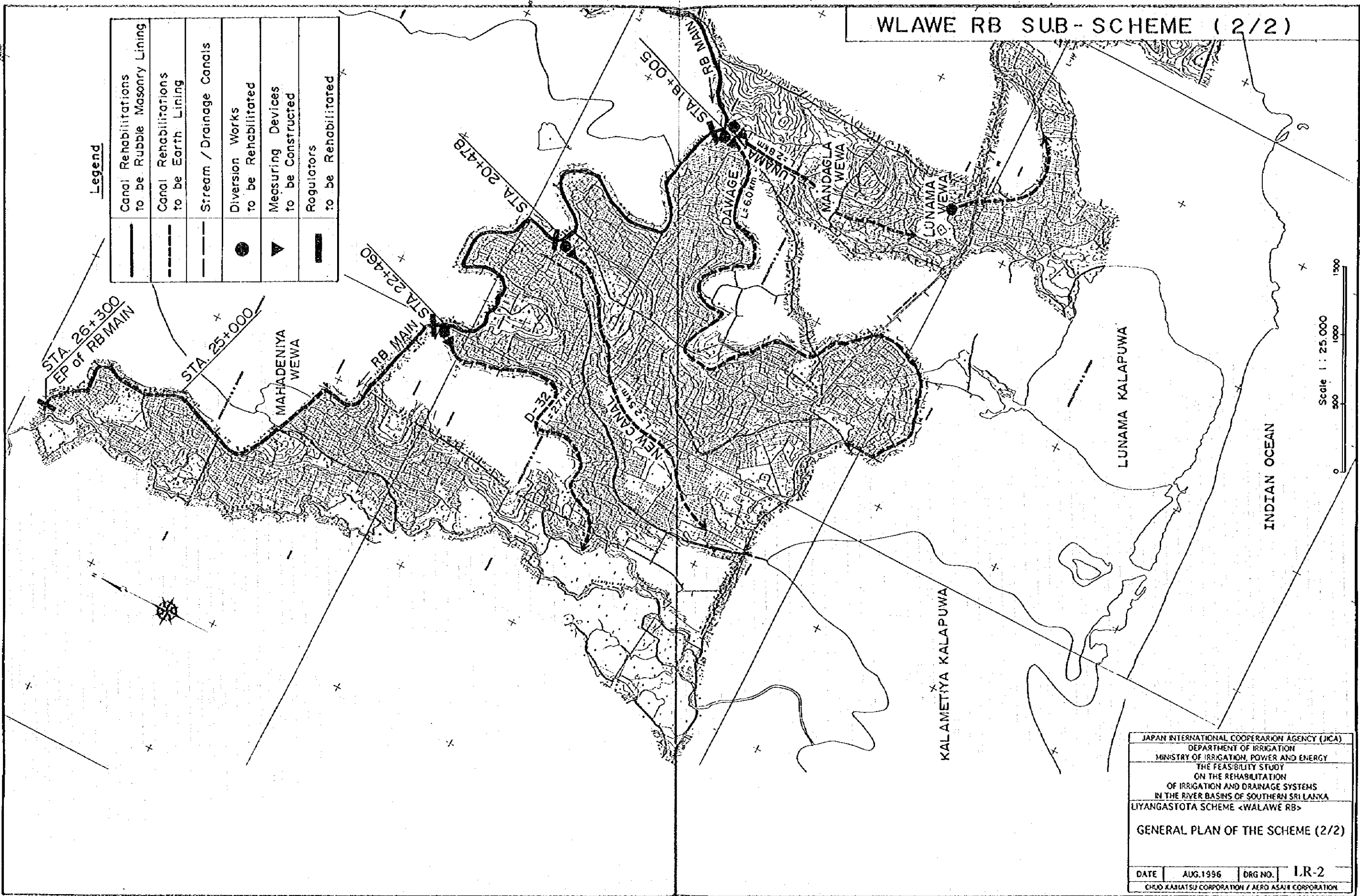
DATE	AUG. 1996	DRG. NO.	LR-1
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CHUGO KAHATSU CORPORATION / AERO ASAHI CORPORATION

WLAWE RB SUB-SCHEME (2/2)

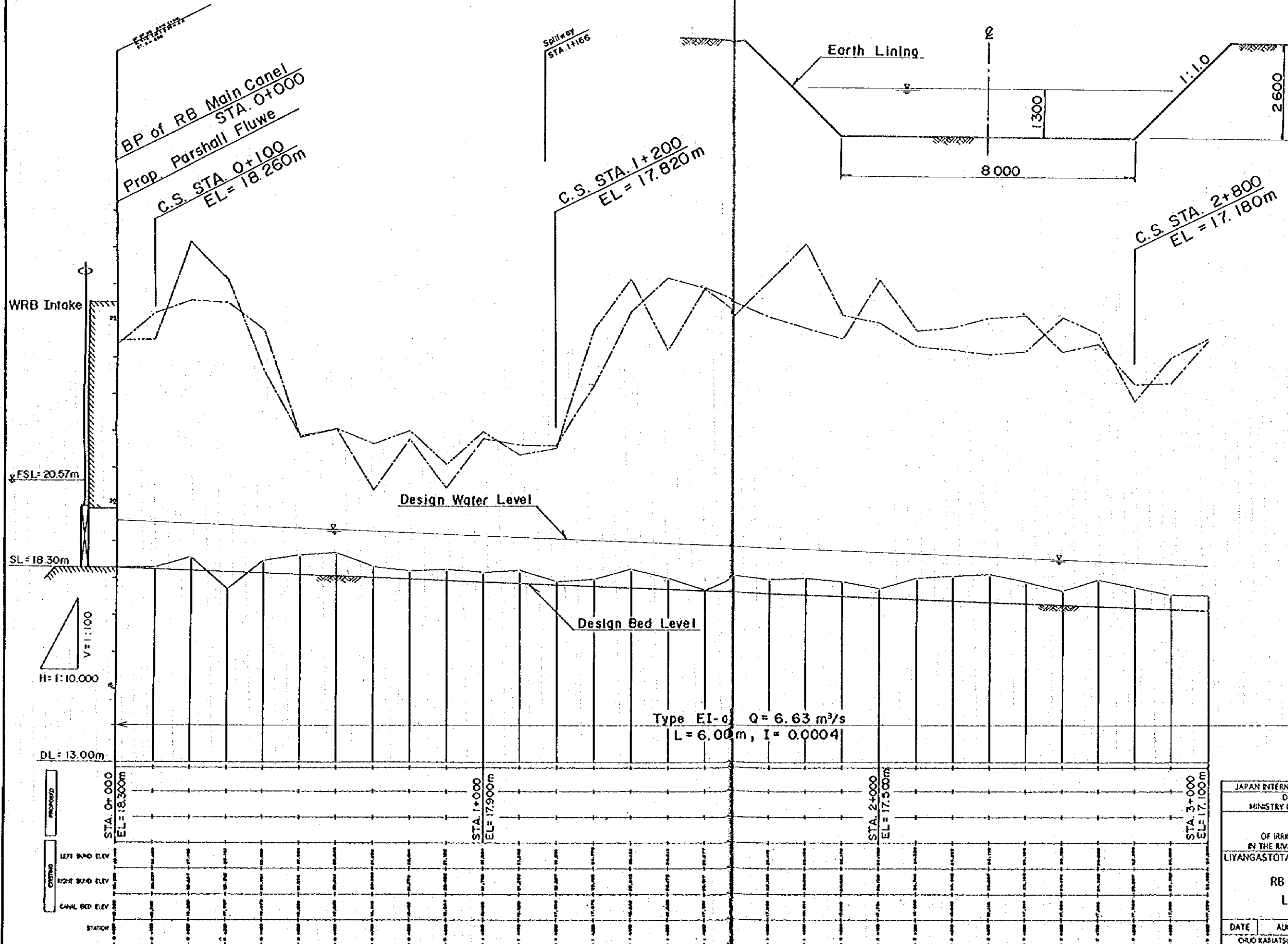
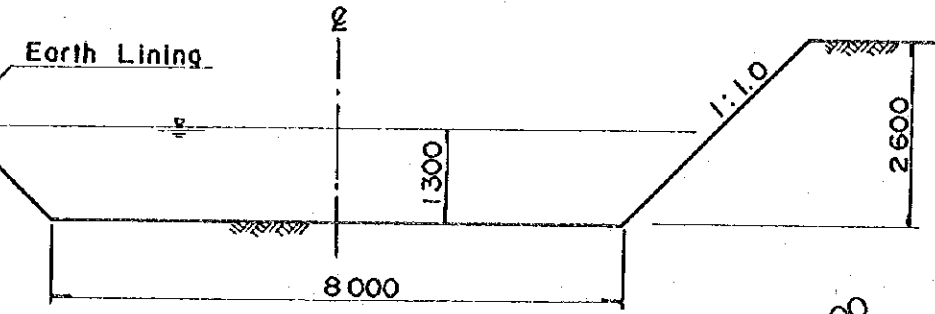
Legend

	Canal Rehabilitations to be Rubble Masonry Lining
	Canal Rehabilitations to be Earth Lining
	Stream / Drainage Canals
	Diversion Works to be Rehabilitated
	Measuring Devices to be Constructed
	Regulators to be Rehabilitated



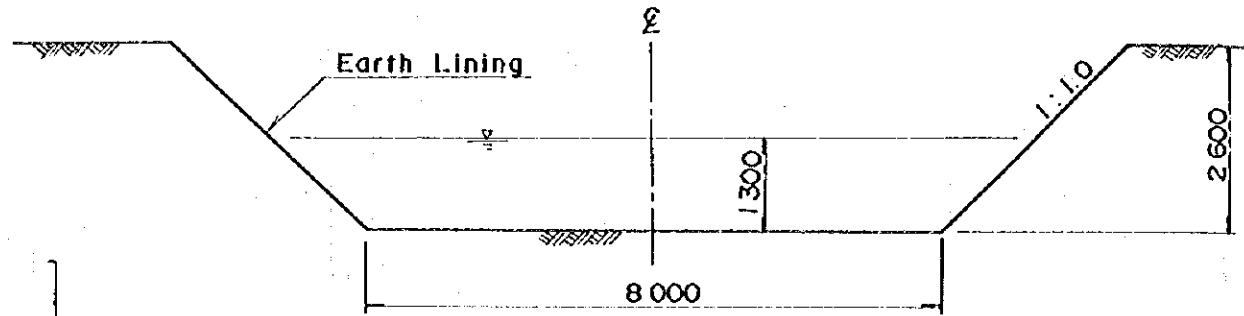
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		
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LIYANGASTOTA SCHEME <WLAWE RB>		
GENERAL PLAN OF THE SCHEME (2/2)		
DATE	AUG.1996	DRG NO.
		LR-2
CHUO KARIATSU CORPORATION / AERO ASAHI CORPORATION		

Design Cross Section  
Type EI-a S=1:100



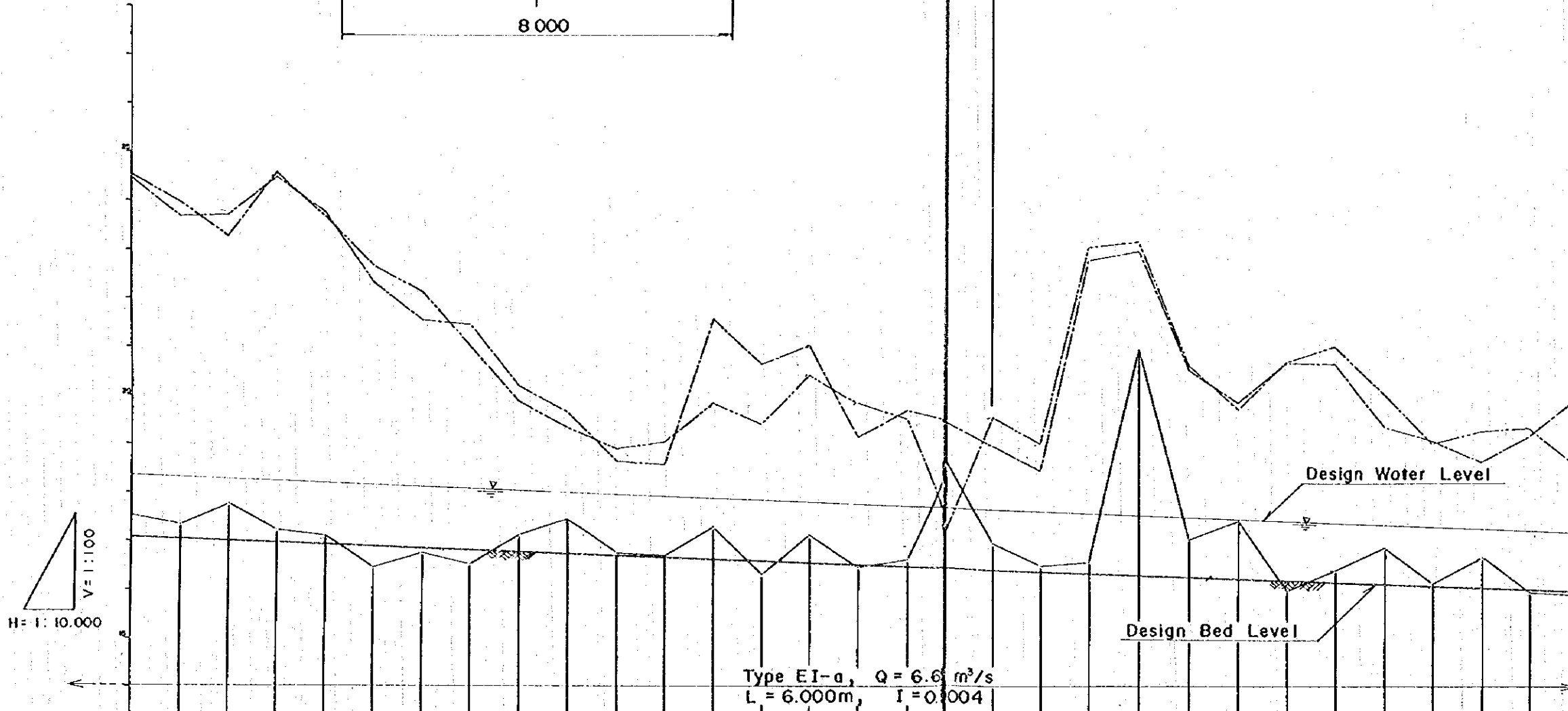
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		
DEPARTMENT OF IRRIGATION		
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IN THE RIVER BASINS OF SOUTHERN SRI LANKA		
LIYANGASTOTA SCHEME <WALAWE RB>		
RB MAIN CANAL (1/11)		
L.S.(0~3km) & C.S.		
DATE	AUG.1996	DRG NO.
		LR-3
ORIO KAPILATSU CORPORATION / AERO ASAHI CORPORATION		

