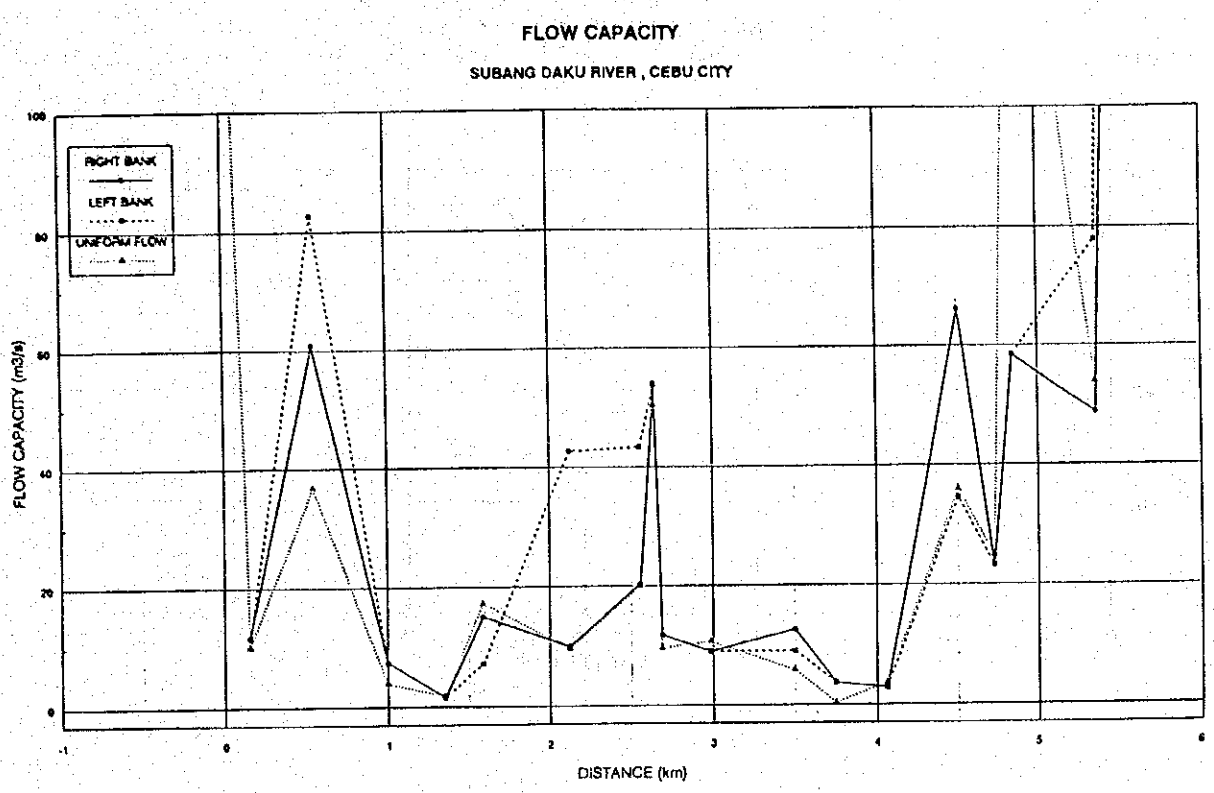
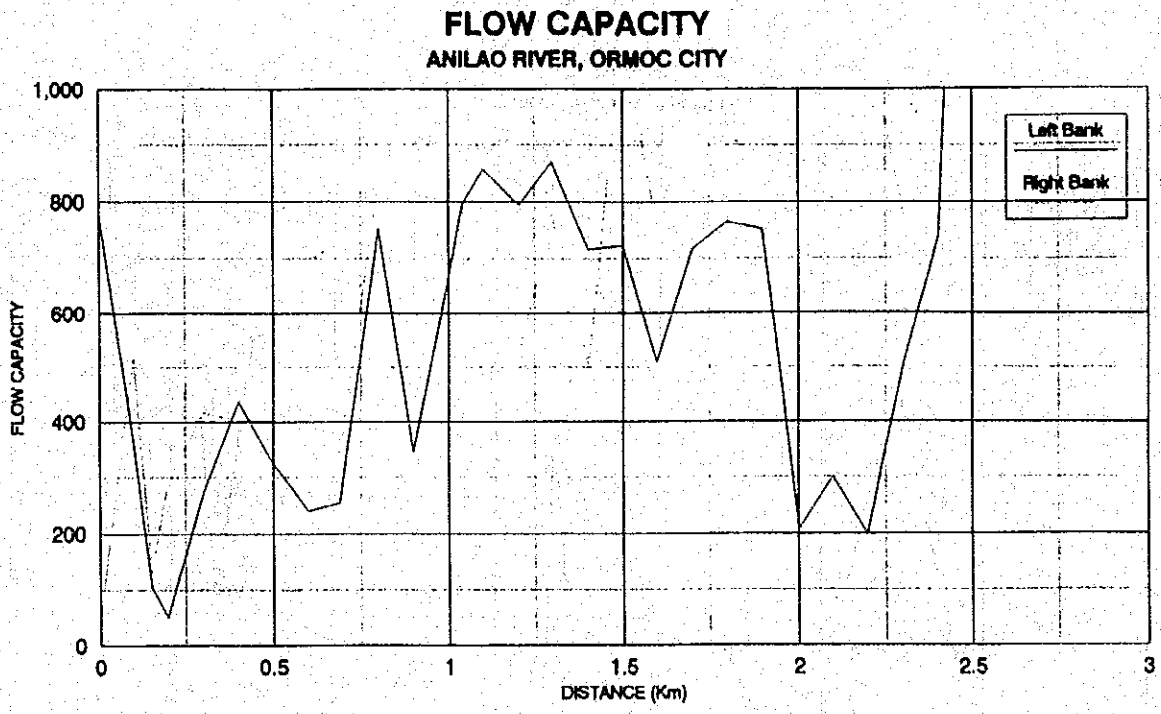
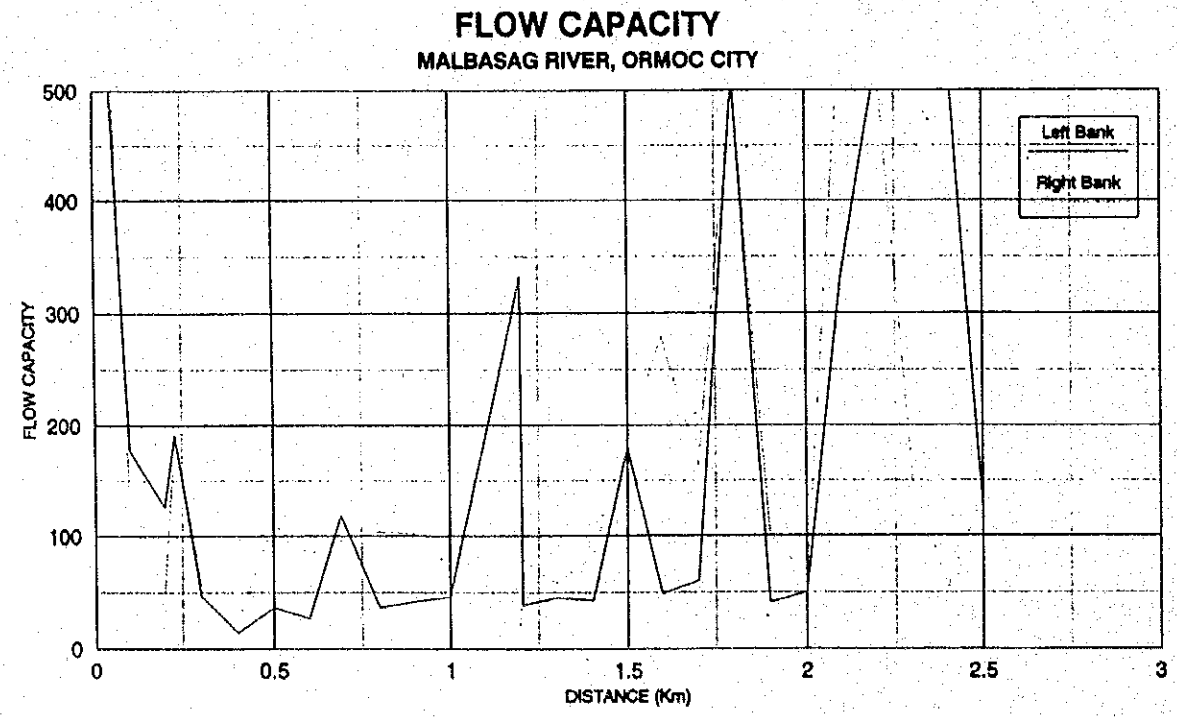
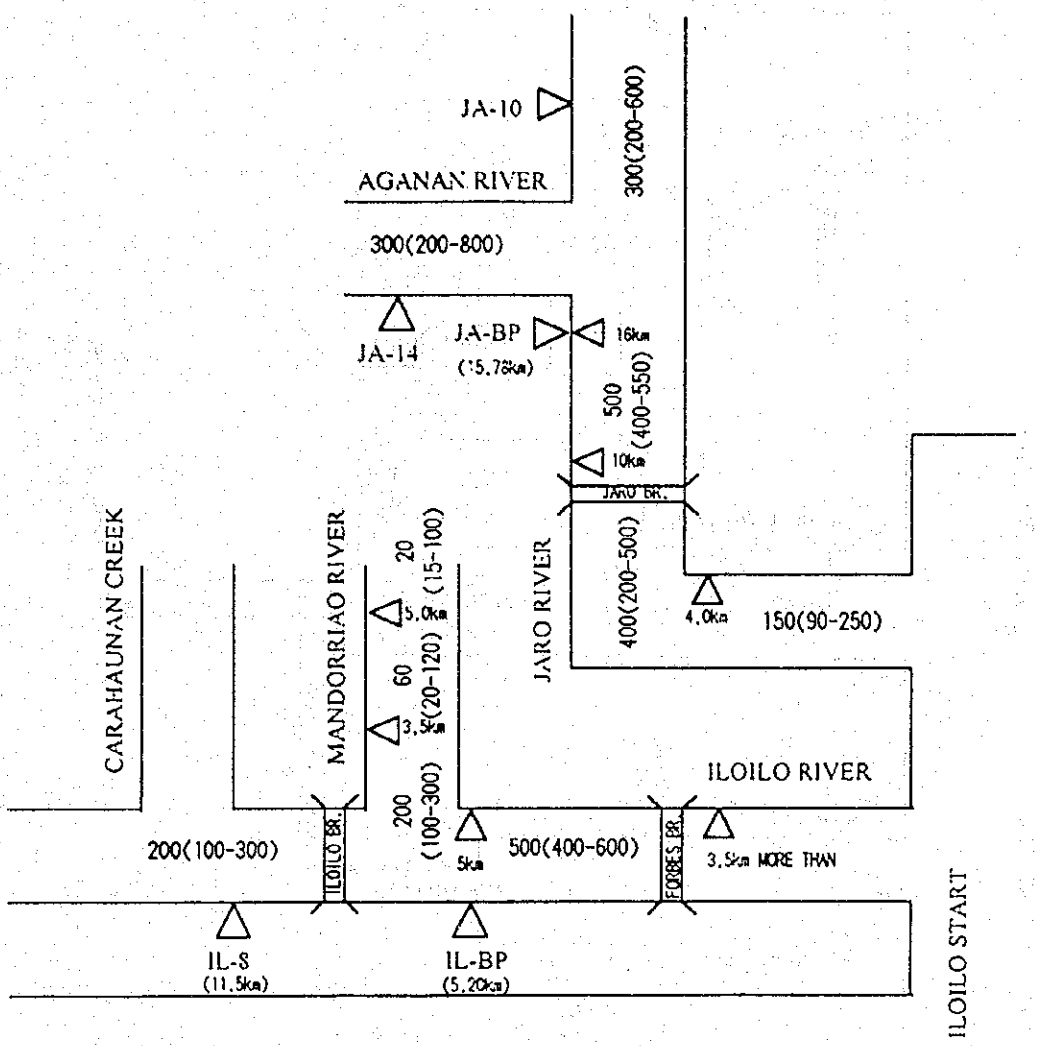


THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.12(5/6) Flow Capacity (Subang Daku River)





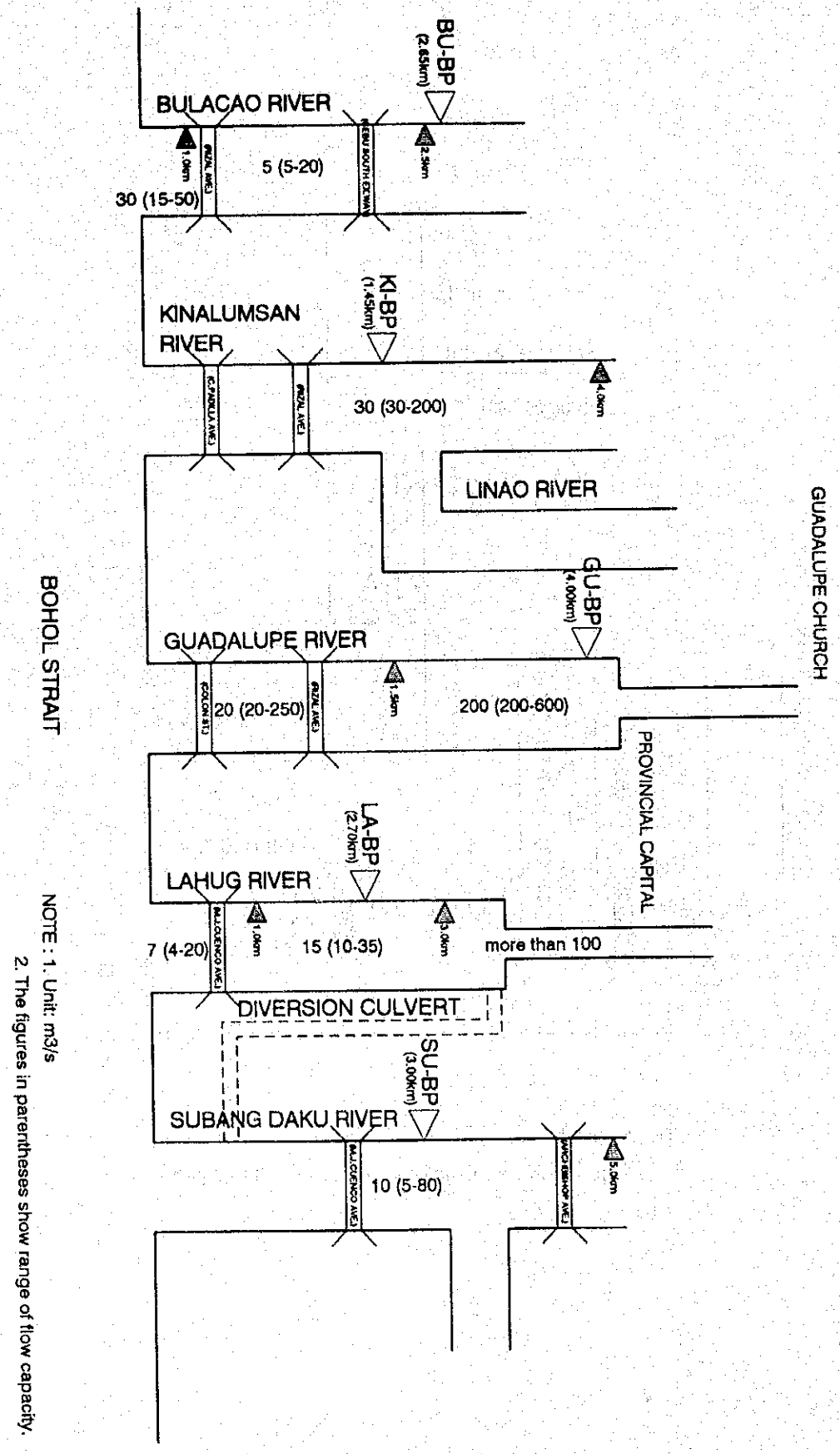
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.12(6/6) Flow Capacity (Anilao River and Malbasag River)



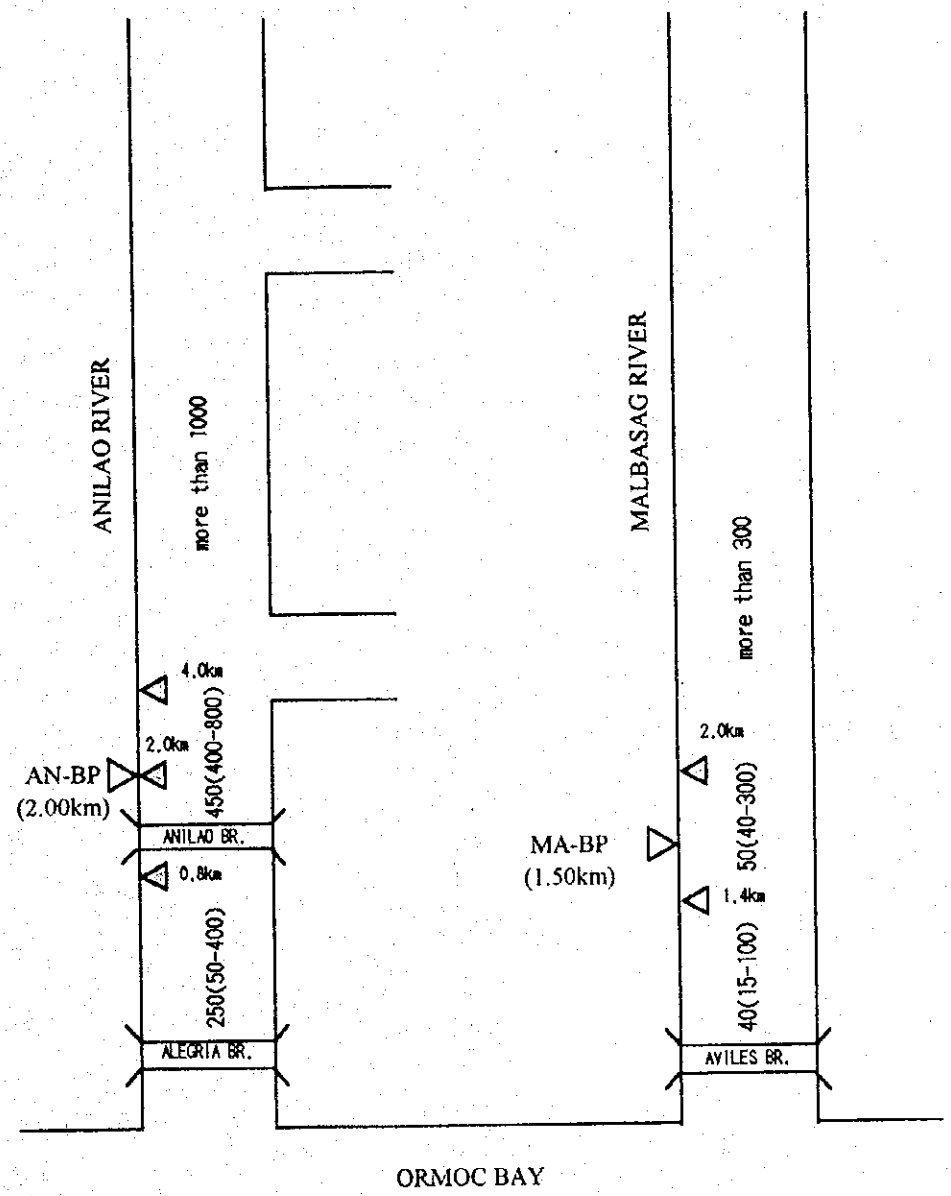
NOTE : 1. Unit: m3/s

2. The figures in parentheses show range of flow capacity.

THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.13(1/3) Summary of Flow Capacity (Iloilo)



