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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**DEPARTMENT OF IRRIGATION
MINISTRY OF WATER RESOURCES
HIS MAJESTY'S GOVERNMENT OF NEPAL**

**THE STUDY ON
THE REHABILITATION OF GOVERNMENT DEVELOPED
IRRIGATION SCHEMES
IN
THE KATHMANDU VALLEY**

**FINAL REPORT
DRAWINGS**

FEBRUARY, 1995

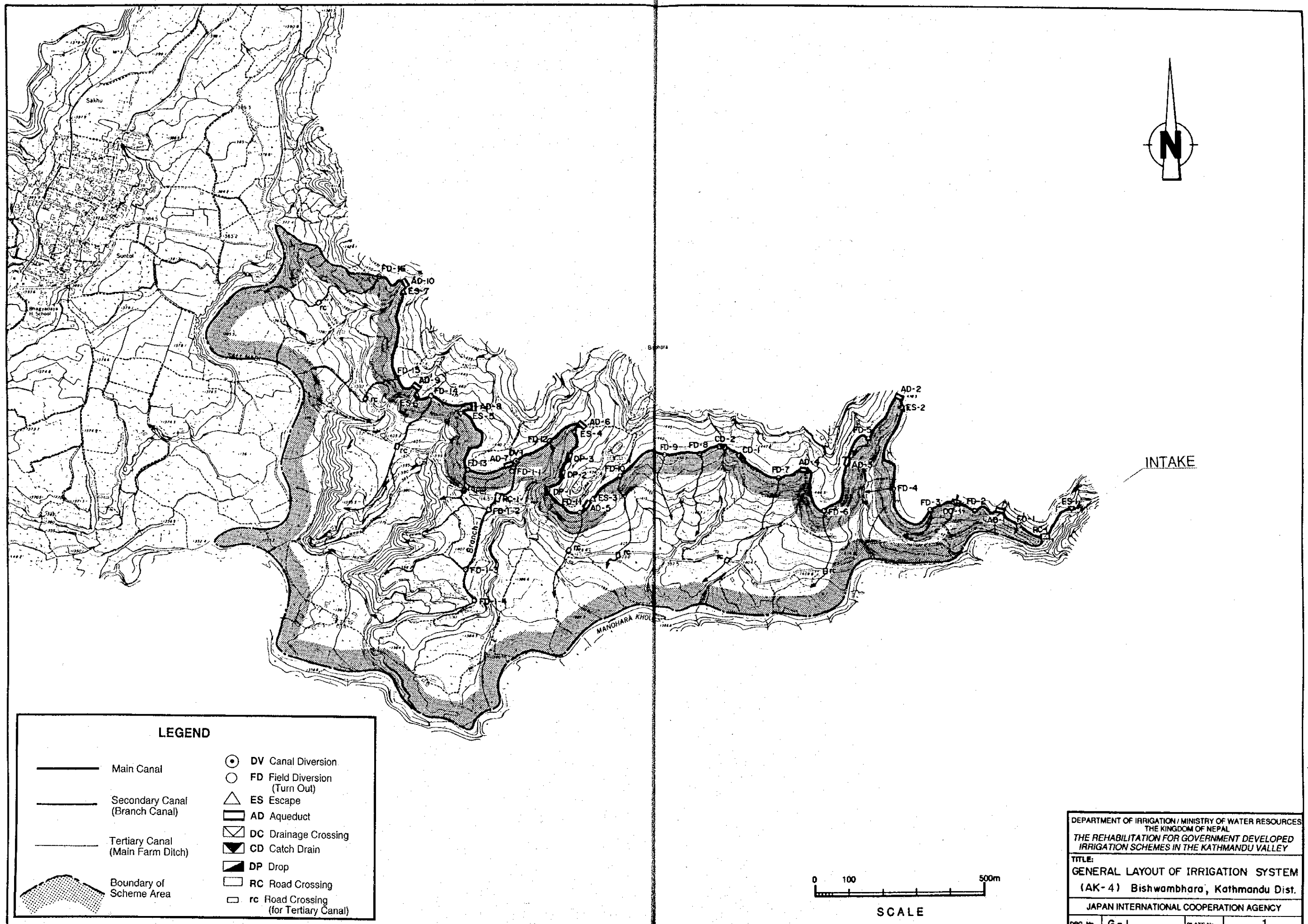
**NIPPON KOEI CO., LTD.
CHUO KAIHATSU CORPORATION**

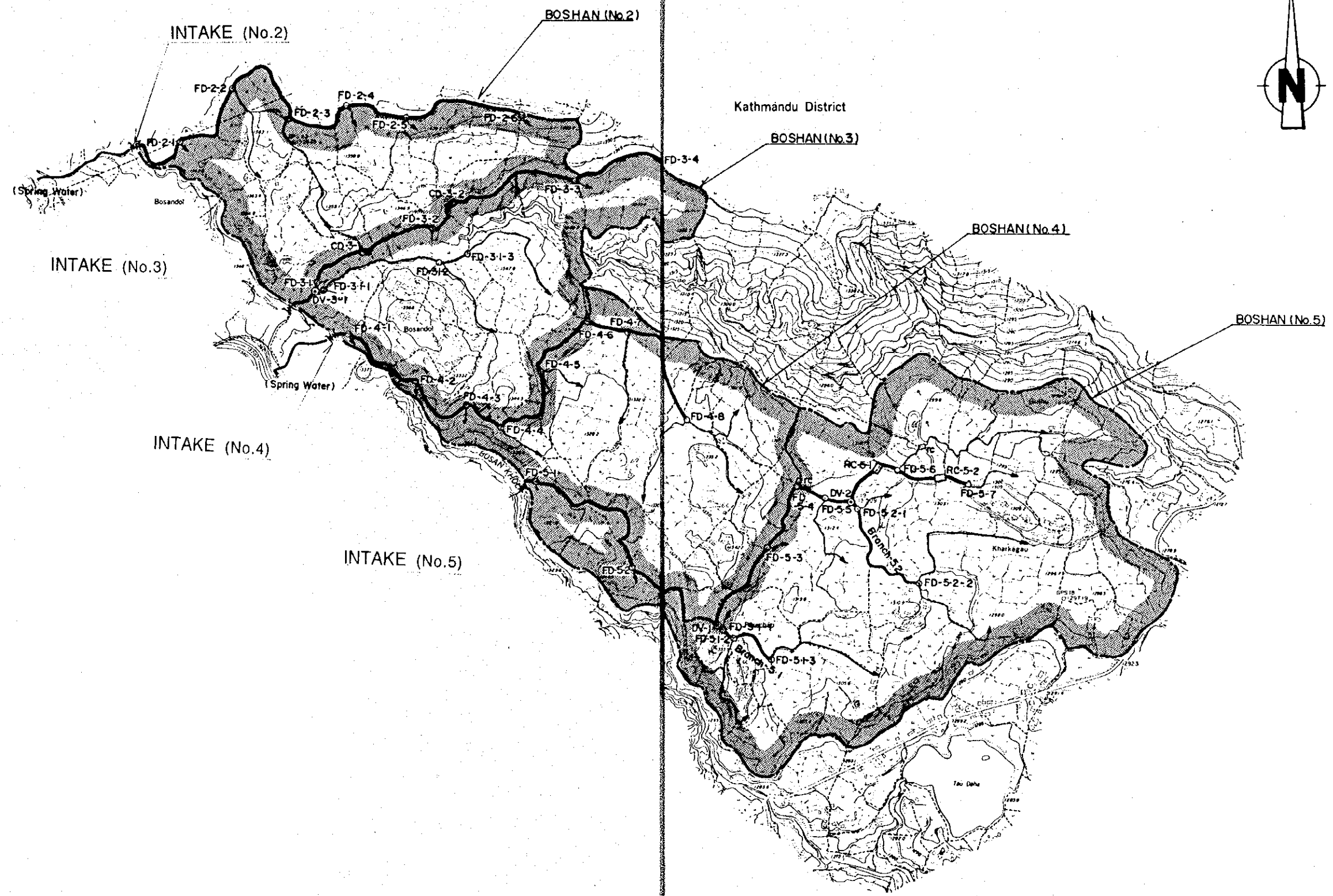
**FINAL REPORT
FOR
THE STUDY ON
THE REHABILITATION OF GOVERNMENT-DEVELOPED
IRRIGATION SCHEMES
IN THE KATHMANDU VALLEY**

DRAWINGS

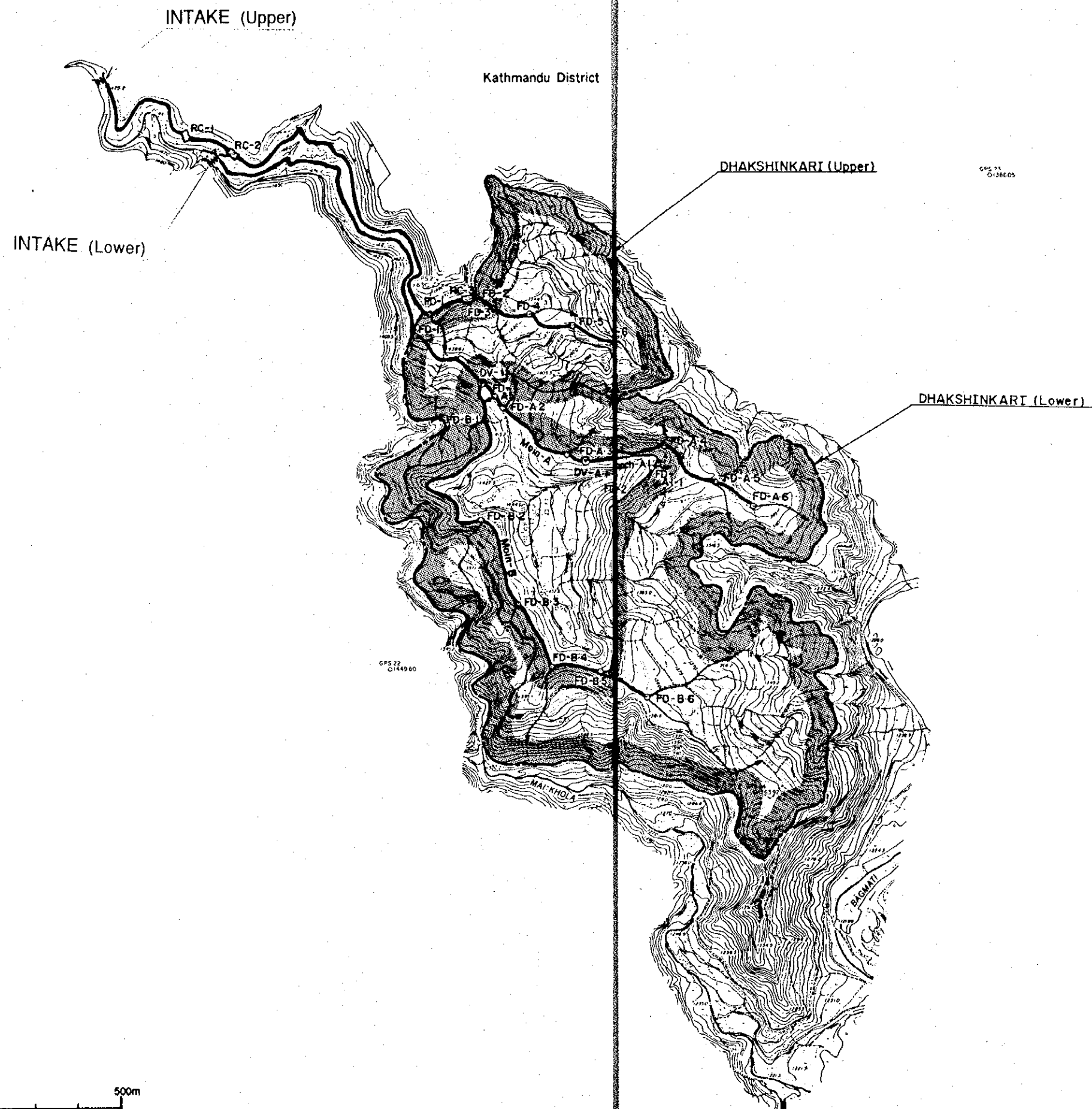
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5	G-5	General Layout of Irrigation System, AK-25 Shali Nadi
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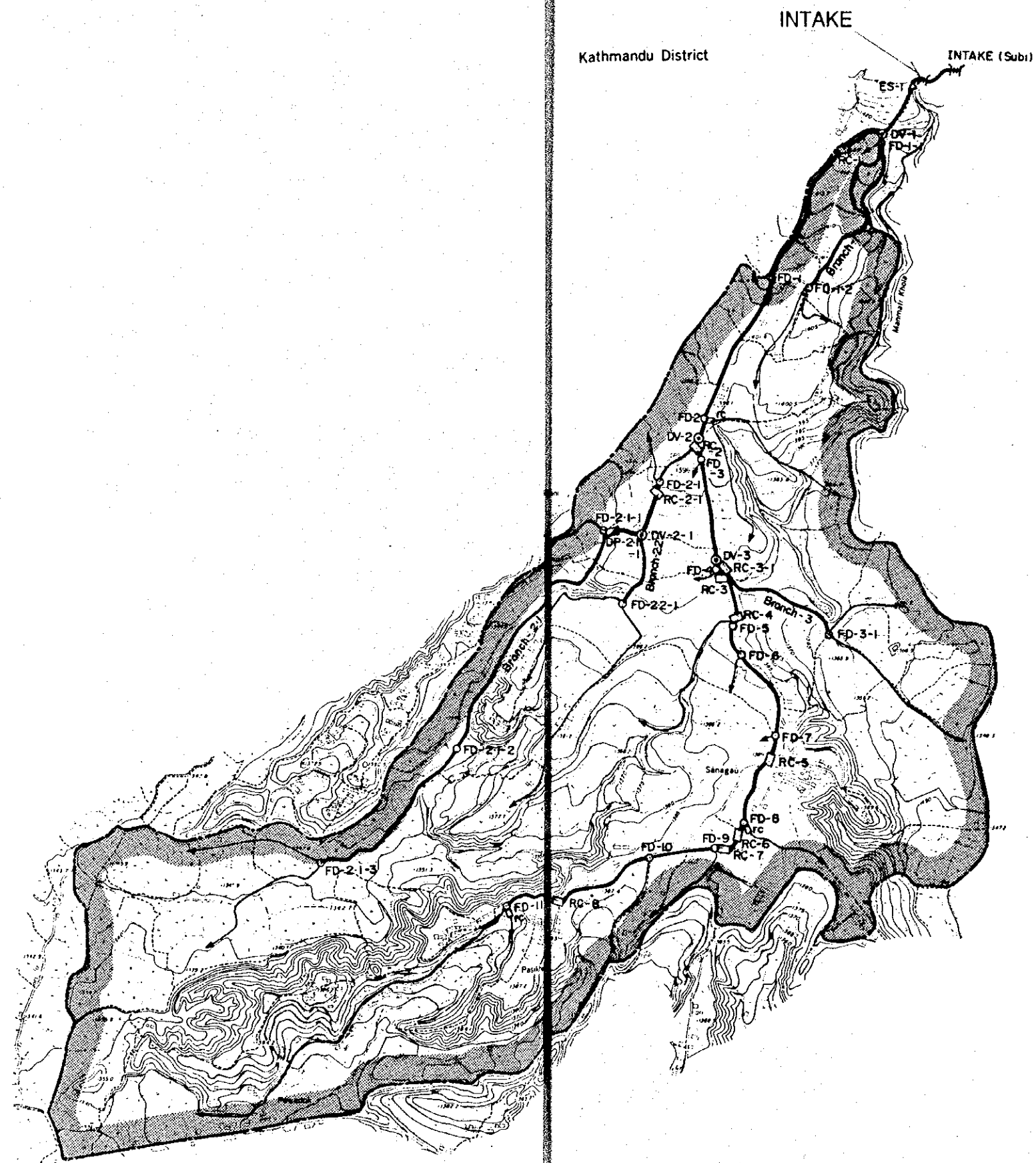




DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES		
THE KINGDOM OF NEPAL		
THE REHABILITATION FOR GOVERNMENT DEVELOPED		
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY		
TITLE:		
GENERAL LAYOUT OF IRRIGATION SYSTEM		
(AK-5) Boshan, Kathmandu Dist.		
JAPAN INTERNATIONAL COOPERATION AGENCY		
DWG. No.	G-2	PLATE No.
		2

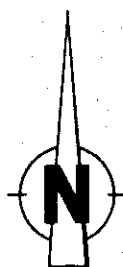


DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL			
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE:			
GENERAL LAYOUT OF IRRIGATION SYSTEM			
(AK-7) Dhakshinkari (Upper, Kathmandu Dist.			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DRG. No.	G-3	PLATE No.	3



