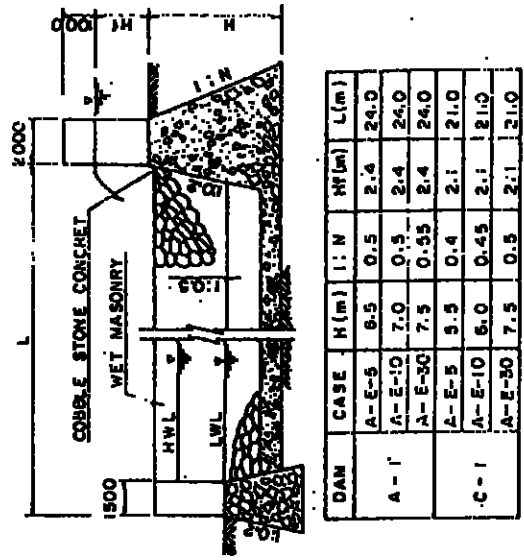
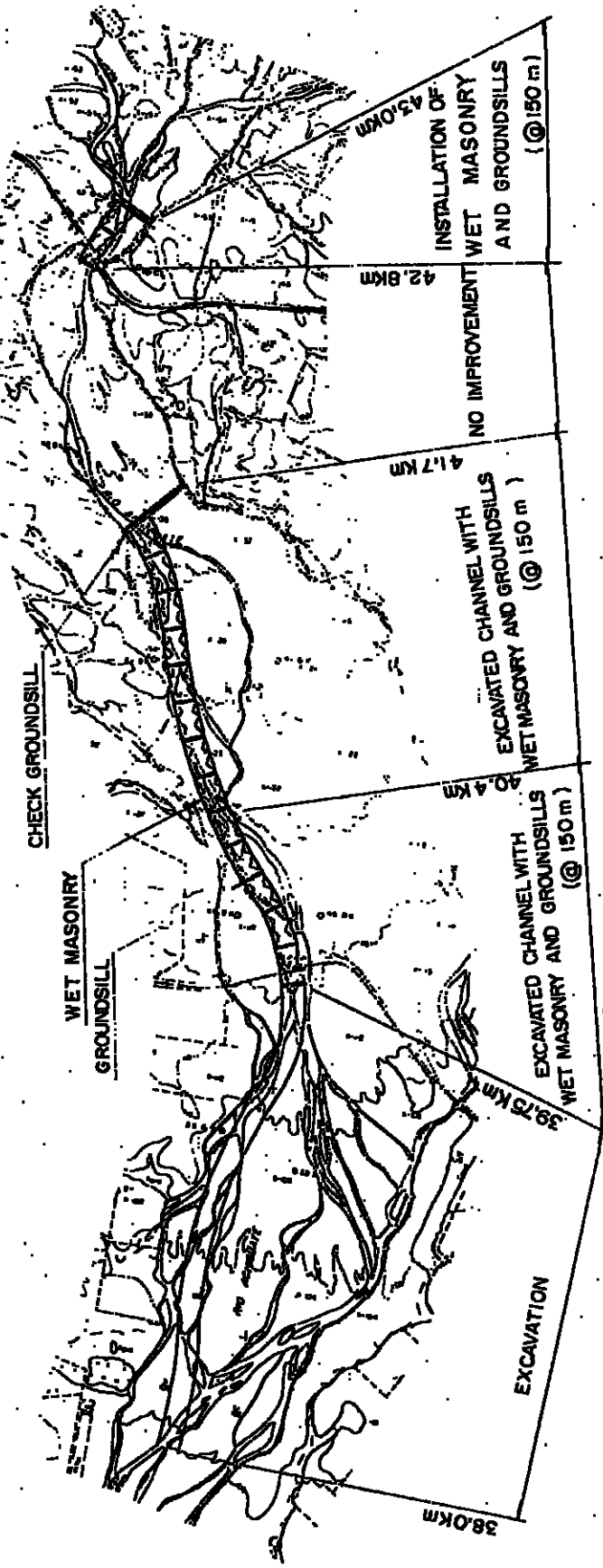
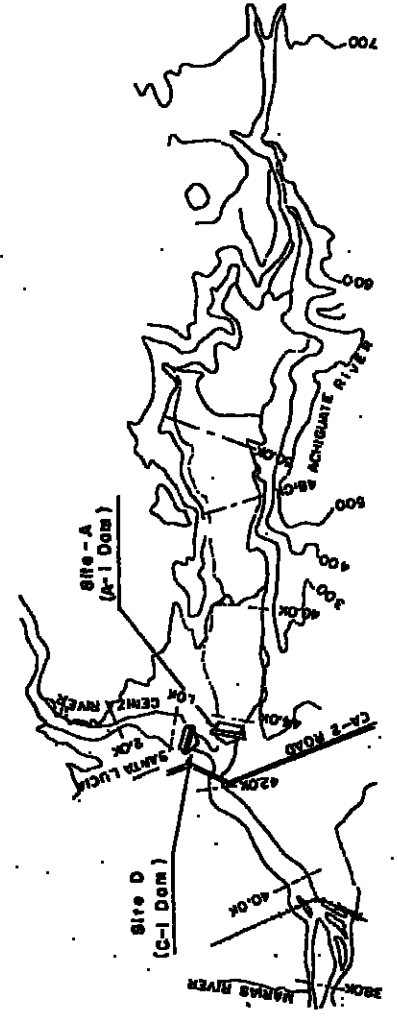


WORK STAGE	WORK VOLUME	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr	6th Yr	7th Yr
SEDIMENT CONTROL DAM	DETAILED DESIGN	1 L/S						
	ACHIGUATE	1 L/S						
	PREPARATION							
	EXCAVATION	103 000 m ³						
PANTALEON	ACHIGUATE	78 000 m ³						
	PREPARATION	10 000 m ³						
	EXCAVATION	1 L/S						
	MAIN DAM	202 000 m ³						
RIVER IMPROVEMENT	ACHIGUATE	126 000 m ³						
	PREPARATION	11 000 m ³						
	EXCAVATION	1 L/S						
	EMBANKMENT	1 140 000 m ³						
RIVER	ACHIGUATE	160 000 m ³						
	PREPARATION	4 600 m						
	EXCAVATION	17 Units						
	EMBANKMENT	1 L/S						
PANTALEON	ACHIGUATE	240 000 m ³						
	PREPARATION	4 600 m						
	EXCAVATION	47 Units						
	EMBANKMENT	1 L/S						

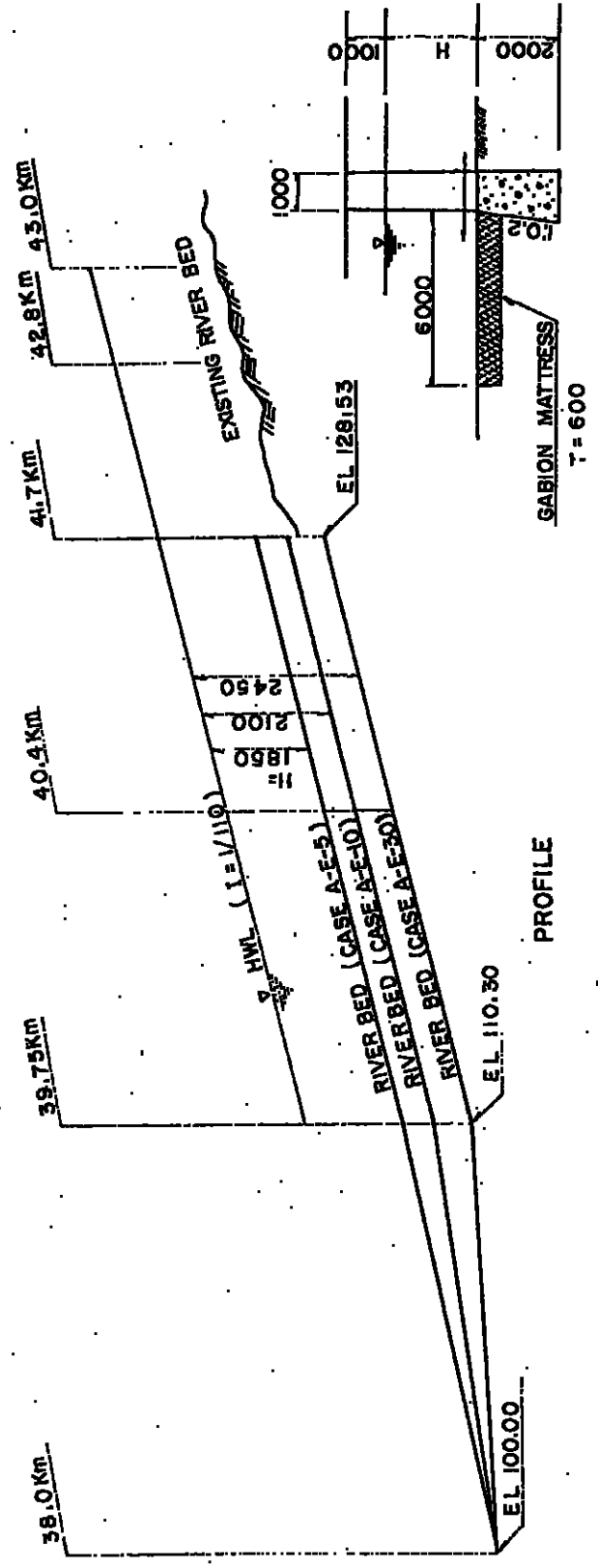
圖 5-7 長期計畫最適案工事計畫



DAM CASE	H (m)	I: M	HW (m)	L (m)
A-E-5	6.5	0.5	2.4	24.0
A-E-10	7.0	0.5	2.4	24.0
A-E-30	7.5	0.55	2.4	24.0
A-E-5	9.5	0.4	2.1	21.0
A-E-10	6.0	0.45	2.1	21.0
A-E-30	7.5	0.5	2.1	21.0

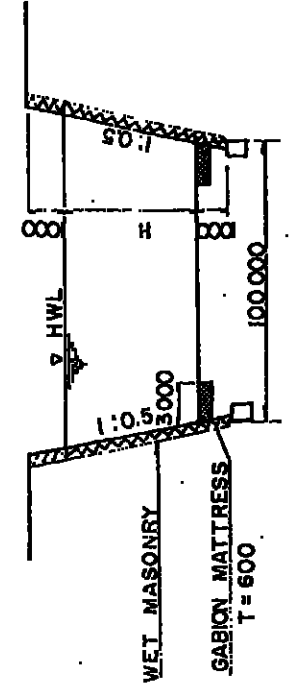


PLAN

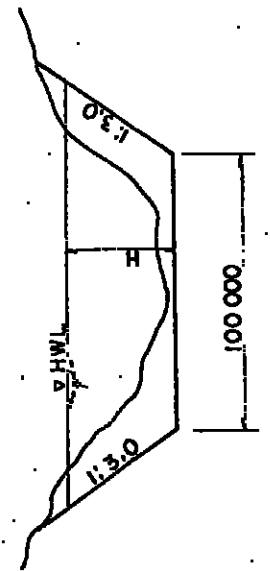


PROFILE

GROUNDSILL



39.75km ~ 40.4km



38.0km ~ 39.75km

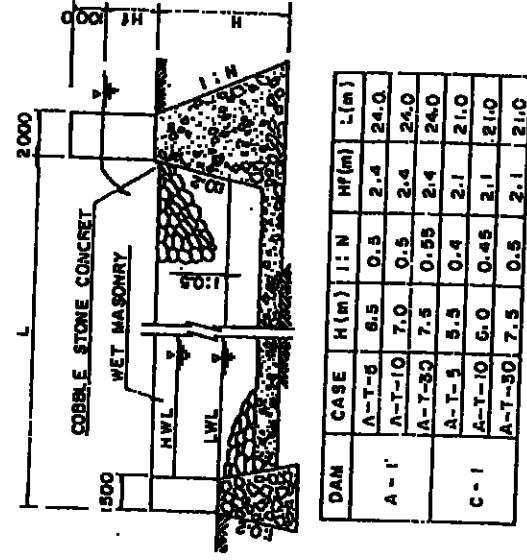


40.4km ~ 41.7km

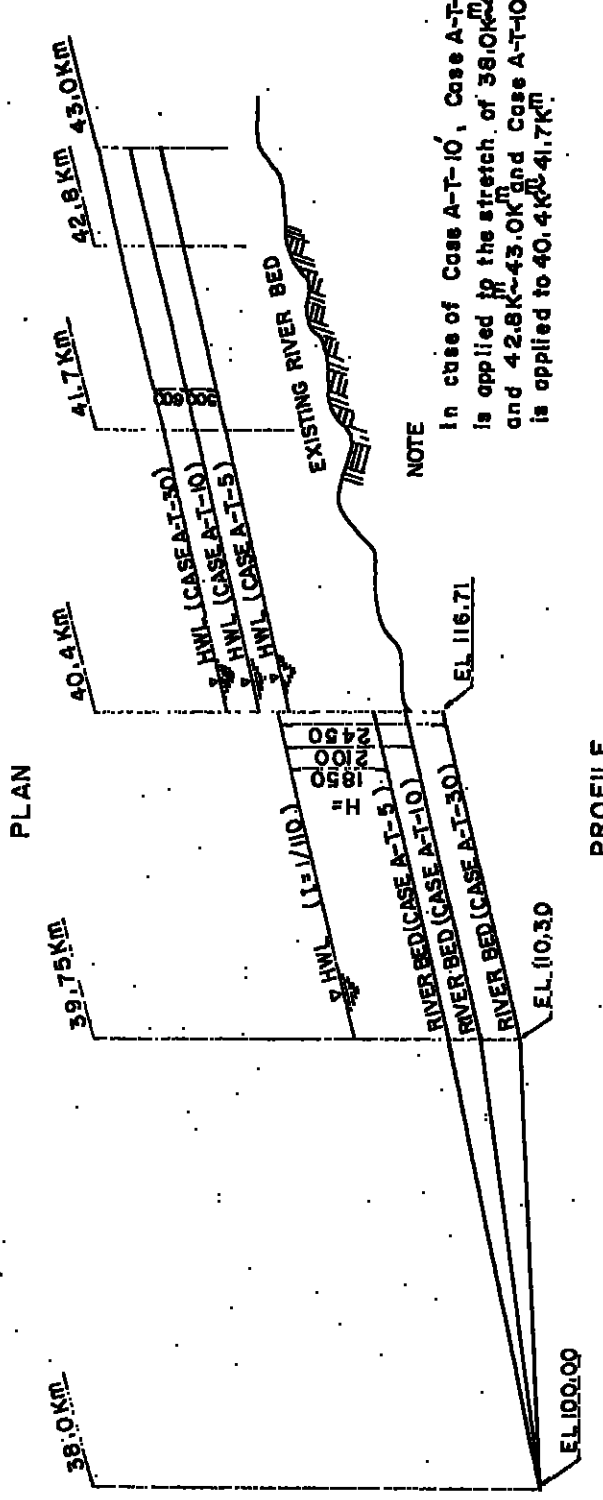
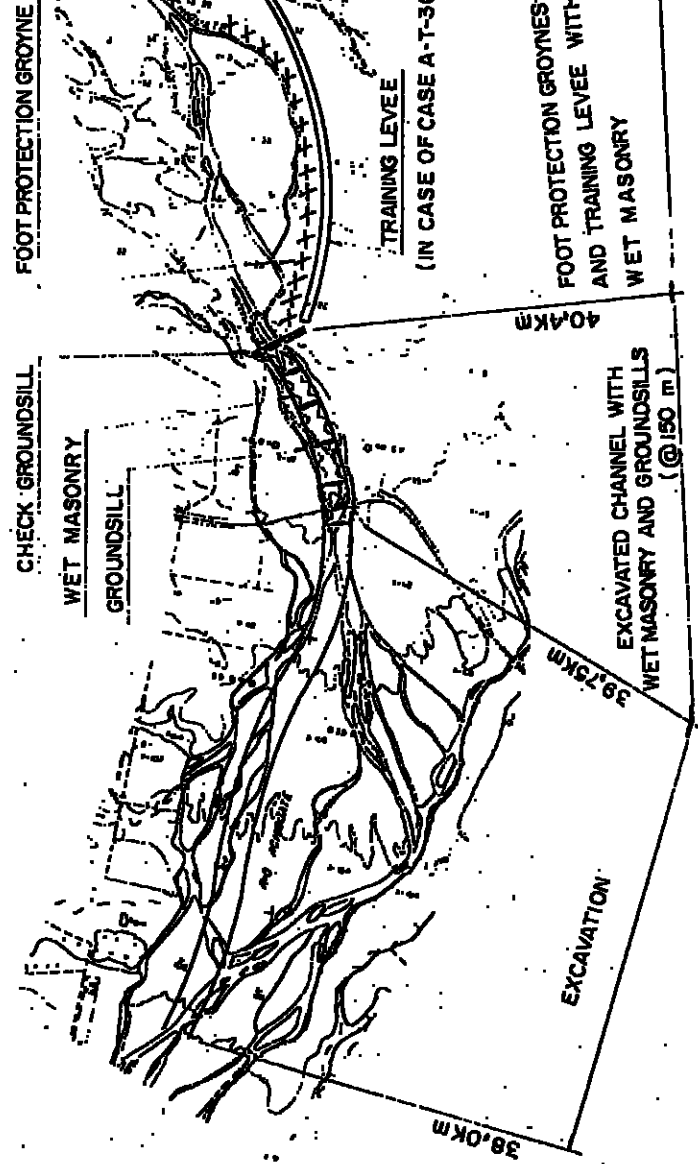
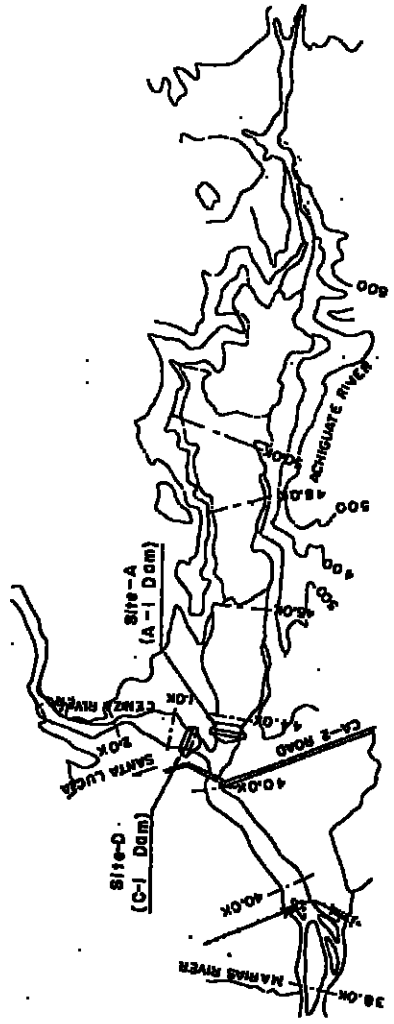
41.7km ~ 43.0km

CROSS - SECTION

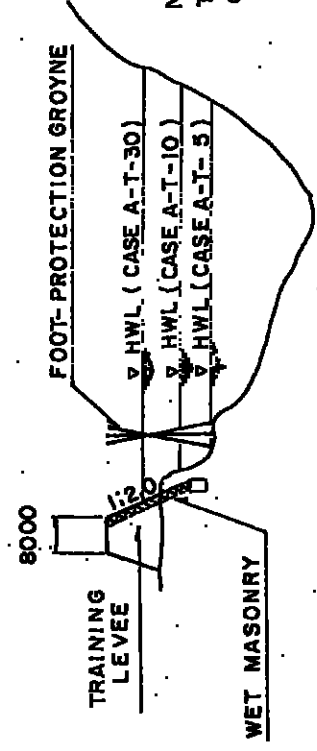
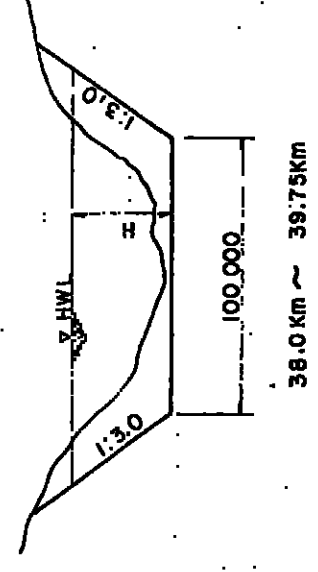
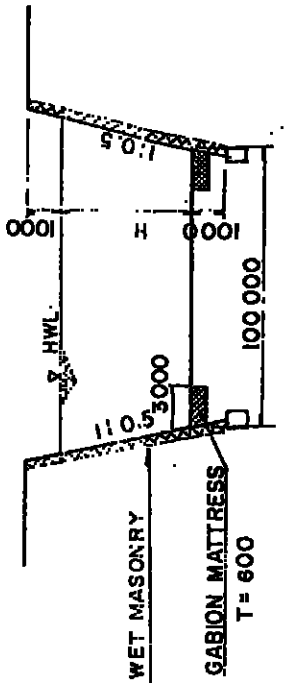
図 6-1 (1/4) 河川改修方法の概要図 (A-E)



DAM	CASE	H (m)	I : N	HT (m)	L (m)
A - 1	A-T-5	6.5	0.5	2.4	24.0
	A-T-10	7.0	0.5	2.4	24.0
	A-T-30	7.5	0.55	2.4	24.0
C - 1	A-T-5	5.5	0.4	2.1	21.0
	A-T-10	6.0	0.45	2.1	21.0
	A-T-30	7.5	0.5	2.1	21.0

