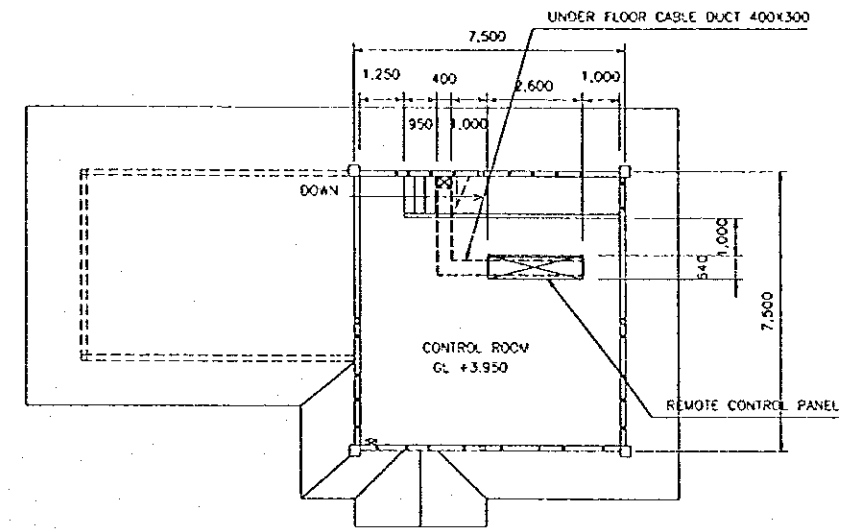
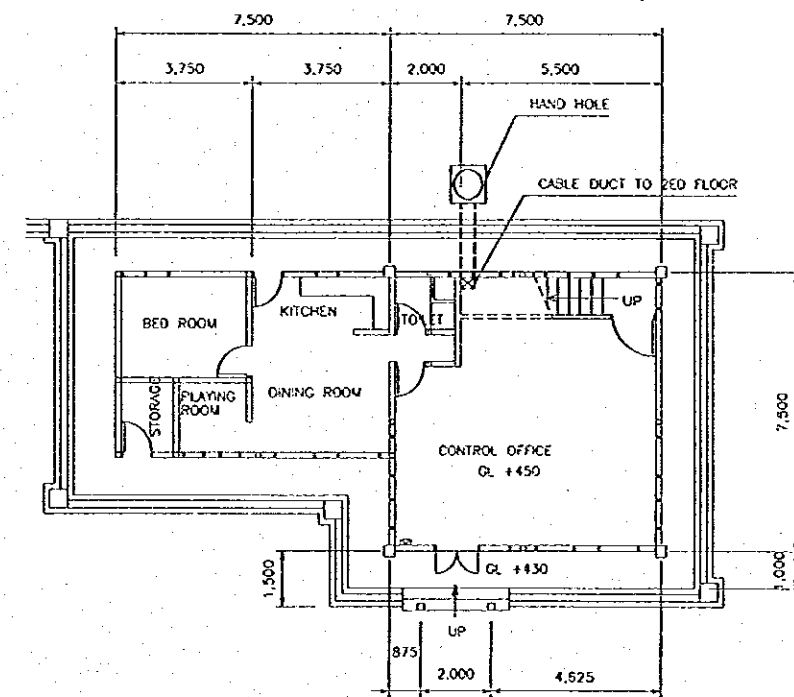


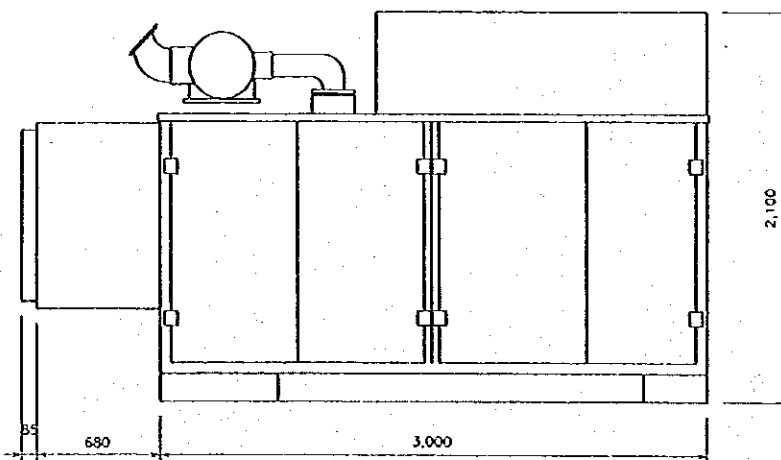
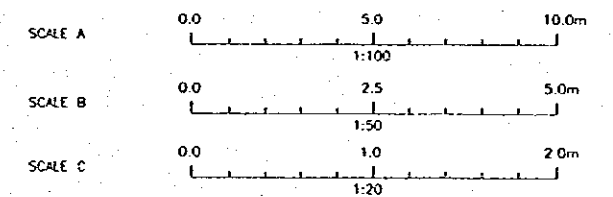
FLOOR PLAN  
 SCALE B