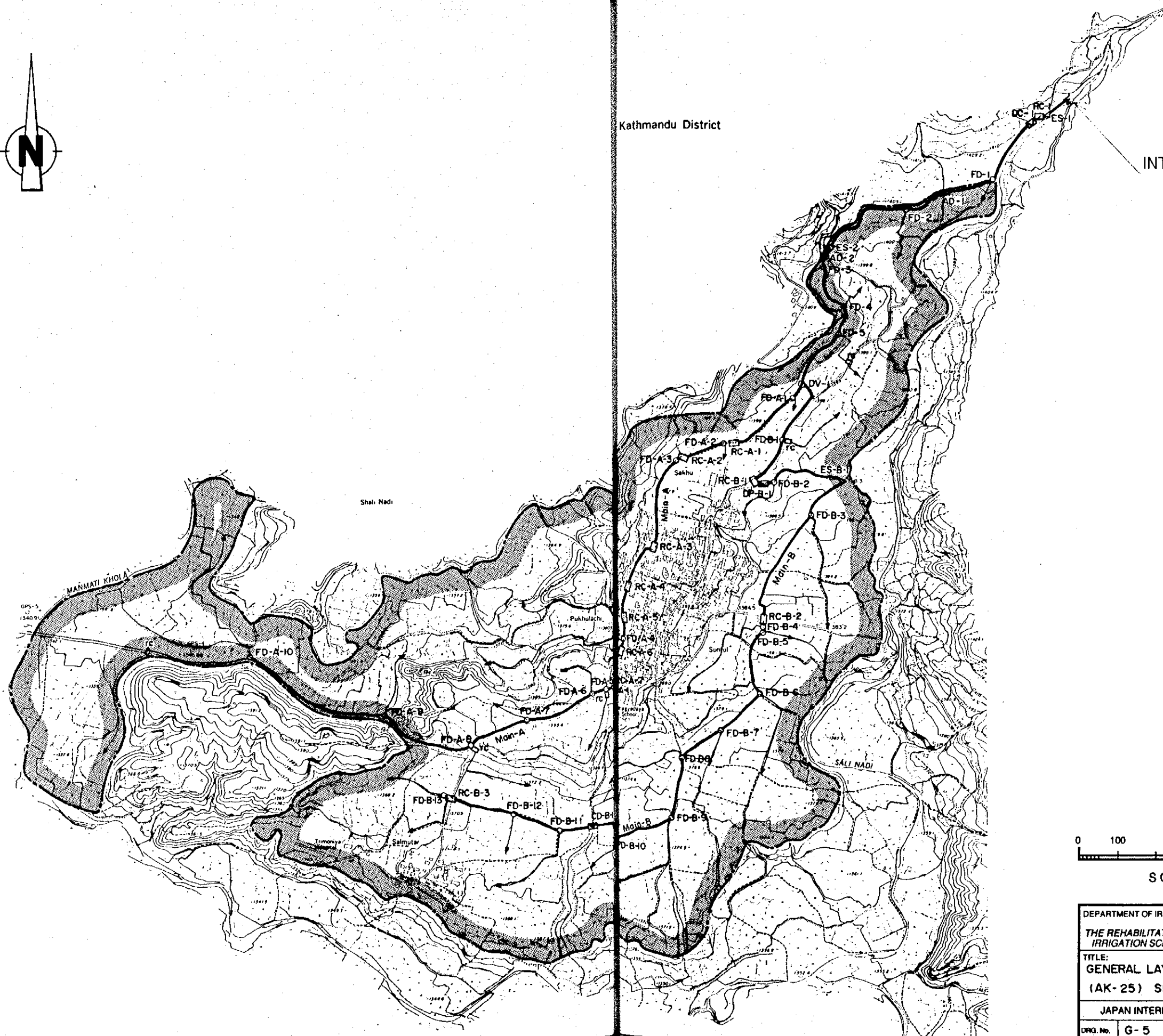
SCALE

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES		
THE KINGDOM OF NEPAL		
THE REHABILITATION FOR GOVERNMENT DEVELOPED		
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY		
TITLE:		
GENERAL LAYOUT OF IRRIGATION SYSTEM		
(AK-14) Indrayani, Kathmandu Dist.		
JAPAN INTERNATIONAL COOPERATION AGENCY		
ORG. No.	G-4	PLATE No.
		4



Kathmandu District

INTAKE

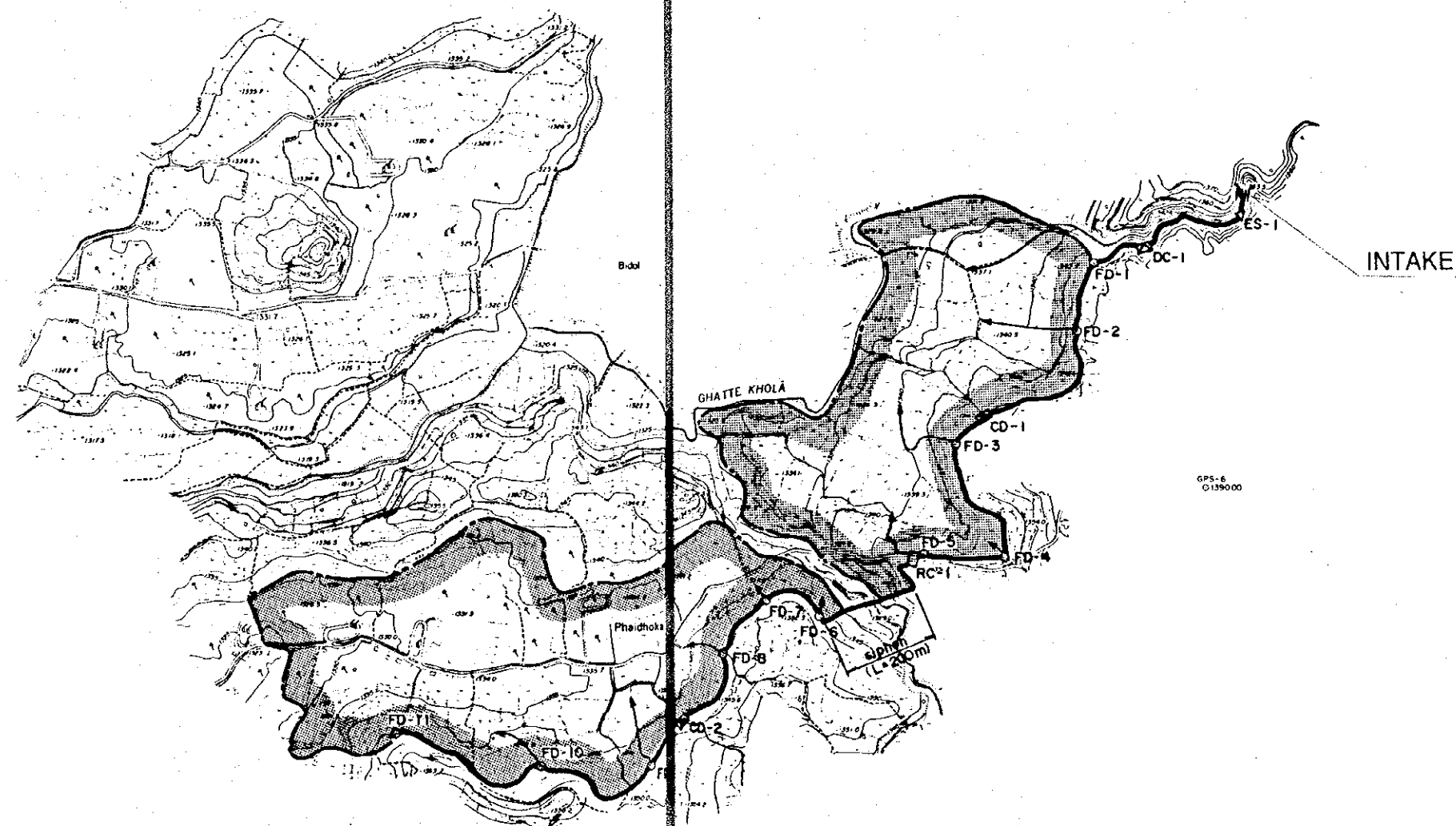


SCALE

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE: GENERAL LAYOUT OF IRRIGATION SYSTEM (AK-25) Shali Nadi, Kathmandu Dist.			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DRG. No.	G-5	PLATE No.	5



GPS-7
01548 29



GPS-6
0139000

LEGEND

- | | | | |
|--|-------------------------------------|--|--|
| | Main Canal | | DV Canal Diversion |
| | Secondary Canal
(Branch Canal) | | FD Field Diversion
(Turn Out) |
| | Tertiary Canal
(Main Farm Ditch) | | ES Escape |
| | Boundary of
Scheme Area | | AD Aqueduct |
| | | | DC Drainage Crossing |
| | | | CD Catch Drain |
| | | | DP Drop |
| | | | RC Road Crossing |
| | | | rc Road Crossing
(for Tertiary Canal) |

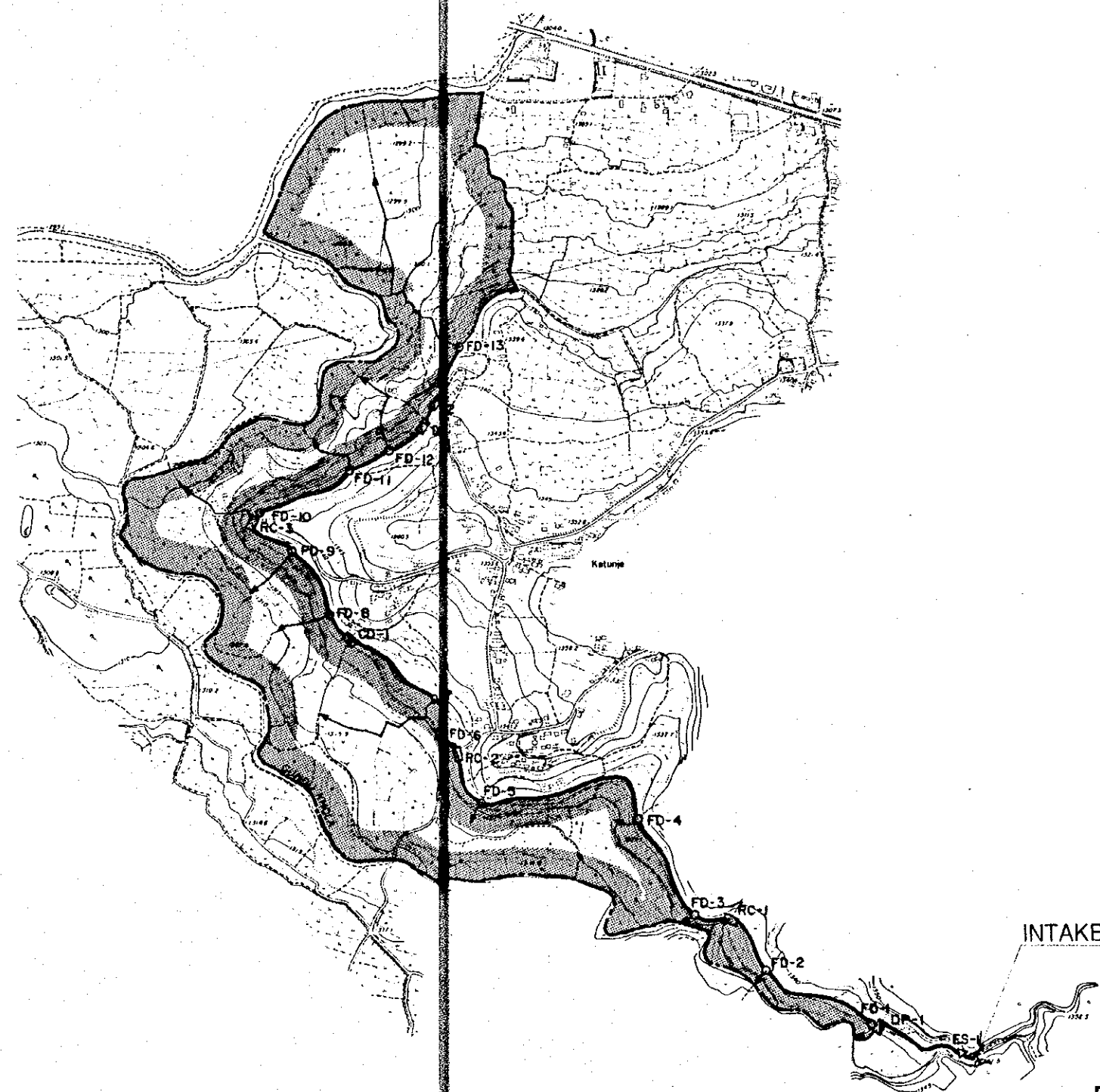
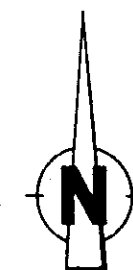


DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES
THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY

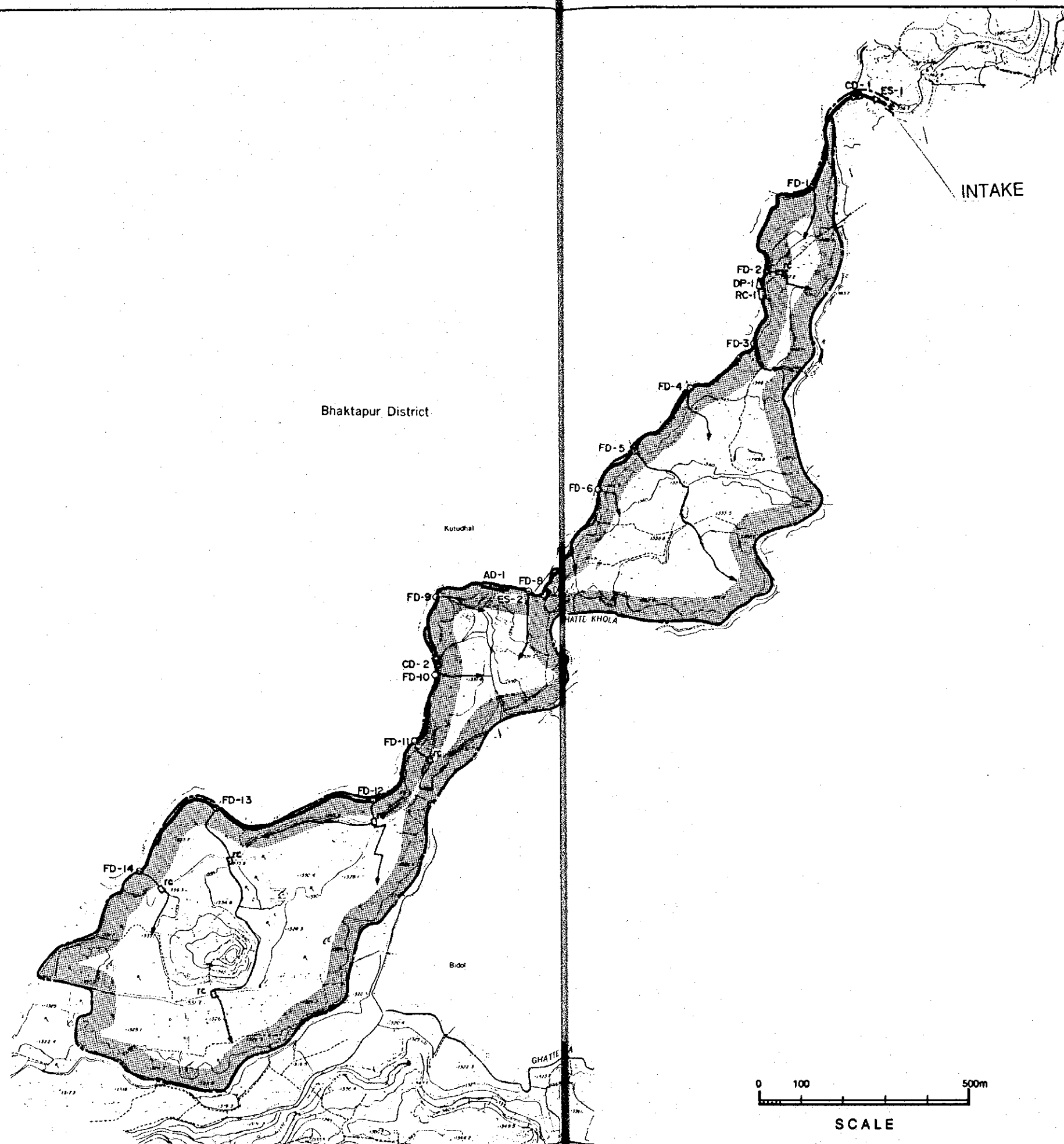
TITLE:
GENERAL LAYOUT OF IRRIGATION SYSTEM
(AB-2) Bidol, Bhaktapur Dist.

