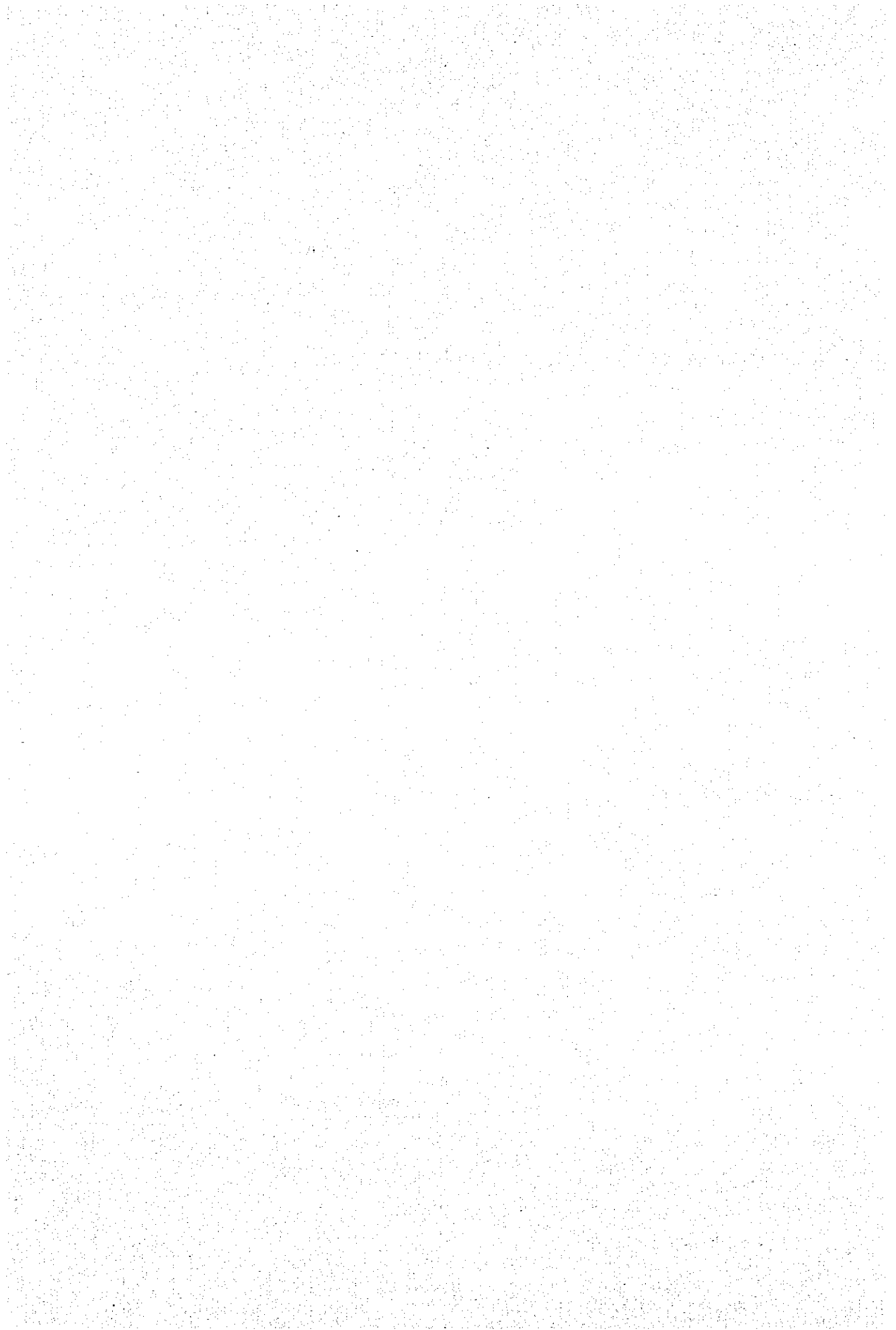
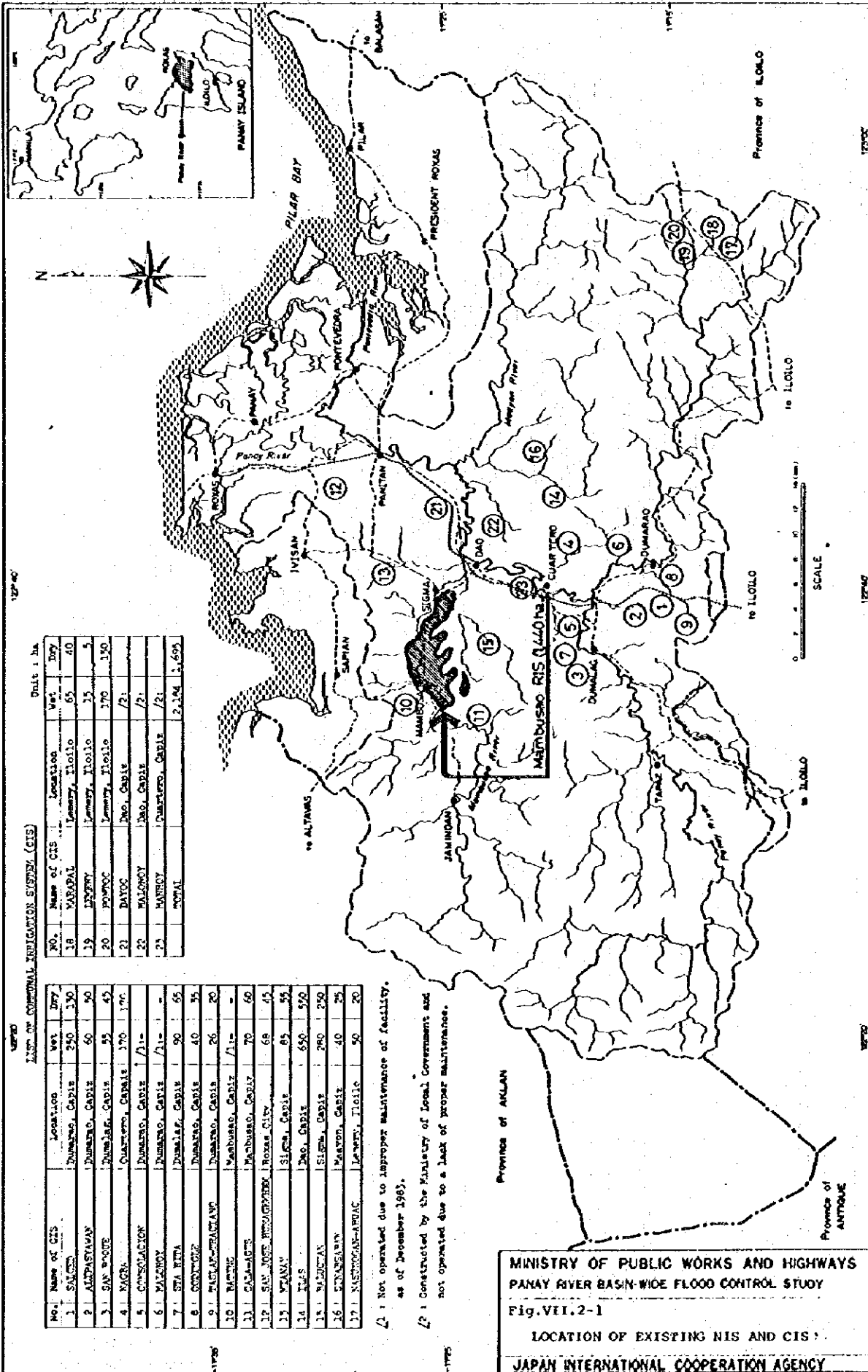


**FIGURES**

**FOR**

**APPENDIX VII**





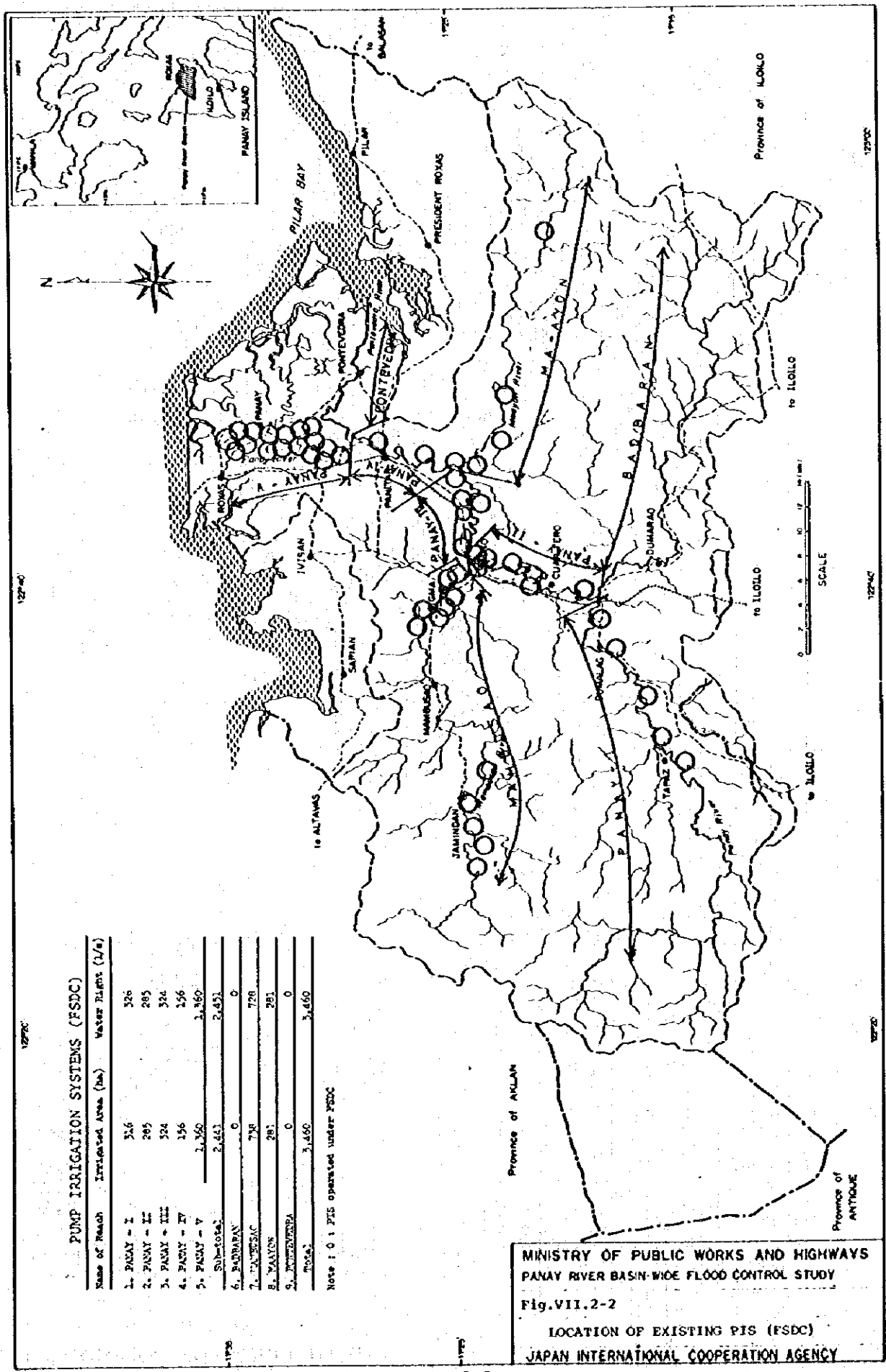
LIST OF COMMUNITY IRRIGATION SYSTEMS (CIS)

No.	Name of CIS	Location	Area, Hectares	Beneficiaries
18	MARAPAL	Lerema, Iloilo	65	40
19	LIBERTY	Lerema, Iloilo	35	5
20	POPTOC	Lerema, Iloilo	170	190
21	DAYOC	Das, Capiz	72	-
22	KALORAY	Das, Capiz	72	-
23	MARROY	Dumalag, Capiz	2,184	3,699
TOTAL				

No.	Name of CIS	Location	Area, Hectares	Beneficiaries
1	SANJOSE	Dumalag, Capiz	250	130
2	ALFARAYAN	Dumalag, Capiz	60	50
3	SAN BUENAVENTURA	Dumalag, Capiz	55	45
4	MARAPAL	Dumalag, Capiz	170	170
5	CONCEPCION	Dumalag, Capiz	71	-
6	PALANAY	Dumalag, Capiz	71	-
7	STA. RITA	Dumalag, Capiz	90	65
8	CONCEPCION	Dumalag, Capiz	40	35
9	TALAM-TRATAVO	Dumalag, Capiz	76	20
10	MARAPAL	Mambuso, Capiz	71	-
11	CASABLANCA	Mambuso, Capiz	70	60
12	SAN JOSE	Prozas, City	68	45
13	YANAY	Sigma, Capiz	85	55
14	ILAS	Das, Capiz	550	550
15	MAJUBAN	Sigma, Capiz	280	250
16	STANLEY	Mavona, Capiz	40	25
17	MARAPAL-ARAC	Lerema, Iloilo	50	20

(1) Not operated due to improper maintenance of facility as of December 1963.  
 (2) Constructed by the Ministry of Local Government and not operated due to a lack of proper maintenance.

