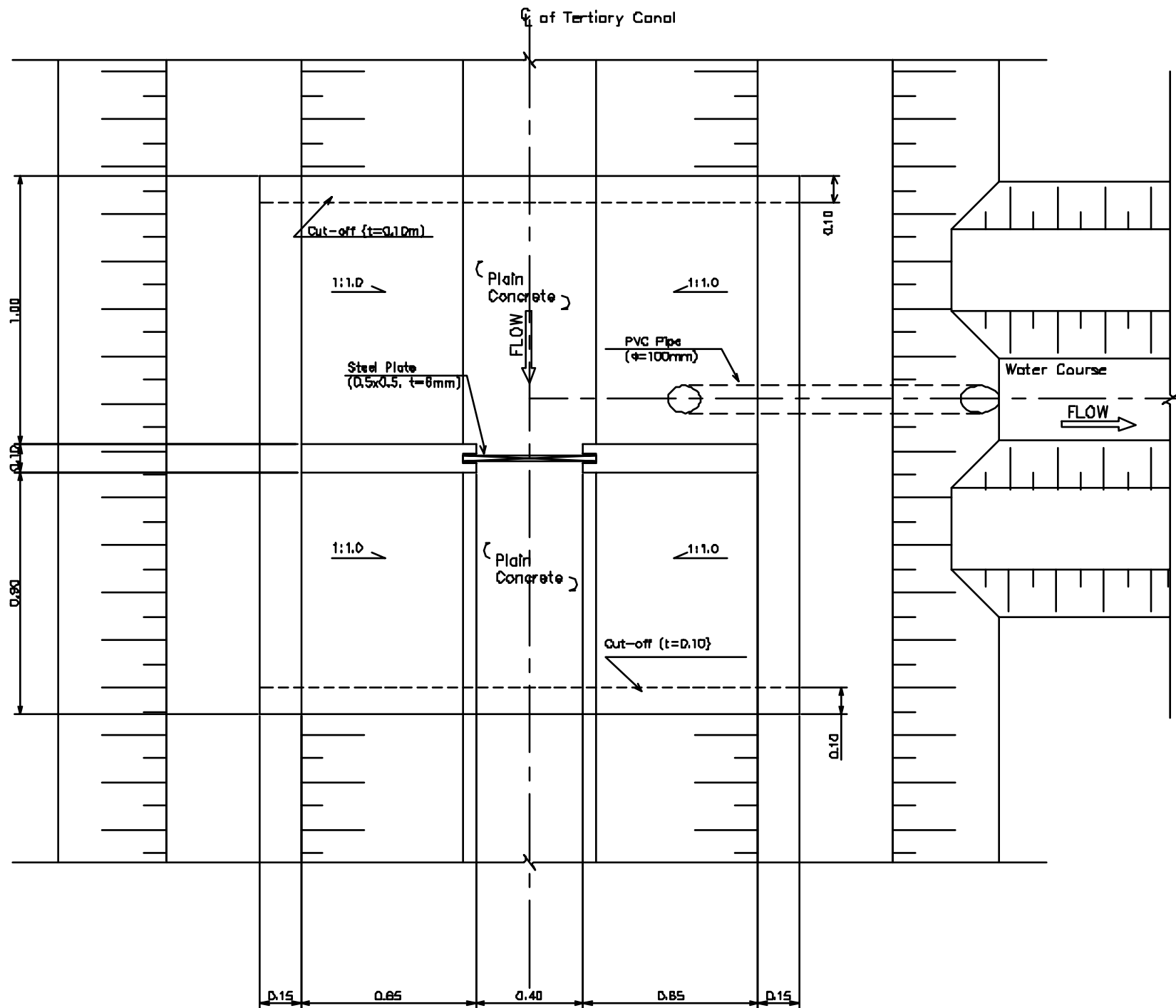
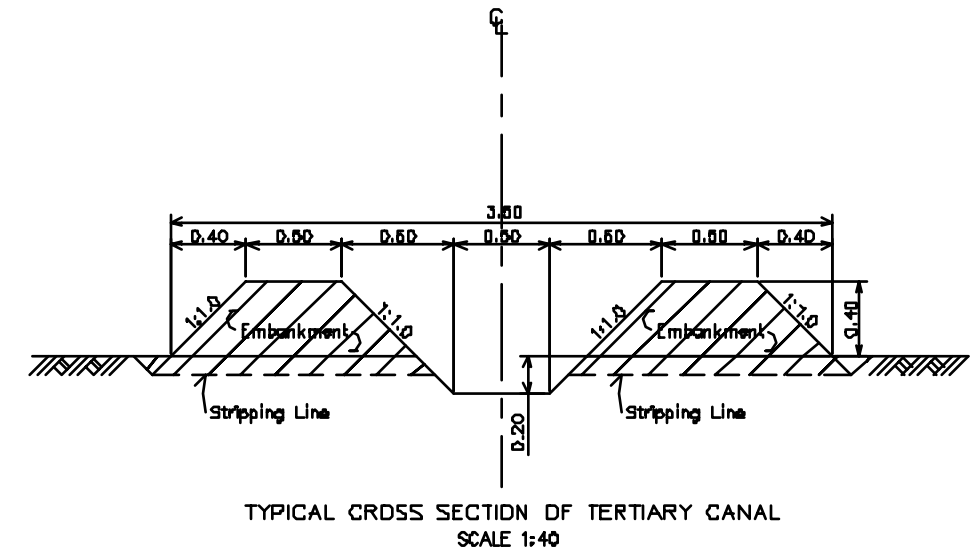
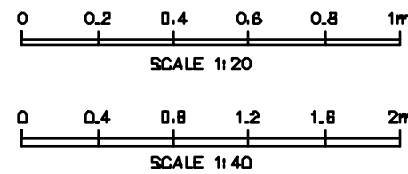


PLAN
NOT SCALED

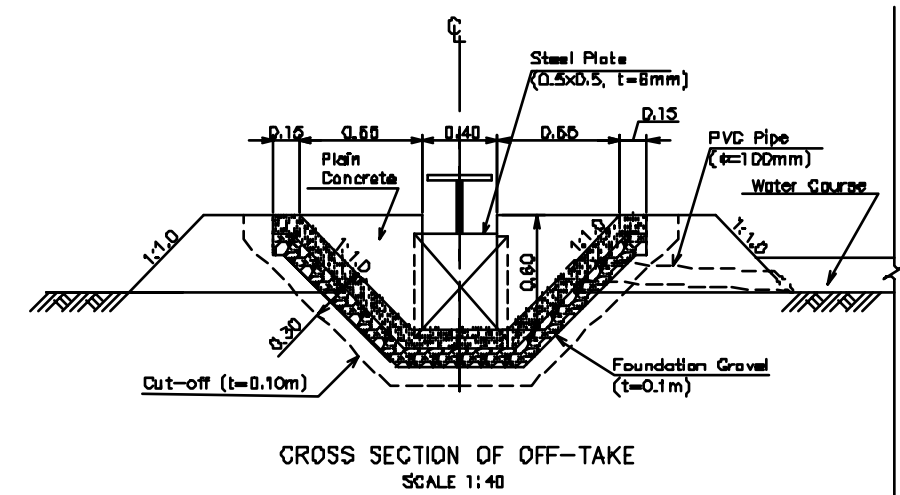
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Irrigation Canal System; Standard Layout of Tertiary Block(1/2)	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA		DRAWING NO. 41 of 62



PLAN OF OFF-TAKE FOR WATER COURSE
SCALE 1:20

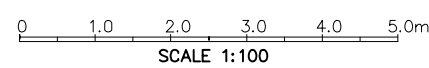
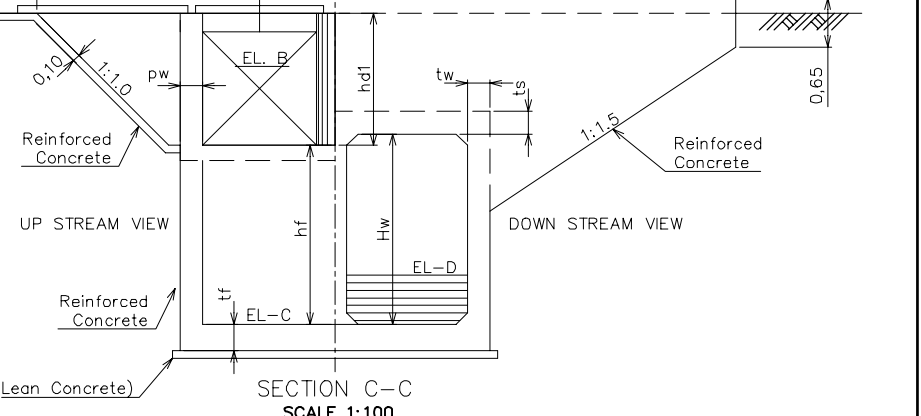
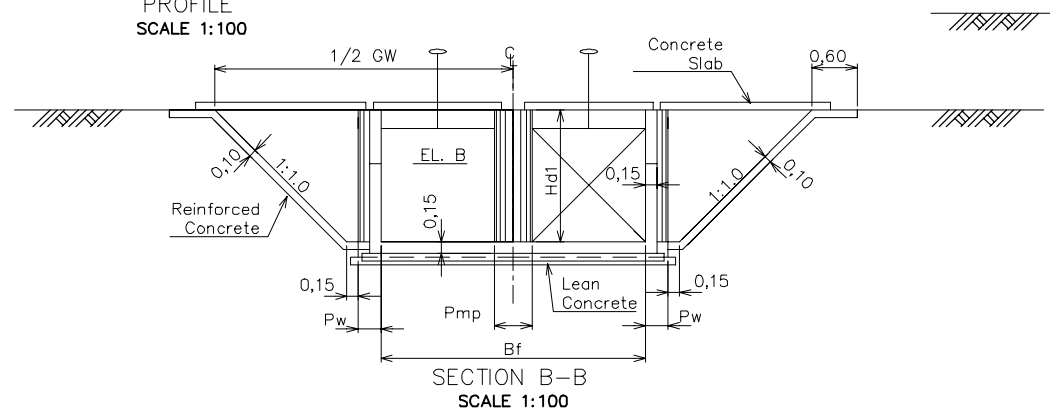
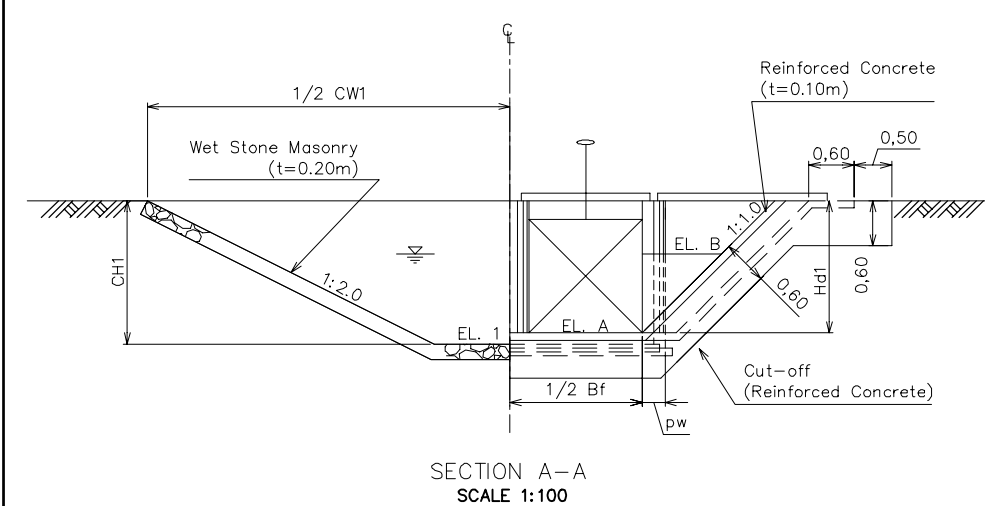
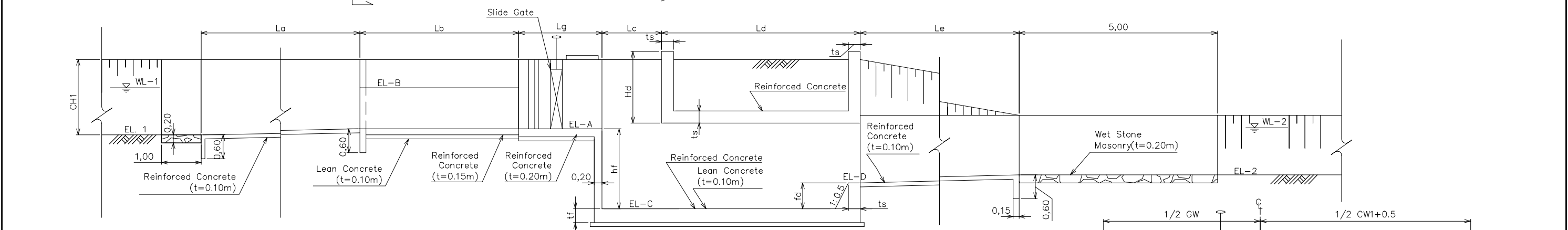
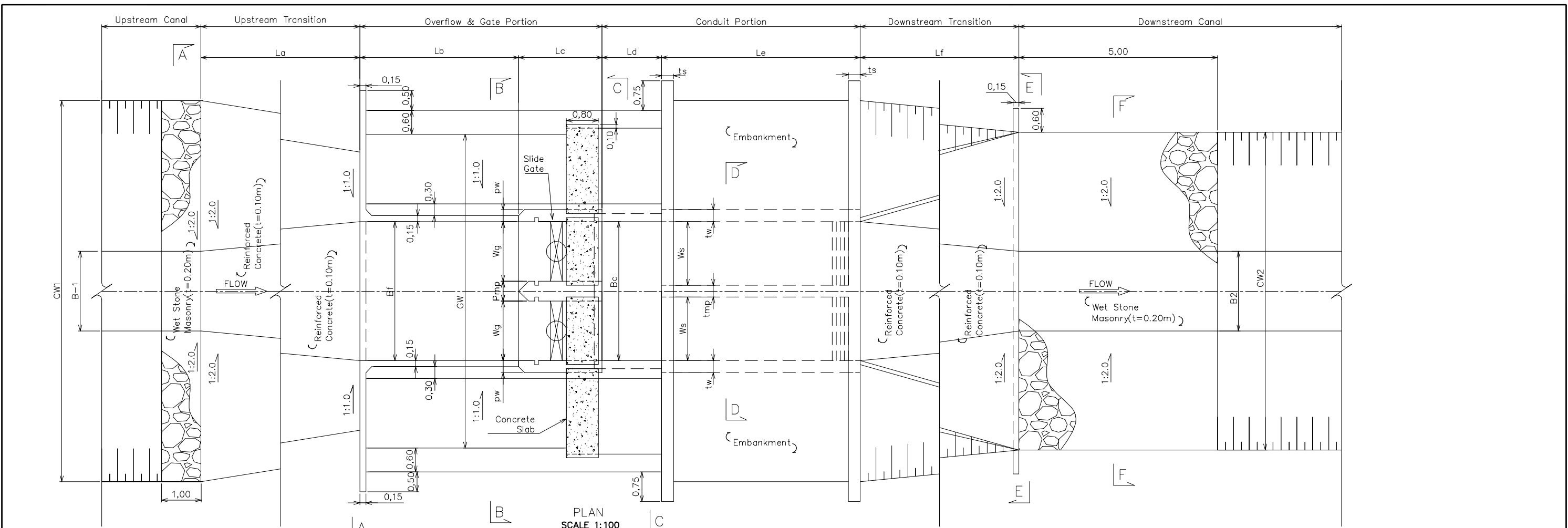