JAPAN INTERNATIONAL COOPERATION AGENCY

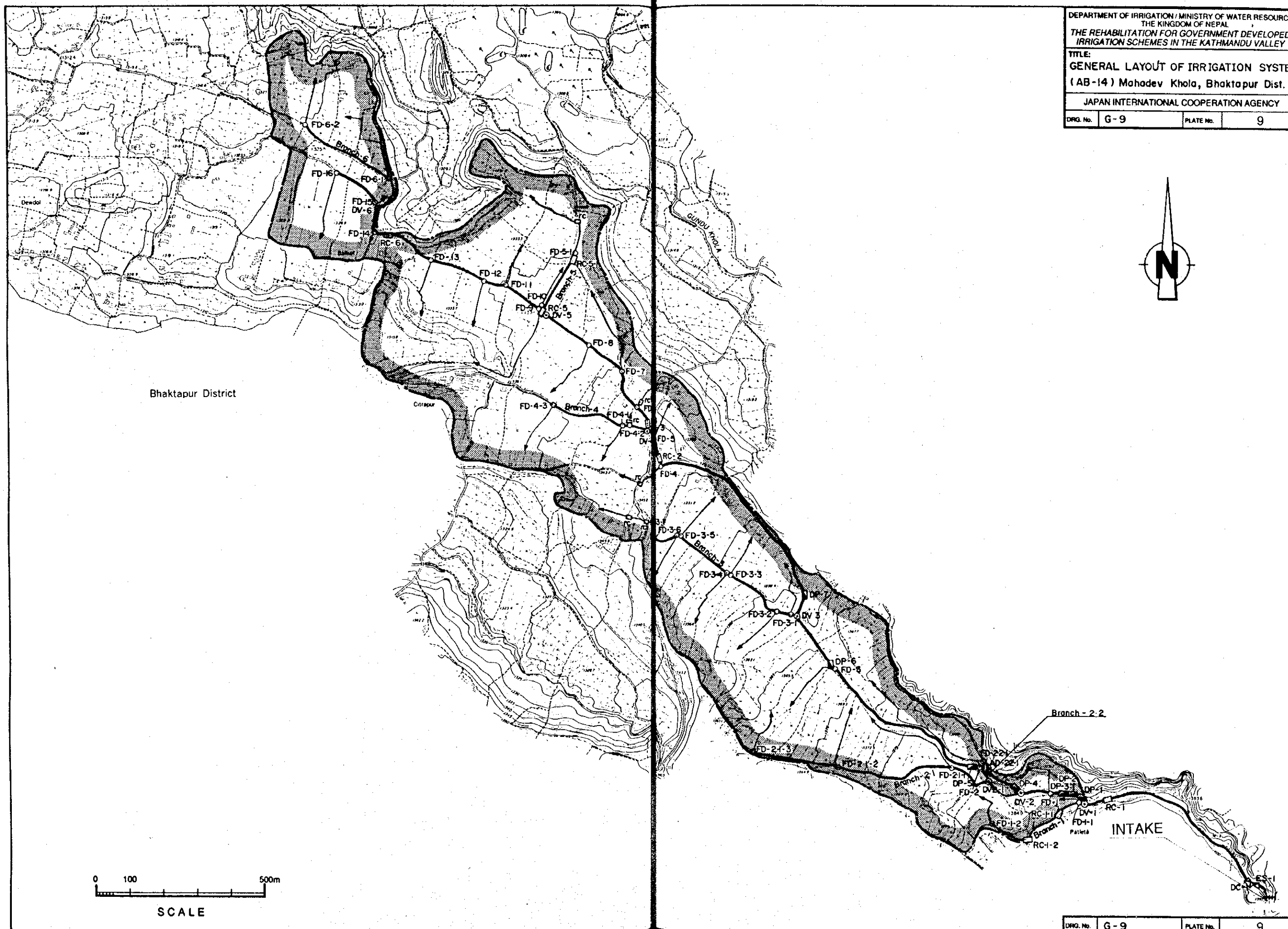
DRG. No. G-6 PLATE No. 6



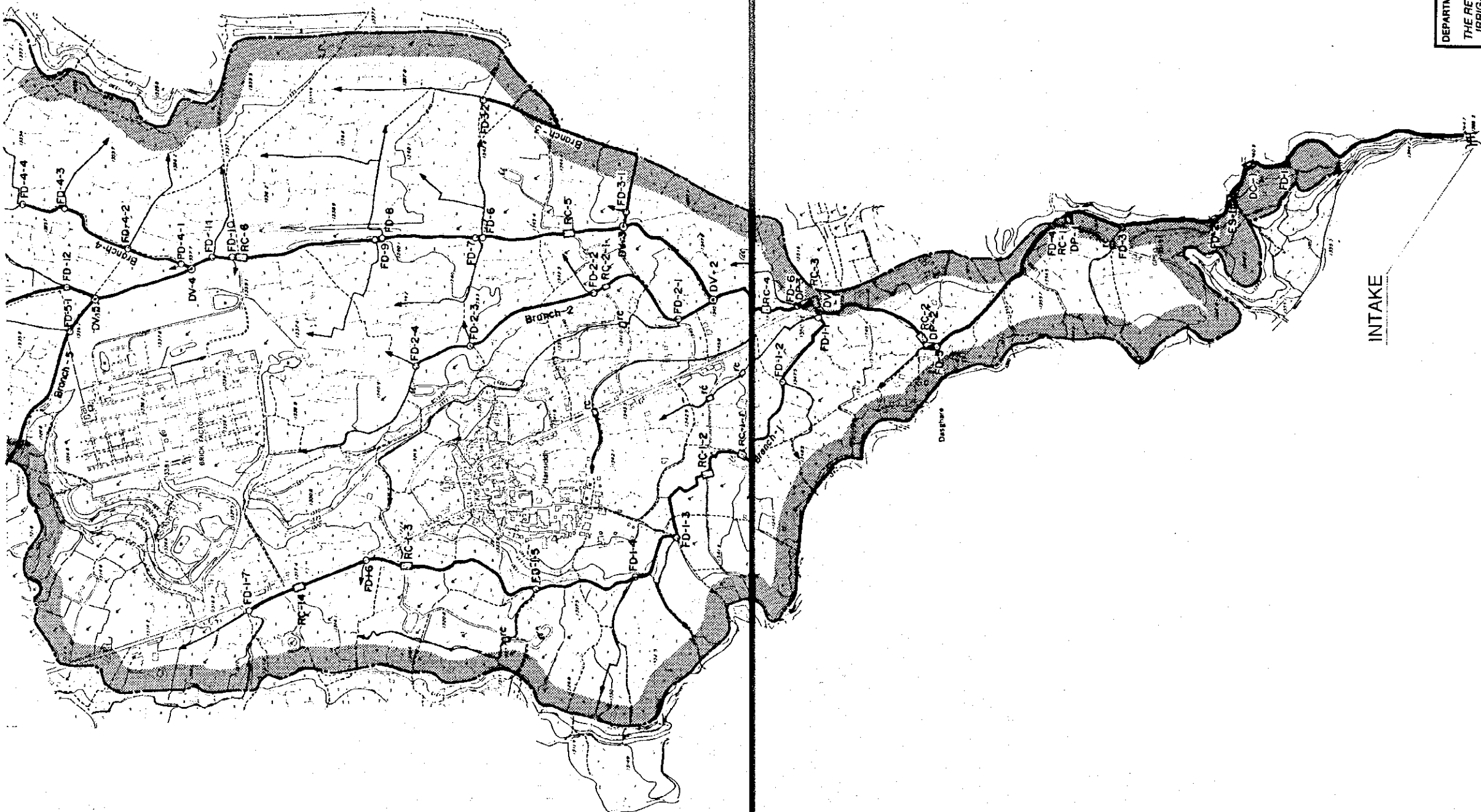
DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL		
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY		
TITLE:		
GENERAL LAYOUT OF IRRIGATION SYSTEM (AB-10) Katunje, Bhaktapur Dist.		
JAPAN INTERNATIONAL COOPERATION AGENCY		
DRG. No.	G-7	PLATE No.
		7



DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL		
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY		
TITLE: GENERAL LAYOUT OF IRRIGATION SYSTEM (AB - 12) Kutudhal, Bhaktapur Dist.		
JAPAN INTERNATIONAL COOPERATION AGENCY		
DRG. No.	G-8	PLATE No. 8



(1) Kothu - (2/2) (1)



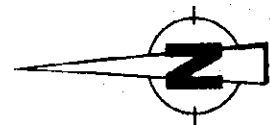
Lalitpur District

INTAKE



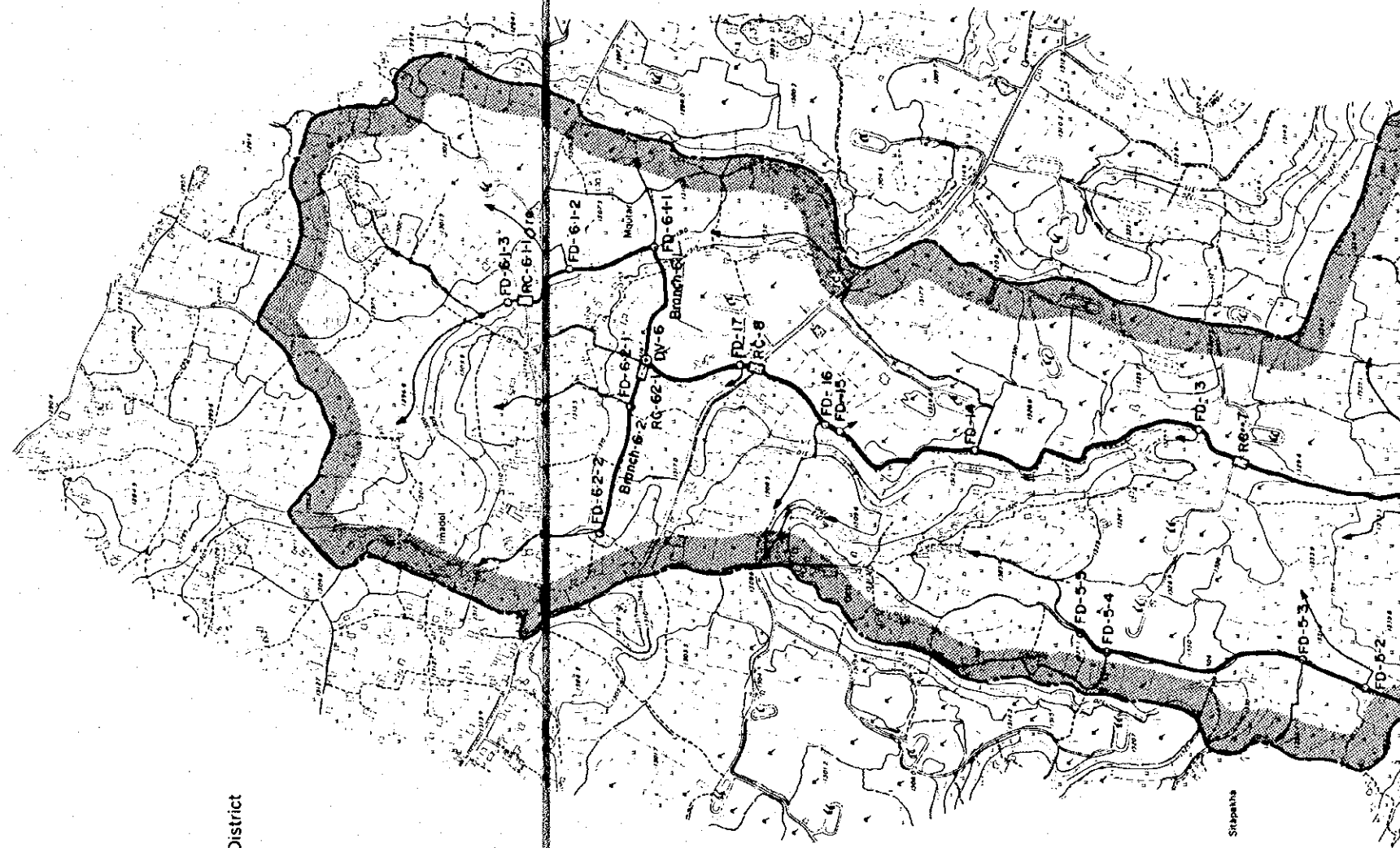
SCALE

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE: GENERAL LAYOUT OF IRRIGATION SYSTEM (AL-10) Kothu, Lalitpur Dist. [1/2]			
JAPAN INTERNATIONAL COOPERATION AGENCY		ORG. No. G-10-[1/2] PLATE No. 10	



LEGEND

- | | | | |
|---|-------------------------------------|---|--|
| — | Main Canal | ○ | DV Canal Diversion |
| — | Secondary Canal
(Branch Canal) | ○ | FD Field Diversion
(Turn Out) |
| — | Tertiary Canal
(Main Farm Ditch) | △ | ES Escape |
| — | Boundary of
Scheme Area | ▬ | AD Aqueduct |
| | | ▨ | DC Drainage Crossing |
| | | ▨ | CD Catch Drain |
| | | ▨ | DP Drop |
| | | ▬ | RC Road Crossing |
| | | □ | rc Road Crossing
(for Tertiary Canal) |



Lalitpur District

(↓ Kothu (1/2) ↓)



SCALE

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES
THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY

TITLE:
GENERAL LAYOUT OF IRRIGATION SYSTEM
(AL-10) Kothhu, Lalitpur Dist. [2/2]

JAPAN INTERNATIONAL COOPERATION AGENCY

DRG. No. G-10-[2/2] PLATE No. 11



Lalitpur District

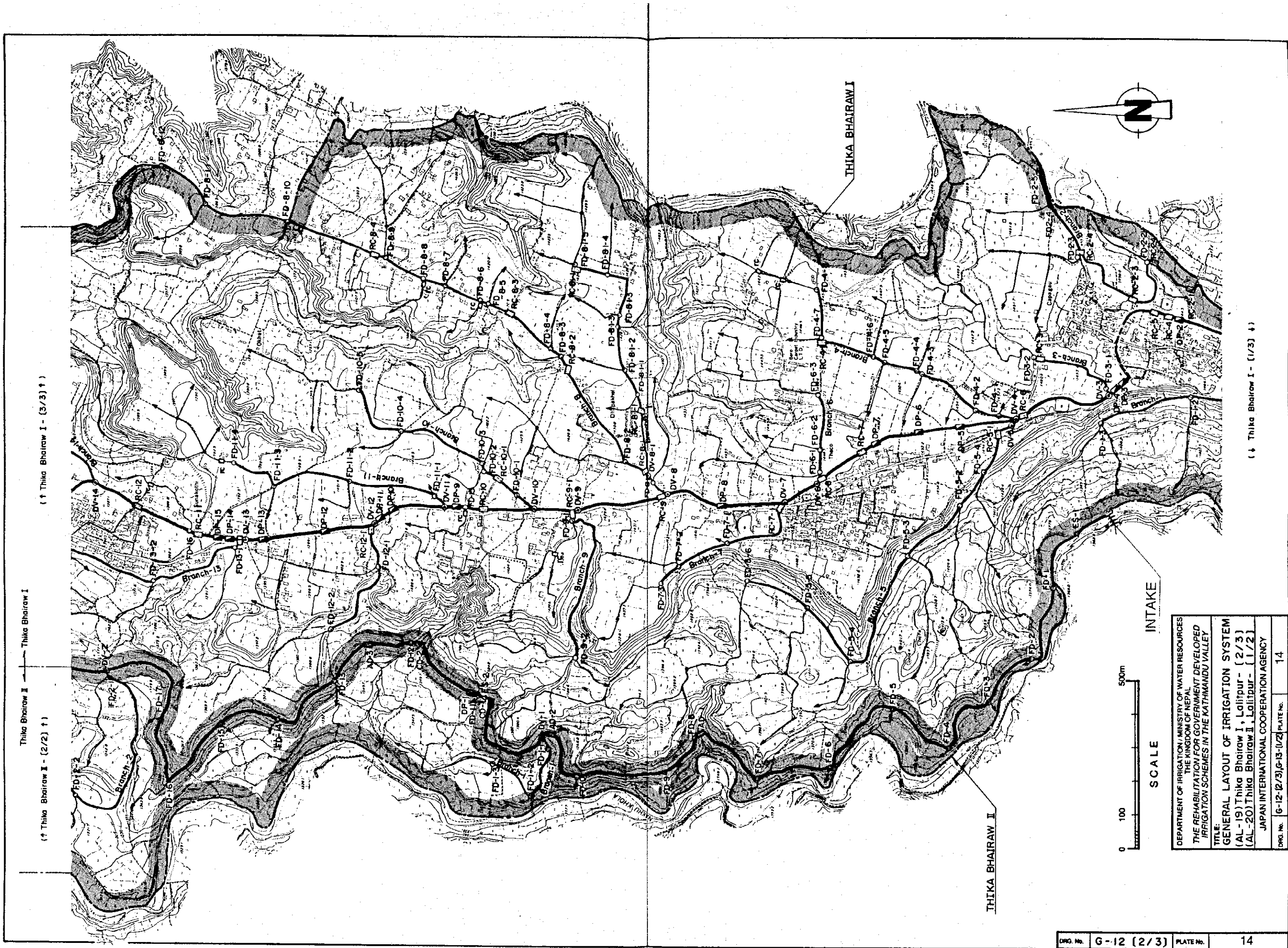


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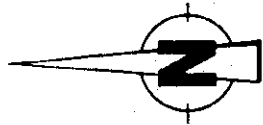
INTAKE (No.1)

INTAKE (No.2)

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE: GENERAL LAYOUT OF IRRIGATION SYSTEM (AL-19) Thiko Bhorow I, Lalitpur - (1/3)			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DRG. No.	G-12 - (1/3)	PLATE No.	13



DEPARTMENT OF IRRIGATION, MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY
TITLE: GENERAL LAYOUT OF IRRIGATION SYSTEM (AL-19) Thika Bhairaw I, Lalitpur - (2/3) (AL-20) Thika Bhairaw II, Lalitpur - (1/2)
JAPAN INTERNATIONAL COOPERATION AGENCY
DRG. No. G-12 (2/3) G-13 (1/2) PLATE No. 14



Lalitpur District

Thika Bhairaw II



(+ Thika Bhairaw I (1/2) +)

Thika Bhairaw II

Thika Bhairaw I

(+ Thika Bhairaw I - (2/3) +)



SCALE

DEPARTMENT OF IRRIGATION MINISTRY OF WATER RESOURCES
THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY

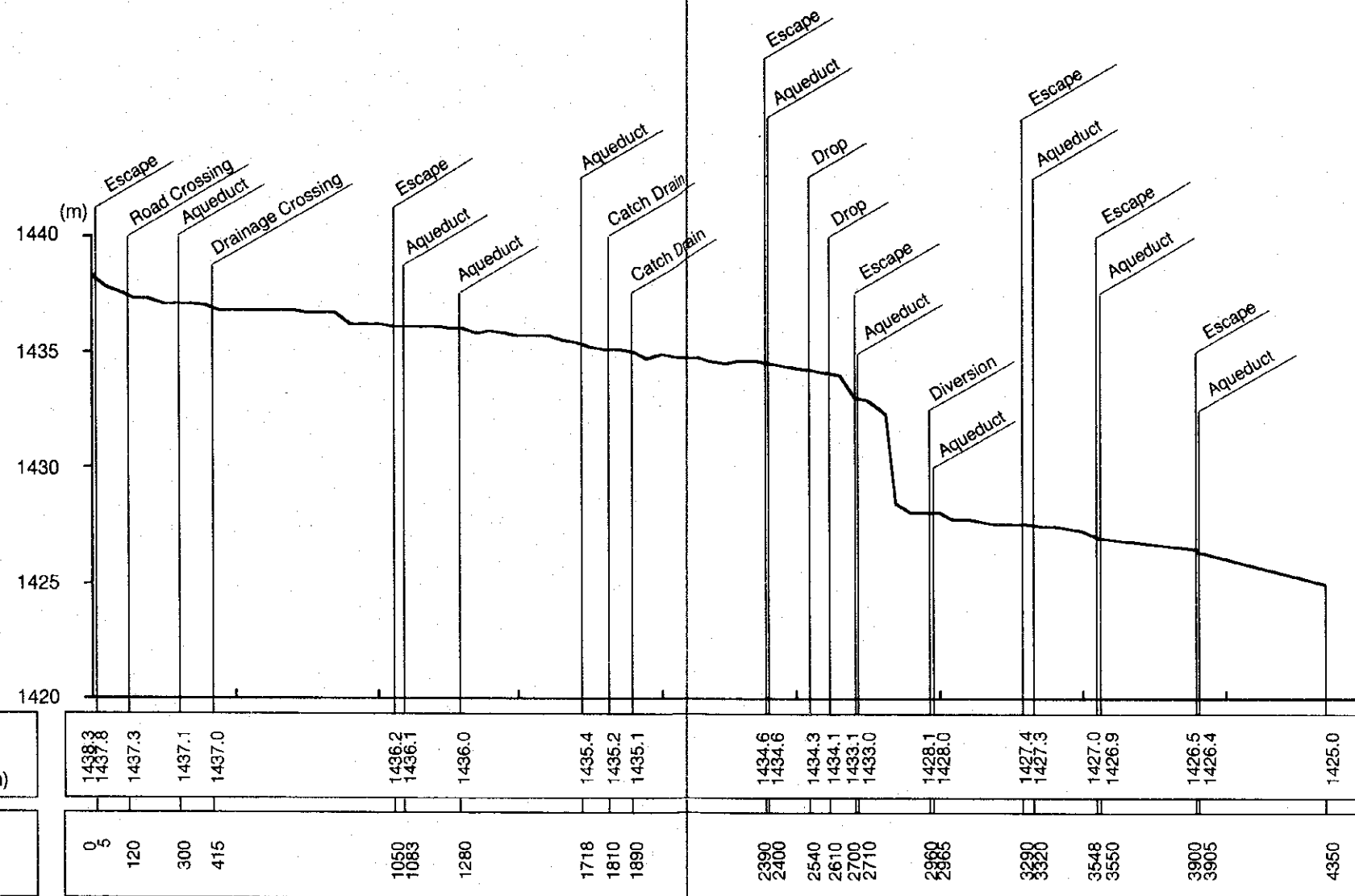
TITLE:
GENERAL LAYOUT OF IRRIGATION SYSTEM
(AL-19) Thika Bhairaw I, Lalitpur - (3/3)
(AL-20) Thika Bhairaw II, Lalitpur - (2/2)