Design Cross Section  
Type EI-a S=1:100



C.S. STA. 4+800  
EL = 16.380m

C.S. STA. 6+000  
EL = 15.900m



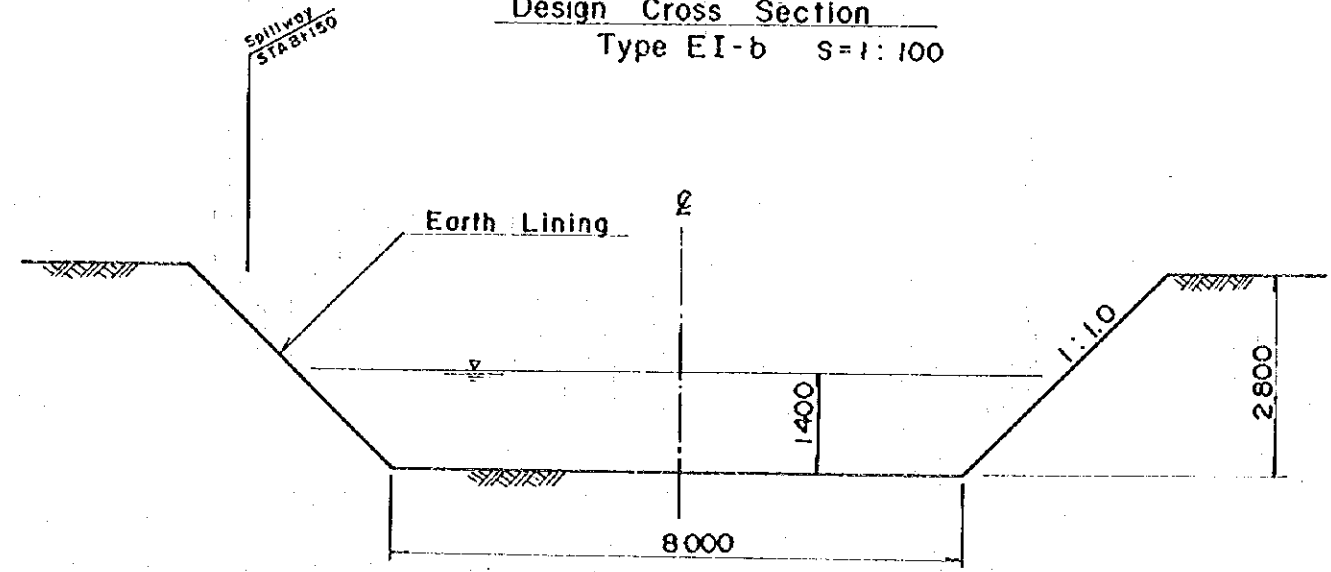
STATION	EXISTING			PROPOSED		
	UTR. BND. ELEV.	ROOF. BND. ELEV.	CHNL. BED. ELEV.	UTR. BND. ELEV.	ROOF. BND. ELEV.	CHNL. BED. ELEV.
3+000	17.500	17.500	17.100	17.500	17.500	17.100
3+100	17.400	17.400	17.100	17.400	17.400	17.100
3+200	17.300	17.300	17.100	17.300	17.300	17.100
3+300	17.200	17.200	17.100	17.200	17.200	17.100
3+400	17.100	17.100	17.100	17.100	17.100	17.100
3+500	17.000	17.000	17.100	17.000	17.000	17.100
3+600	16.900	16.900	17.100	16.900	16.900	17.100
3+700	16.800	16.800	17.100	16.800	16.800	17.100
3+800	16.700	16.700	17.100	16.700	16.700	17.100
3+900	16.600	16.600	17.100	16.600	16.600	17.100
4+000	16.500	16.500	16.700	16.500	16.500	16.700
4+100	16.400	16.400	16.700	16.400	16.400	16.700
4+200	16.300	16.300	16.700	16.300	16.300	16.700
4+300	16.200	16.200	16.700	16.200	16.200	16.700
4+400	16.100	16.100	16.700	16.100	16.100	16.700
4+500	16.000	16.000	16.700	16.000	16.000	16.700
4+600	16.000	16.000	16.700	16.000	16.000	16.700
4+700	16.100	16.100	16.700	16.100	16.100	16.700
4+800	16.200	16.200	16.700	16.200	16.200	16.700
4+900	16.300	16.300	16.700	16.300	16.300	16.700
5+000	16.300	16.300	16.300	16.300	16.300	16.300
5+100	16.400	16.400	16.300	16.400	16.400	16.300
5+200	16.500	16.500	16.300	16.500	16.500	16.300
5+300	16.600	16.600	16.300	16.600	16.600	16.300
5+400	16.700	16.700	16.300	16.700	16.700	16.300
5+500	16.800	16.800	16.300	16.800	16.800	16.300
5+600	16.900	16.900	16.300	16.900	16.900	16.300
5+700	17.000	17.000	16.300	17.000	17.000	16.300
5+800	17.100	17.100	16.300	17.100	17.100	16.300
5+900	17.200	17.200	16.300	17.200	17.200	16.300
6+000	17.300	17.300	16.300	17.300	17.300	16.300

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ON THE FEASIBILITY STUDY  
ON THE REHABILITATION  
OF IRRIGATION AND DRAINAGE SYSTEMS  
IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
LIYANGASTOTA SCHEME <WALAWE RB>

**RB MAIN CANAL (2/11)**  
L.S.(3~6km) & C.S.

DATE AUG.1996 DRG. NO. LR-4  
CHUO KAHATSU CORPORATION / AERD ASAHI CORPORATION

Design Cross Section  
Type EI-b S=1:100



C.S. STA 6+000  
EL= 15.900m

C.S. STA 7+200  
EL= 15.540m

Design Water Level

Design Bed Level

Type EI-b,  $Q = 6.63 \text{ m}^3/\text{s}$   
 $L = 5.730 \text{ m}$   $I = 0.0003$

H= 1:10.000  
V= 1:100

DL= 13.00m

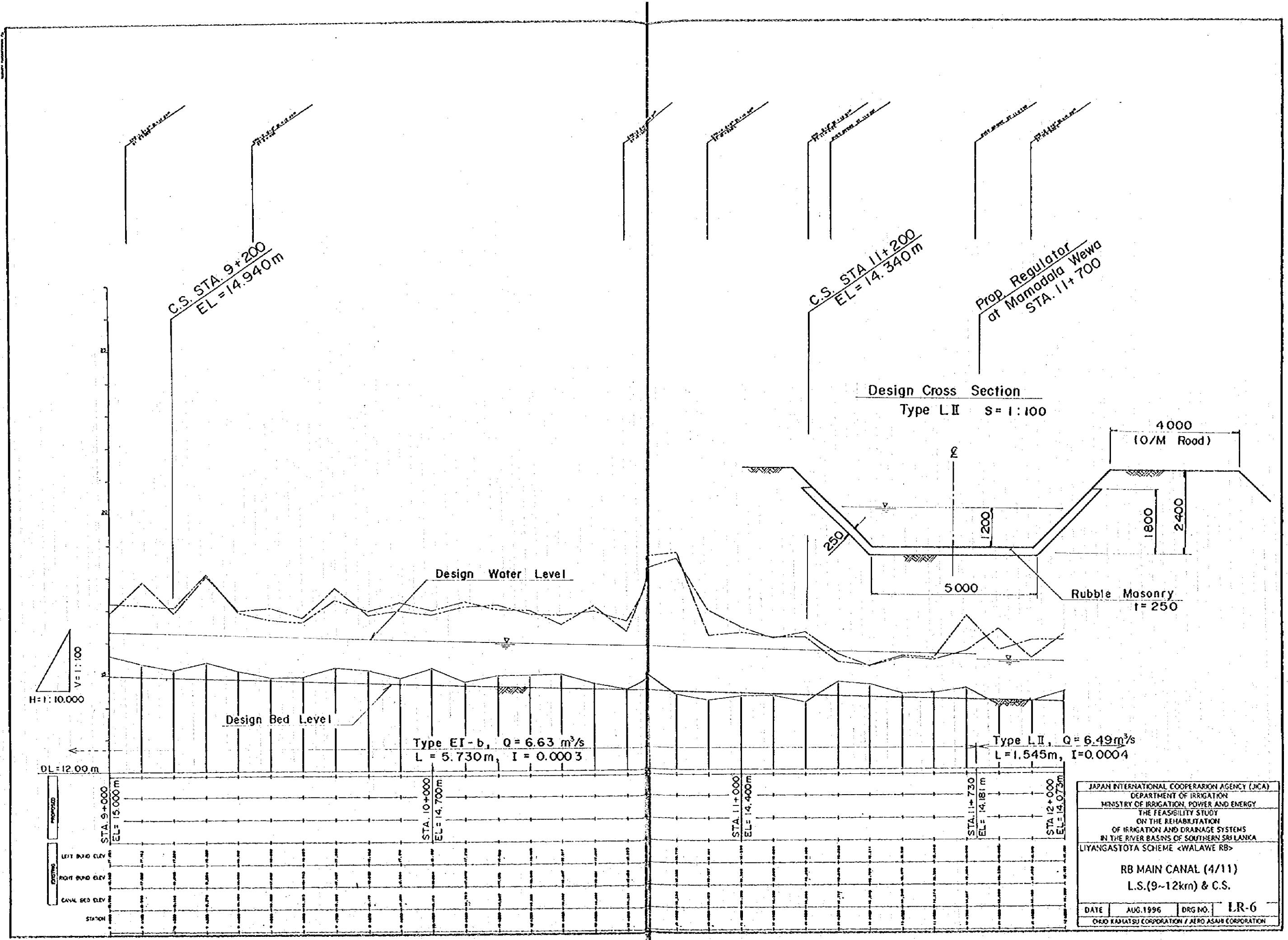
STATION	PROPOSED		EXISTING	
	LEFT BANK ELEV	RIGHT BANK ELEV	LEFT BANK ELEV	RIGHT BANK ELEV
STA. 6+000	15.900	15.900	15.900	15.900
STA. 7+000	15.600	15.600	15.600	15.600
STA. 8+000	15.300	15.300	15.300	15.300
STA. 9+000	15.000	15.000	15.000	15.000

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
DEPARTMENT OF IRRIGATION  
MINISTRY OF IRRIGATION, POWER AND ENERGY  
THE FEASIBILITY STUDY  
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OF IRRIGATION AND DRAINAGE SYSTEMS  
IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
UYANGASTOTA SCHEME <WALAWE RB>

RB MAIN CANAL (3/11)  
L.S.(6~9km) & C.S.

DATE AUG.1995 ORG. NO. LR-5  
DAIIC KAMATSU CORPORATION / AERO ASAHI CORPORATION





H=1:10.000  
V=1:100

C.S. STA 9+200  
EL=14.940m

C.S. STA 11+200  
EL=14.340m

Prop. Regulator  
at Mamadala Wewa  
STA. 11+700

Design Cross Section  
Type L II S=1:100

Design Water Level

Design Bed Level

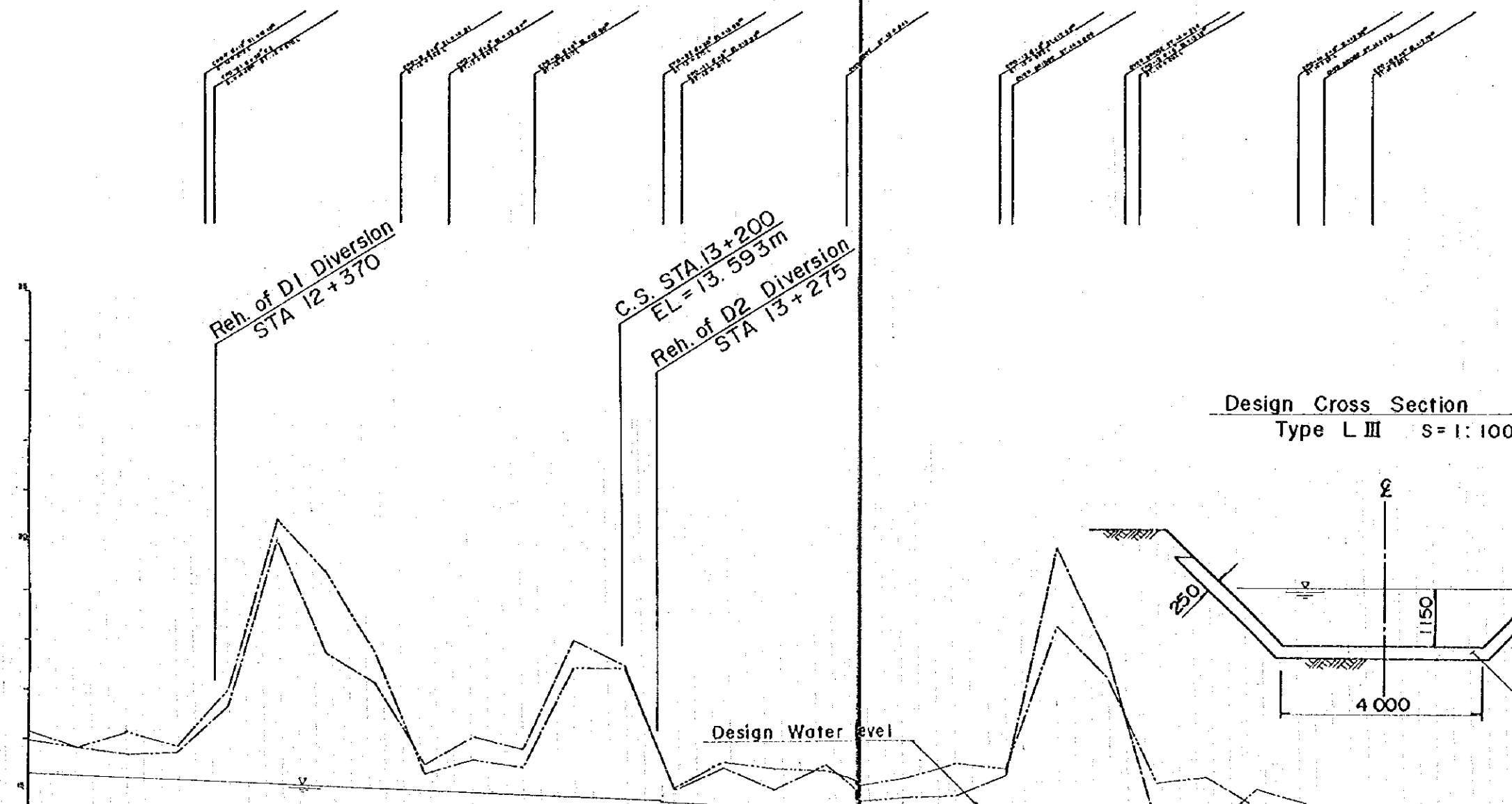
Type EI-b,  $Q = 6.63 \text{ m}^3/\text{s}$   
 $L = 5.730\text{m}$ ,  $I = 0.0003$

Type L II,  $Q = 6.49 \text{ m}^3/\text{s}$   
 $L = 1.545\text{m}$ ,  $I = 0.0004$