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig.VII.2-1  
 LOCATION OF EXISTING NIS AND CIS  
 JAPAN INTERNATIONAL COOPERATION AGENCY



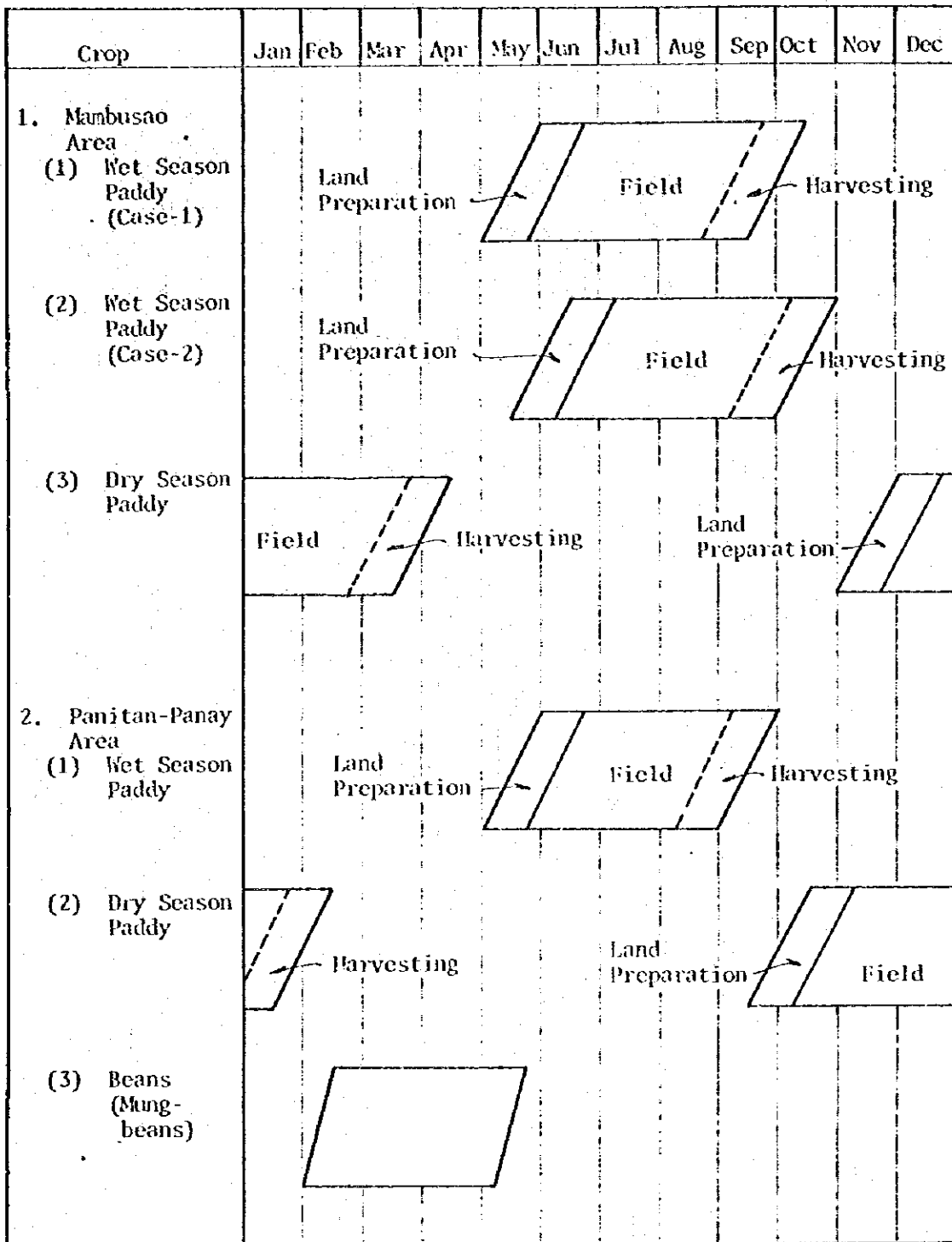
**PUMP IRRIGATION SYSTEMS (FSDC)**

Name of Reach	Irrigated Area (ha)	Water Right (L/s)
1. PANAY - I	526	326
2. PANAY - II	295	295
3. PANAY - III	524	524
4. PANAY - IV	156	156
5. PANAY - V	2,450	2,450
<b>Sub-total</b>	<b>2,451</b>	<b>2,451</b>
6. BADRAPAN	0	0
7. TAMBUCAN	728	728
8. MAYON	281	281
9. PONTVEDRA	0	0
<b>Total</b>	<b>3,460</b>	<b>3,460</b>

Note: 0 = PIS operated under FSDC

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig.VII.2-2  
 LOCATION OF EXISTING PIS (FSDC)  
 JAPAN INTERNATIONAL COOPERATION AGENCY