JAPAN INTERNATIONAL COOPERATION AGENCY

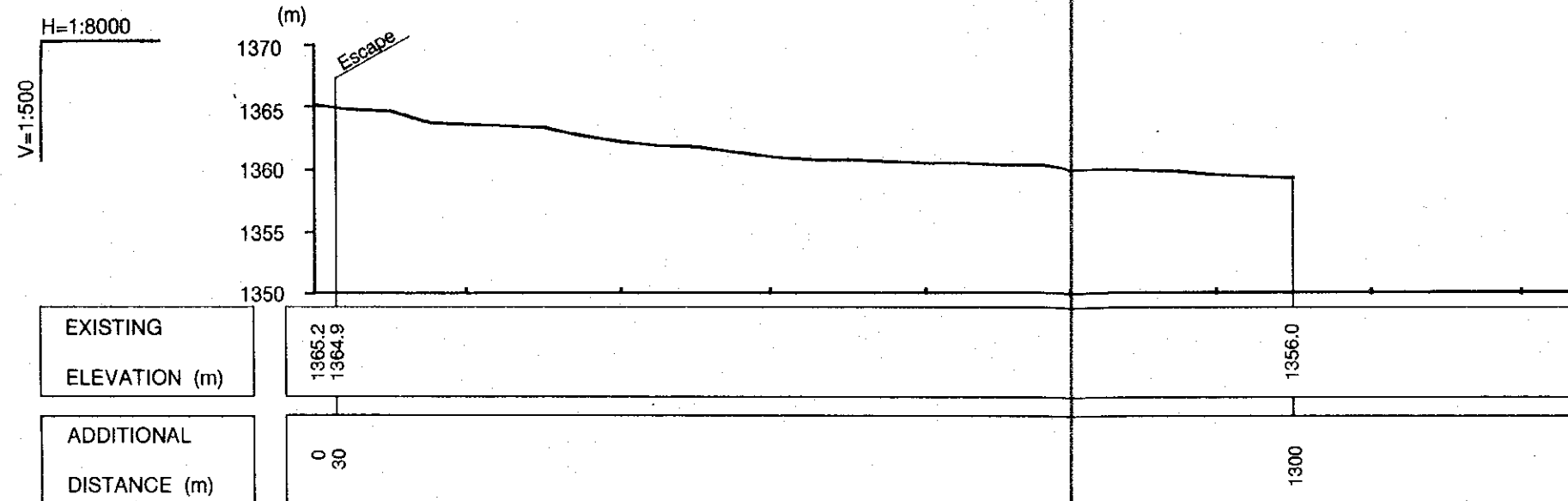
DRG. No. G-12- (3/3) G-13- (2/2) PLATE No. 15

DRG. No. G-12- (3/3) PLATE No. 15

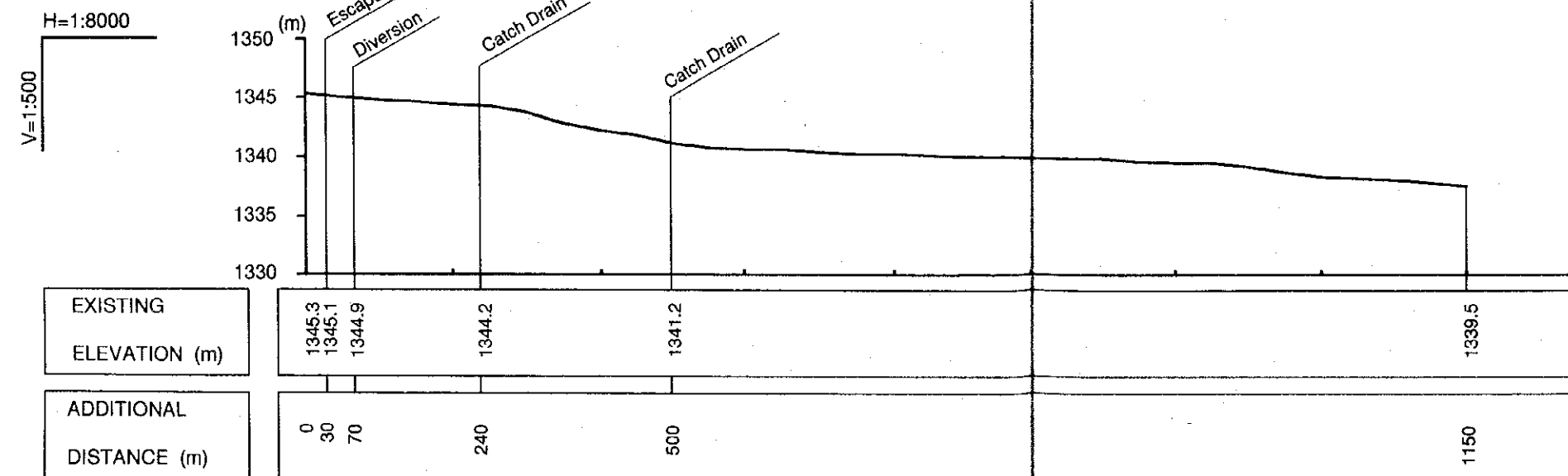
V=1:250
H=1:20000



BOSHAN-2



BOSHAN-3



BOSHAN-4

H=1:8000
V=1:500

(m)
1345
1340
1335
1330
1325

Escape

EXISTING
ELEVATION (m)

1341.5
1341.2

1327.5

ADDITIONAL
DISTANCE (m)

0
30

1325

BOSHAN-5

H=1:8000
V=1:500

(m)
1325
1320
1315
1310
1305
1300

Escape

Diversion

Diversion

Road Crossing

Road Crossing

EXISTING
ELEVATION (m)

1324.1
1324.0

1322.3

1315.1

1315.0

1305.0

1301.0

ADDITIONAL
DISTANCE (m)

0
30

750

1290

1400

1560

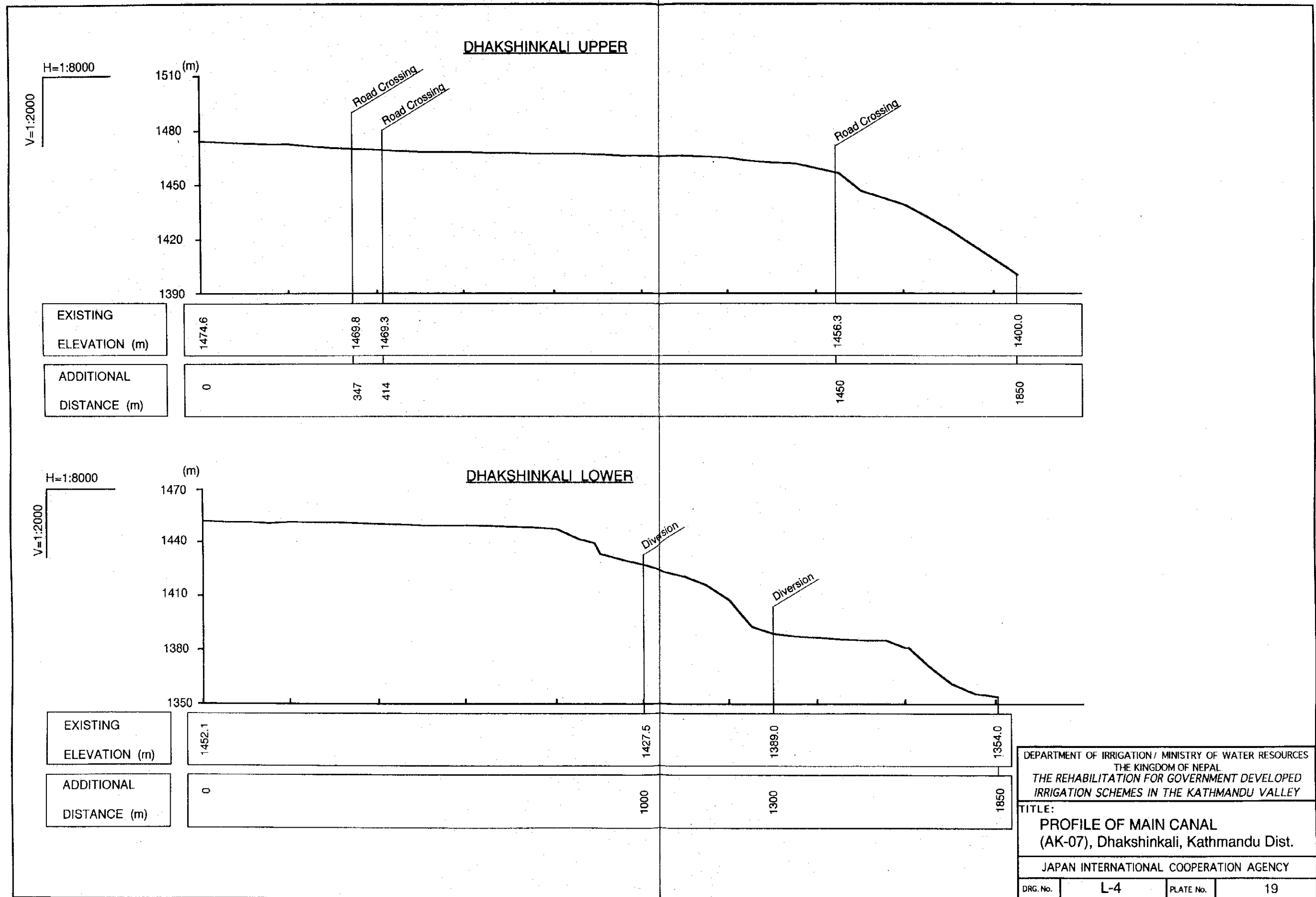
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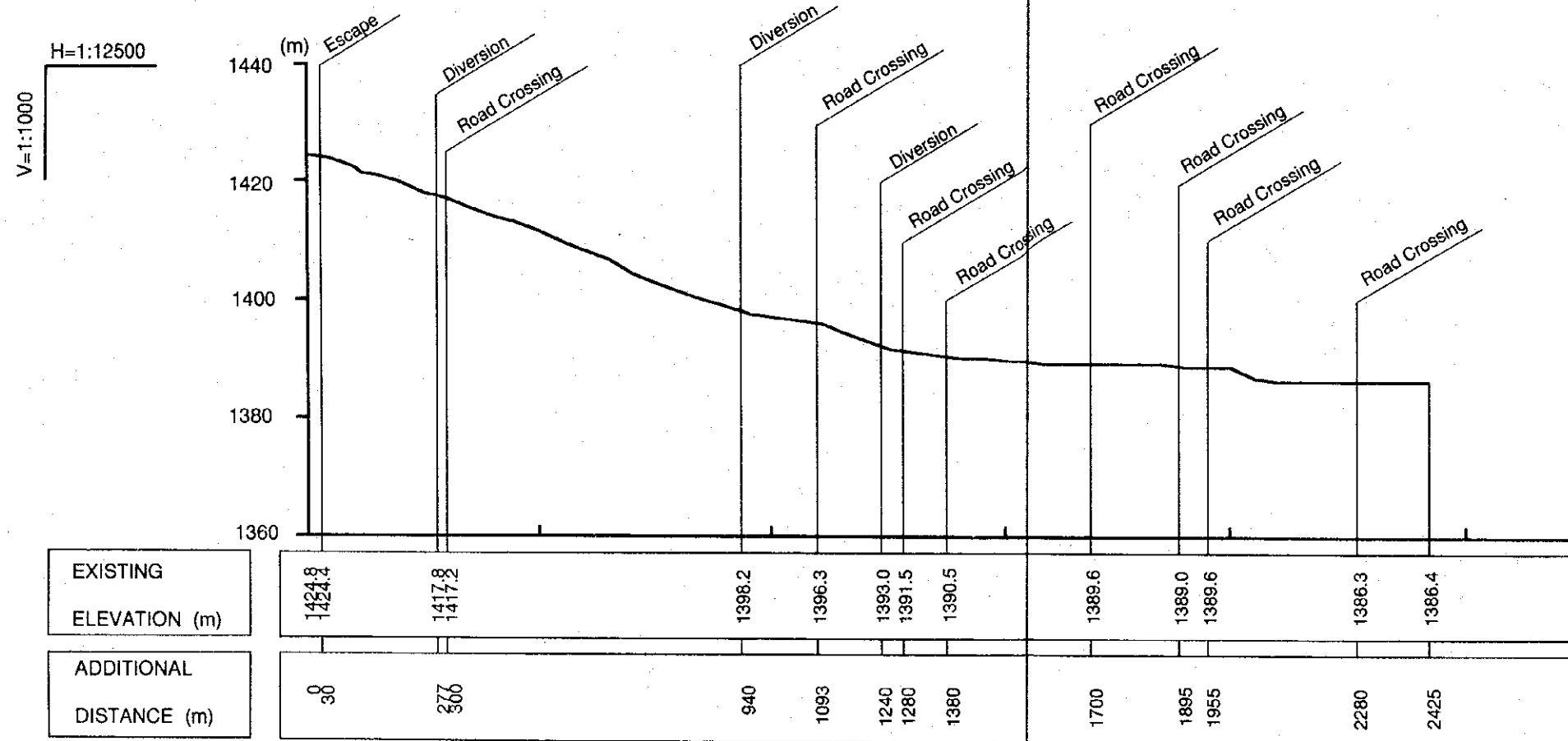
DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES
THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY

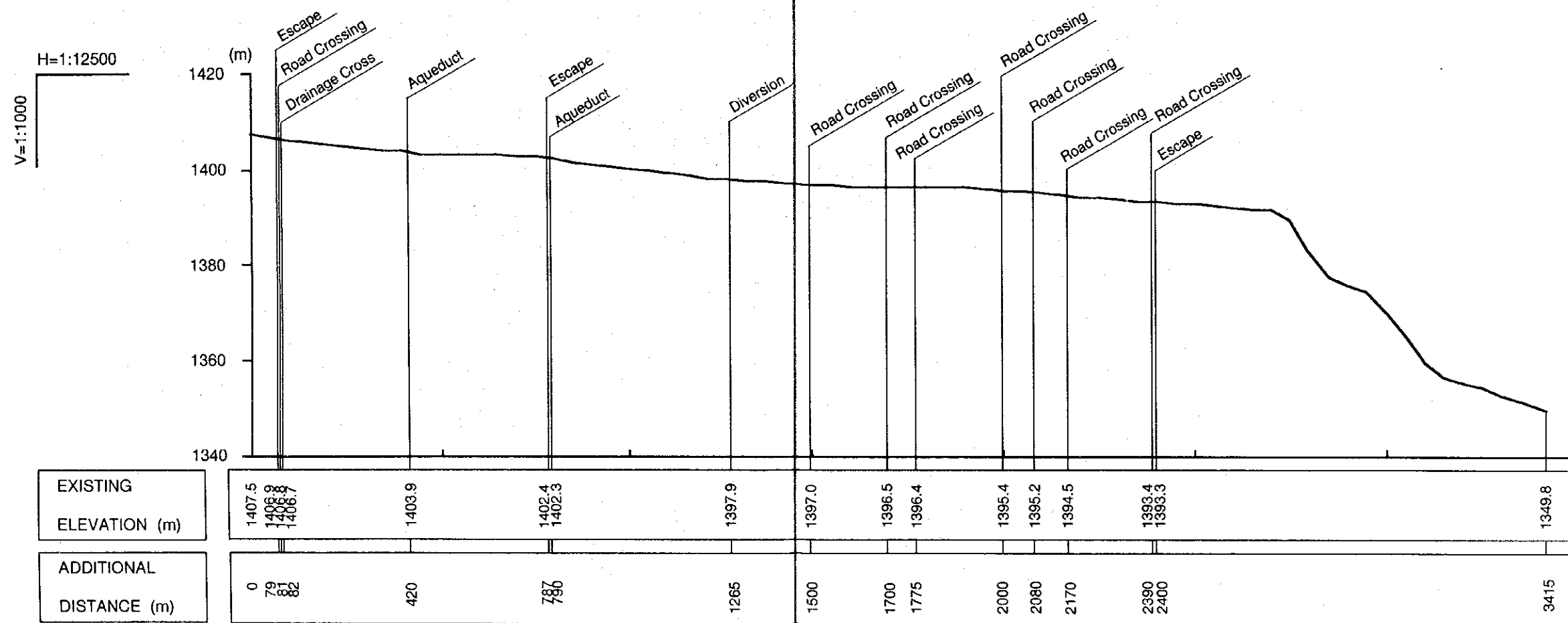
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PROFILE OF MAIN CANAL
(AK-05), Boshan (2/2), Kathmandu Dist.