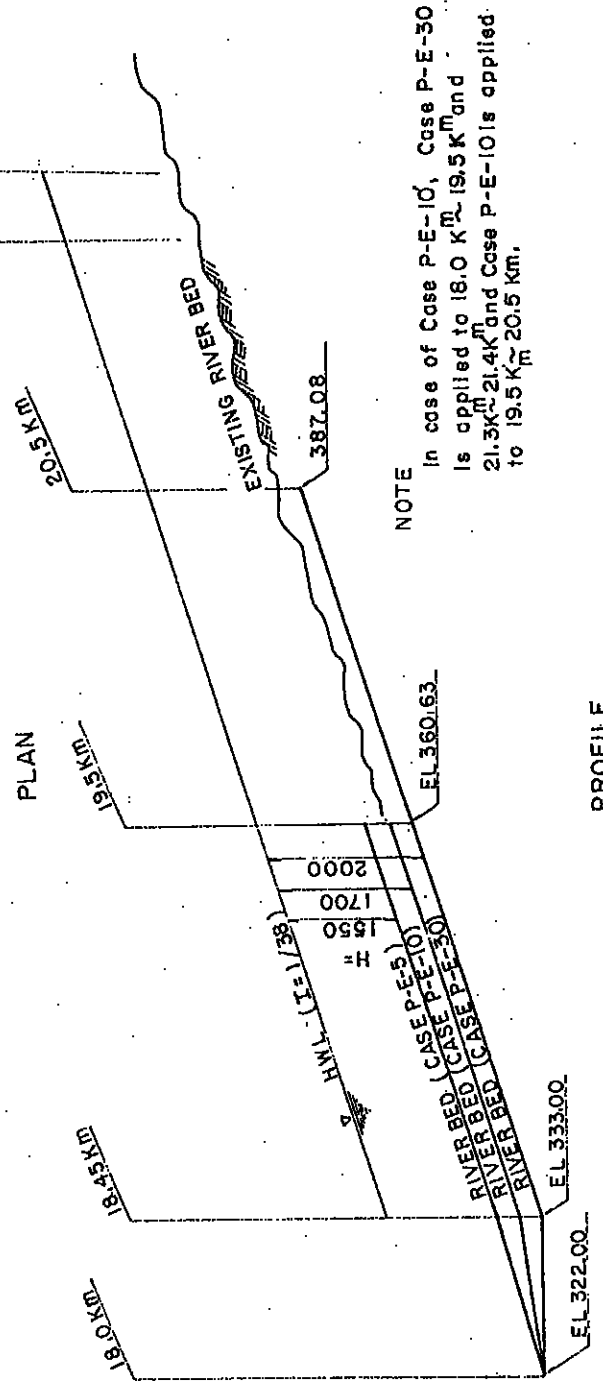
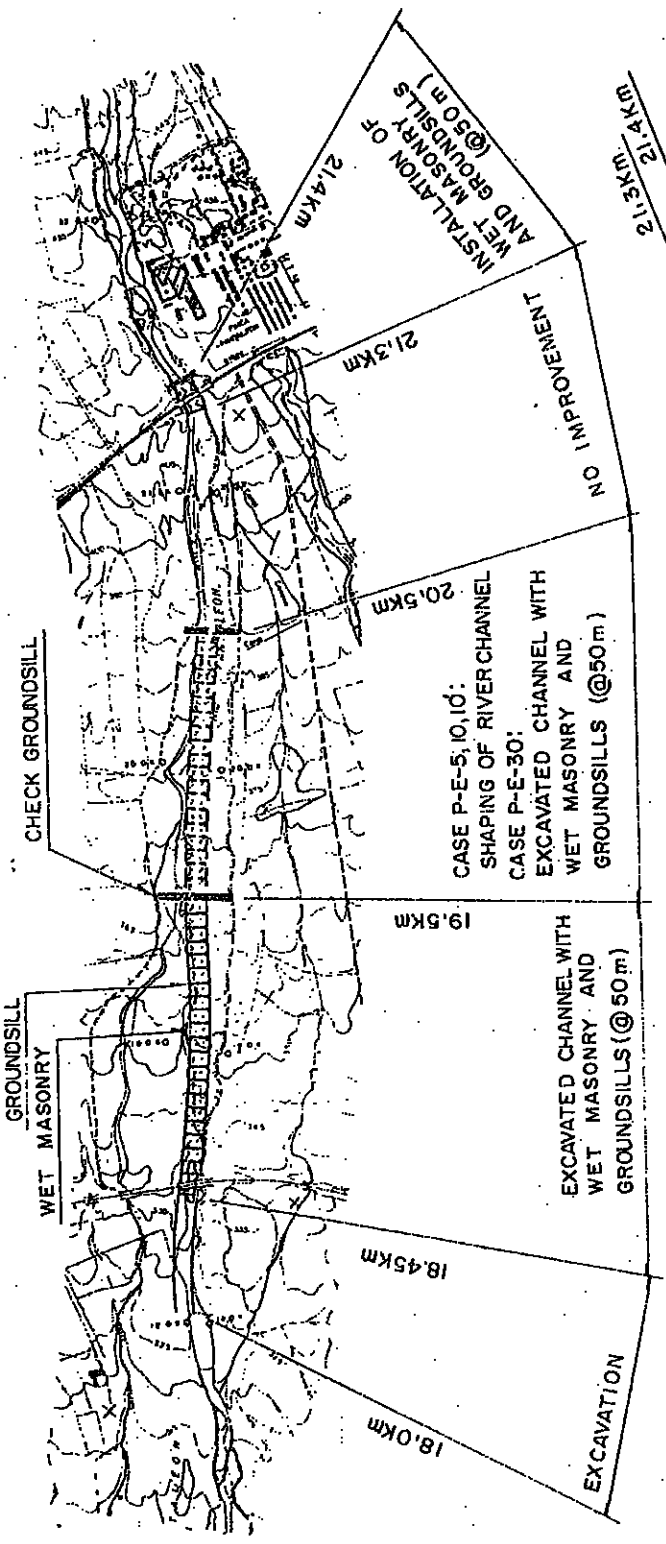
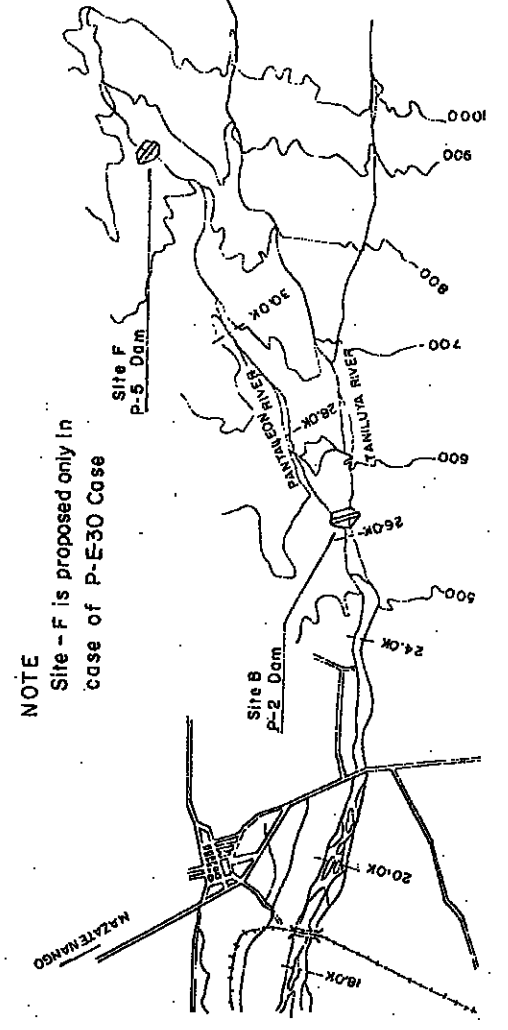
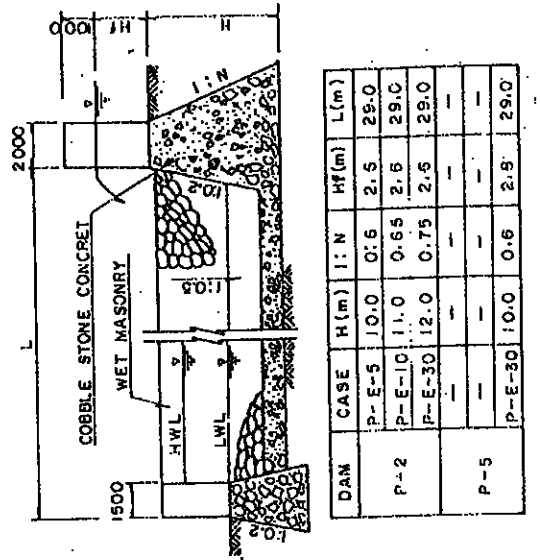


NOTE
 In case of Case A-T-10, Case A-T-30 is applied to the stretch of 38.0km~40.4km and 42.8km~43.0km and Case A-T-10 is applied to 40.4km~41.7km.



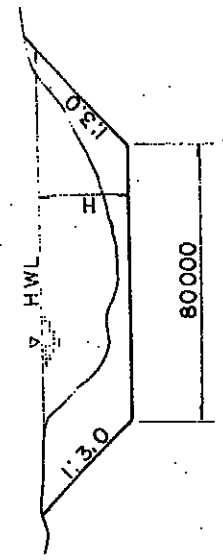
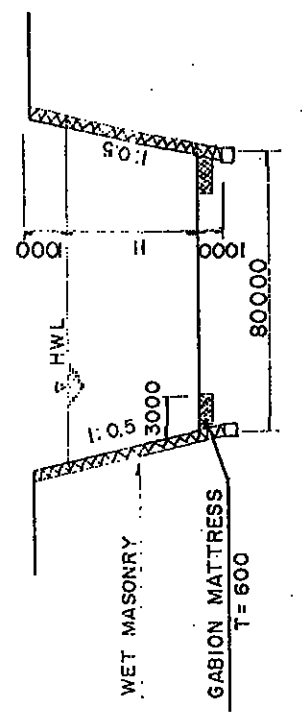
NOTE
 The training levee is planned only in case of Case A-T-30

図 6-1 (2/4) 河川改修方法の概要図 (A-T)

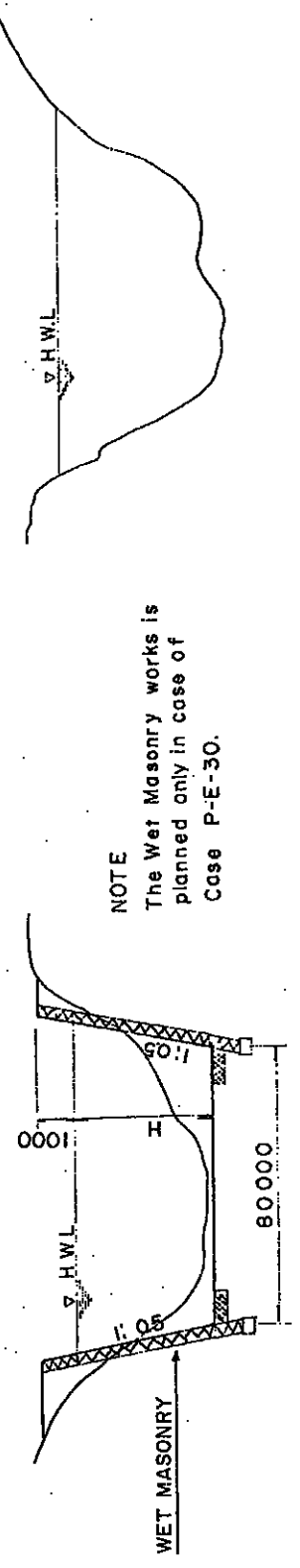


NOTE
 In case of Case P-E-10, Case P-E-30 is applied to 18.0 Km, 19.5 Km and 21.3 Km, 21.4 Km and Case P-E-10 is applied to 19.5 Km ~ 20.5 Km.

PROFILE



18.0 Km ~ 18.45 Km
 18.45 Km ~ 19.5 Km

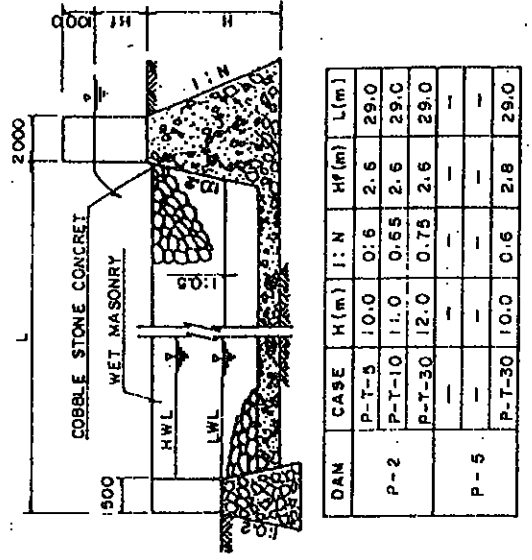


NOTE
 The Wet Masonry works is planned only in case of Case P-E-30.

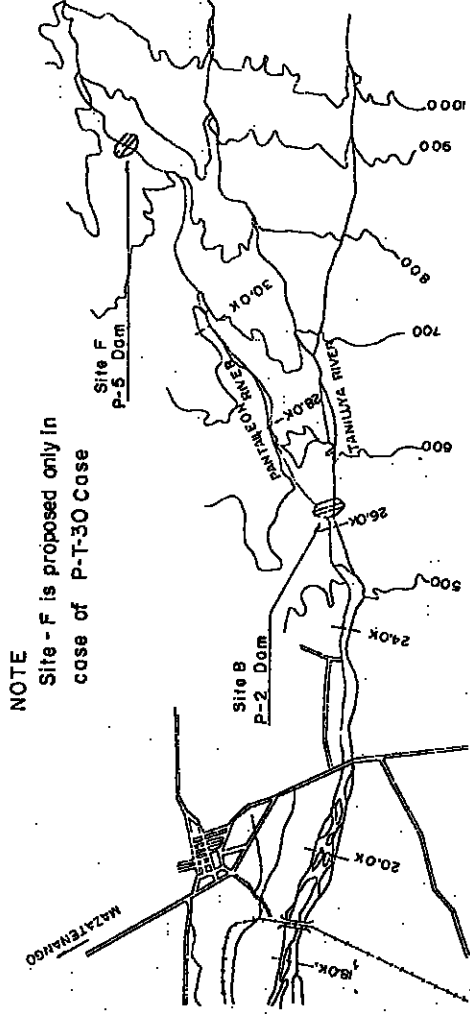
20.5 Km ~ 21.4 Km

CROSS - SECTION

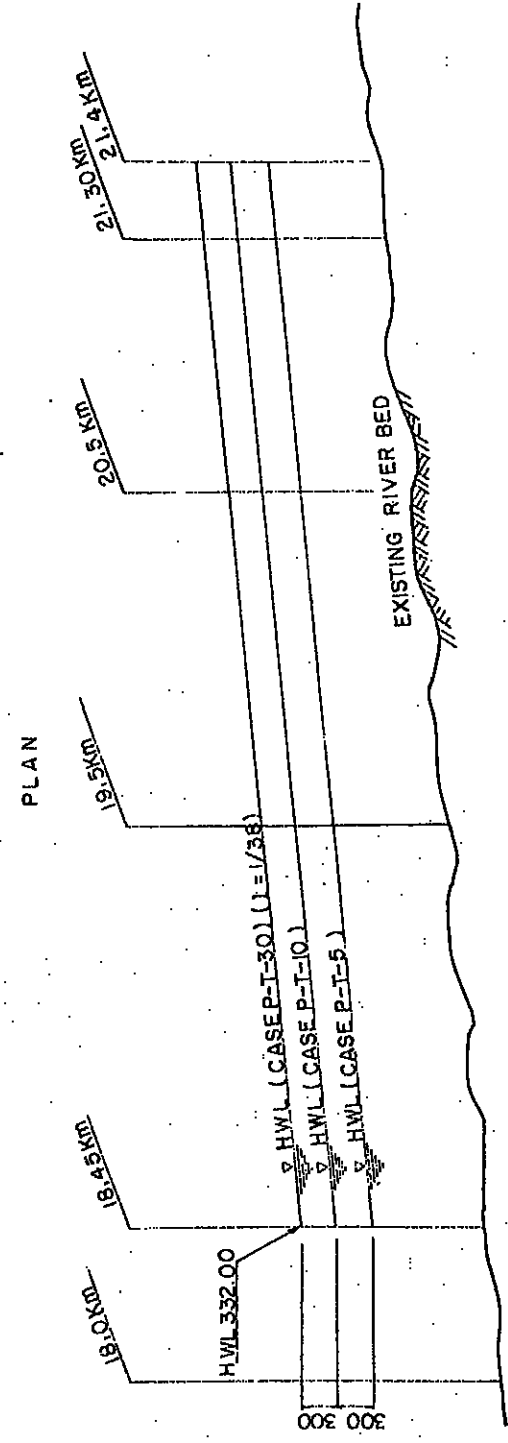
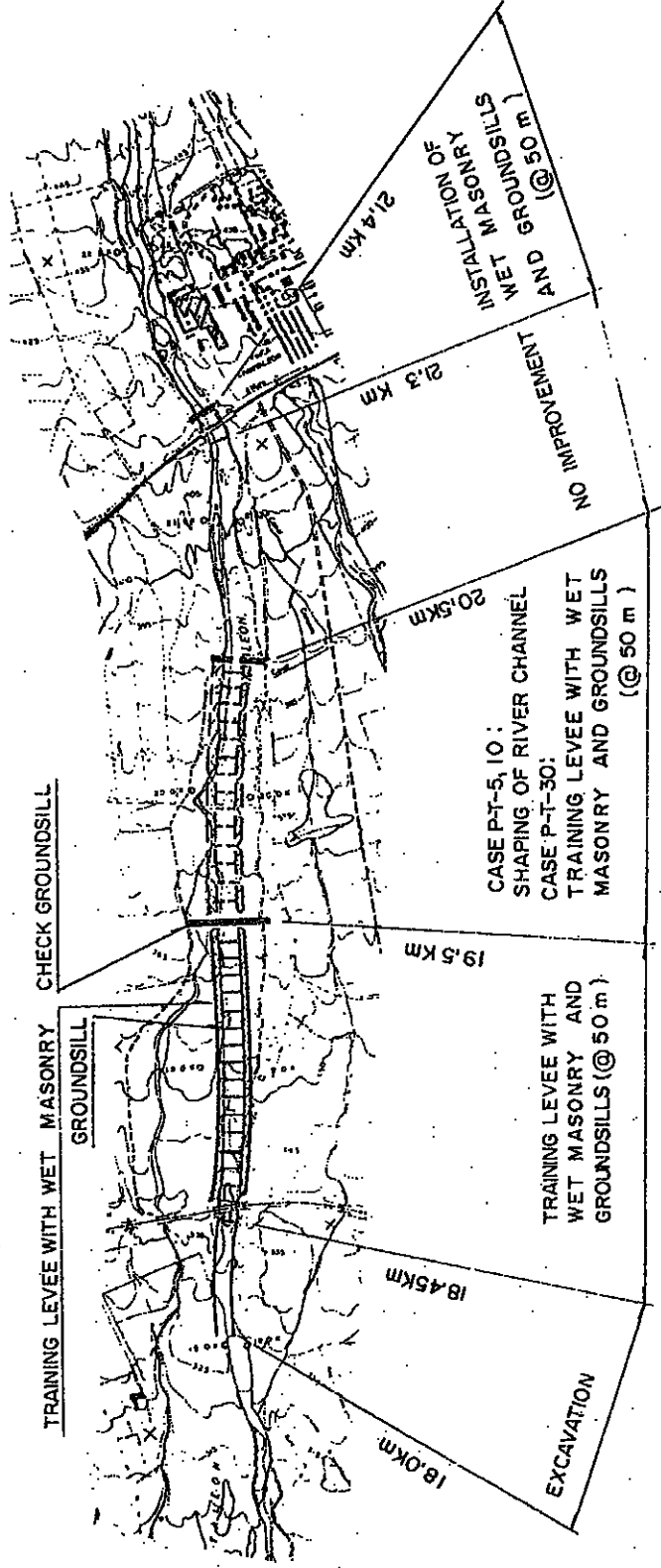
図 6-1 (3/4) 河川改修方法の概要図 (P-E)



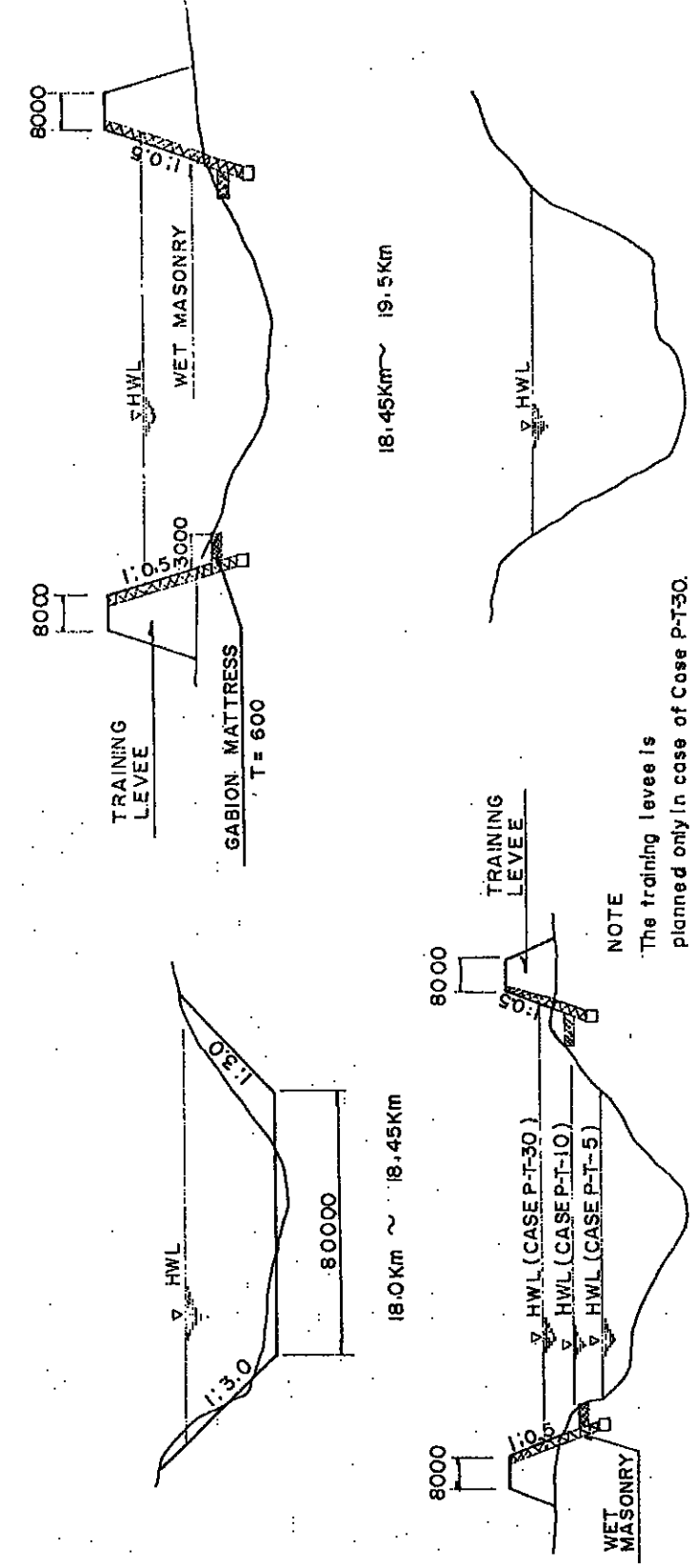
DAM	CASE	H(m)	I: N	HF(m)	L(m)
P-2	P-T-5	10.0	0:6	2.6	29.0
	P-T-10	11.0	0:65	2.6	29.0
	P-T-30	12.0	0:75	2.6	29.0
P-5	-	-	-	-	-
	P-T-30	10.0	0:6	2.8	29.0



NOTE
Site - F is proposed only in case of P-T-30 Case



PROFILE



CROSS - SECTION

图 6-1 (4/4) 河川改修方法の概要図 (P-T)