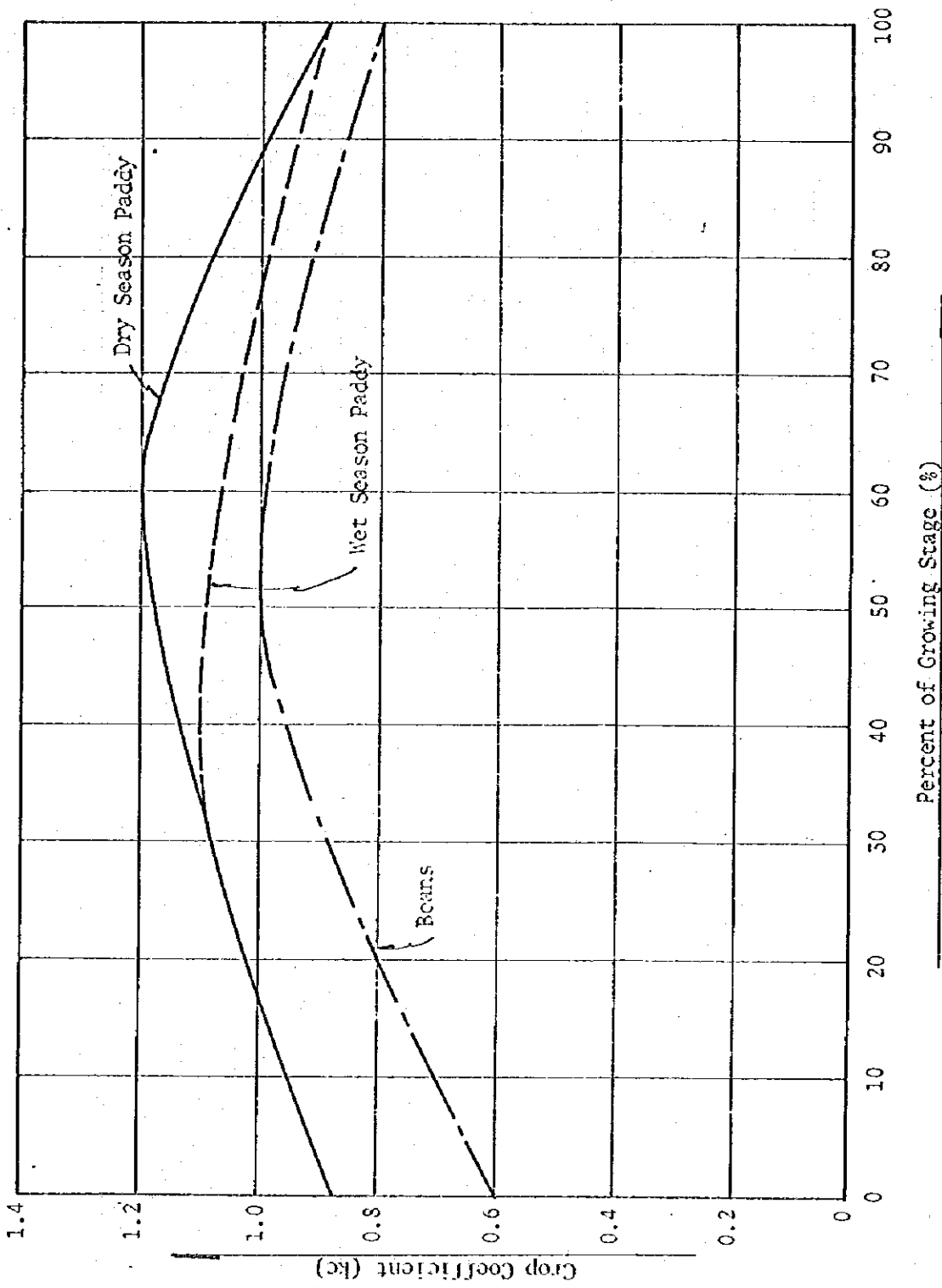


MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

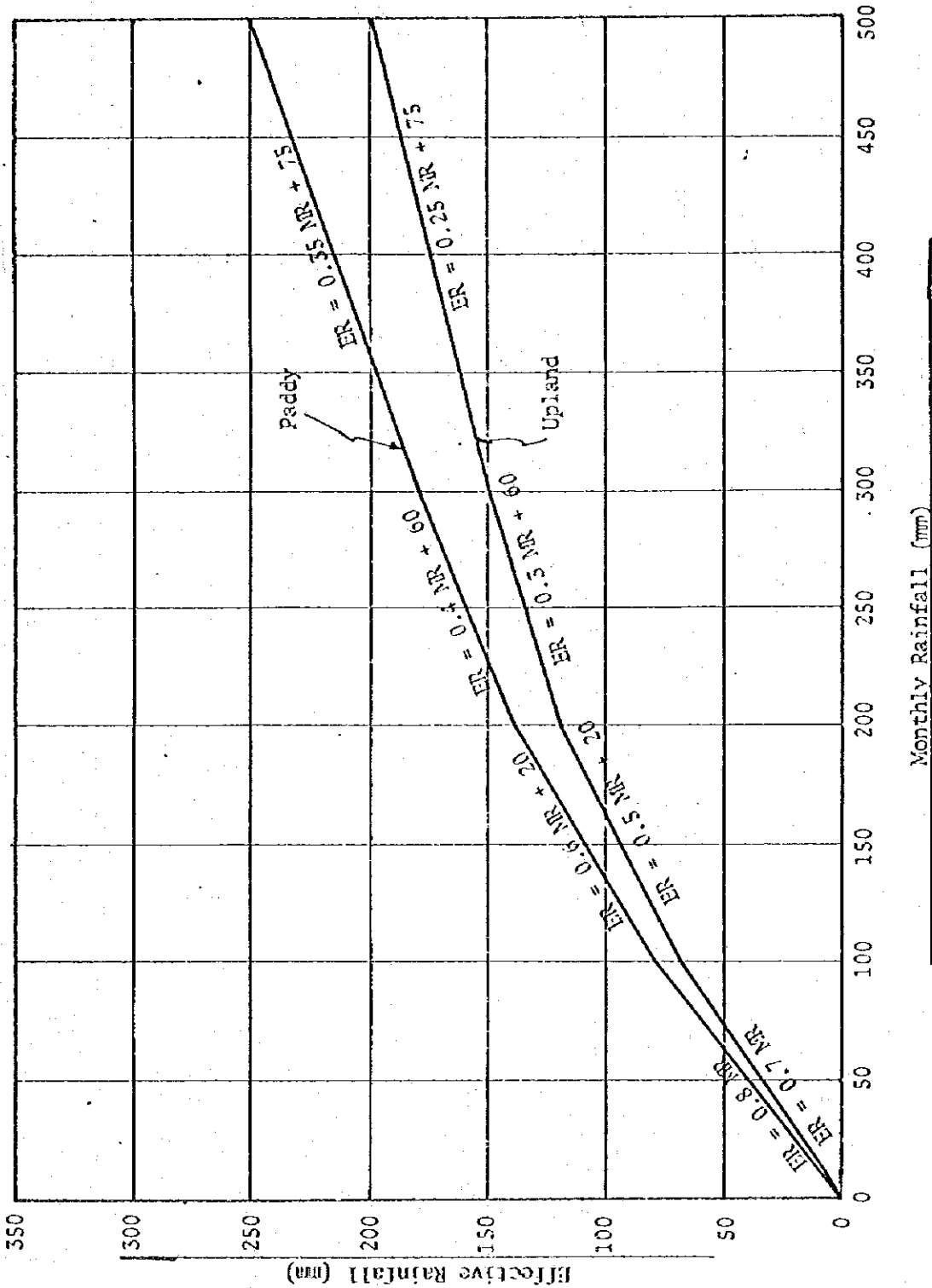
Fig.VII.4-1

CROPPING CALENDAR

JAPAN INTERNATIONAL COOPERATION AGENCY

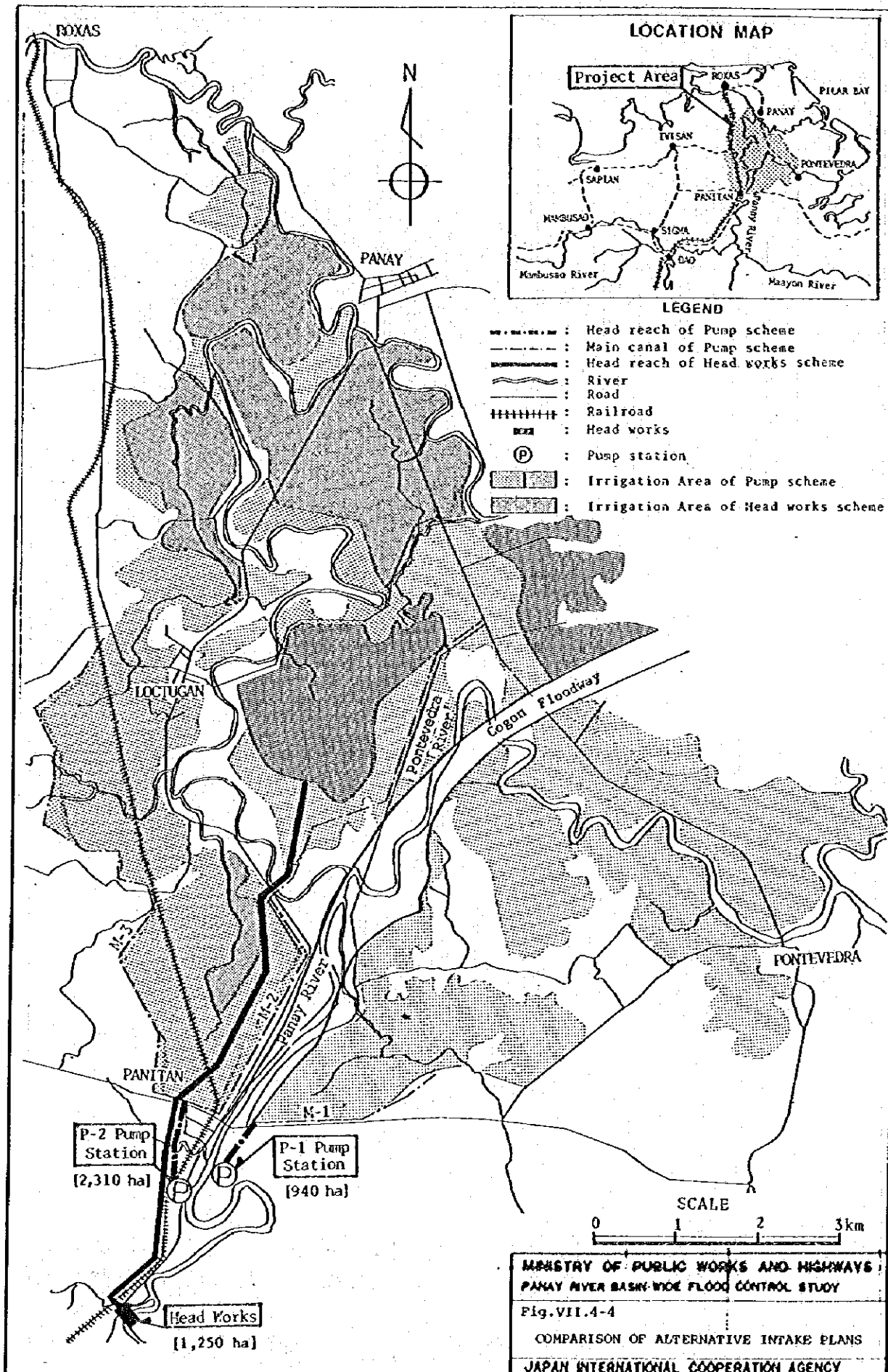


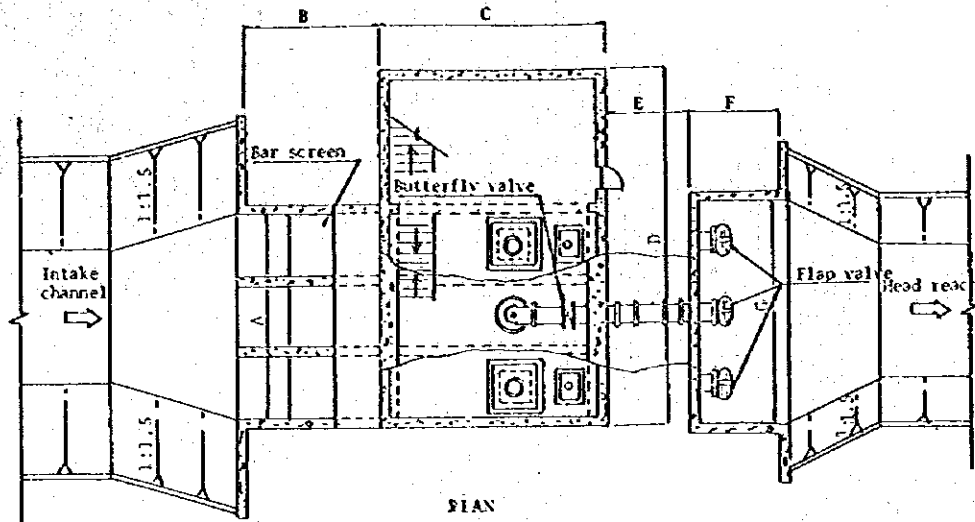
MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig.VII.4-2  
 CROP COEFFICIENT CURVE  
 JAPAN INTERNATIONAL COOPERATION AGENCY



MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PATAI RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig.VII.4-3  
 EFFECTIVE RAINFALL CURVE  
 JAPAN INTERNATIONAL COOPERATION AGENCY

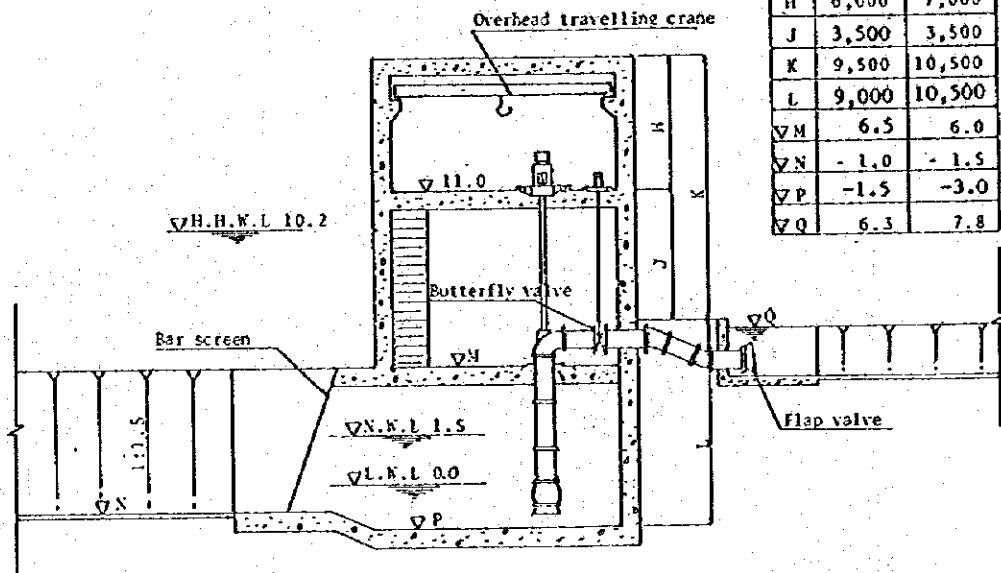






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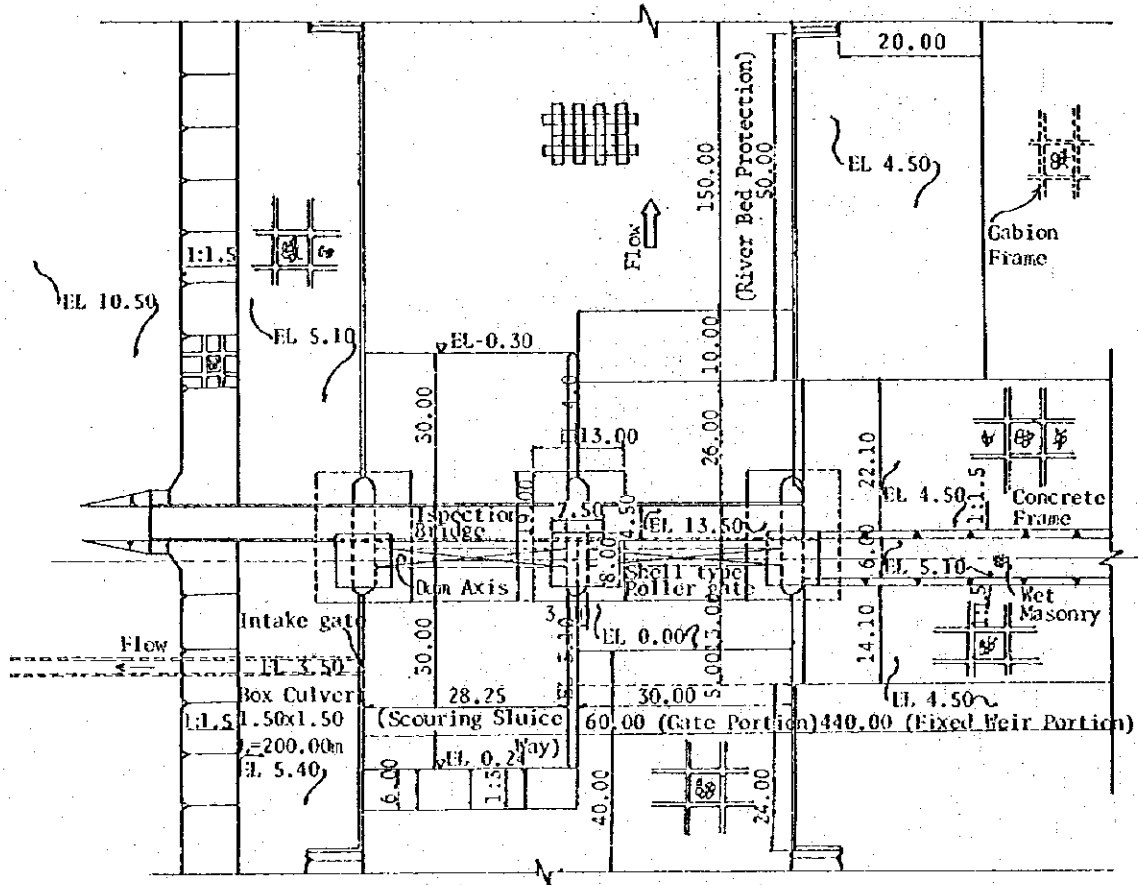
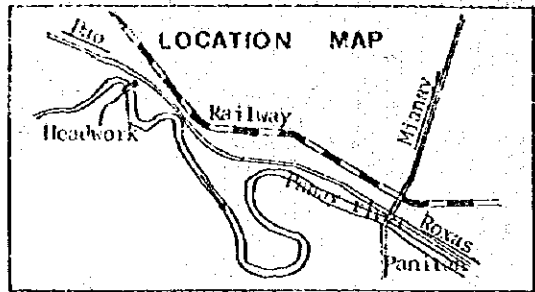
	P-1	P-2
NOS. OF PUMP	3	2
A	4,600	6,500
B	5,000	6,000
C	6,000	7,000
D	8,000	12,000
E	5,000	5,000
F	2,000	3,500
G	4,600	6,500
H	6,000	7,000
J	3,500	3,500
K	9,500	10,500
L	9,000	10,500
▽M	6.5	6.0
▽N	-1.0	-1.5
▽P	-1.5	-3.0
▽Q	6.5	7.8



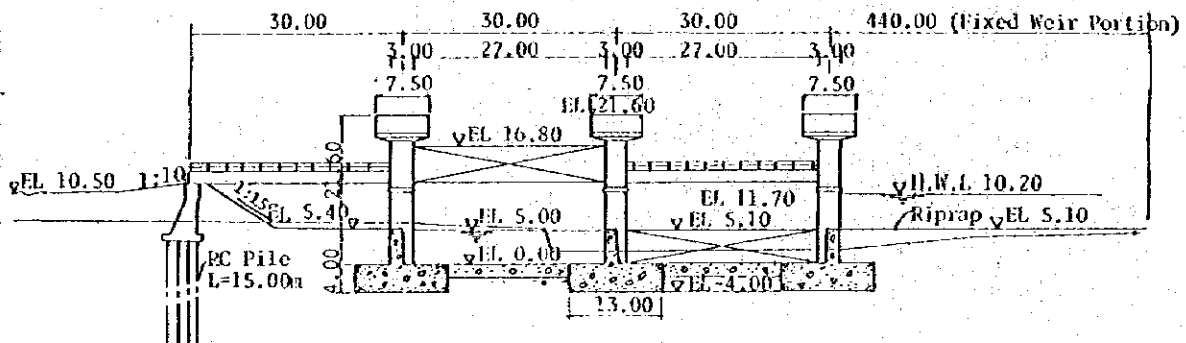
MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig.VII.4-5 PUMP STATION