TYPICAL CROSS SECTION OF TERTIARY CANAL
SCALE 1:40

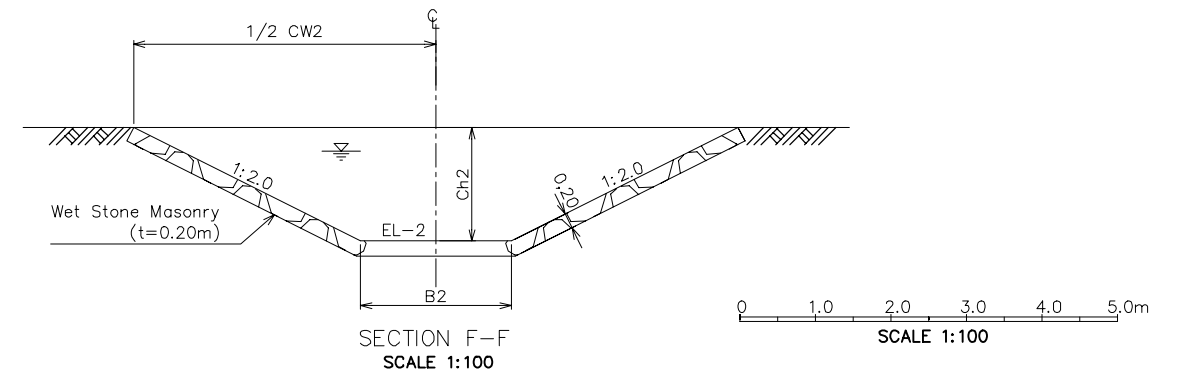
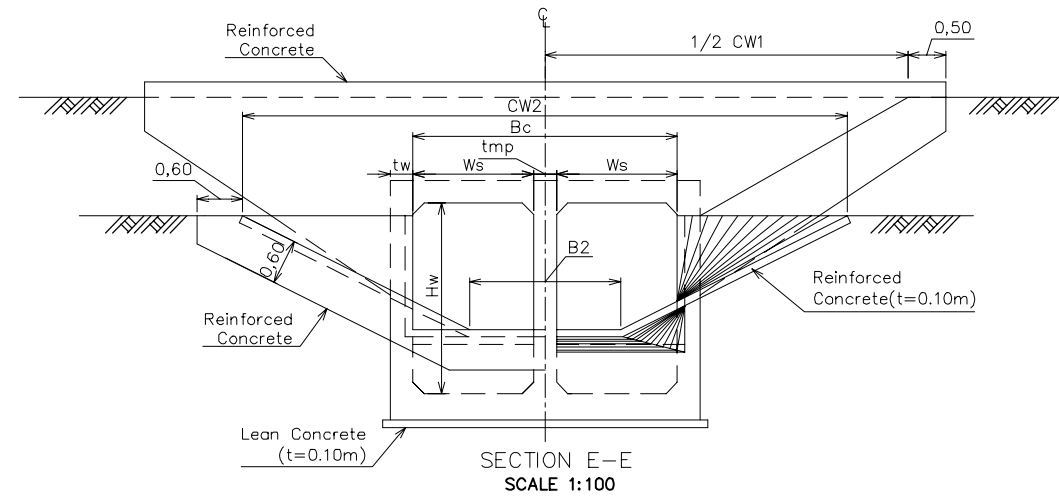
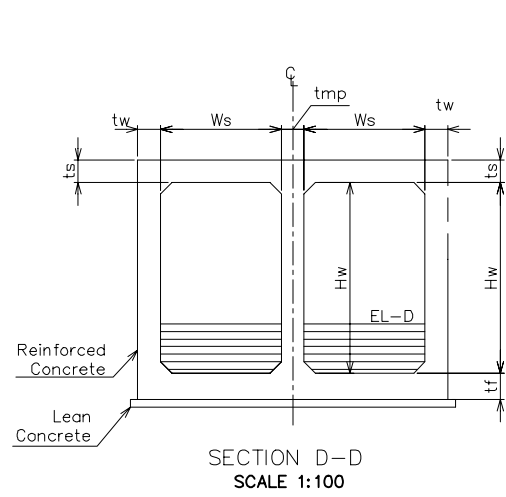


CROSS SECTION OF OFF-TAKE
SCALE 1:40

Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Irrigation Canal System	DATE Jan. 2002
	THE NATIONAL CENTER FOR INTERNATIONAL COOPERATION	Standard Layout of Tertiary Block(?)	DRAWING NO. 42 of 62

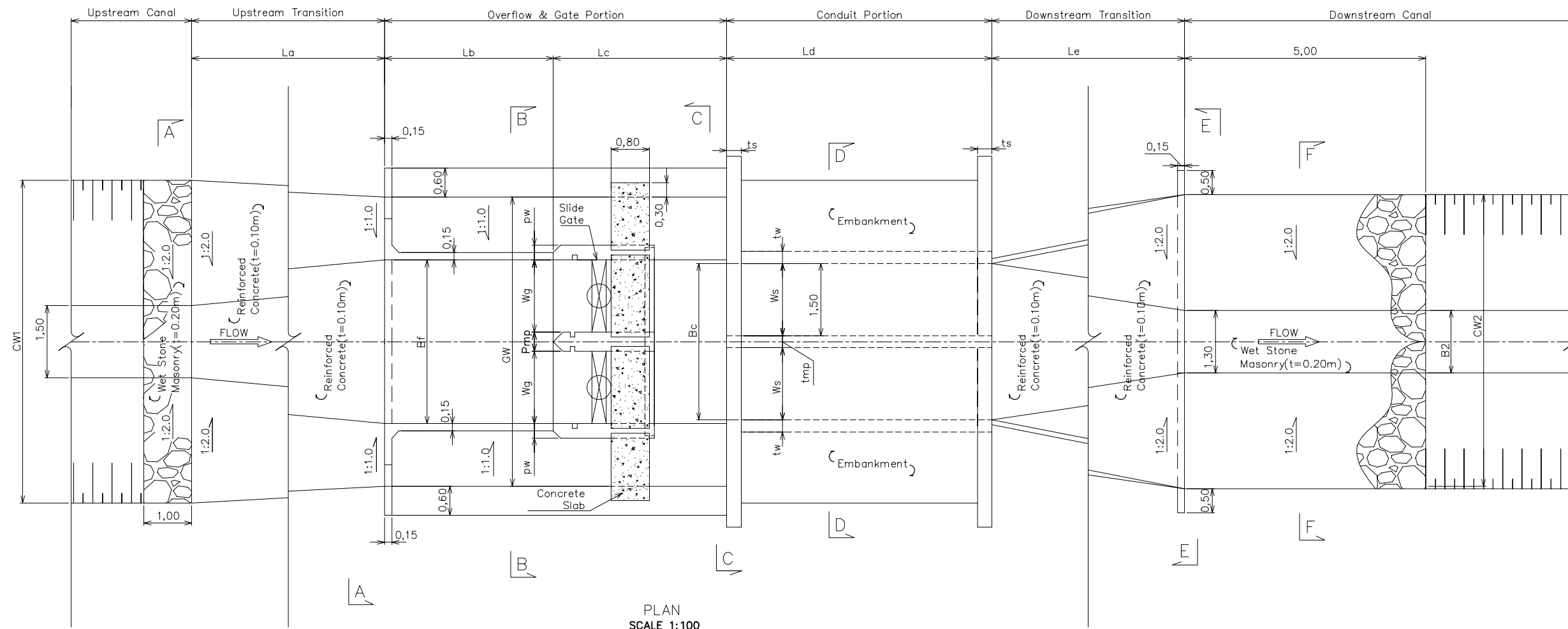


Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures; Diversion Structure with Drop (1/2)	DRAWING NO. 43 of 62

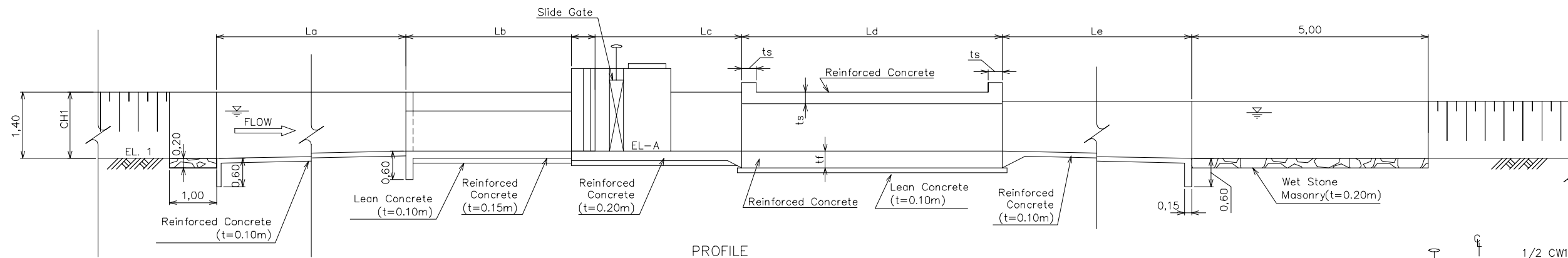


Code No.	Upstream Canal						Upstream Transition	Overflow and Gate Portion									
	Water Level at B.P.	Canal Bed EL.	Canal Type	Canal Bed Width	Total Height	Total Width		Overflow Portion	Gate Portion	Gate Floor Elevation	Overflow Creel Level	Inlet Width at Overflow	Total Width at Overflow	Center Pier Width at Gate	Side Pier Width at Gate	Gate Size	Gate Nos.
	WL-1	EL-1	--	B-1	CH1	CW1		La	Lb	Lc	EL-A	EL-B	Bf	Gw	Pmp	Pw	
Canal 33																	
DiA-1	34.57	32.96	A-1	2.00	1.90	9.60	8.00	4.00	2.10	33.53	34.57	3.50	7.06	0.50	0.30	1.50x1.50	2
DrA-1	33.33	32.14	A-2	2.00	1.50	8.00	7.00	4.00	--	32.27	33.31	3.50	7.14	--	--	--	--
DiA-2	31.40	30.21	A-2	2.00	1.50	8.00	6.00	4.00	2.10	30.30	31.38	3.50	7.22	0.50	0.30	1.50x1.50	2
DiA-4	28.46	27.49	A-4	1.30	1.20	6.10	5.00	3.50	2.10	27.45	28.44	3.50	6.88	0.50	0.30	1.50x1.50	2
Canal 23																	
DrA23-1	31.30	30.67	A23-1	1.00	0.90	4.60	4.00	2.00	--	30.74	31.28	2.00	4.56	--	--	--	--
OfA23-1	30.23	29.61	A23-1	1.00	0.90	4.60	4.00	2.00	2.10	29.69	30.21	2.00	4.54	0.40	0.30	0.80x0.80	2
OfA23-2	28.59	27.98	A23-2	0.90	0.90	4.50	4.00	2.00	2.10	28.07	28.57	2.00	4.52	0.40	0.30	0.80x0.80	2
Canal 22																	
OfA22-4	24.85	24.33	A22-4	0.80	0.80	4.00	3.00	1.50	2.10	24.31	24.83	1.60	3.88	0.40	0.30	0.60x0.60	2
Canal 21																	
DrA21-1	28.24	27.69	A21-1	0.80	0.80	4.00	3.00	1.50	--	27.67	28.22	2.00	4.22	--	--	--	--
OfA21-2	26.48	25.92	A21-2	0.80	0.80	4.00	4.00	1.50	2.10	25.90	26.46	1.60	3.84	0.40	0.30	0.60x0.60	2
OfA21-3	24.83	24.32	A21-3	0.70	0.80	3.90	3.00	1.50	2.10	24.30	24.81	1.60	3.86	0.40	0.30	0.60x0.60	2
Canal 20																	
OfA20-4	23.07	22.52	A20-4	0.70	0.80	3.90	4.00	1.50	2.10	22.51	23.05	1.60	3.86	0.40	0.30	0.60x0.60	2