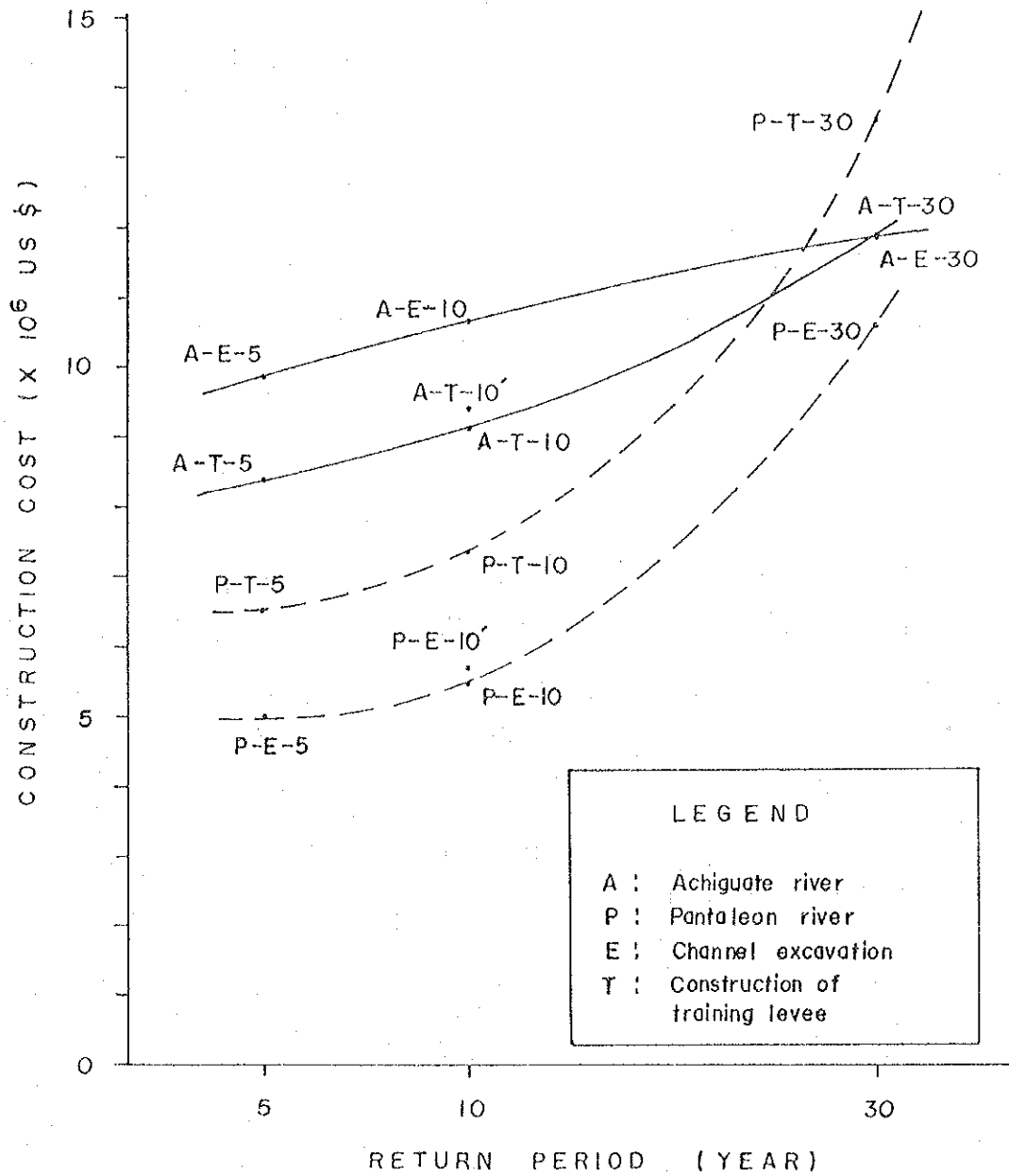


図 6-2 河川改修方法の経済比較

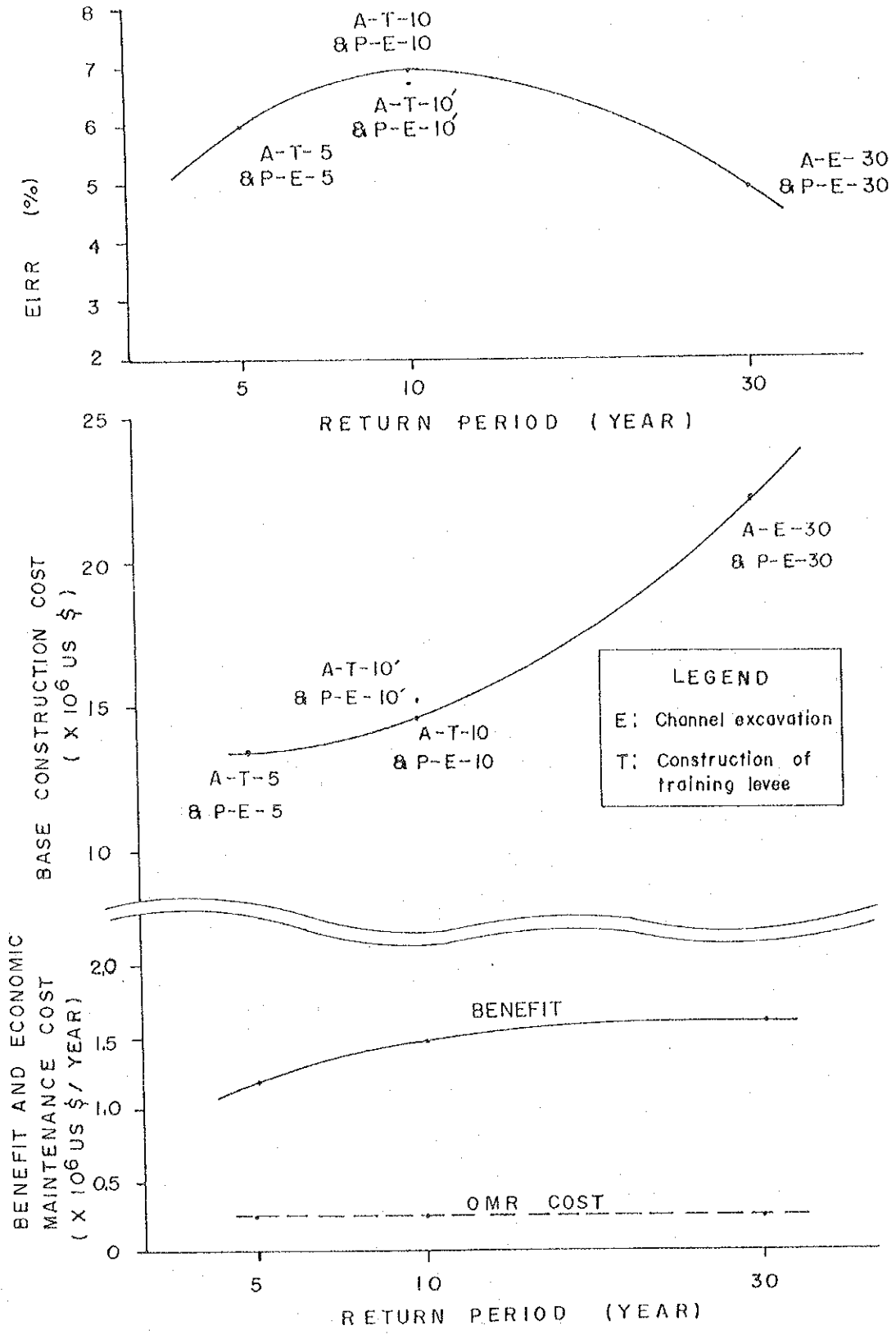


図 6-3 計画規模毎の経済比較

Name of River	1930'S					1940'S					1950'S					1960'S					1970'S					1980'S					Numbers Occurrence	Frequency																					
	30-31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60			61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
Suchiate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10 Year						
Naranjo																																														2	25 Year						
Ocosingo																																														3	16 Year						
Samala																																														12	5 Year						
Sis- Icar.																																														3	16 Year						
Nahualate																																														2	25 Year						
Madre Vieja																																														1	50 Year						
Coyalate																																														7	6 Year						
Acome																																														1	50 Year						
Achiguate																																														18	3 Year						
Maria Linda																																														6	9 Year						
Paso Hondo																																														1	50 Year						
Los Esclavos																																														3	16 Year						
Paz																																														1	50 Year						
Motagua																																														10	5 Year						

図 6-4 グアテマラに於ける洪水被害発生頻度

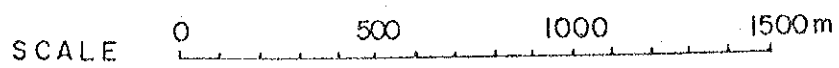
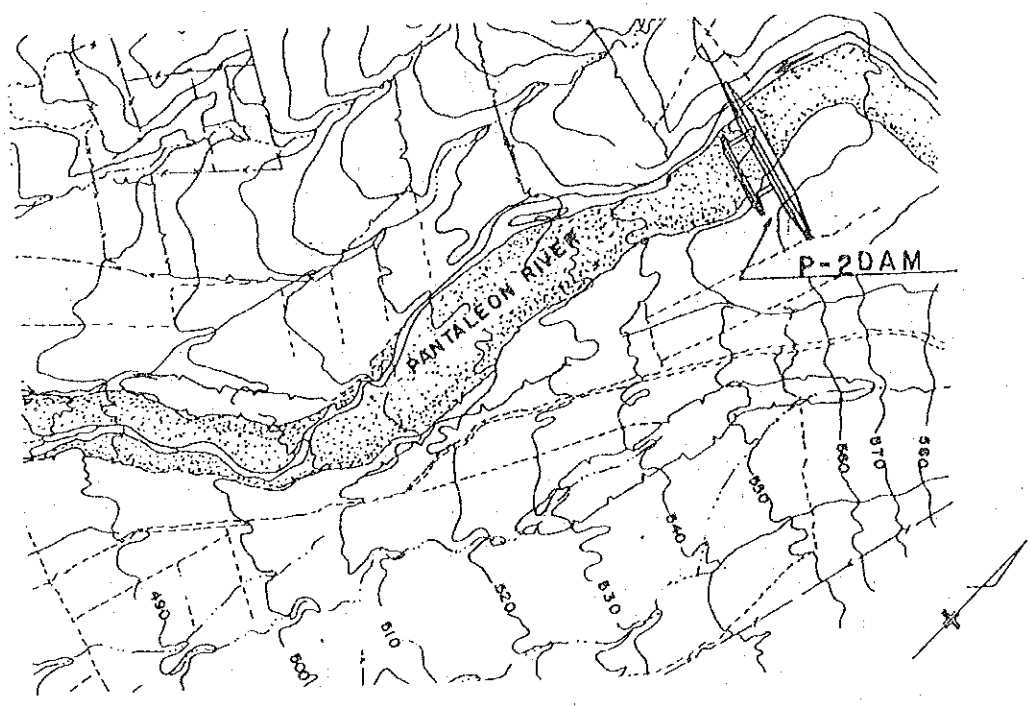
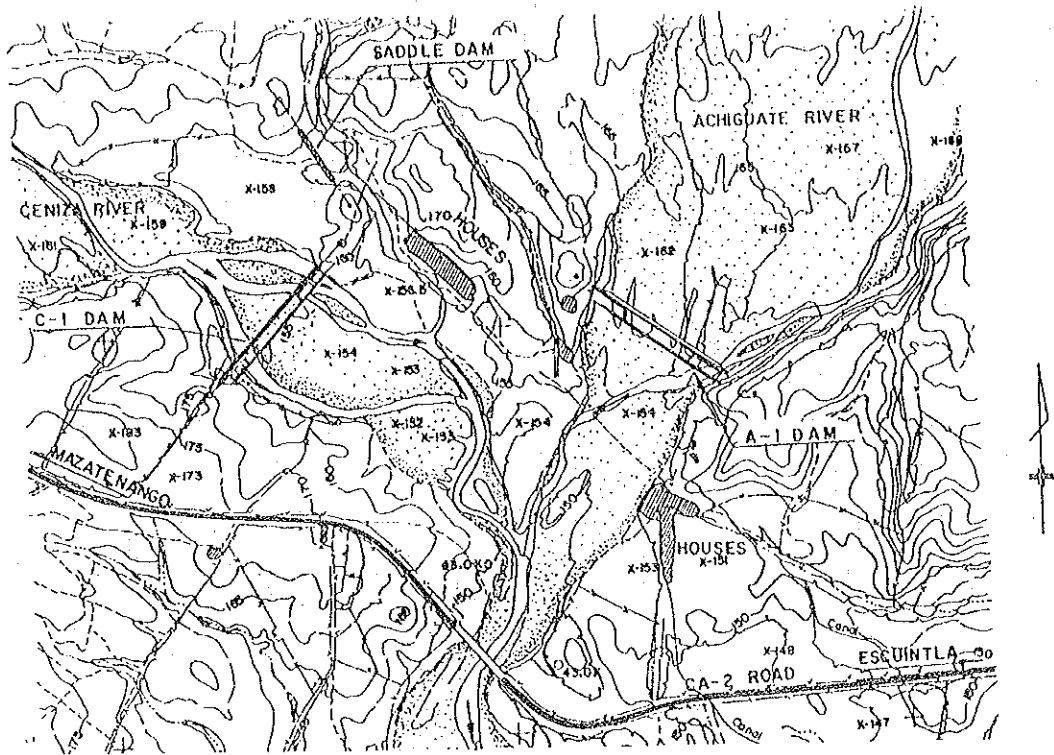


圖 6-5 緊急計画最適案砂防ダム位置図



NOTE I. EXPLANATION OF SYMBOL

+++++	RAILWAY	~	FOREST
====	ROAD	□	HOUSE
----	PATHWAY	— —	BRIDGE
----	STREAM	◎ ○	STATION POST
-X-X-	FENCE	□ BM	BENCH MARK

0 50 100 150 200 250m
SCALE 1:2,500

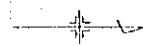
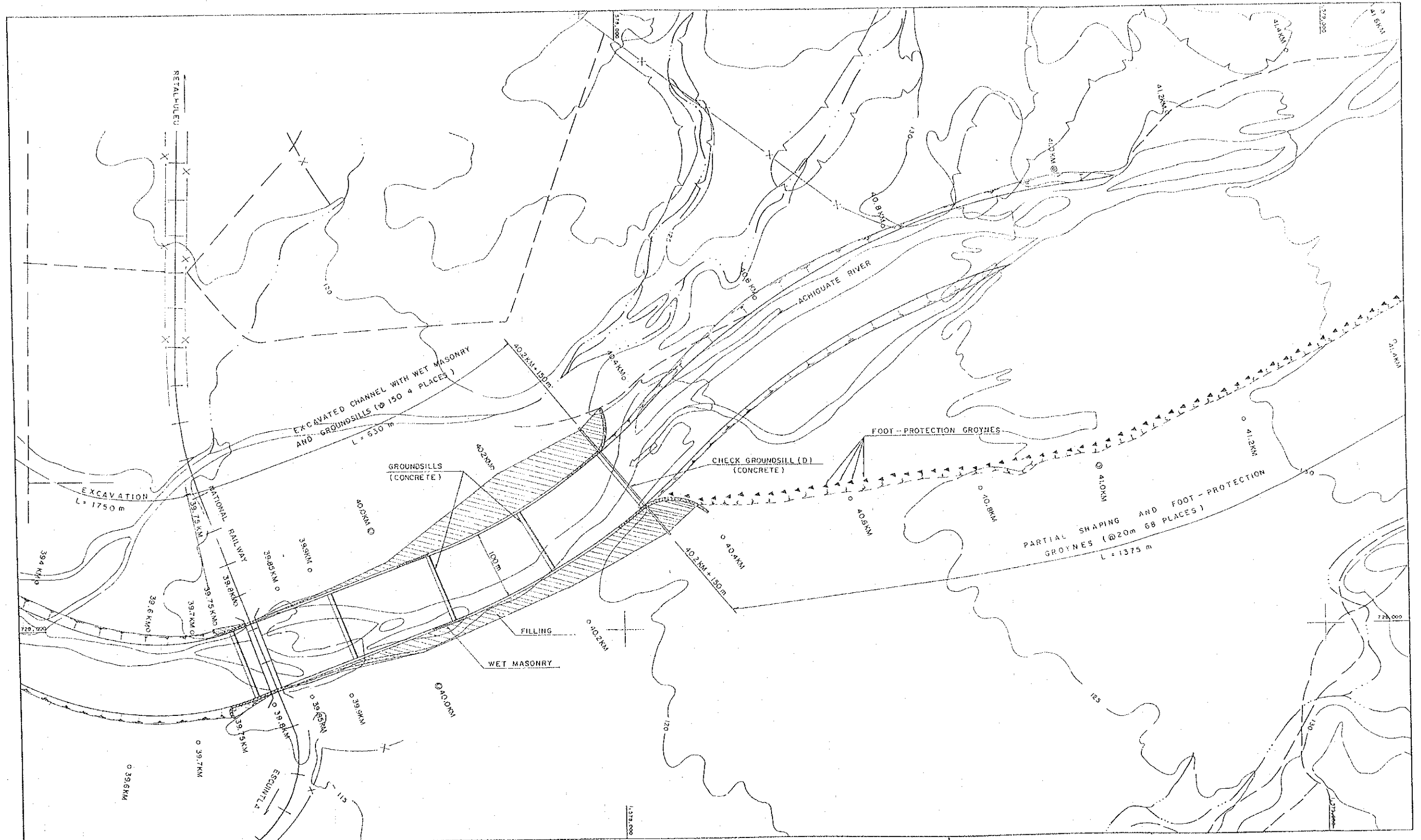


図 6-6 (1/6) 緊急計画最適案河川平面図
(アチグアテ川)



NOTE I. EXPLANATION OF SYMBOL

- | | | | |
|-------|---------|-----|-----------------|
| +++++ | RAILWAY | ▭ | FOREST |
| ==== | ROAD | ▭ | HOUSE |
| ---- | PATHWAY | ▭ | BRIDGE |
| ---- | STREAM | ⊙ ○ | STATION POST |
| -X-X- | FENCE | □ | B.M. BENCH MARK |

0 50 100 150 200 250m
SCALE 1:25 00

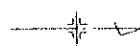
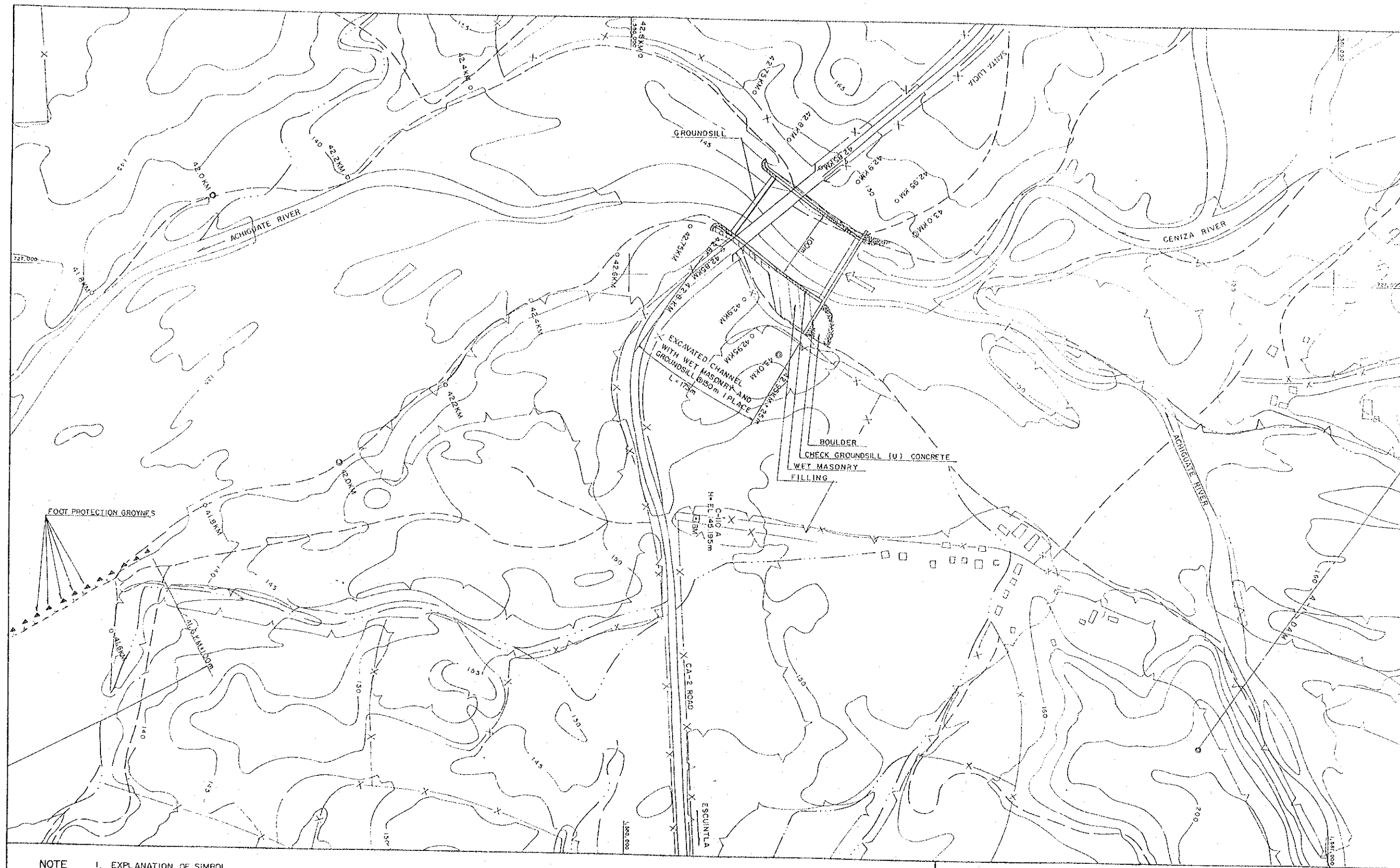


図 6-6 (2/6) 緊急計画最適案河川平面図 (アチグアテ川)



NOTE 1. EXPLANATION OF SYMBOL

++++	RAILWAY		FOREST
====	ROAD		HOUSE
----	PATHWAY		BRIDGE
----	STREAM		STATION POST
-X-X-	FENCE		BENCH MARK

0 50 100 150 200 250m
SCALE 1:2,500

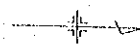


図 6-6 (3/6) 緊急計画最適案河川平面図
(アチグァテ川)

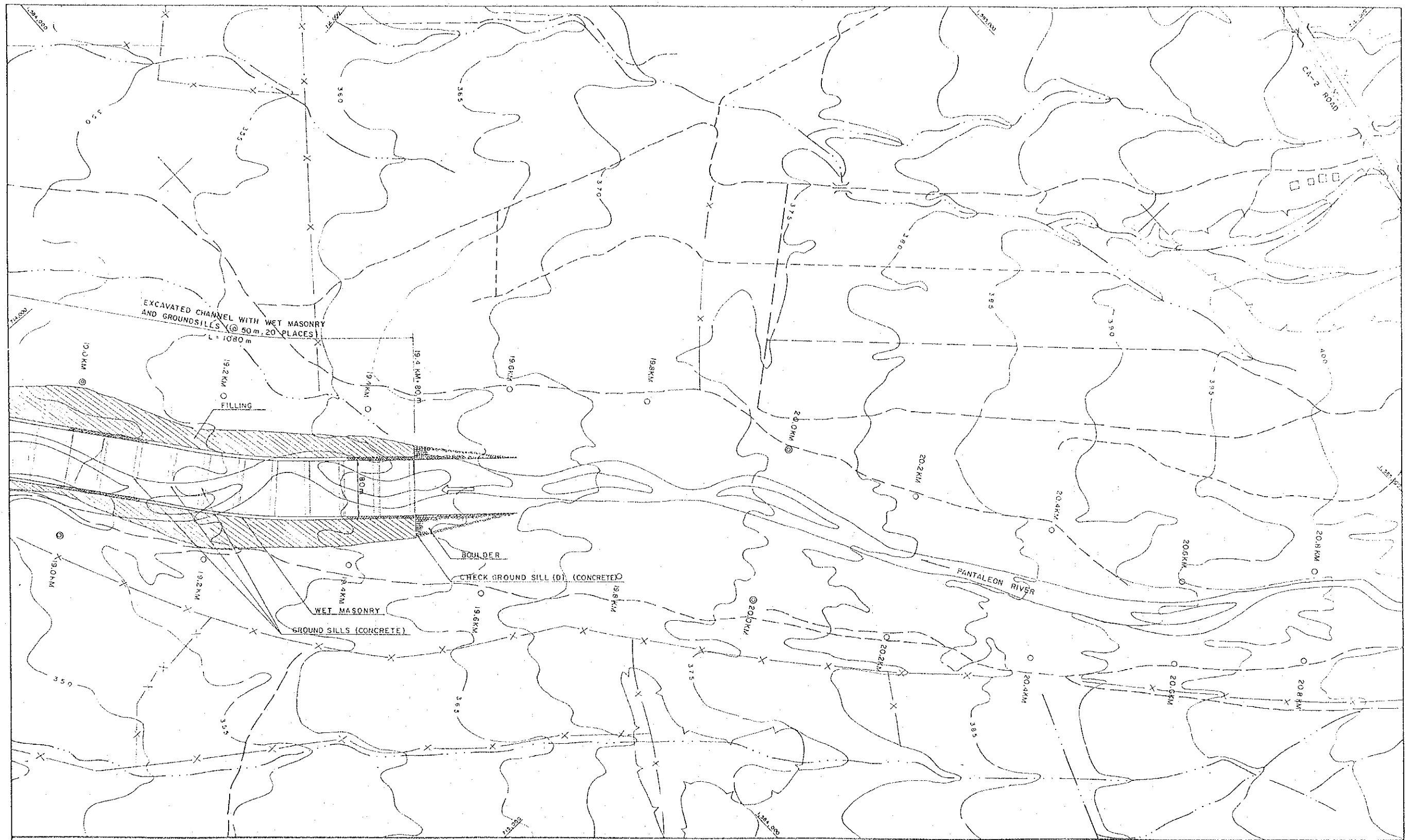


NOTE I. EXPLANATION OF SYMBOL

+++++	RAILWAY		FOREST
====	ROAD		HOUSE
-----	PATHWAY		BRIDGE
.....	STREAM		STATION POST
-X-X-	FENCE		BENCH MARK

0 50 100 150 200 250m
SCALE 1:2,500

図 6-6 (4/6) 緊急計画最適案河川平面図 (パンタレオン川)