JAPAN INTERNATIONAL COOPERATION AGENCY



PLAN



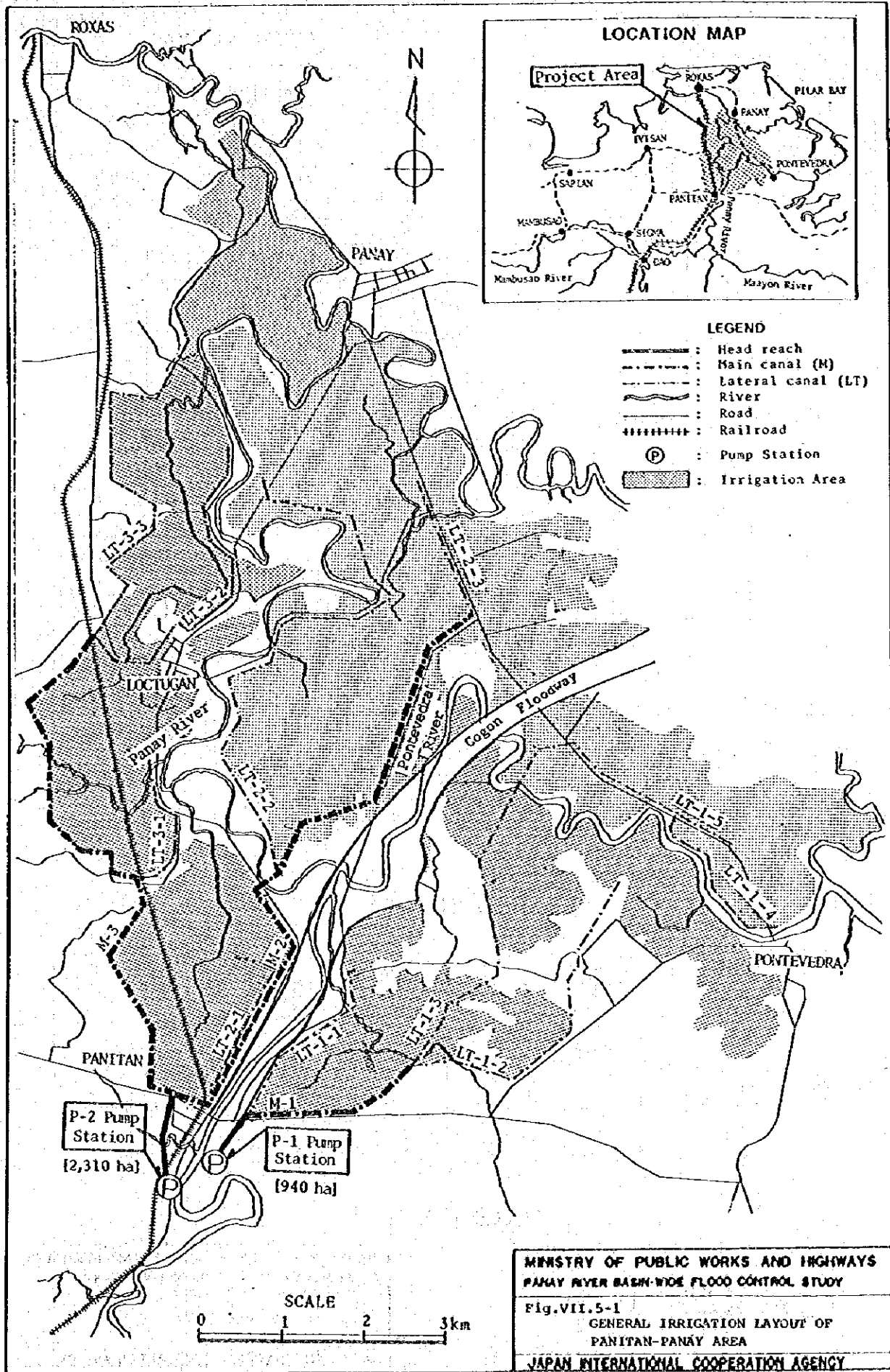
PROFILE

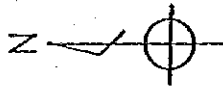
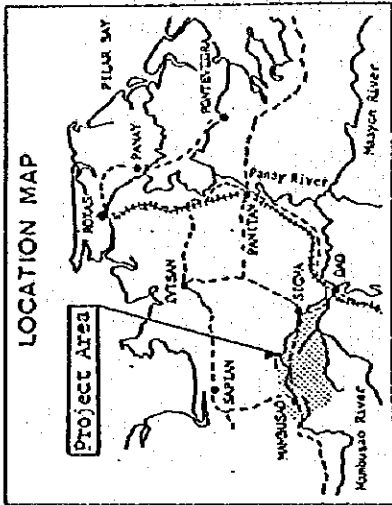


MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig.VII.4-6 HEADWORKS

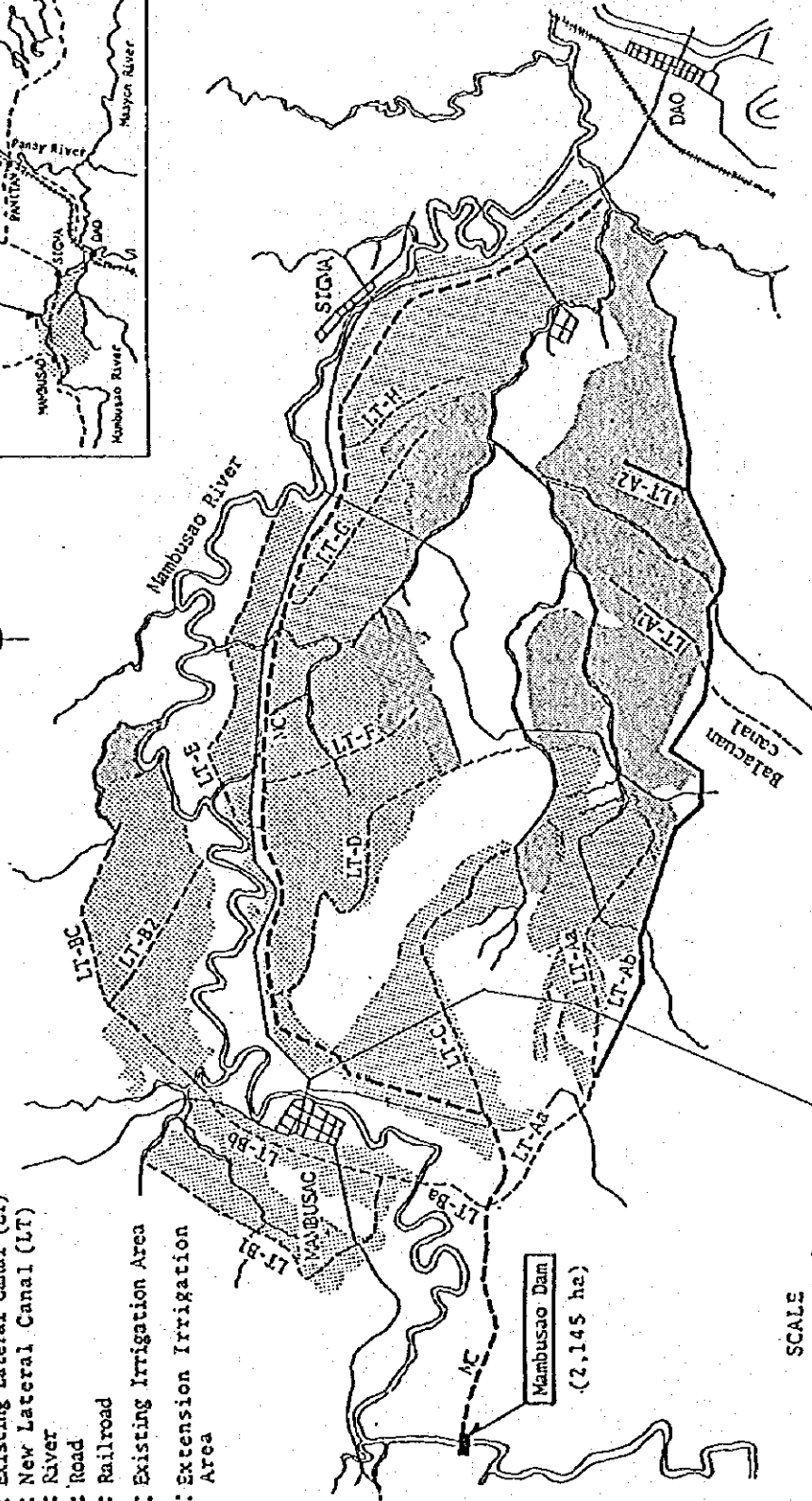
JAPAN INTERNATIONAL COOPERATION AGENCY





**LEGEND**

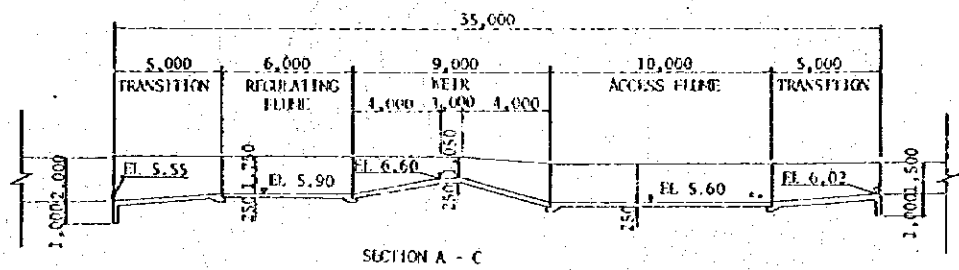
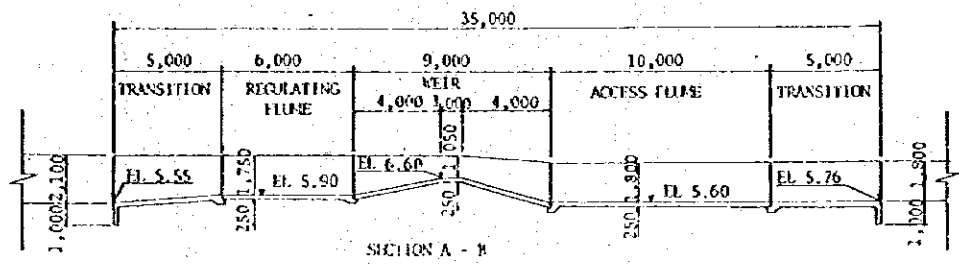
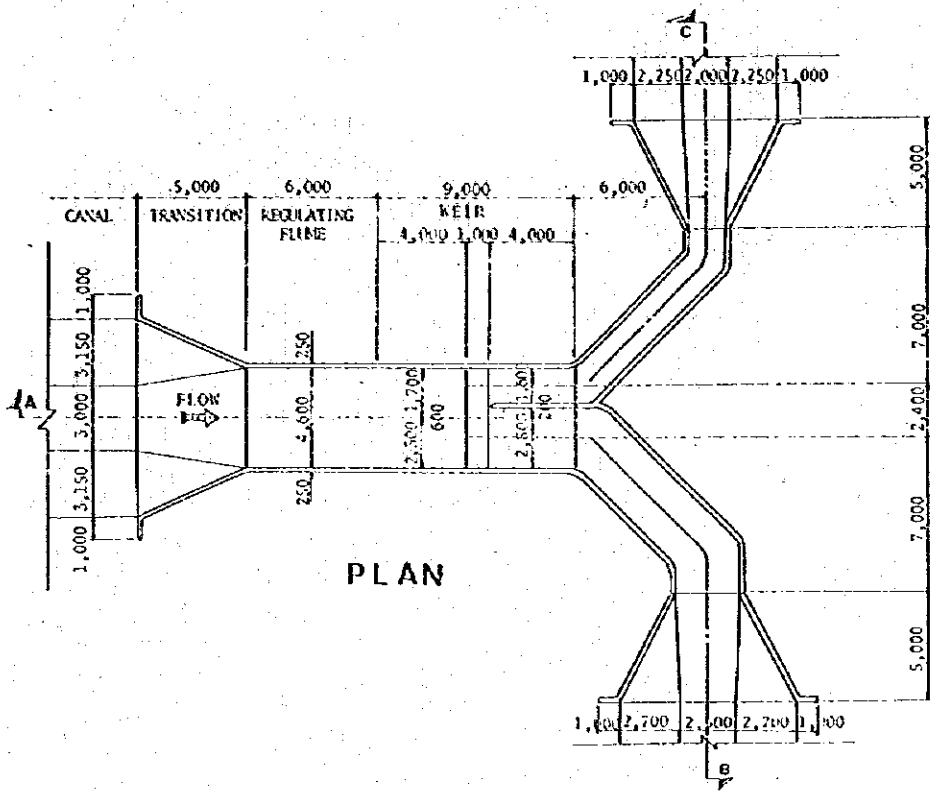
- : Existing Main Canal (MC)
- - - : Existing Lateral Canal (LT)
- - - : New Lateral Canal (LT)
- ~~~~~ : River
- ==== : Road
- +++++ : Railroad
- ▨ : Existing Irrigation Area
- ▨ : Extension Irrigation Area



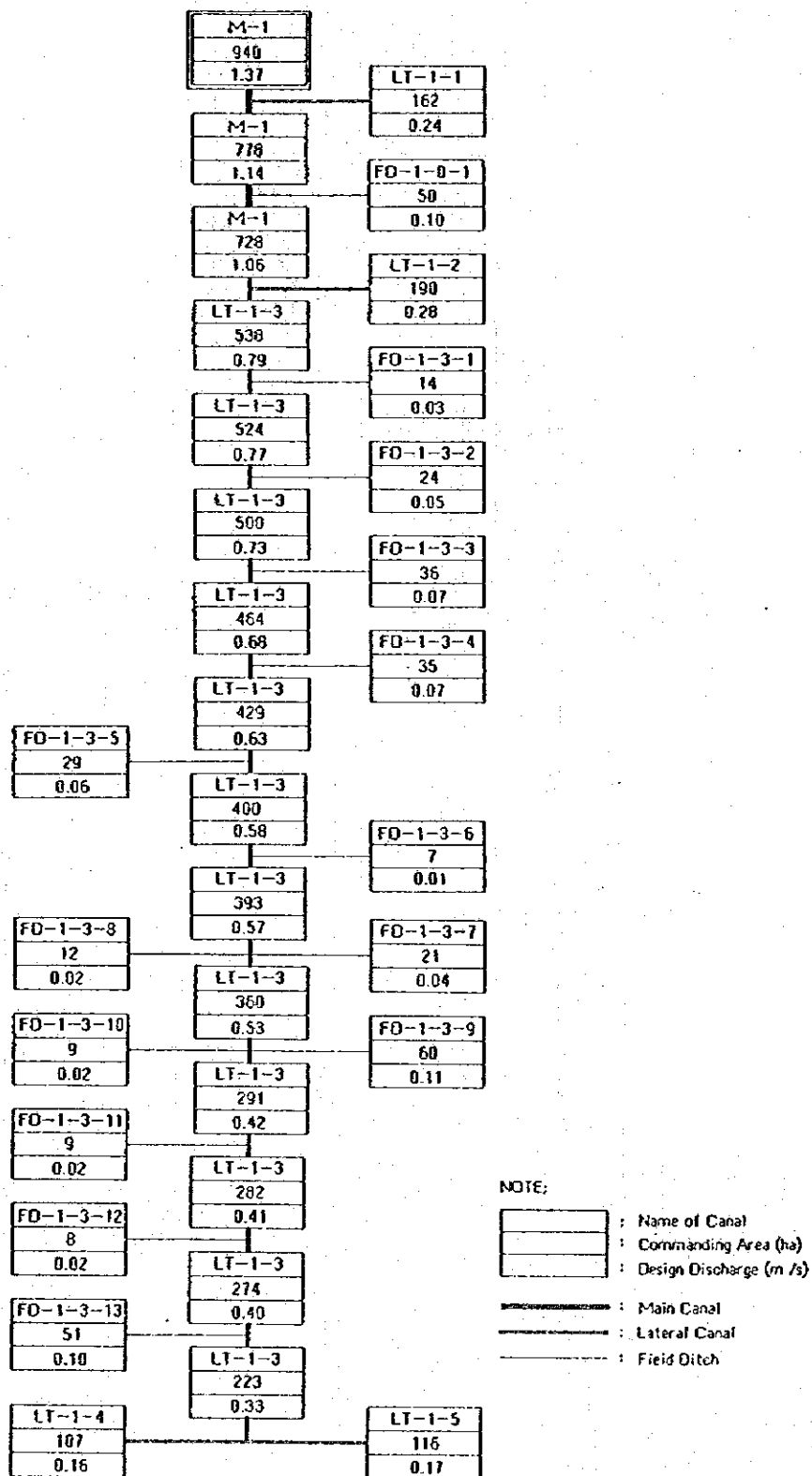
MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. VII.5-2 General Irrigation Layout  
 of Mambusao Area

JAPAN INTERNATIONAL COOPERATION AGENCY



MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig.VII.5-3 BIFURCATION  
 JAPAN INTERNATIONAL COOPERATION AGENCY



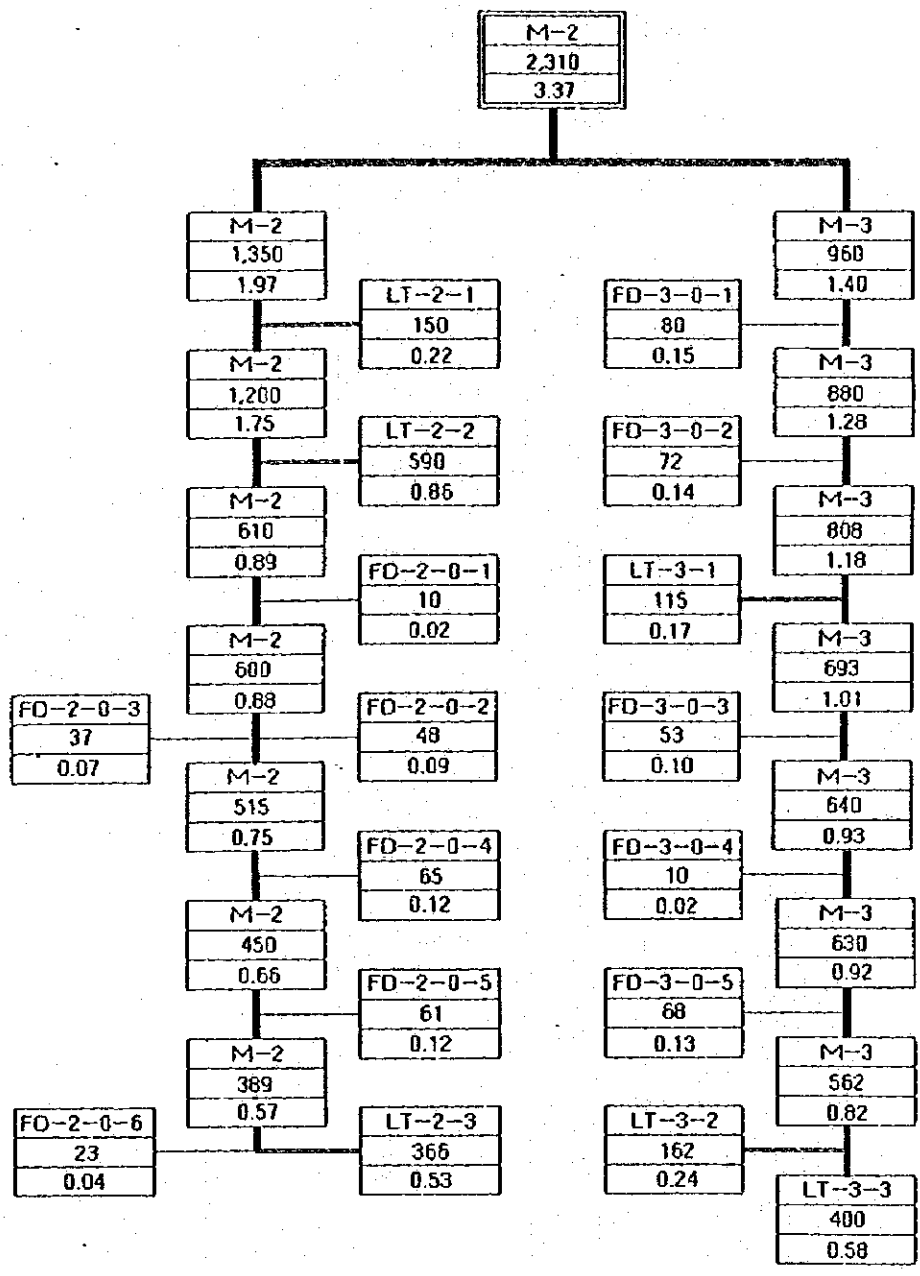
NOTE:

- : Name of Canal
- : Commanding Area (ha)
- : Design Discharge (m³/s)
- : Main Canal
- : Lateral Canal
- : Field Ditch

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig.VII.5-4  
IRRIGATION DIAGRAM OF  
PANITAN-PANAY AREA (1/2)

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NOTE:

- |  |
|--|
|  |
|  |
|  |

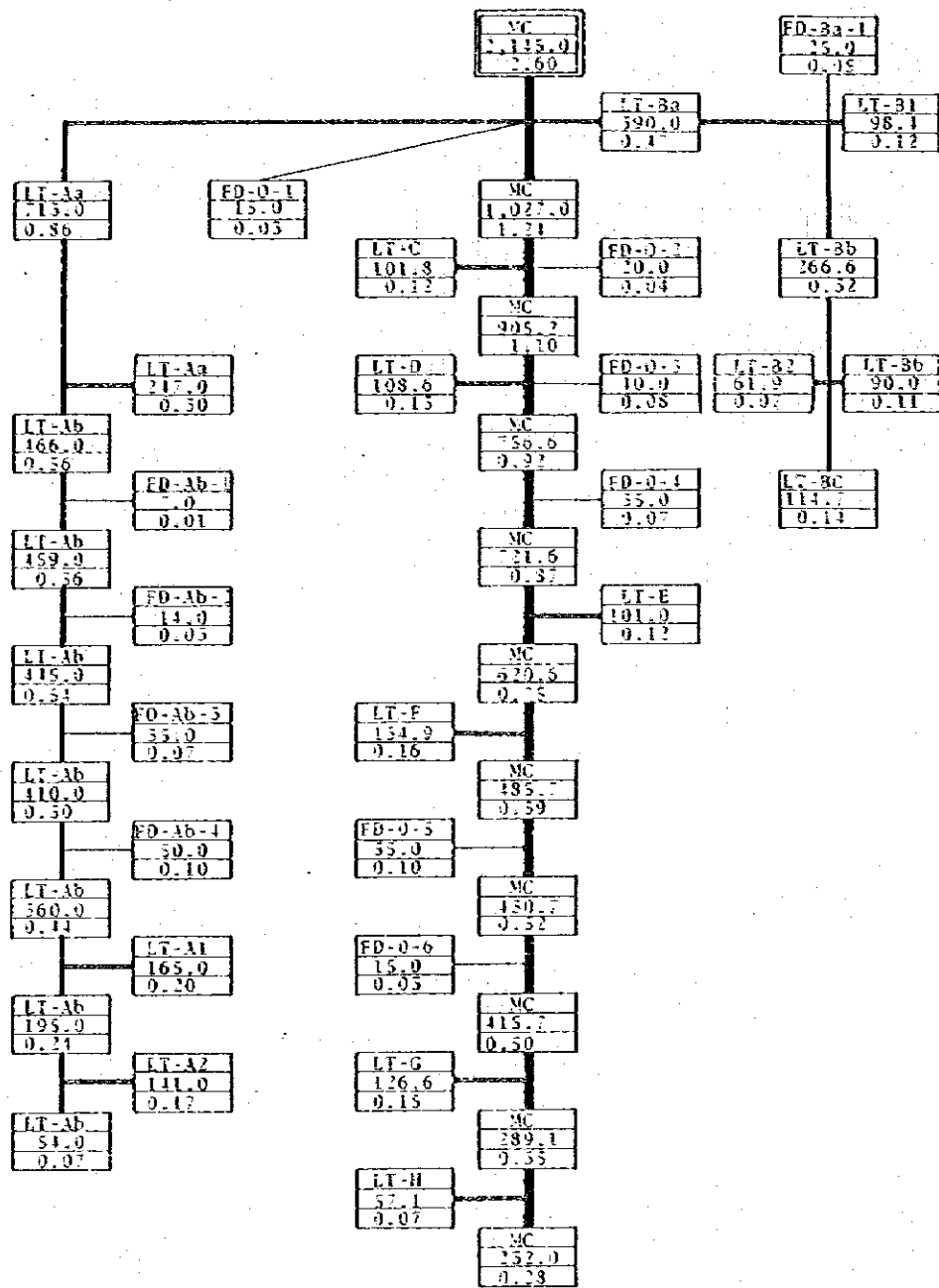
 : Name of Canal
- |  |
|--|
|  |
|  |

 : Commanding Area (ha)
- |  |
|--|
|  |
|  |

 : Design Discharge (m<sup>3</sup>/s)
- : Main Canal
- : Lateral Canal
- : Field Ditch

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig. VII.5-4  
 IRRIGATION DIAGRAM OF  
 PANITAN-PANAY AREA (2/2)  
 JAPAN INTERNATIONAL COOPERATION AGENCY

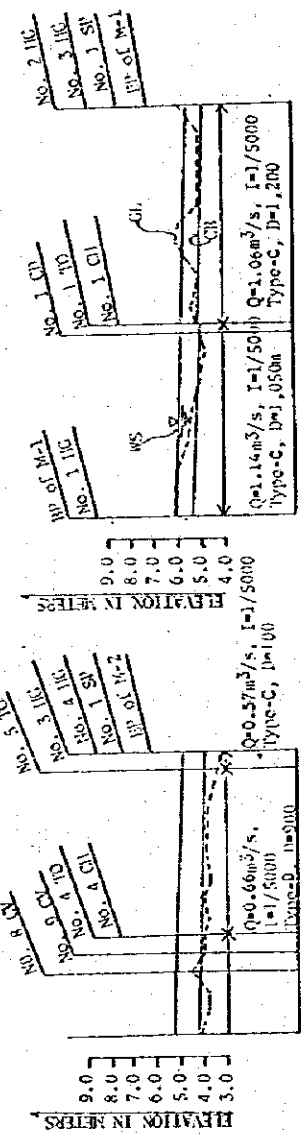
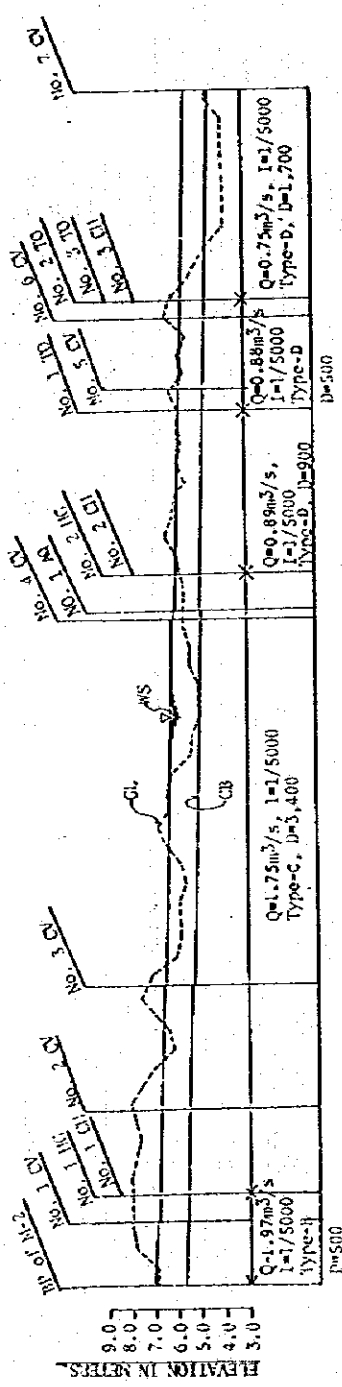
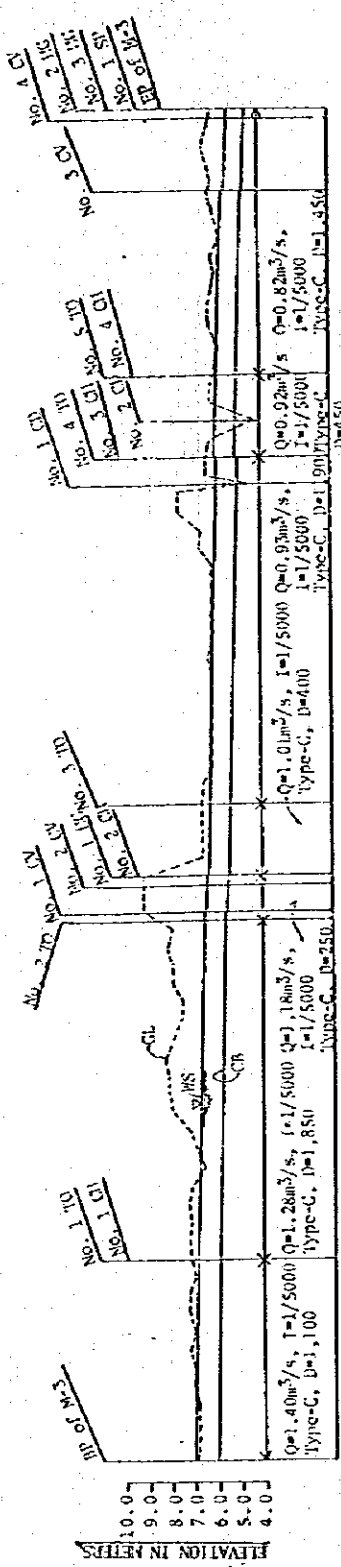




NOTE:

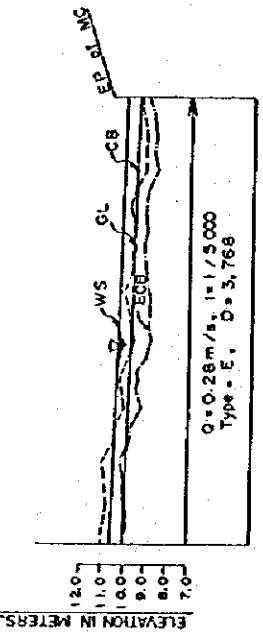
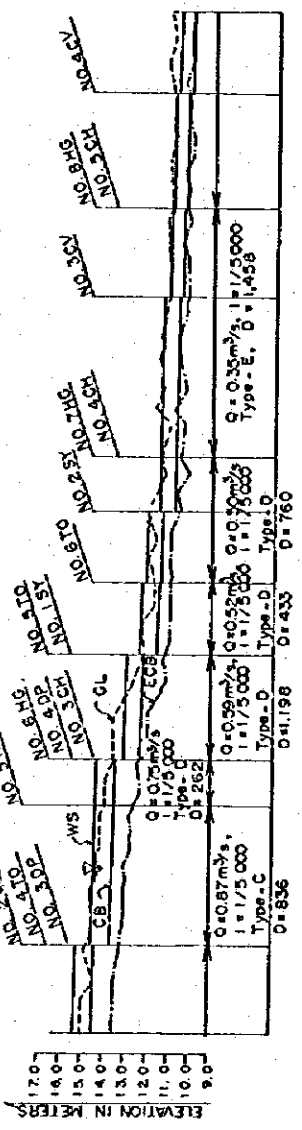
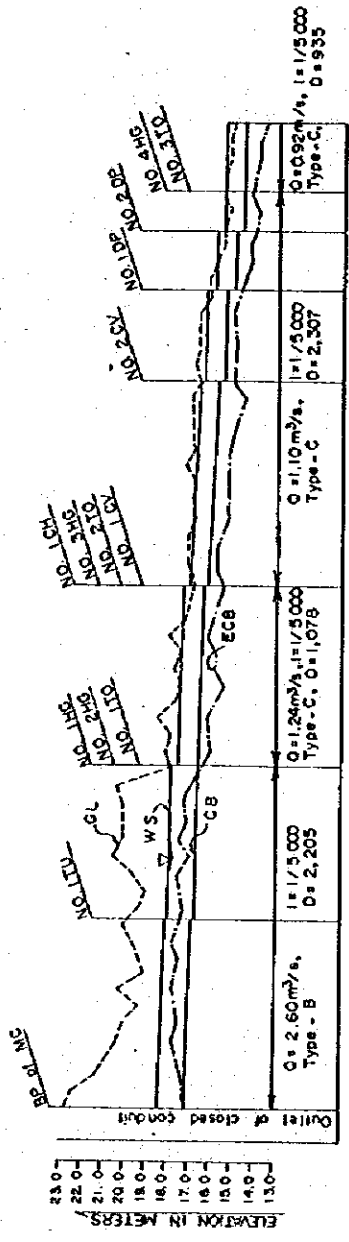
- |  |                                      |
|--|--------------------------------------|
|  | Name of Canal                        |
|  | Commanding Area (ha)                 |
|  | Design Discharge (m <sup>3</sup> /s) |
- : Main Canal  
 ——— : Lateral  
 ——— : Field Ditch

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig. VII.5-5  
 IRRIGATION DIAGRAM OF NAMBUSAO AREA  
 JAPAN INTERNATIONAL COOPERATION AGENCY



LEGEND  
 TO: Turnout  
 CH: Check  
 CV: Culvert  
 HG: Head Gate  
 CD: Crossdrain  
 SP: Spillway  
 AQ: Aqueduct  
 CB: Canal base  
 WS: Water surface  
 CL: Ground line  
 Q: Design discharge  