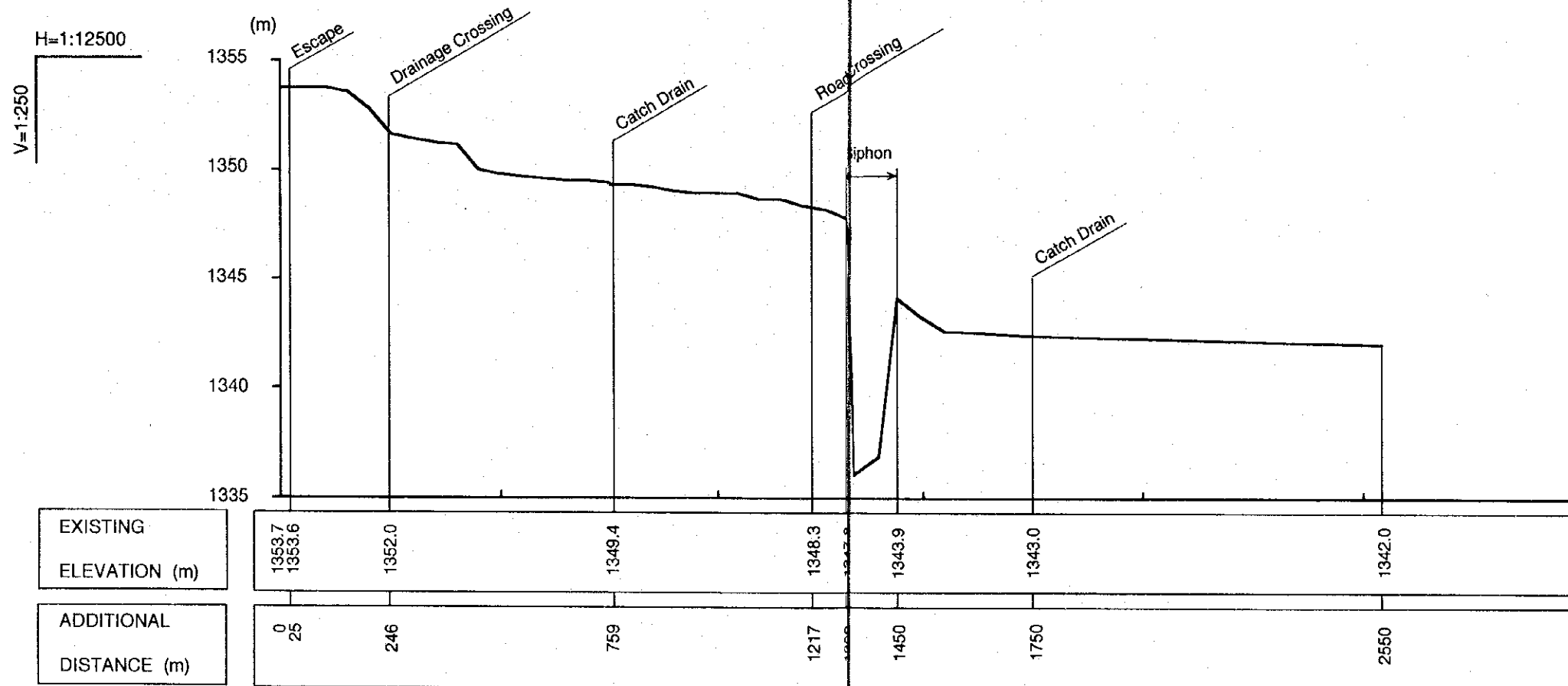
JAPAN INTERNATIONAL COOPERATION AGENCY

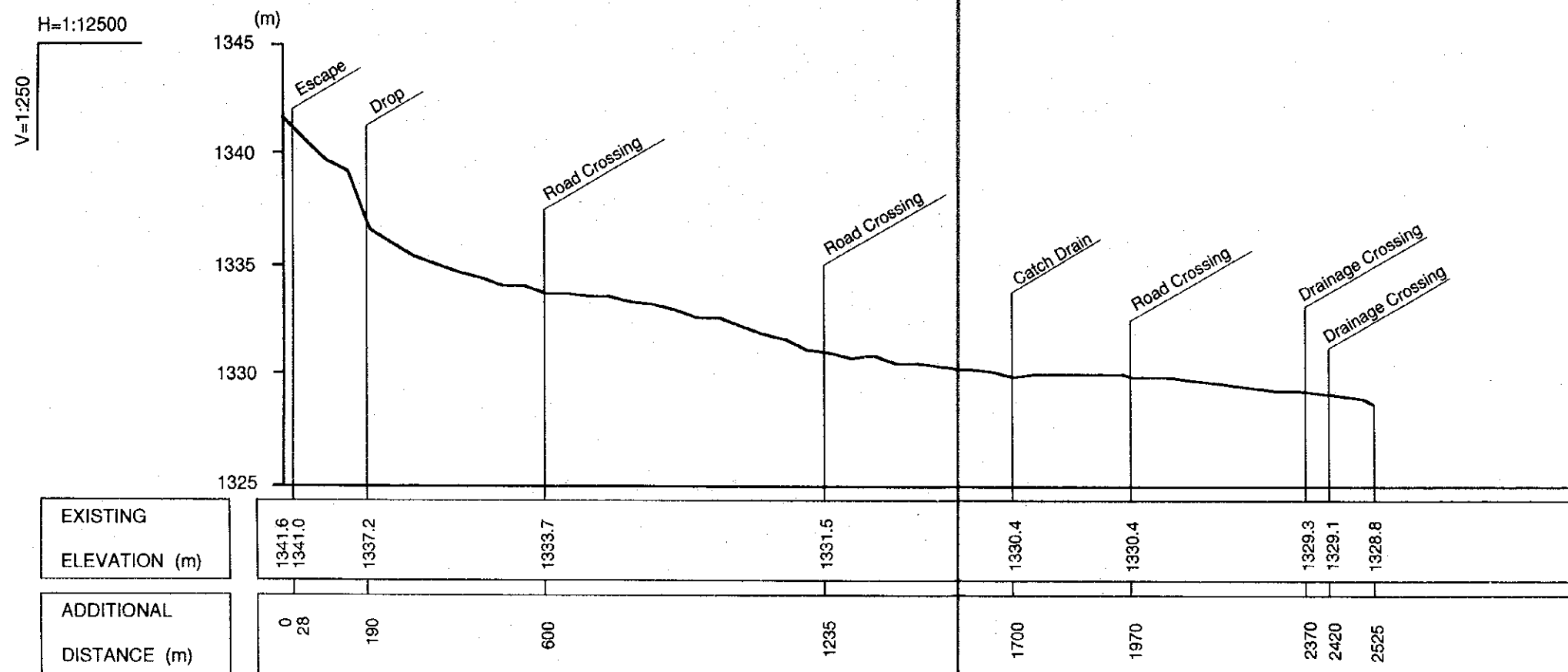
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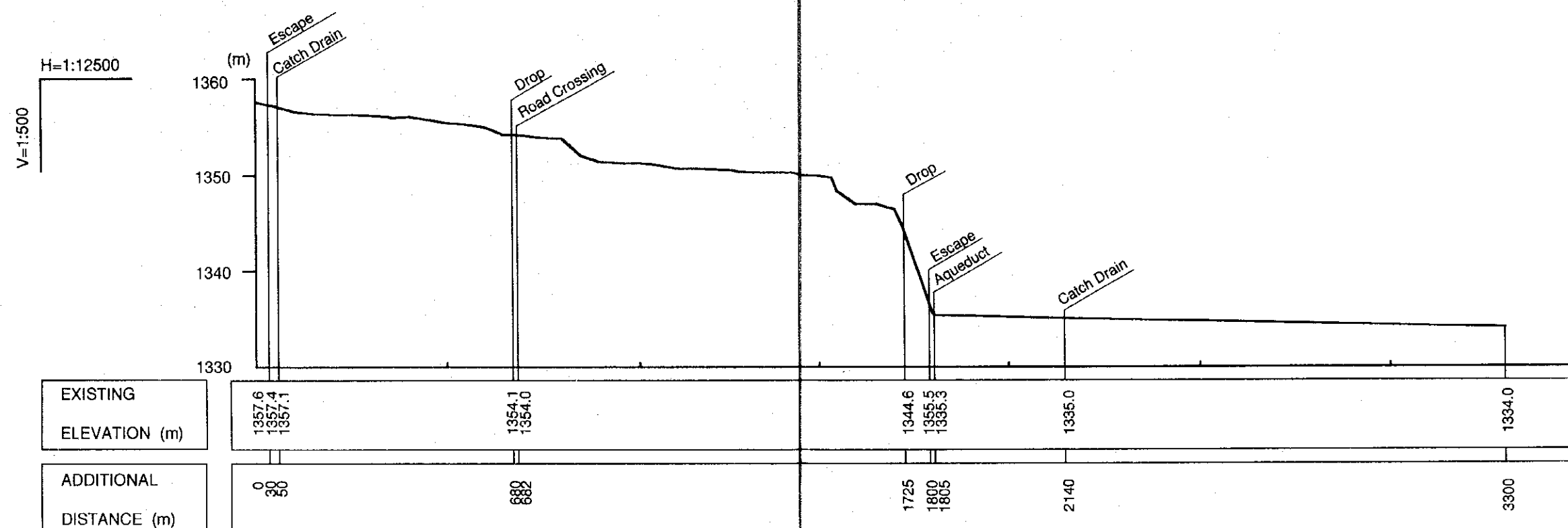


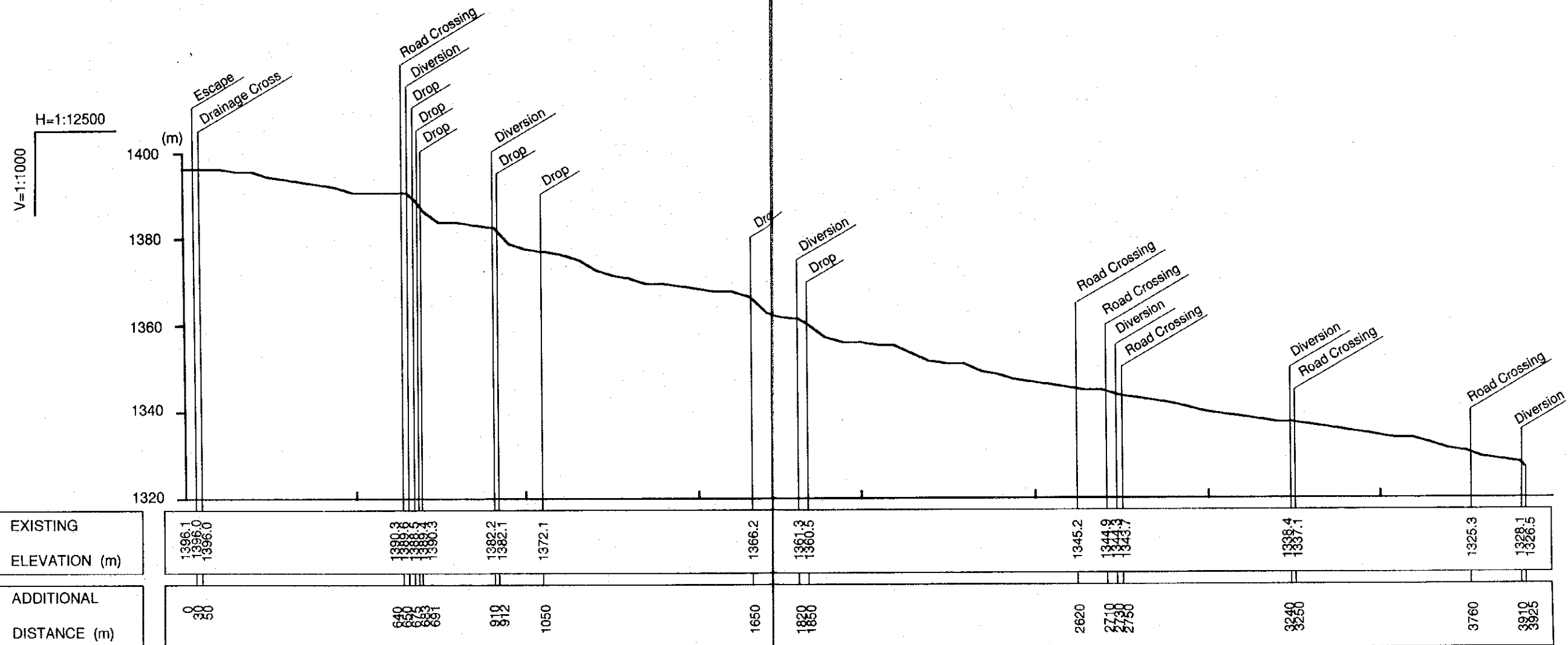


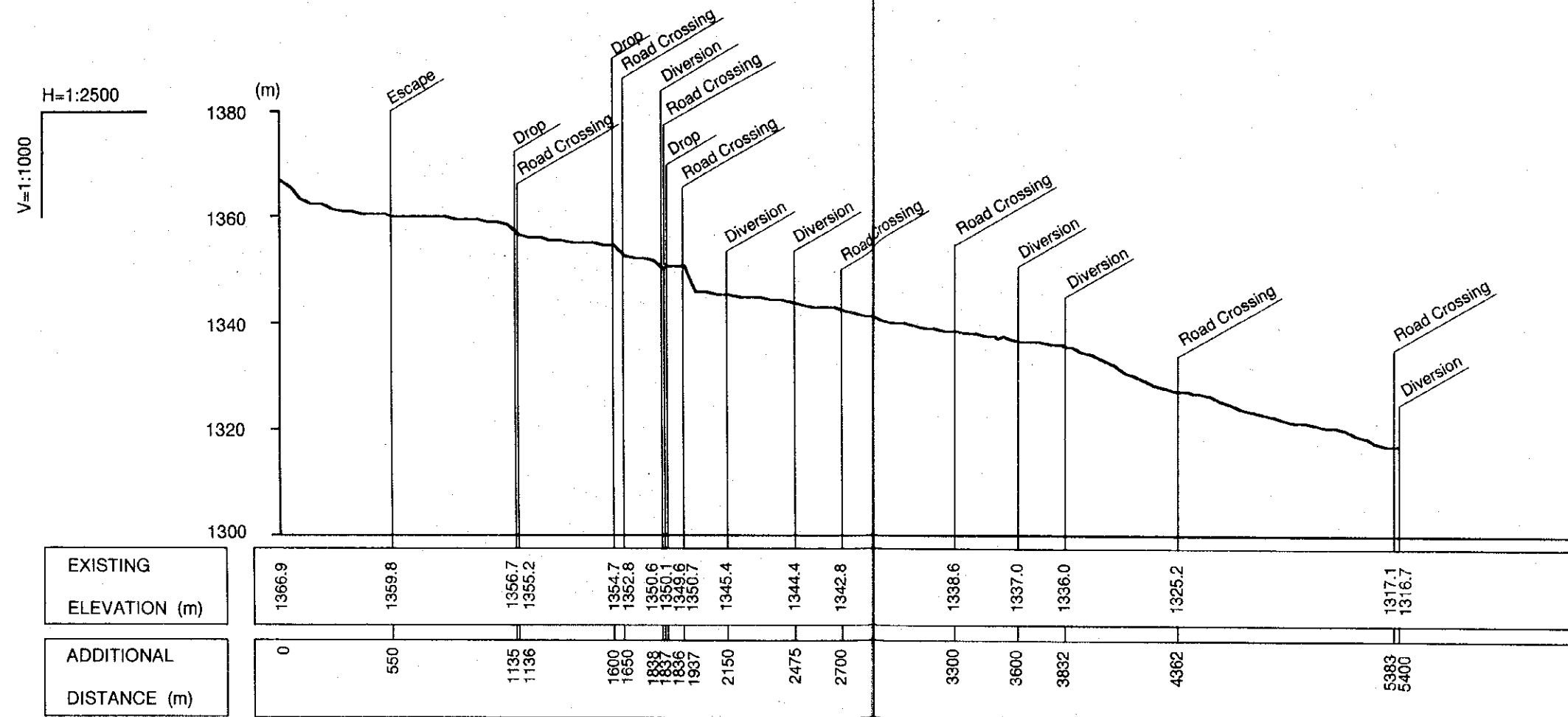


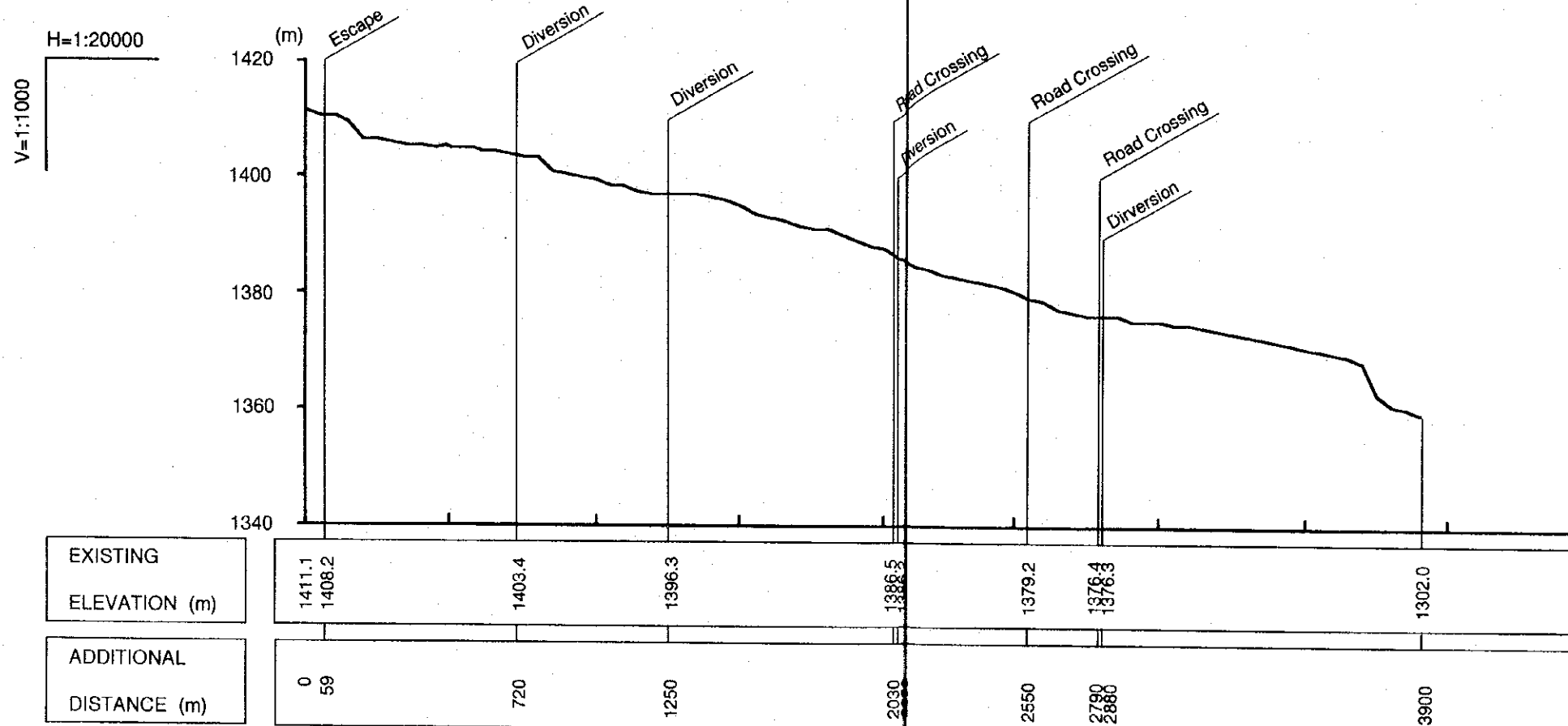










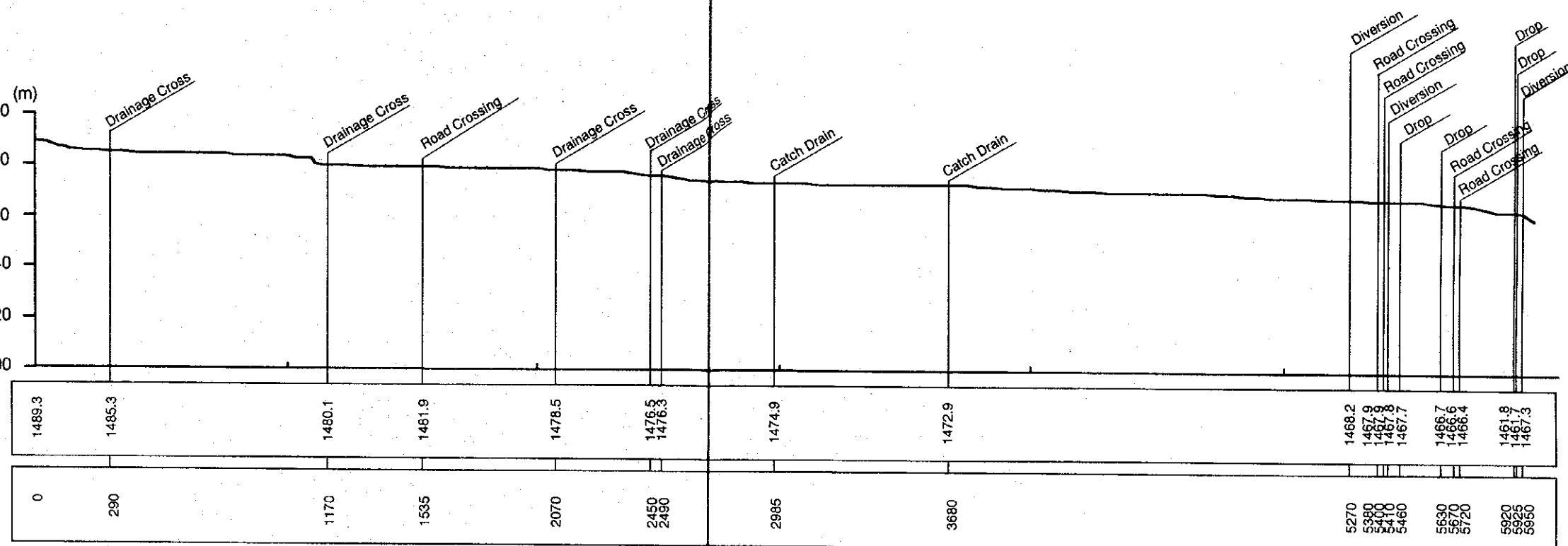


V=1:2000
H=1:20000

(m)
1500
1480
1460
1440
1420
1400

EXISTING
ELEVATION (m)