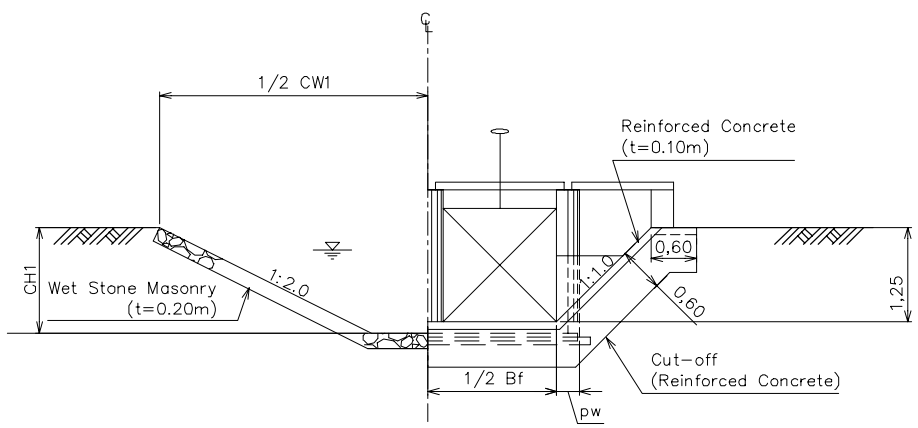
Code No.	Conduit Portion															Down-stream Transition	Downstream Canal					Total Structure Length	
	Conduit Inlet Portion	Conduit Portion	Floor Level of Conduit	Floor Level of Conduit	Inlet Width of Conduit	Conduit Size	Conduit Nos.	Drop Height	Depth of Water Cushion	Wall height over Conduit	Box Side Wall Thick	Box Top Slab Thick	Box Bottom Slab Thick	Box Centre Wall Thick	Water Level		Canal Bed EL.	Canal Type	Canal Bed Width	Total Height	Total Width		
	Ld	Le	EL-C	EL-D	Bc	Ws x Hw	--	hf	fd	Hd	tw	ts	tf	tmp	Lf		WL-2	EL-2	--	B2	Ch2		CW2
Canal 33																							
DiA-1	1.50	5.00	31.91	32.56	3.50	1.60x1.80	2	1.62	0.65	1.68	0.30	0.30	0.35	0.30	8.00	33.56	32.37	A-2	2.00	1.50	8.00	28.60	
DrA-1	1.50	5.00	30.70	31.30	3.50	1.60x1.75	2	1.57	0.60	1.72	0.30	0.30	0.35	0.30	7.00	32.23	31.04	A-2	2.00	1.50	8.00	24.50	
DiA-2	1.50	5.00	28.72	29.32	3.50	1.60x1.75	2	1.58	0.60	1.76	0.30	0.30	0.35	0.30	6.00	30.40	29.30	A-3	1.50	1.40	7.10	24.60	
DiA-4	1.50	5.00	26.08	26.68	3.50	1.60x1.55	2	1.37	0.60	1.59	0.30	0.30	0.35	0.30	5.00	27.65	26.85	A-3	1.00	1.00	5.00	22.10	
Canal 23																							
DrA23-1	1.00	4.00	29.58	30.18	2.00	0.90x1.35	2	1.16	0.60	1.18	0.20	0.20	0.25	0.20	4.00	30.53	29.96	A23-1	1.00	0.90	4.60	15.00	
OfA23-1	1.00	7.00	28.73	29.23	2.00	0.90x1.15	2	0.96	0.50	1.17	0.20	0.20	0.25	0.20	4.00	29.72	29.11	A23-2	0.90	0.90	4.50	20.10	
OfA23-2	1.00	3.00	27.15	27.60	2.00	0.90x0.95	2	0.92	0.45	1.16	0.20	0.20	0.25	0.20	4.00	28.08	27.48	A23-3	0.90	0.80	4.10	16.10	
Canal 22																							
OfA22-4	1.00	3.00	23.74	24.09	1.60	0.70x0.85	2	0.70	0.35	1.04	0.20	0.20	0.25	0.20	3.00	24.35	23.82	A22-5	0.70	0.70	3.50	13.60	
Canal 21																							
DrA21-1	1.00	3.00	26.75	27.15	2.00	0.90x1.25	2	1.08	0.40	1.01	0.20	0.20	0.25	0.20	3.00	27.40	26.84	A21-2	0.80	0.80	4.00	11.50	
OfA21-2	1.00	3.00	24.58	25.08	1.60	0.70x1.65	2	1.47	0.50	1.02	0.20	0.20	0.25	0.20	4.00	25.46	24.95	A21-3	0.70	0.80	3.90	15.60	
OfA21-3	1.00	3.00	23.47	23.87	1.60	0.70x1.15	2	0.97	0.40	1.03	0.20	0.20	0.25	0.20	3.00	24.22	23.71	A21-4	0.70	0.70	3.50	13.60	
Canal 20																							
OfA20-4	1.00	3.00	21.32	21.67	1.60	0.70x1.50	2	1.32	0.35	1.03	0.20	0.20	0.25	0.20	4.00	22.62	22.12	A20-5	0.70	0.70	3.50	15.60	



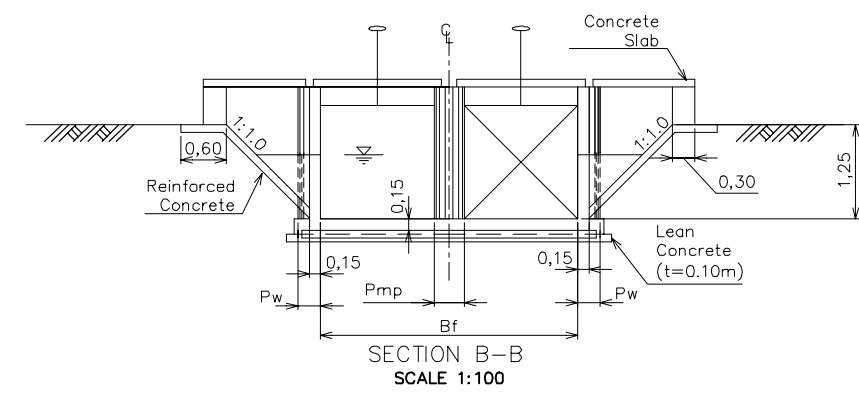
PLAN
SCALE 1:100



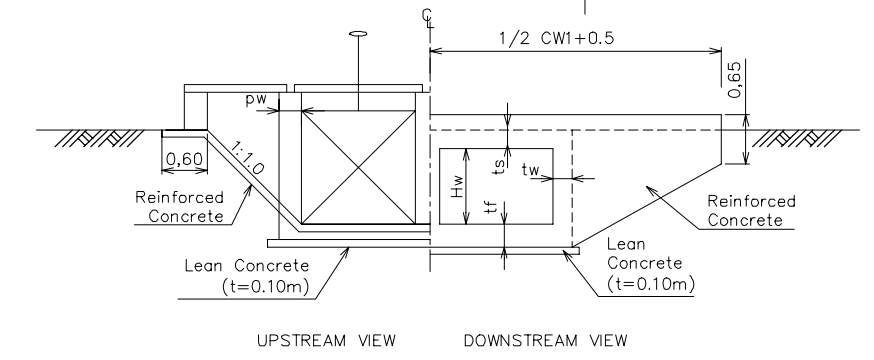
PROFILE
SCALE 1:100



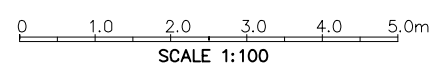
SECTION A-A
SCALE 1:100



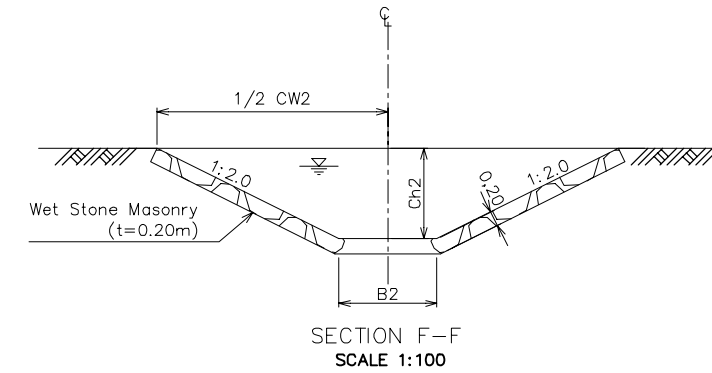
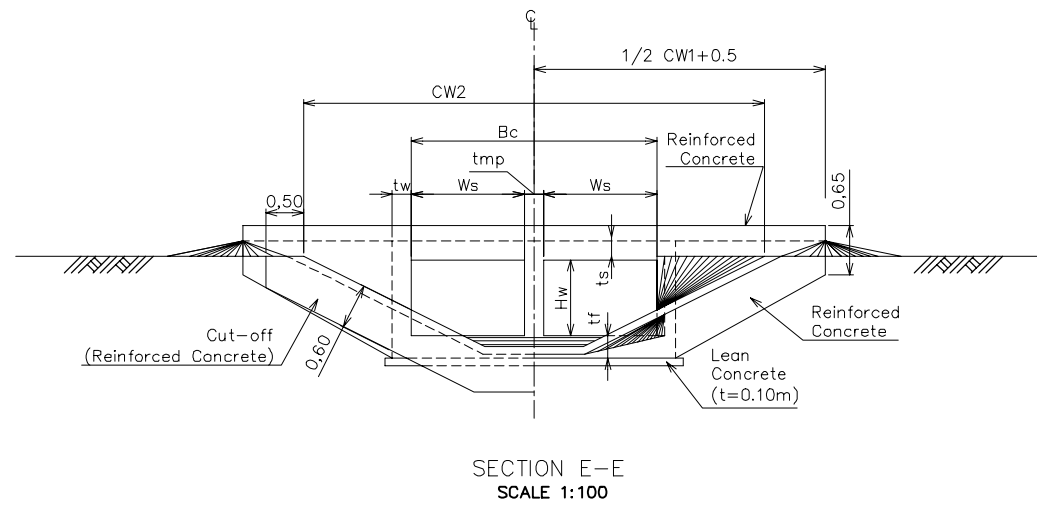
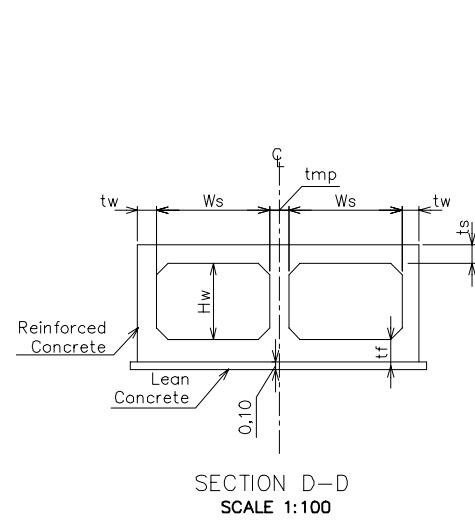
SECTION B-B
SCALE 1:100



SECTION C-C
SCALE 1:100

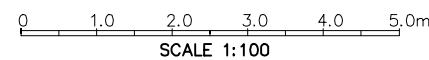


Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures; Diversion Structure without Drop (1/2)	DRAWING NO. 45 of 62

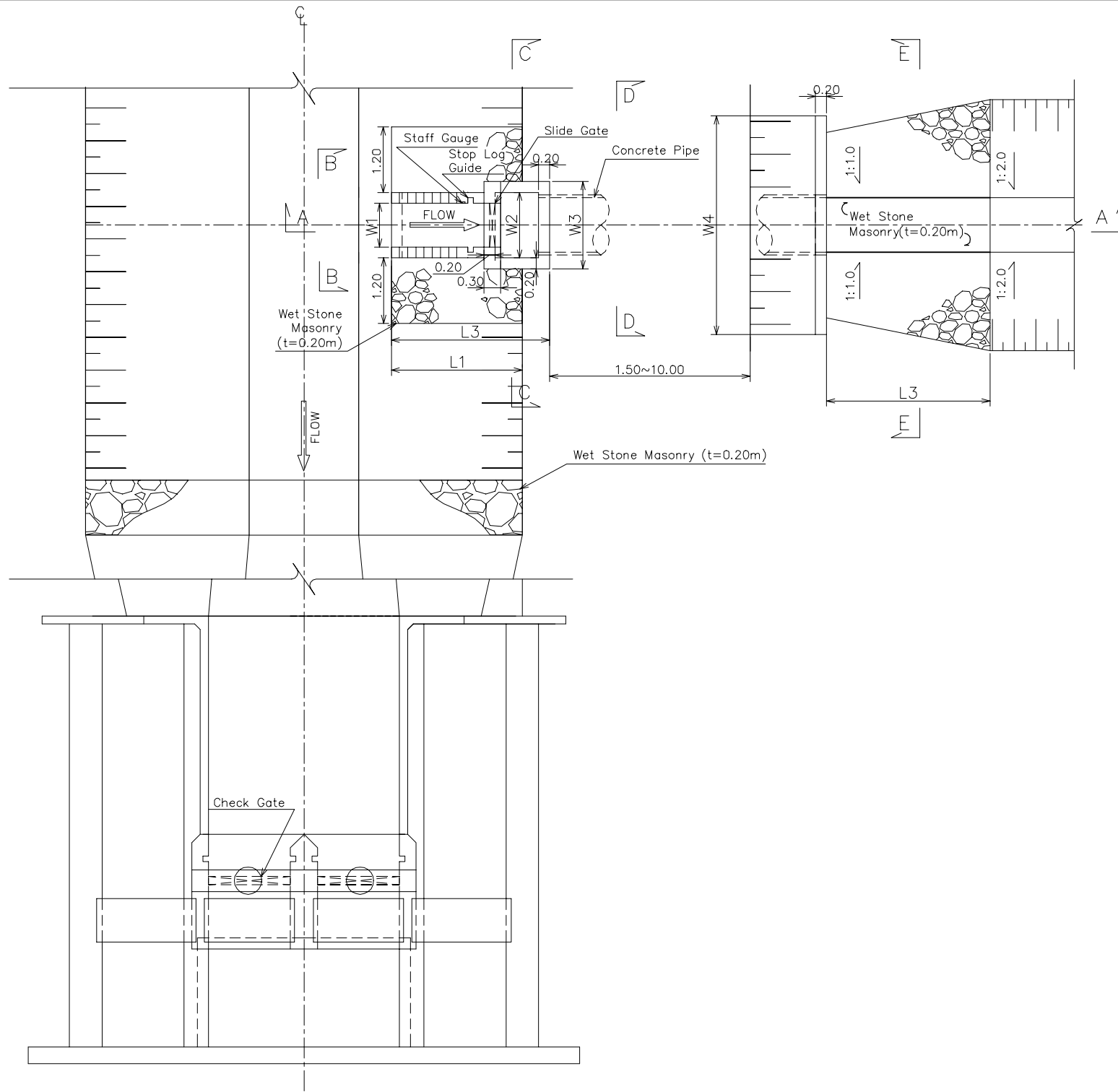


Code No. (m ³ /s)	Upstream Canal			Upstream Transition La	Overflow and Gate Portion							
	Canal Bed Width B-1	Total Height CH1	Total Width CW1		Overflow Portion Lb	Gate Portion Lc	Inlet Width at Overflow Bf	Total Width at Overflow Gw	Center Pier Width at Gate Pmp	Side Pier Width at Gate Pw	Gate Size	Gate Nos.
Main Canal												
Q=2.0	1.50	1.40	6.70	7.00	3.50	3.60	3.40	7.30	0.40	0.30	1.50x1.50	2
Secondary Canal												
Q<0.25	0.50-0.60	0.50-0.60	2.50-3.00	2.00-3.00	1.00	2.60	0.60	2.10-2.40	0.40	0.30	0.60x0.60	1
0.25<Q=or<0.40	0.60-0.75	0.60-0.70	3.00-3.55	3.00-4.00	1.50	2.60	0.80	2.60-2.90	0.40	0.30	0.80x0.80	1
0.40<Q=or<0.50	0.70-0.80	0.70-0.80	3.50-4.00	4.00-5.00	2.00	2.85	1.60	3.70-4.00	0.40	0.30	0.60x0.60	2
0.50<Q=or<0.90	0.75-1.00	0.70-0.90	3.55-4.60	4.00-6.00	2.50	3.10	2.00	4.10-4.70	0.40	0.30	0.80x0.80	2