NOTE

I. EXPLANATION OF SYMBOL

- | | | | |
|-------|---------|-----|---------------|
| +++++ | RAILWAY | ⌒ | FOREST |
| ==== | ROAD | □ | HOUSE |
| ---- | PATHWAY | ⌒ | BRIDGE |
| ---- | STREAM | ⊙ ○ | STATION POST |
| -X-X- | FENCE | □ | BM BENCH MARK |

0 50 100 150 200 250m
SCALE 1:2,500

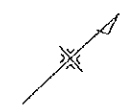
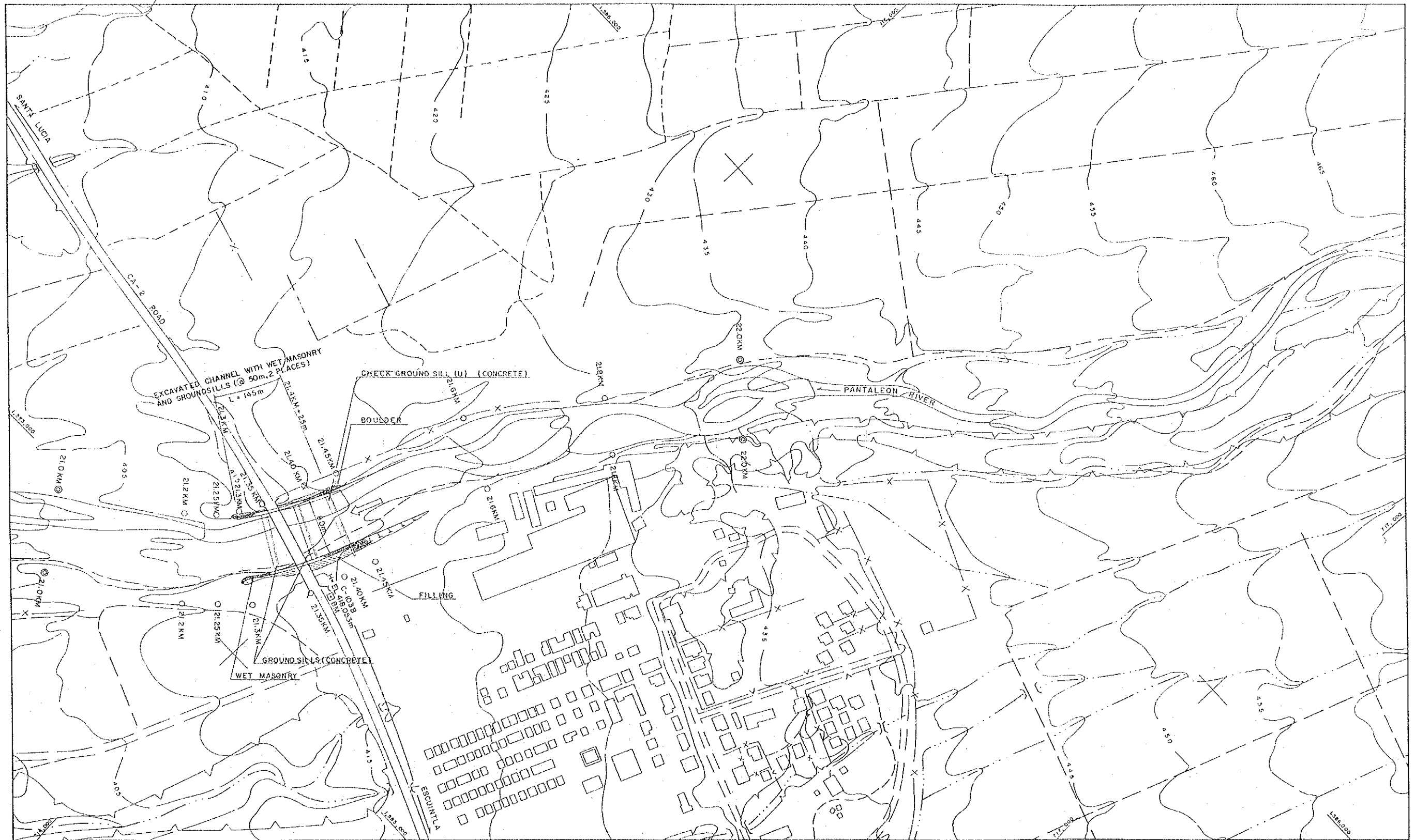


図 6-6 (5/6) 緊急計画最適案河川平面図 (パンタレオン川)



NOTE

I. EXPLANATION OF SYMBOL

- | | | | |
|-------|---------|---------|---------------|
| +++++ | RAILWAY | — — — — | FOREST |
| ===== | ROAD | □ | HOUSE |
| ----- | PATHWAY | — — — | BRIDGE |
| ~~~~~ | STREAM | ⊙ ○ | STATION POST |
| -X-X- | FENCE | □ | BM BENCH MARK |

0 50 100 150 200 250m
SCALE 1:2,500

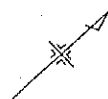
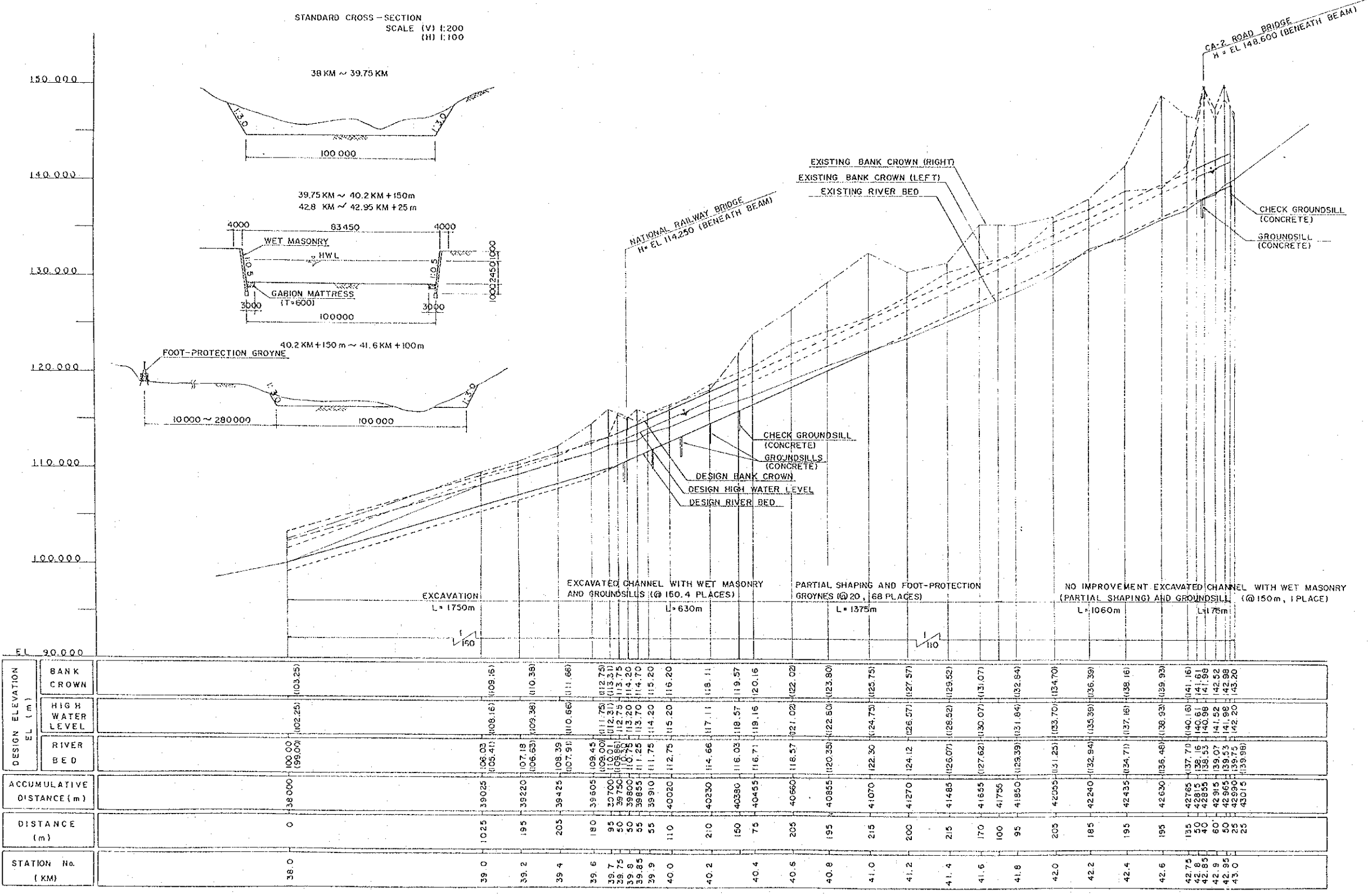


図 6-6 (6/6) 緊急計画最適案河川平面図
(パンタレオン川)



NOTE

1. The real lines and broken lines in the drawing and also the figures outside () and inside () in the columns are applied to the urgent plan and the comprehensive long-term plan, respectively.

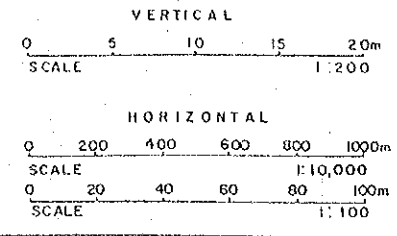
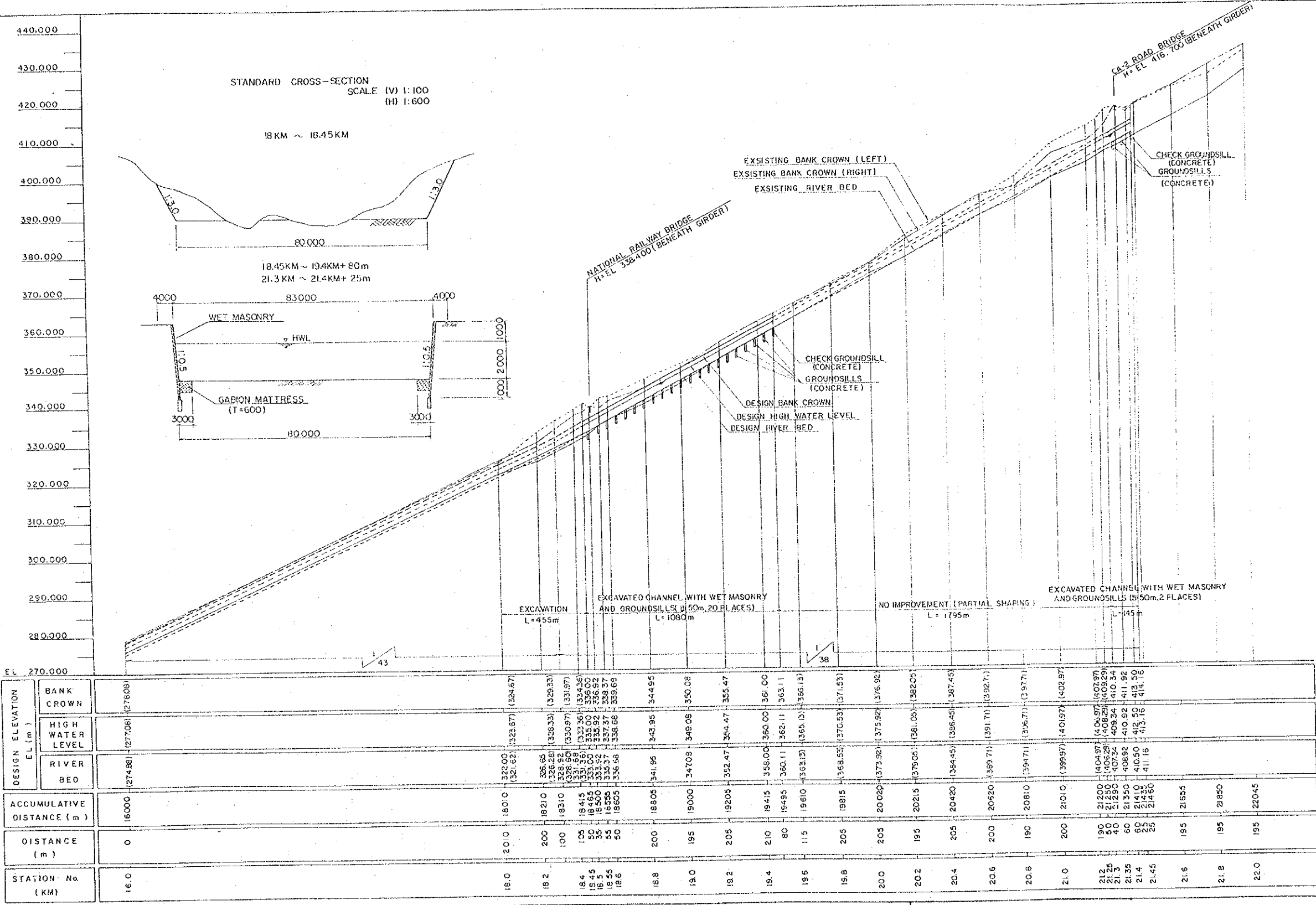


図 6-7 (1/2) 緊急計画最適案河川縦断面図 (アチグァテ川)



NOTE

1. The real lines and broken lines in the drawing and also the figures outside () and inside () in the columns are applied to the urgent plan and the comprehensive long-term plan, respectively.

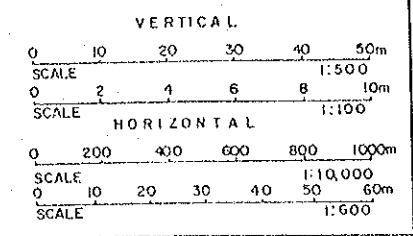
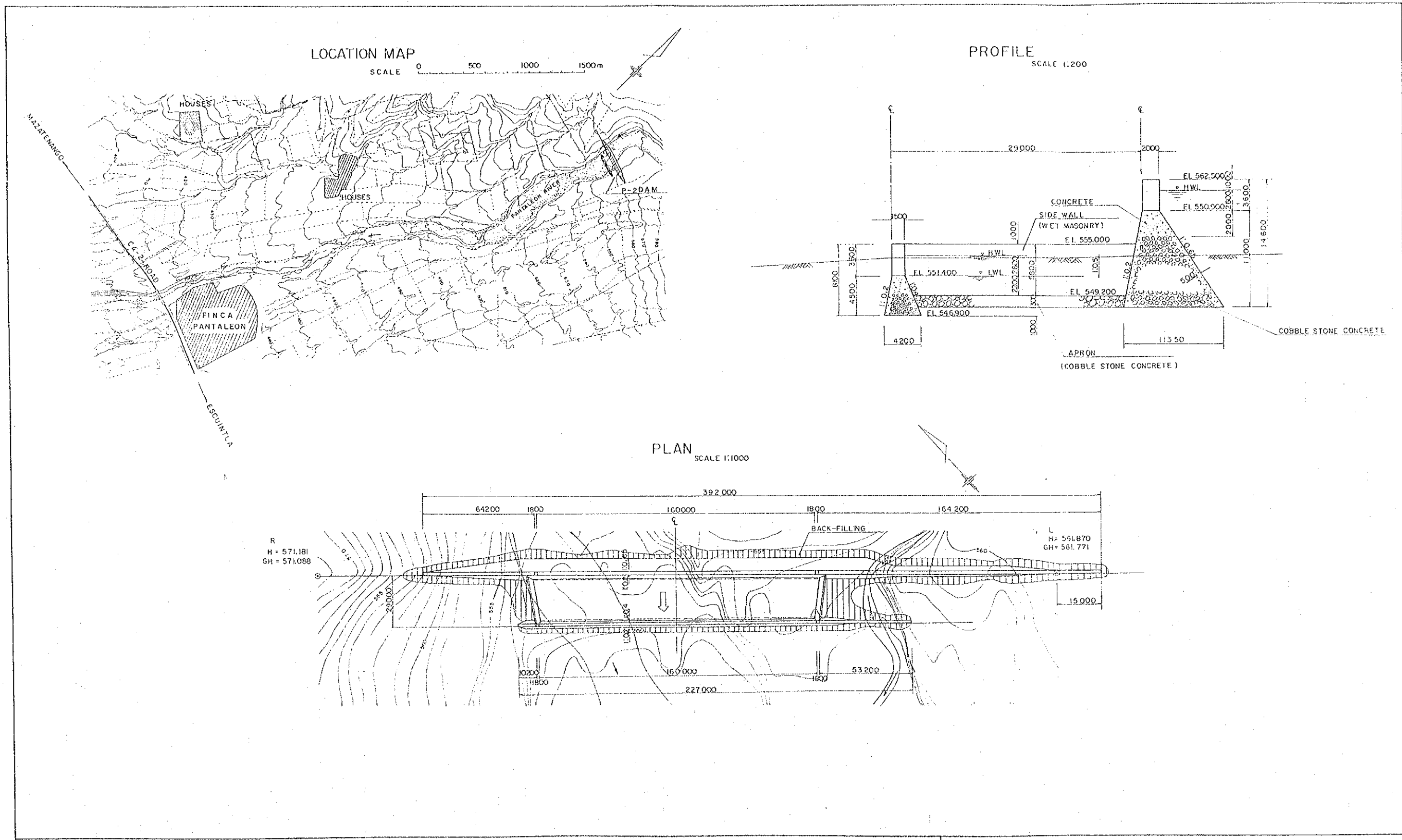


図 6-7 (2/2) 緊急計画最適案河川縦断面図 (パンタレオン川)



NOTE

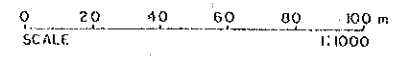
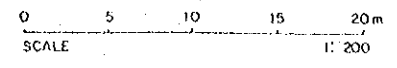
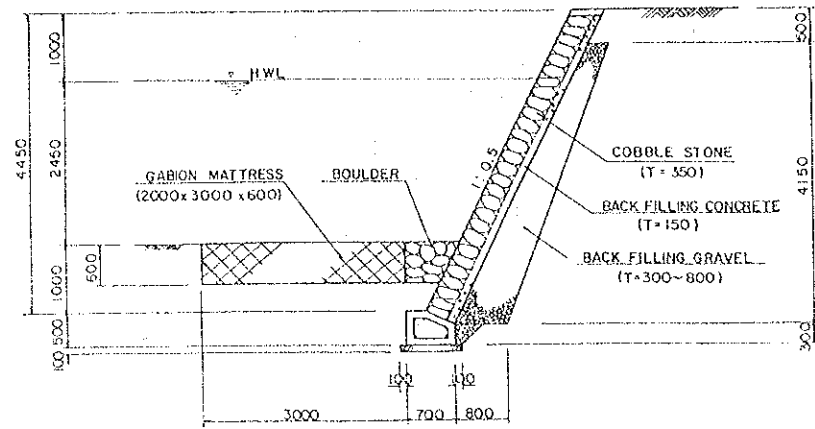