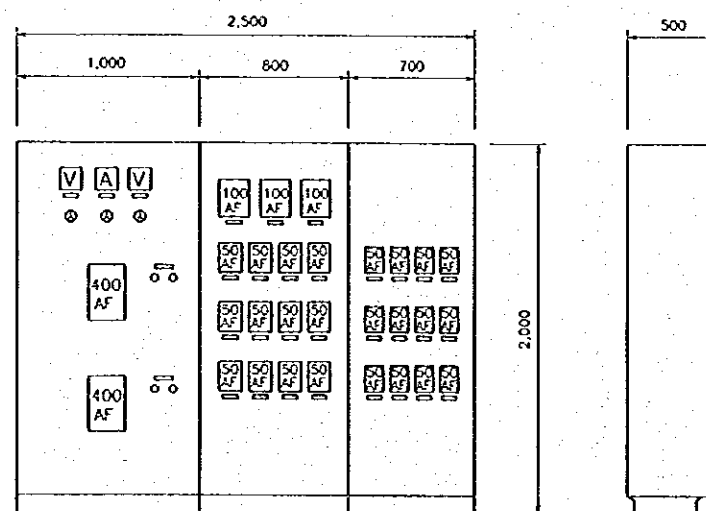
2nd FLOOR PLAN  
 SCALE A



1st FLOOR PLAN  
 SCALE A



DESEL ENGINE GENERATOR  
 SCALE C



GENERATOR CONTROL PANEL AND SWITCH BOARD  
 SCALE C

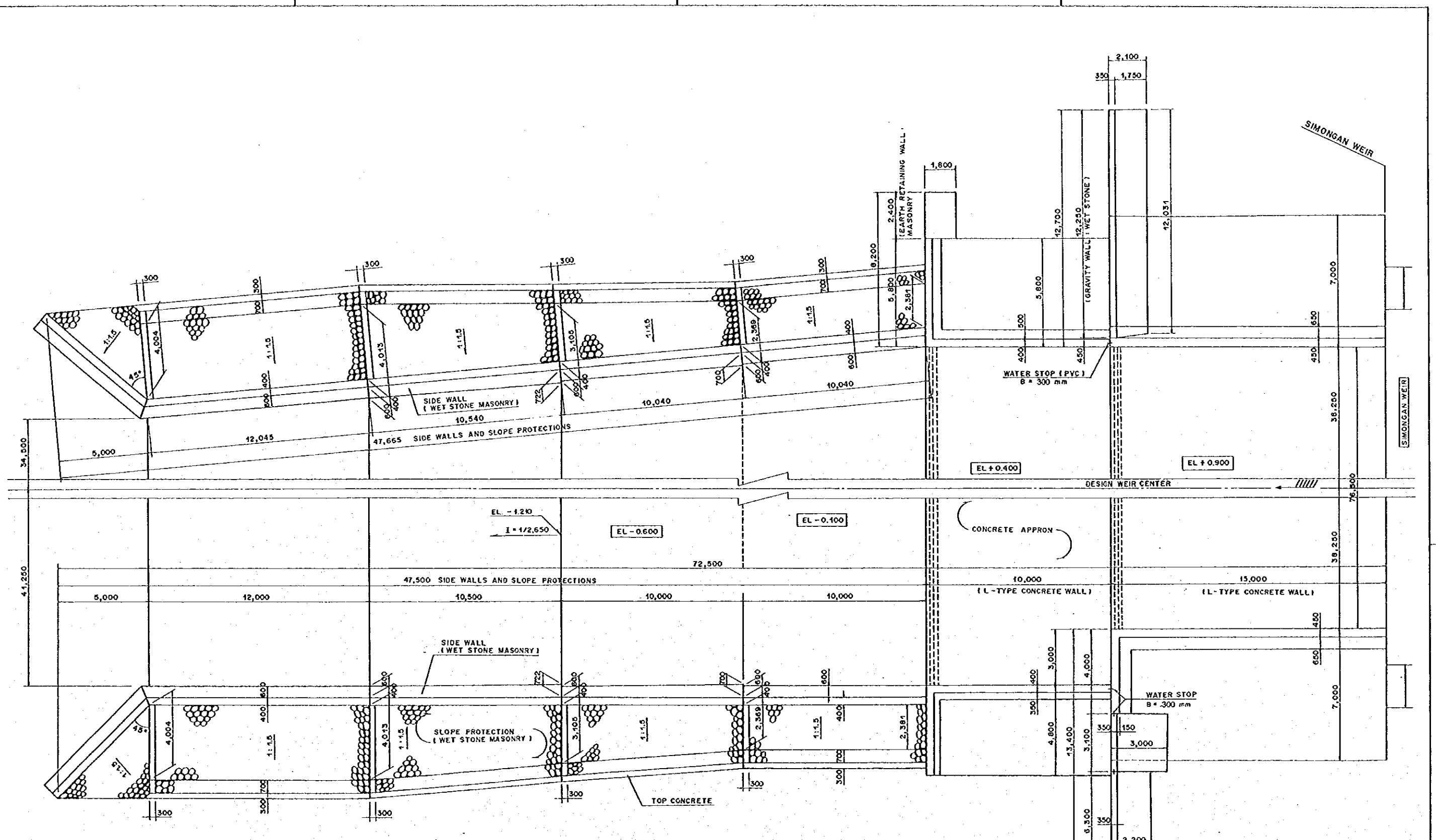
NOTE: AF: AMPER FRAME SIZE

NO	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT GATE, GUIDE FRAME AND HOIST ELECTRICAL EQUIPMENT IN ELECTRICAL BUILDING AND OPERATION/MANAGEMENT BUILDING		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT BY SECURING IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PASCO INTERNATIONAL, E.C.		DISTRICT SEMARANG CITY
DESIGNED CHECKED DATE PROJECT MANAGER	APPROVED CHIEF OF PLANNING AND DESIGN	DRAWING NO. W-01-04-117 SHEET NO. III CONTRACT NO.



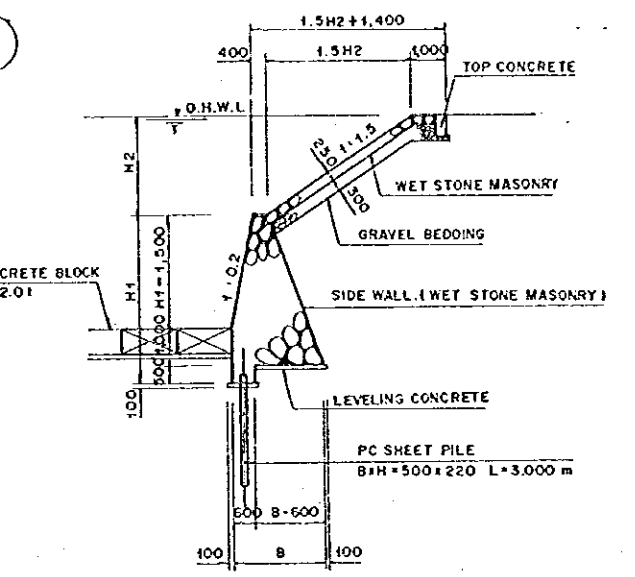
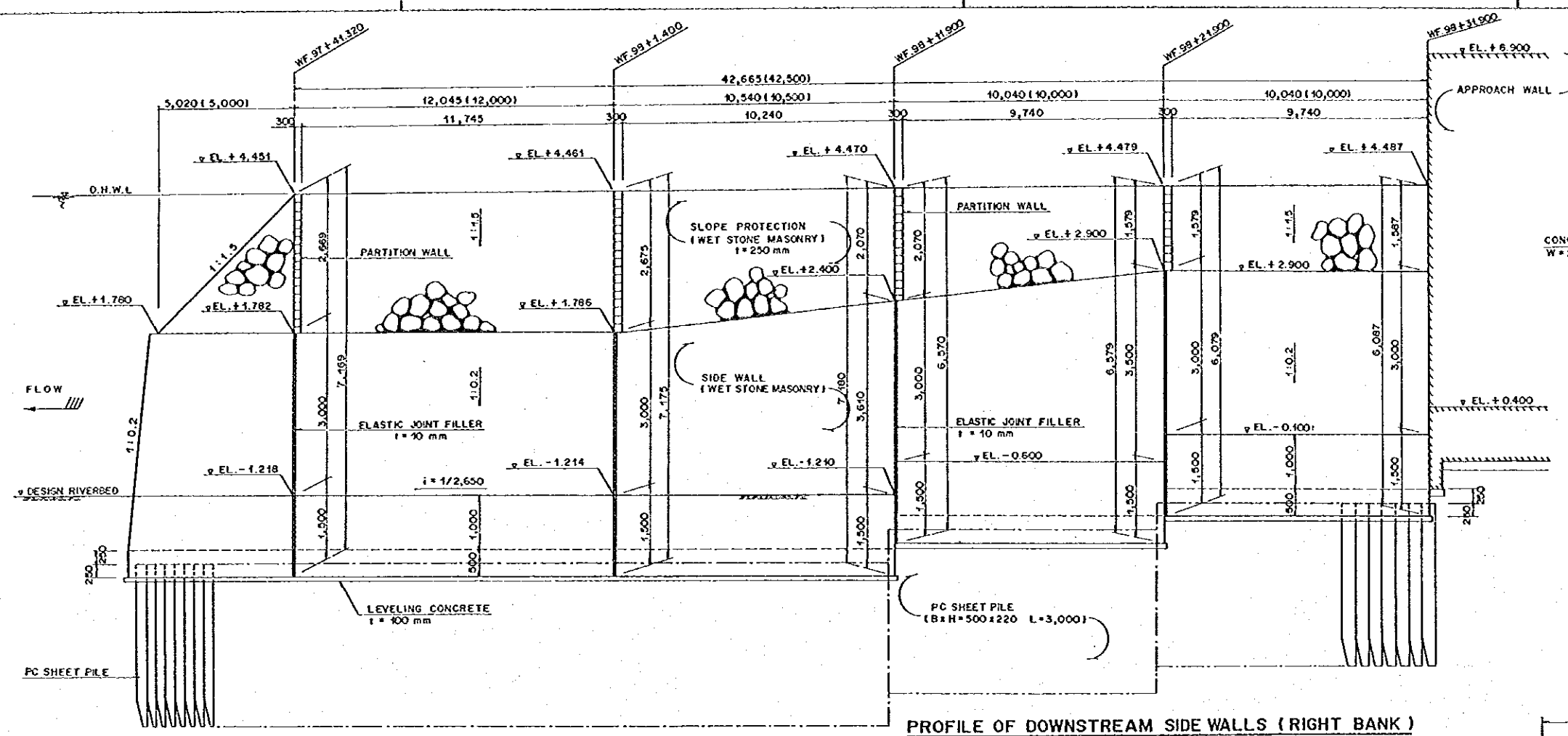