Code No. (m ³ /s)	Conduit Portion								Down-stream Transition Le	Downstream Canal			Total Structure Length Lt
	Conduit Portion Le	Inlet Width of Conduit Bc	Conduit Size Ws x Hw	Conduit Nos.	Box Side Wall Thick tw	Box Top Slab Thick ts	Box Bottom Slab Thick tf	Box Centre Wall Thick tmp		Canal Bed Width B2	Total Height Ch2	Total Width CW2	
Main Canal													
Q=2.0	3.00or6.00	3.25	1.50x1.0	2	0.25	0.25	0.30	0.25	7.00	1.30	1.20	6.10	30.1-33.10
Secondary Canal													
Q<0.25	3.00or6.00	0.60	0.60x0.60	1	0.15	0.15	0.15	-	2.00-3.00	0.50-0.60	0.50-0.60	2.50-3.00	16.60-21.60
0.25<Q=or<0.40	3.00or6.00	0.80	0.80x0.80	1	0.15	0.15	0.15	-	3.00-4.00	0.60-0.75	0.60-0.70	3.00-3.55	19.10-24.10
0.40<Q=or<0.50	3.00or6.00	1.60	0.60x0.60	2	0.20	0.20	0.25	0.20	4.00-5.00	0.70-0.80	0.70-0.80	3.50-4.00	21.85-26.85
0.50<Q=or<0.90	3.00or6.00	2.00	0.80x0.80	2	0.20	0.20	0.25	0.20	4.00-6.00	0.70-1.00	0.70-0.90	3.55-4.60	22.60-29.60

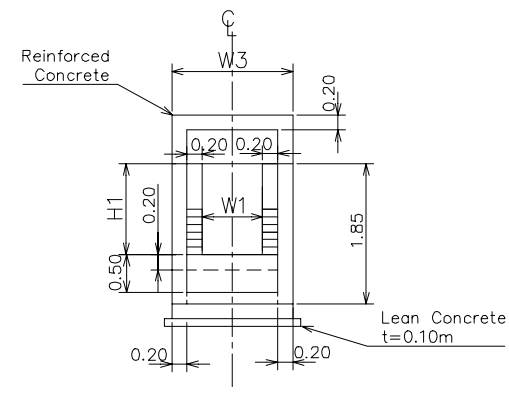
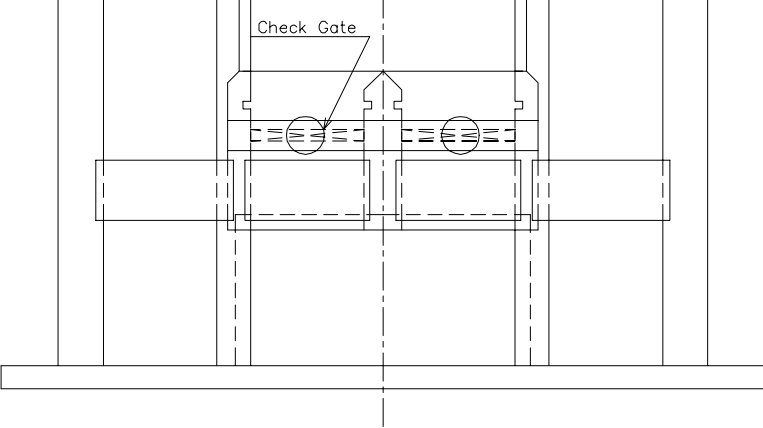


Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures; Diversion Structure without Drop (2/2)	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA		DRAWING NO. 46 of 62

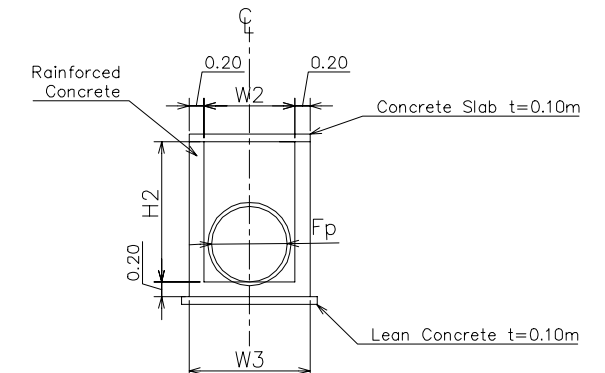


Dimension Box of Diversion and Off-take

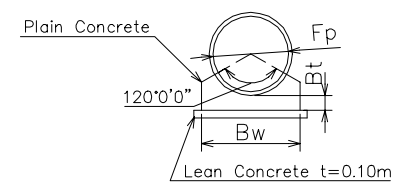
	$Q < 0.06 \text{ m}^3/\text{s}$	$0.06 \leq Q < 0.2 \text{ m}^3/\text{s}$	$0.2 \leq Q < 0.4 \text{ m}^3/\text{s}$	$0.4 \leq Q < 0.9 \text{ m}^3/\text{s}$
L1	1.60	1.80	2.00	2.40
L2	2.10	2.30	2.50	2.90
L3	3.00	3.00	5.00	5.00
H1	0.80	1.00	1.00	1.20
H2	1.45	1.45	1.65	1.85
H3	1.30	1.50	1.80	1.90
H4	0.60	0.80	1.10	1.20
H5	0.80	1.00	1.30	1.40
Fp	0.40	0.60	0.80	1.00
Gate Size	0.60 x 0.60	0.60 x 0.60	0.80 x 0.80	0.80 x 0.80
W1	0.60	0.60	0.80	0.80
W2	0.60	0.80	1.00	1.20
W3	1.00	1.20	1.40	1.60
W4	2.20	2.80	3.40	4.00
W5	0.40	0.60	0.80	1.00
Bw	0.70	0.90	1.10	1.30
Bt	0.15	0.20	0.25	0.25



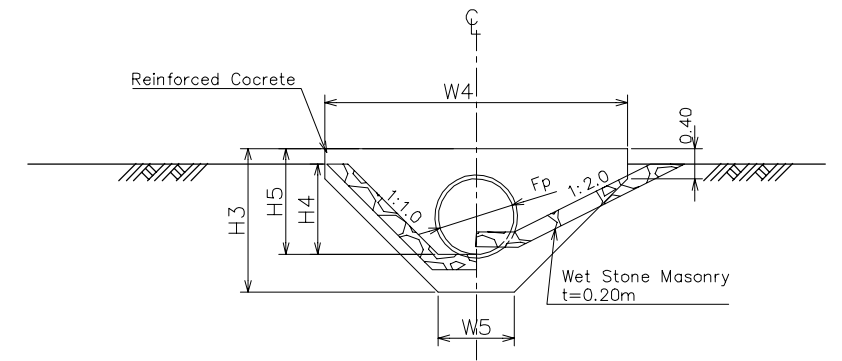
SECTION B-B
SCALE 1:100



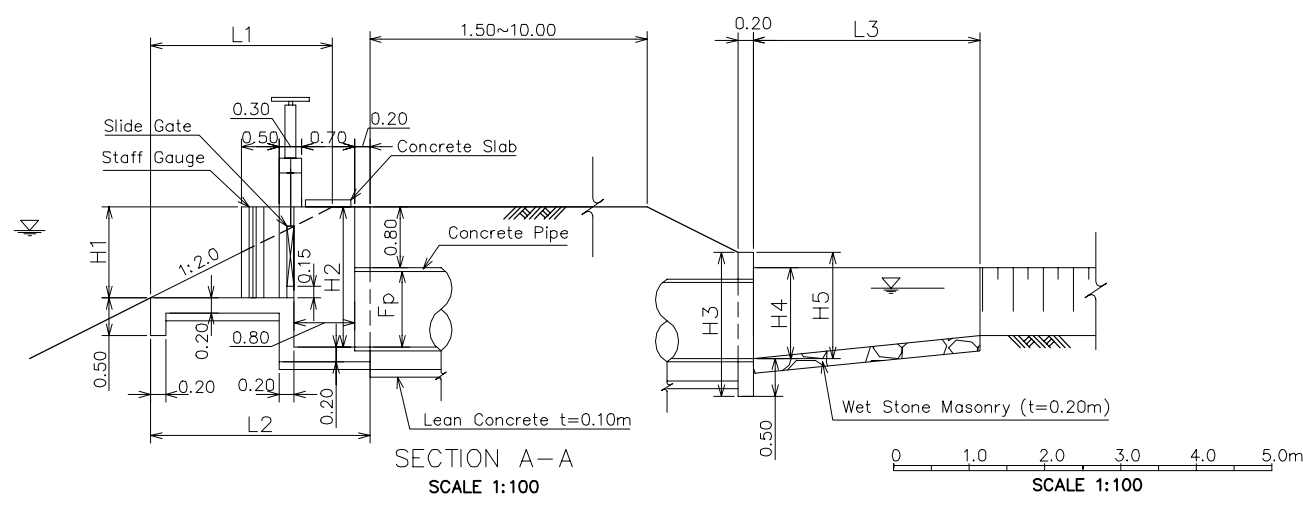
SECTION C-C
SCALE 1:100



SECTION D-D
SCALE 1:100

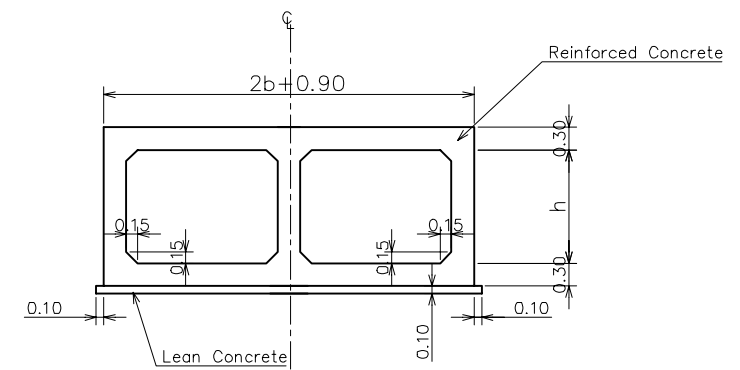
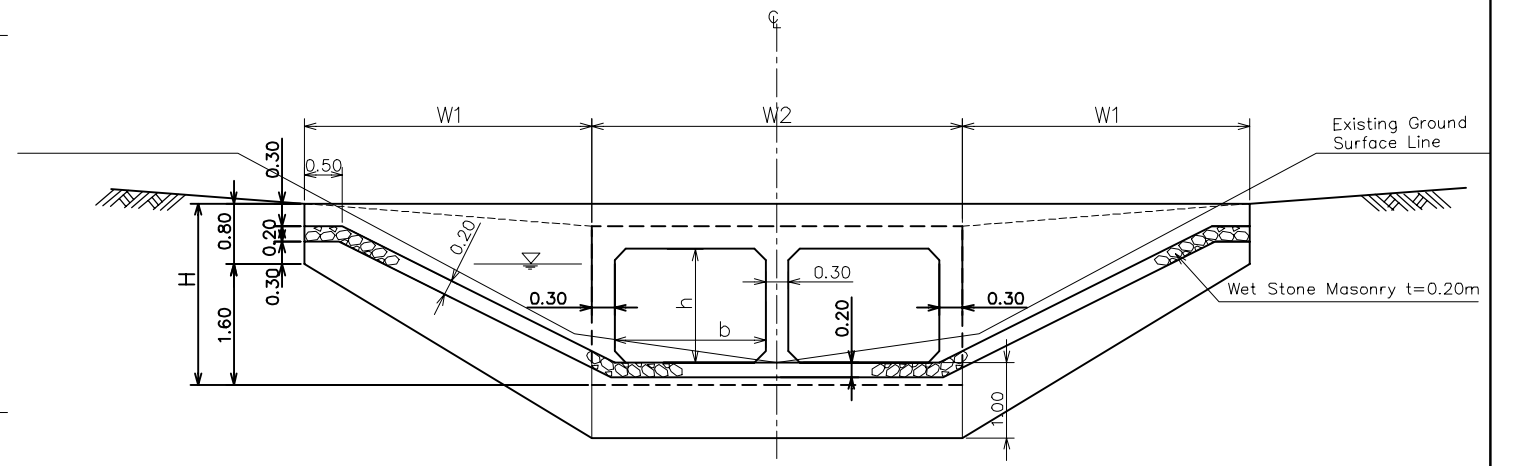
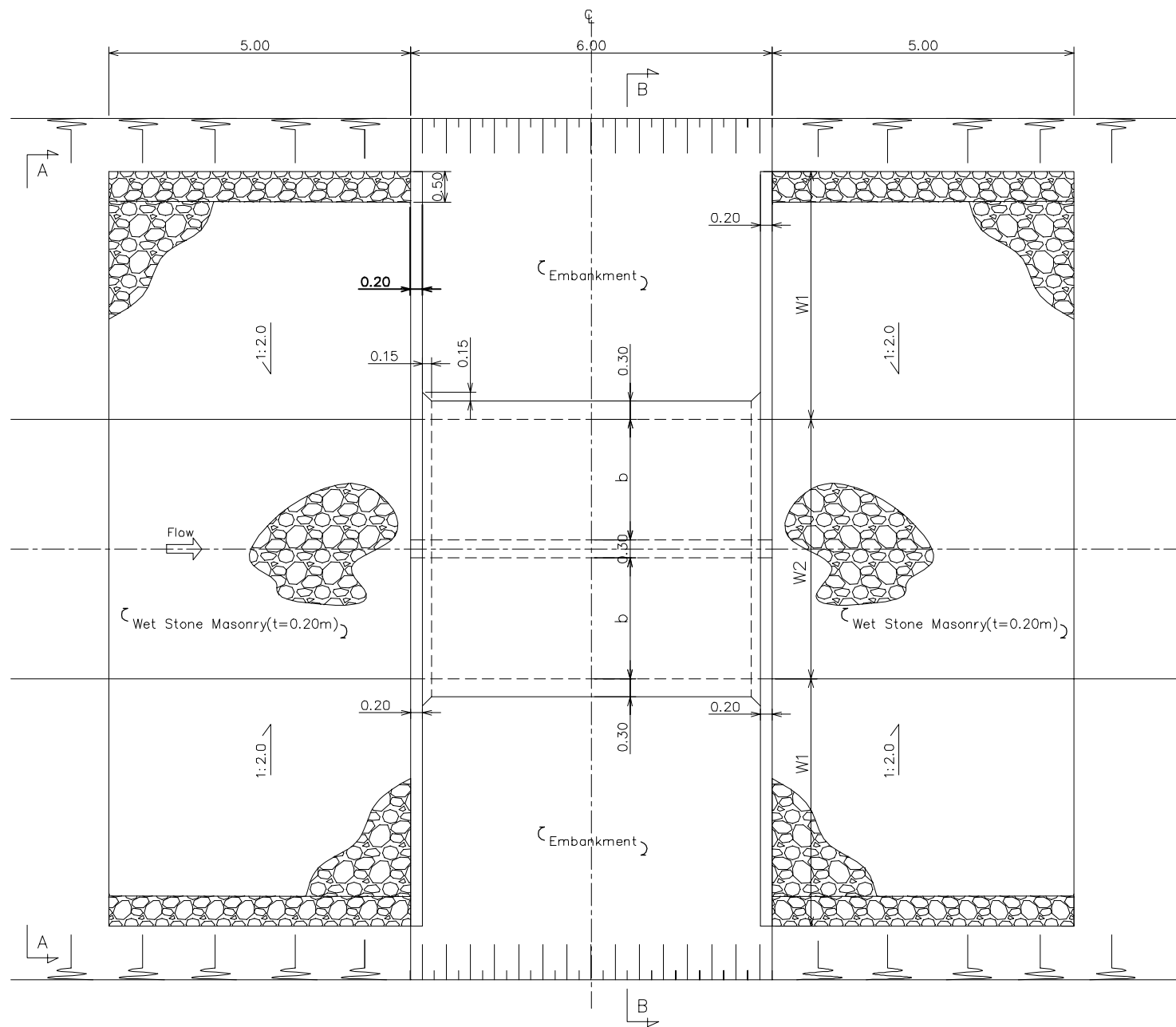