ADDITIONAL
DISTANCE (m)

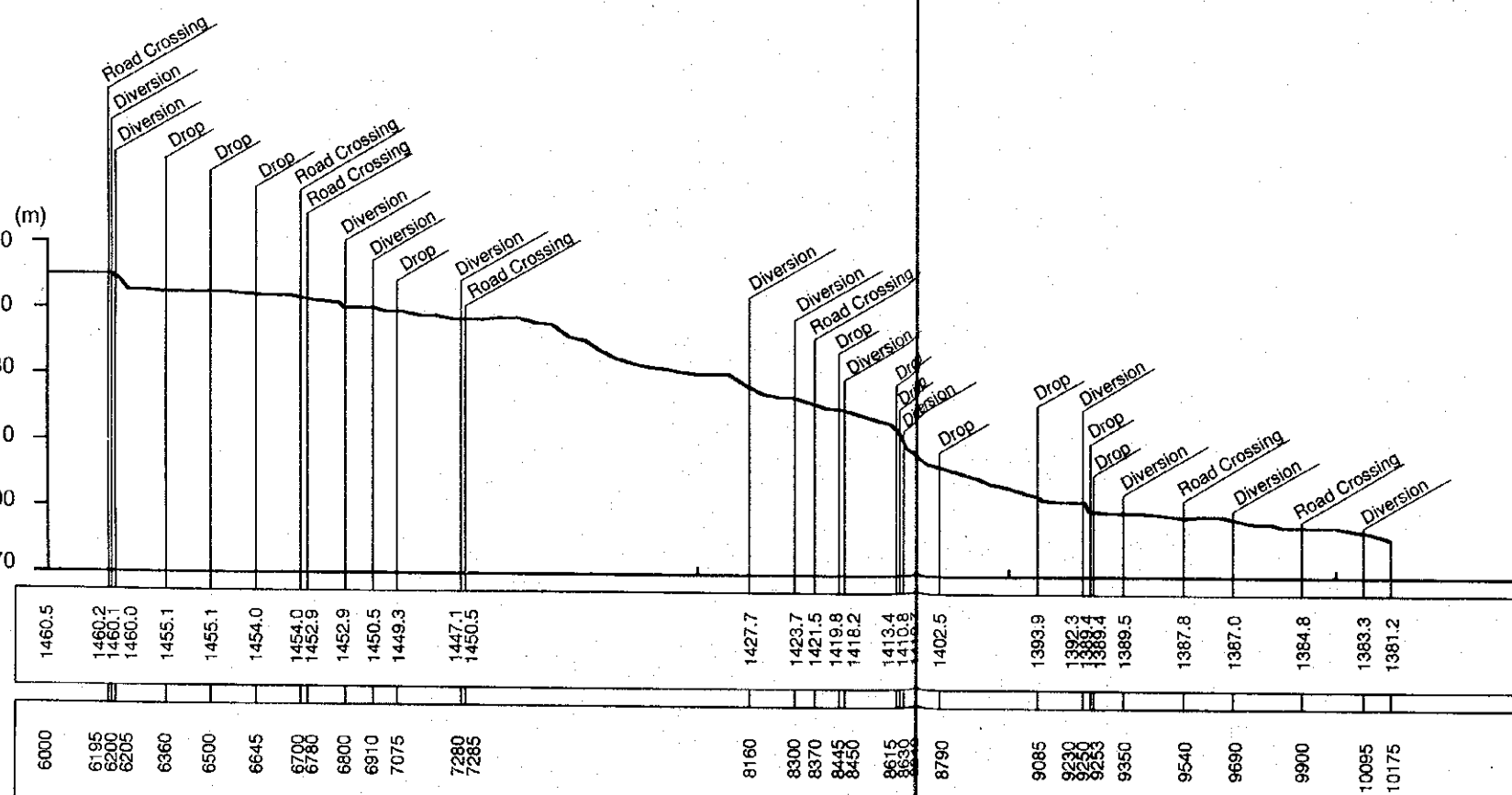


V=1:2000
H=1:20000

(m)
1470
1450
1430
1410
1390
1370

EXISTING
ELEVATION (m)

ADDITIONAL
DISTANCE (m)

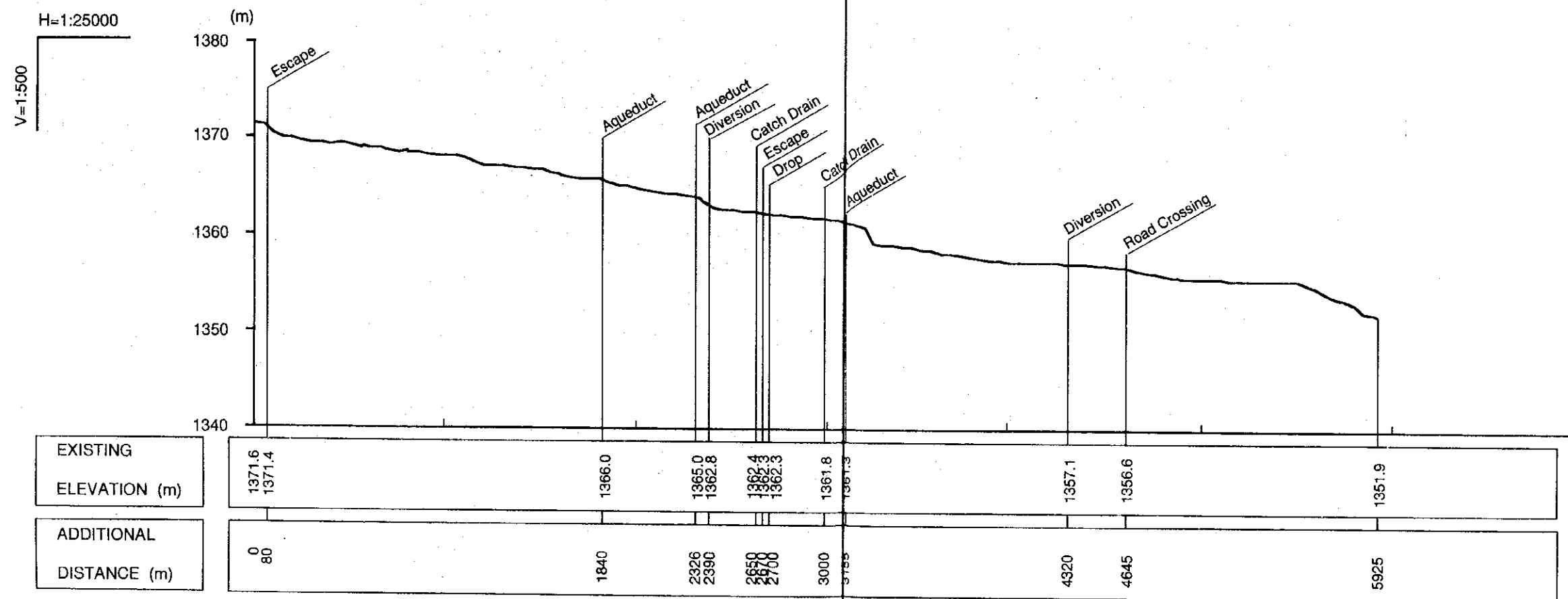


DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES
THE KINGDOM OF NEPAL
THE REHABILITATION FOR GOVERNMENT DEVELOPED
IRRIGATION SCHEMES IN THE KATHMANDU VALLEY

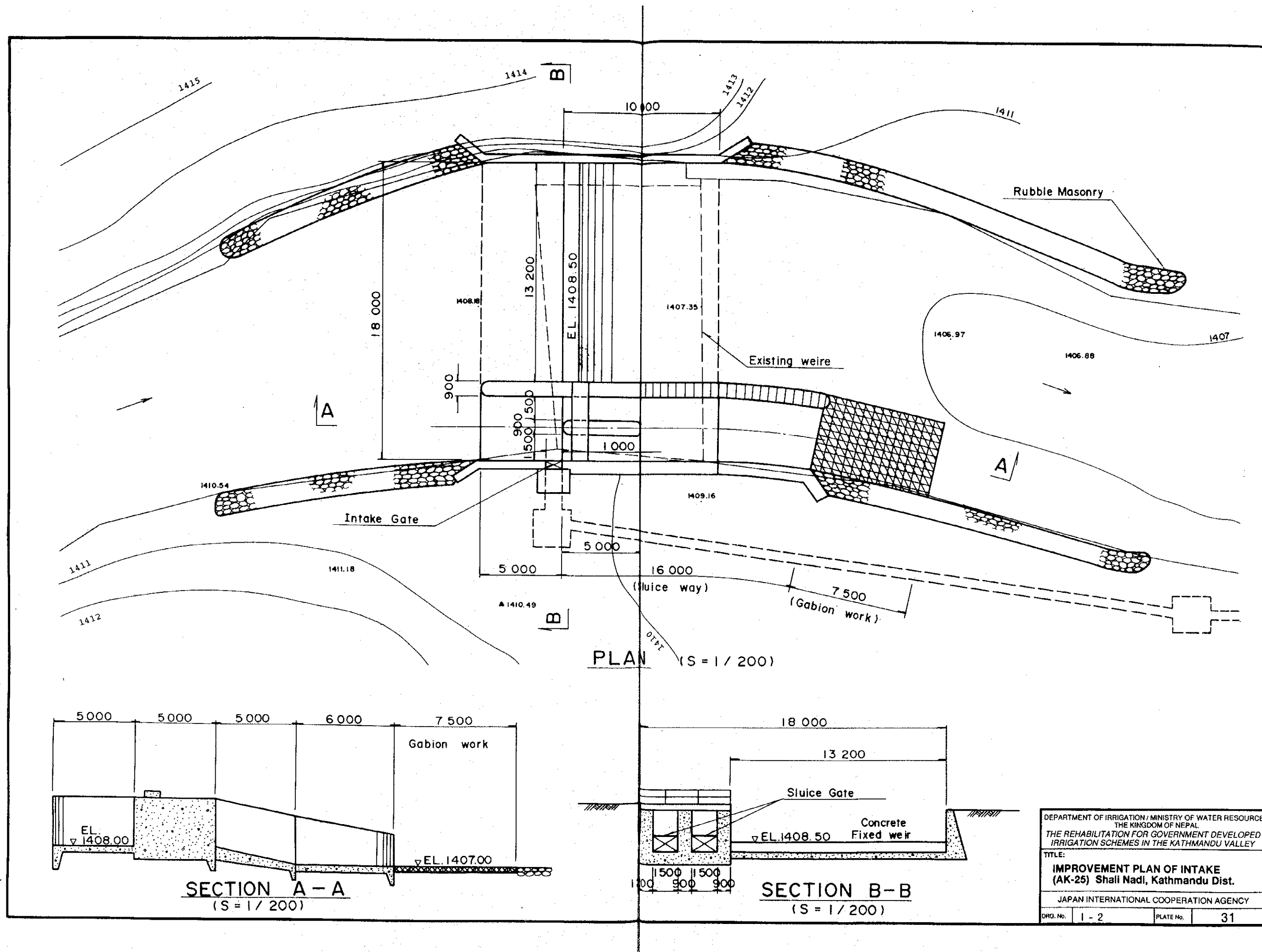
TITLE:
PROFILE OF MAIN CANAL
(AL-19), Thika Bhairaw (I), Lalitpur Dist.

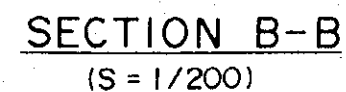
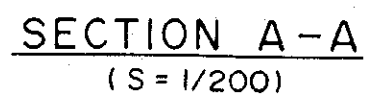
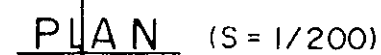
JAPAN INTERNATIONAL COOPERATION AGENCY

DRG. No. L-13 PLATE No. 28

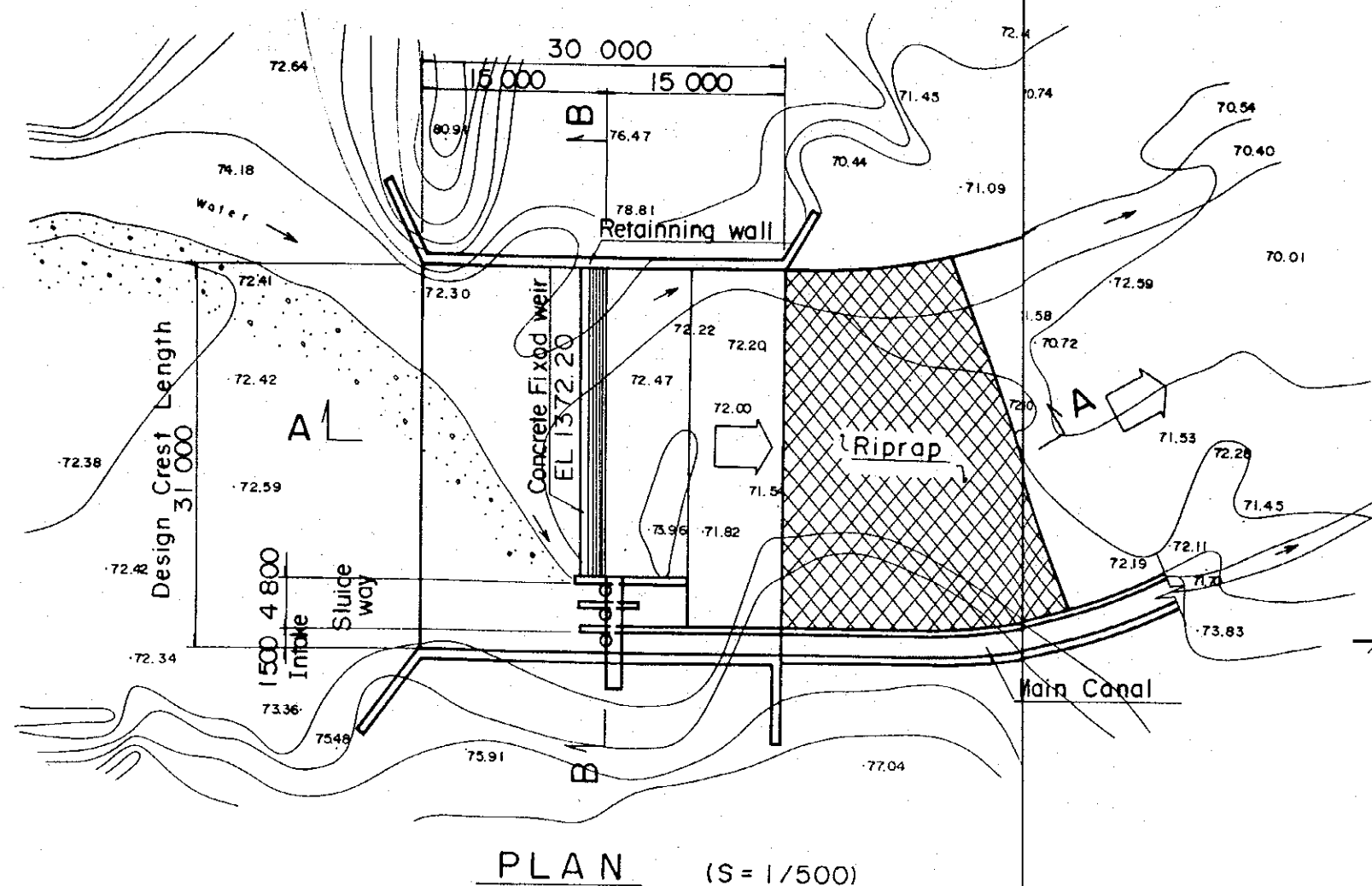


DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE: PROFILE OF MAIN CANAL (AL-20), Thika Bhairaw (II), Lalitpur Dist.			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DRG. No.	L-14	PLATE No.	29