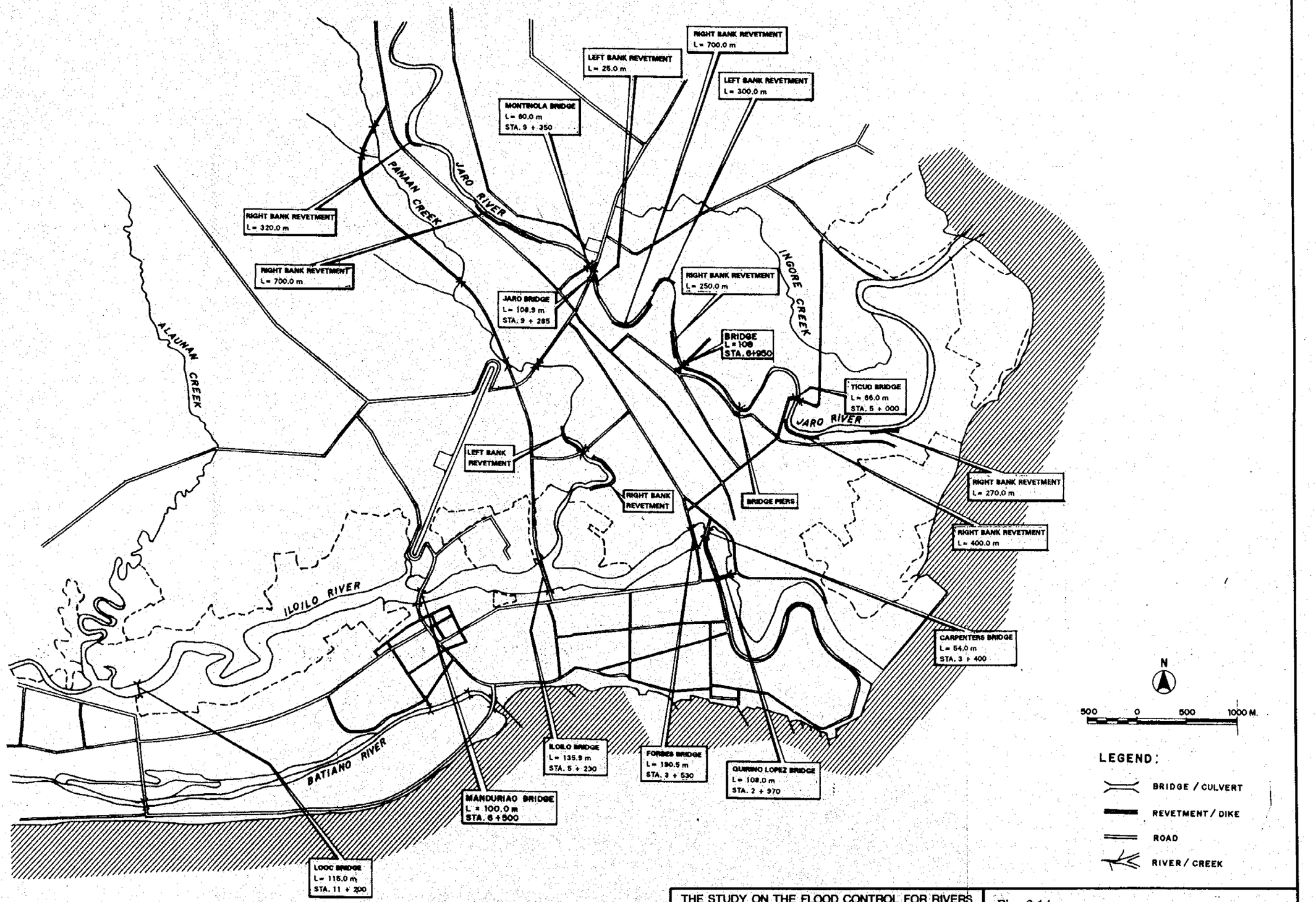
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.13(2/3) Summary of Flow Capacity (Cebu)



NOTE : 1. Unit: m3/s

2. The figures in parentheses show range of flow capacity.

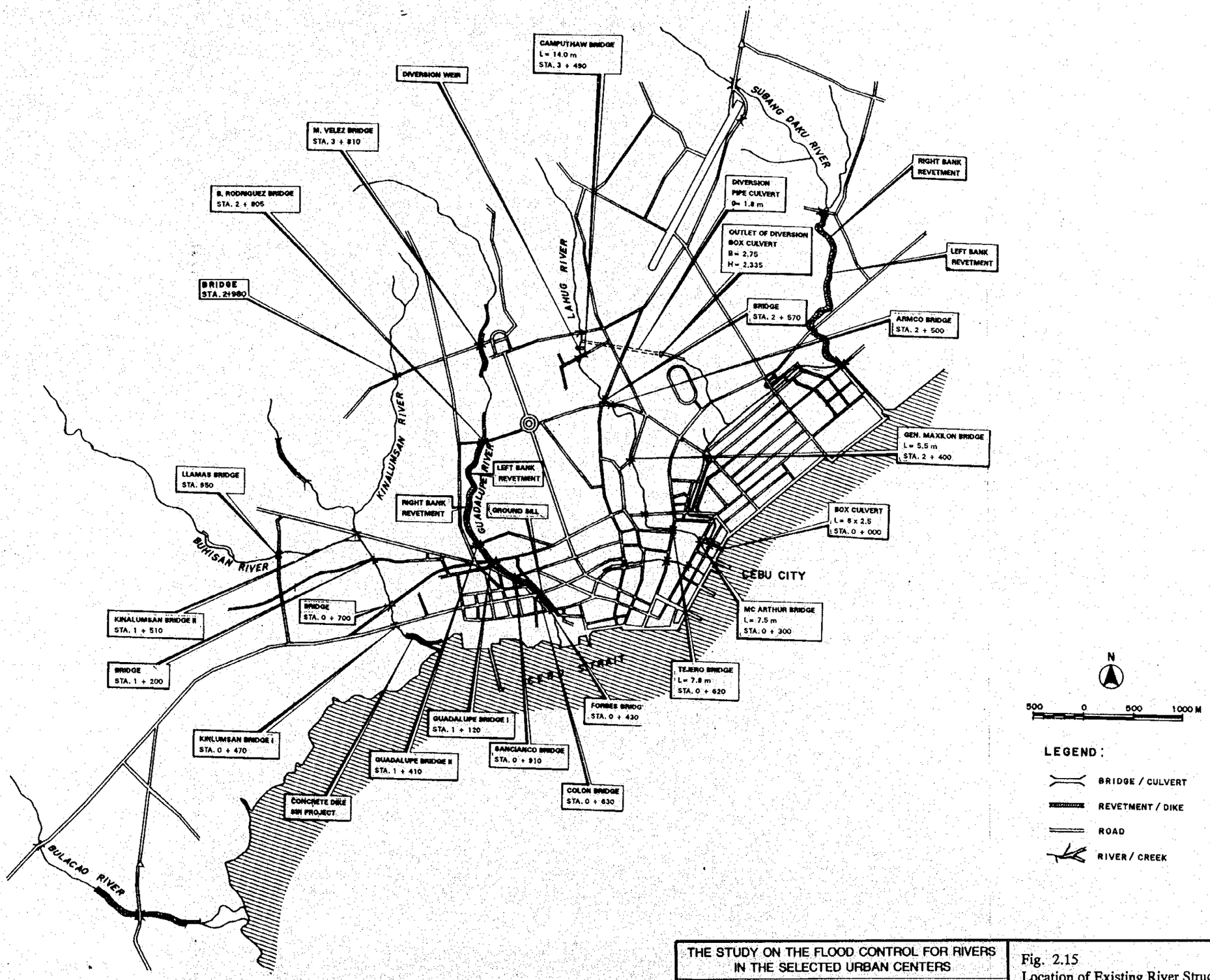
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.13(3/3) Summary of Flow Capacity (Ormoc)



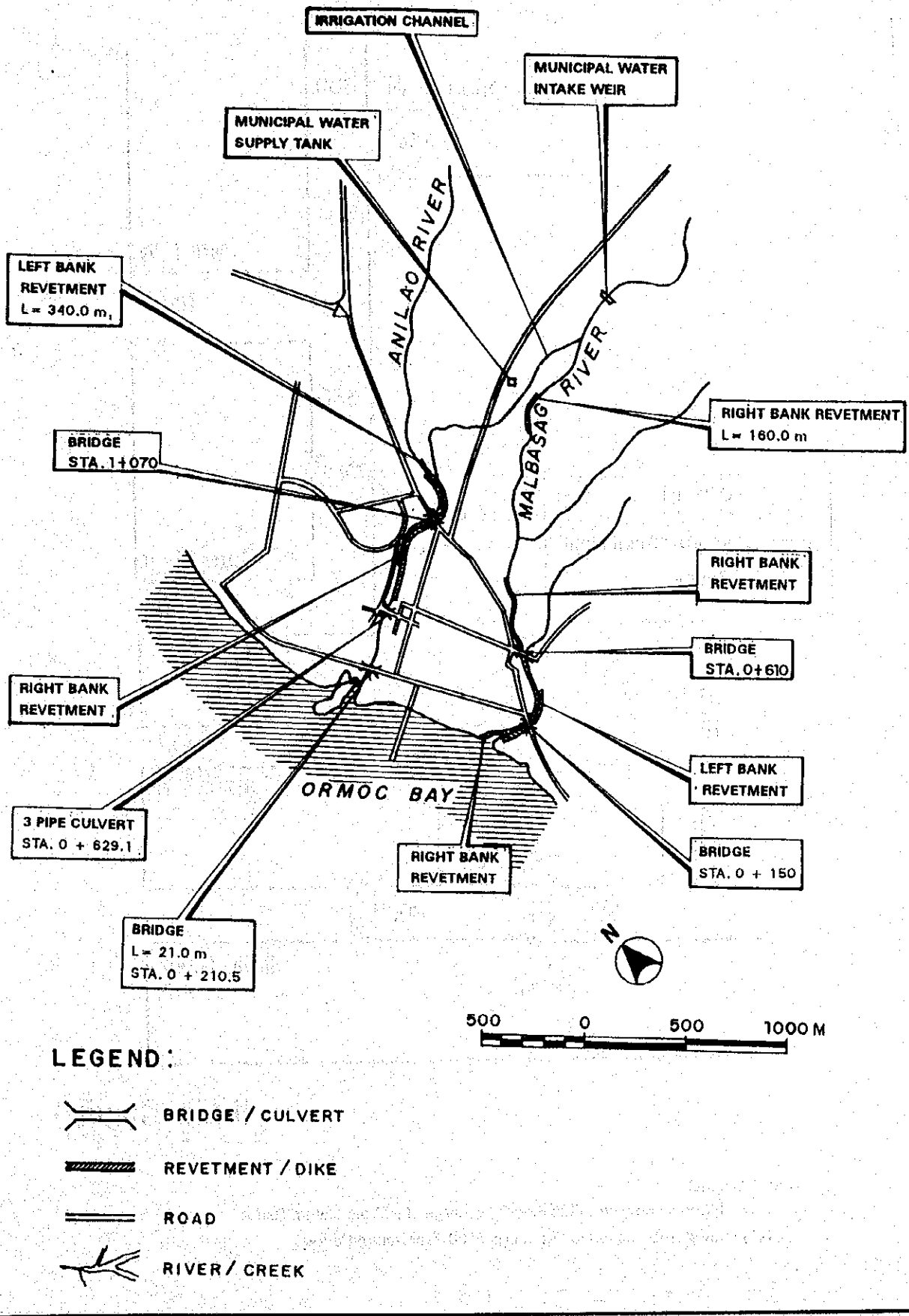
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

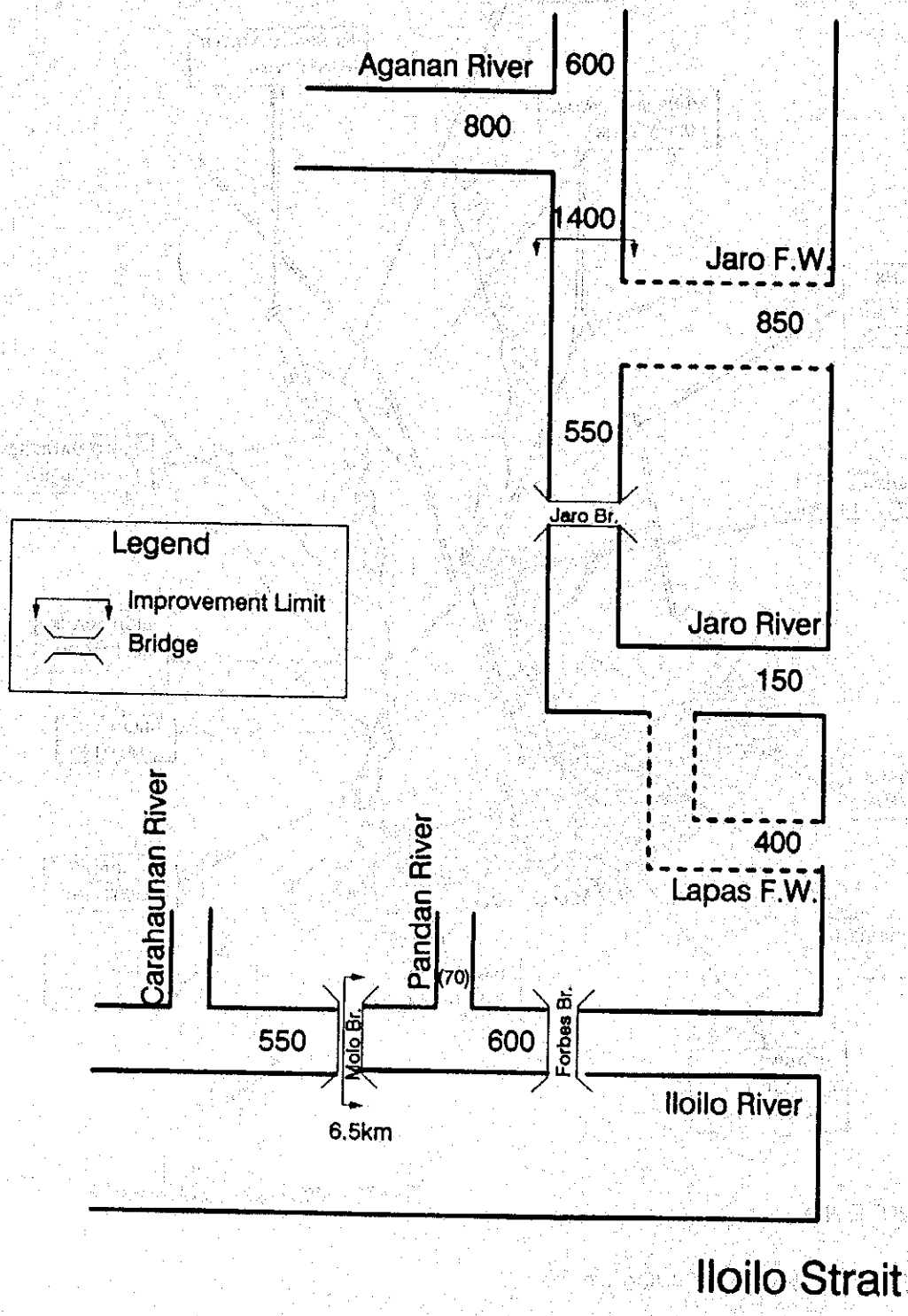
Fig. 2.14
Location of Existing River Structures (Iloilo)



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 2.15 Location of Existing River Structures (Cebu)
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.16 Location of Existing River Structures (Ormoc)