SECTION E-E
(OUTLET WALL)
SCALE 1:100

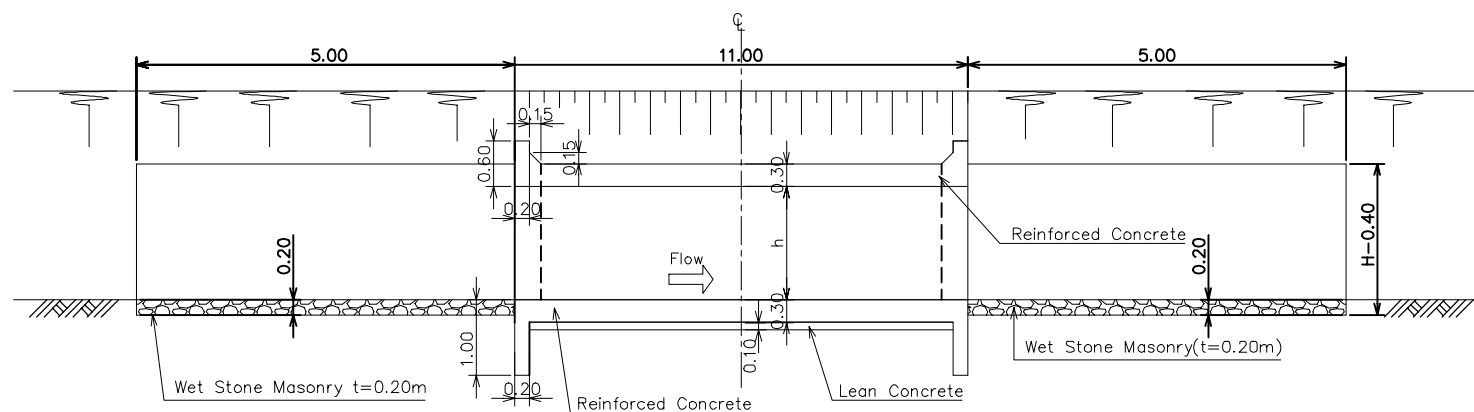


SECTION A-A
SCALE 1:100

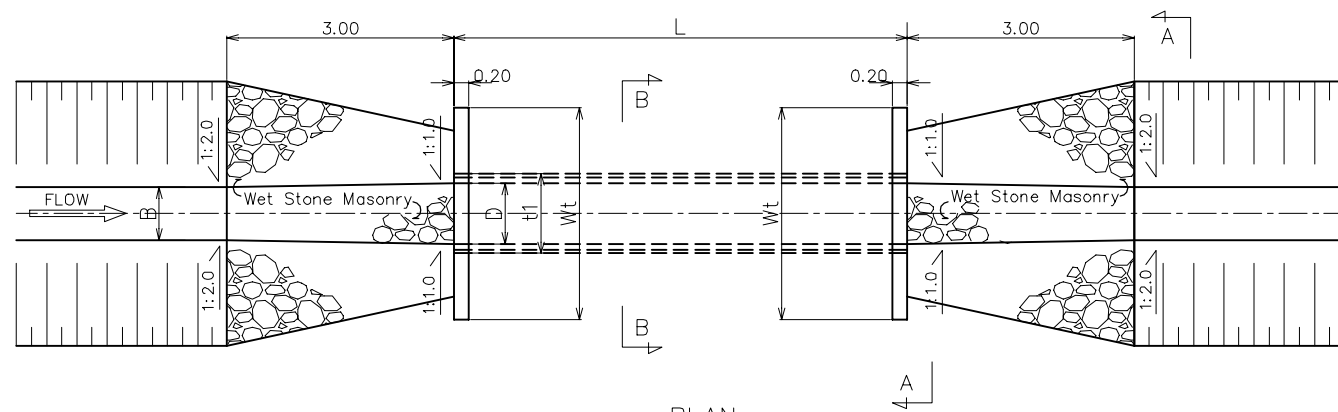
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures; Diversion and Off-take	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA		DRAWING NO. 47 of 62



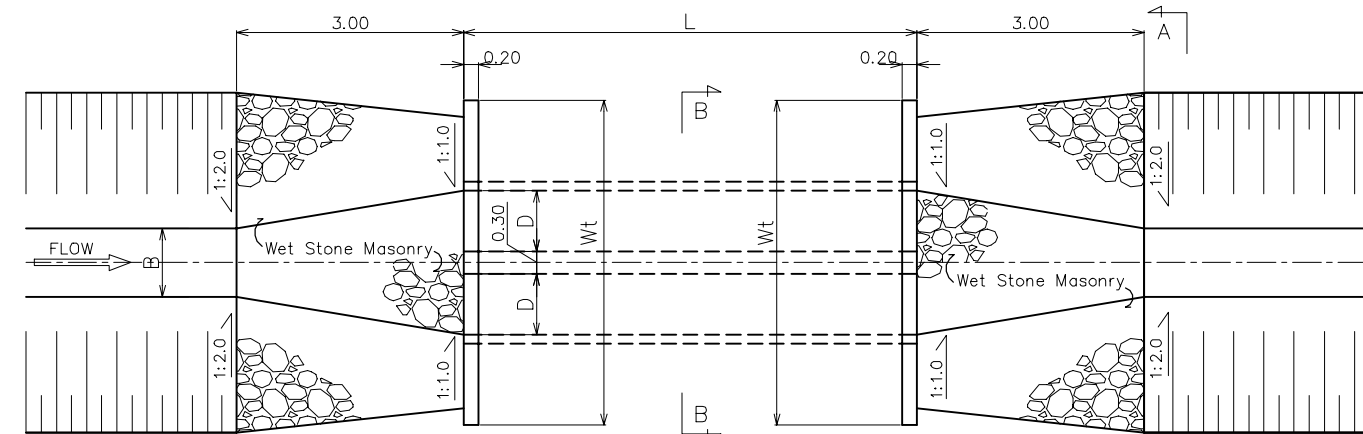
b(m)	h(m)	W1(m)	W2(m)	H(m)
1.50	1.00	2.80	3.90	1.90
2.00	1.50	3.80	4.90	2.40



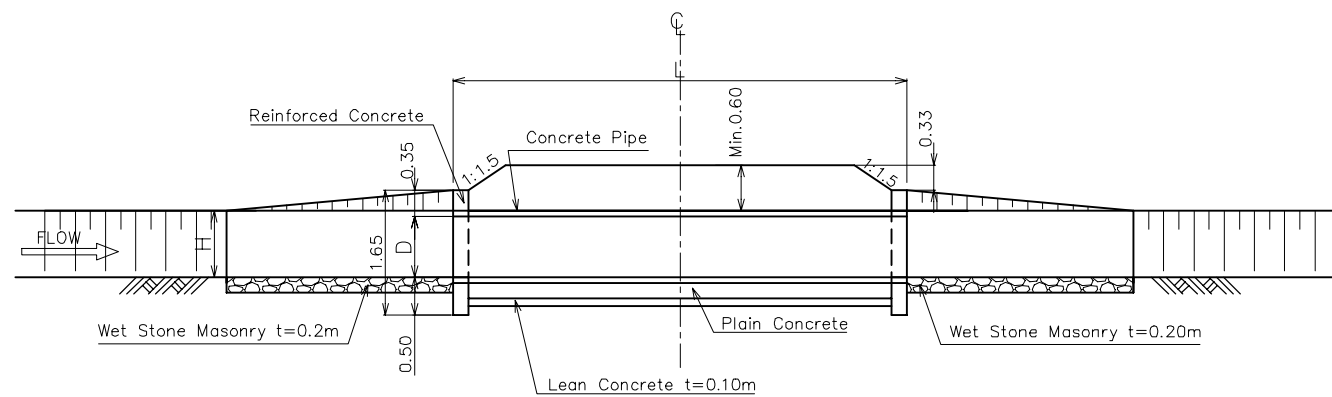
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures;	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Box Culvert for Road Crossing	DRAWING NO. 48 of 62