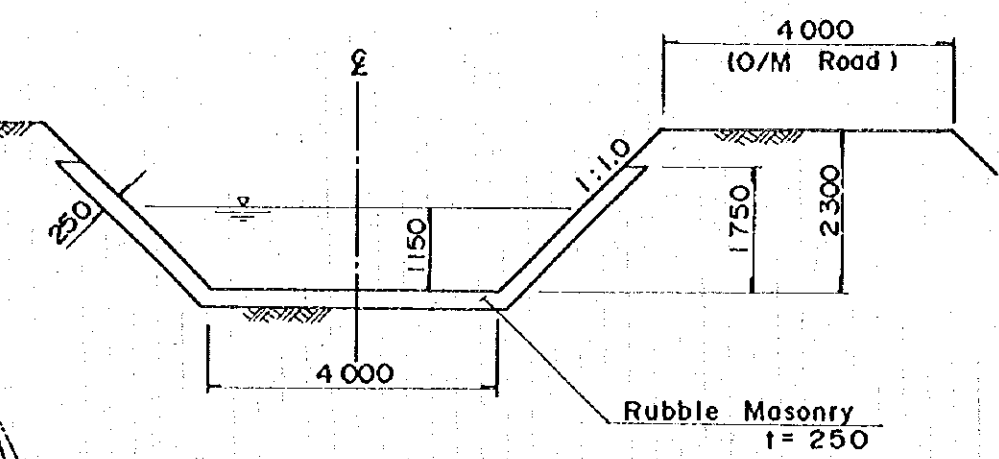
DL=12.00m

STATION	CAVAL BED ELEV	RIGHT BUND ELEV	LEFT BUND ELEV
STA 9+000 EL=15.000m	14.940	15.000	15.000
STA 10+000 EL=14.700m	14.700	14.700	14.700
STA 11+000 EL=14.400m	14.400	14.400	14.400
STA 11+730 EL=14.181m	14.181	14.181	14.181
STA 12+000 EL=14.073m	14.073	14.073	14.073

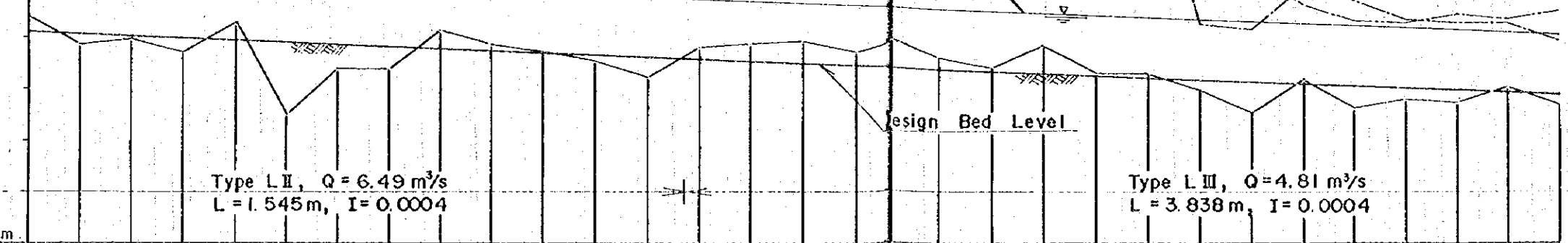
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		
DEPARTMENT OF IRRIGATION		
MINISTRY OF IRRIGATION, POWER AND ENERGY		
ON THE FEASIBILITY STUDY		
OF IRRIGATION AND DRAINAGE SYSTEMS		
IN THE RIVER BASINS OF SOUTHERN SRI LANKA		
LIYANGASTOTA SCHEME <WALAWE RB>		
RB MAIN CANAL (4/11)		
L.S.(9~12km) & C.S.		
DATE	AUG.1996	DRG NO.
		LR-6
CHUO KANLATSU CORPORATION / AERO ASAHI CORPORATION		



Design Cross Section  
Type L III S = 1:100



H = 1:10,000  
V = 1:100



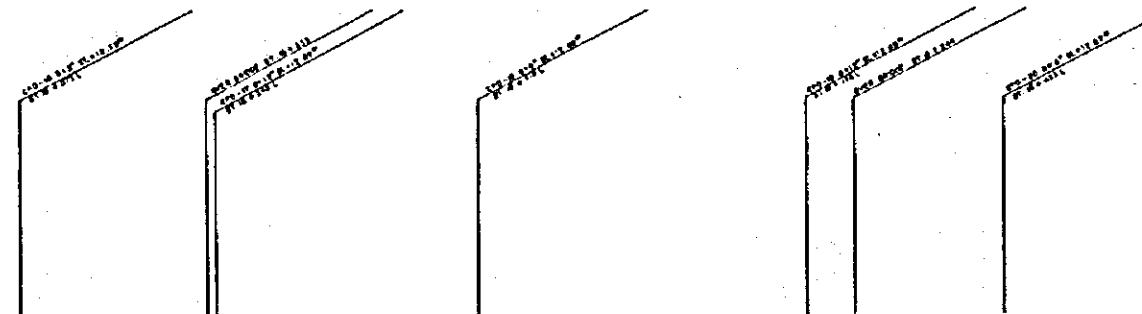
DL = 10.00m

STATION	PROPOSED		EXISTING	
	LEFT BOND ELEV	RIGHT BOND ELEV	LEFT BOND ELEV	RIGHT BOND ELEV
STA. 12+000 EL = 14.073m	14.073	14.073	14.073	14.073
STA. 13+000 EL = 13.673m	13.673	13.673	13.673	13.673
STA. 13+275 EL = 13.563m	13.563	13.563	13.563	13.563
STA. 14+000 EL = 13.273m	13.273	13.273	13.273	13.273
STA. 15+000 EL = 12.873m	12.873	12.873	12.873	12.873

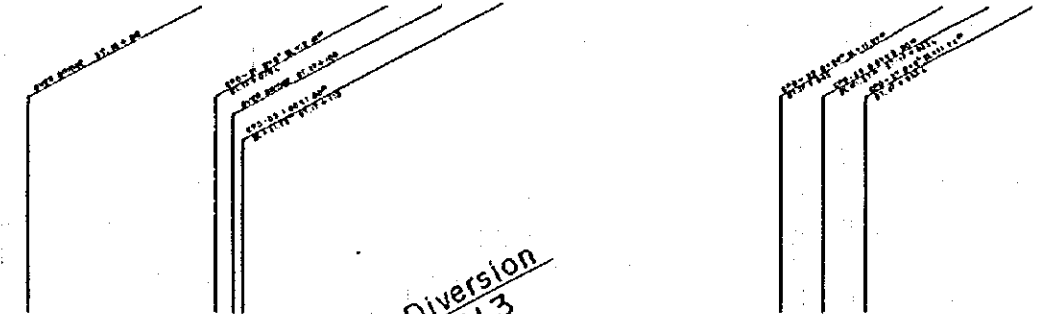
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
DEPARTMENT OF IRRIGATION  
MINISTRY OF IRRIGATION, POWER AND ENERGY  
THE FEASIBILITY STUDY  
ON THE REHABILITATION  
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IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
LIYANGASTOTA SCHEME <WALAWE RB>

**RB MAIN CANAL (5/11)  
L.S.(12~15km) & C.S.**

DATE | AUG.1995 | DRG NO. | LR-7  
OHIO KAPLATSU CORPORATION / AERO ASAHI CORPORATION

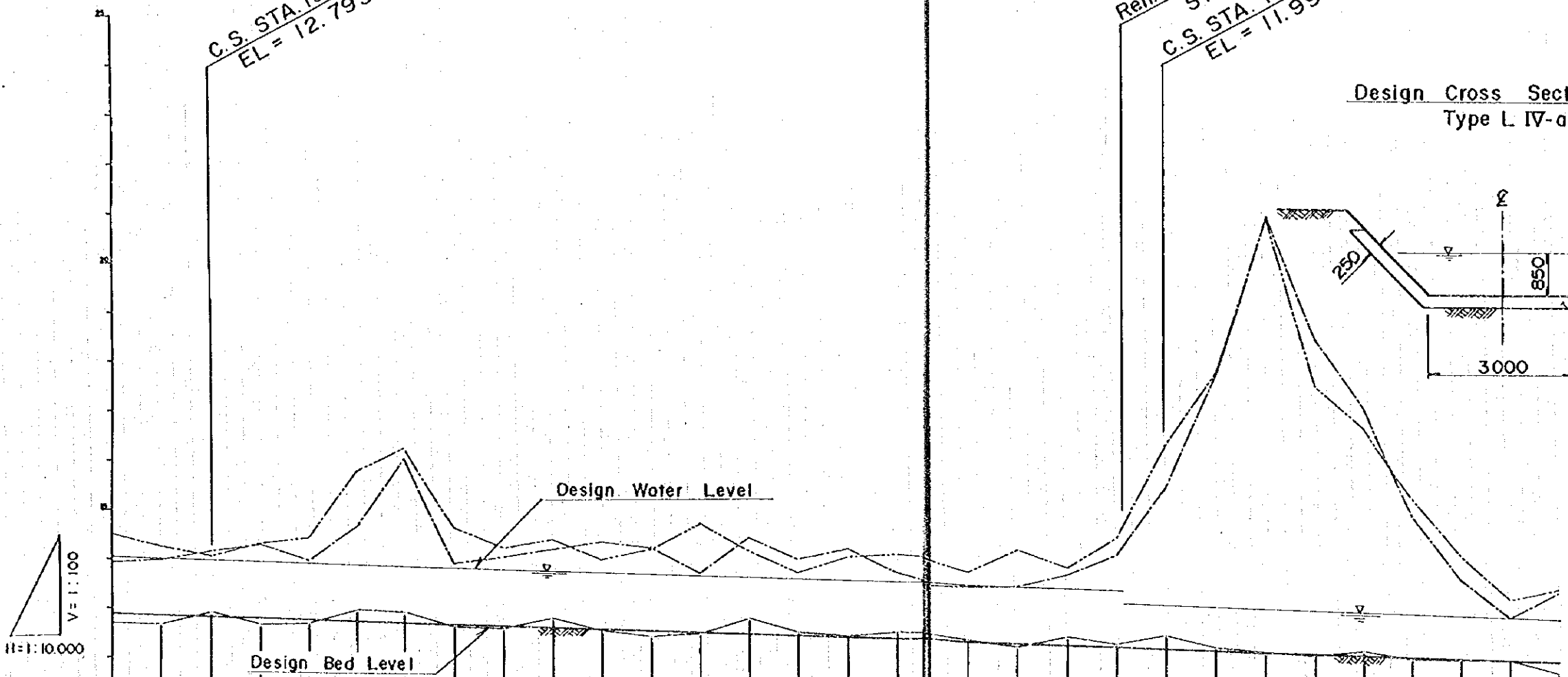
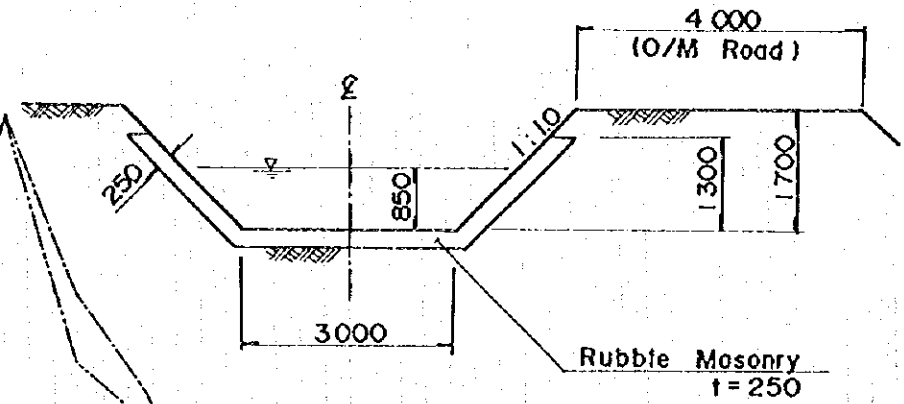


C.S. STA. 15+200  
EL = 12.793 m



Reh. of D3 Diversion  
STA 17+113  
C.S. STA. 17+200  
EL = 11.993 m

Design Cross Section  
Type L IV-a S=1:100



Type L III, Q = 4.81 m<sup>3</sup>/s  
L = 3.838 m, I = 0.0004

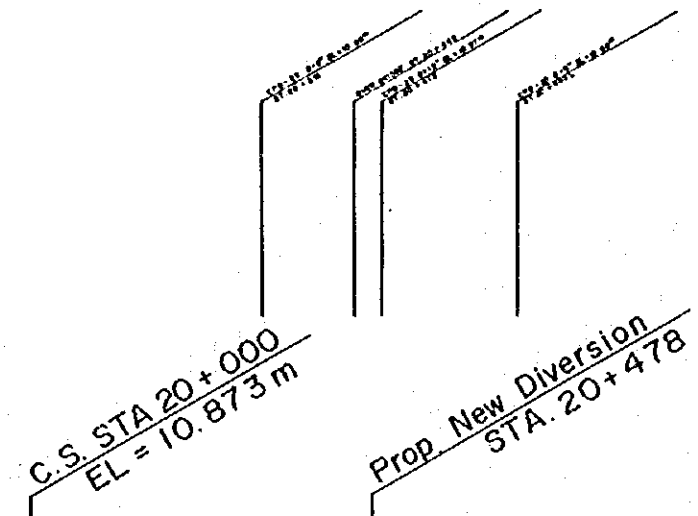
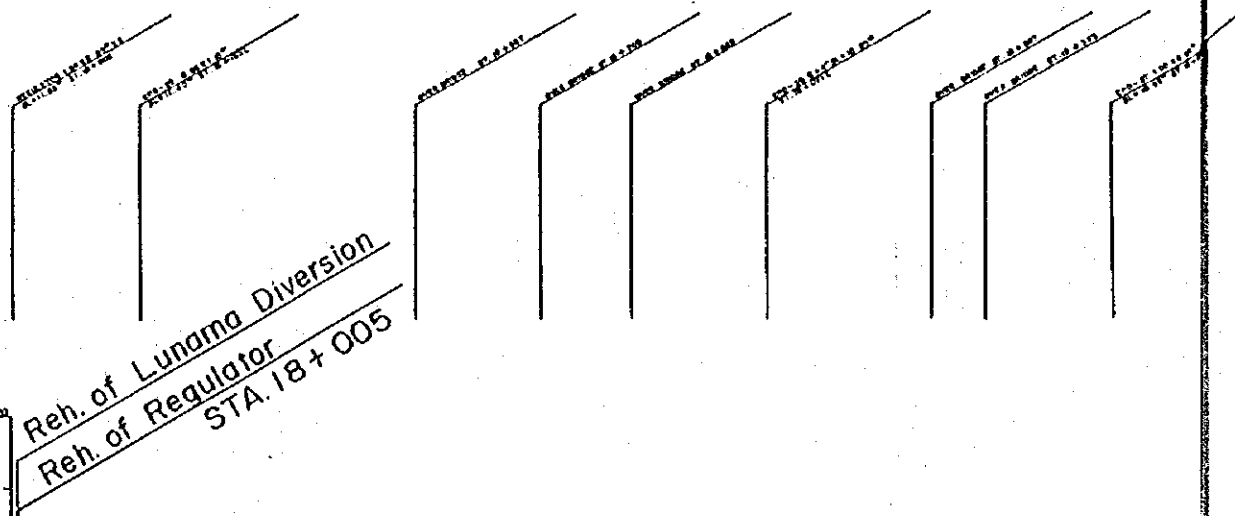
Type L IV-a, Q = 2.14 m<sup>3</sup>/s  
L = 1.070 m, I = 0.0004

STATION	CAVAL BED ELEV	RIGHT BANK ELEV	LEFT BANK ELEV
STA. 15+000 EL = 12.873 m	12.873	13.000	13.000
STA. 16+000 EL = 12.473 m	12.473	12.600	12.600
STA. 17+000 EL = 12.073 m	12.073	12.200	12.200
STA. 17+113 EL = 12.028 m	12.028	12.150	12.150
STA. 18+000 EL = 11.673 m	11.673	11.800	11.800