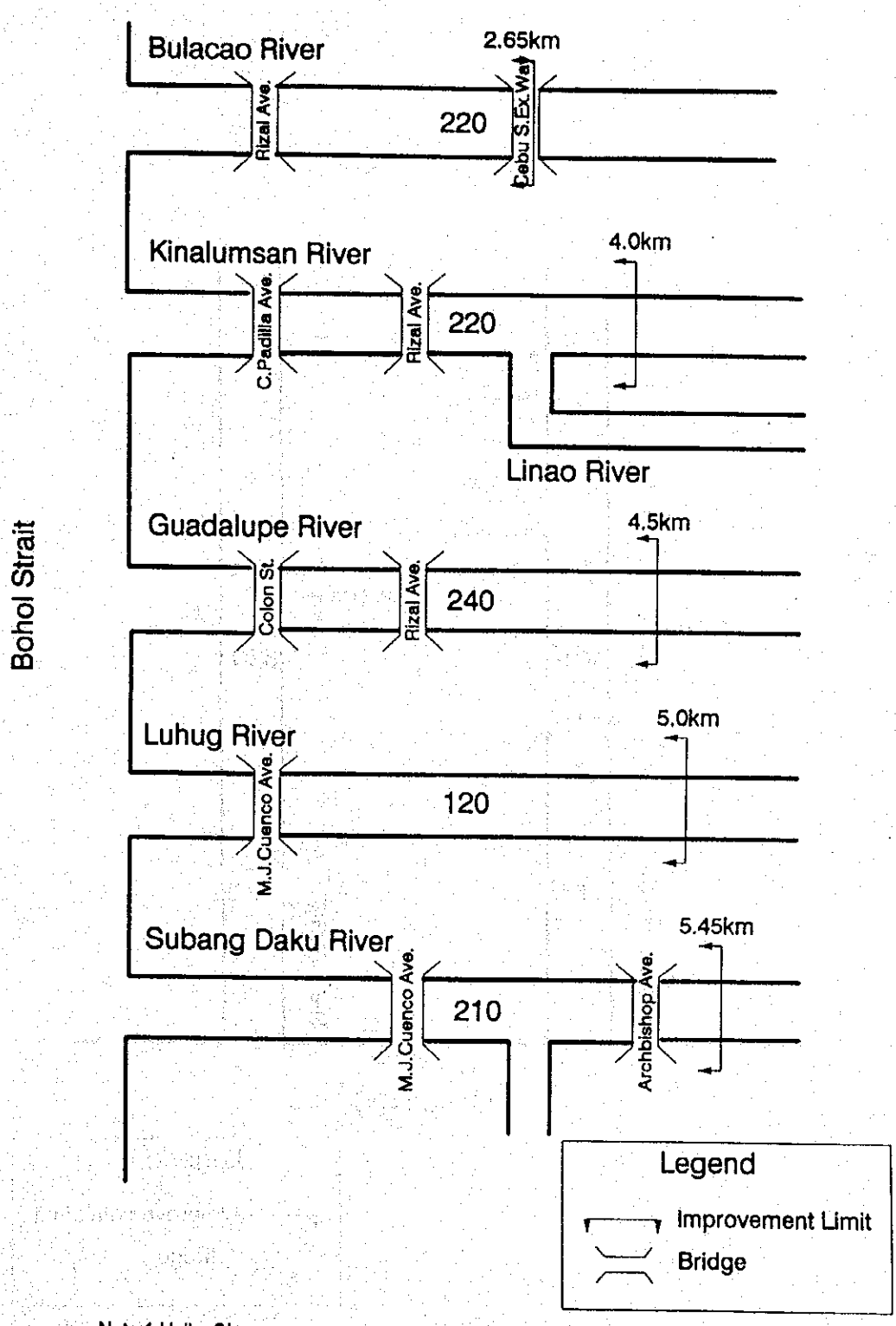


Note:1.Unit:m3/s

2.The Figures show probable Flood Discharge of 50-Year Return Period

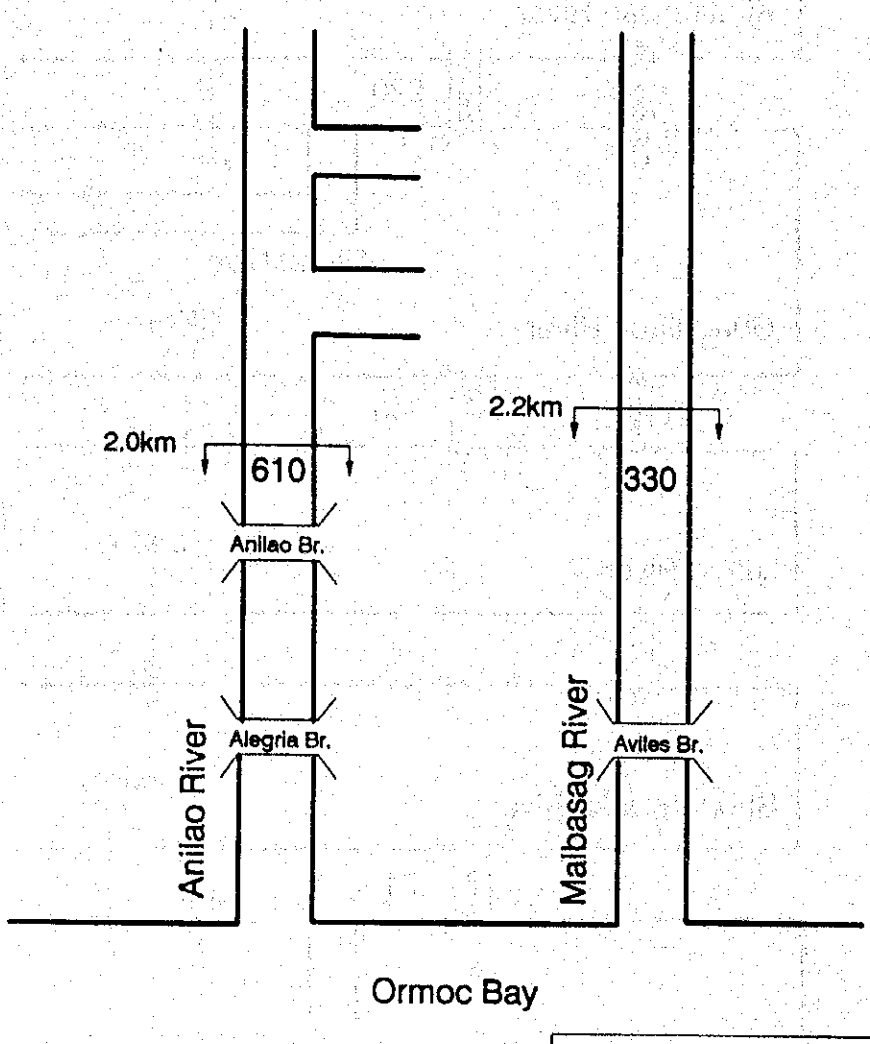
3.( ) shows probable Flood Discharge of 20-Year Return Period

THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.1(1/3) Distribution of Design Discharge (Iloilo)



Note:1.Unit:m3/s
2.The Figures show probable Flood Discharge of 50-Year Return Period

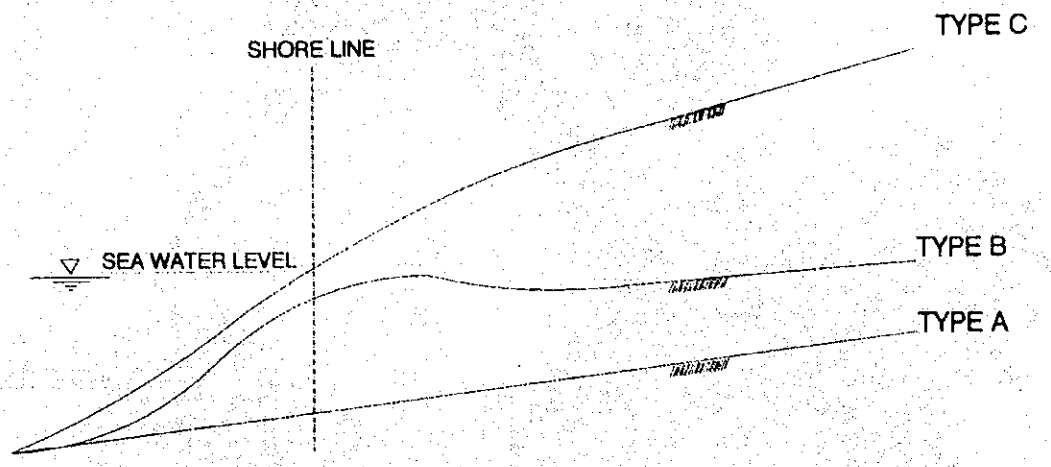
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.1(2/3) Distribution of Design Discharge (Cebu)



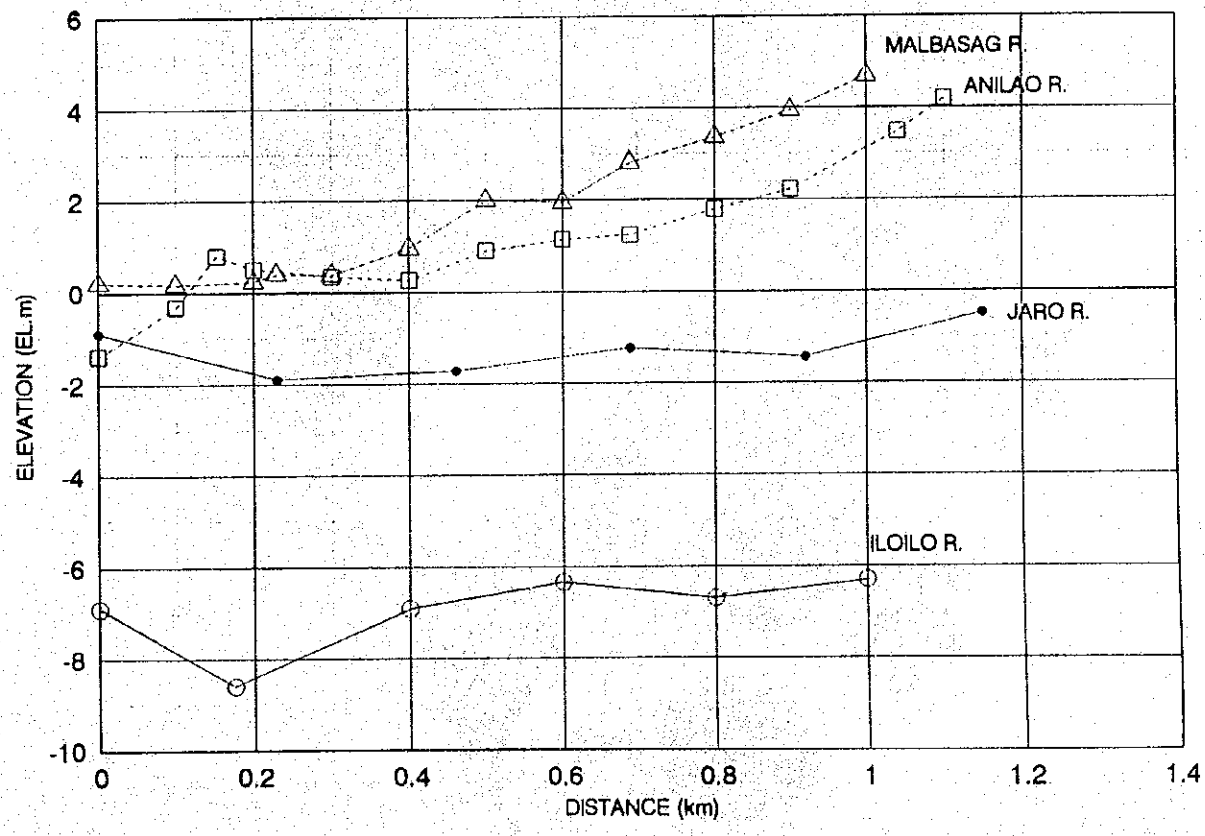
Note:1.Unit:m3/s
2.The Figures show probable Flood Discharge of 50-Year Return Period

THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.1(3/3) Distribution of Design Discharge (Ormoc)

CLASSIFICATION OF RIVERBED PROFILE AT RIVER MOUTH

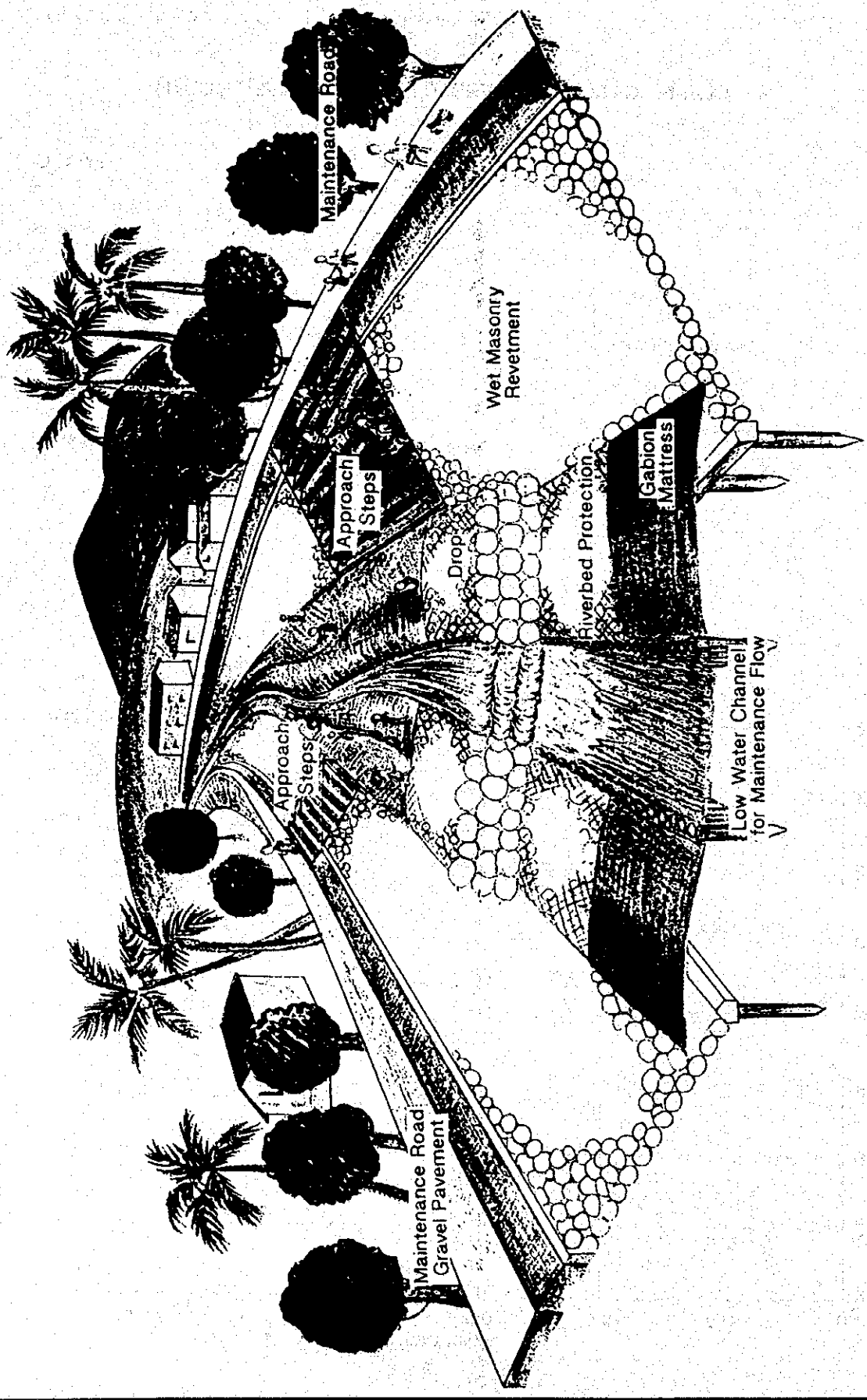


EXISTING RIVERBED PROFILE AT RIVER MOUTH

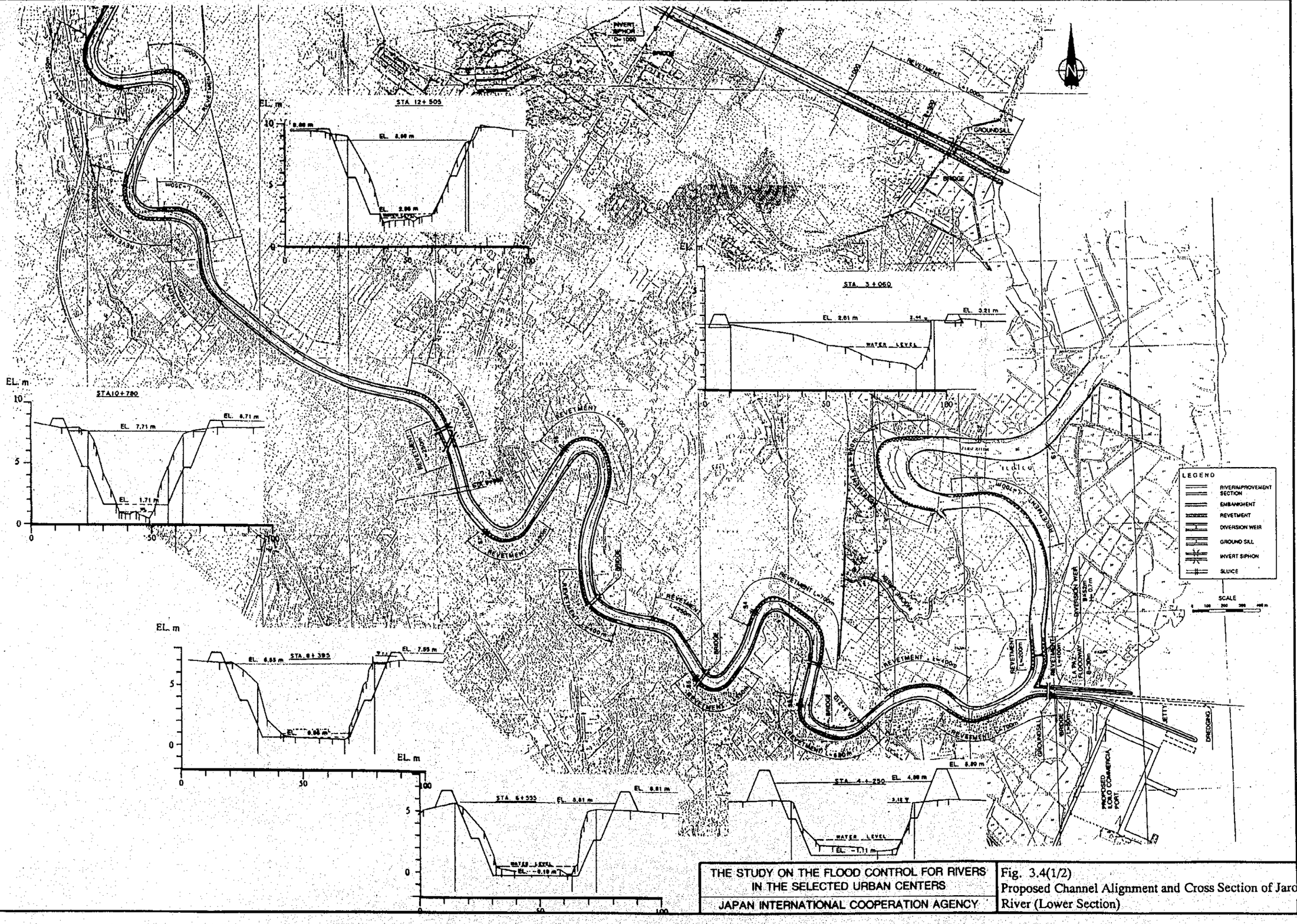


THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.2 Riverbed Profile at The River Mouth