PLAN OF SIDE WALLS (DOWN STREAM)  
SCALE A

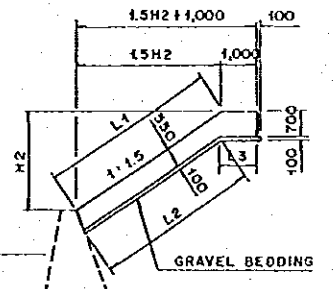
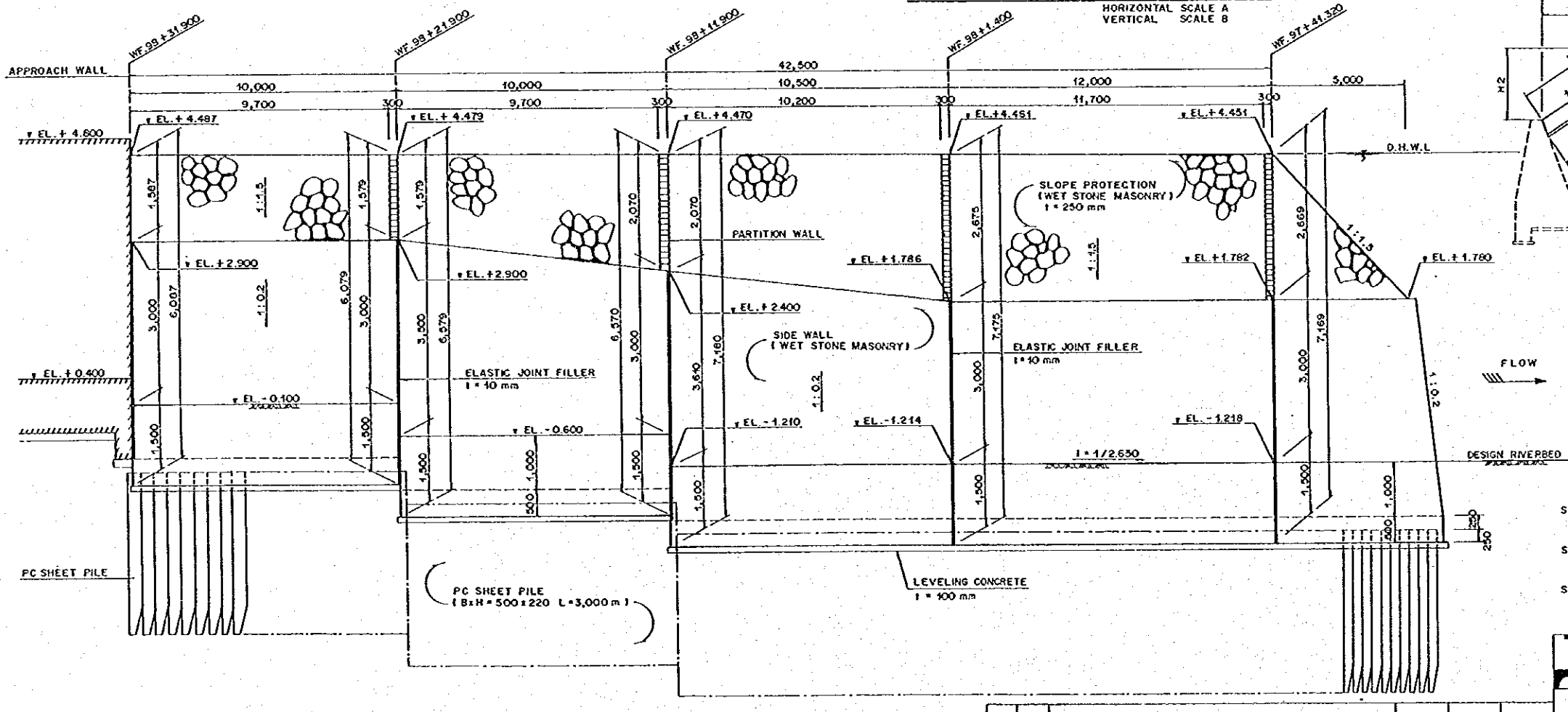
SCALE A 0 1 5 10.0m  
S = 1:100

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE CENTRAL JAWA			
JATUNSELUNA FLOOD CONTROL RIVER IMPROVEMENT COMPONENT: WEST FLOODWAY / GARANO RIVER IMPROVEMENT			PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA			
PROTECTION WORKS FOR RIVERBANK AND RIVERBED PLAN OF DOWNSTREAM SIDE REVETMENT			DISTRICT SEMARANG CITY			
DRAWING NO. WS-P2-PR-51-1 SUBSET NO. 114			DATE CONSTRUCTION NO.			
JAWA INTERNATIONAL CONSULTING AGENCY PT. JAWA INTERNATIONAL CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL, INC. (PACIFIC CONSULTANTS INTERNATIONAL, INC.)			DESIGNED CHECKED CUSTodian OF PLANNING AND DESIGN PROJECT MANAGER			
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED

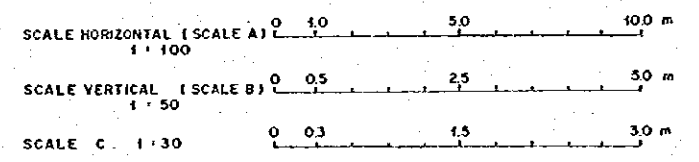
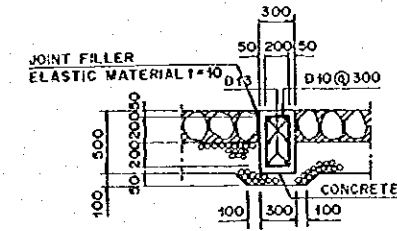


**TABLE OF DIMENSION**

STATION	H1 (m)	H2 (m)	B (m)	REMARK
WF. 97+41,320	4,500	2,669	2,500	
WF. 98+1,400	4,500	2,675	2,500	
WF. 98+11,900	5,110	2,070	3,000	DOWN STREAM
WF. 98+11,900	4,500	2,070	2,500	UPSTREAM
WF. 98+21,900	5,000	1,579	3,000	DOWN STREAM
WF. 98+21,900	4,500	1,579	2,500	UPSTREAM
WF. 98+31,900	4,500	1,597	2,500	



**PROFILE OF PARTITION WALL**  
 SCALE A



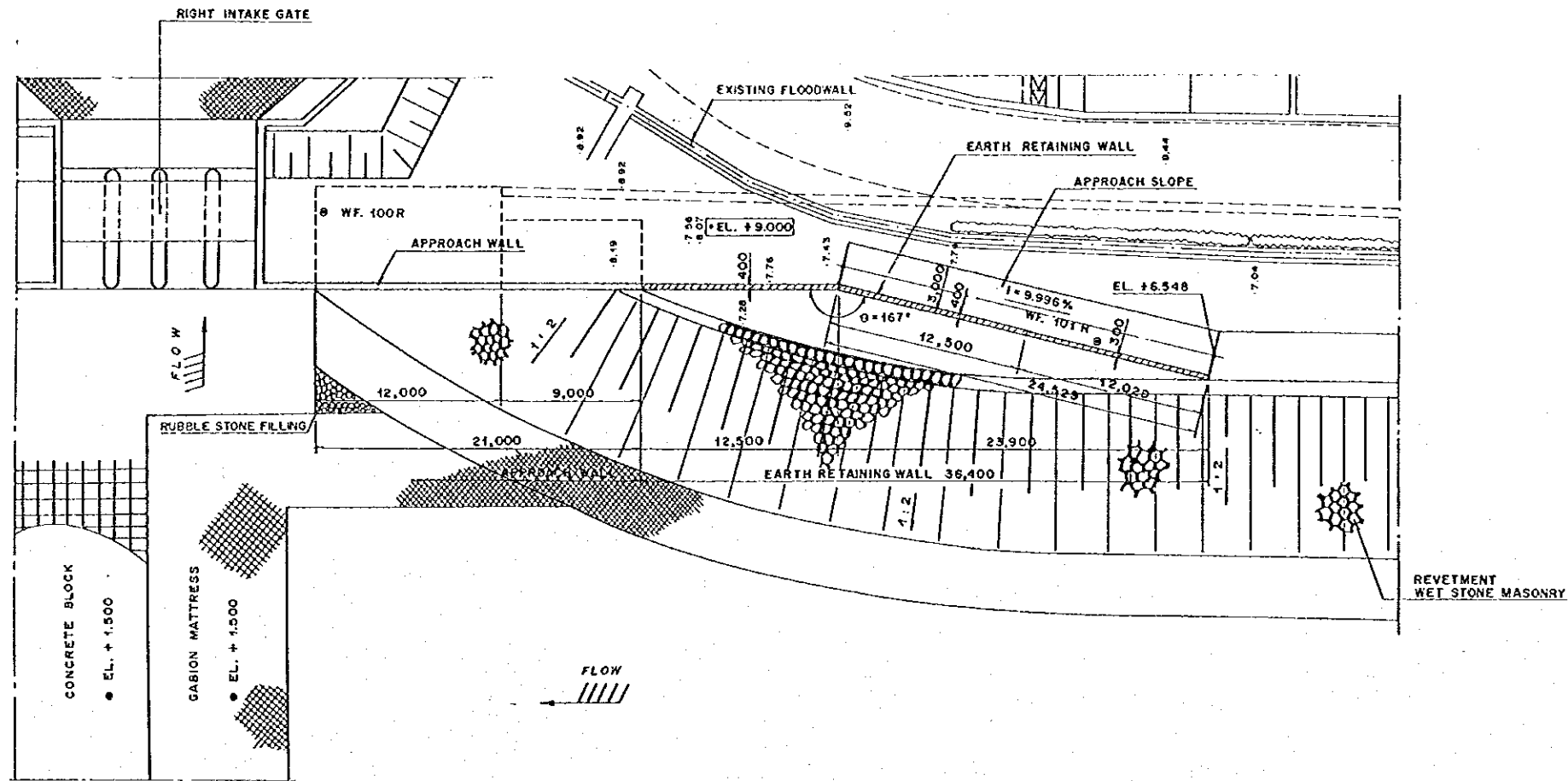
**THE REPUBLIC OF INDONESIA**  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

**JRATUNSELUNA FLOOD CONTROL PROJECT**  
 COMPONENT : WEST FLOODWAY / GARANO RIVER IMPROVEMENT  
**PROTECTION WORKS FOR RIVERBANK AND RIVERBED**  
**PROFILE OF DOWNSTREAM SIDE RETEMENT**

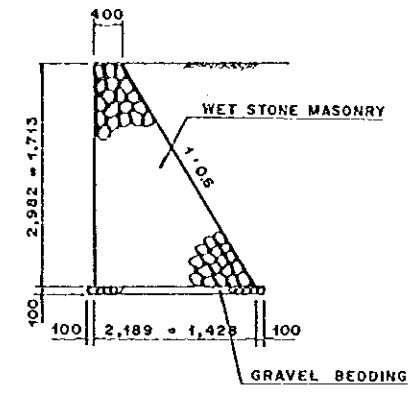
PROVINCE: CENTRAL JAWA  
 PROJECT NAME: FLOOD CONTROL, EMBANKMENT AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO. W6-P2-PA-31-2  
 SHEET NO. 115  
 DATE: CONTRACTING

DESIGNED: [Signature]  
 CHECKED: [Signature]  
 CRUISE OF PLANNING AND DESIGN: [Signature]  
 PROJECT MANAGER: [Signature]

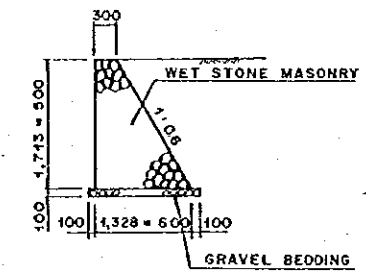
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