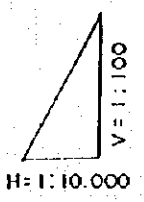
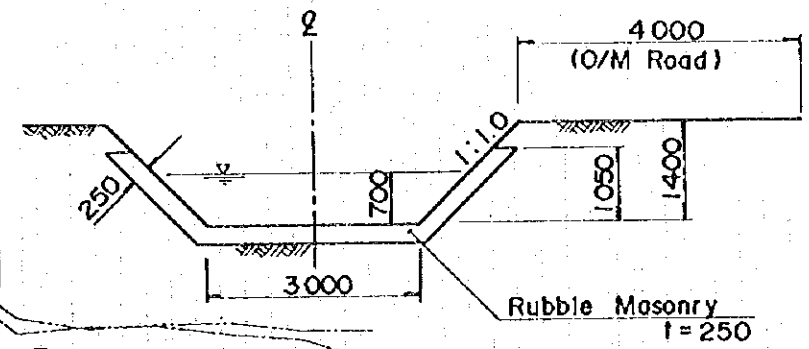
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
DEPARTMENT OF IRRIGATION  
MINISTRY OF IRRIGATION, POWER AND ENERGY  
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UYANGASTOTA SCHEME <WALAWE RB>

**RB MAIN CANAL (6/11)**  
L.S.(15~18km) & C.S.

DATE AUG.1995 DRG NO. LR-8  
CHUO KAHATSU CORPORATION / AEO ASAH CORPORATION



Design Cross Section  
Type L IV-b S = 1:100



Type L IV-b  
L = 1.070m  
I = 0.0004

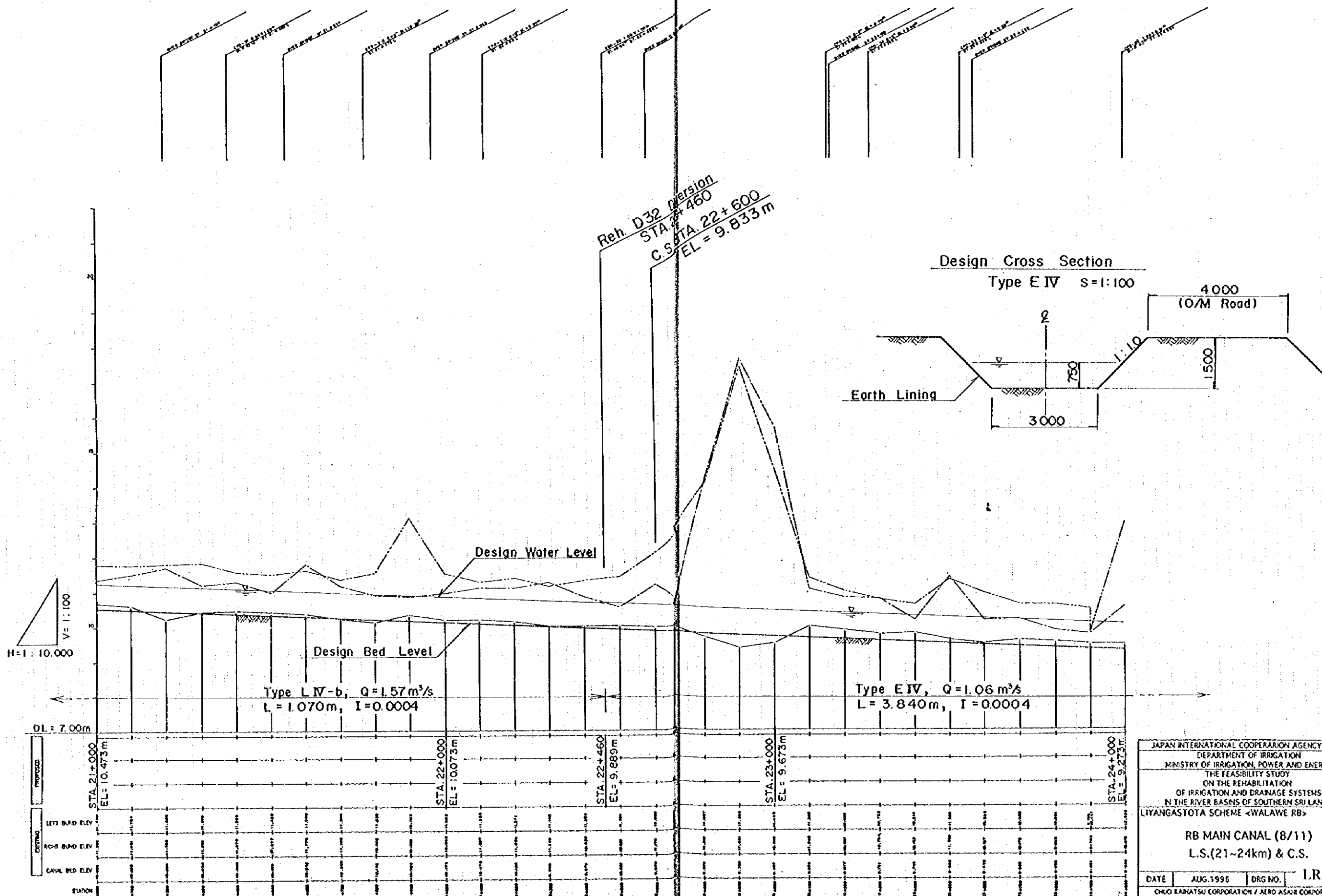
Type L-b, Q = 1.57m<sup>3</sup>/s  
L = 4.2m, I = 0.0004

STATION	CAVAL BED ELEV.	SOIL BOND ELEV.	LEFT BANK ELEV.
18+000	10.873	11.600	11.673
18+005	10.873	11.600	11.673
18+010	10.873	11.600	11.673
18+015	10.873	11.600	11.673
18+020	10.873	11.600	11.673
18+025	10.873	11.600	11.673
18+030	10.873	11.600	11.673
18+035	10.873	11.600	11.673
18+040	10.873	11.600	11.673
18+045	10.873	11.600	11.673
18+050	10.873	11.600	11.673
18+055	10.873	11.600	11.673
18+060	10.873	11.600	11.673
18+065	10.873	11.600	11.673
18+070	10.873	11.600	11.673
18+075	10.873	11.600	11.673
18+080	10.873	11.600	11.673
18+085	10.873	11.600	11.673
18+090	10.873	11.600	11.673
18+095	10.873	11.600	11.673
19+000	10.873	11.600	11.673
19+005	10.873	11.600	11.673
19+010	10.873	11.600	11.673
19+015	10.873	11.600	11.673
19+020	10.873	11.600	11.673
19+025	10.873	11.600	11.673
19+030	10.873	11.600	11.673
19+035	10.873	11.600	11.673
19+040	10.873	11.600	11.673
19+045	10.873	11.600	11.673
19+050	10.873	11.600	11.673
19+055	10.873	11.600	11.673
19+060	10.873	11.600	11.673
19+065	10.873	11.600	11.673
19+070	10.873	11.600	11.673
19+075	10.873	11.600	11.673
19+080	10.873	11.600	11.673
19+085	10.873	11.600	11.673
19+090	10.873	11.600	11.673
19+095	10.873	11.600	11.673
20+000	10.873	11.600	11.673
20+005	10.873	11.600	11.673
20+010	10.873	11.600	11.673
20+015	10.873	11.600	11.673
20+020	10.873	11.600	11.673
20+025	10.873	11.600	11.673
20+030	10.873	11.600	11.673
20+035	10.873	11.600	11.673
20+040	10.873	11.600	11.673
20+045	10.873	11.600	11.673
20+050	10.873	11.600	11.673
20+055	10.873	11.600	11.673
20+060	10.873	11.600	11.673
20+065	10.873	11.600	11.673
20+070	10.873	11.600	11.673
20+075	10.873	11.600	11.673
20+080	10.873	11.600	11.673
20+085	10.873	11.600	11.673
20+090	10.873	11.600	11.673
20+095	10.873	11.600	11.673
21+000	10.873	11.600	11.673

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
LIYANGASTOTA SCHEME <WALAWE RB>

RB MAIN CANAL (7/11)  
L.S.(18~21km) & C.S.

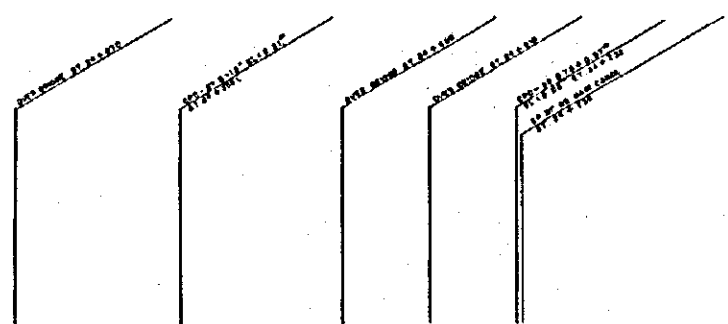
DATE AUG.1996 DRG. NO. LR-9  
OHJO KANATSU CORPORATION / AECO ASAHI CORPORATION



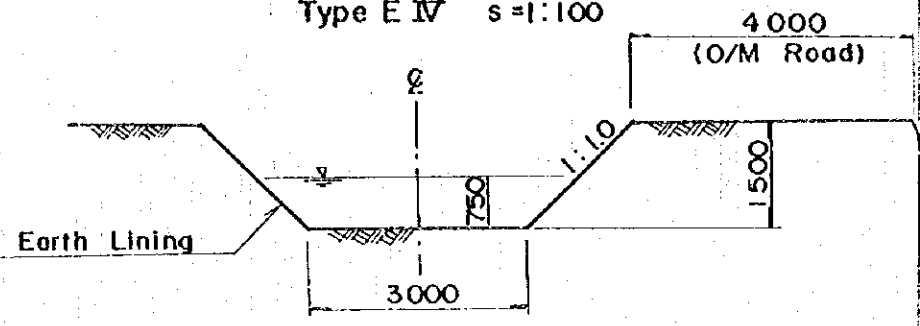
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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 IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
 LIYANGASTOTA SCHEME <WALAWE RB>

RB MAIN CANAL (8/11)  
 L.S.(21~24km) & C.S.

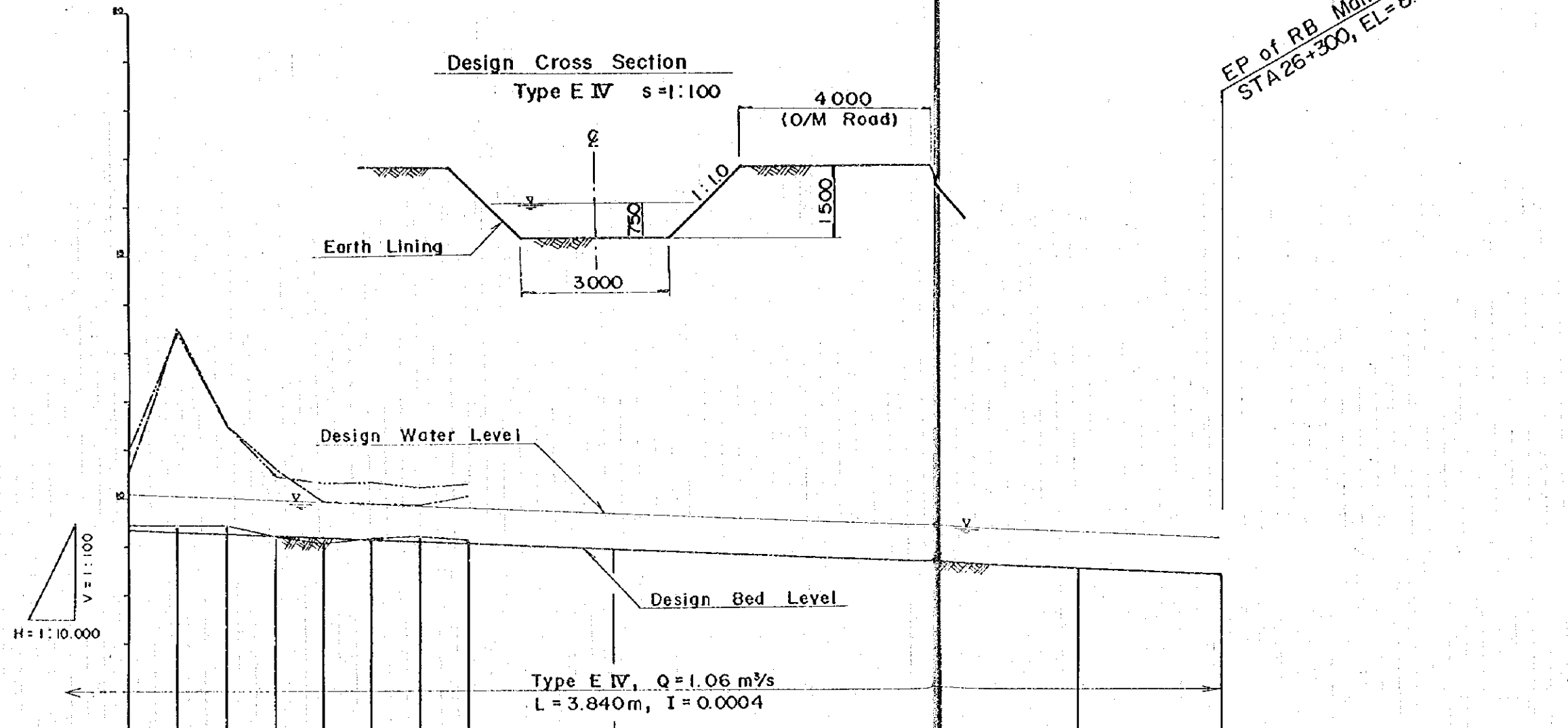
DATE | AUG.1996 | DRG NO. | LR-10  
 CHUO KAHATSU CORPORATION / AERO ASAKE CORPORATION



Design Cross Section  
Type E IV s=1:100



EP of RB Main Canal  
STA 26+300, EL=8.353m



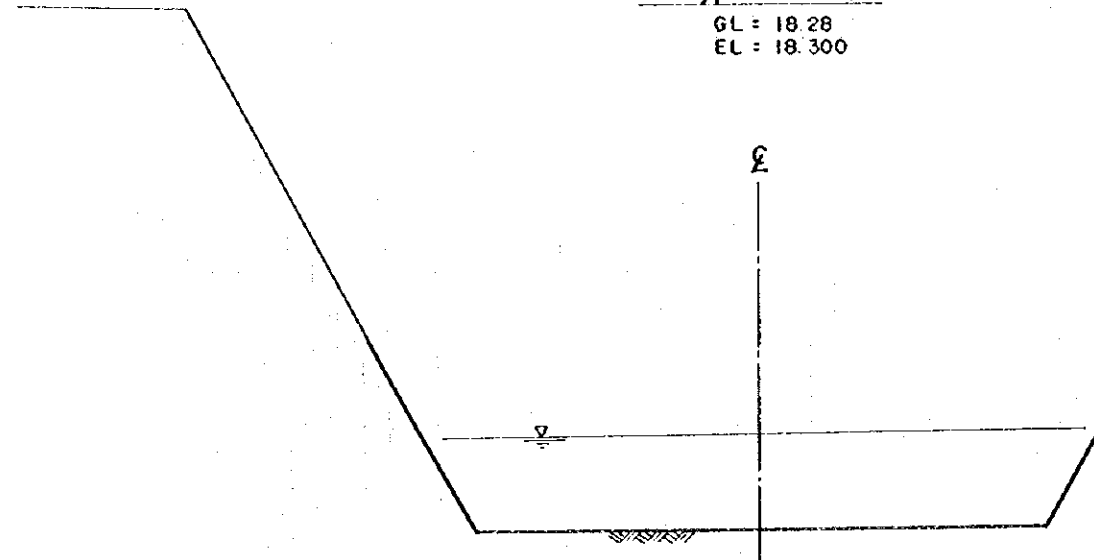
STATION	PROPOSED	EXISTING
STA. 24+000	EL=9.273m	
STA. 25+000	EL=8.873m	
STA. 26+000	EL=8.473m	
STA. 26+300	EL=8.353m	
	LEFT BAND ELEV.	
	MID BAND ELEV.	
	CAVAL BED ELEV.	