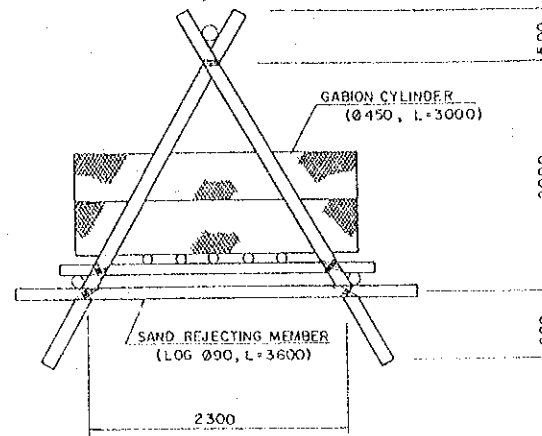
图 6-8 紧急計画最適案砂防ダム一般図

REVETMENT
SCALE 1:50

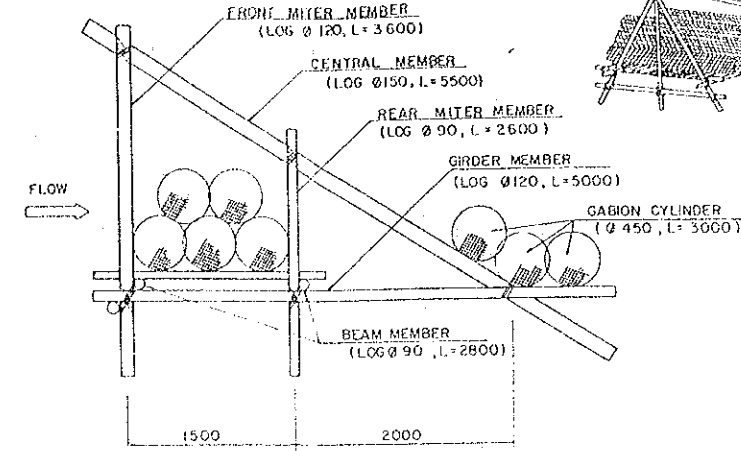


FOOT-PROTECTION GROUYNE (CRIB)
SCALE 1:30

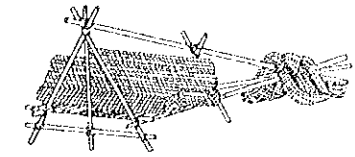
ELEVATION



SECTION



SKETCH



GROUNDSILL
SCALE 1:100

PLAN

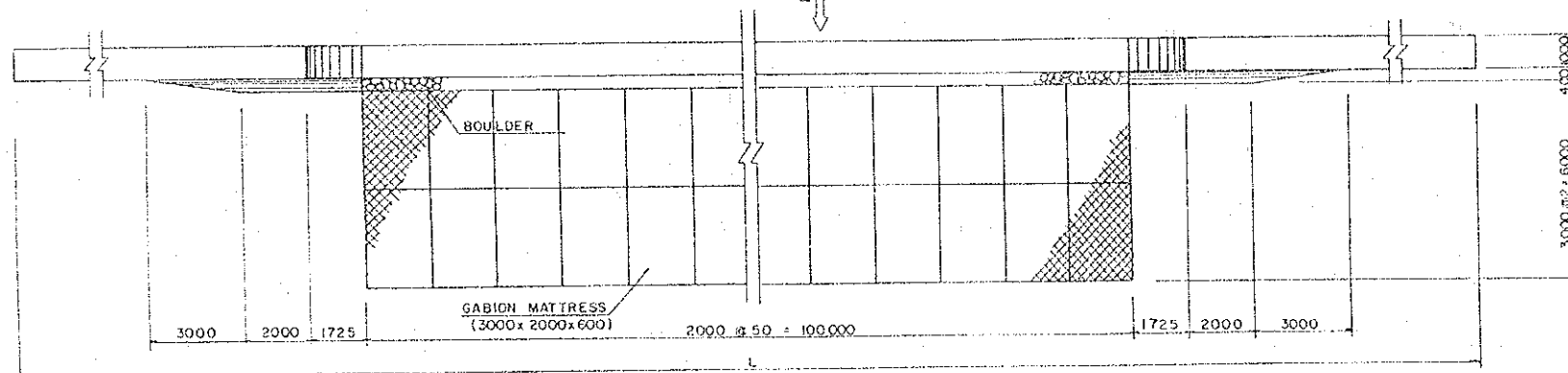
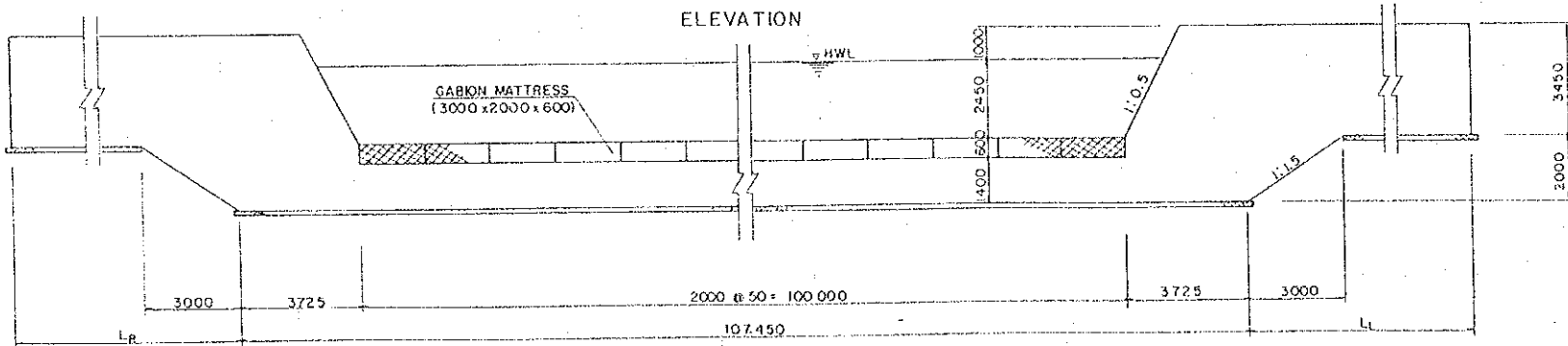


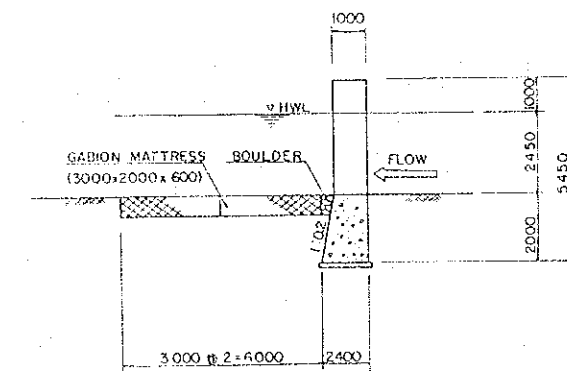
TABLE OF DIMENSIONS

STRUCTURE	L (m)	L _R (m)	L _L (m)	LOCATION
GROUNDSILLS	107.45	0	0	39.75 KM + 50m, 39.9 KM + 20m, 40.0 KM + 60m, 40.2 KM, 42.8 KM + 25 m.
CHECKGROUNDSILL (U)	172.0	15.275	49.275	42.95 KM + 25m.
CHECKGROUNDSILL (D)	201.0	43.275	50.275	40.2 KM + 150m.

ELEVATION



SECTION



NOTE

0 1 2 3m
SCALE 1:30

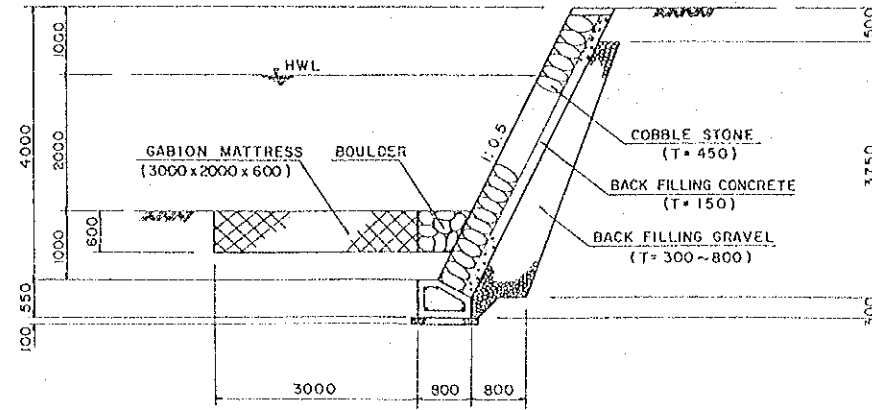
0 1 2 3 4 5m
SCALE 1:50

0 2 4 6 8 10m
SCALE 1:100

図 6-9 (1/2) 緊急計画最適案河川構造物一般図
(アチグァテ川)

REVETMENT

SCALE 1:50



PLAN

GROUNDSILL

SCALE 1:100

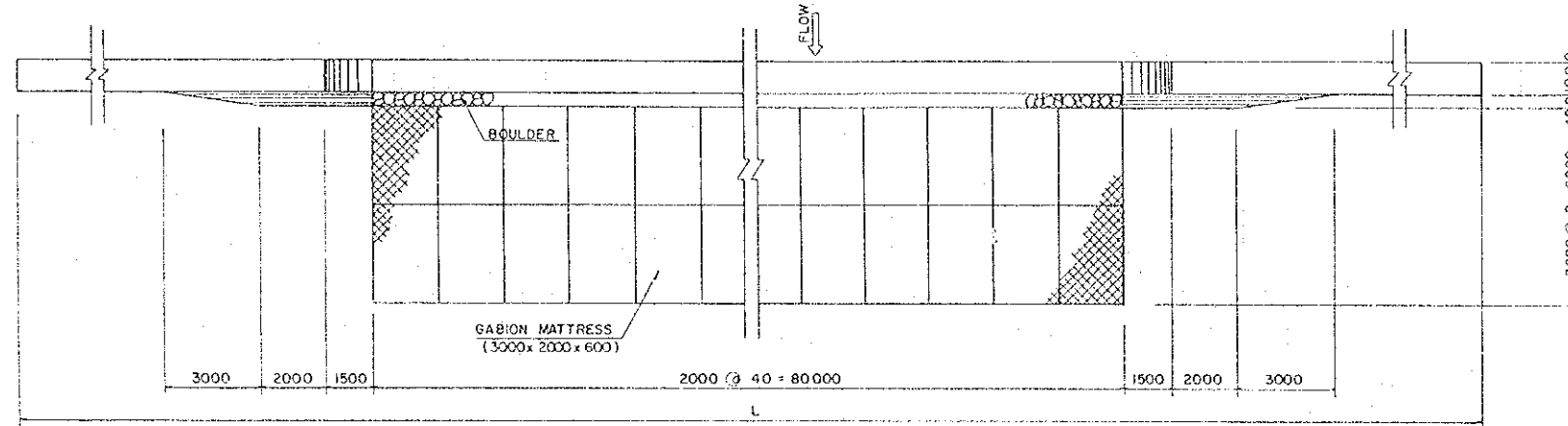
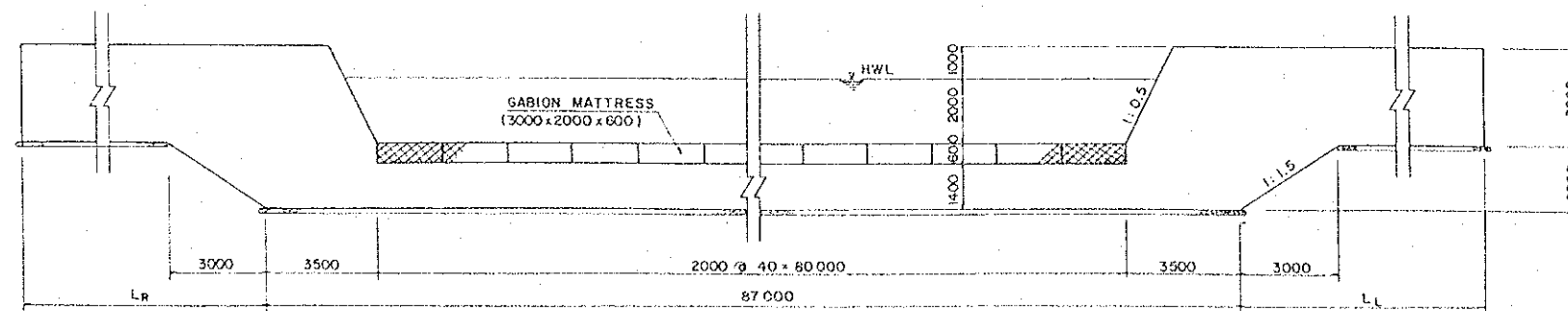


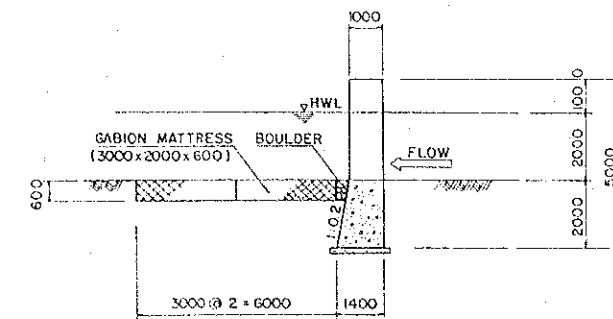
TABLE OF DIMENSIONS

STRUCTURE	L (m)	L _R (m)	L _L (m)	LOCATION
GROUNDSILLS	87.0	0	0	18.45KM+30m, +45m, 18.55KM+10m, 18.6KM+40m, +90m, +140m, +190m, 18.8KM+10m, +90m, +140m, 19.0KM+45m, +95m
CHECKGROUNDSILL (U)	104.0	3.5	13.5	+145m, +195m, 19.2KM+40m, +90m, +140m, +190m
CHECKGROUNDSILL (D)	132.0	28.5	16.5	19.4KM+50m, 21.7KM+45m, 21.35KM+35m

ELEVATION



SECTION



NOTE

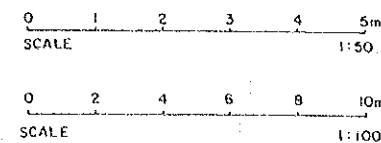


図 6-9 (2/2) 緊急計画最適案河川構造物一般図 (パンタレオン川)

CONSTRUCTION WORKS	RIVER IMPROVEMENT	SEDIMENT CONTROL DAM	WORK ITEM	VOLUME	YEAR				
					1986	1987	1988	1989	1990
CONSTRUCTION WORKS	RIVER IMPROVEMENT	SEDIMENT CONTROL DAM	DETAILED DESIGN	L/S	██████████	-----			
			PREPARATION	L/S		██████████			
			EXCAVATION	30,800 m ³		██████████			
			STONE CONCRETE WORKS	21,900 m ³		██████████	-----		
			OTHER WORKS	L/S				██████████	
			EXCAVATION	26,000 m ³		██████████			
			STONE CONCRETE WORKS	16,200 m ³		██████████	-----		
			OTHER WORKS	L/S					██████████
			EXCAVATION	51,200 m ³		██████████			
			STONE CONCRETE WORKS	24,300 m ³		██████████	-----		
			OTHER WORKS	L/S					██████████
			PREPARATION	L/S				██████████	
			ACHIGUATE	574,000 m ³		██████████	-----		
PANTALEON	8,020 m ²		██████████						
ACHIGUATE	68 unit					██████████			
PANTALEON	2,760 m ³		██████████	-----					
PANTALEON	199,000 m ³					-----			
PANTALEON	10,200 m ²		██████████						
PANTALEON	6,600 m ³					██████████			

圖 6-10 緊急計畫最遲案工事計畫

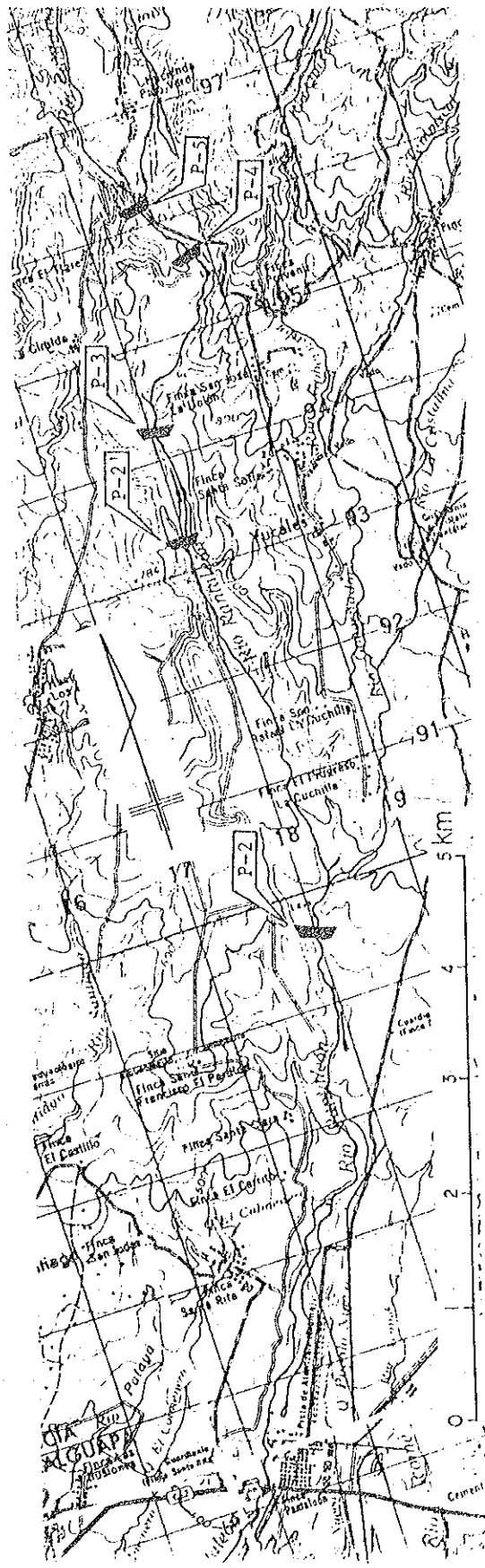
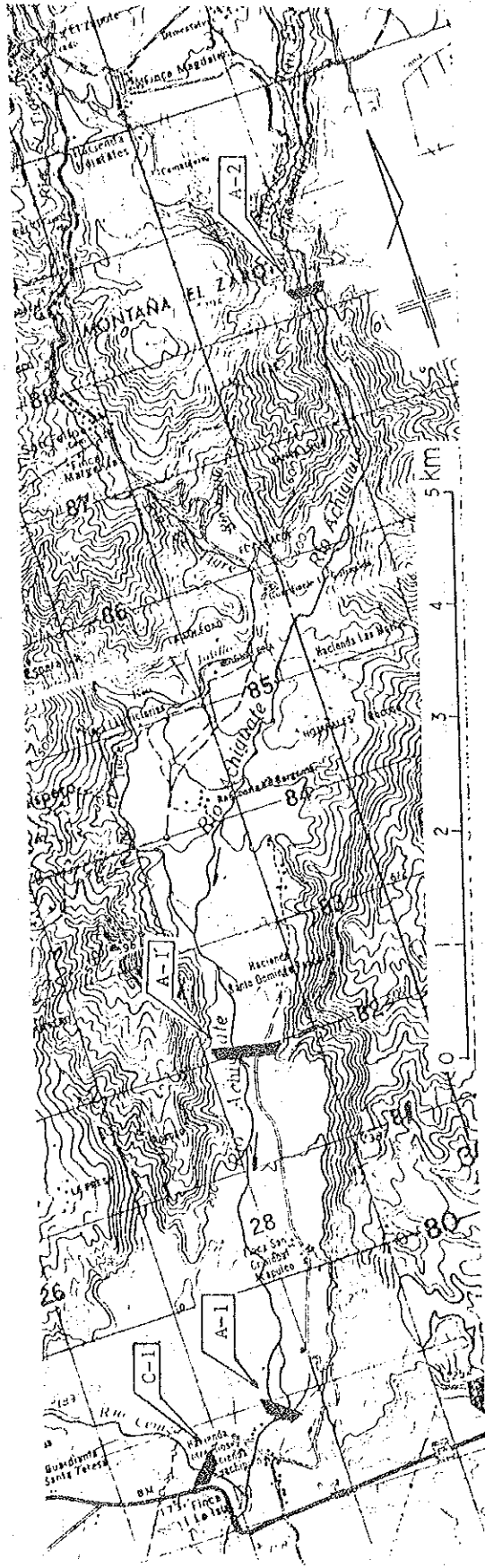
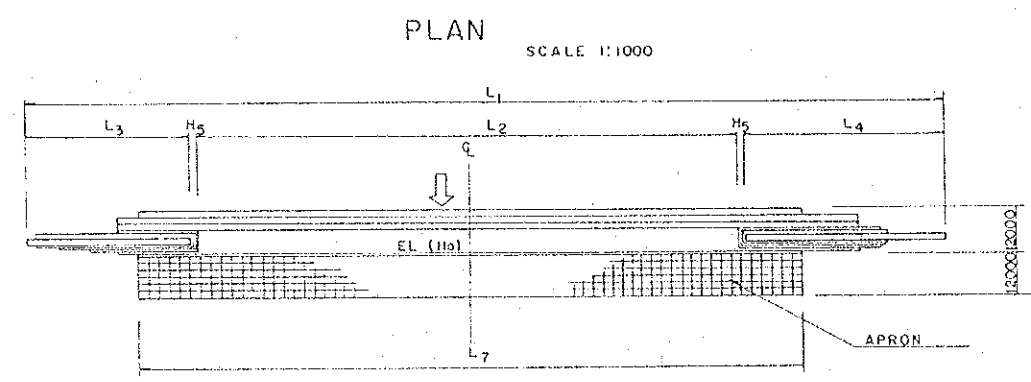
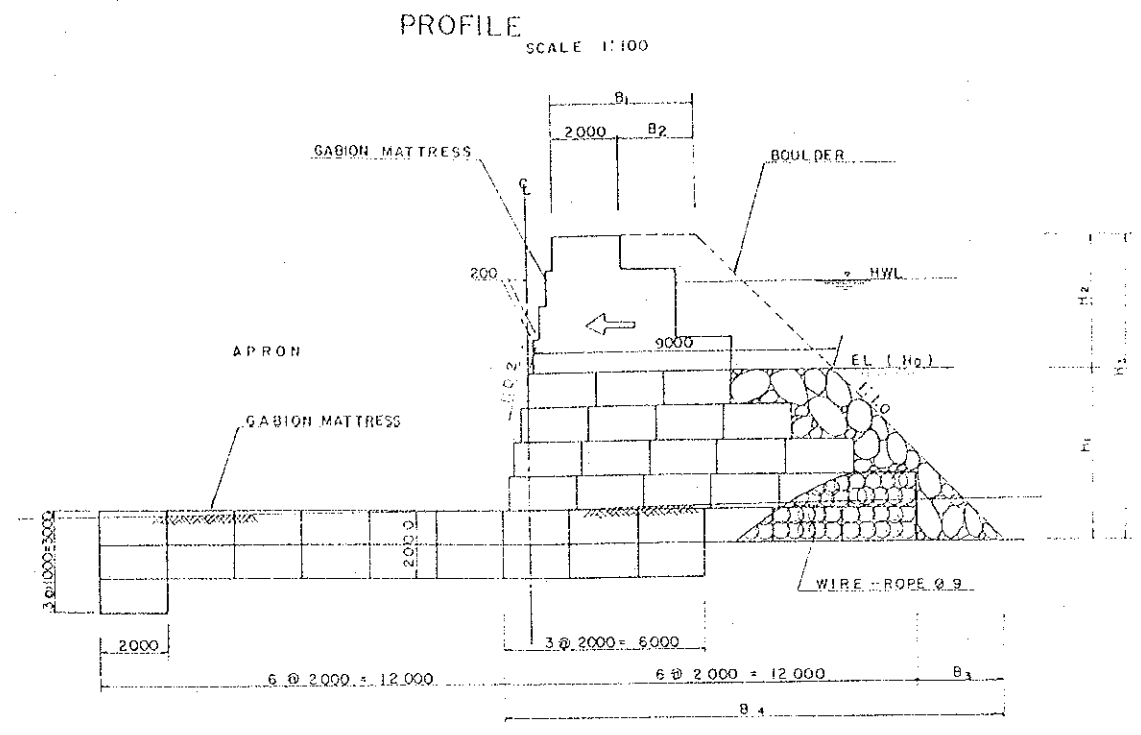
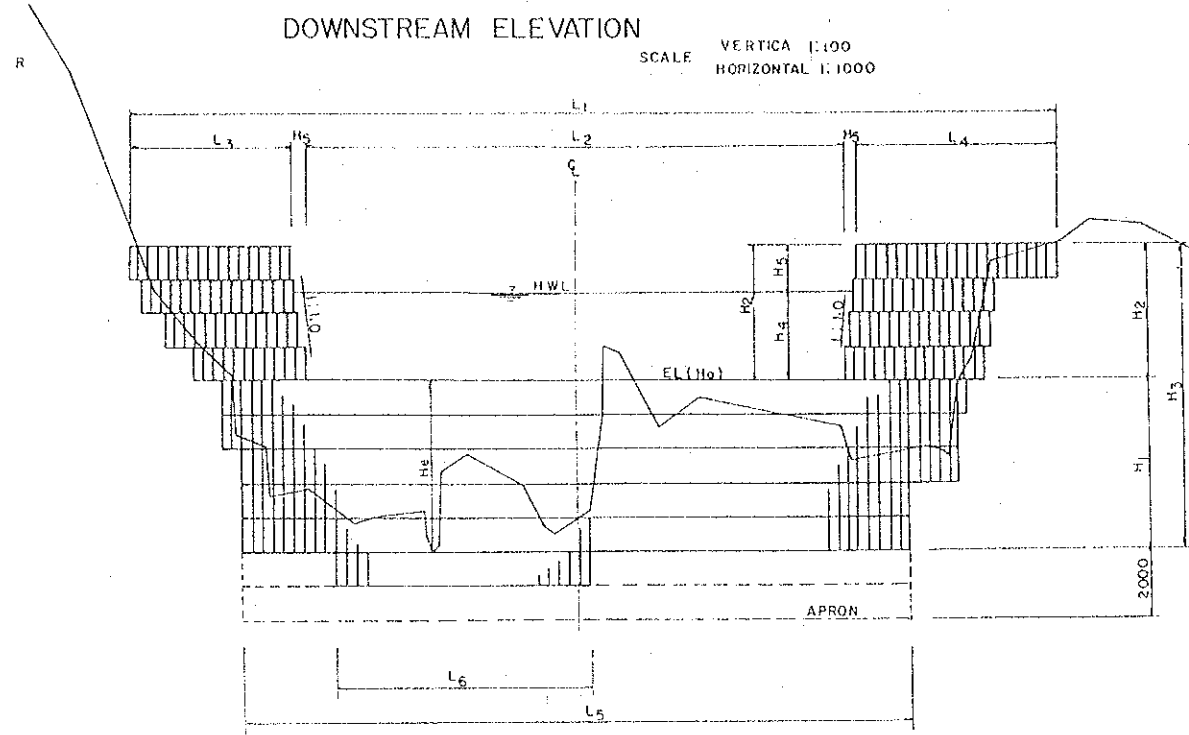