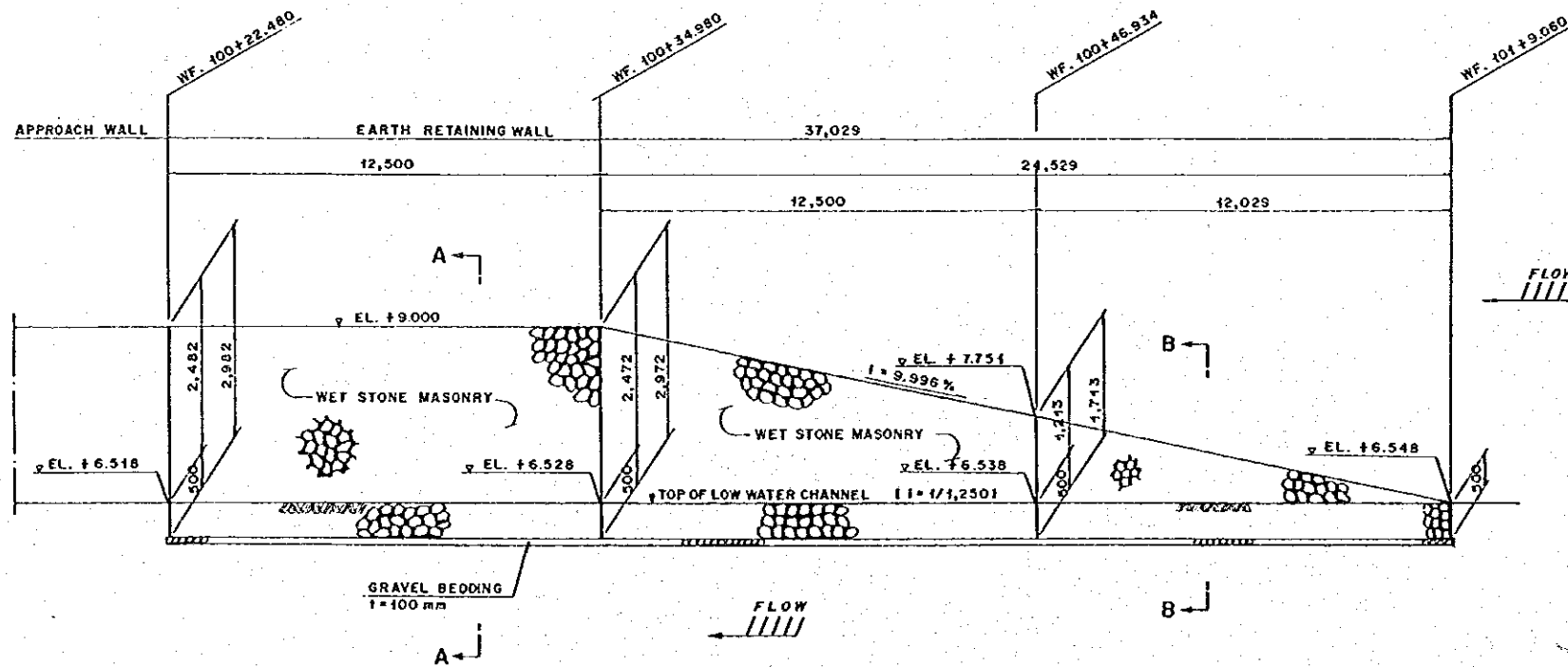
PLAN OF EARTH RETAINING WALL (RIGHT BANK)  
SCALE A