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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 IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
 LIYANGASTOTA SCHEME (WALAWE RB)

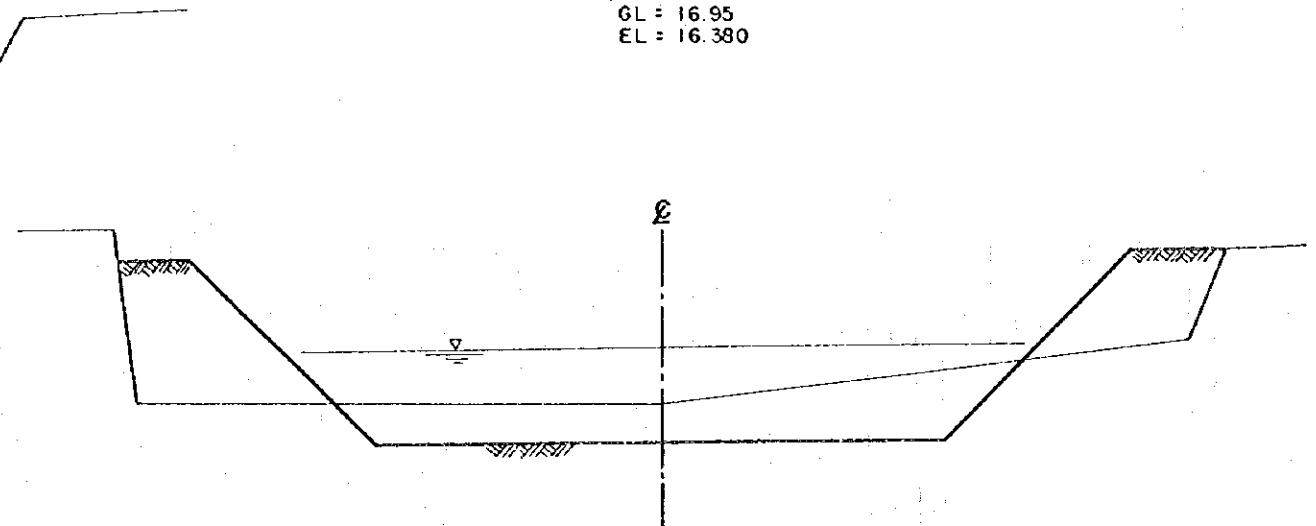
**RB MAIN CANAL (9/11)**  
 L.S.(24~24.7km) & C.S.

DATE: AUG.1996    DRG NO.    LR-11  
 CHUO KANATSU CORPORATION / AERO ASAHI CORPORATION

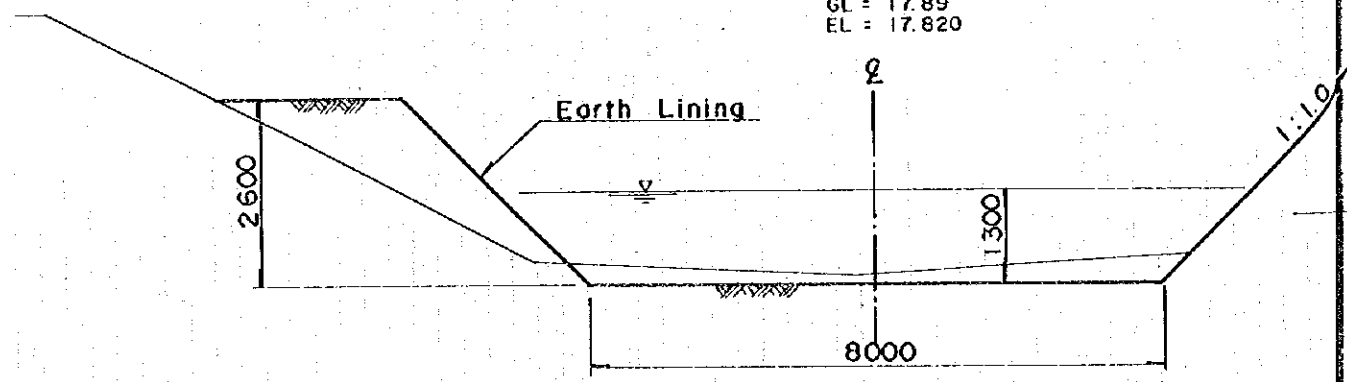
STA. 0+100  
Type EI-a  
GL = 18.28  
EL = 18.300



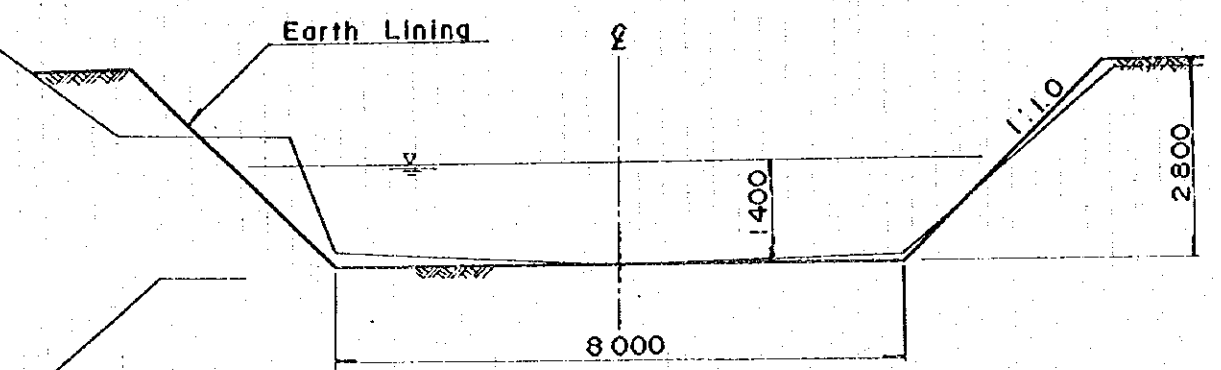
STA. 4+800  
Type EI-a  
GL = 16.95  
EL = 16.380



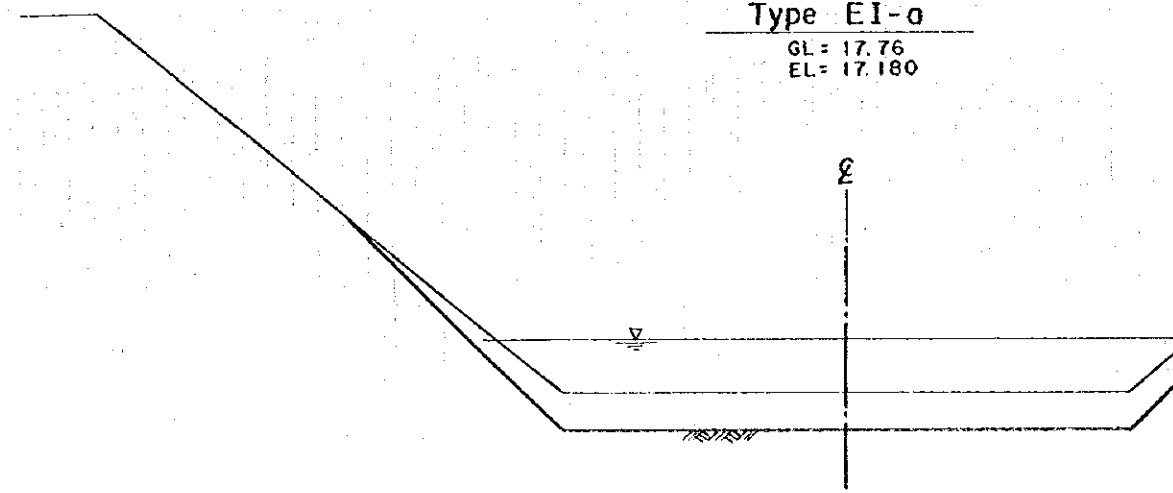
STA. 1+200  
Type EI-a  
GL = 17.89  
EL = 17.820