 I: Hydraulic gradient  
 D: Distance

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig. VII.5-6  
 PROFILE OF MAIN CANAL OF  
 PANITAN-PANAY AREA  
 JAPAN INTERNATIONAL COOPERATION AGENCY

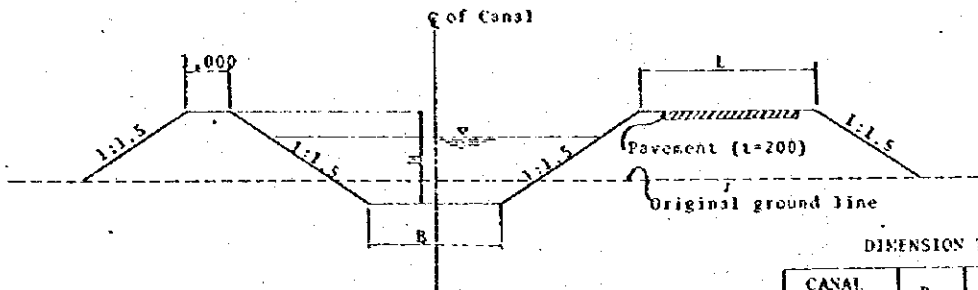


LEGEND  
 TO: Turnout  
 CH: Check  
 CV: Culvert  
 HG: Head gate  
 CD: Crossdrain  
 SP: Spillway  
 AQ: Aqueduct  
 TU: Tunnel  
 SY: Syphon  
 DP: Drop  
 ECB: Existing canal base  
 CB: Canal base  
 WS: Water surface  
 GL: Ground line  
 Q: Design discharge  
 I: Hydraulic gradient  
 D: Distance

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig. VII.5-7  
 PROFILE OF MAIN CANAL OF MAMBUSAO AREA  
 JAPAN INTERNATIONAL COOPERATION AGENCY

## 1. IRRIGATION CANAL

### A. Main & Lateral Canal

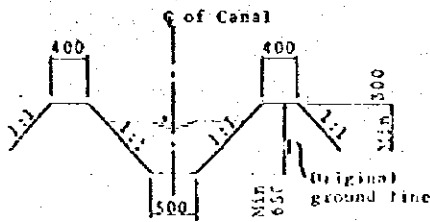


DIMENSION TABLE

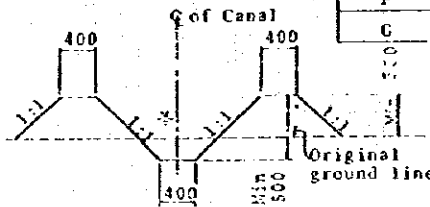
(Unit:m)

CANAL TYPE	B	H	L
A	3.0	2.1	4.0
B	2.5	1.8	4.0
C	2.0	1.5	4.0
D	1.5	1.2	4.0
E	1.0	1.0	4.0
F	0.6	0.8	2.5, 4.0
G	0.6	0.6	2.5

### B. Main Farm Ditch

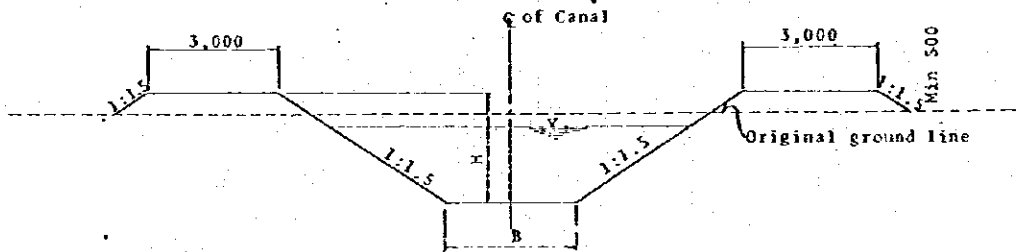


### C. Supplementary Farm Ditch

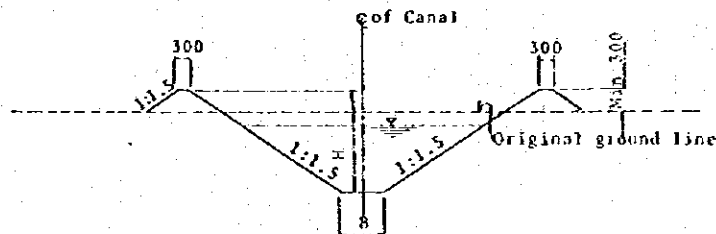


## 2. DRAINAGE CANAL

### D. Main Drain



### E. Collector Drain

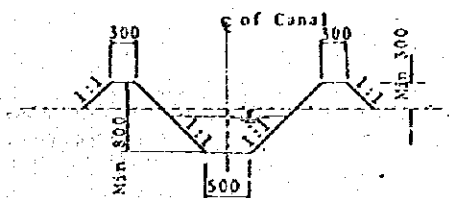


DIMENSION TABLE

(Unit:m)

CANAL	B		H	
	Max	Min	Max	Min
Main Drain	3.0	1.0	3.0	2.0
Collector Drain	1.5	0.8	1.5	0.8
Farm Drain	0.8	0.5	1.1	0.8

### F. Drainage Ditch



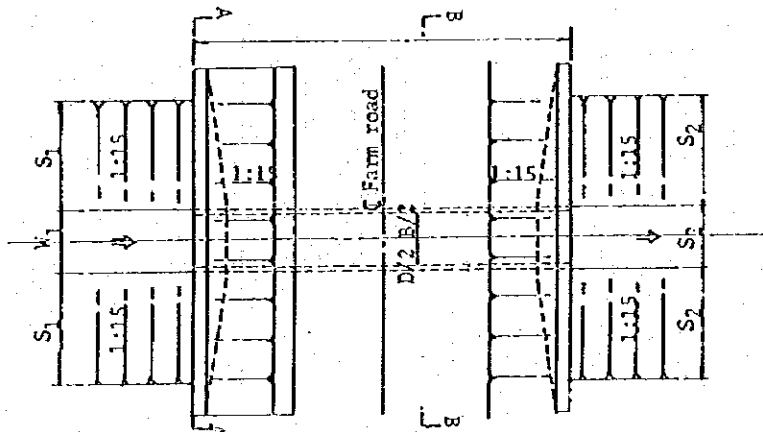
MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. VII.5-8

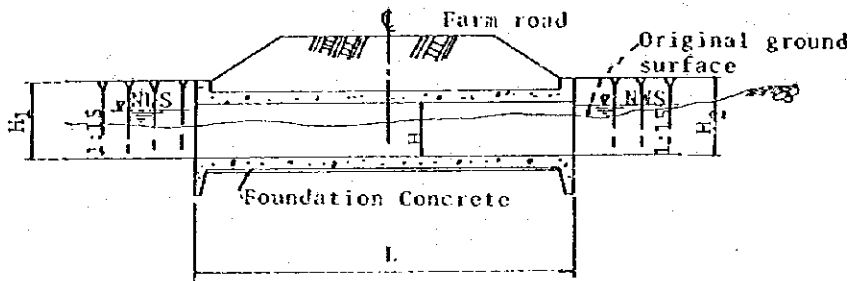
TYPICAL CROSS SECTION OF CANALS AND ROADS

JAPAN INTERNATIONAL COOPERATION AGENCY

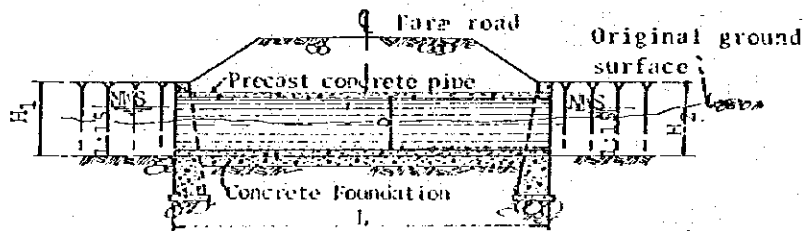
CULVERT



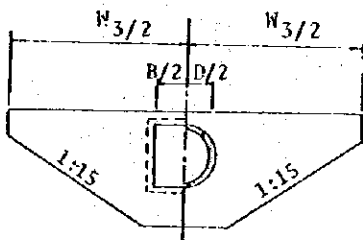
PLAN



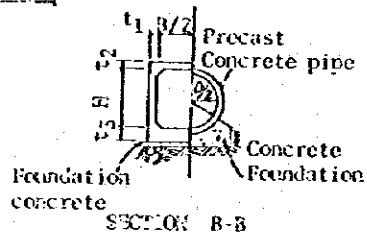
PROFILE (TYPE-A)



PROFILE (TYPE-B)



SECTION A-A



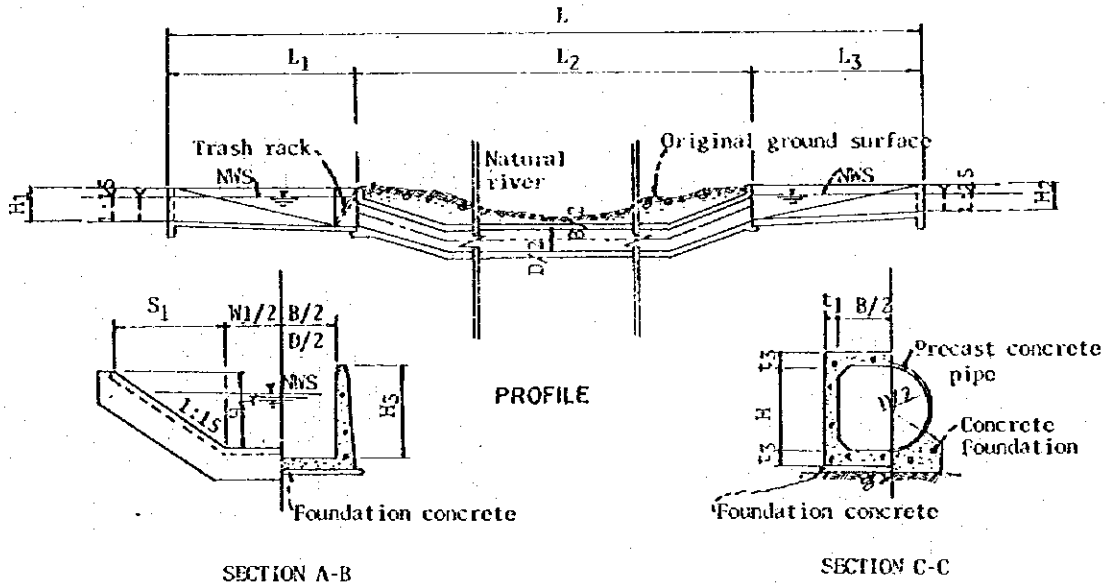
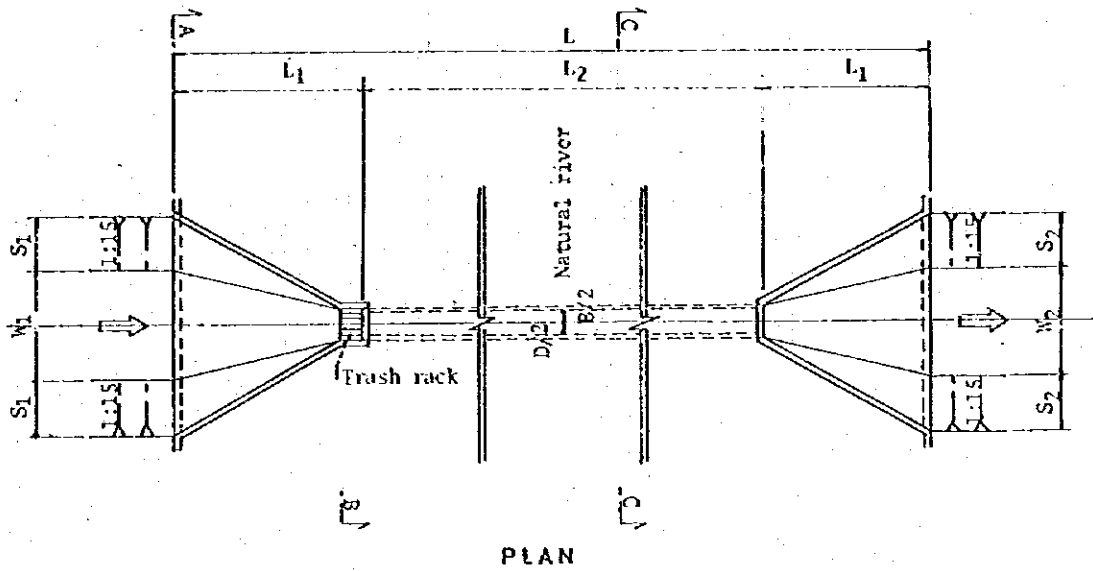
SECTION B-B

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. VII.5-9 CULVERT

JAPAN INTERNATIONAL COOPERATION AGENCY

SYPHON

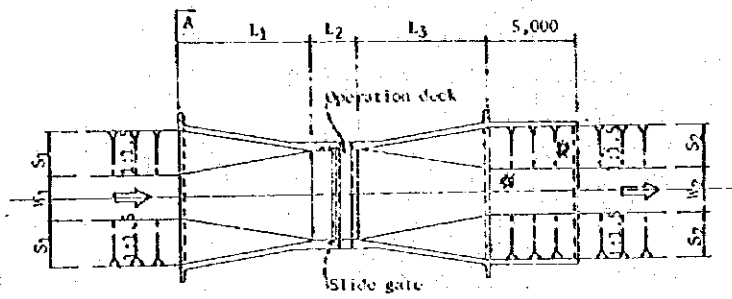


MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

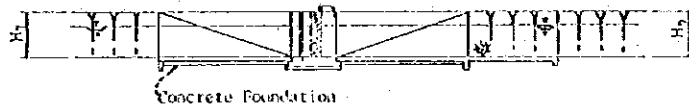
Fig. VII.5-10 SYPHON

JAPAN INTERNATIONAL COOPERATION AGENCY

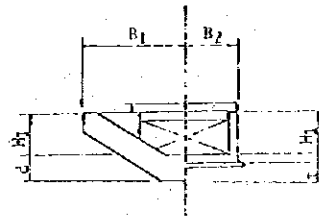
CHECK



PLAN

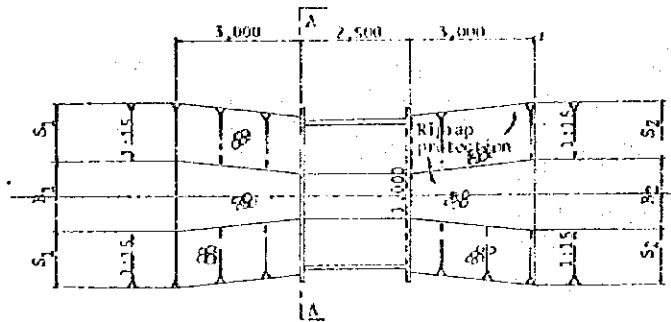


PROFILE

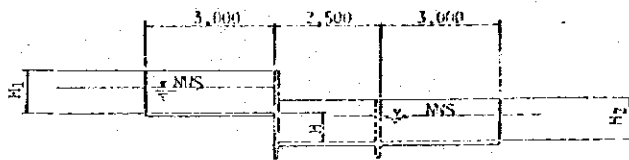


SECTION A - B

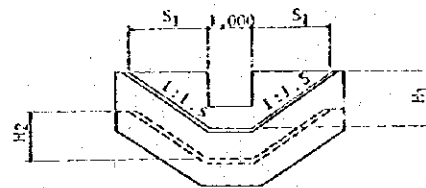