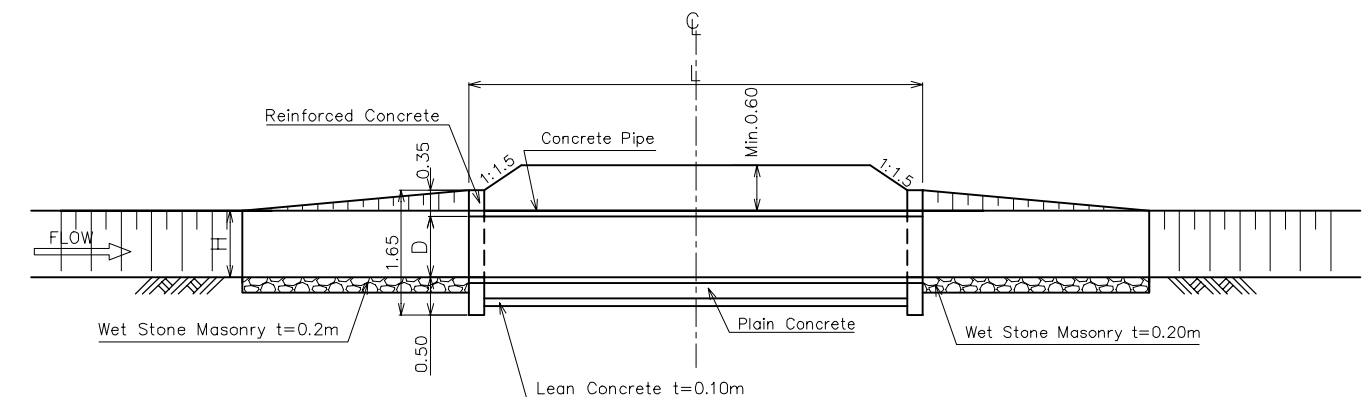
PLAN
SCALE 1:100



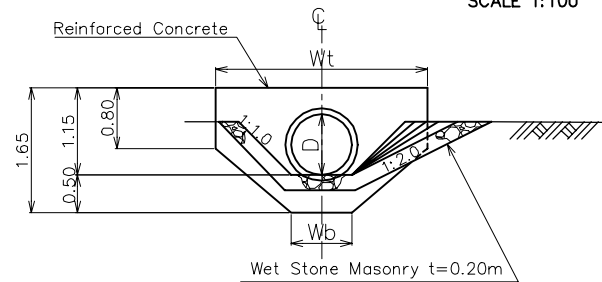
PLAN
SCALE 1:100



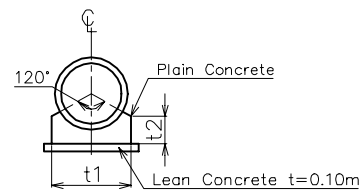
PROFILE
SCALE 1:100



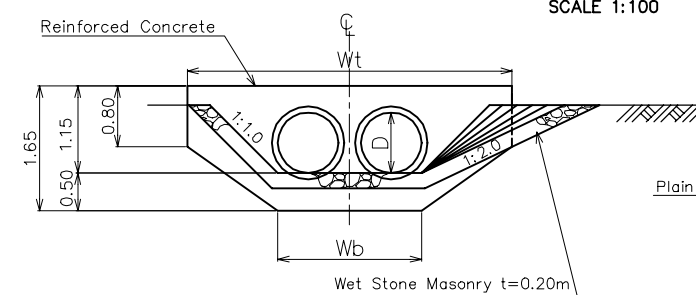
PROFILE
SCALE 1:100



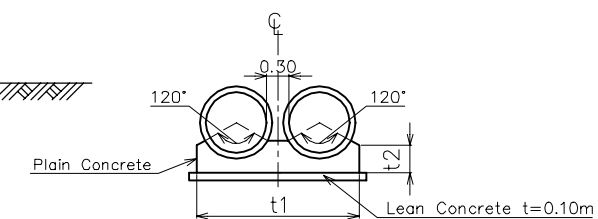
SECTION A-A
SCALE 1:100



SECTION B-B
SCALE 1:100



SECTION A-A
SCALE 1:100



SECTION B-B
SCALE 1:100

For Foot Bridge

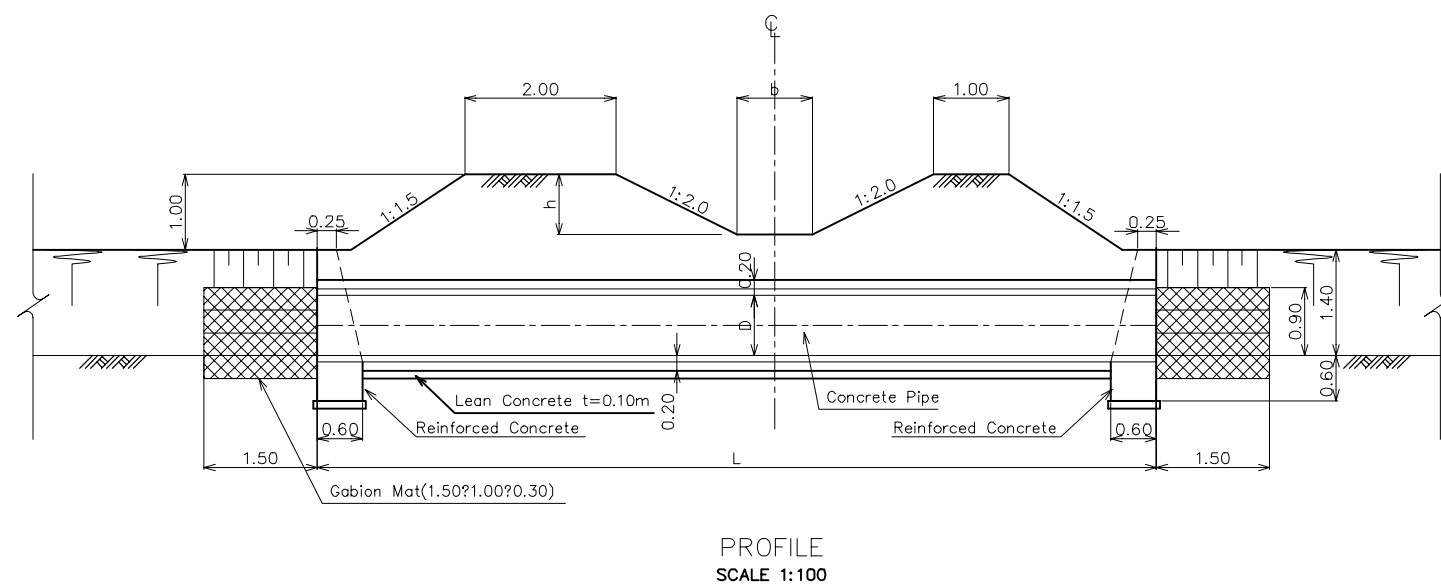
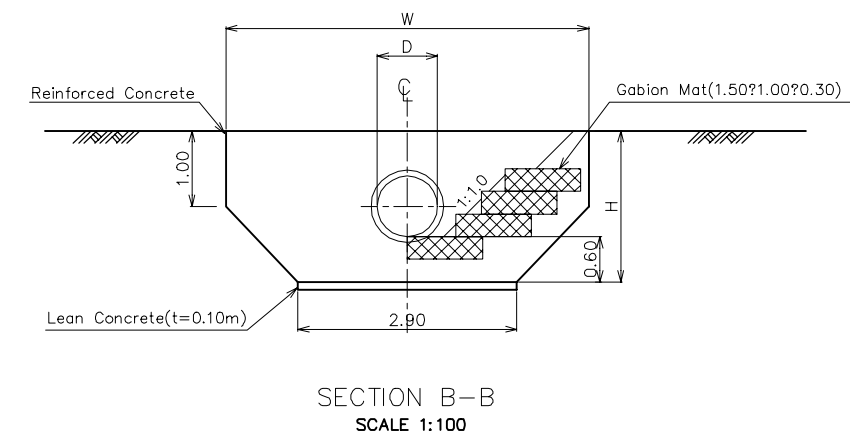
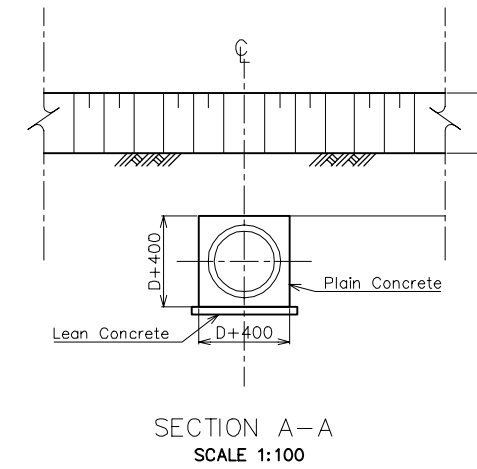
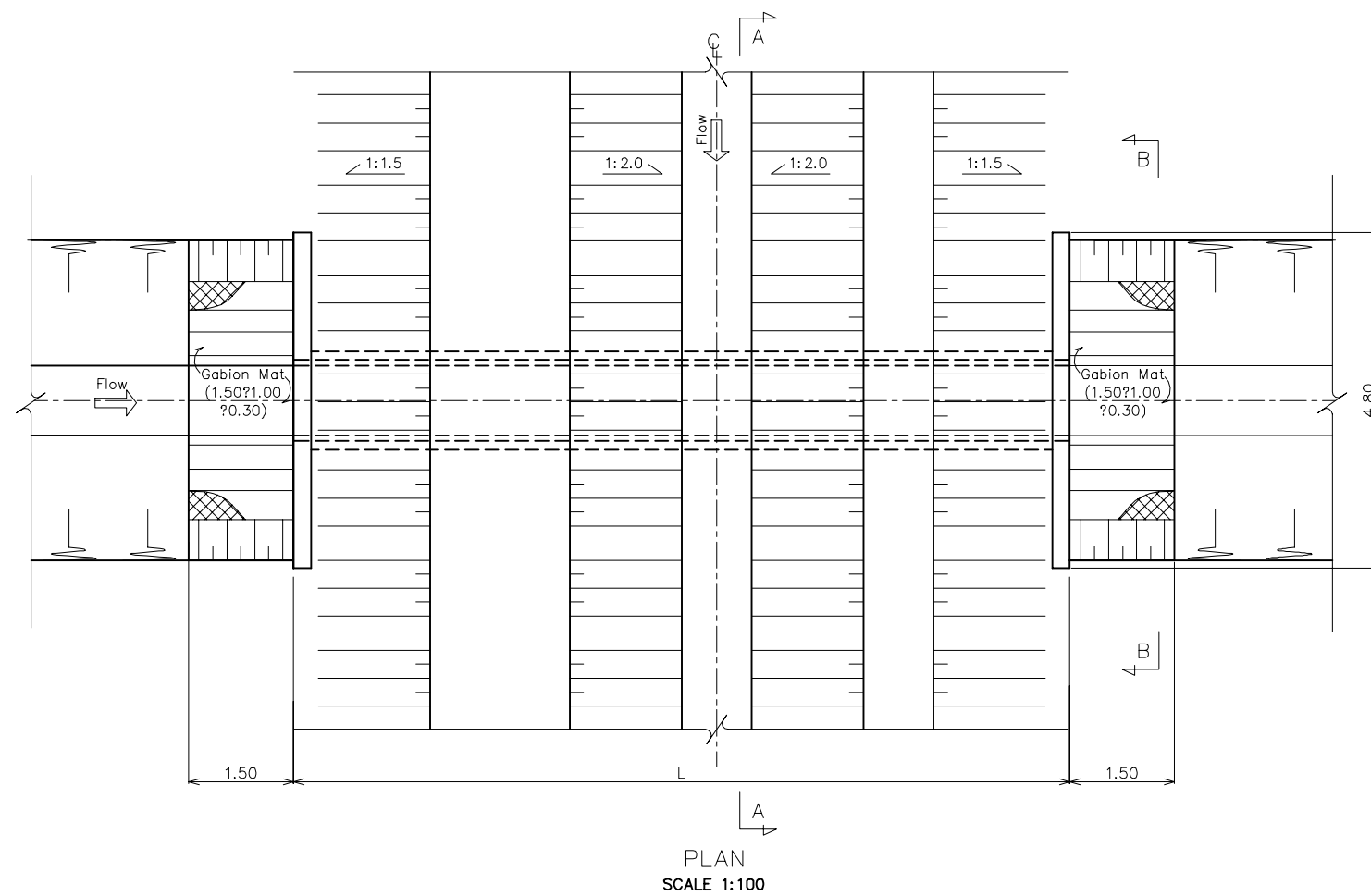
Canal Type		Pipe Culvert Type						
B(m)	H(m)	L(m)	D(mm)		Wt(m)	Wb(m)	t1(m)	t2(m)
1.00	0.80	3.00	ø800	Double	4.10	1.90	2.15	0.36
0.90	0.90	3.00	ø800	Double	4.30	1.90	2.15	0.36
0.80	0.90	3.00	ø800	Double	4.30	1.90	2.15	0.36
0.80	0.80	3.00	ø800	Double	4.10	1.90	2.15	0.36
0.80	0.80	3.00	ø800	Double	4.10	1.90	2.15	0.36
0.75	0.70	3.00	ø800	Double	3.90	1.90	2.15	0.36
0.75	0.60	3.00	ø800	Double	3.70	1.90	2.15	0.36
0.70	0.80	3.00	ø800	Double	4.10	1.90	2.15	0.36
0.70	0.70	3.00	ø600	Double	3.50	1.50	1.70	0.27
0.50	0.60	3.00	ø600	Single	2.40	0.60	0.80	0.27
0.50	0.50	3.00	ø800	Single	2.40	0.80	1.05	0.36
0.50	0.50	3.00	ø600	Single	2.20	0.60	0.80	0.27

For Road Bridge

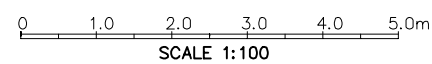
Canal Type		Pipe Culvert Type						
B(m)	H(m)	L(m)	D(mm)		Wt(m)	Wb(m)	t1(m)	t2(m)
0.80	0.80	6.00	ø800	Double	4.10	1.90	2.15	0.36
0.75	0.70	6.00	ø600	Double	3.50	1.50	1.70	0.27
0.70	0.70	6.00	ø800	Single	2.80	0.80	1.05	0.36
0.60	0.60	6.00	ø600	Single	2.40	0.60	0.80	0.27
0.50	0.50	6.00	ø800	Single	2.40	0.80	1.05	0.36
0.50	0.40	6.00	ø600	Single	2.00	0.60	0.80	0.27

0 1.0 2.0 3.0 4.0 5.0m
SCALE 1:100

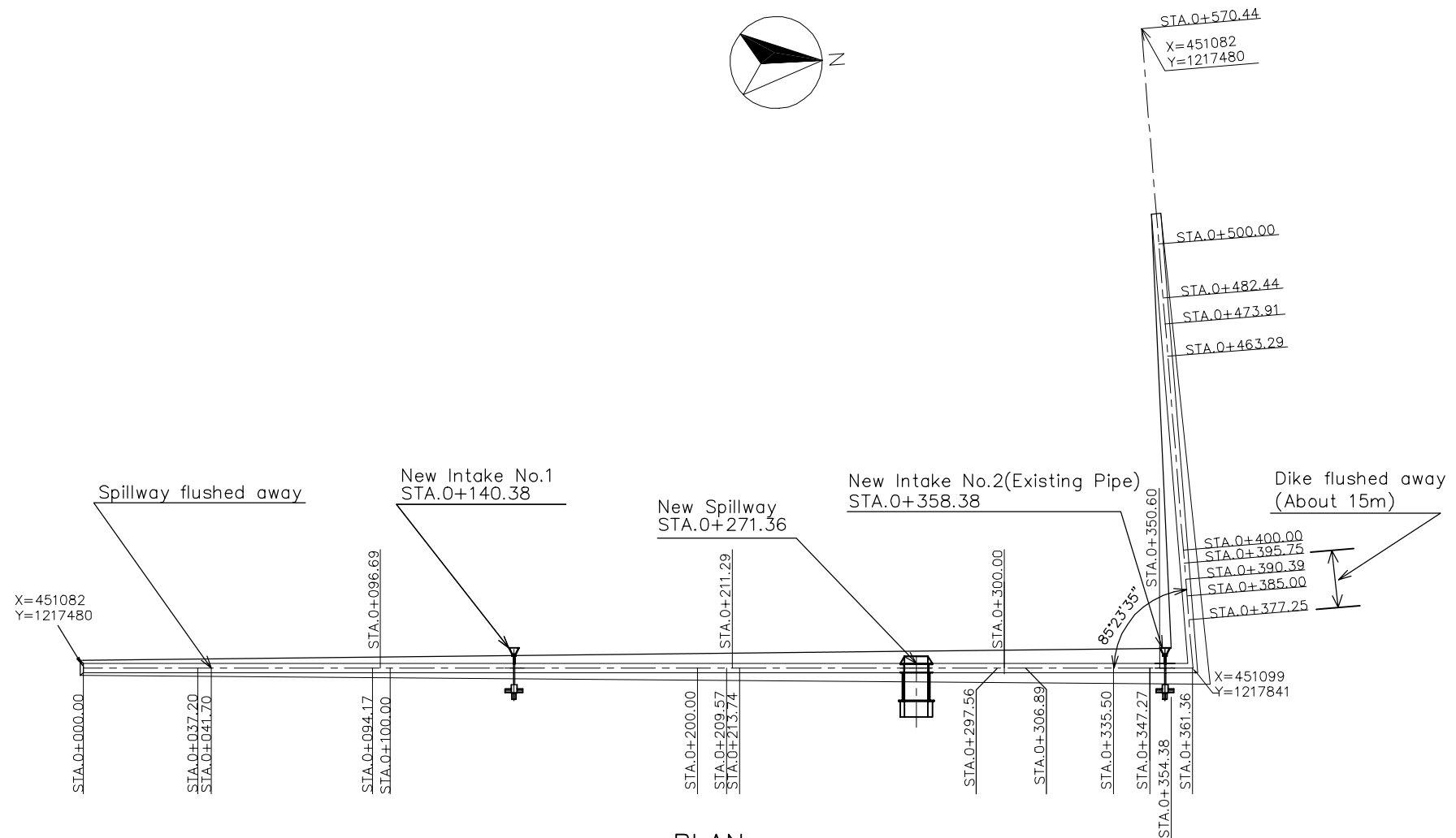
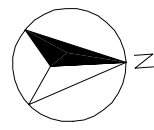
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures; Pipe Culvert for Road Crossing	DRAWING NO. 49 of 62