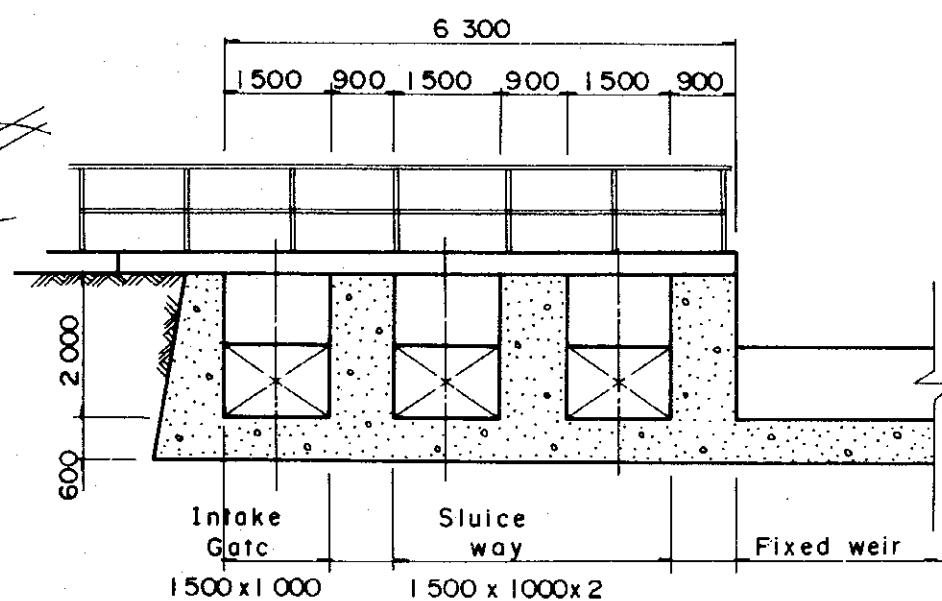




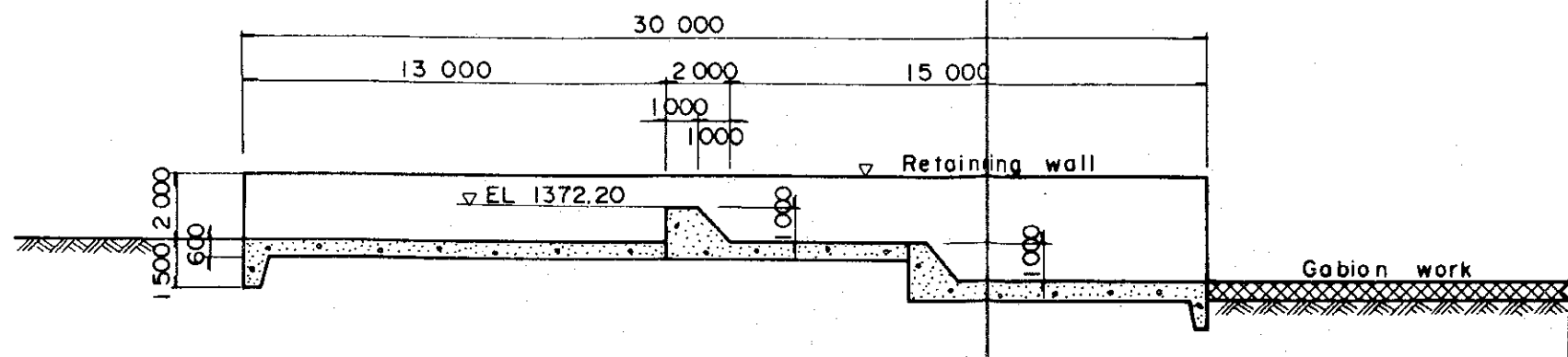
DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL <i>THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY</i>			
TITLE: IMPROVEMENT PLAN OF INTAKE (AB-12) Kutudhal, Bhaktapur Dist.			
JAPAN INTERNATIONAL COOPERATION AGENCY			
DRG. No.	1 - 3	PLATE No.	32



PLAN (S = 1/500)

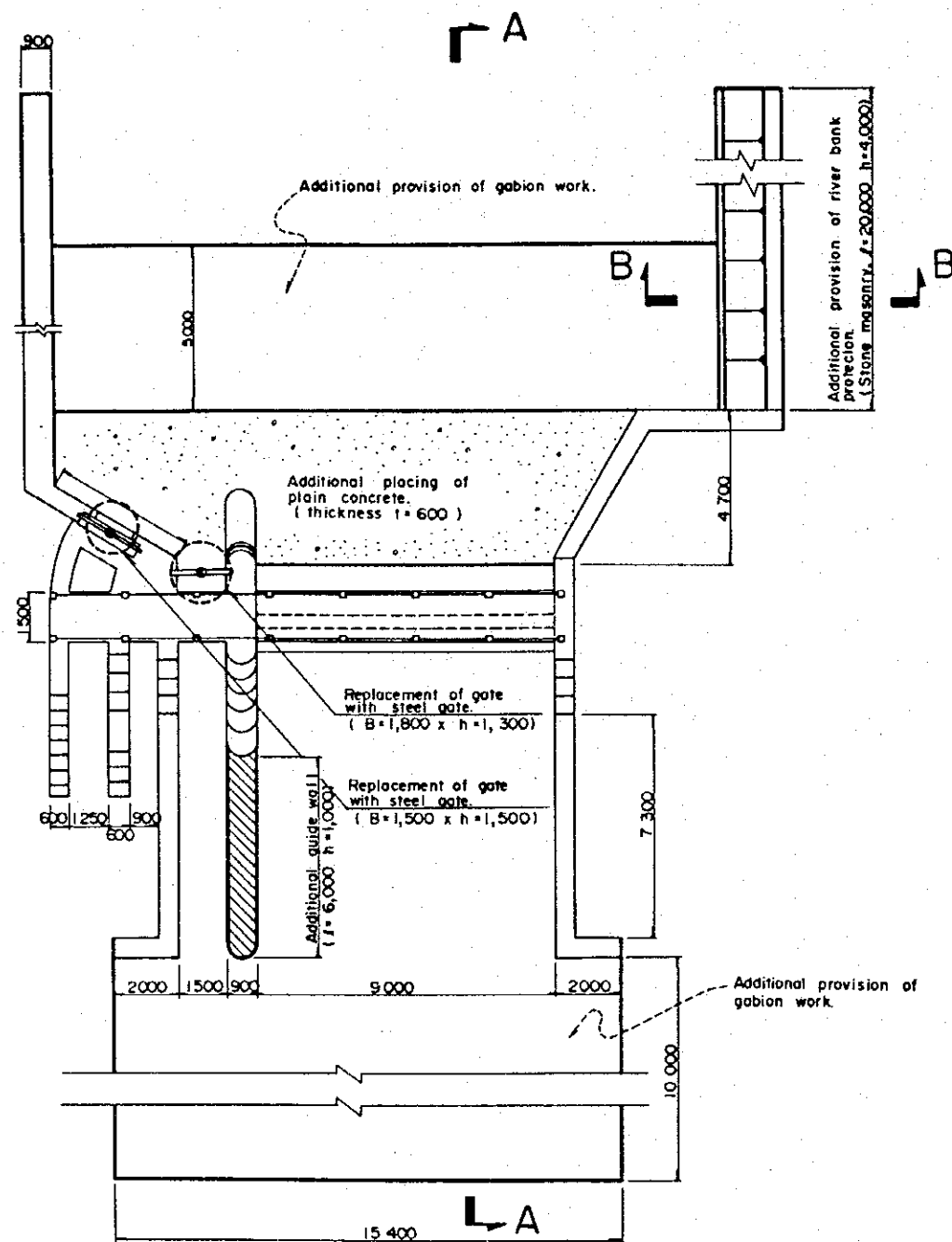


SECTION B-B
(S = 1/100)

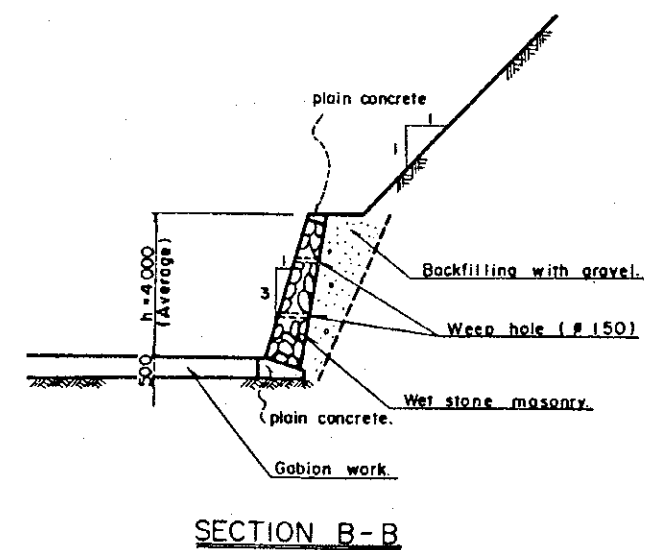
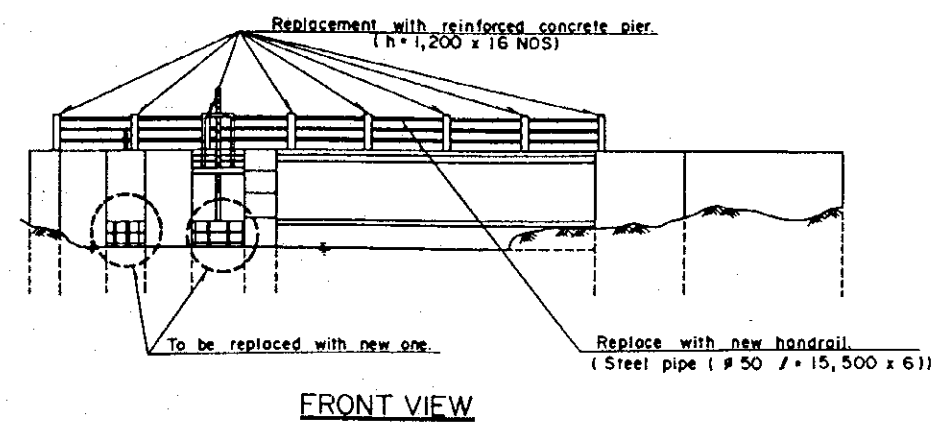
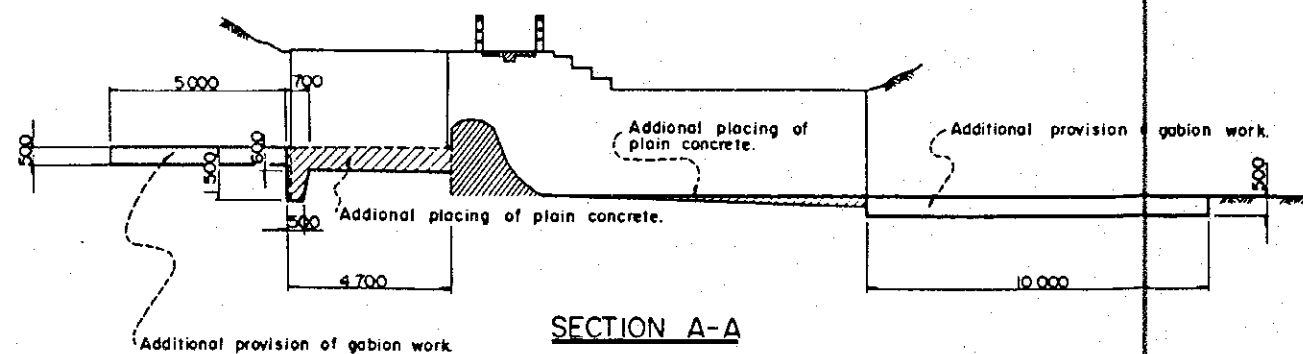


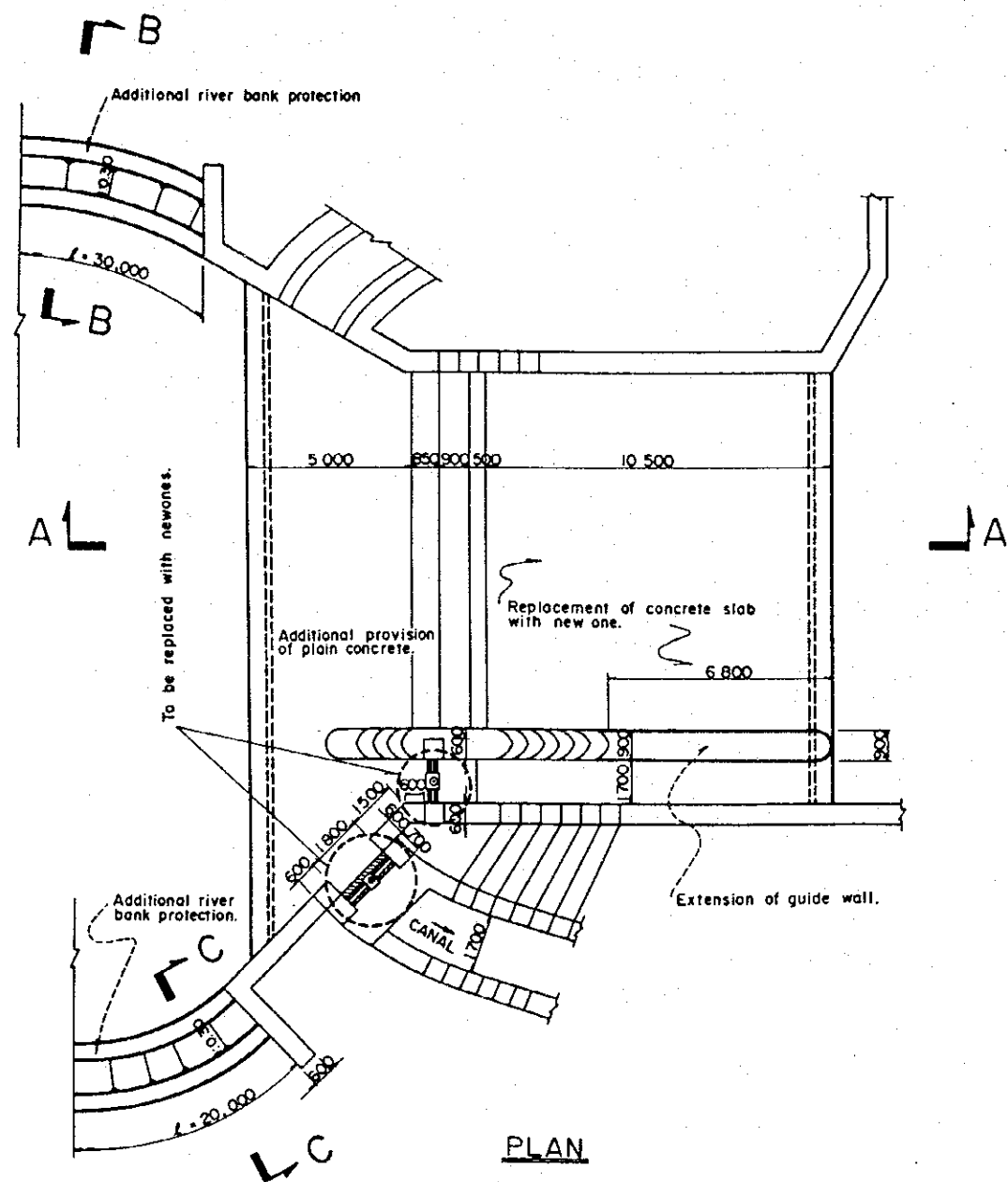
SECTION A-A
(S = 1/200)

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL		
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY		
TITLE:		
IMPROVEMENT PLAN OF INTAKE (AL-20) Thika Bhairaw II, Lalitpur Dist.		
JAPAN INTERNATIONAL COOPERATION AGENCY		
ORG. NO.	1 - 5	PLATE NO.
		34