図 6-11 緊急計画代替案砂防ダム位置図



DIMENSIONS

RIVER NAME	DAM SITE	MAIN DAM														APRON				
		LENGTH (m)						HEIGHT (m)						WIDTH (m)				WIDTH (m)		
		L1	L2	L3	L4	L5	L6	H6	H1	H2	H3	H4	H5	H6	B1	B2	B3		B4	L7
ACHIGUATE	A-1	404	180	114	102	360	111	5	5	4	9	2.4	1.6	156.8	4.2	2.2	2.6	14.6	300	
	A-1'	401	180	99	114	198	75	3.5	4	4	8	2.3	1.7	213.5	4.2	2.2	1.8	13.8	249	
	A-2	101	70	9	12	81	81	5	5	5	10	3.9	1.1	535	3	1	2.6	14.6	81	
PANTALEON	C-1	424	220	87	111	330	90	4.5	5	3	8	2.1	0.9	154.6	5.4	3.4	2.6	14.6	330	
	P-2	276	160	48	60	198	75	5	5	4	9	2.6	1.4	554.9	4.4	2.2	2.6	14.6	198	
	P-2'	308	120	87	93	279	140	4	4	4	8	2.8	1.2	694.5	4.4	2.2	1.8	13.8	198	
	P-3	167	120	18	21	132	132	5	5	4	9	2.8	1.2	795	4.4	2.2	2.6	14.6	150	
	P-4	170	120	24	18	141	141	5	5	4	9	2.8	1.2	815	4.4	2.2	2.6	14.6	141	
P-5	158	120	12	18	141	81	5	5	4	9	2.8	1.2	855	4.4	2.2	2.6	14.6	141		

NOTE

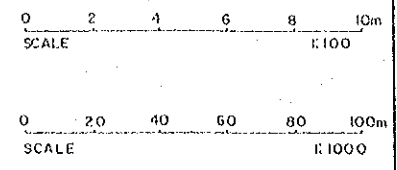


图 6-12 緊急計画代替案砂防ダム一般図

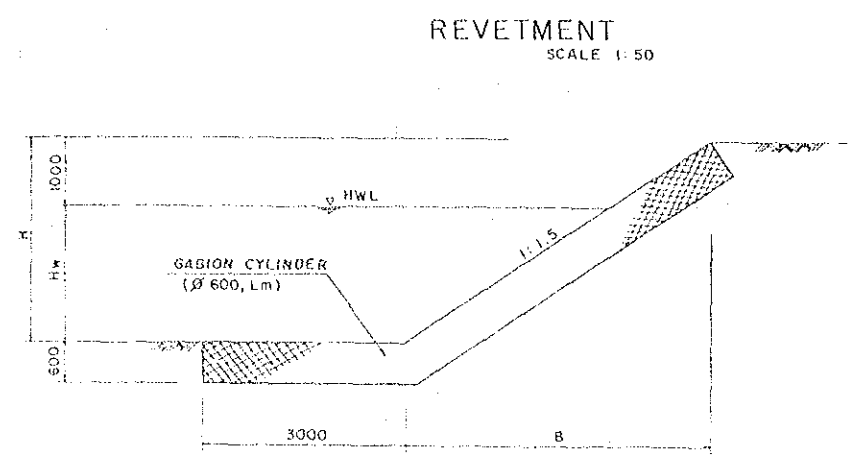


TABLE OF DIMENSIONS

RIVER	Hw(m)	H(m)	B(m)	L(m)
ACHIGUATE RIVER	2.1	3.1	4.65	8.0
PANTALEON RIVER	1.7	2.7	4.05	7.0

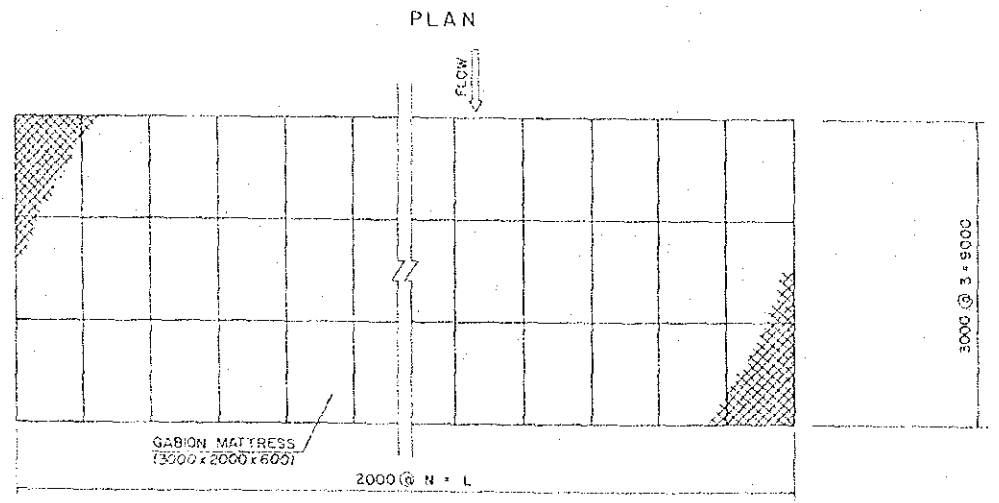
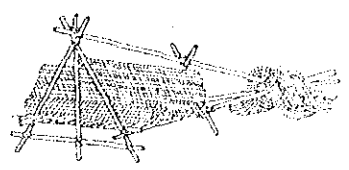
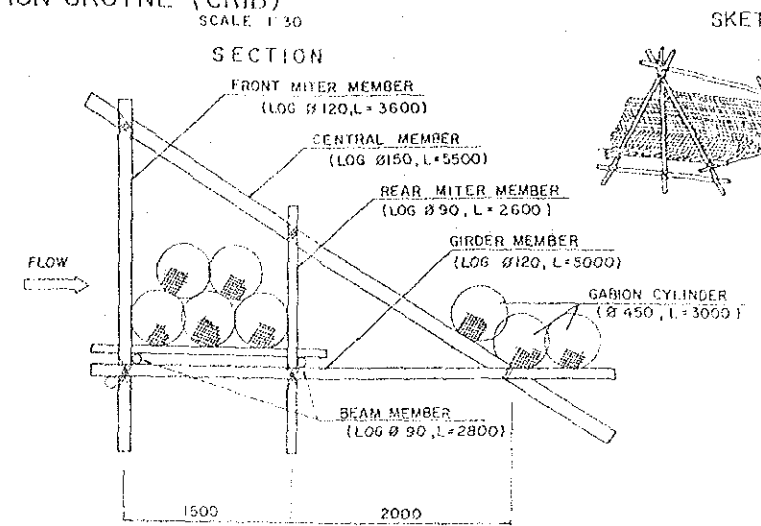
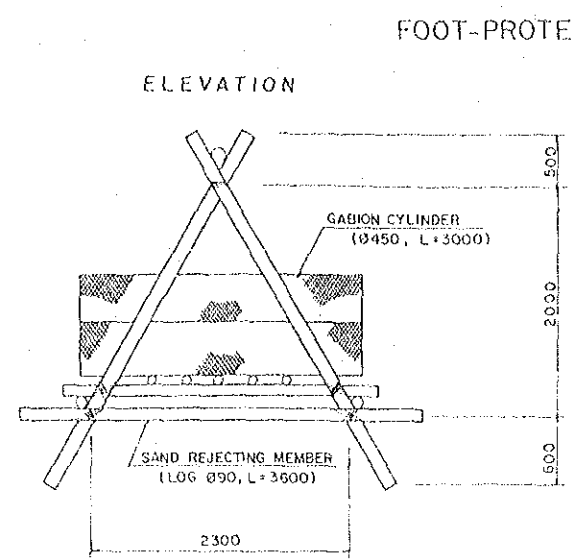
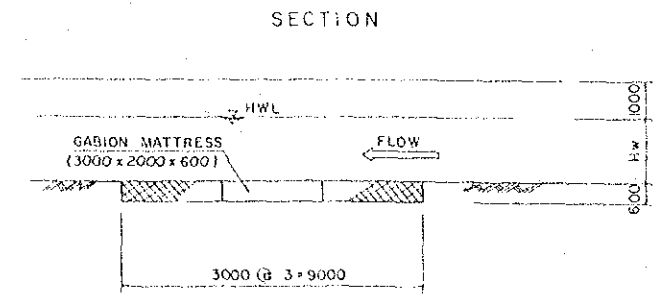
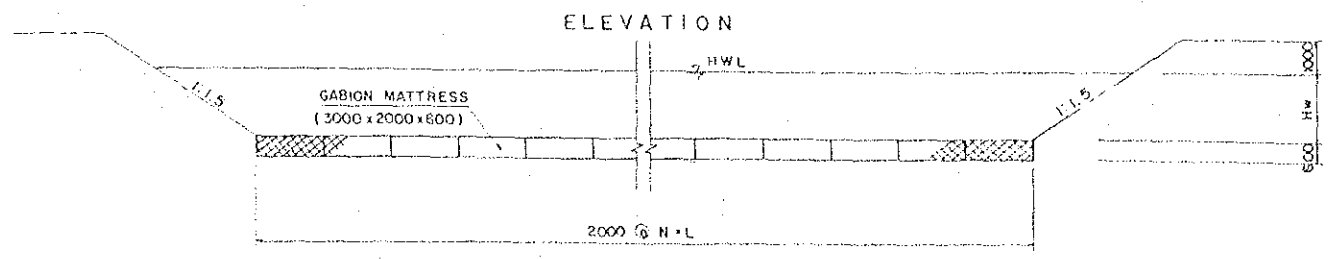


TABLE OF DIMENSIONS

RIVER	N	L(m)	Hw(m)	LOCATION
ACHIGUATE RIVER	50	100.0	2.1	18.43KM+30m, +45m, 18.55KM+40m, +30m, +140m, +190m, 18.8KM+40m, +30m, +140m, +190m, 19.0KM+45m, +55m, +145m, +195m, 19.2KM+40m, +90m, +140m, +190m.
PANTALEON RIVER	40	80.0	1.7	39.75KM+20m, 39.8KM+20m, 40.0KM+80m, 40.2KM, 40.2KM+130m, 42.0KM+25m, 43.95KM+25m, 19.4KM+30m, +30m, 21.34KM+45m, 21.35KM+25m, 21.4KM+25m.



NOTE

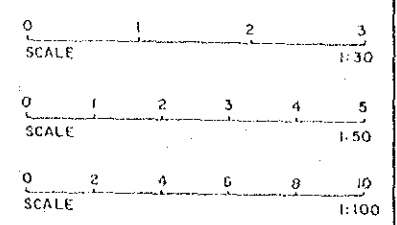


圖 6-13 緊急計畫代替案河川構造物一般圖

CONSTRUCTION WORKS	WORK ITEM	VOLUME	YEAR					
			1986	1987	1988	1989	1990	
DETAILED DESIGN	PREPARATION	L/S	██████████	-----	██████████			
		L/S						
	SEDIMENT CONTROL DAM	A-1 DAM (GABION MATTRESS)	38,000 m ³			██████████		
		A-2 DAM (do)	21,000 m ³			██████████		
		A-3 DAM (do)	9,000 m ³			██████████		
		C-1 DAM (do)	35,000 m ³			██████████		
		P-2 DAM (do)	23,000 m ³				██████████	
	PANTALEON	P-2' DAM (do)	21,000 m ³				██████████	
		P-3 DAM (do)	16,000 m ³					██████████
		P-4 DAM (do)	14,000 m ³					██████████
		P-5 DAM (do)	18,000 m ³					██████████
		PREPARATION	L/S			██████████		
	RIVER IMPROVEMENT	ACHIGUATE	EXCAVATION				██████████	██████████
			REVETMENT WORKS (GABION CYLINDER)	4,960 m ³				██████████
		PANTALEON	GROYNE WORKS (CRIB)	68 unit				
GROUND SILL WORKS (GABION MATTRESS)			3,150 m ³			██████████		██████████
ACHIGUATE		EXCAVATION	146,000 m ³				██████████	
PANTALEON		REVETMENT WORKS (GABION CYLINDER)	5,980 m ³				██████████	
GROUND SILL WORKS (GABION MATTRESS)		8,640 m ³				██████████	██████████	