Canal Type Crossing		Type of Cross Drain Culvert				
Bed Width b(m)	Height h(m)	Length L(m)	D=ø600		D=ø800	
			Width W(m)	Height H(m)	Width W(m)	Height H(m)
1.00	0.90	12.00	4.60	1.90	4.80	2.00
1.00	0.80	12.00	4.60	1.90	4.80	2.00
0.90	0.90	12.00	4.60	1.90	4.80	2.00
0.90	0.80	11.00	4.60	1.90	4.80	2.00
0.80	0.90	12.00	4.60	1.90	4.80	2.00
0.80	0.80	11.00	4.60	1.90	4.80	2.00
0.75	0.80	11.00	4.60	1.90	4.80	2.00
0.75	0.70	11.00	4.60	1.90	4.80	2.00
0.75	0.60	11.00	4.60	1.90	4.80	2.00
0.70	0.80	11.00	4.60	1.90	4.80	2.00
0.70	0.70	11.00	4.60	1.90	4.80	2.00
0.70	0.60	10.00	4.60	1.90	4.80	2.00
0.60	0.70	11.00	4.60	1.90	4.80	2.00
0.60	0.60	10.00	4.60	1.90	4.80	2.00
0.50	0.60	10.00	4.60	1.90	4.80	2.00
0.50	0.50	10.00	4.60	1.90	4.80	2.00
0.50	0.40	9.00	4.60	1.90	4.80	2.00

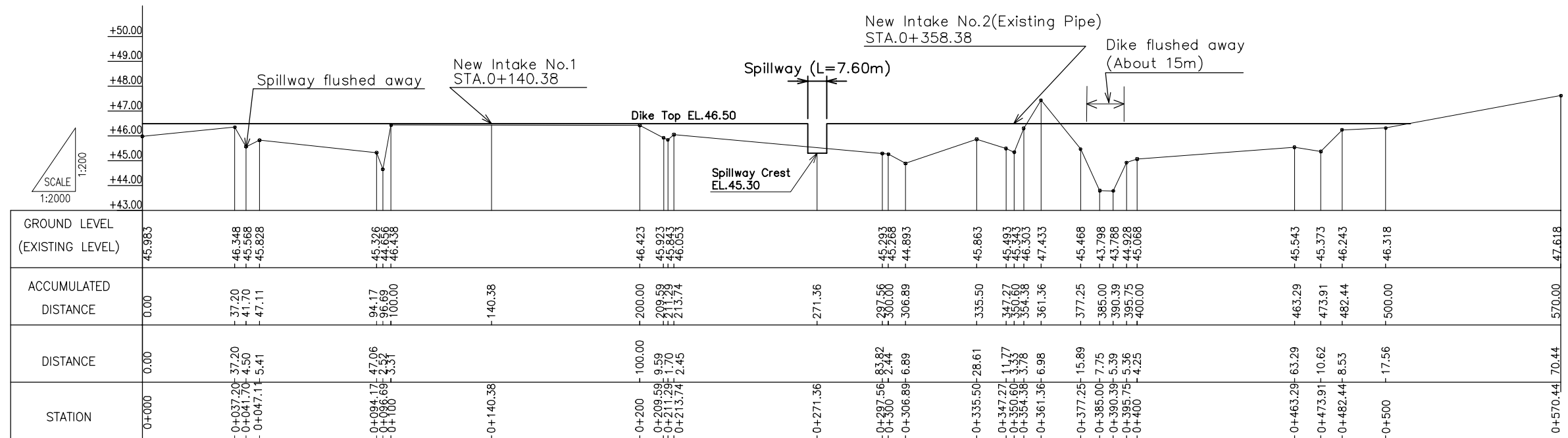


Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Upper Slakou River Irrigation Reconstruction Plan Related Canal Structures;	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Cross Drain	DRAWING NO. 50 of 62

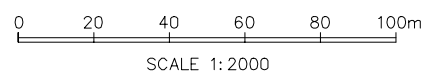


PLAN

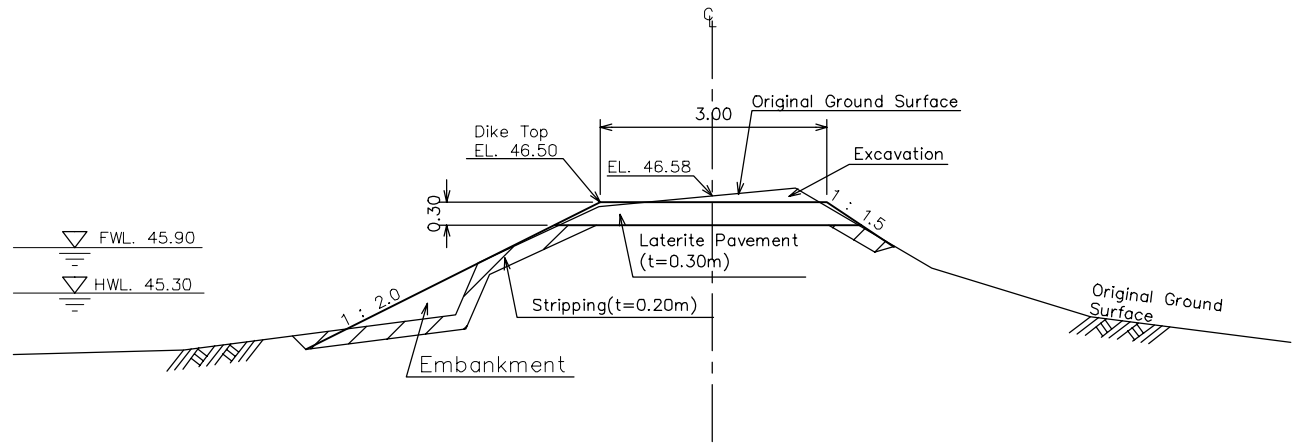
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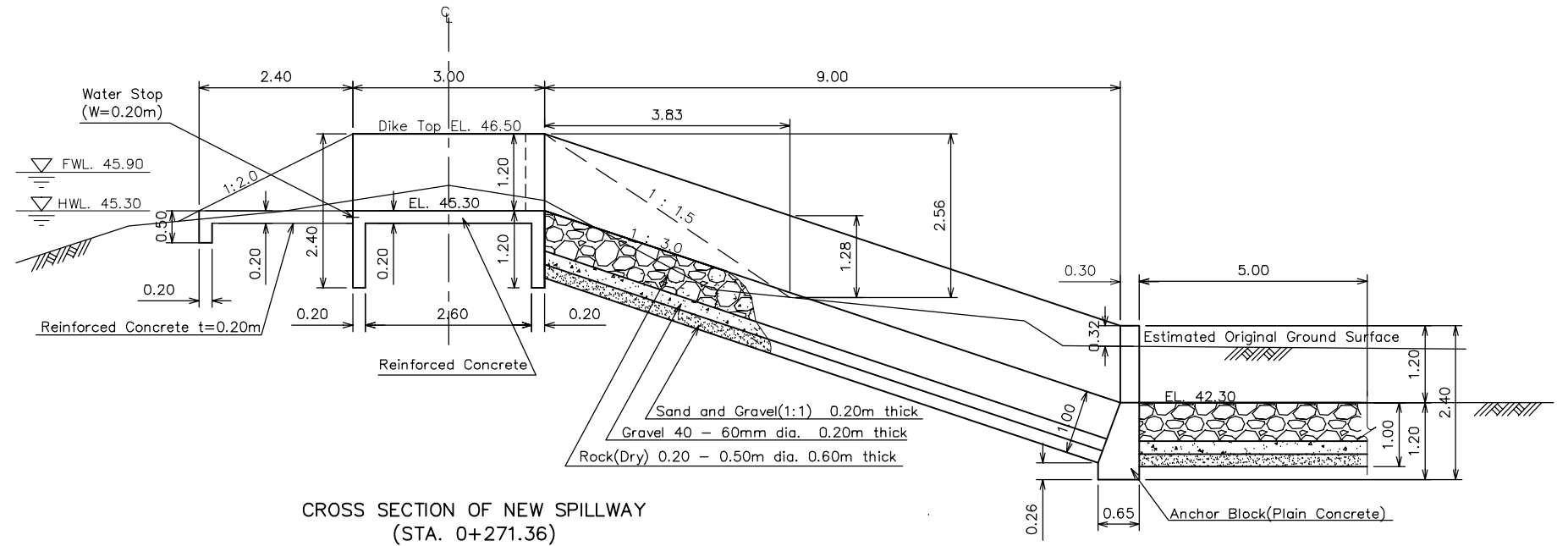
PROFILE



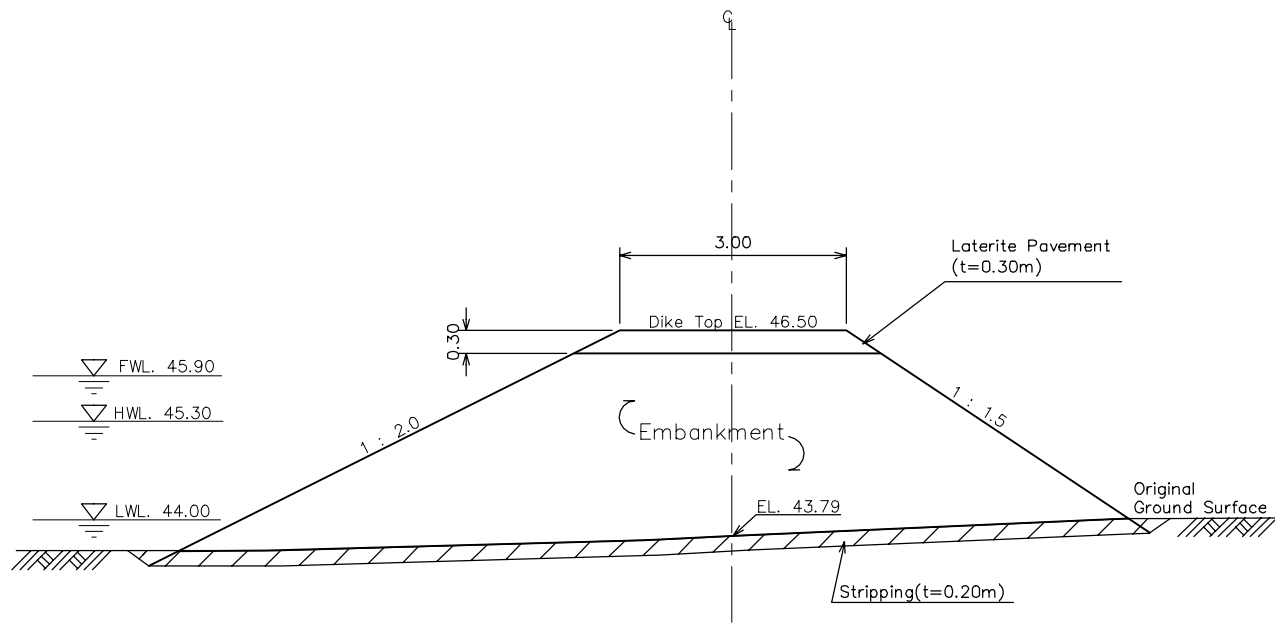
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Small Reservoir Rehabilitation Plan Ang 160 Reservoir;	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Plan and Profile	DRAWING NO. 51 of 62



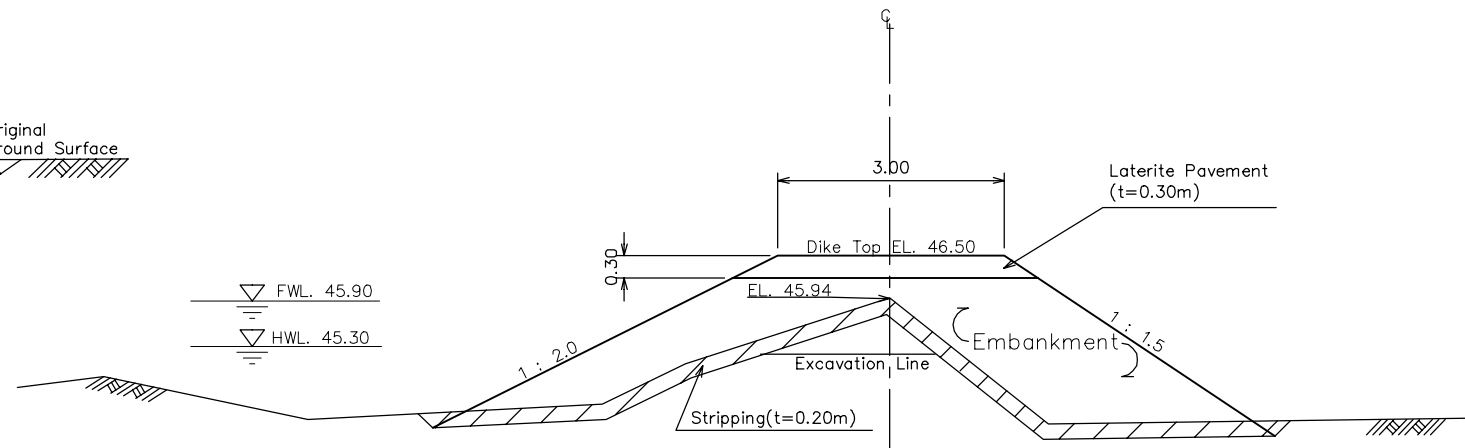
CROSS SECTION(STA. 0+100.00)
SCALE 1:100