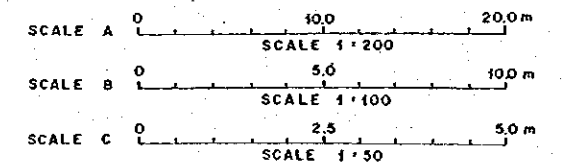
SECTION A - A  
SCALE C



SECTION B - B  
SCALE C

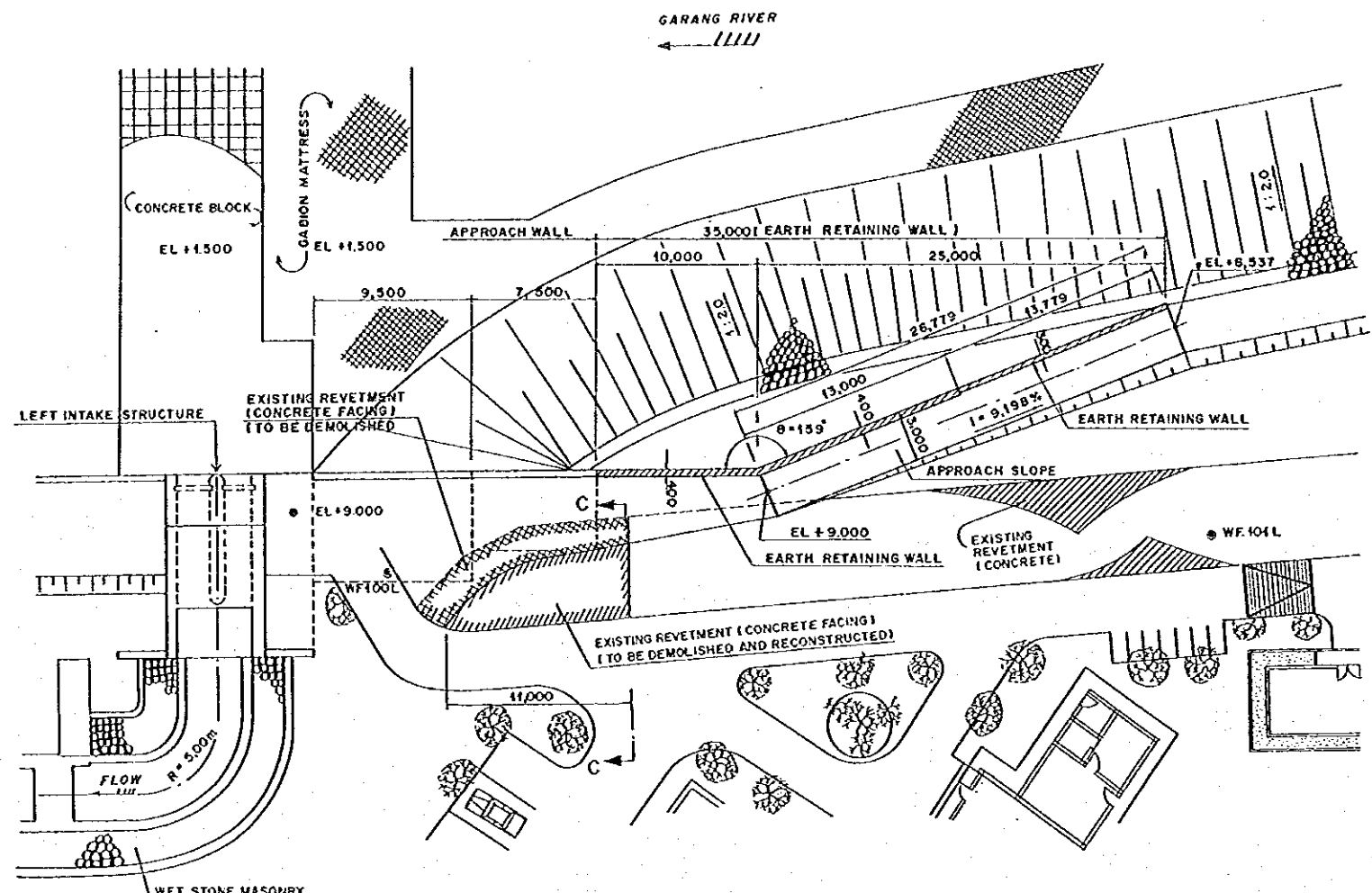


DEVELOPMENT OF EARTH RETAINING WALL (RIGHT BANK)  
SCALE HORIZONTAL : B, VERTICAL : C

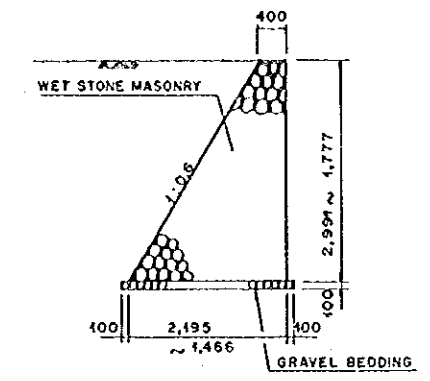


NO.	DATE	REVISIONS	ORIGINATED	DRAWN	APPROVED

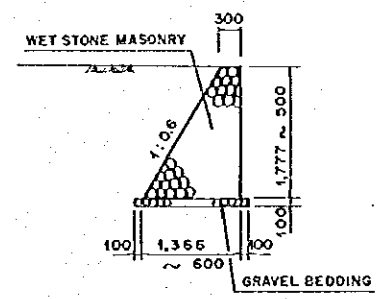
<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANO RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK AND RIVERBED RIGHT BANK RETAINING WALL IN UPSTREAM	PROVINCE CENTRAL JAVA
	PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN EDJARAN IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
	DRAWING NO. WS-P2-PR-31-3 SHEET NO. 116
	DATE CONTRACT NO.
JAPAN INTERNATIONAL COOPERATION AGENCY CIL (CONSULTING) CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND FARO INTERNATIONAL INC.	ORIGINATED DRAWN APPROVED
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.



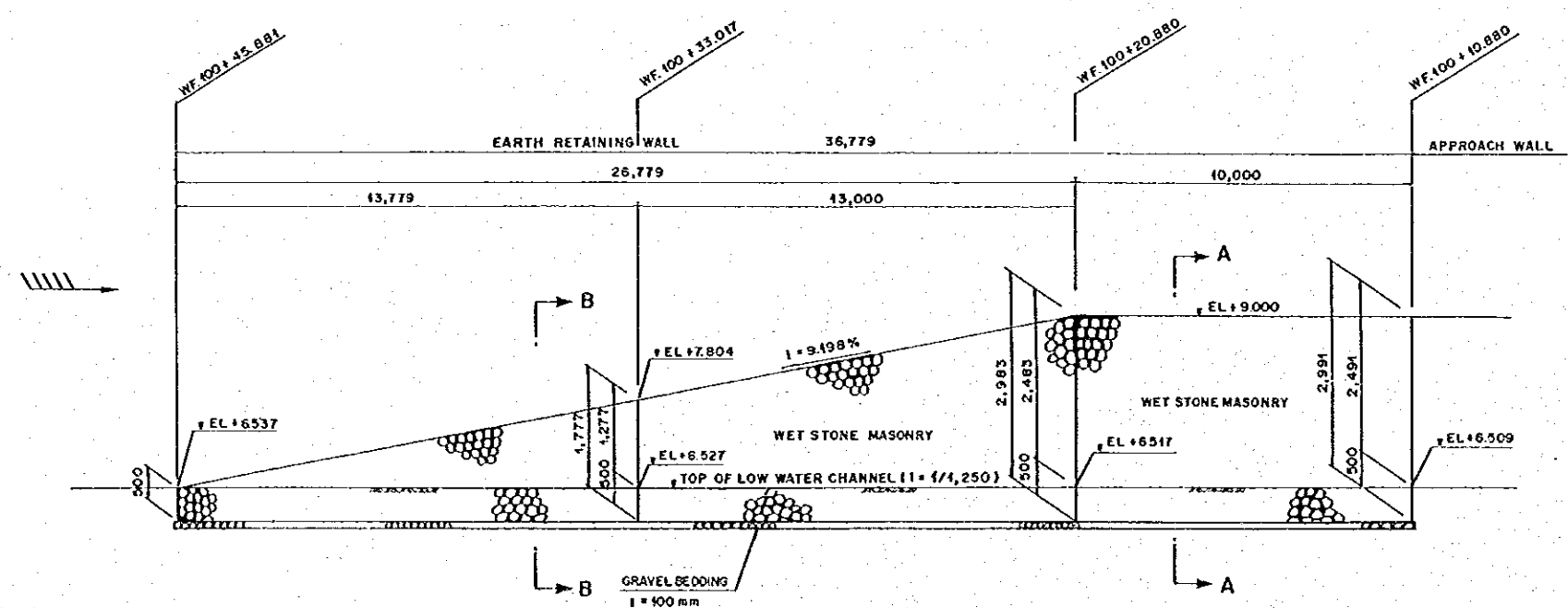
PLAN OF EARTH RETAINING WALL (LEFT BANK)  
SCALE: A