圖 6-14 緊急計画代替案工事時面

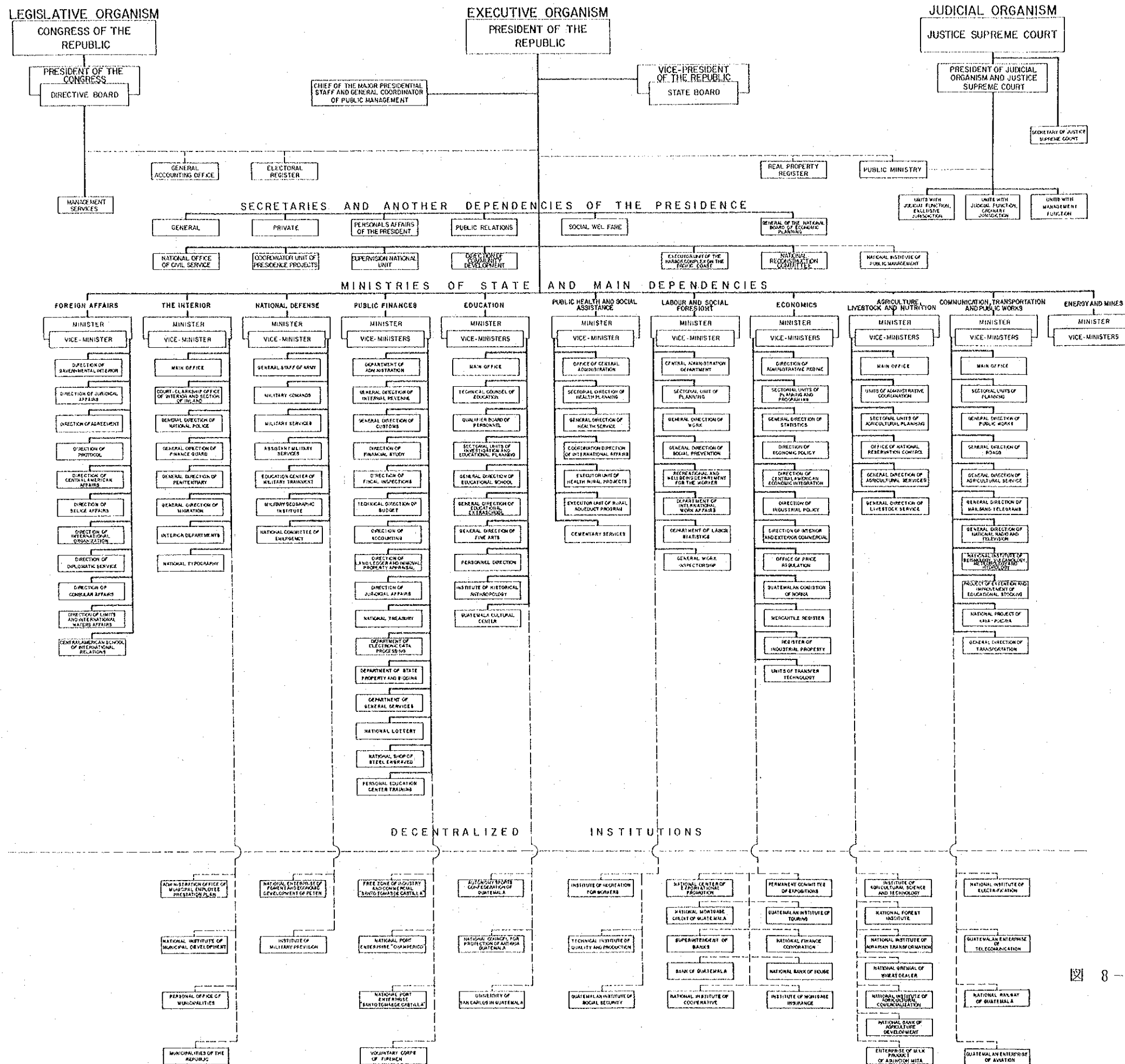


图 8-1 古アテマラ国政府組織図

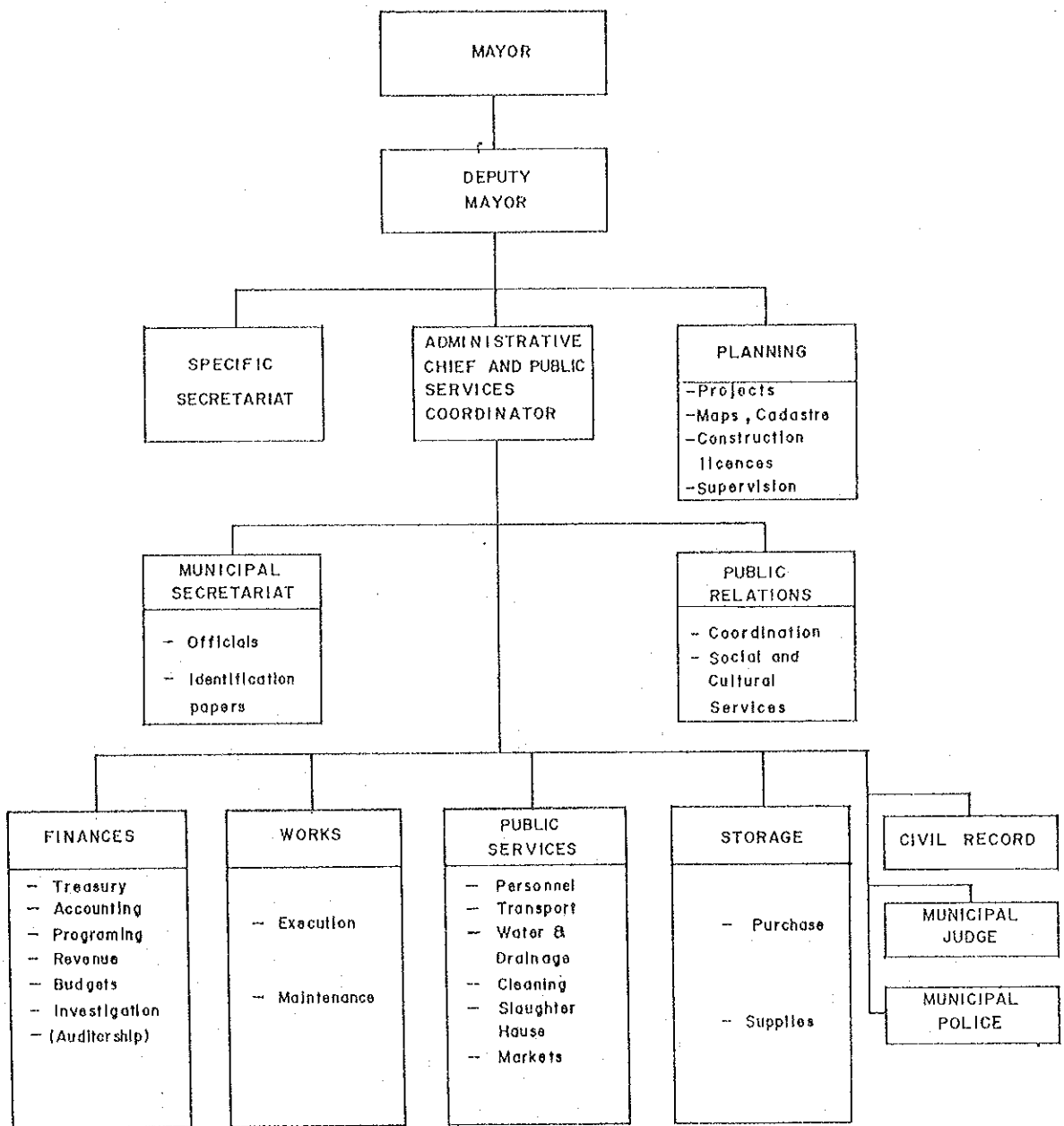


図 8-2 エスキントラ市組織図

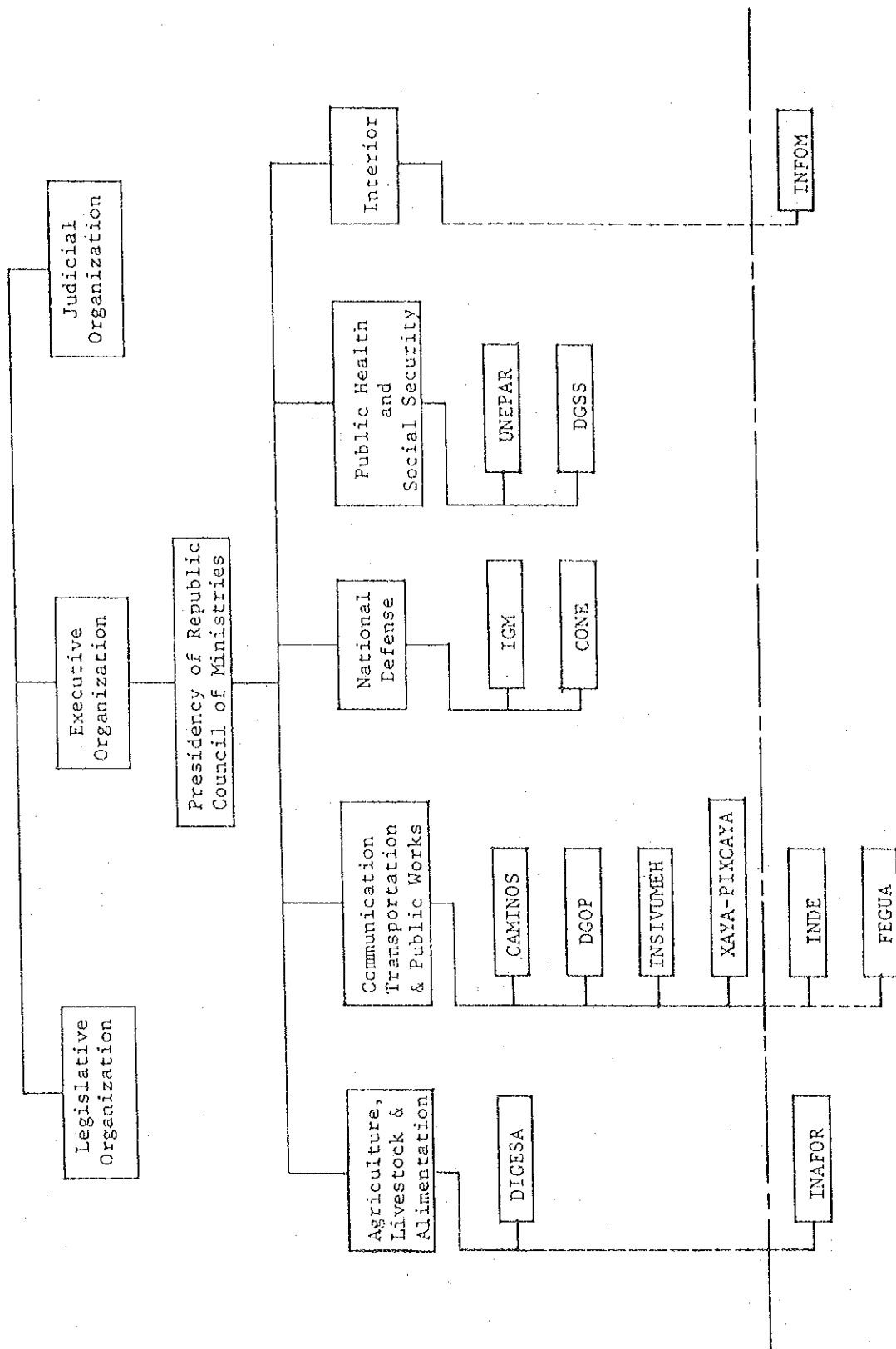


図 8-3 グアテマラ国の水管理関連組織図

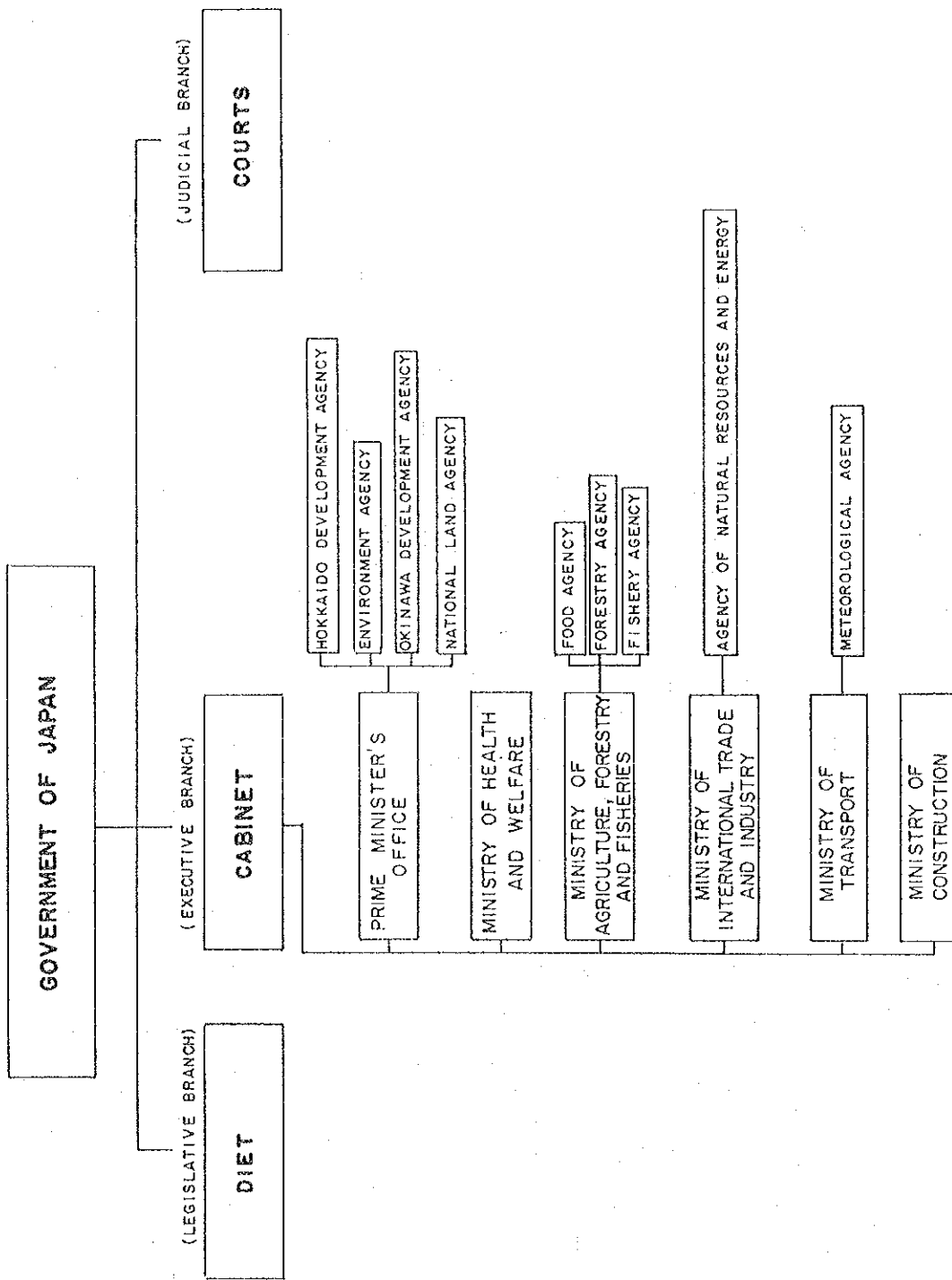


図 8-4 日本の水管理に係わる行政組織図

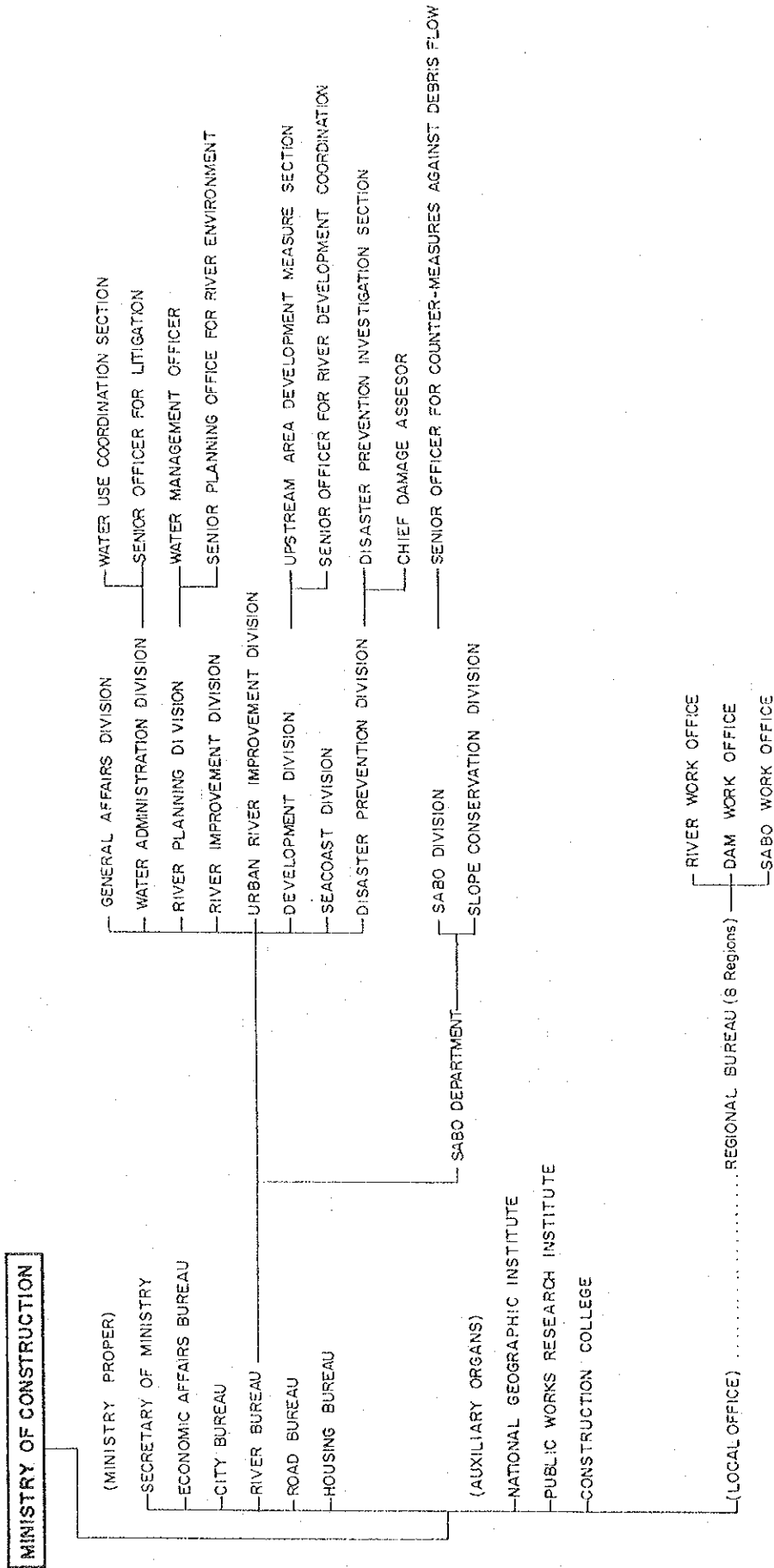


図 8-5 建設省河川局の組織図

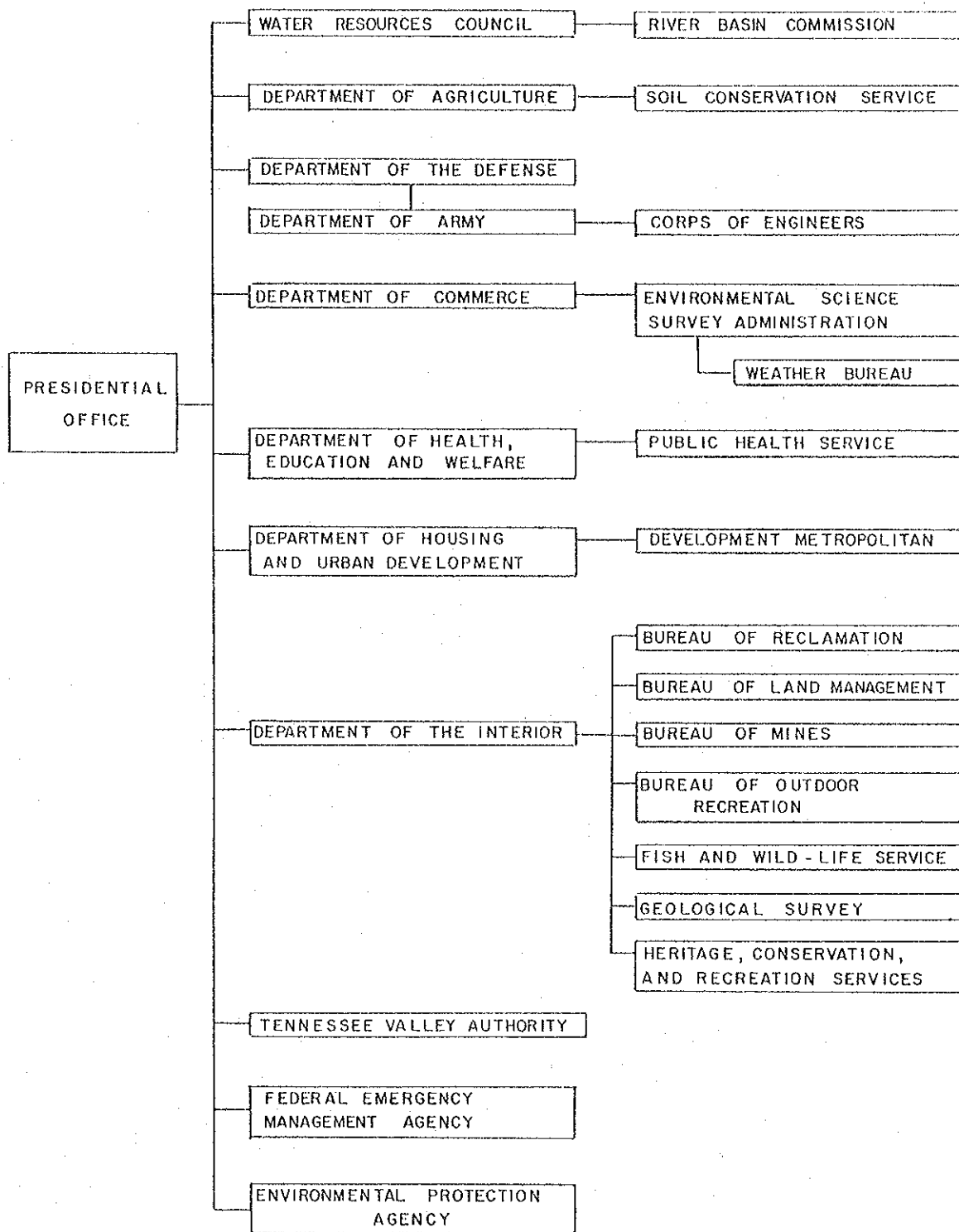


図 8-6 米国の水管理に係わる行政組織図

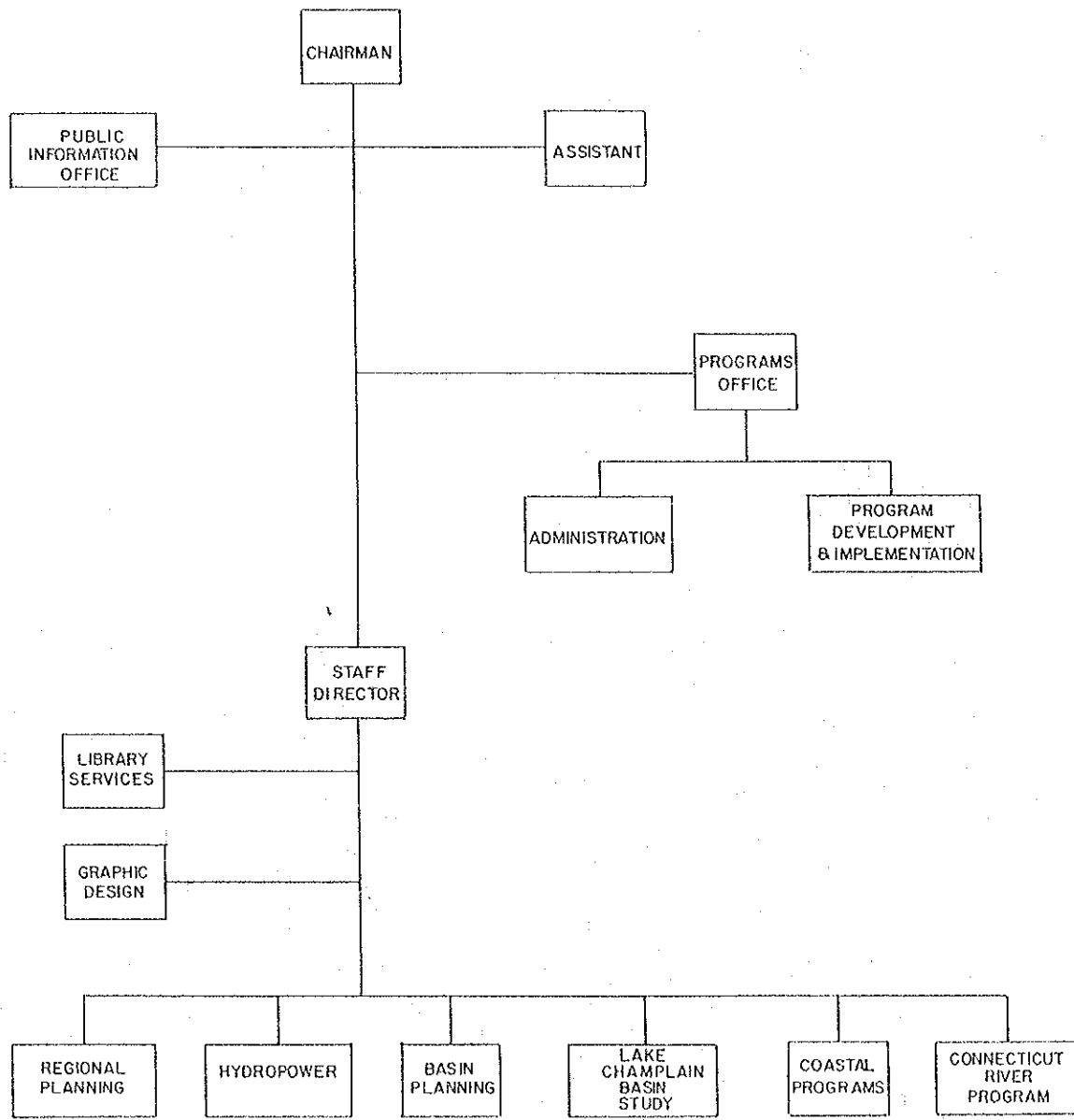


図 8-7 ニューイングランド河川流域委員会の組織図

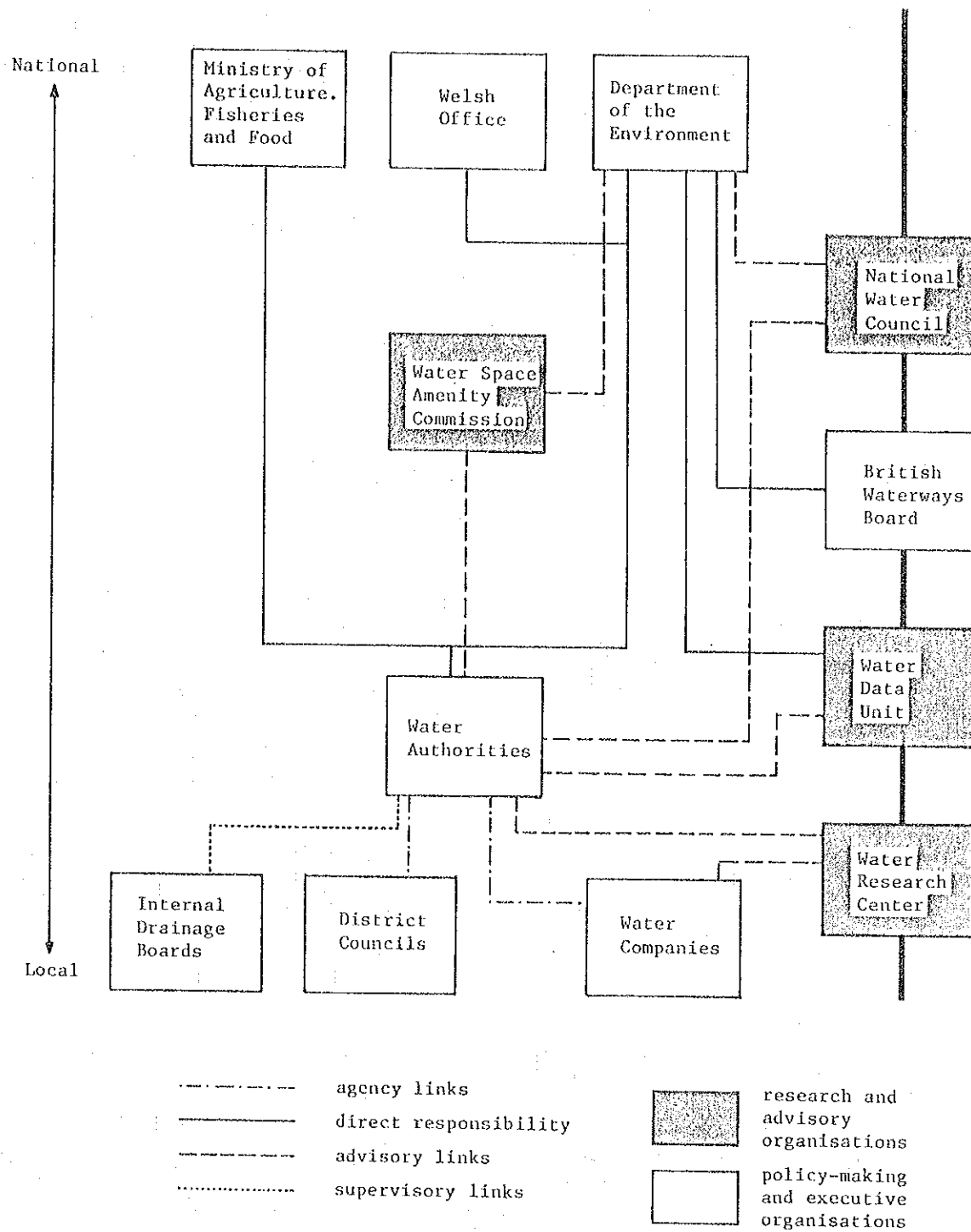


図 8-8 英国の水管理行政組織図

COMMITTEE STRUCTURE

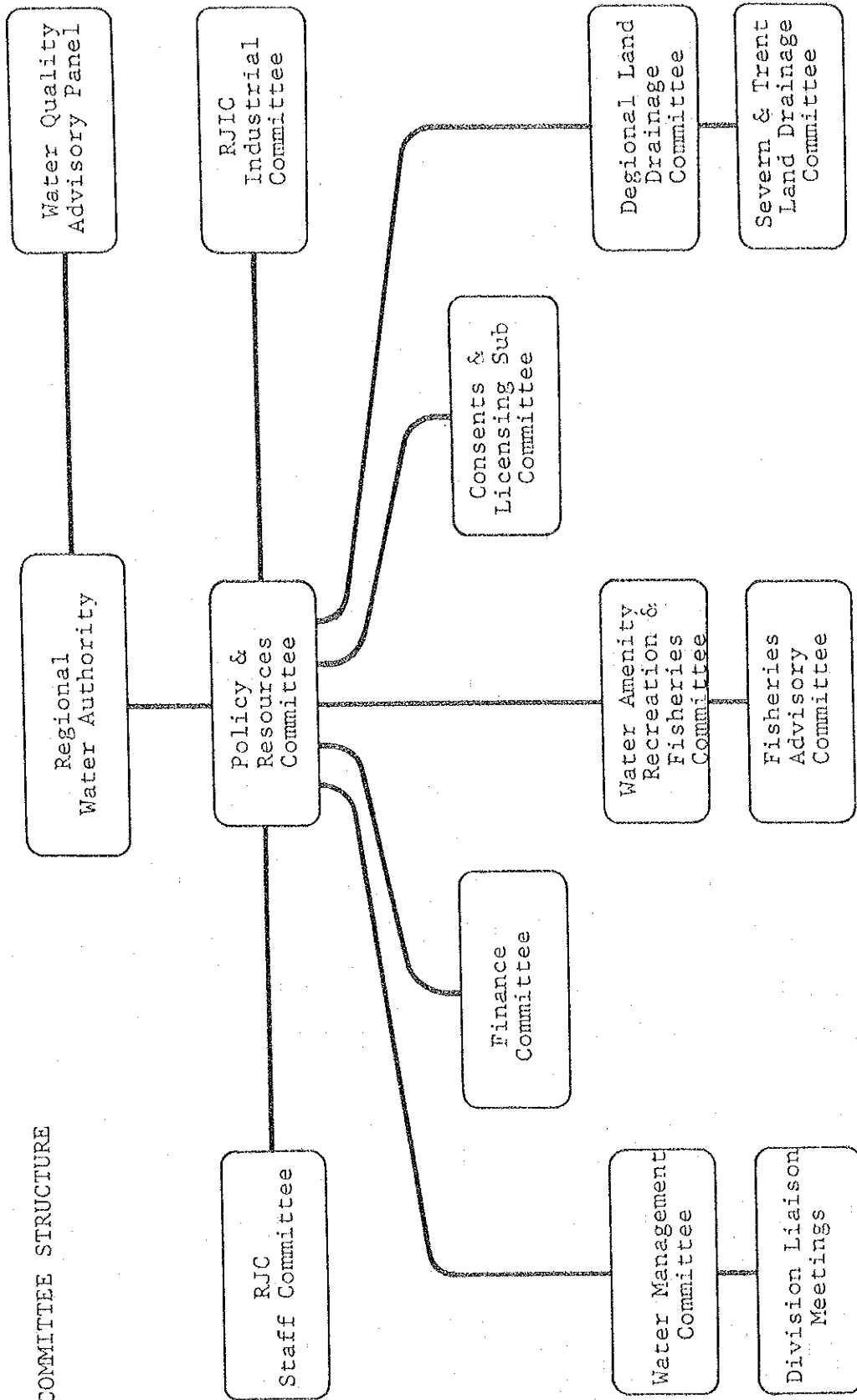


図 8-9 (1/2) セバントントレンド水管理局の組織図

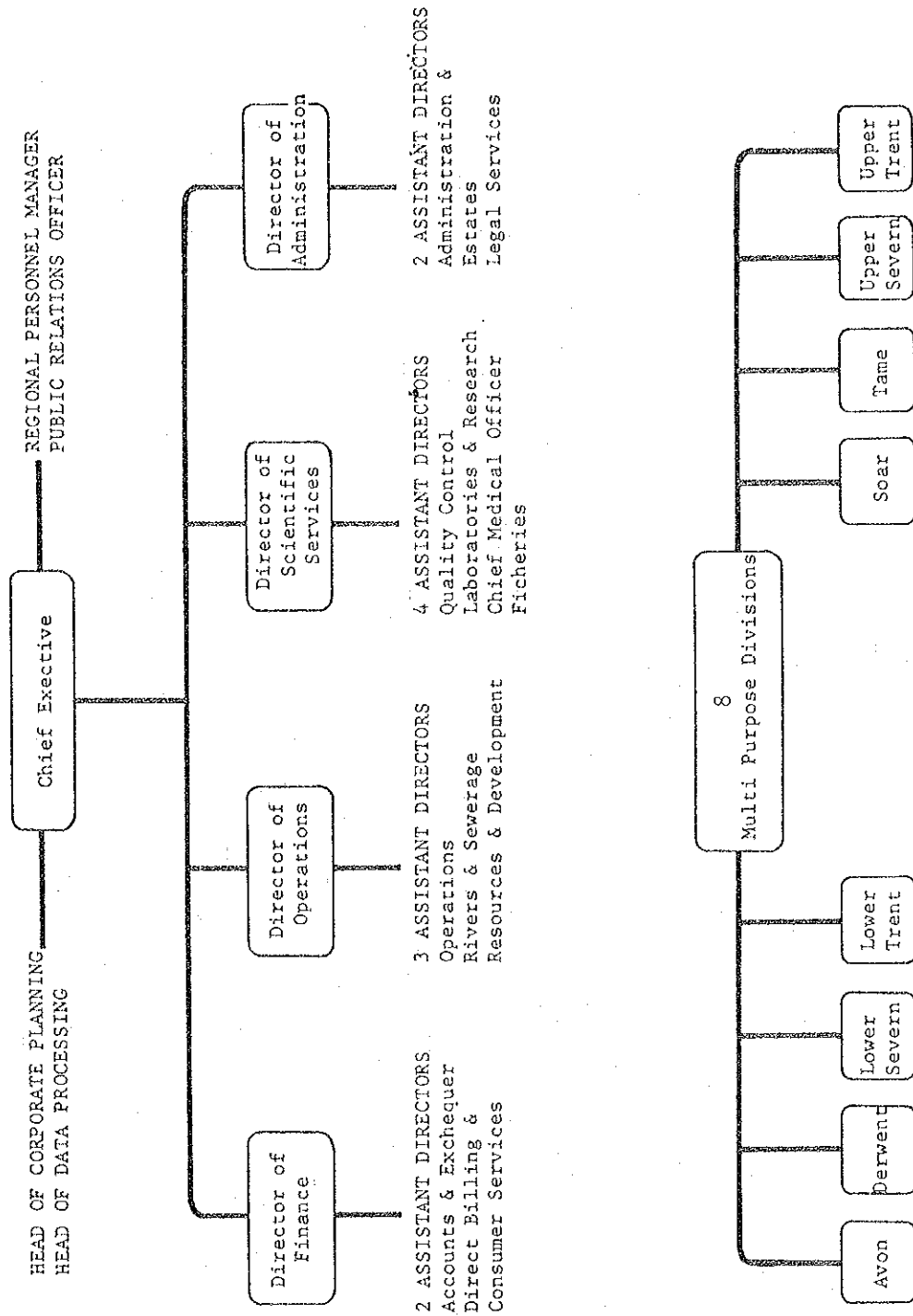


図 8-9 (2/2) セバーントレント水管理局の組織図

A P P E N D I X 1

=====

MEMBER OF STUDY TEAM, COUNTERPARTS
AND ADVISORY COMMITTEE

Study Team and Counterparts

Team Leader	Mr. Mitsuo Igarashi	Ing. Sergio Hernández
Assistant Team Leader (River Planning)	Mr. Yoshiharu Matsumoto	Ing. Jorge Ruano
Geologist/Sabo Planner	Mr. Ryohei Imamura Mr. Takashi Watanabe	Ing. Carlos P. Lemmerhofer
Hydrologist/ Hydraulic Engr.	Mr. Susumu Heishi	Ing. Sergio Hernández
River Structure Engr.	Mr. Katsuhiko Ikari Mr. Yasuhiko Uchida	Ing. Jorge Ruano
Sabo Structure Engr.	Mr. Takashi Watanabe Mr. Makoto Ishihara	Ing. Carlos P. Lemmerhofer
Construction Schedule and Cost Estimator	Mr. Yoshii Motonori	Ing. Jorge Ruano
River Administrative System Specialist	Mr. Hiroshi Inoue	Ing. Jorge Ruano
Project Economist	Mr. Kinichi Ohno	Ing. Sergio Hernández
Survey Engr.	Mr. Mikio Tsutsumi Mr. Hiroshi Ando	Ing. Carlos P. Lemmerhofer

Advisory Committee

Head	:	Mr. Kenichi Sasaki
Member	:	Mr. Shigekiyo Tabata
Member	:	Mr. Hidehiro Sadakane
Member	:	Mr. Hiroshi Ikeya
Member	:	Mr. Koichi Uzuka
Coordinator	:	Mr. Hitonori Ono

A P P E N D I X 2

=====

MINUTES OF MEETING ON FLOOD CONTROL PROJECT

Re: Discussion on Inception Report.

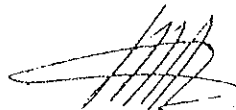
Joint meeting between the Government of Guatemala and the JICA survey team was held on August 22, 1983 at the conference room of Instituto Geográfico Militar.

The JICA survey team submitted 30 copies of the Inception Reports to the Government of Guatemala in compliance with the scope of works and explained such items described in the report as basic concept of the project, plan of operation, etc. The contents of report was agreed upon by and between the both parties.

The list of attendants was attached hereto.



Ing. Guillermo Ponce Navarro
General Director of CAMINOS



Mitsuo Igarashi
Team Leader
JICA SURVEY TEAM

LIST OF ATTENDANTE

Ingeniero Guillermo Ponce Navarro	Director of CAMINOS
Coronel Liones Anibal Rivera Morataya	Director of IGM
Ingeniero Eddy Sánchez	Sub-Director of INSIVUMEH
Ingeniero René González	Sub-Director of IGM
Ingeniero Jorge Rubén Ruano	Chief of Drainage Section, CAMINOS
Ingeniero Carlos P. Lemmenhofer	Technical Supervisor, IGM
Ingeniero Sergio I. Hernández F.	Chief of Hydrology Section, INSIVUMEH
Mr. Yasuhisa Suzuki	Embassy of Japan
Mr. Shigekiyo Tabata	Member of Advisory Committee
Mr. Hidehiro Sadakane	Member of Advisory Committee
Mr. Yukihiisa Sakurada	Member of Advisory Committee
Mr. Mitsuo Igarashi	Team Leader
Mr. Yoshiharu Matsumoto	River Engineer
Mr. Ryohai Imamura	Geologist & Saboplanner
Mr. Susumu Heishi	Hydrologist
Mr. Kinichi Ono	Project Economist
Mr. Kenji Ikuno	Intepreter

Vanue: Instituto Geográfico Militar
Date: August 22, 1983

MINUTES OF MEETING
ON
FLOOD CONTROL PROJECT

Ref.: Discussion on Progress Report.

Joint meeting between the Government of Guatemala and the JICA Study Team was held on December 12, 1983 at the Conference Room of Instituto Geográfico Militar.

The JICA Study Team submitted 30 copies of the Progress Report to the Government of Guatemala in compliance with the Scope of Works, and made the explanation on such items described in the report as project background present conditions, concept of the project, progress of the study and so on. After vital discussion, all items of the Report were agreed upon by and between both parties.

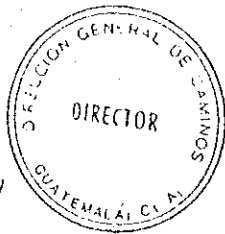
Among the items discussed, the following were specified.


- 1) The JICA Study Team informed the Government of Guatemala of the classification concerning the significance of the assets and/or areas to be protected, especially areas of A, which are described in the Progress Report. The appropriate classification will be made based on the more detailed information as well as the planning criteria.
- 2) Request of the study on reforestation plan was made by the Government of Guatemala. The Government of Guatemala understood that the study on reforestation plan is not included in the project on the ground that effectiveness of the reforestation will not be expected within the life of this project. However, the JICA Study Team will make a study on necessity of the reforestation and its finding will be included in the study report, as a recommendation.
- 3) The Government of Guatemala made a question, which the downstream area of the confluence of Cristobal River with Pantaleon River is


not included in the study area. It is confirmed that captioned area is not included and the study area is subject to the Scope of Work which was agreed on April 15, 1983.

- 4) Such technical questions as sedimentation in the river channel and estimation method of flood discharge were made by the Government of Guatemala. For these matters, the JICA Study Team convinced the Government of Guatemala through a brief explanation.

The list of attendants was attached hereto.




Ing. Guillermo Ponce Navarro
General Director of CAMINOS


Nitsuo Agarashi
Team Leader
JICA STUDY TEAM

DIRECCION GENERAL DE CAMINOS
SECRETARIA GENERAL

EX SIC. 12 1983 EX

RECIBIDO A LAS 15:30
No. HORA: _____ H.C. _____

ATTENDANT LIST

Ingeniero Guillermo Ponce Navarro	Director of CAMINOS
Ingeniero Estuardo Velásquez V.	Director of INSIVUMEH
Ingeniero René Conzález	Sub-Director Técnico IGM
Ingeniero Jorge Ruano	Chief of Drainage Section CAMINOS
Ingeniero Sergio Hernández	Chief of Hydrology Section INSIVUM
Ingeniero Carlos Lemmerhofer	Technical Supervisor IGM
Mr. Yasuhisa Suzuki	Embassy of Japan
Mr. Kenichi Sasaki	Chairman of Advisory Committee
Mr. Koichi Uzuka	Member of Advisory Committee
Mr. Yukihiisa Sakurada	Member of Advisory Committee
Mr. Mitsuo Igarashi	Team Leader of JICA STUDY TEAM
Mr. Yoshiharu Matsumoto	Asst. Team Leader of JICA STUDY TE
Mr. Takashi Watanabe	Member of JICA STUDY TEAM
Mr. Katsuhiko Ikari	Member of JICA STUDY TEAM
Mr. Hiroshi Inoue	Member of JICA STUDY TEAM
Mr. Hiroshi Ando	Member of JICA STUDY TEAM
Mr. Kenji Ikuno	Member of JICA STUDY TEAM

Vanue: Instituto Geográfico Milit

Date : December 12, 1983

MINUTES OF MEETING
ON
FLOOD CONTROL PROJECT

Ref.: Discussion on Interim Report

Joint meeting between the Government of Guatemala and the JICA Study Team was held on March 7, 1984 at the Conference Room of Instituto Geografico Militar.