DROP



PLAN



PROFILE

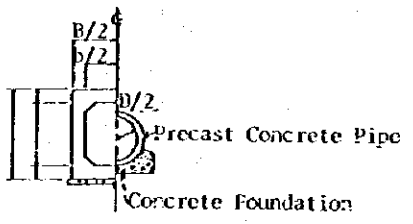
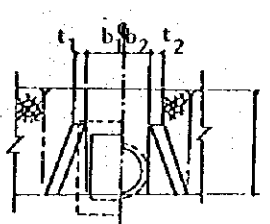
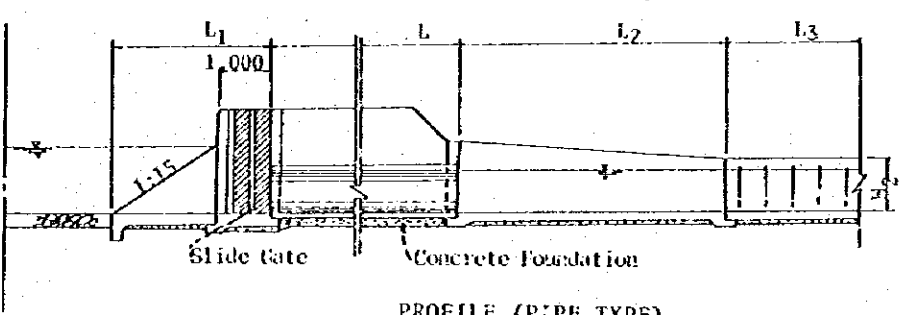
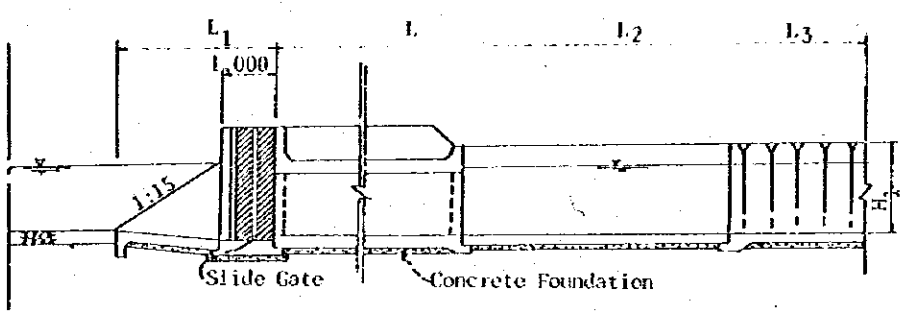
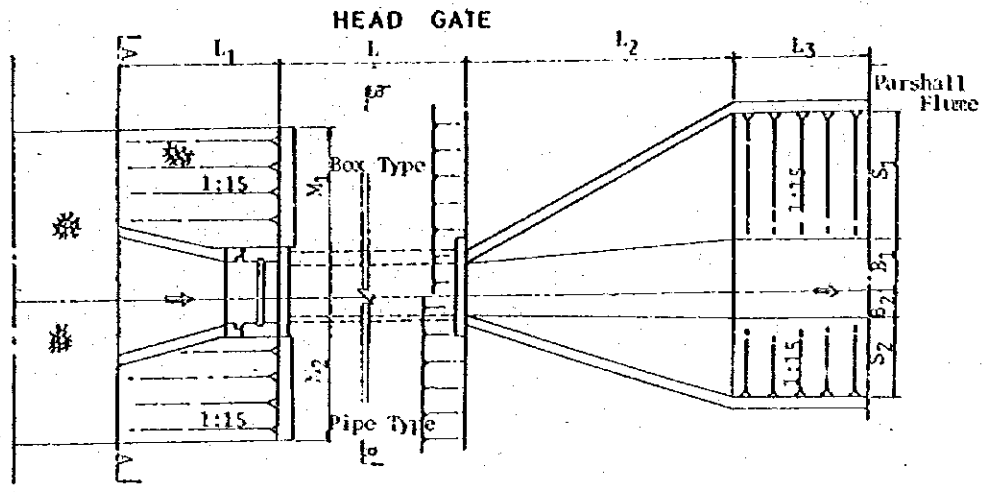


SECTION A-A

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. VII.5-11 CHECK AND DROP

JAPAN INTERNATIONAL COOPERATION AGENCY



MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

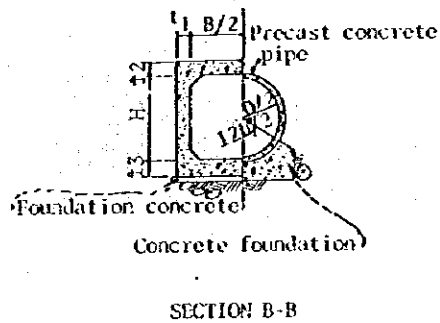
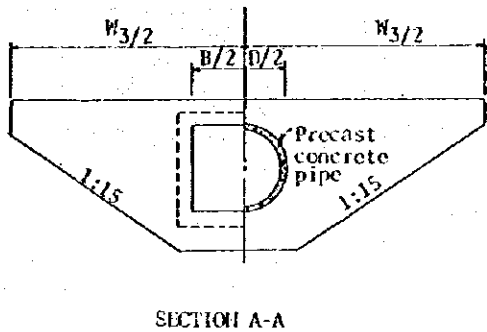
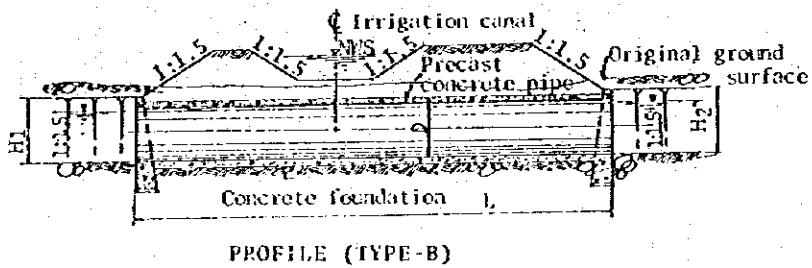
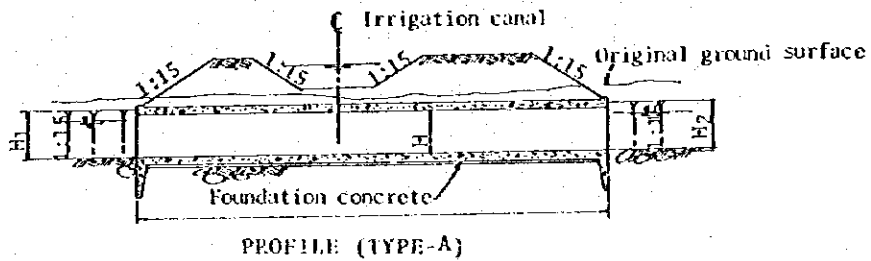
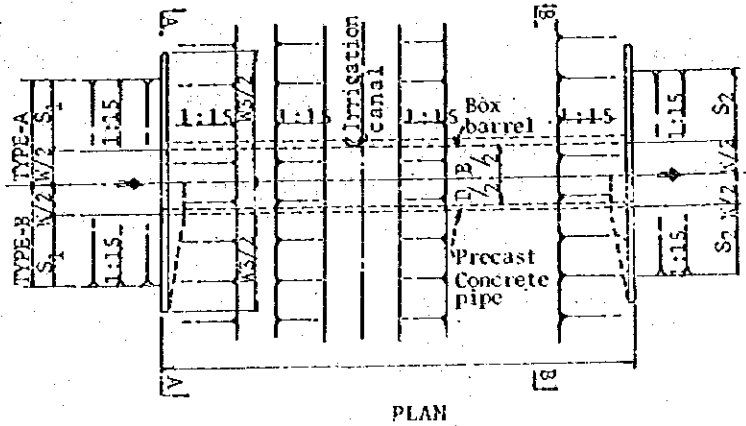
Fig. VII.5-12 HEAD GATE

JAPAN INTERNATIONAL COOPERATION AGENCY





CROSS DRAIN

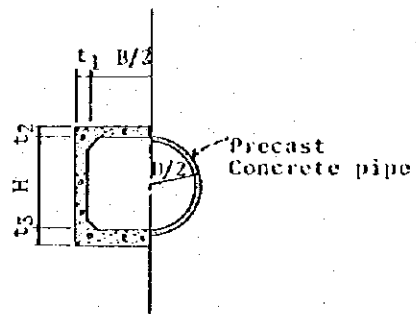
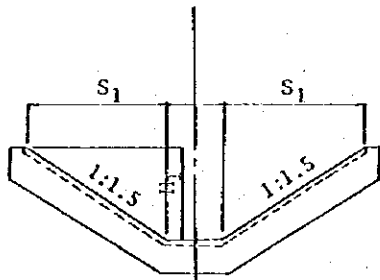
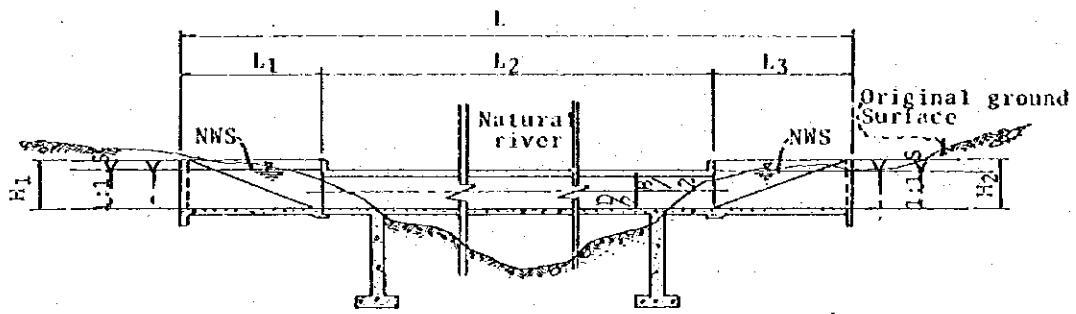
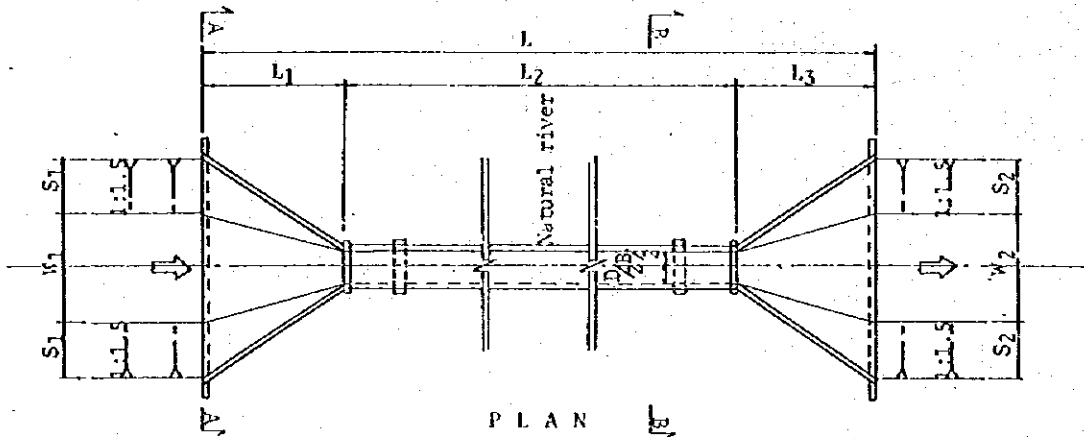


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PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. VIC.5-14 CROSS DRAIN

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# AQUEDUCT

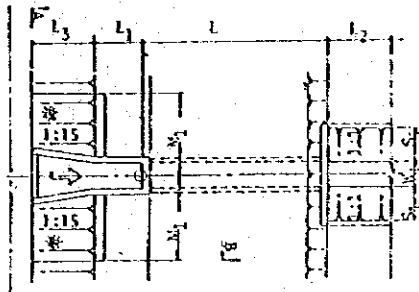


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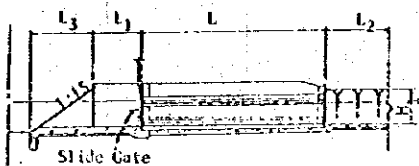
Fig. VII.5-15 AQUEDUCT

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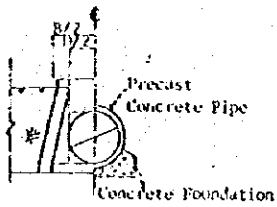
**TURNOUT**



PLAN

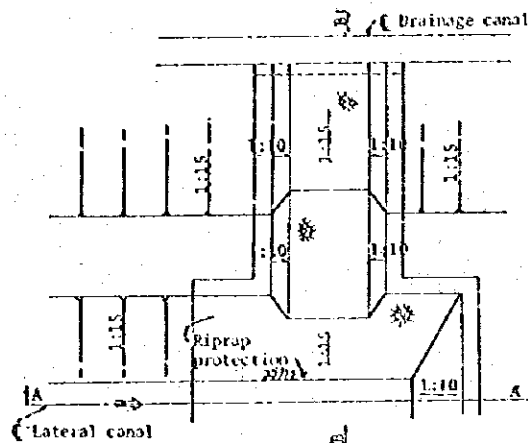


PROFILE

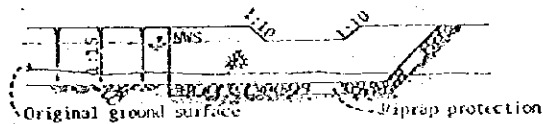


SECTION A - B

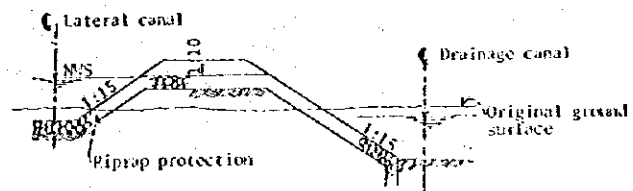
**TERMINAL STRUCTURE OF LATERAL CANAL**



PLAN

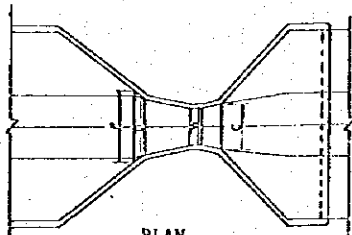


SECTION A - A

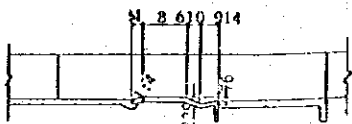


SECTION B - B

**PERSHALL FLUME**



PLAN



PROFILE

DIMENSION TABLE

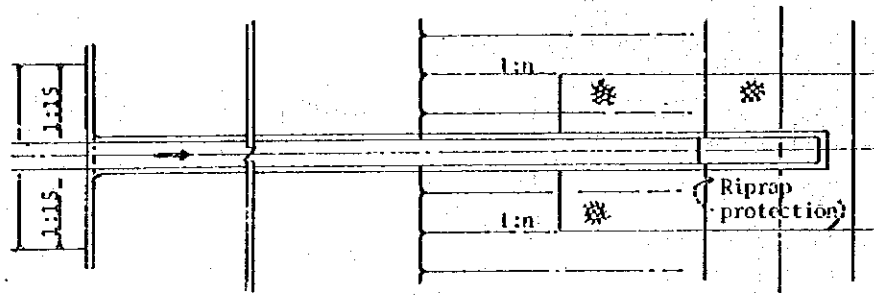
DISCHARGE (m <sup>3</sup> /s)	(UNIT: cm)					
	W	B	C	D	M	P
0-0.2	30.48	134.3	91.0	81.5	38.1	149.2
0.2-0.4	45.72	141.9	76.2	107.6	38.1	167.6
0.4-0.6	60.96	149.5	91.4	120.7	38.1	185.4
0.6-1.0	91.44	164.5	121.9	157.2	38.1	222.3
1.0-2.93	152.88	205.2	213.4	206.7	45.7	344.2

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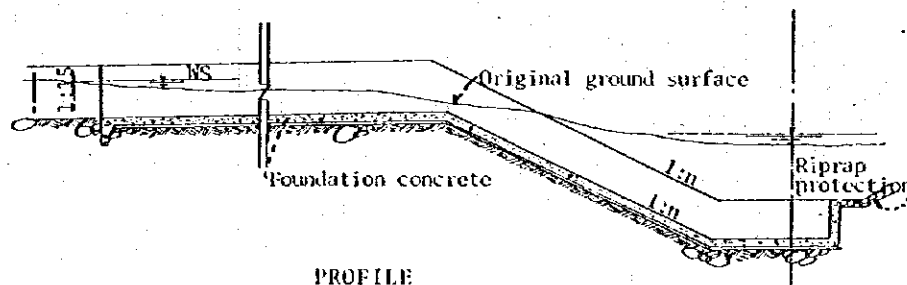
Fig. VII.5-16  
TURNOUT, PERSHALL FLUME  
AND TERMINAL STRUCTURE

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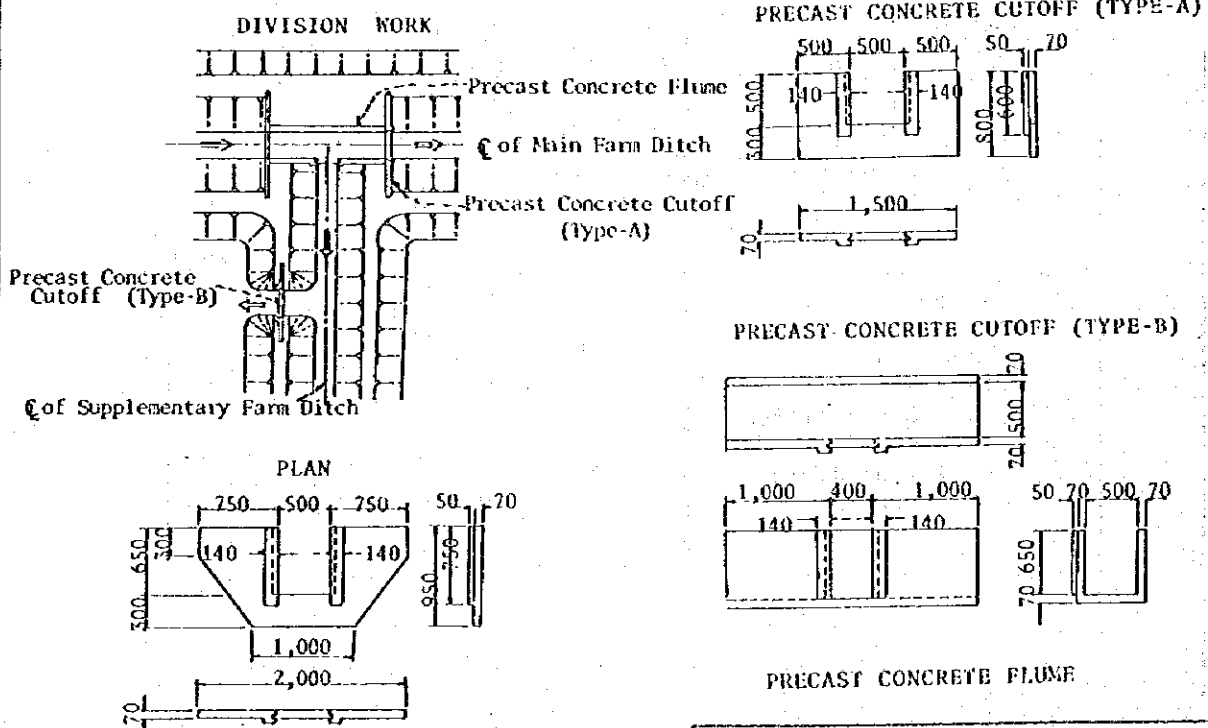
DRAINAGE INLET



PLAN



PROFILE



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 PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY  
 Fig. VII.5-17  