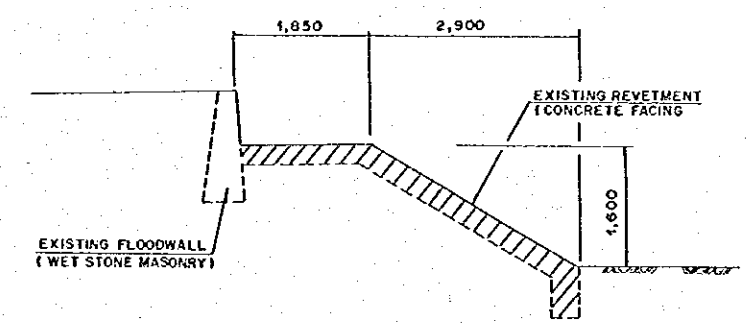
SECTION A-A  
SCALE: C



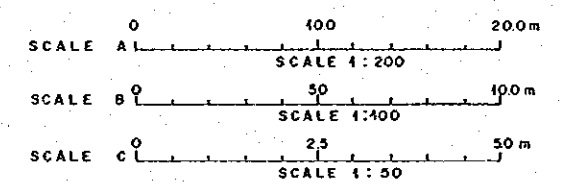
SECTION B-B  
SCALE: C



DEVELOPMENT OF EARTH RETAINING WALL (LEFT BANK)  
SCALE: HORIZONTAL: B, VERTICAL: C



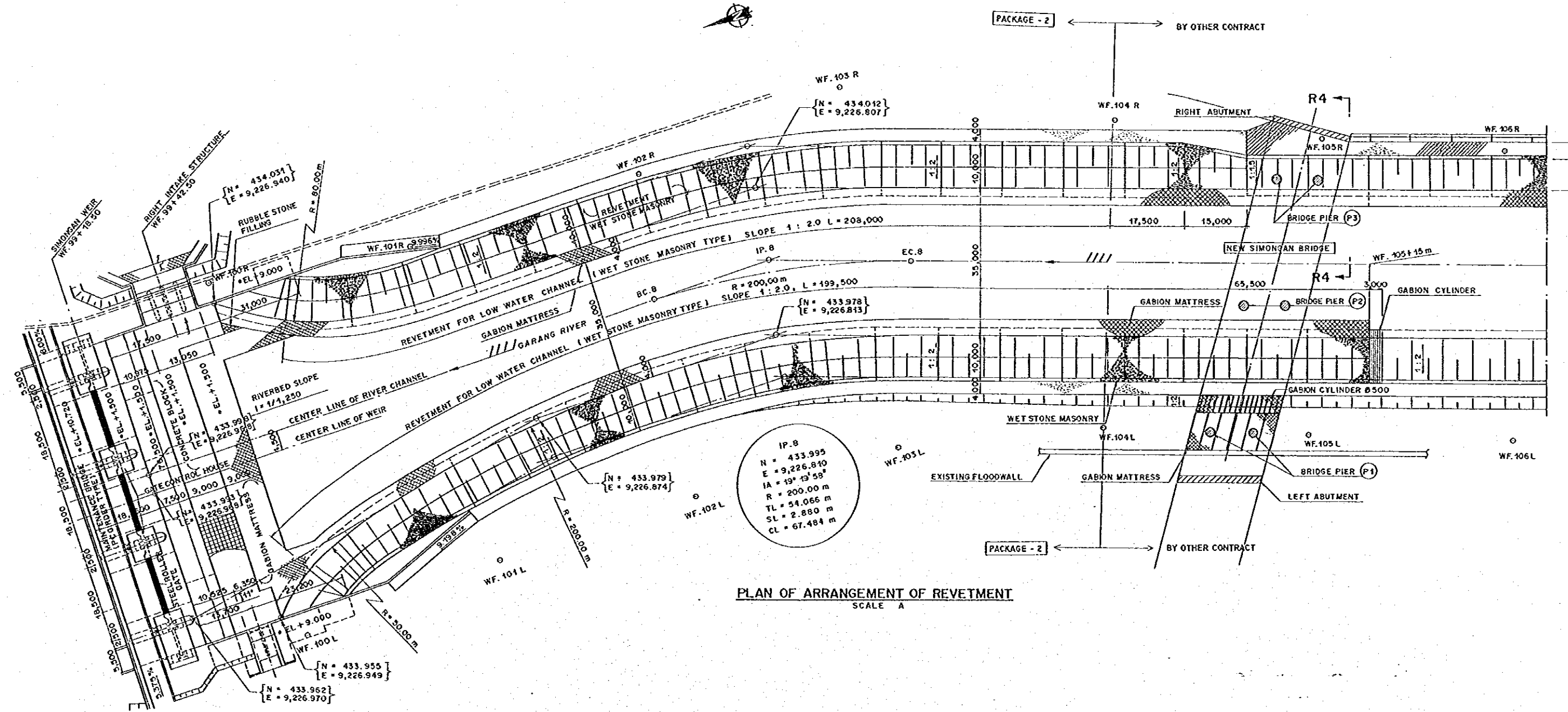
SECTION C-C  
SCALE: C



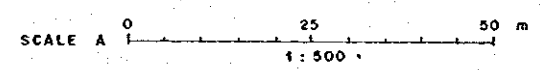
NOTE

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE: CENTRAL JAWA PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT: SEMARANG CITY DRAWING NO. W 8 - P 2 - PR - 51 - 4 SHEET NO. 117
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND TAIKOO INTERNATIONAL INC.		DESIGNED: [Signature] CHECKED: [Signature] DATE: [Date] CONTRACT NO.
NO. DATE REVISIONS ORIGINATED DESIGNED APPROVED		APPROVED: [Signature] PROJECT MANAGER



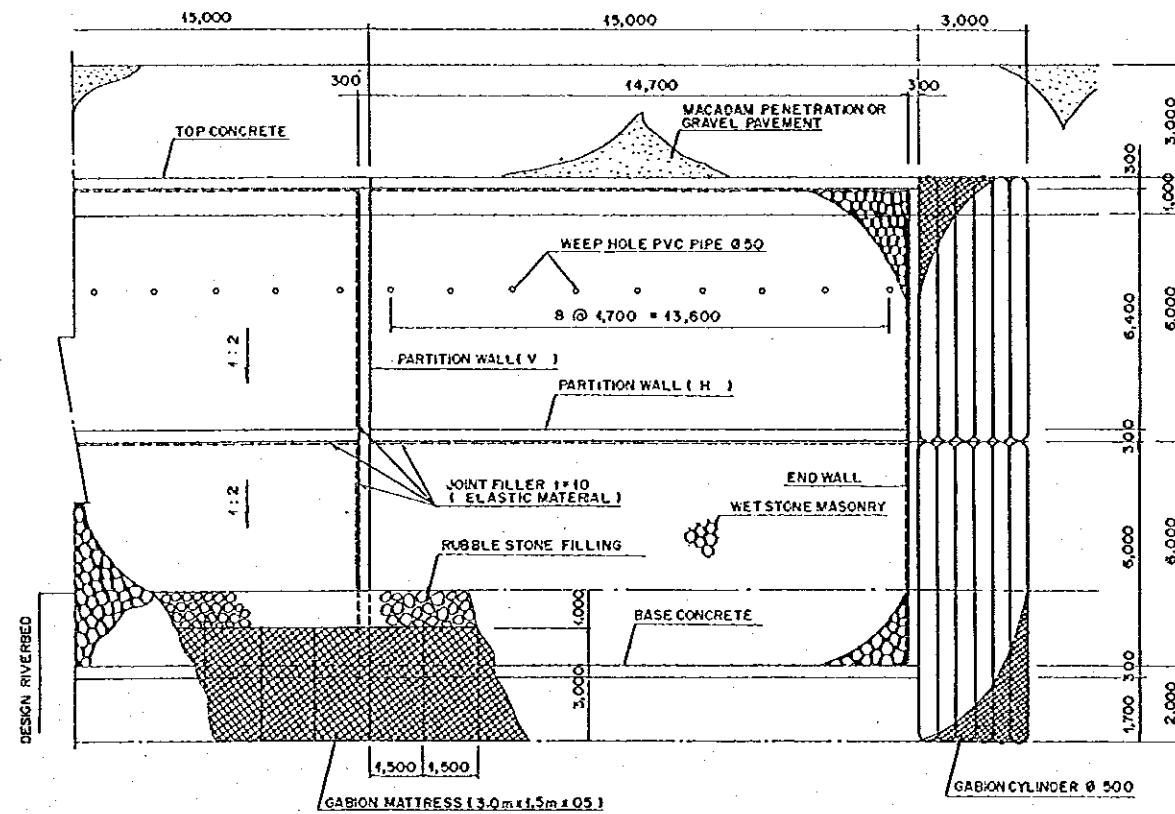
PLAN OF ARRANGEMENT OF REVETMENT  
SCALE A