Fig 3.2



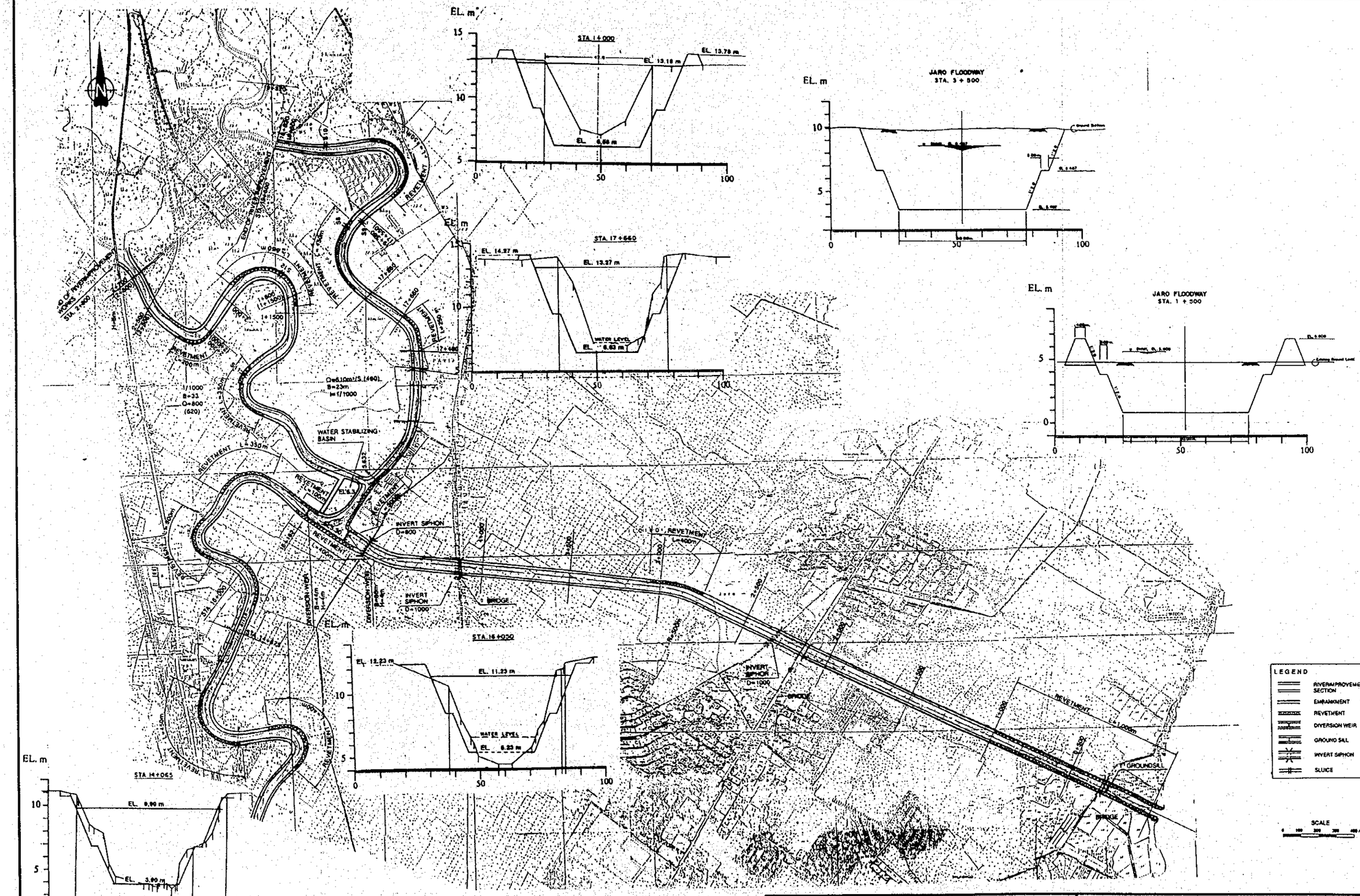
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.3 Image Perspective of Environmental Design for Rivers
JAPAN INTERNATIONAL COOPERATION AGENCY	



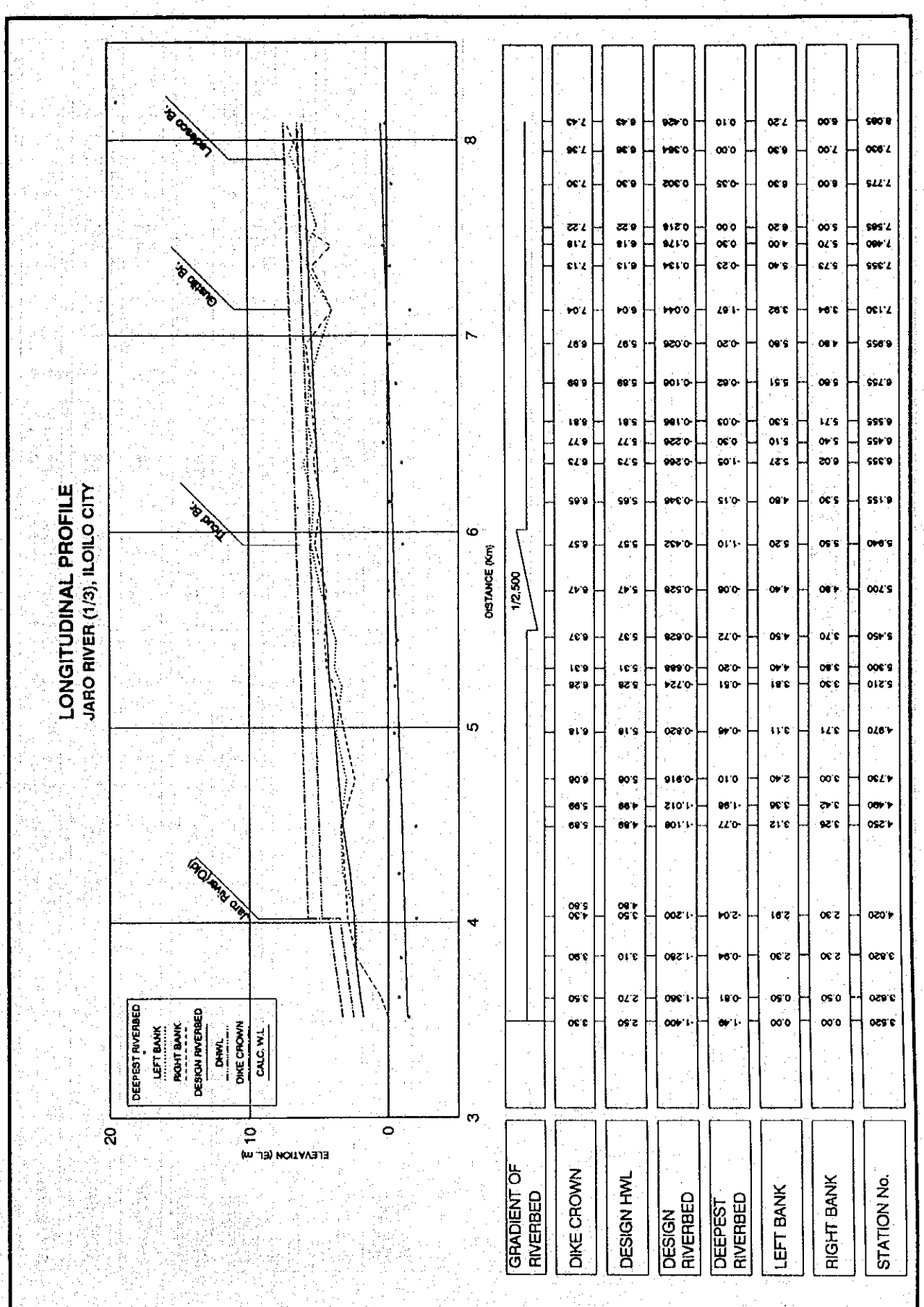
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

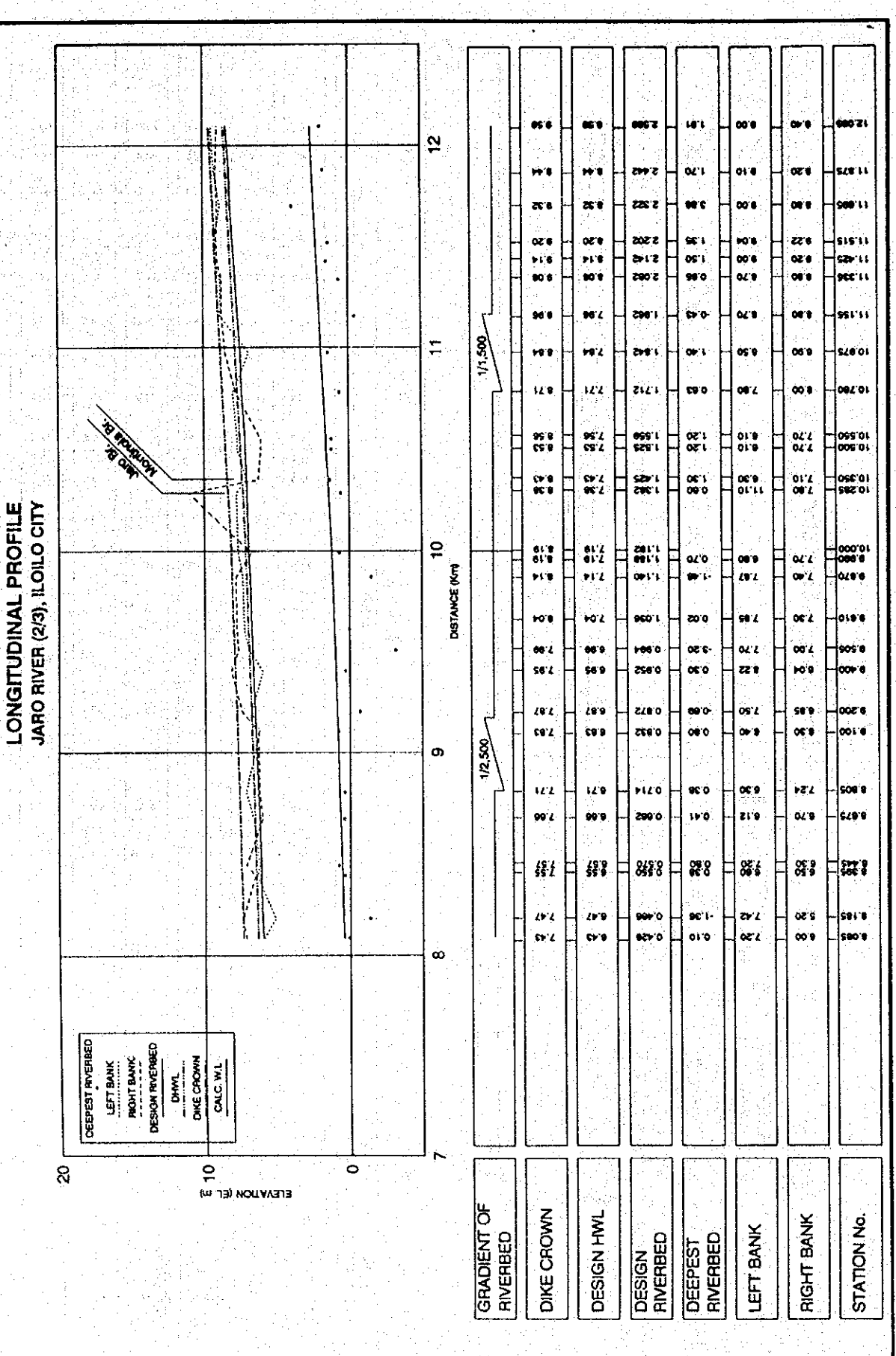
Fig. 3.4(1/2)
Proposed Channel Alignment and Cross Section of Jaro River (Lower Section)



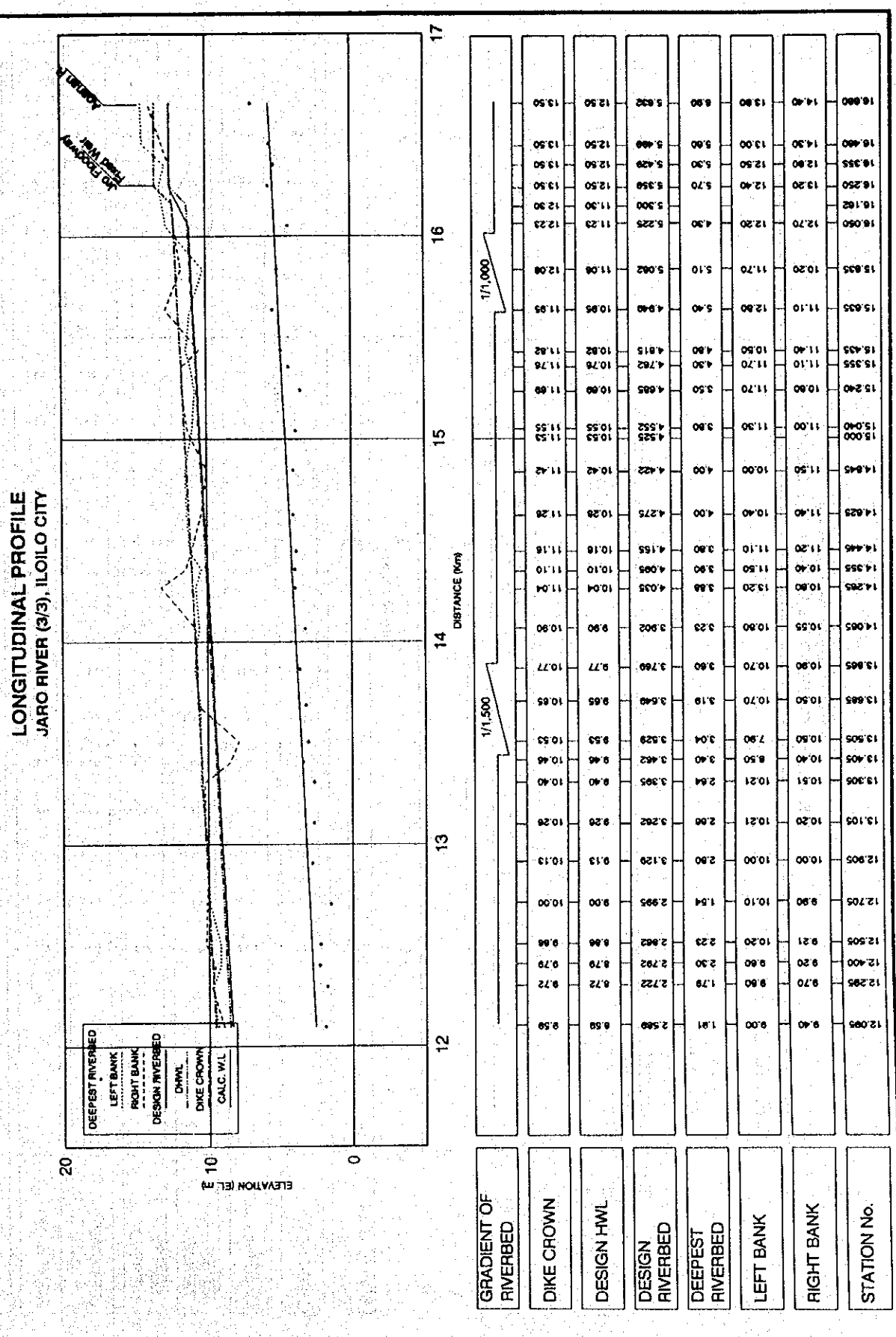
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.4(2/2) Proposed Channel Alignment and Cross Section of Jaro River (Upper Section and Jaro Floodway)
JAPAN INTERNATIONAL COOPERATION AGENCY	



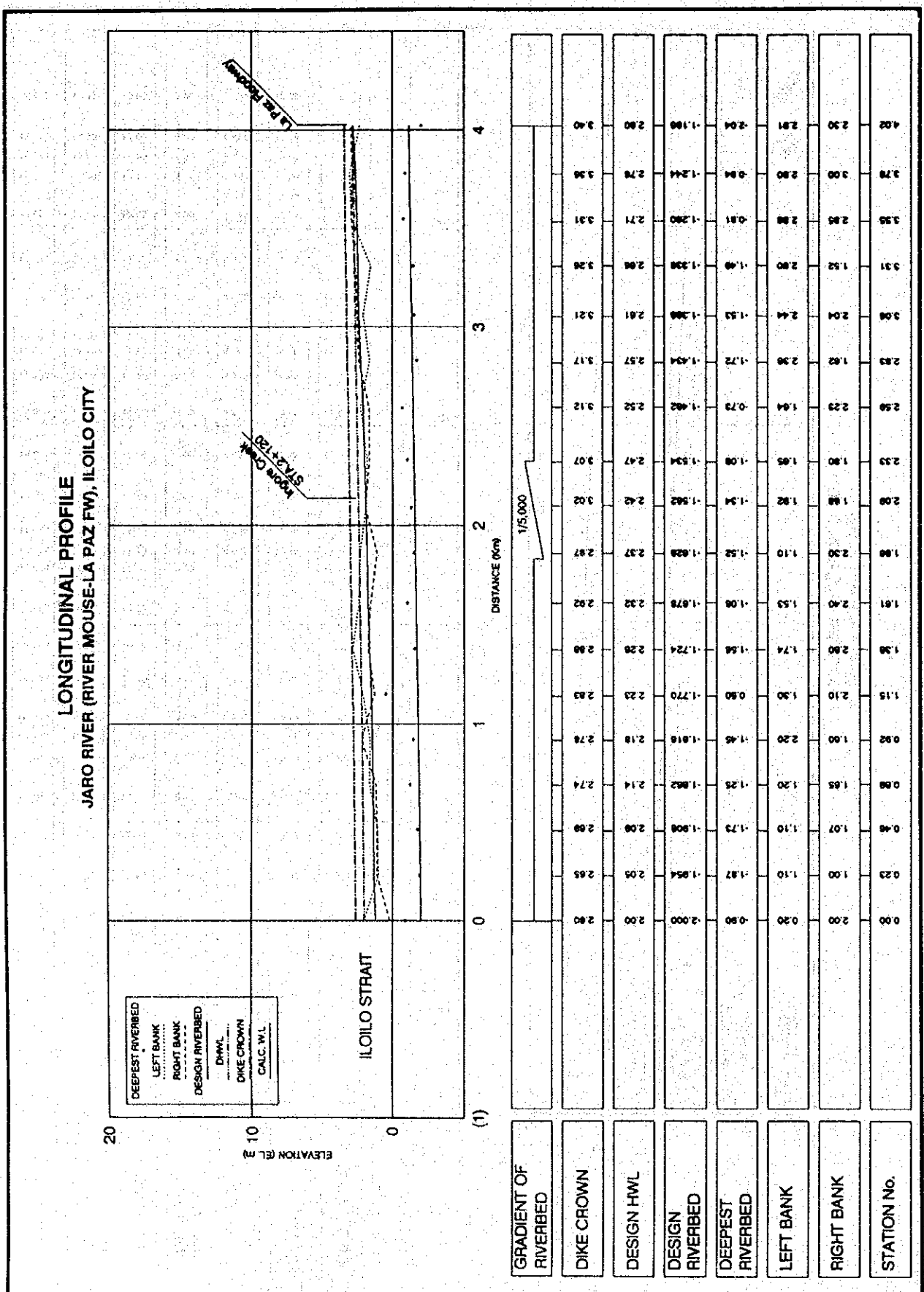
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.5(1/7) Longitudinal Profile of Jaro River (La Paz Floodway - Jaro River STA. 8.085)
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.5(2/7) Longitudinal Profile of Jaro River (Jaro River : STA. 8.085 - STA. 12.095)
JAPAN INTERNATIONAL COOPERATION AGENCY	