 DRAINAGE INLET AND DIVISION WORK  
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1. Panitan-Panay Area (3,250 ha)

Work Item	1st	2nd	3rd	4th	5th	6th
<b>1. Preparatory Works</b>						
(1) Study & Detailed Design	-----					
(2) Office & Quarter		-----				
(3) Land Acquisition			-----			
<b>2. Construction Works</b>						
(1) Pump Station & Headreach						
- Pump station			-----			
- Headreach			-----			
(2) Irrigation Facilities						
- Main canal			-----			
- Lateral				-----		
(3) Drainage Facilities						
- Main drain				-----		
- Collector drain				-----		
(4) On-farm Development					-----	

2. Mambusao Area (2,145 ha)

Work Item	1st	2nd	3rd	4th	5th
<b>1. Preparatory Works</b>					
(1) Detailed Design	-----				
(2) Office & Quarter		-----			
(3) Land Acquisition			-----		
<b>2. Construction Works</b>					
(1) Intake Facility			-----		
(2) Irrigation Facilities					
- Main canal			-----		
- Lateral				-----	
(3) Drainage Facilities					
- Main drain				-----	
- Collector drain				-----	
(4) On-farm Development					-----

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PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig.VII.6-1 IMPLEMENTATION  
SCHEDULE (1/2)

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3. Panitan-Panay Area (P-1 Pump)

Work Item	1st	2nd	3rd	4th
<b>1. Preparatory Works</b>				
(1) Study & Detailed Design	—			
(2) Office & quarter	—			
(3) Land Acquisition	—			
<b>2. Construction Works</b>				
<b>(1) Pump Station &amp; Headreach</b>				
- Pump station		—		
- Headreach		—		
<b>(2) Irrigation Facilities</b>				
- Main Canal		—		
- Lateral		—		
<b>(3) Drainage Facilities</b>				
- Main drain		—		
- Collector drain		—		
<b>(4) On-farm Development</b>				
			—	

4. Panitan-Panay Area (P-2 Pump)

Work Item	1st	2nd	3rd	4th	5th
<b>1. Preparatory Works</b>					
(1) Study & Detailed Design	—				
(2) Office & Quarter		—			
(3) Land Acquisition		—			
<b>2. Construction Works</b>					
<b>(1) Pump Station &amp; Headreach</b>					
- Pump station			—		
- Headreach			—		
<b>(2) Irrigation Facilities</b>					
- Main canal			—		
- Lateral			—		
<b>(3) Drainage Facilities</b>					
- Main drain			—		
- Collector drain			—		
<b>(4) On-farm Development</b>					
				—	

MINISTRY OF PUBLIC WORKS AND HIGHWAYS  
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Fig.VII.6-2 IMPLEMENTATION  
SCHEDULE (2/2)

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400

400

400

400