STA. 6+000  
Type EI-b  
GL = 15.87  
EL = 15.900



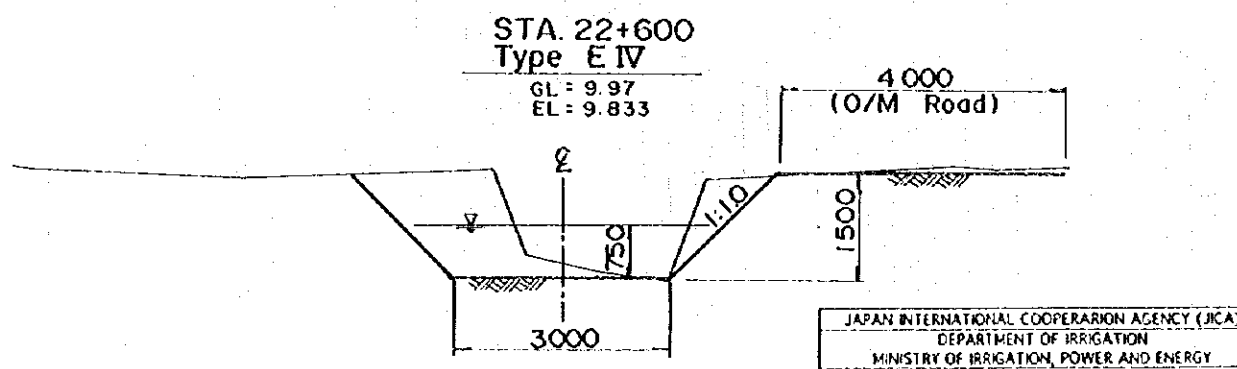
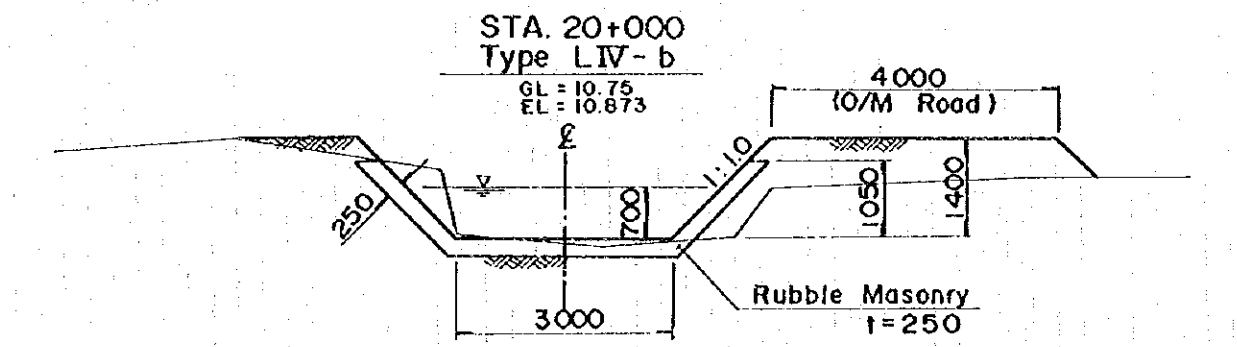
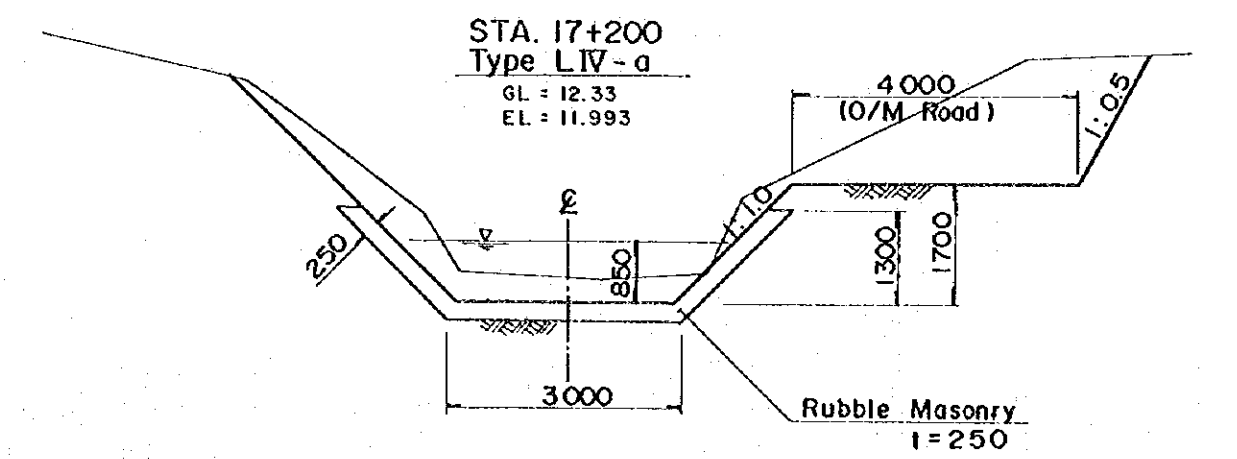
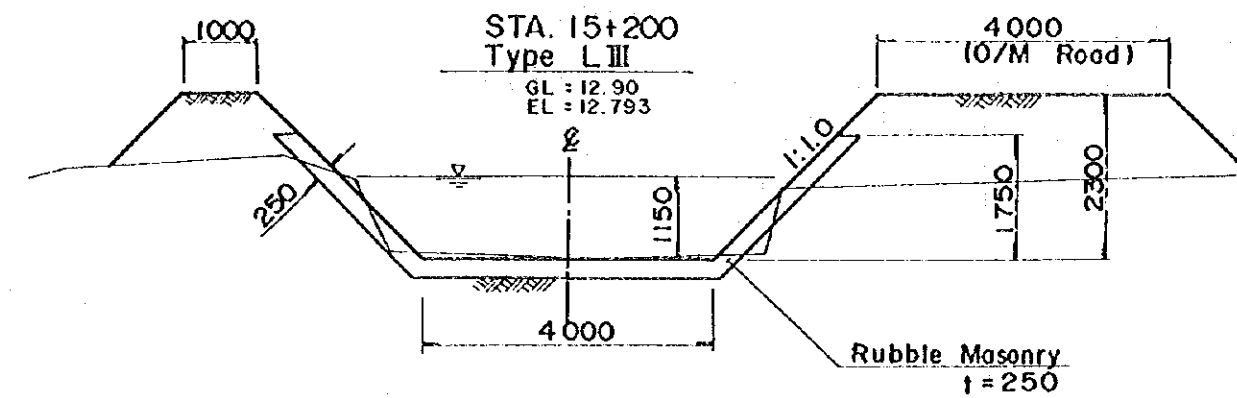
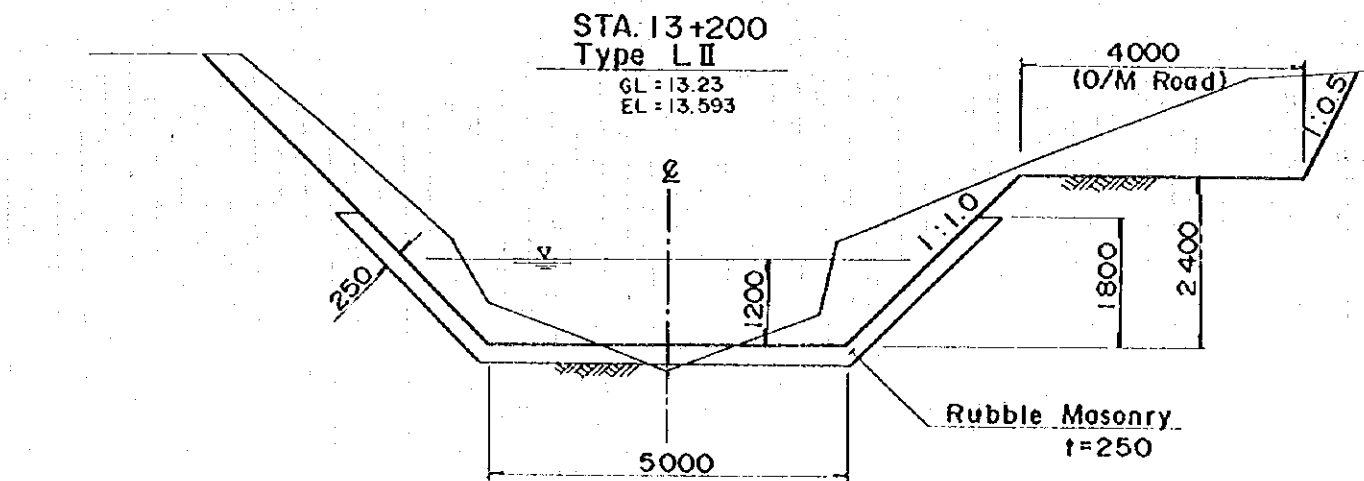
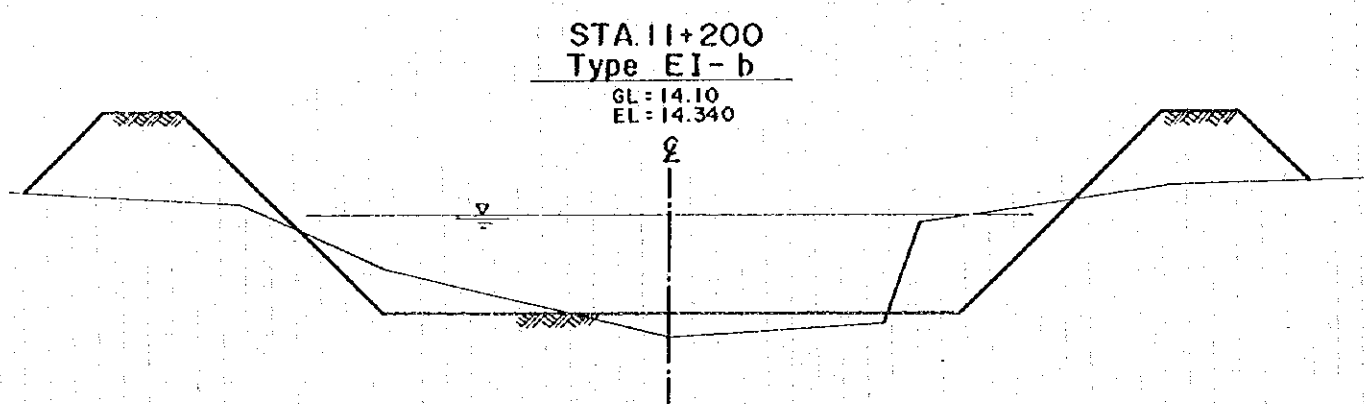
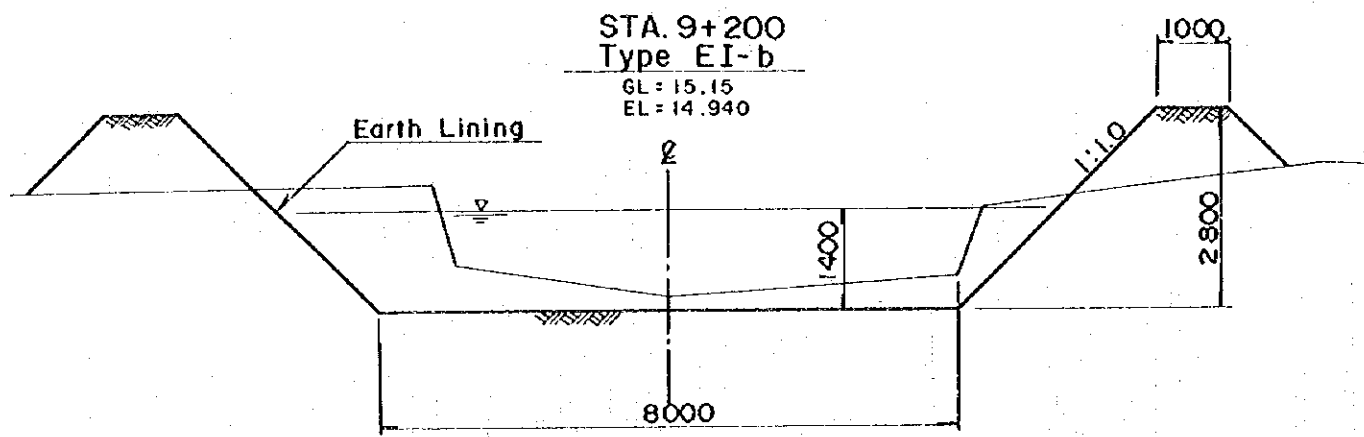
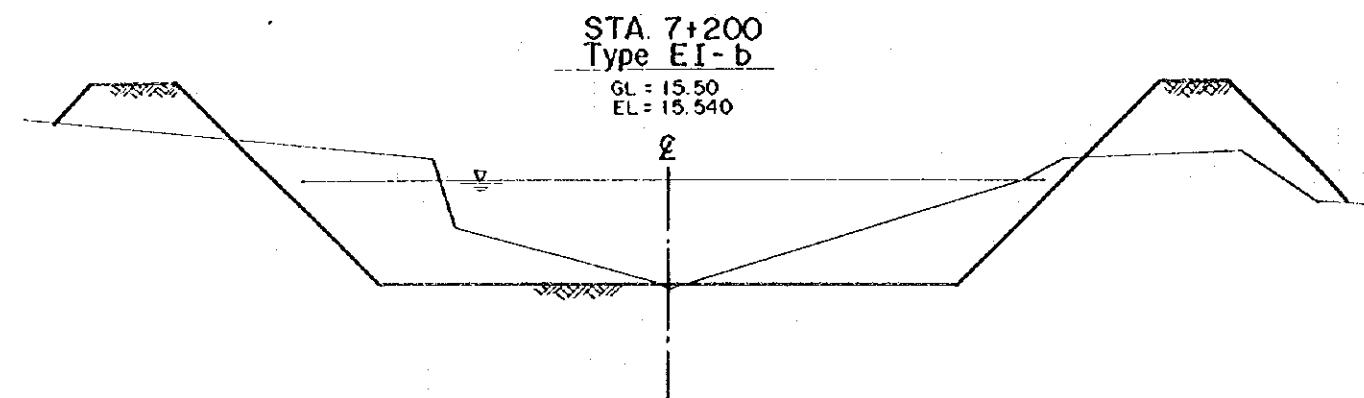
STA. 2+800  
Type EI-a  
GL = 17.76  
EL = 17.180



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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LIYANGASTOTA SCHEME <WALAWE RB>

RB MAIN CANAL (10/11)  
CROSS SECTIONS

DATE: AUG. 1996    DRG. NO. LR-12  
CHUO KANATSU CORPORATION / AERO ASAHI CORPORATION









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LIYANGASTOTA SCHEME <WALAWE RB>

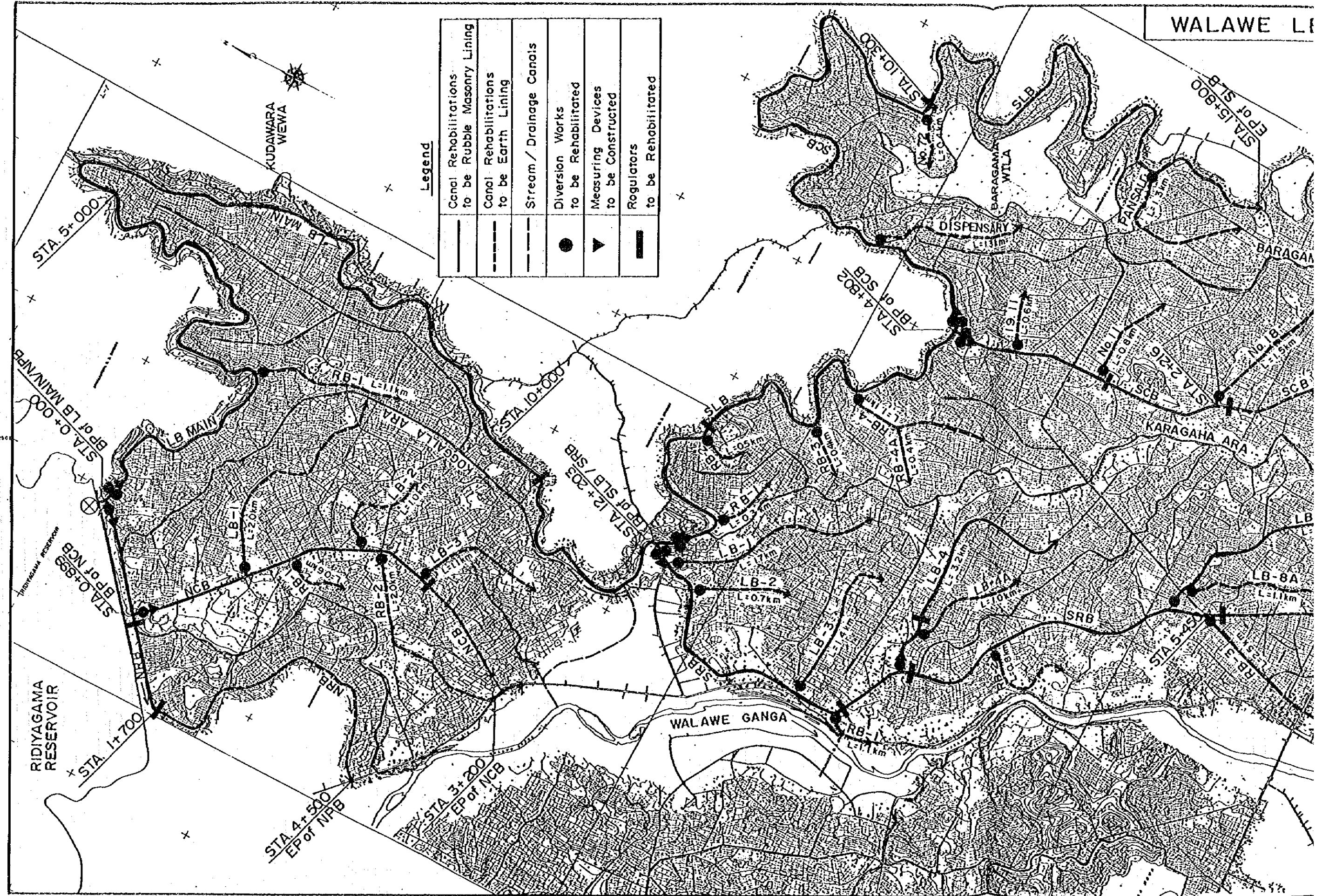
RB MAIN CANAL (11/11)  
CROSS SECTIONS

DATE | AUG. 1995 | DRG. NO. | LR-13  
CHLO KARIYASU CORPORATION / AERO ASAKI CORPORATION









Legend

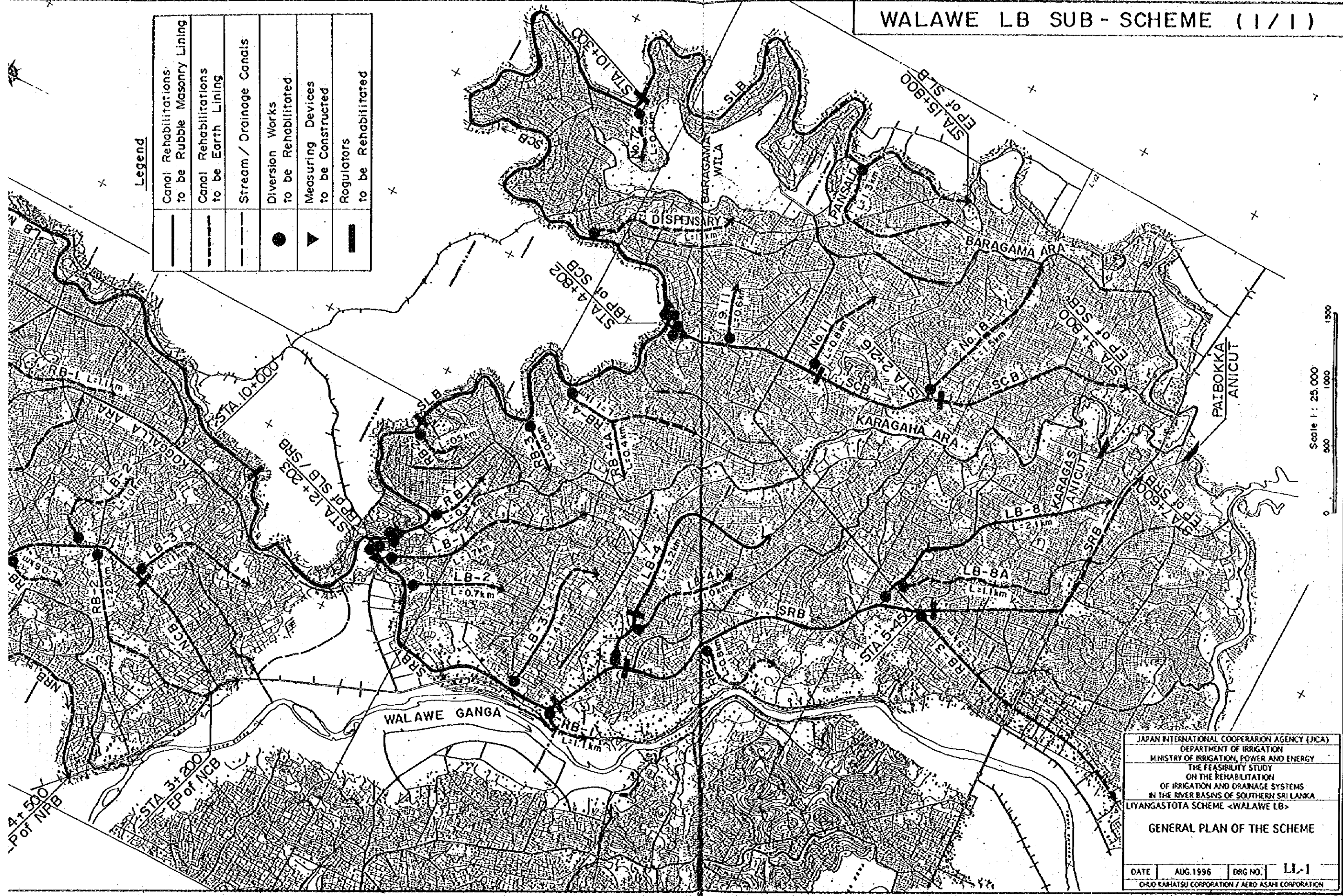
	Canal Rehabilitations to be Rubble Masonry Lining
	Canal Rehabilitations to be Earth Lining
	Stream / Drainage Canals
	Diversion Works to be Rehabilitated
	Measuring Devices to be Constructed
	Regulators to be Rehabilitated