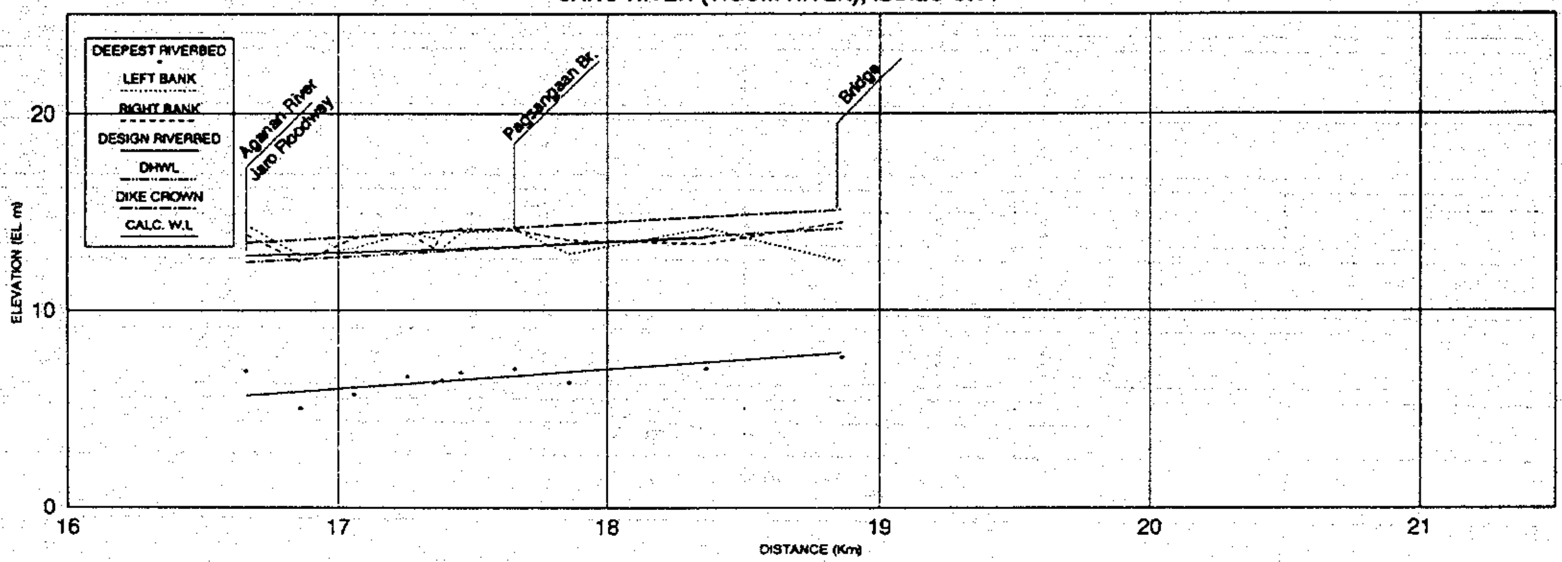


THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.5(3/7) Longitudinal Profile of Jaro River (Jaro River : STA. 12.095 - STA. 16.660)
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.5(4/7) Longitudinal Profile of Jaro River (Jaro River : STA. 0.000 - STA. 4.020)
JAPAN INTERNATIONAL COOPERATION AGENCY	

LONGITUDINAL PROFILE
JARO RIVER (TIGUM RIVER), ILOILO CITY

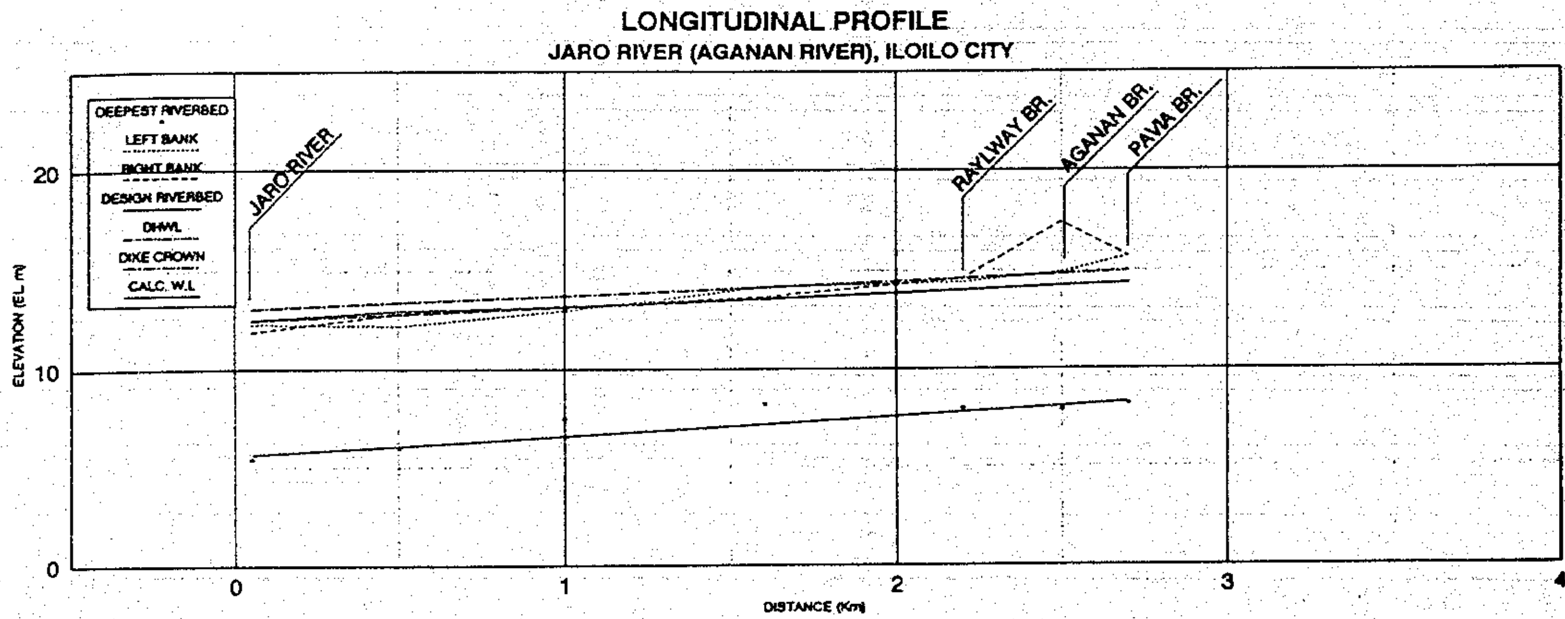


GRADIENT OF RIVERBED	1/1,000										
DIKE CROWN	13.50	13.65	13.81	13.96	14.04	14.06	14.12	14.27	14.42	14.81	15.19
DESIGN HWL	12.50	12.65	12.81	12.96	13.04	13.06	13.12	13.27	13.42	13.81	14.19
DESIGN RIVERBED	5.632	5.832	6.032	6.232	6.332	6.362	6.432	6.632	6.832	7.332	7.832
DEEPEST RIVERBED	6.9	5.0	5.7	6.6	6.3	6.4	6.8	7.0	6.3	7.0	7.6
LEFT BANK	13.9	12.5	13.7	14.0	13.2	14.0	14.2	14.1	13.6	13.4	14.5
RIGHT BANK	14.4	12.6	13.2	14.0	13.7	13.2	14.0	14.1	12.9	14.2	12.5
STATION No.	16.66	16.86	17.06	17.26	17.36	17.38	17.46	17.66	17.86	18.36	18.86

THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 3.5(5/7)
Longitudinal Profile of Jaro River (Tigum River)

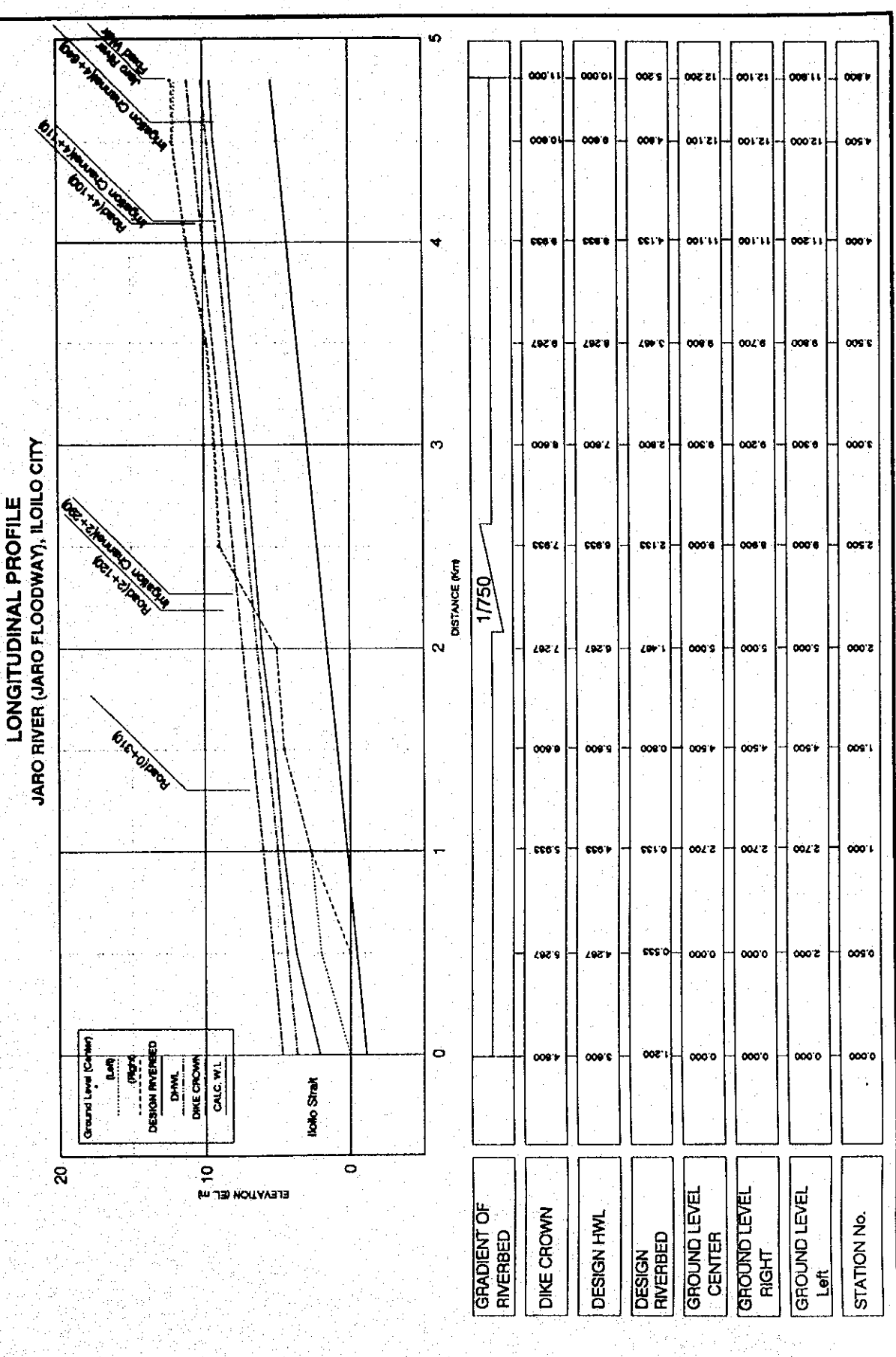


GRADIENT OF RIVERBED	1/1,000						
DIKE CROWN	13.10	13.42	13.78	14.21	14.64	14.85	14.90
DESIGN HWL	12.50	12.82	13.18	13.61	14.04	14.25	14.30
DESIGN RIVERBED	5.832	6.082	6.582	7.182	7.782	8.082	8.282
DEEPEST RIVERBED	5.4	6.0	7.5	8.2	8.0	7.9	8.2
LEFT BANK	11.8	12.8	13.2	13.7	14.8	17.4	15.7
RIGHT BANK	12.3	12.2	13.0	14.2	14.4	14.8	15.7
STATION No.	0.05	0.50	1.00	1.60	2.20	2.50	2.70

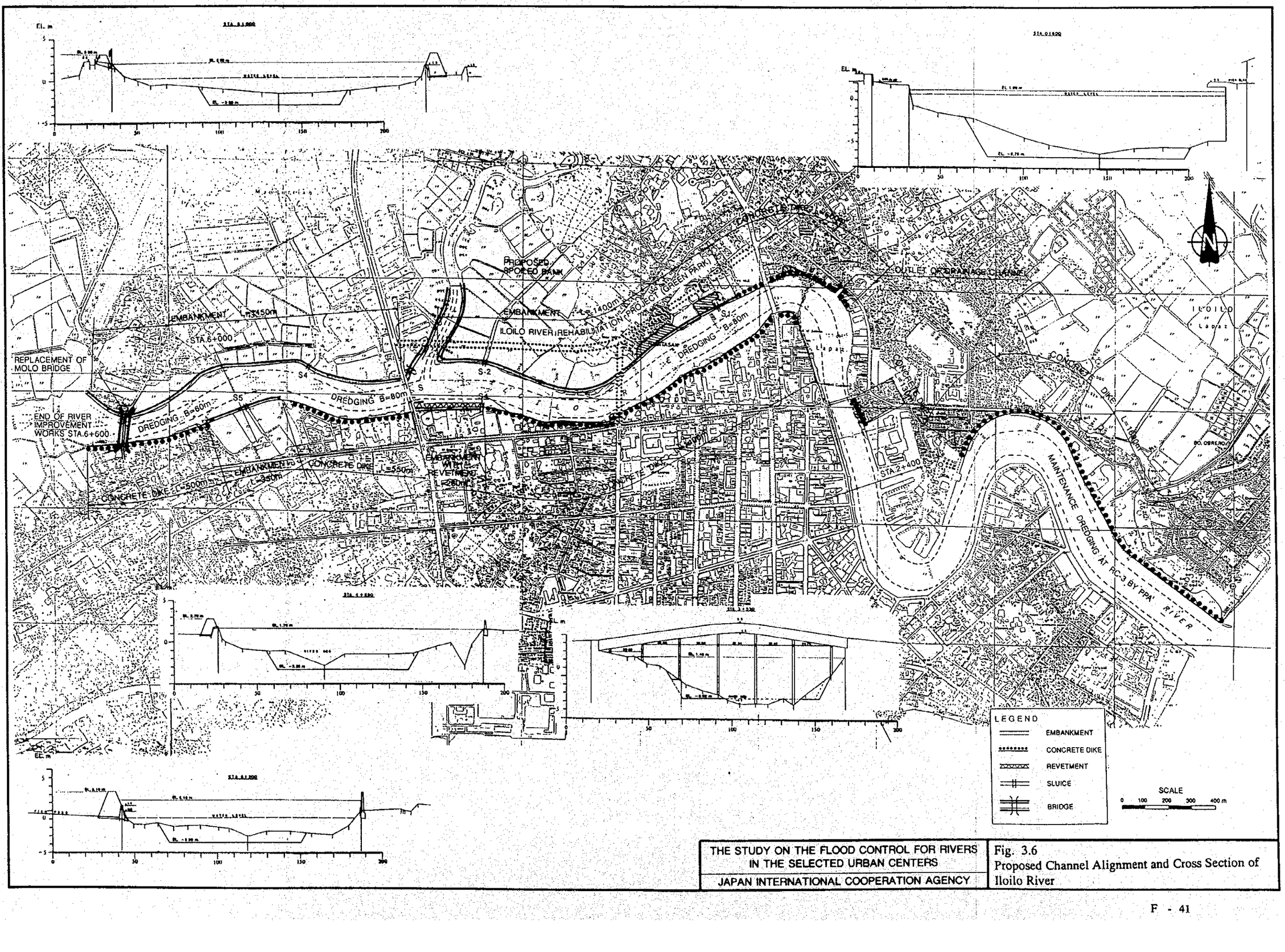
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 3.5(6/7)
Longitudinal Profile of Jaro River (Aganan River)



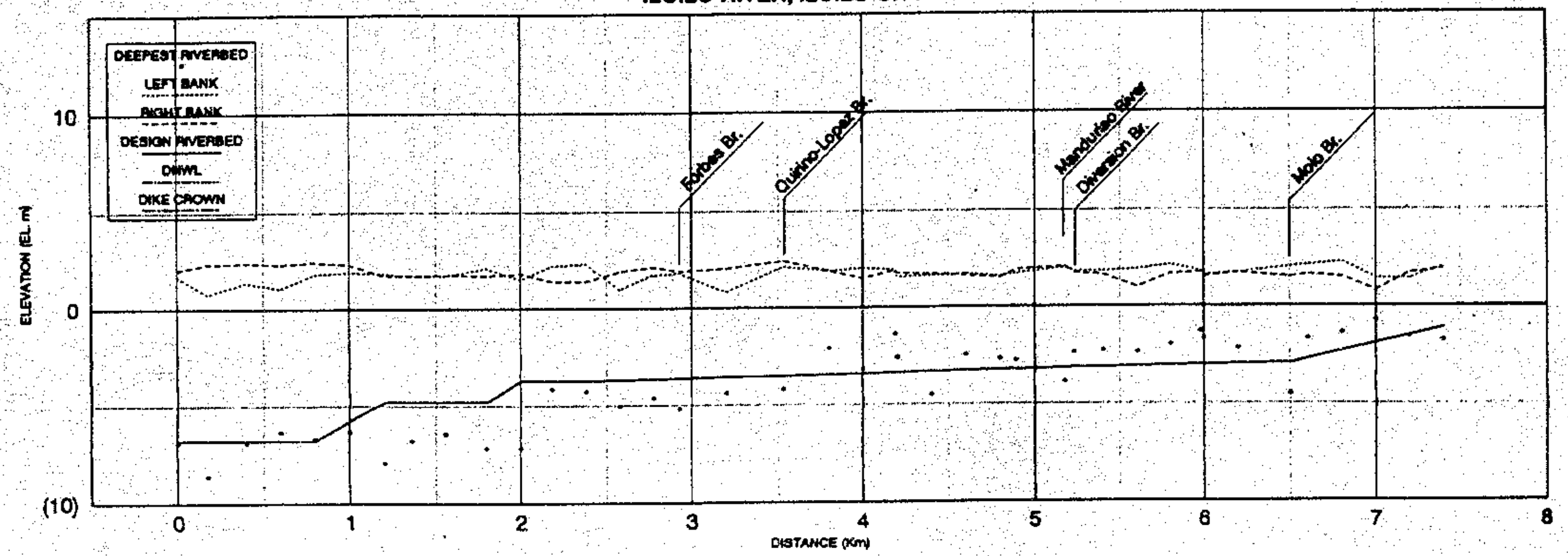
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.5(7/7) Longitudinal Profile of Jaro River (Jaro Floodway)
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.6 Proposed Channel Alignment and Cross Section of Iloilo River
JAPAN INTERNATIONAL COOPERATION AGENCY	