The JICA Study Team submitted 30 copies of the Interim Report to the Government of Guatemala in compliance with the Scope of Works, and made the explanation on such items described in the report as concept of the study, formulation of the long-term plan, river administration system, recommendation and so on.

After the discussion, all items of the Report were agreed upon by and between both parties.

Among the items discussed, the following were specified.

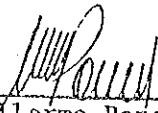
- 1) The JICA Study Team informed the Government of Guatemala of the result concerning the classification of the significance of the assets and/or areas to be protected and the adequacy was confirmed.
- 2) The JICA Study Team recommended that the study of urgent plan in the next stage should be carried out by putting on the emphasis on the protection of the road and railway bridges and by having the project scale lowered. And the Government of Guatemala agreed the implementation of the study under the said conditions.


- 3) With regards to the construction schedule for the long-term plan described in the report, the JICA Study Team explained that the schedule might be modified due to the urgent study result in the next stage.

The list of attendants was attached hereto.

Guatemala, March 7, 1984




Ing. Guillermo Ponce Navarro
General Director of CAMINOS


Mitsuo Igarashi
Team Leader
JICA STUDY TEAM

ATTENDANT LIST

Ingeniero Estuardo Velásquez V.
Coronel Jorge Mario Castillo
Ingeniero Ernesto Castillo
Ingeniero Jorge Ruano
Ingeniero Carlos Lemmerhofer
Mr. Yasuhisa Suzuki
Mr. Kenichi Sasaki
Mr. Yuji Okazaki
Mr. Mitsuo Igarashi
Mr. Yoshiharu Matsumoto
Mr. Susumu Heishi
Mr. Takashi Watanabe
Mr. Katsuhiko Ikari
Mr. Motomori Yoshii
Mr. Kinichi Ohno
Mr. Kenji Ikuno

Director of INSIVUMEH
Director of IGM
Sub-Director of CAMINOS
Chief of Drainage Section CAMINOS
Technical Supervisor IGM
Embassy of Japan
Chairman of Advisory Committee
Member of Advisory Committee
Team Leader of JICA STUDY TEAM
Asst. Team Leader of JICA STUDY TEAM
Member of JICA STUDY TEAM
Member of JICA STUDY TEAM
Member of JICA STUDY TEAM
Member of JICA STUDY TEAM
Member of JICA STUDY TEAM
Member of JICA STUDY TEAM

Vanue: Instituto Geográfico Militar

Date : March 7, 1984

MINUTES OF MEETING
ON
FLOOD CONTROL PROJECT

Ref.: DISCUSSION ON PLAN OF OPERATION

Joint meeting between the Government of Guatemala and the JICA Study Team was held on June 28, 1984 at the Conference Room of Instituto Geográfico Militar.

The JICA Study Team submitted 30 copies of report on plan of operation in this study period and made the explanation on that described in the report and, after the discussion, all items of the report were agreed upon by and between both parties.

In this connection, the result of preliminary study for the selection of suitable project scale on urgent flood control plan were informed.

The following were specified among the views stated in this meeting.

- 1) In response to the question on the land use, the JICA Study Team informed that the socio-economic impacts for the future land use caused by implementation of this project might be considered, if any.
- 2) The adequacy of the principle for the selection of the suitable project scale was reconfirmed.

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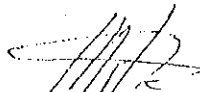
In this connection, the JICA Study Team informed the Government of Guatemala of the possibility of alternative plans beside the plan described in the report and also the possibility of the modification of construction cost.

The list of attendants was attached hereto.

Guatemala, June 28, 1984



Ing. Guillermo Ponce
General Director of CAMINOS



Mitsuho Igarashi
Team Leader
JICA STUDY TEAM

ATTENDANCE LIST

Ingeniero Guillermo Ponce Navarro	Director of CAMINOS
Mr. Eddy Sánchez	Sub-Director INSIVUMEH
Ingeniero Jorge Ruano	Chief of Drainage Section CAMINOS
Ingeniero Sergio Hernández	Chief of Hydrology Section INSIVUMEH
Ingeniero Carlos P. Lemmerhofer	Technical Supervisor IGM
Mr. Hitonori Ono	Member of Advisory Committee
Mr. Mitsuo Igarashi	Team Leader of JICA STUDY TEAM
Mr. Yoshiharu Matsumoto	Asst. Team Leader of JICA STUDY TEAM
Mr. Takashi Watanabe	Member of JICA STUDY TEAM
Mr. Susumu Heishi	Member of JICA STUDY TEAM
Mr. Yasuhiko Uchida	Member of JICA STUDY TEAM
Mr. Motonori Yoshii	Member of JICA STUDY TEAM
Mr. Kinichi Ohno	Member of JICA STUDY TEAM
Mr. Kenji Ikuno	Member of JICA STUDY TEAM

Vanue: Instituto Geográfico Militar

Date : June 28, 1984

MINUTES OF MEETING
ON
FLOOD CONTROL PROJECT

Ref: DISCUSSION ON DRAFT FINAL REPORT.

Joint meeting between the Government of Guatemala and the JICA Study Team with an attendance of the Advisory Committee was held on October 31, 1984 at the conference room of Instituto Geográfico Militar.

The JICA Study Team submitted 30 copies of the Draft Final Reports to the Government of Guatemala in compliance with the scope of work and made the explanation on such items described in the report as formulation of the long-term plan and urgent plan, project evaluation, recommendation and so on.

After the discussion, all items of the Report were basically agreed upon by and between both parties.


The Government of Guatemala also agreed, in response to the request by the JICA Team, that the comments in writing would be informed the JICA Team, if any, within about one month after the joint meeting.

Finally, the Government of Guatemala expressed the gratitude for the technical cooperation by JICA together with the confirmation of their activities so far including their undertaking which were mentioned in the Scope of Works of this project.

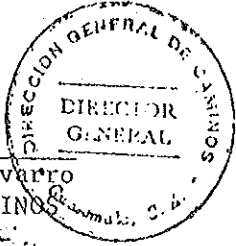
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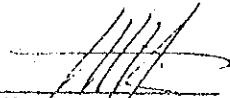
The list of attendants was attached hereto.

Guatemala, October 31st, 1984



Ing. Guillermo Ponce Navarro
General Director of CAMINO





Mitsuo Igarashi
Team Leader
JICA STUDY TEAM

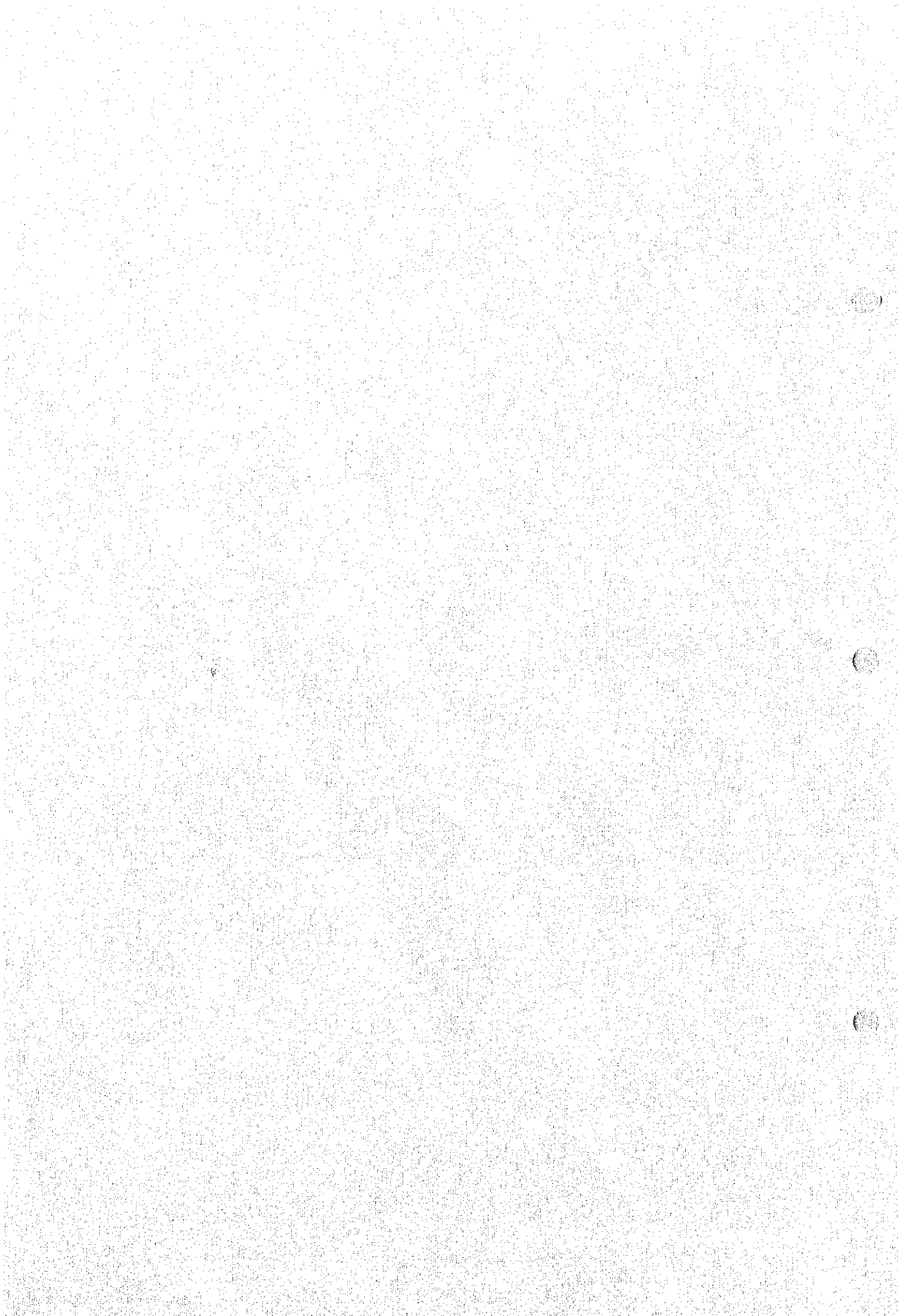
ATTENDANCE LIST

Ingeniero Guillermo Ponce Navarro	Director of CAMINOS
Ingeniero Estuardo Velasquez	Director of INSIVUMEH
Ingeniero Jorge Ruano	Chief of Drainage Section of CAMINOS
Ingeniero Sergio Hernandez	Chief of Hydrology Section of INSIVUMEH
Ingeniero Carlos P. Lemmerhofer	Technical Supervisor of IGM
Mr. Kenichi Sasaki	Chairman of JICA Advisory Committee
Mr. Hiroshi Ikeya	Member of JICA Advisory Committee
Mr. Hitonori Ono	JICA HDQ
Mr. Mitsuo Igarashi	Team Leader of JICA STUDY TEAM
Mr. Yoshiharu Matsumoto	Asst. Team Leader of JICA STUDY TEAM
Mr. Yasuhiko Uchida	Member of JICA STUDY TEAM
Mr. Motonori Yoshii	Member of JICA STUDY TEAM
Mr. Makoto Ishihara	Member of JICA STUDY TEAM
Mr. Masatake Okuno	Member of JICA STUDY TEAM
Mr. Kenji Ikuno	Member of JICA STUDY TEAM

Vanue: Instituto Geografico Militar

Date : October 31st, 1984





JICA