# WALAWE LB SUB - SCHEME (1/1)

## Legend

	Canal Rehabilitations to be Rubble Masonry Lining
	Canal Rehabilitations to be Earth Lining
	Stream / Drainage Canals
	Diversion Works to be Rehabilitated
	Measuring Devices to be Constructed
	Regulators to be Rehabilitated



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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 LIYANGASTOTA SCHEME <WALAWE LB>

**GENERAL PLAN OF THE SCHEME**

DATE	AUG. 1996	DRG NO.	LL-1
© DAI KAHATSU CORPORATION / AERO ASAHI CORPORATION			

Ridiyagama Reservoir

vFSL=18.65m

SL=13.78m

BP of LB Main Canal  
Prop Parshall Flume  
STA. 0+000

C.S. STA. 0+400  
EL=13.660m

C.S. STA. 1+600  
EL=13.240m

Reh. of RB-1 Diversion  
STA. 1+840

C.S. STA. 2+800  
EL=12.820m

Design Water Level

Design Bed Level

Design Cross Section  
Type L I S = 1:100

4 000  
(O/M Road)

250

850

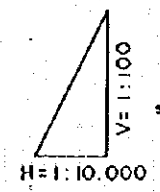
1 300

1 700

8 900

Rubble Masonry  
↑ = 250

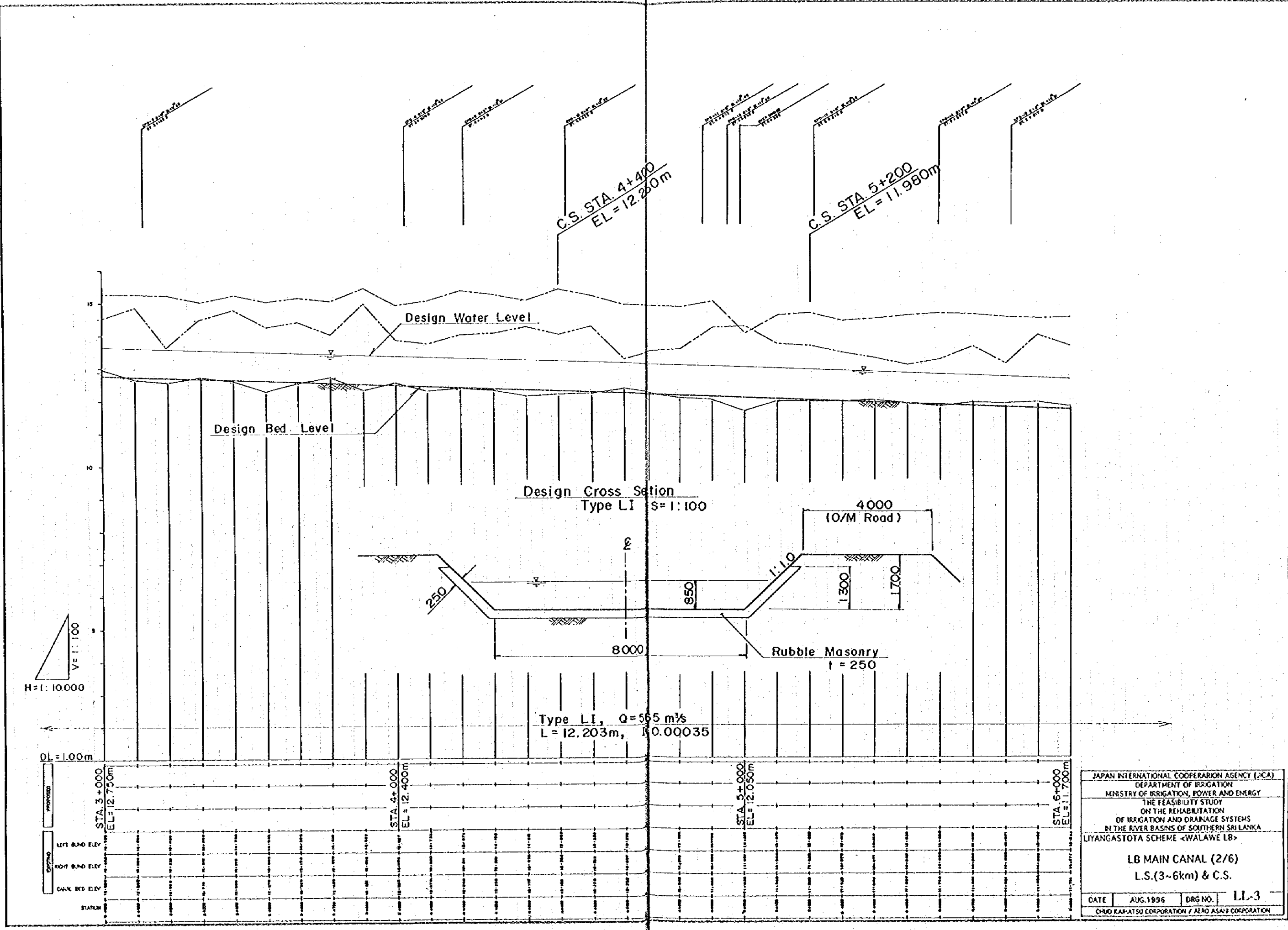
Type L I, Q = 5.65 m<sup>3</sup>/s  
L = 12.203 m, S = 0.00035



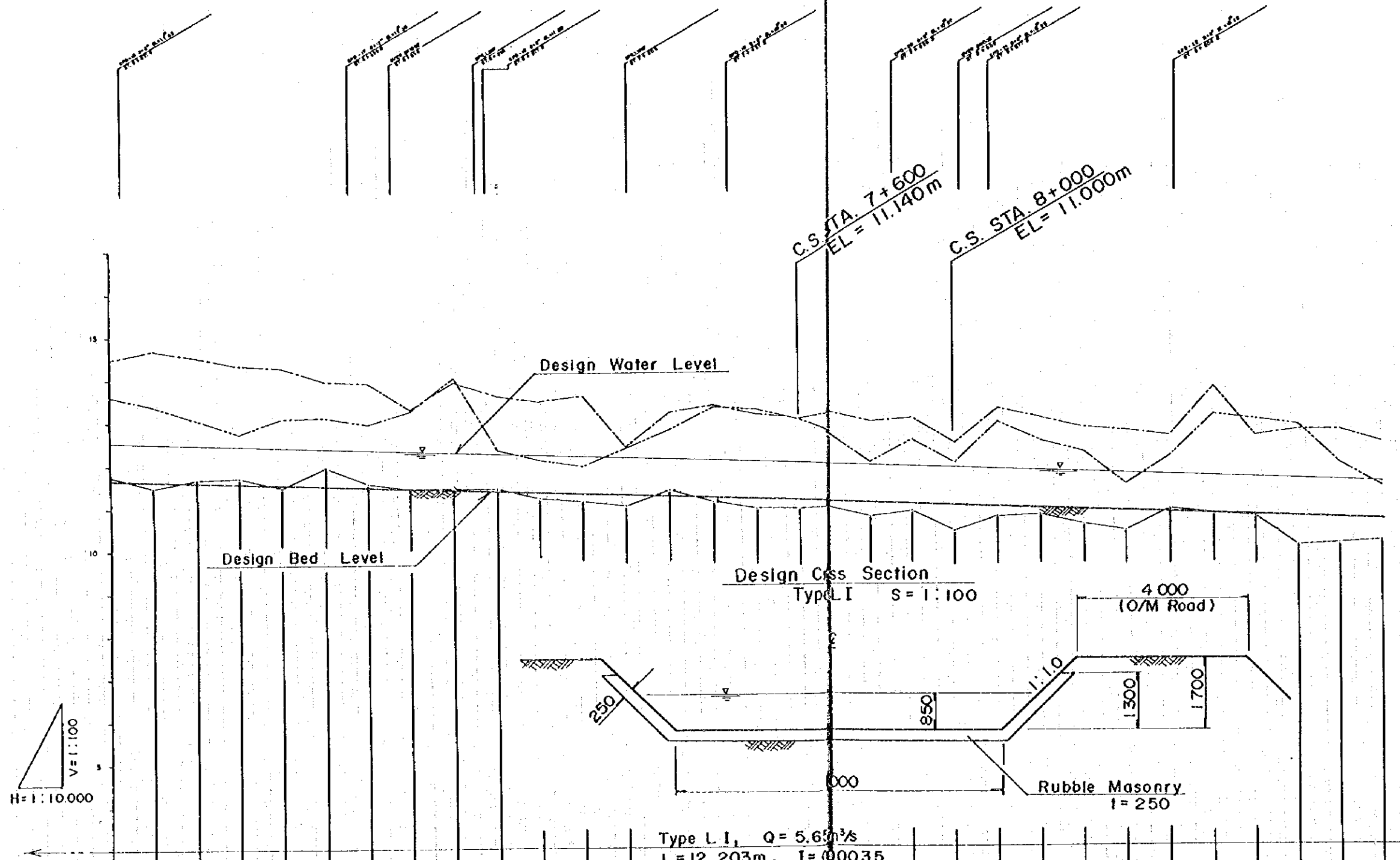
Dt = 2.00m

PROPOSED	STA. 0+000 EL=13.800m	STA. 1+000 EL=13.450m	STA. 2+000 EL=13.100m	STA. 3+000 EL=12.750m
EXISTING	LEFT ROAD ELEV.	RIGHT ROAD ELEV.	CANAL BED ELEV.	STATION

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			
DEPARTMENT OF IRRIGATION			
MINISTRY OF IRRIGATION, POWER AND ENERGY			
THE FEASIBILITY STUDY			
ON THE REHABILITATION			
OF IRRIGATION AND DRAINAGE SYSTEMS			
IN THE RIVER BASINS OF SOUTHERN SRI LANKA			
LIYANGASTOTA SCHEME <WALAWE LB>			
LB MAIN CANAL (1/6)			
L.S.(0~3km) & C.S.			
DATE	AUG.1996	DRG NO.	LL-2
CHUO KANATSU CORPORATION / AERO ASAHU CORPORATION			



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 IN THE RIVER BASINS OF SOUTHERN SRI LANKA  
 LIYANGASTOTA SCHEME <WALAWE LB>  
 LB MAIN CANAL (2/6)  
 L.S.(3~6km) & C.S.  
 DATE AUG.1996 DRG NO. LL-3  
 CHUO KAHATSU CORPORATION / AERO ASAHI CORPORATION



H=1:10,000  
V=1:100

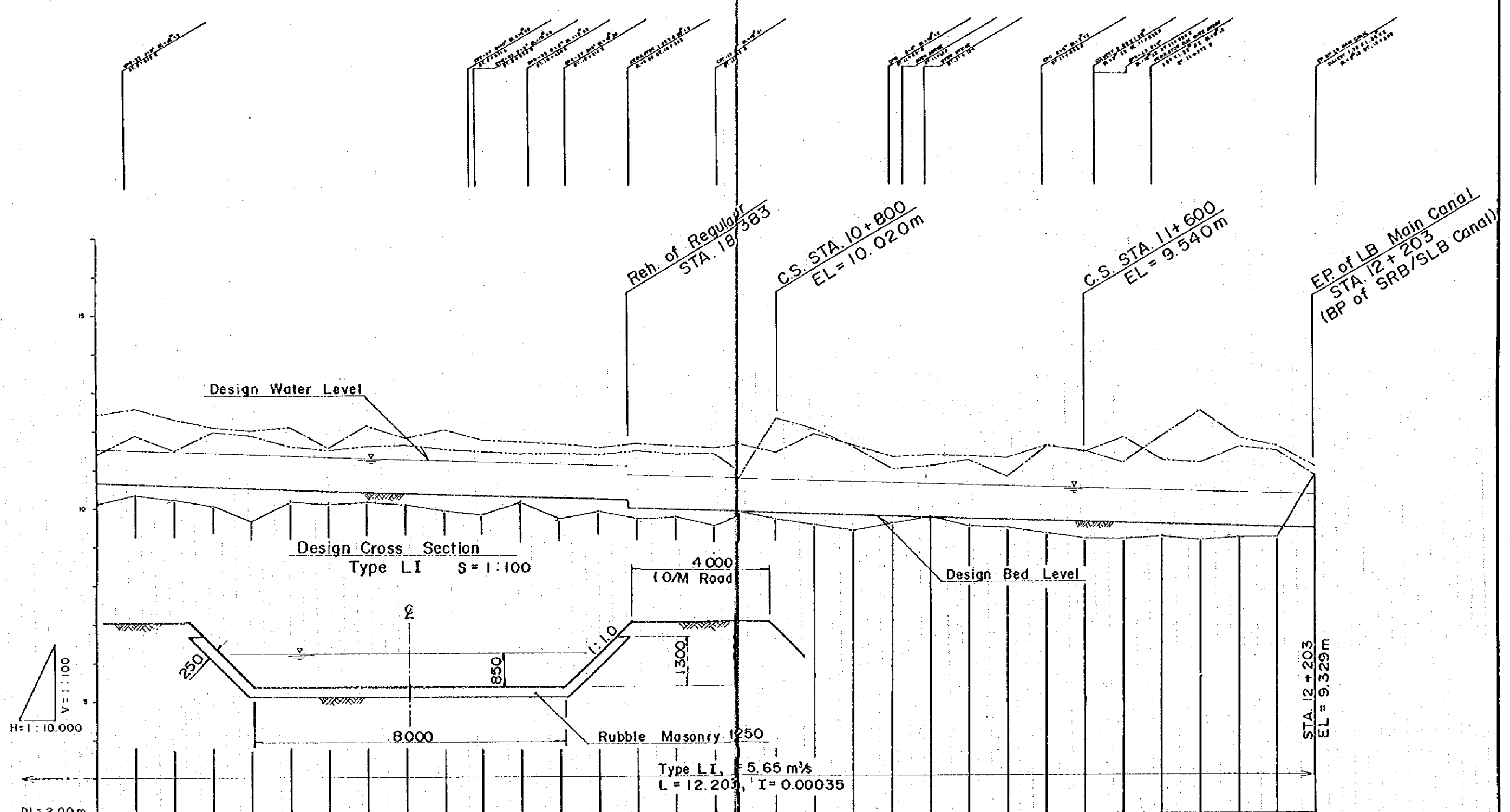
DL = 2.00m

STATION	6+000	7+000	8+000	9+000
PROPOSED	STA. 6+000 EL=11.700m	STA. 7+000 EL=11.350m	STA. 8+000 EL=11.000m	STA. 9+000 EL=10.650m
LEFT BANK ELEV	11.700	11.350	11.000	10.650
RIGHT BANK ELEV	11.700	11.350	11.000	10.650
CANAL BED ELEV	11.700	11.350	11.000	10.650

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LIYANGASTOTA SCHEME <WALAWE LB>