LONGITUDINAL PROFILE

ILOILO RIVER, ILOILO CITY



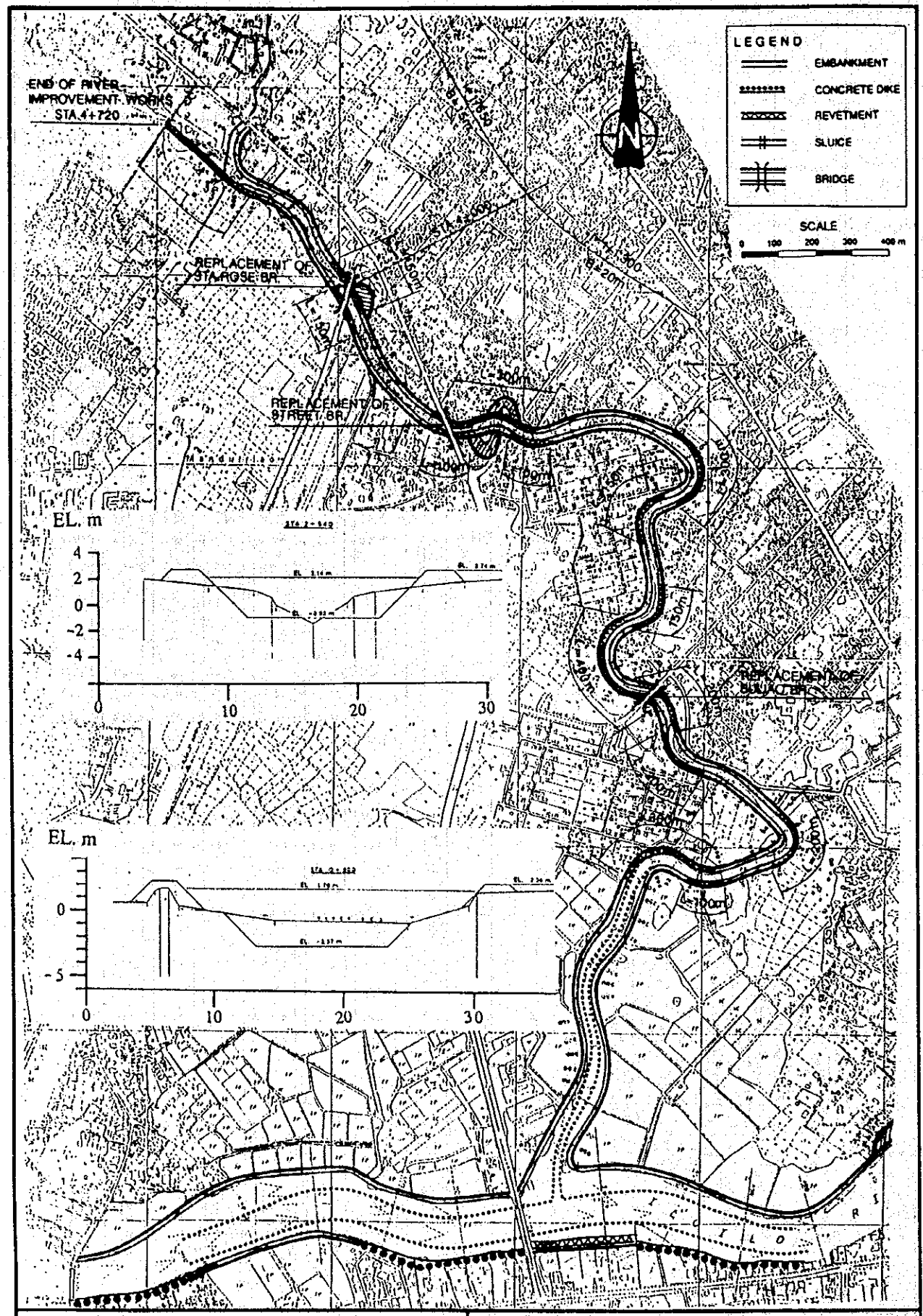
GRADIENT OF RIVERBED: Dredging Area by PPA; 1/5,000; 1/500

STATION No.	DIKE CROWN	DESIGN HWL	DESIGN RIVERBED	DEEPEST RIVERBED	LEFT BANK	RIGHT BANK
0.000	2.200	1.200	-6.750	-6.60	2.00	1.70
0.175	2.200	1.200	-6.750	-6.60	2.32	0.78
0.400	2.200	1.200	-6.750	-6.90	2.37	1.36
0.600	2.200	1.200	-6.750	-6.34	2.30	1.07
0.800	2.200	1.200	-6.750	-6.69	2.40	1.79
1.000	2.200	1.200	-5.750	-6.30	2.30	1.90
1.200	2.200	1.200	-4.750	-7.92	1.70	1.83
1.360	2.200	1.200	-4.750	-6.79	1.70	1.70
1.555	2.200	1.200	-4.750	-6.42	1.74	1.71
1.800	2.200	1.200	-4.750	-7.22	1.70	2.08
2.000	2.200	1.200	-3.750	-7.20	1.80	1.50
2.160	2.200	1.200	-3.750	-4.17	1.40	2.20
2.360	2.200	1.200	-3.750	-4.28	1.40	2.30
2.577	2.239	1.239	-3.711	-5.05	1.00	0.98
2.772	2.278	1.278	-3.672	-4.59	2.10	1.70
2.927	2.309	1.309	-3.641	-5.20	1.80	1.80
3.200	2.364	1.364	-3.586	-4.40	2.03	0.80
3.530	2.430	1.430	-3.520	-4.20	2.43	2.10
3.800	2.484	1.484	-3.466	-2.10	1.90	1.80
4.000	2.524	1.524	-3.426	-3.20	1.50	2.00
4.180	2.562	1.562	-3.388	-1.40	1.80	1.91
4.200	2.564	1.564	-3.386	-2.60	1.75	1.58
4.400	2.604	1.604	-3.346	-4.50	1.70	1.62
4.600	2.644	1.644	-3.306	-2.50	1.80	1.70
4.800	2.684	1.684	-3.266	-2.70	1.46	1.55
4.880	2.702	1.702	-3.248	-2.80	1.90	1.70
5.180	2.790	1.790	-3.160	-3.90	2.07	1.88
5.230	2.777	1.777	-3.180	-2.40	1.72	1.80
5.400	2.833	1.833	-3.146	-2.30	1.60	1.80
5.600	2.900	1.900	-3.106	-2.40	0.96	1.86
5.800	2.967	1.967	-3.066	-2.00	1.63	2.10
5.980	3.027	2.027	-3.030	-1.90	1.70	1.80
6.000	3.033	2.033	-3.026	-1.70	1.53	1.68
6.200	3.100	2.100	-2.986	-2.20	1.71	1.70
6.500	3.200	2.200	-2.926	-4.50	1.50	2.00
6.600	3.233	2.233	-2.726	-1.70	1.60	2.10
6.800	3.300	2.300	-2.326	-1.40	1.50	2.27
7.000	3.367	2.367	-1.926	-0.74	0.78	1.36
7.200	3.433	2.433	-1.526	-1.60	1.86	1.36
7.400	3.500	2.500	-1.126	-1.80	1.90	2.00

THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

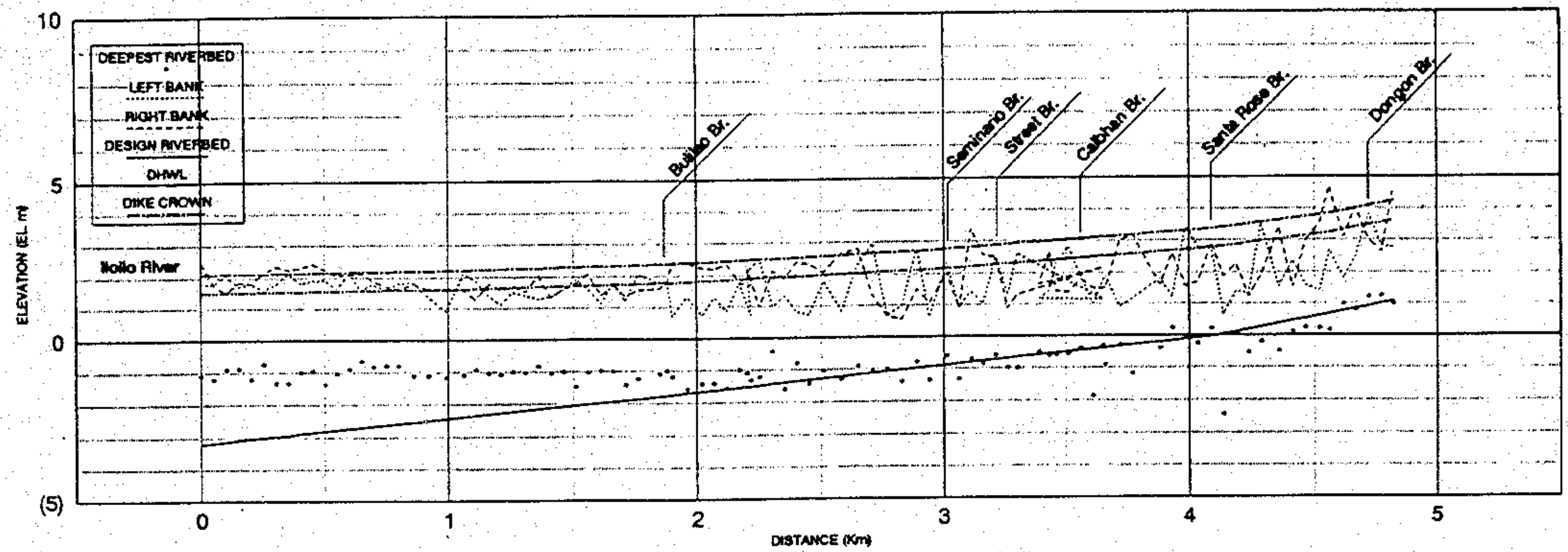
Fig. 3.7
Longitudinal Profile of Iloilo River



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.8 Proposed Channel Alignment and Cross Section of Mandurriao River
JAPAN INTERNATIONAL COOPERATION AGENCY	

LONGITUDINAL PROFILE

MANDURRIAO RIVER, ILOILO CITY



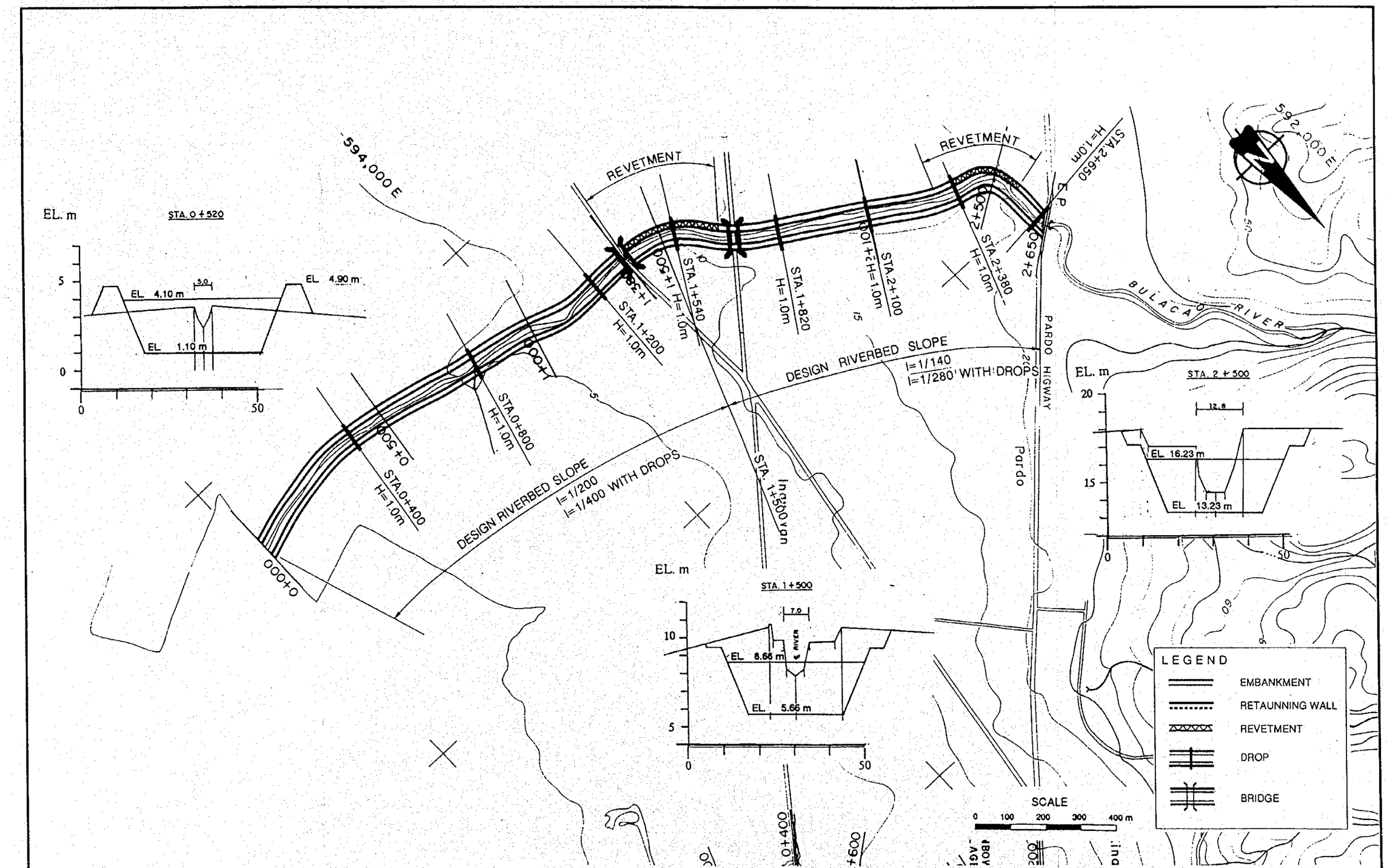
GRADIENT OF RIVERBED: 1/1,300 — 1/650

STATION No.	DIKE CROWN	DESIGN HWL	DESIGN RIVERBED	DEEPEST RIVERBED	LEFT BANK	RIGHT BANK
0.00	2.10	1.50	-3.19	-1.10	2.50	1.80
0.10	2.11	1.51	-3.11	-0.90	1.46	2.06
0.20	2.12	1.52	-3.04	-1.20	1.80	1.80
0.30	2.13	1.53	-2.96	-1.32	2.34	1.78
0.40	2.14	1.54	-2.88	-1.00	2.30	1.80
0.50	2.16	1.56	-2.81	-1.37	2.22	1.91
0.60	2.17	1.57	-2.73	-0.90	2.10	2.10
0.70	2.18	1.58	-2.65	-0.93	1.87	1.77
0.80	2.19	1.59	-2.57	-0.80	1.80	1.80
0.92	2.20	1.60	-2.48	-1.11	1.81	1.35
0.99	2.21	1.61	-2.43	-1.16	1.56	0.90
1.11	2.23	1.63	-2.34	-0.92	1.26	1.88
1.21	2.25	1.65	-2.26	-1.09	1.57	1.11
1.31	2.27	1.67	-2.19	-1.04	1.52	1.39
1.41	2.29	1.69	-2.11	-1.05	1.32	1.35
1.51	2.31	1.71	-2.03	-1.46	1.79	1.89
1.61	2.33	1.73	-1.95	-0.99	1.36	1.13
1.71	2.35	1.75	-1.87	-1.42	1.35	1.19
1.88	2.38	1.78	-1.74	-1.00	1.80	1.80
2.02	2.43	1.83	-1.64	-1.42	2.24	0.71
2.12	2.46	1.86	-1.56	-1.55	2.36	0.84
2.22	2.49	1.89	-1.49	-1.31	1.67	0.70
2.20	2.49	1.89	-1.50	-1.10	2.20	2.10
2.30	2.52	1.92	-1.42	-0.43	2.11	0.98
2.40	2.56	1.96	-1.34	-0.80	2.40	0.80
2.51	2.59	1.99	-1.26	-1.04	2.06	1.79
2.58	2.62	2.02	-1.21	-1.30	2.67	0.83
2.71	2.66	2.06	-1.11	-1.04	1.31	2.95
2.83	2.70	2.10	-1.01	-1.39	0.55	0.98
2.94	2.74	2.14	-0.93	-1.35	1.05	0.62
3.01	2.77	2.17	-0.87	-0.80	2.00	2.30
3.11	2.83	2.23	-0.80	-0.70	3.40	1.40
3.21	2.89	2.29	-0.72	-0.60	2.50	2.50
3.30	2.94	2.34	-0.65	-1.00	1.30	2.60
3.36	3.08	2.48	-0.45	-0.40	1.80	1.90
3.39	2.99	2.39	-0.58	-0.51	1.63	1.17
3.51	3.05	2.45	-0.49	-0.58	1.36	2.82
3.61	3.11	2.51	-0.41	-1.85	1.50	1.01
3.72	3.17	2.57	-0.33	-0.30	3.00	0.69
3.82	3.22	2.62	-0.25	0.00	0.00	0.00
3.93	3.29	2.69	-0.17	0.21	2.59	1.19
4.04	3.34	2.74	-0.09	-0.26	1.68	2.78
4.09	3.37	2.77	-0.04	0.20	2.90	2.80
4.14	3.42	2.82	0.03	-2.44	1.86	0.65
4.24	3.52	2.92	0.19	-0.54	1.21	1.31
4.29	3.57	2.97	0.26	-0.20	1.90	3.50
4.42	3.70	3.10	0.46	0.09	1.50	2.37
4.52	3.80	3.20	0.62	0.20	3.50	1.40
4.62	3.93	3.33	0.78	0.96	3.08	1.78
4.72	4.08	3.48	0.83	1.20	3.00	3.80
4.82	4.24	3.64	1.08	0.98	4.64	2.75

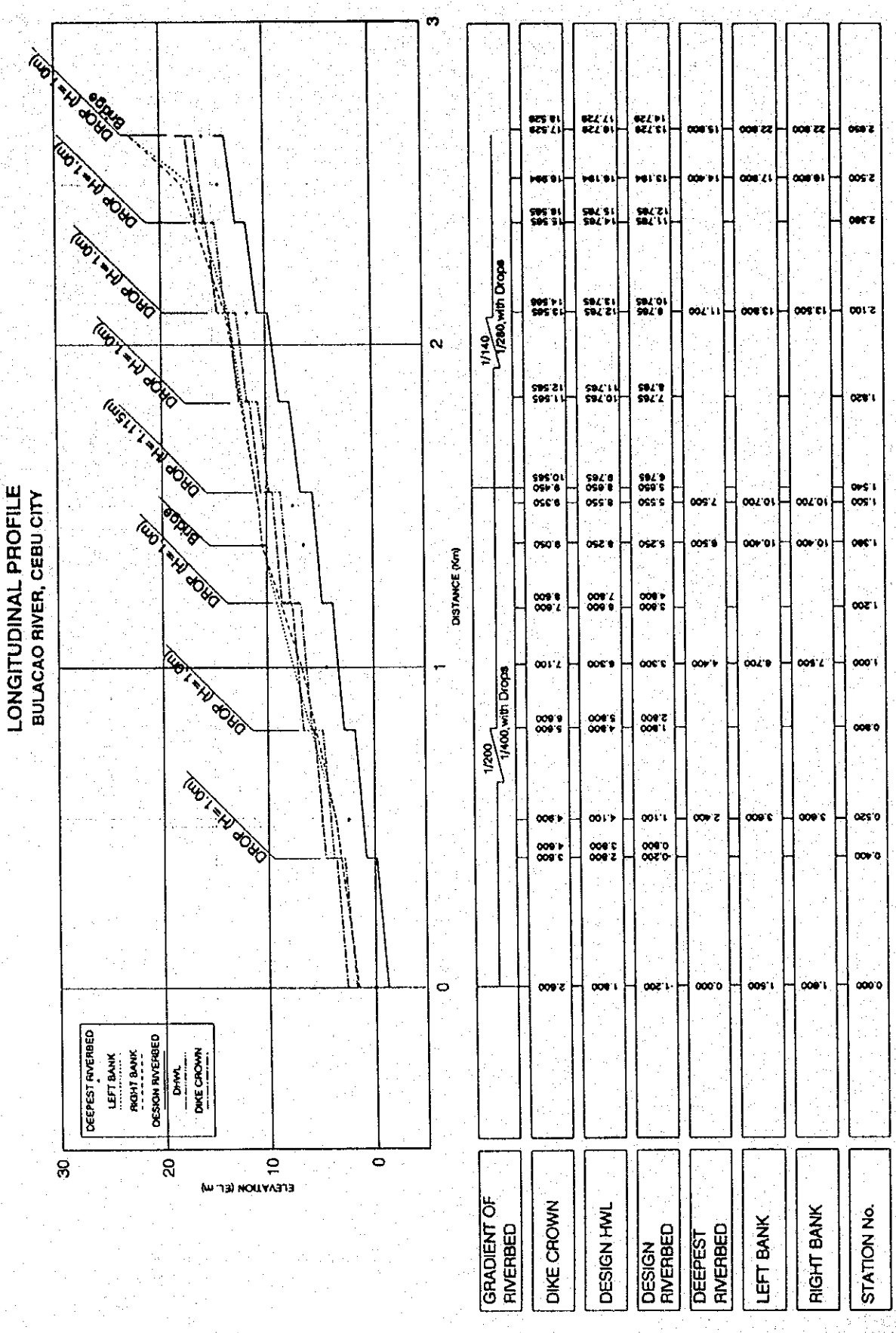
THE STUDY ON THE FLOOD CONTROL FOR RIVERS
IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