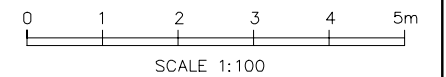
CROSS SECTION OF NEW SPILLWAY
(STA. 0+271.36)
SCALE 1:100



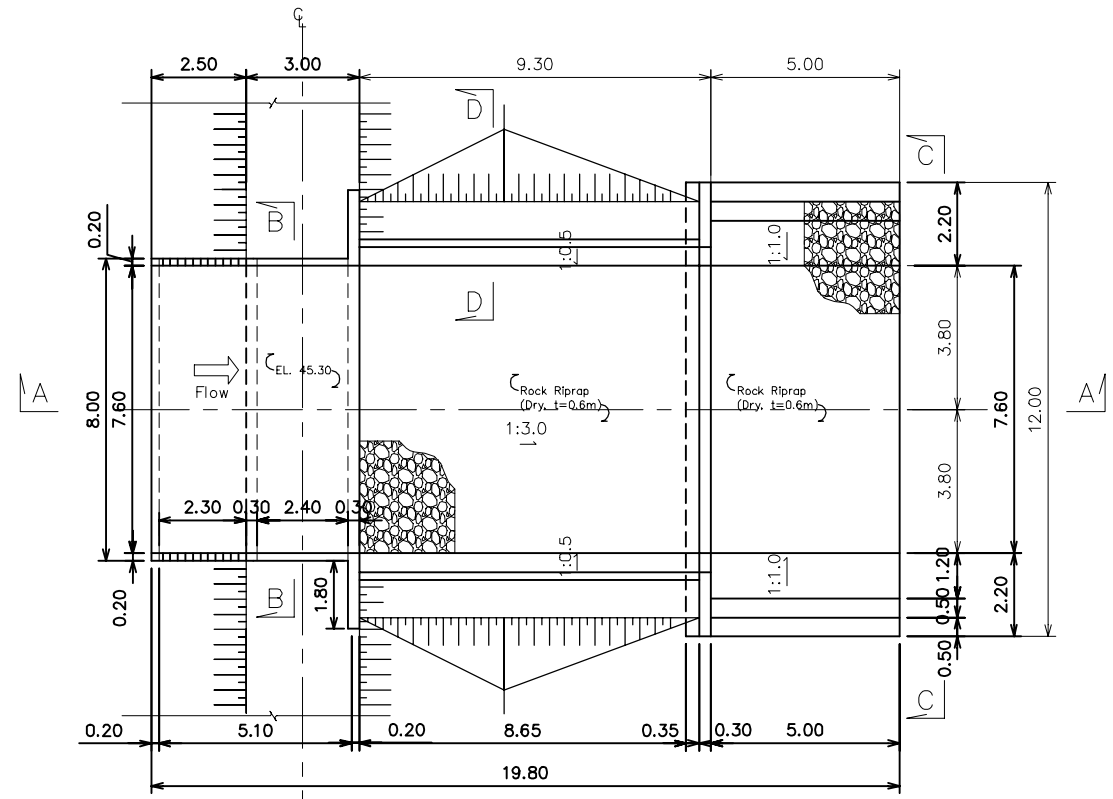
CROSS SECTION(STA. 0+390.39)
SCALE 1:100



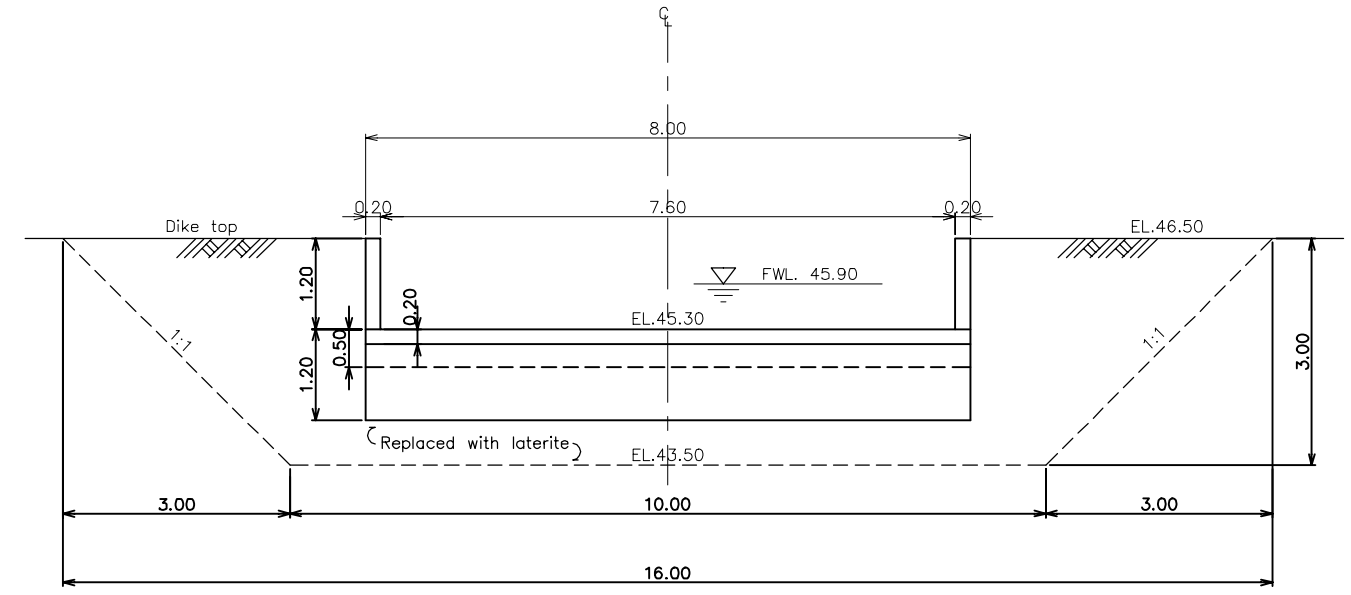
CROSS SECTION(STA. 0+400.00)
SCALE 1:100



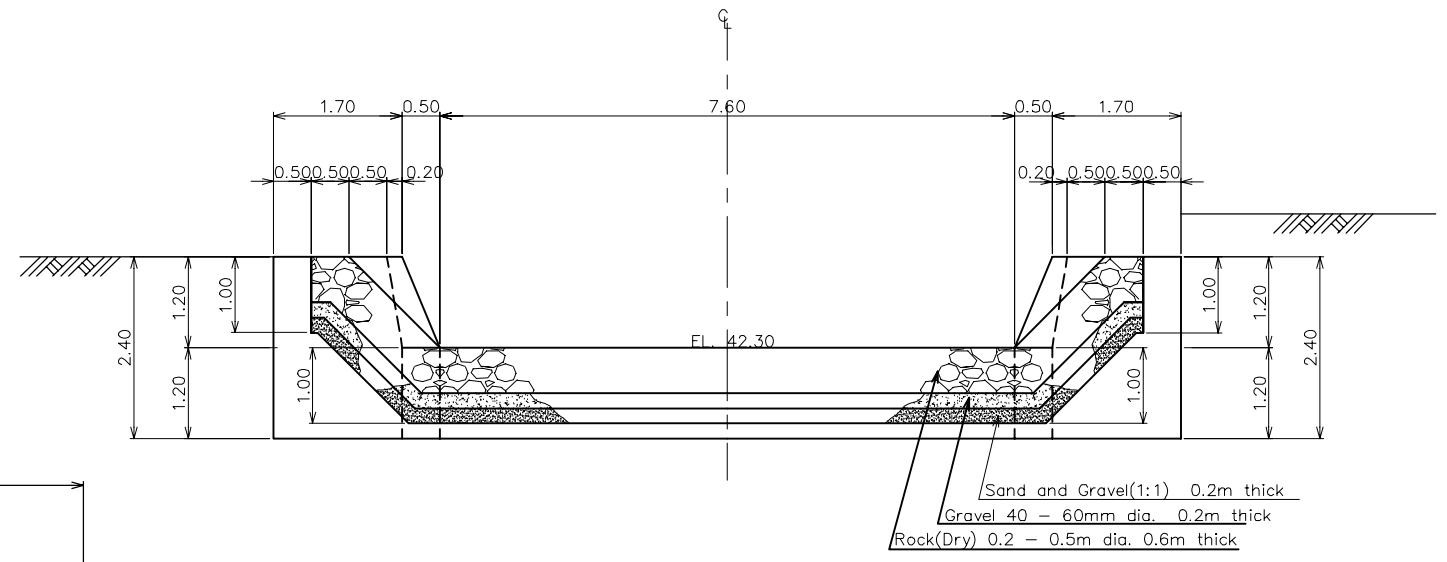
Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing Small Reservoir Rehabilitation Plan Ang 160 Reservoir;	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Typical Cross Sections	DRAWING NO. 52 of 62



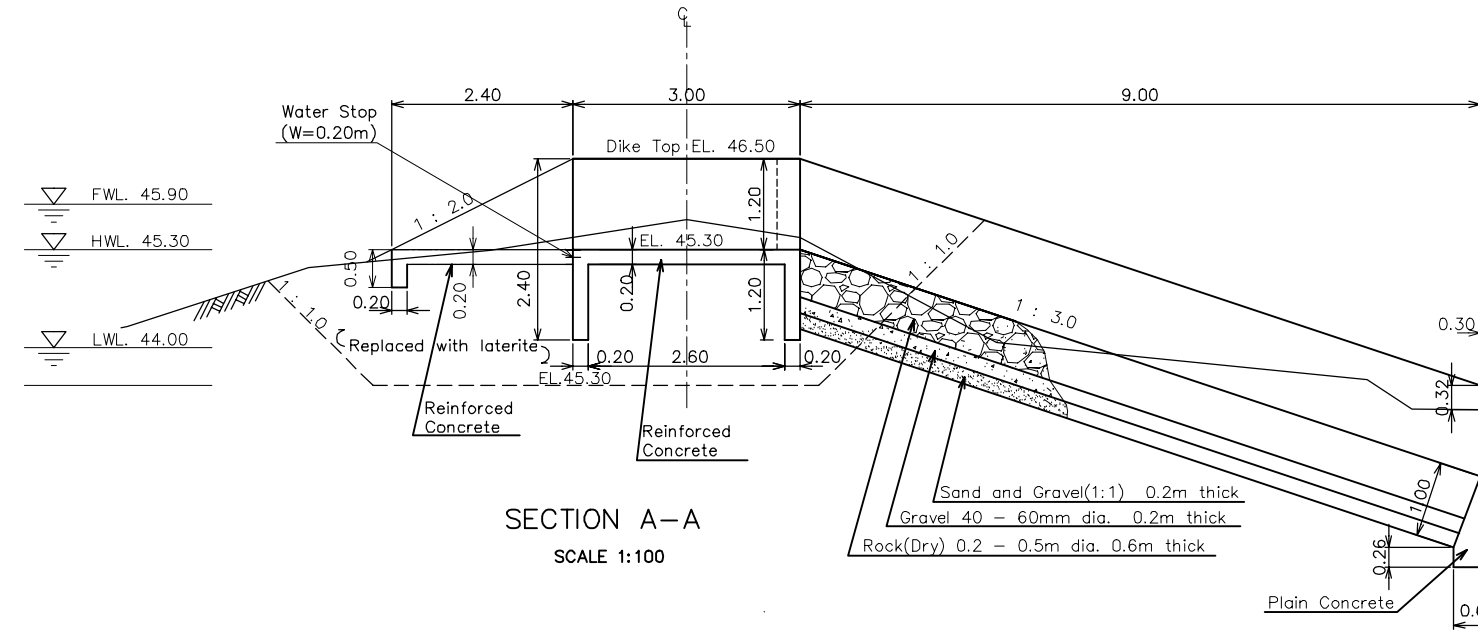
PLAN
SCALE 1:200



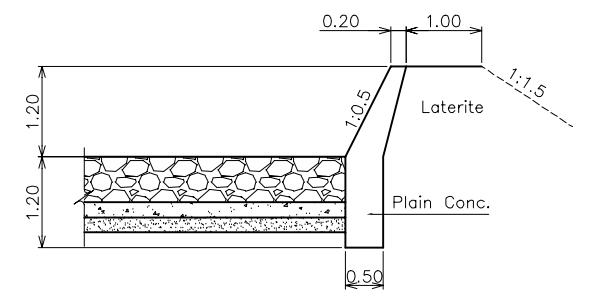
SECTION B-B
SCALE 1:100



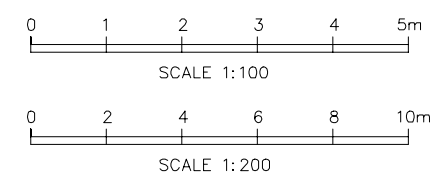
SECTION C-C
SCALE 1:100



SECTION A-A
SCALE 1:100



SECTION D-D
SCALE 1:100



Japan International Cooperation Agency (JICA)	THE STUDY ON THE REHABILITATION AND RECONSTRUCTION OF AGRICULTURAL PRODUCTION SYSTEM IN THE SLAKOU RIVER BASIN	Title of Drawing	DATE Jan. 2002
	THE KINGDOM OF CAMBODIA	Small Reservoir Rehabilitation Plan Ang 160 Reservoir; Spillway	DRAWING NO. 53 of 62