**LB MAIN CANAL (3/6)**  
L.S.(6-9km) & C.S.

DATE: AUG. 1996    DRG NO.: LL-4  
CHUO KANATSU CORPORATION / AERO ASARU CORPORATION

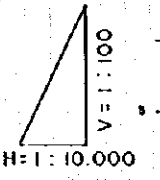


Reh. of Regulator  
STA. 10+383  
EL = 9.966m

C.S. STA. 10+800  
EL = 10.020m

C.S. STA. 11+600  
EL = 9.540m

EP. of LB Main Canal  
STA. 12+203  
(BP of SRB/SLB Canal)

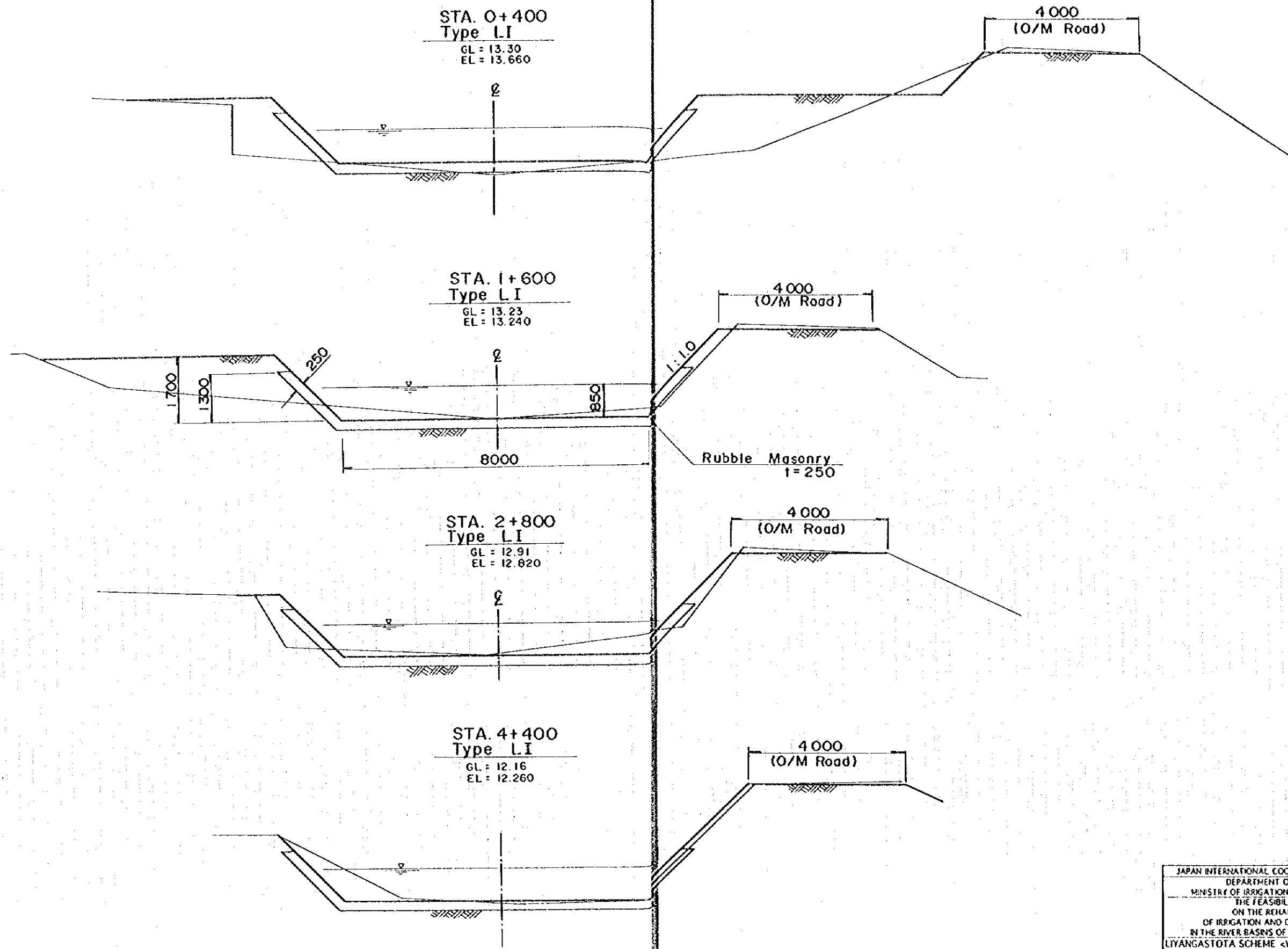


STATION	10+000	10+100	10+200	10+300	10+400	10+500	10+600	10+700	10+800	10+900	10+1000	10+1100	10+1200	10+1300	10+1400	10+1500	10+1600	10+1700	10+1800	10+1900	10+2000	10+2100	10+2200	10+2300	10+2400	10+2500	10+2600	10+2700	10+2800	10+2900	10+3000	10+3100	10+3200	10+3300	10+3400	10+3500	10+3600	10+3700	10+3800	10+3900	10+4000	10+4100	10+4200	10+4300	10+4400	10+4500	10+4600	10+4700	10+4800	10+4900	10+5000										
LET BAND ELEV	10.630	10.635	10.640	10.645	10.650	10.655	10.660	10.665	10.670	10.675	10.680	10.685	10.690	10.695	10.700	10.705	10.710	10.715	10.720	10.725	10.730	10.735	10.740	10.745	10.750	10.755	10.760	10.765	10.770	10.775	10.780	10.785	10.790	10.795	10.800	10.805	10.810	10.815	10.820	10.825	10.830	10.835	10.840	10.845	10.850	10.855	10.860	10.865	10.870	10.875	10.880	10.885	10.890	10.895	10.900						
NOT BAND ELEV	10.630	10.635	10.640	10.645	10.650	10.655	10.660	10.665	10.670	10.675	10.680	10.685	10.690	10.695	10.700	10.705	10.710	10.715	10.720	10.725	10.730	10.735	10.740	10.745	10.750	10.755	10.760	10.765	10.770	10.775	10.780	10.785	10.790	10.795	10.800	10.805	10.810	10.815	10.820	10.825	10.830	10.835	10.840	10.845	10.850	10.855	10.860	10.865	10.870	10.875	10.880	10.885	10.890	10.895	10.900						
CHNL BED ELEV	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966	9.966

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LB MAIN CANAL (4/6)  
 L.S.(9~12.2km) & C.S.

DATE AUG. 1996 DRG NO. LI-5  
 OEO KASATSU CORPORATION / AEO ASAKI CORPORATION

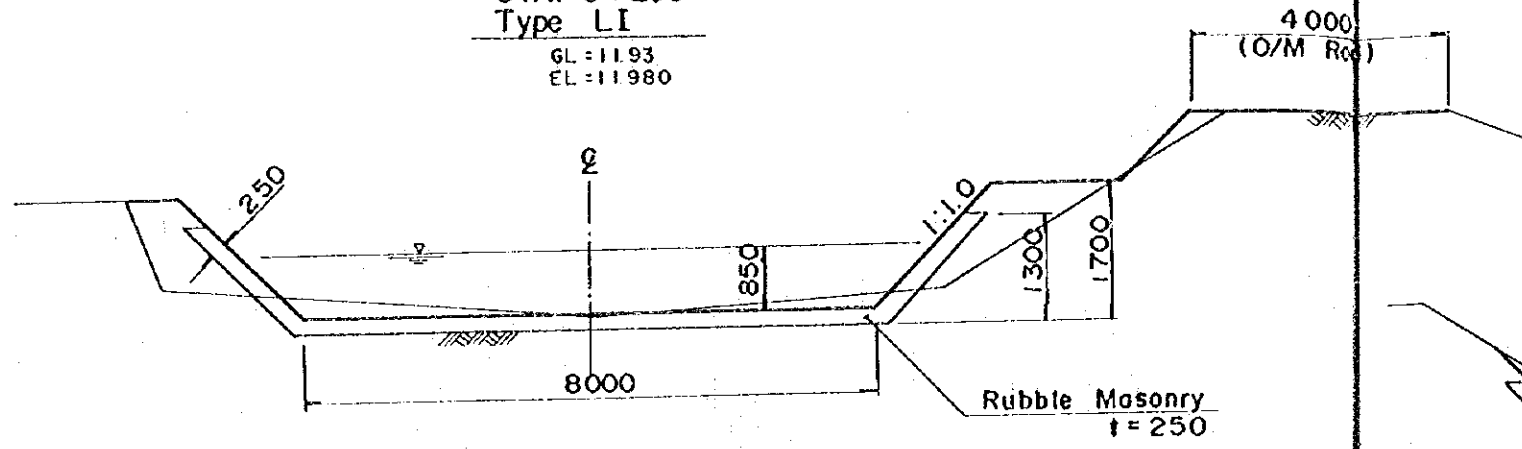


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 IN THE RIVER BASIN OF SOUTHERN SRI LANKA  
 LIYANGASTOTA SCHEME <WALAWE LB>

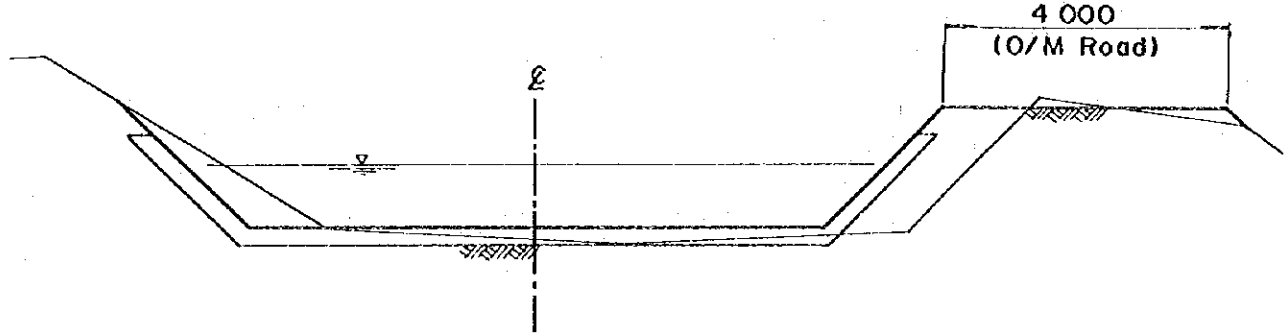
**LB MAIN CANAL (5/6)**  
**CROSS SECTIONS**

DATE | AUG.1996 | DRG NO. | LL-6  
 CHUGO KARIATSU CORPORATION / NERO ASAHI CORPORATION

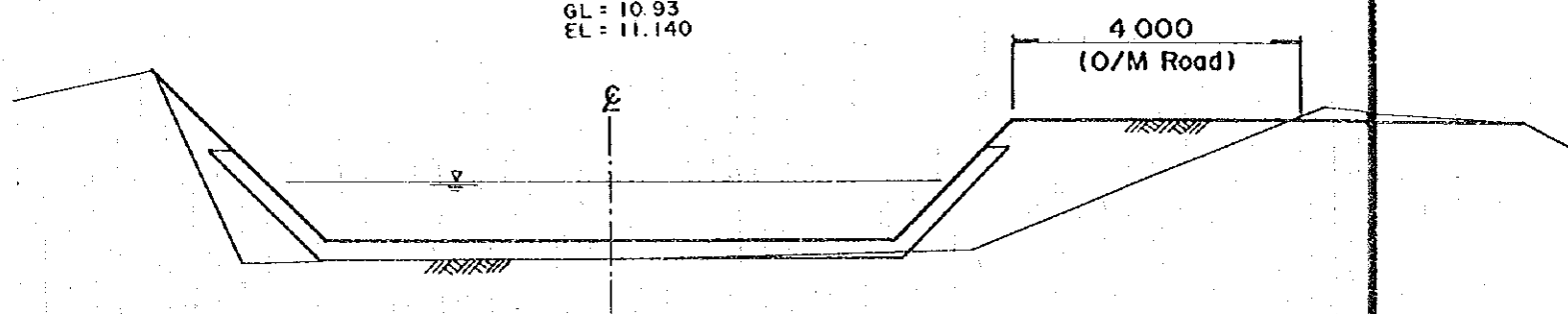
STA. 5+200  
Type LI  
GL = 11.93  
EL = 11.980



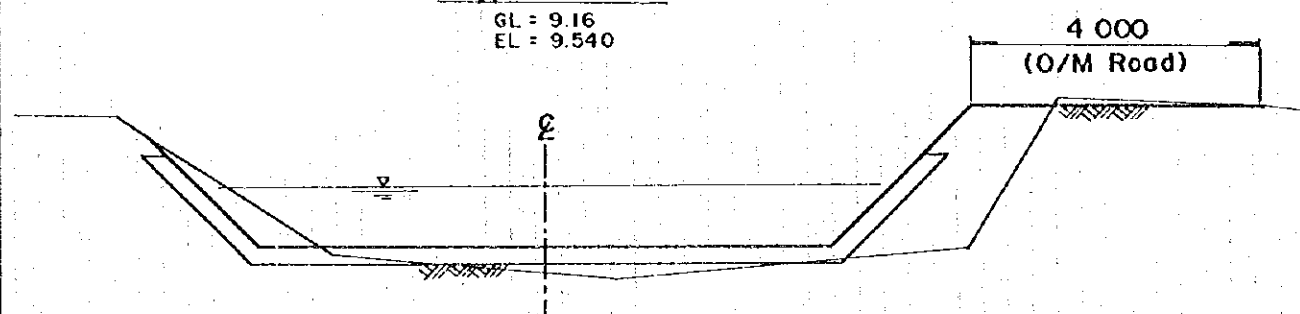
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Type LI  
GL = 9.67  
EL = 10.020



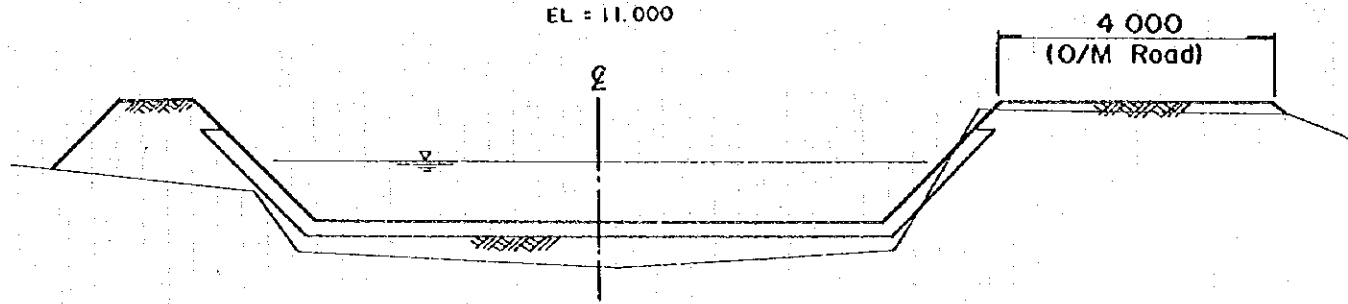
STA. 7+600  
Type LI  
GL = 10.93  
EL = 11.140



STA. 11+600  
Type LI  
GL = 9.16  
EL = 9.540



STA. 8+000  
Type LI  
GL = 10.38  
EL = 11.000



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LIYANGASTOTA SCHEME <WALAWE LB>

LB MAIN CANAL (6/6)  
CROSS SECTIONS

DATE AUG. 1996 DRG NO. LL-7  
CHUO KARIATSU CORPORATION / AERO ASAHI CORPORATION