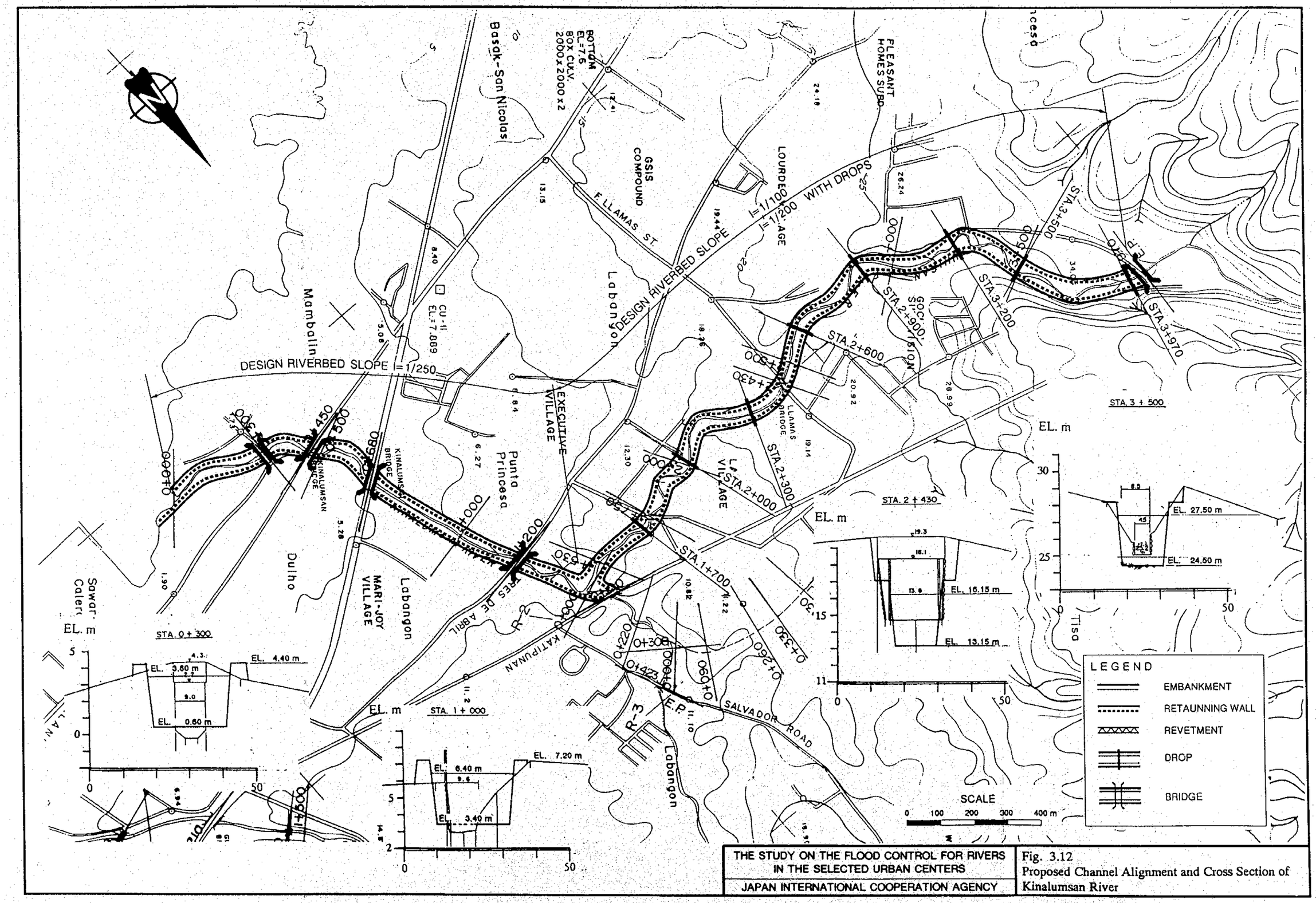
Fig. 3.9
Longitudinal Profile of Mandurriao River



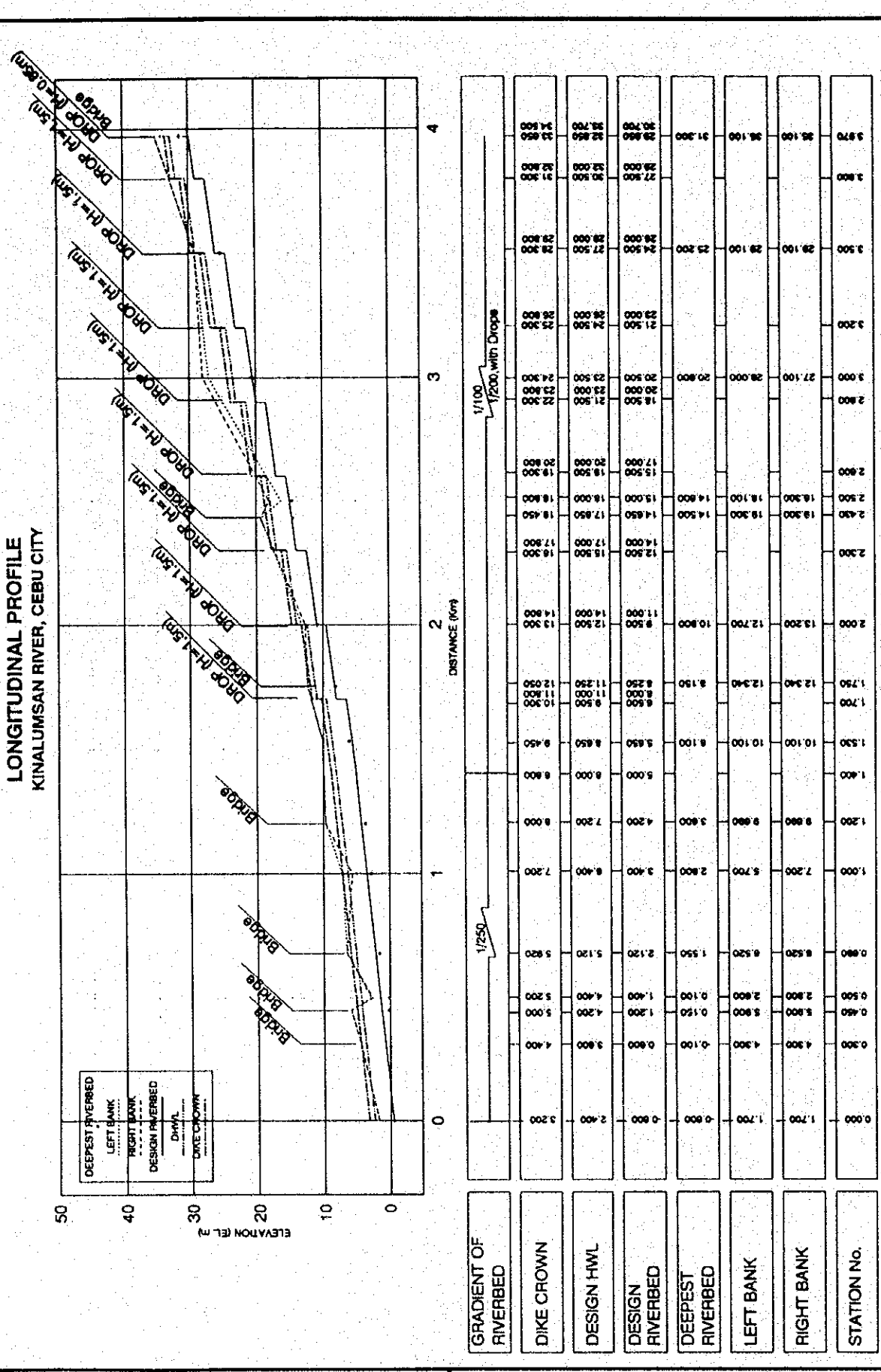
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.10 Proposed Channel Alignment and Cross Section of Bulacao River
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.11 Longitudinal Profile of Bulacao River
JAPAN INTERNATIONAL COOPERATION AGENCY	



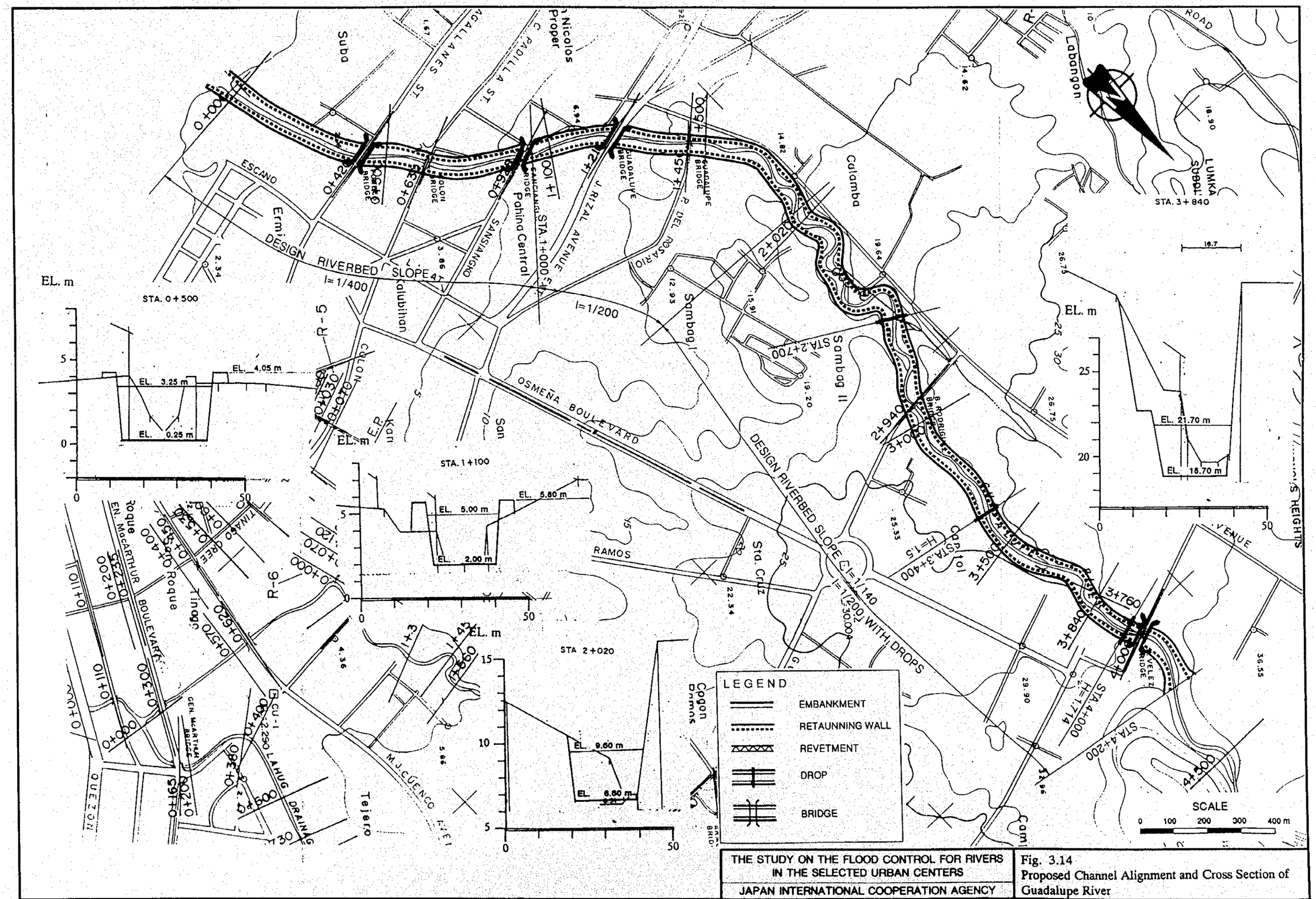
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.12 Proposed Channel Alignment and Cross Section of Kinalumsan River



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

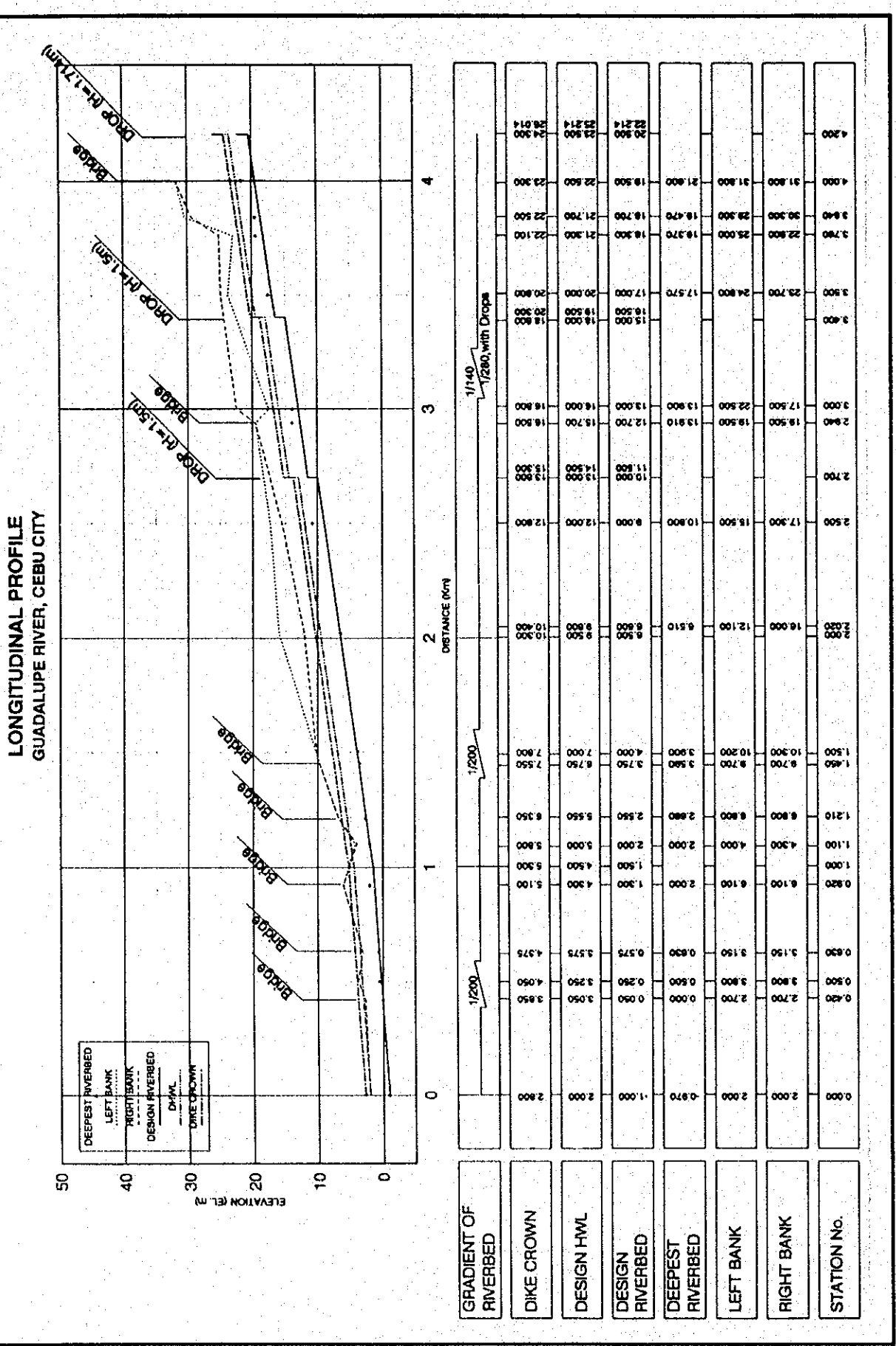
Fig. 3.13
Longitudinal Profile of Kinalumsan River