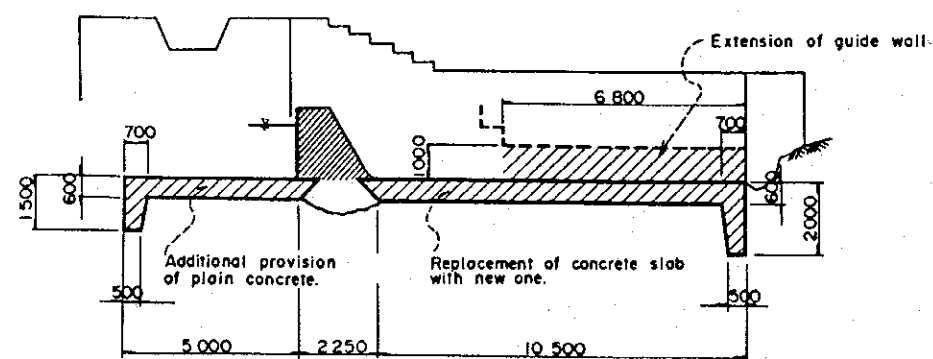


PLAN

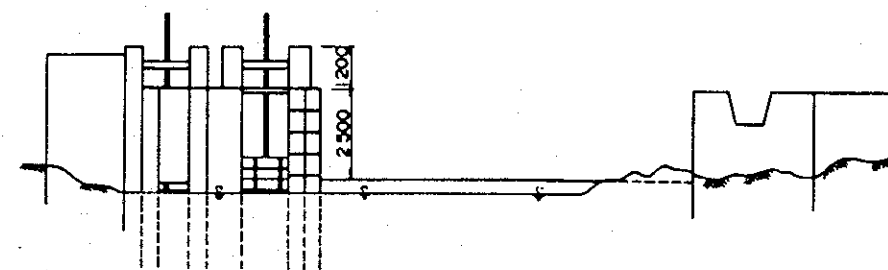




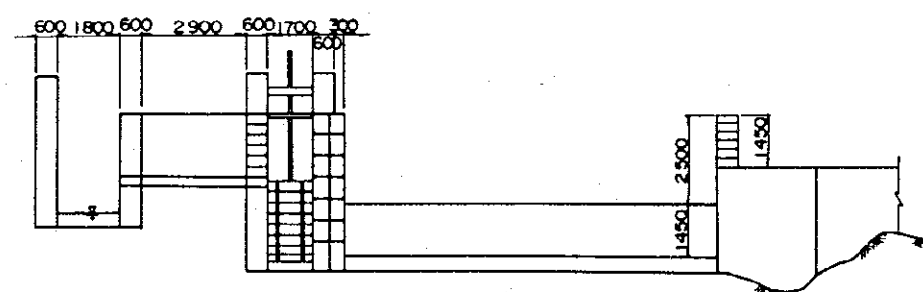
PLAN



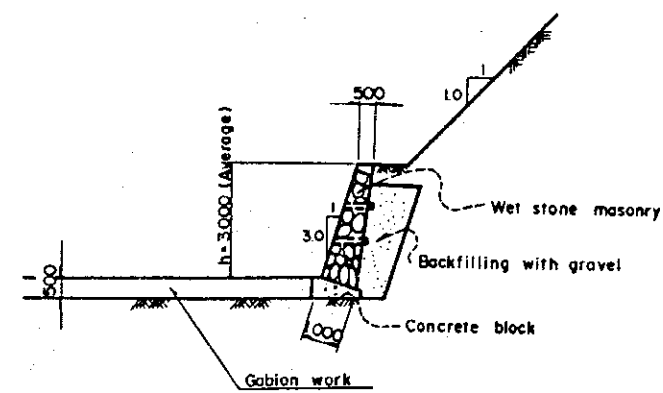
ELEVATION



FRONT VIEW

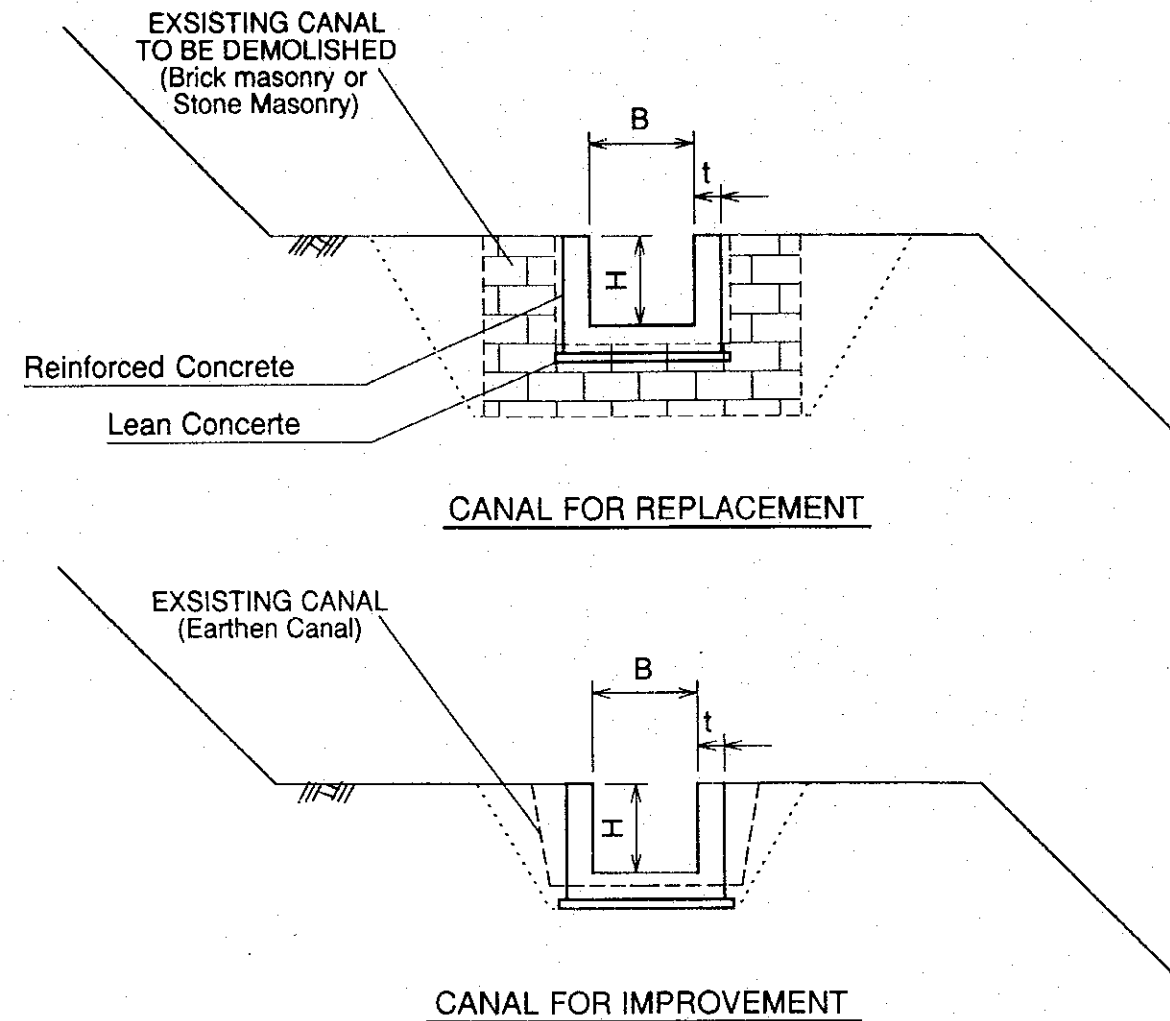


BACK VIEW



SECTION B-B and C-C

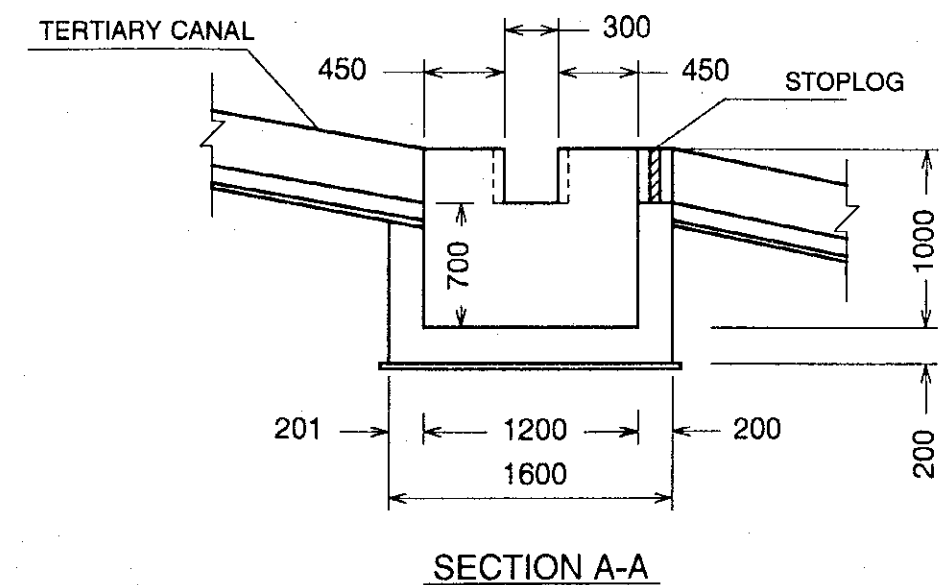
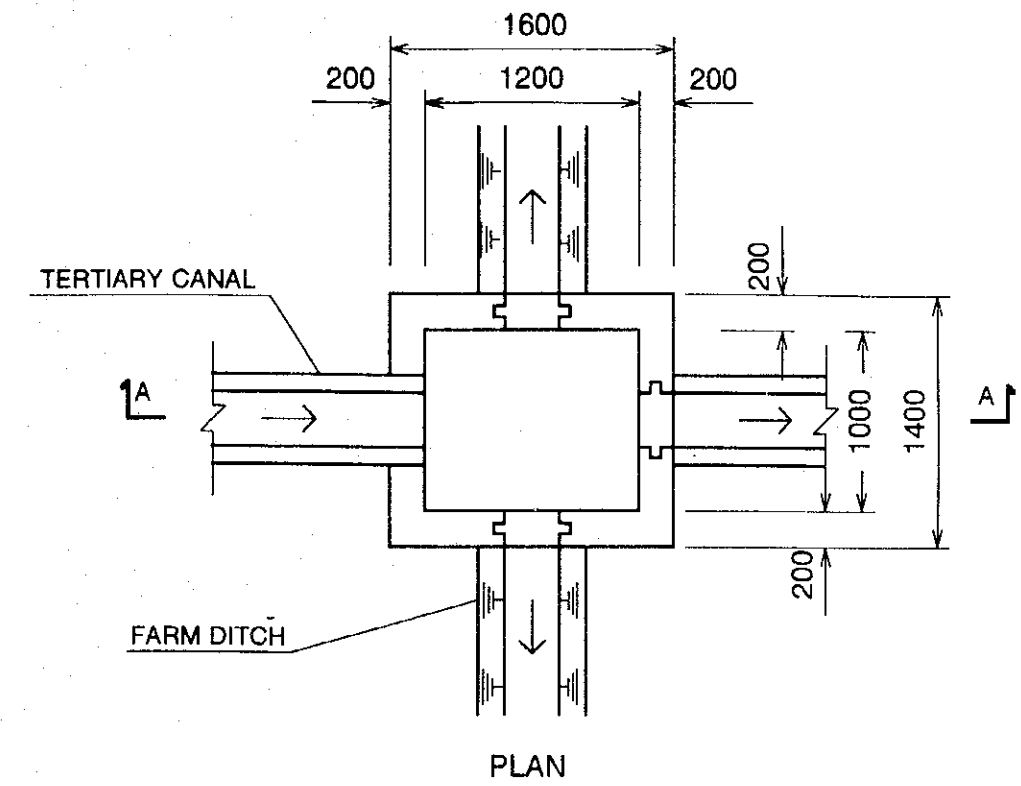
DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL			
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY			
TITLE: REHABILITATION PLAN OF INTAKE (AL-19) Thika Bhairaw I (No.2 Intake), Lalitpur Dist.			
JAPAN INTERNATIONAL COOPERATION AGENCY			
ORG. No.	R - 3	PLATE No.	37



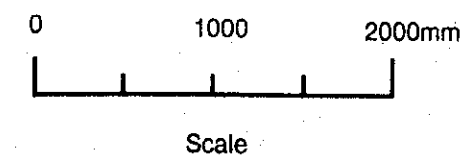
Dimension of Canals (mm)

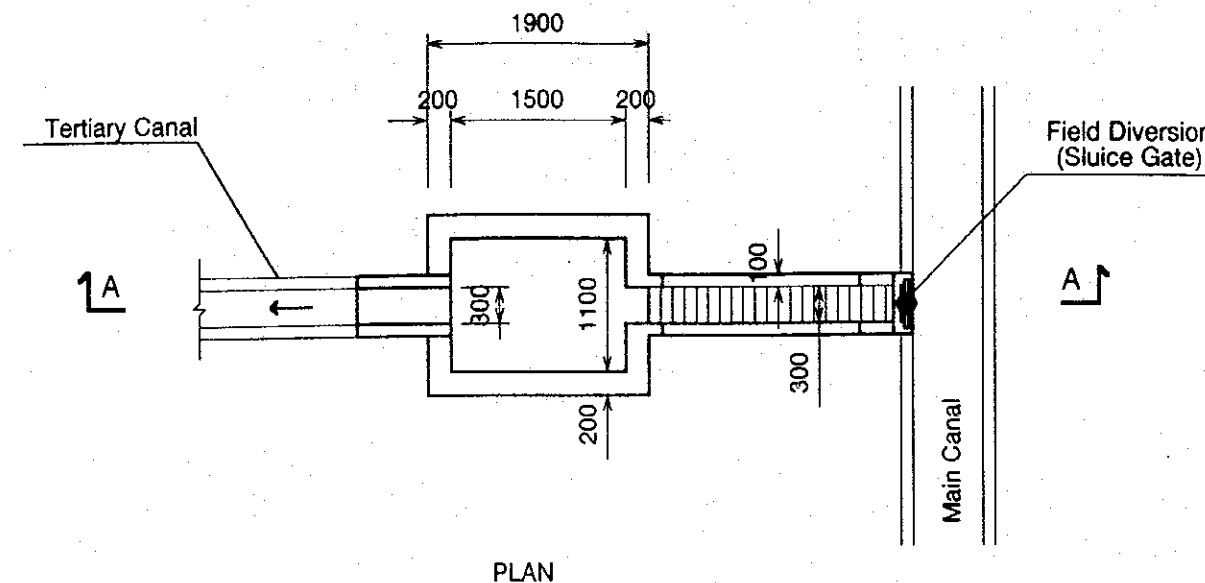
Type	B	H	t
Type-1	400	300	100
Type-2	450	350	100
Type-3	500	400	100
Type-4	550	450	100
Type-5	600	500	150
Type-6	700	600	150
Type-7	800	700	150
Type-8	850	750	150

TYPICAL CROSS SECTION OF MAIN / SECONDARY CANAL

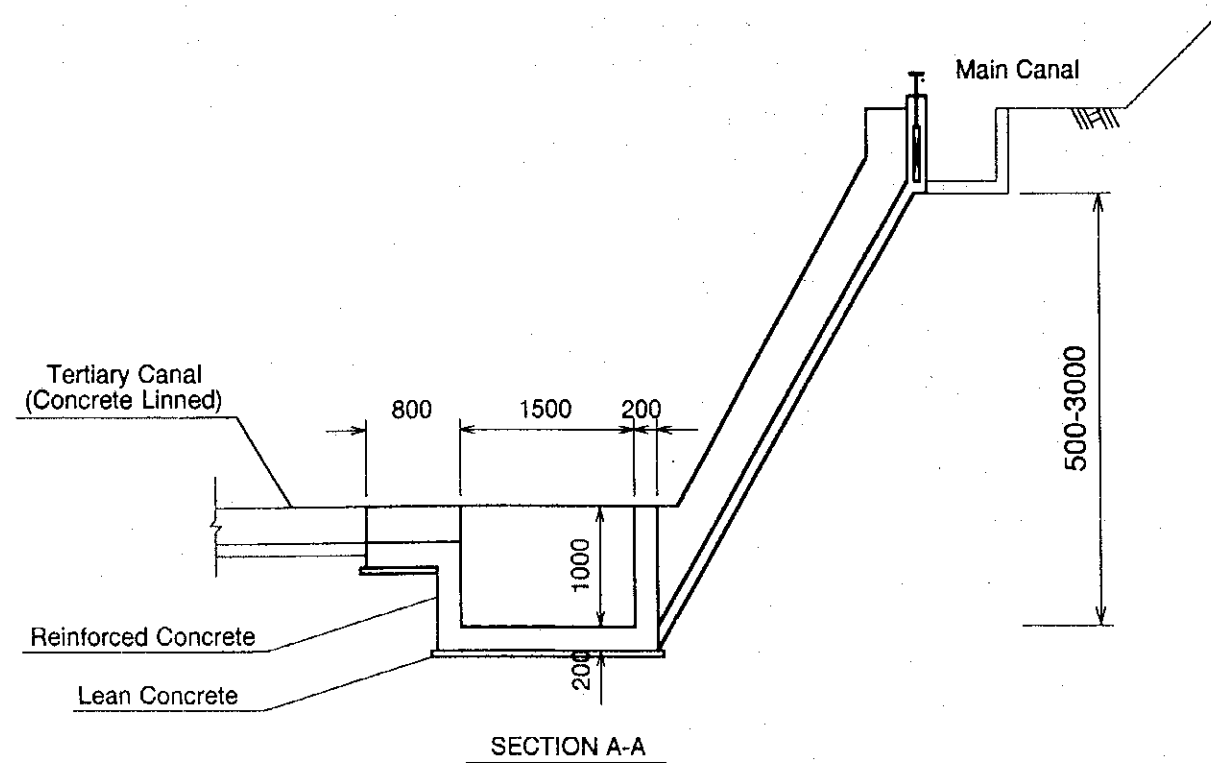


FIELD DIVERSION BOX



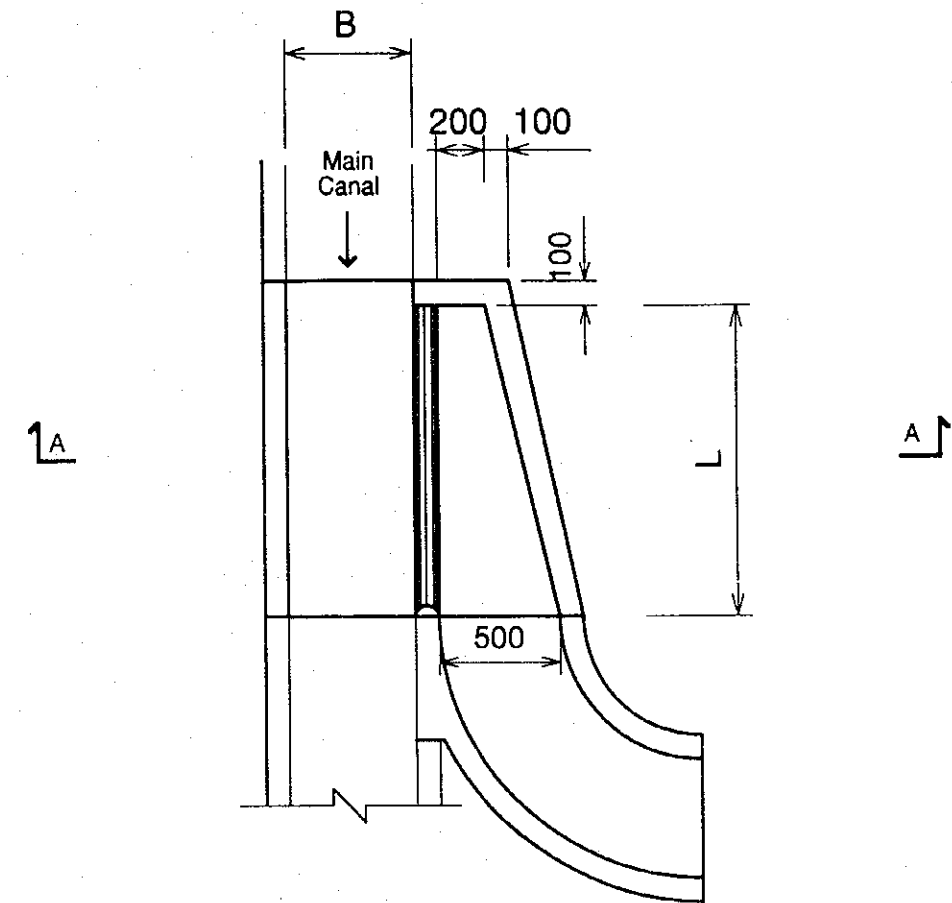
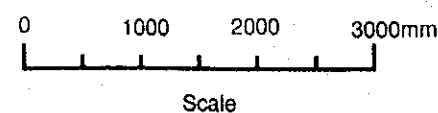


PLAN

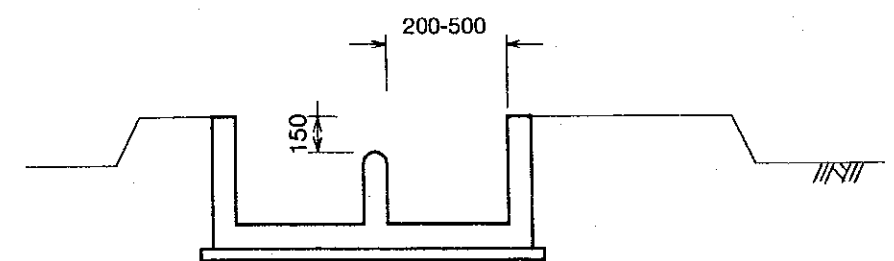


SECTION A-A

FIELD DIVERSION
(INTEGRATED SMALL SHOOT TYPE)

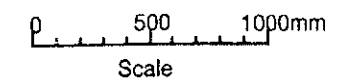


PLAN



SECTION A-A

ESCAPE



Dimension of Escaps (mm)

Type	Canal Type	L
Type-1	Type-1, -2	900
Type-2	Type-3, -4, -5	1300
Type-3	Type-6, -7	2000

DEPARTMENT OF IRRIGATION / MINISTRY OF WATER RESOURCES THE KINGDOM OF NEPAL	
THE REHABILITATION FOR GOVERNMENT DEVELOPED IRRIGATION SCHEMES IN THE KATHMANDU VALLEY	
TITLE: RELATED CANAL STRUCTURES	
JAPAN INTERNATIONAL COOPERATION AGENCY	
DRG. No. F - 2	PLATE No. 39