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

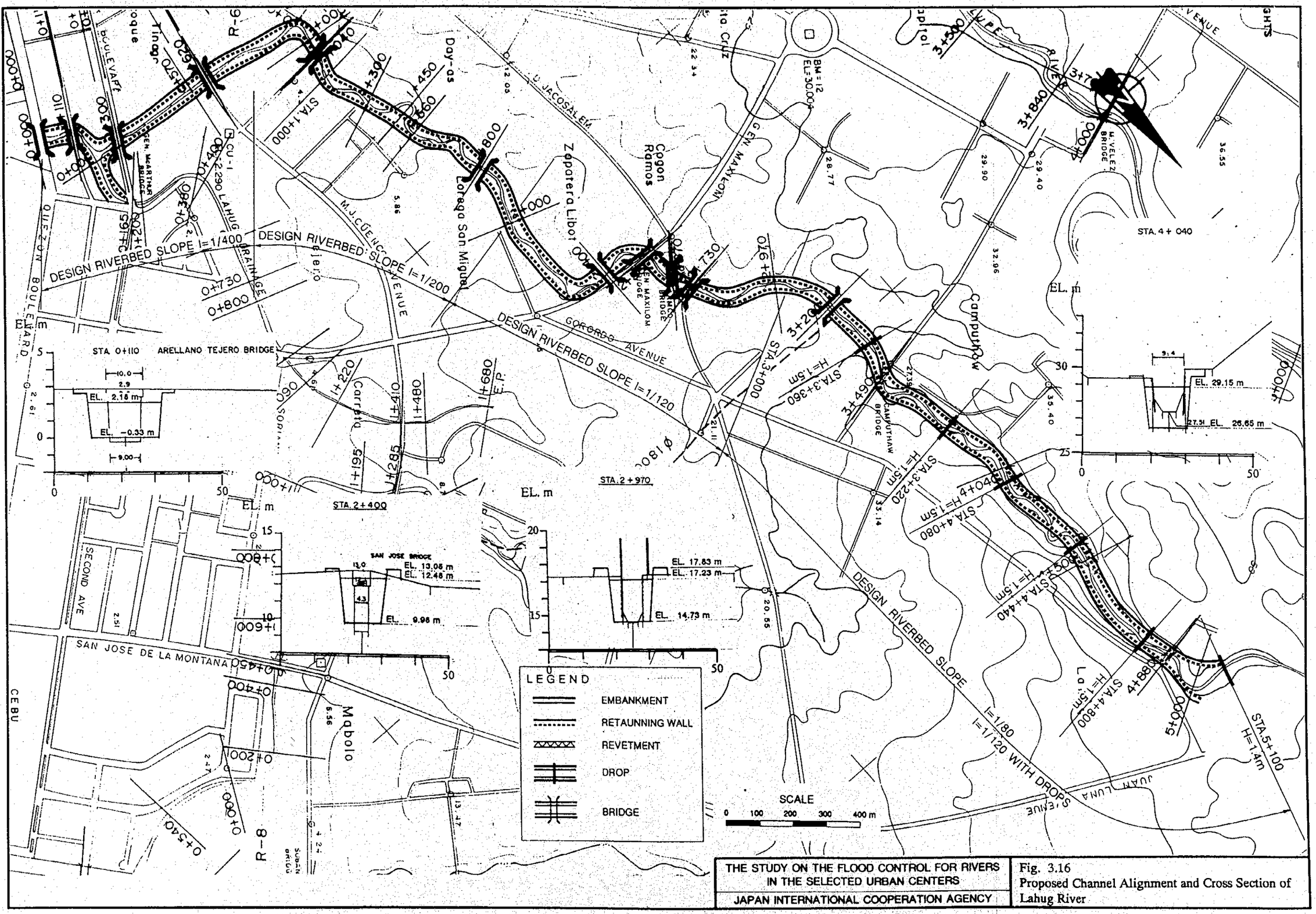
Fig. 3.14
Proposed Channel Alignment and Cross Section of Guadalupe River



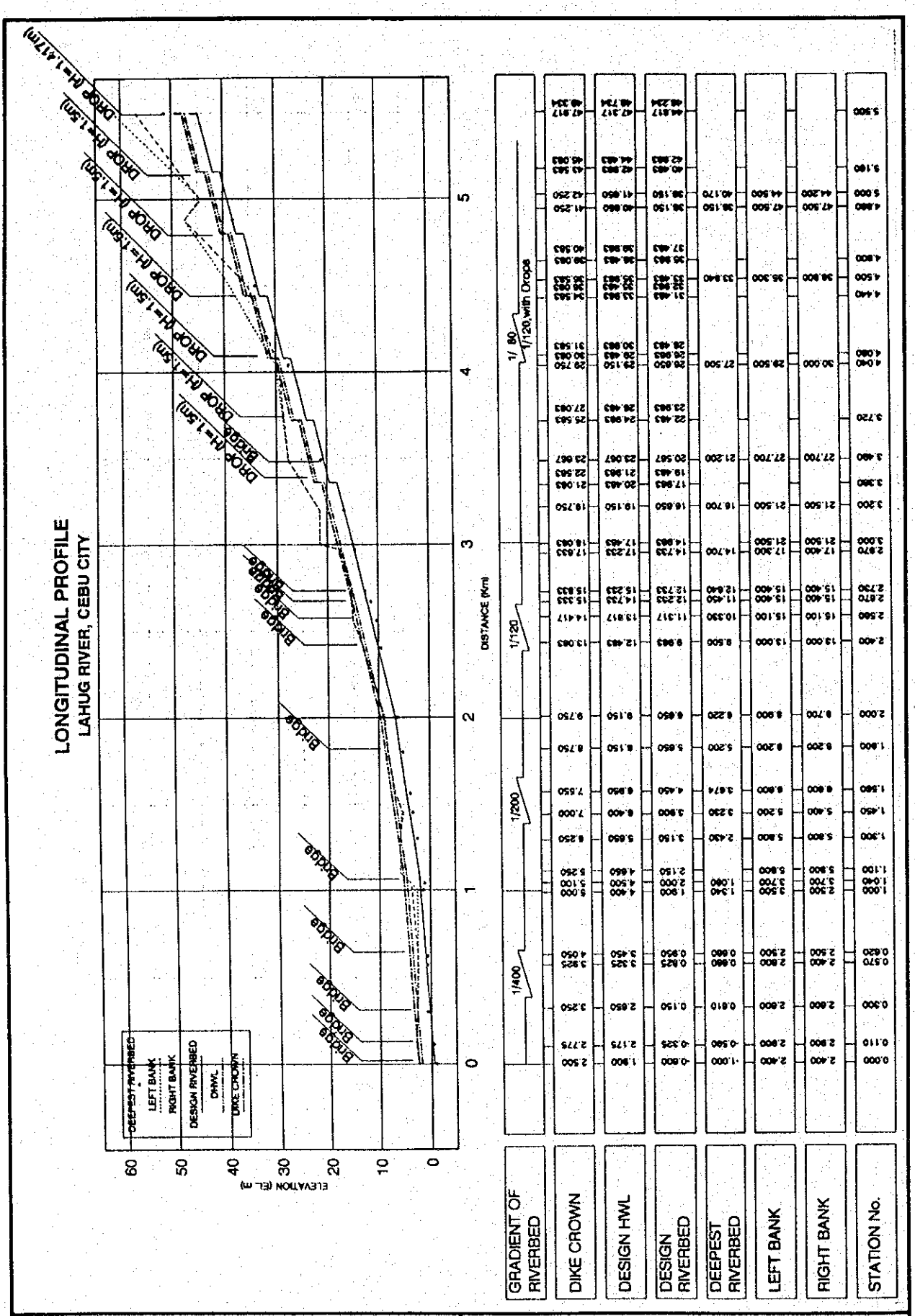
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 3.15
Longitudinal Profile of Guadalupe River



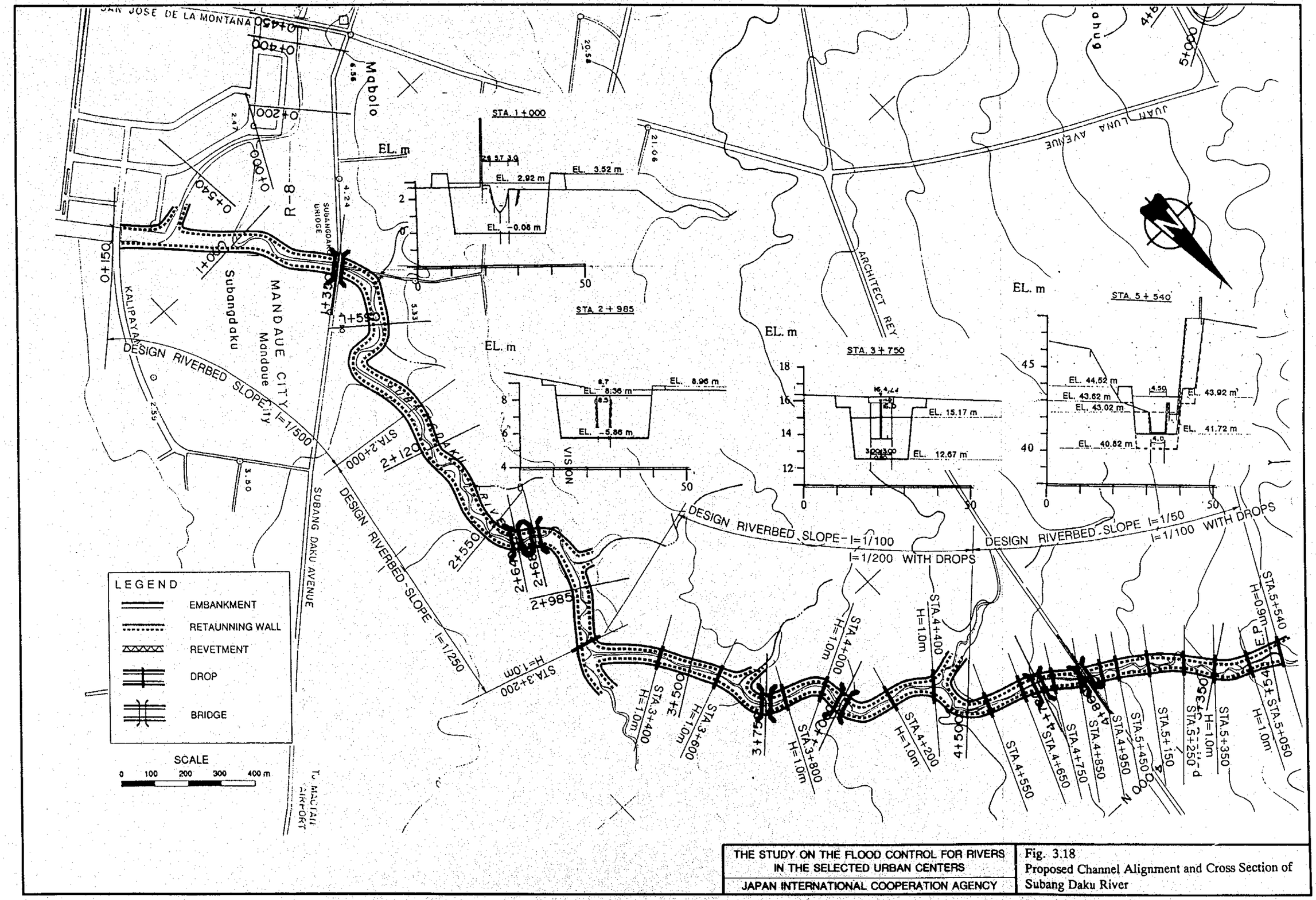
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 3.16 Proposed Channel Alignment and Cross Section of Lahug River



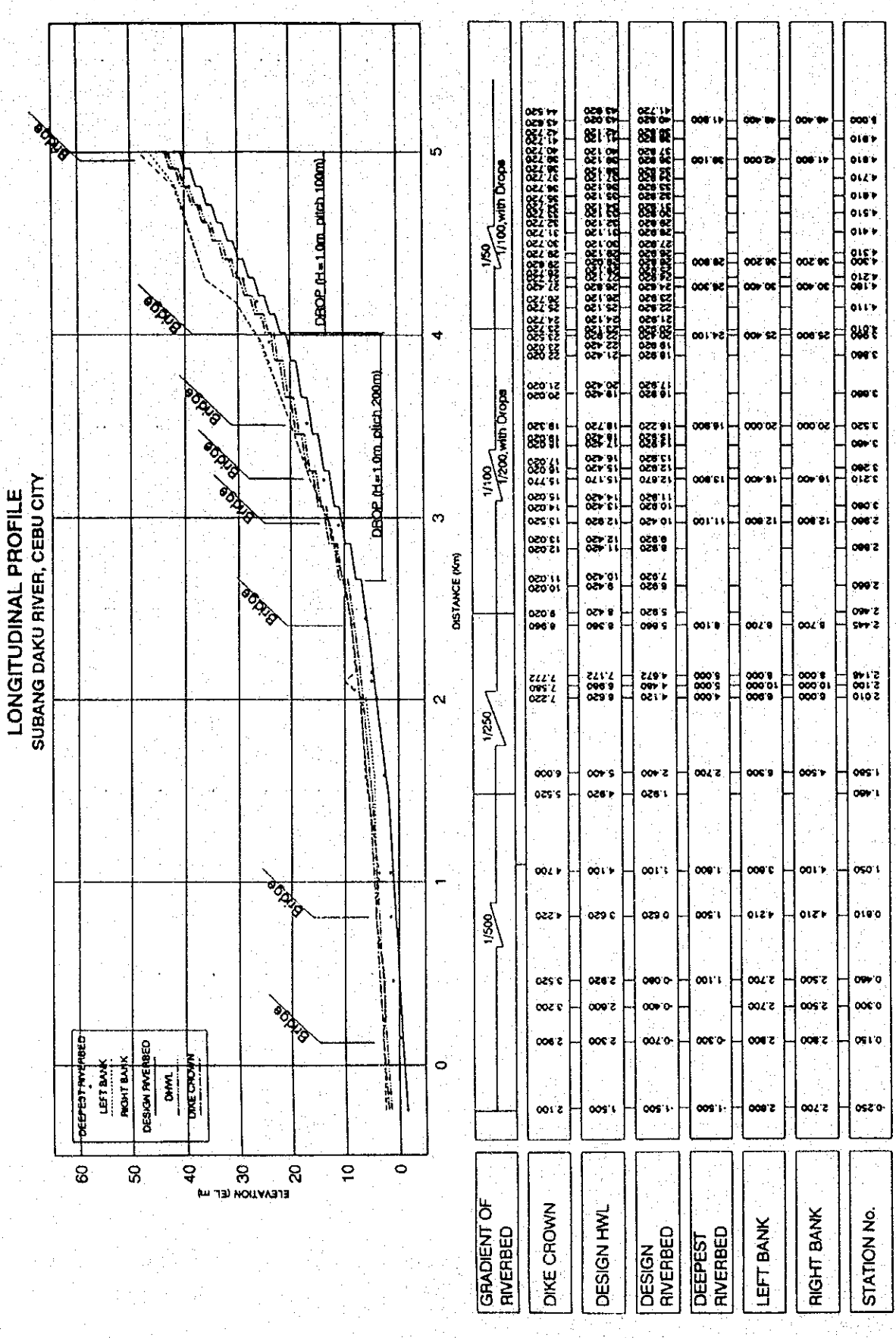
THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS

JAPAN INTERNATIONAL COOPERATION AGENCY

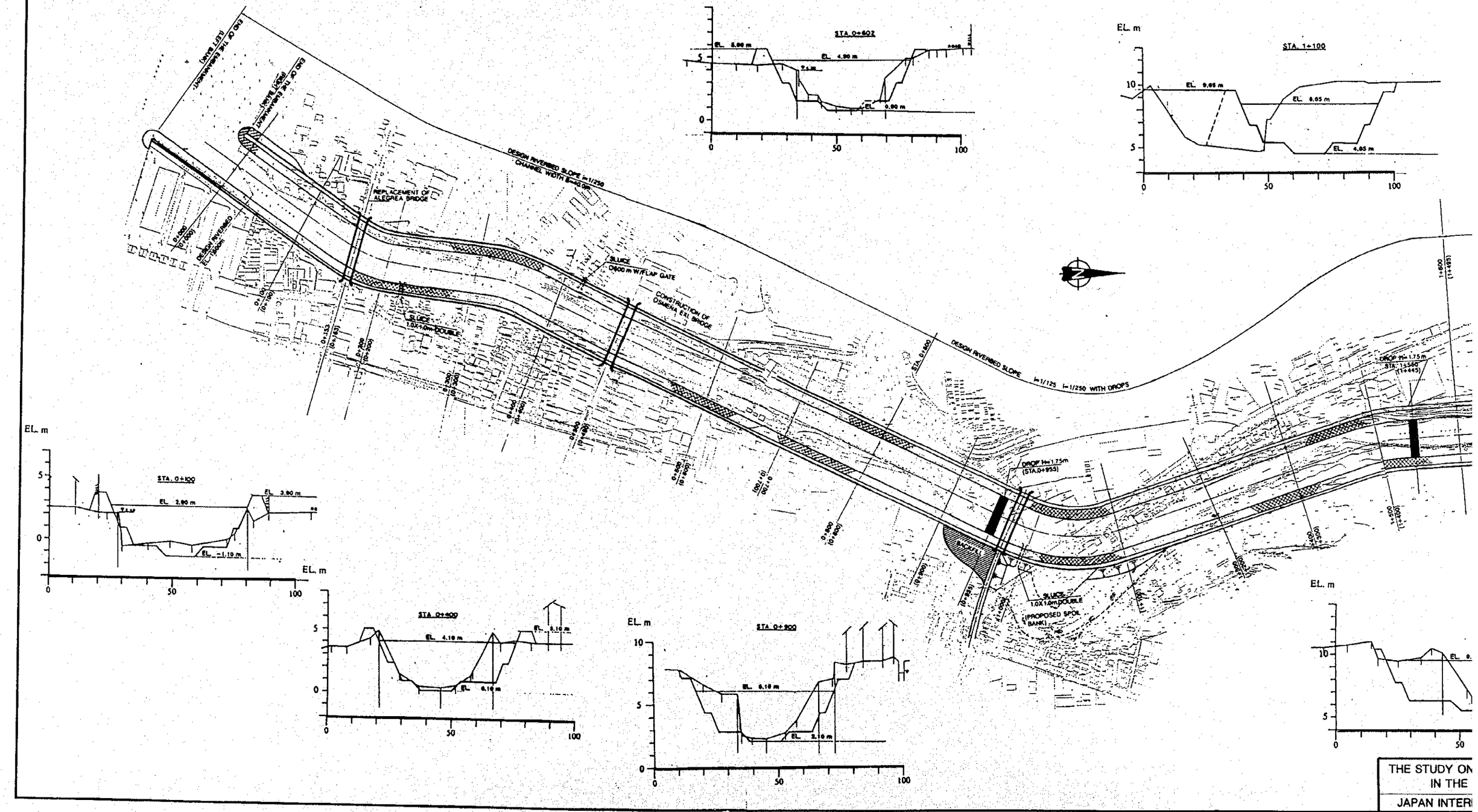
Fig. 3.17
Longitudinal Profile of Lahug River



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.18 Proposed Channel Alignment and Cross Section of Subang Daku River
JAPAN INTERNATIONAL COOPERATION AGENCY	



THE STUDY ON THE FLOOD CONTROL FOR RIVERS IN THE SELECTED URBAN CENTERS	Fig. 3.19 Longitudinal Profile of Subang Daku River
JAPAN INTERNATIONAL COOPERATION AGENCY	


END OF THE EMBANKMENT (LEFT BANK)
END OF THE EMBANKMENT (RIGHT BANK)
DESIGN REVERSED SLOPE I=1/250
CHANNEL WIDTH B=40.0m
REPLACEMENT OF ALEGREA BRIDGE
SLUICE D4.00 m W/FLAP GATE
CONSTRUCTION OF OSMENA EXT. BRIDGE
SLUICE 1.0X1.0m DOUBLE
DESIGN REVERSED SLOPE I=1/125 I=1/250 WITH DROPS
DROP H=1.75m (STA.0+955)
DROP H=1.75m STA.1+550 (1+445)
REVETMENT
SLUICE 1.0X1.0m DOUBLE (PROPOSED SPOIL BANK)
EL. m
STA. 0+602
EL. 6.00 m
EL. 4.90 m
EL. 0.90 m
STA. 1+100
EL. 9.65 m
EL. 8.65 m
EL. 4.65 m
STA. 0+100
EL. 2.90 m
EL. 3.90 m
EL. -1.10 m
STA. 0+400
EL. 4.10 m
EL. 6.10 m
STA. 0+800
EL. 6.10 m
EL. 3.10 m
THE STUDY ON
IN THE
JAPAN INTER