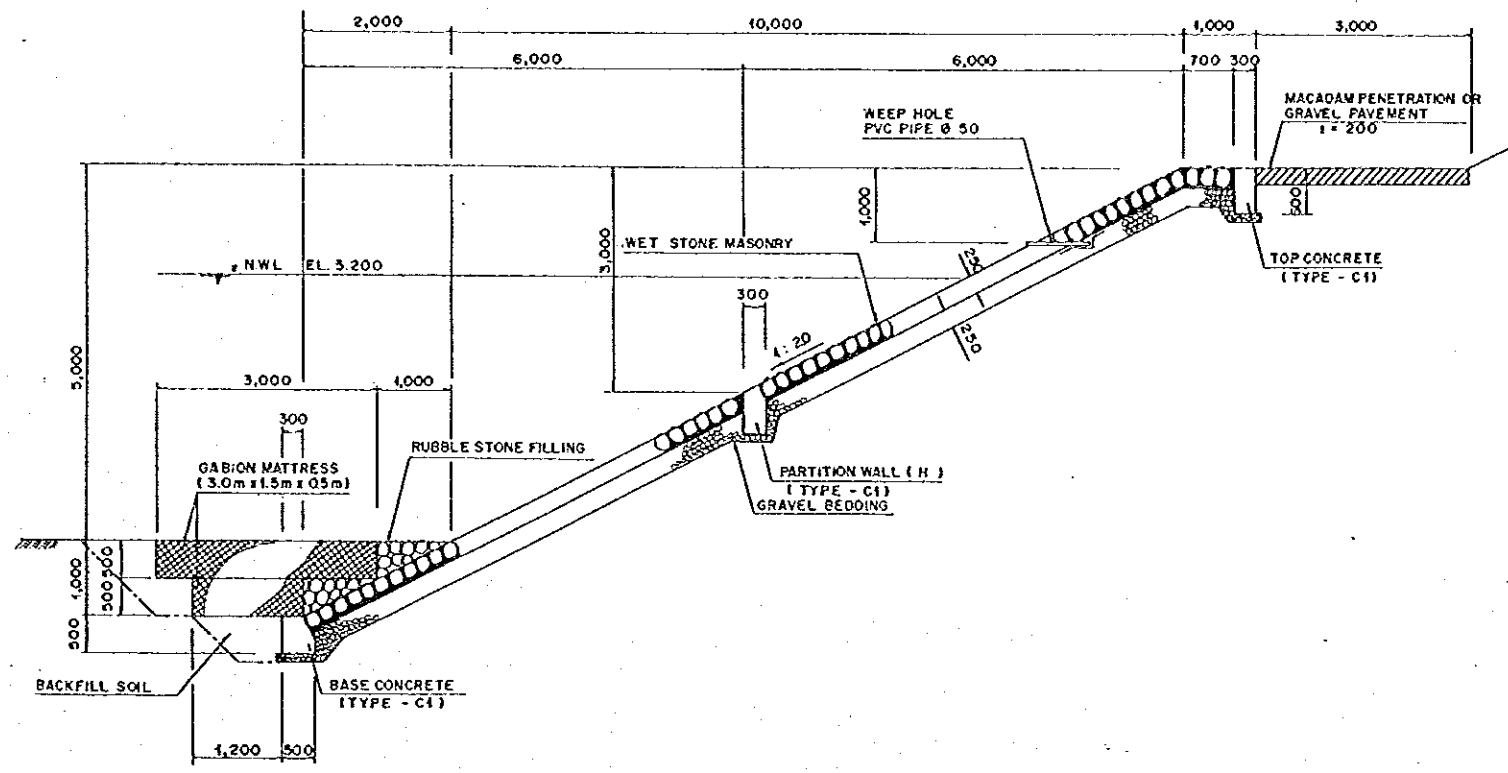
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
TRAJUNGSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK AND RIVERBED RIVER SECTION: WF.100 TO WF.104 (RIGHT & LEFT BANK) STRUCTURAL DETAILS OF REVETMENT		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
LIAISON INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND LARCO INTERNATIONAL INC.		DRAWING NO. W0 - P2 - PR - P1 - 1 SHEET NO. 128
CHIEF OF PLANNING AND DESIGN		DATE CONTRACT NO.
APPROVED		PROJECT MANAGER

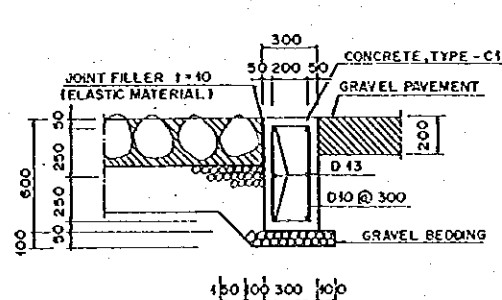




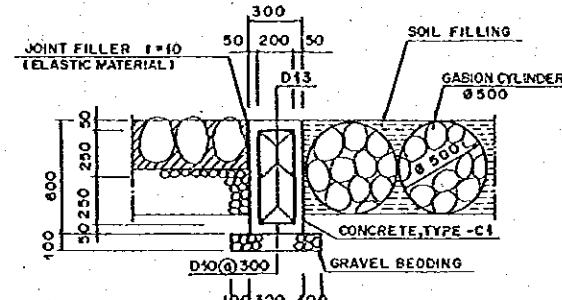
PLAN OF REVETMENT  
SCALE A



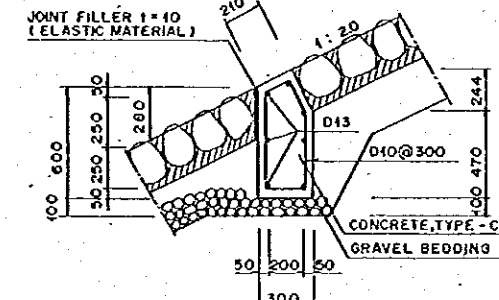
STANDARD CROSS SECTION OF REVETMENT (SLOPE 1:2)  
SCALE B



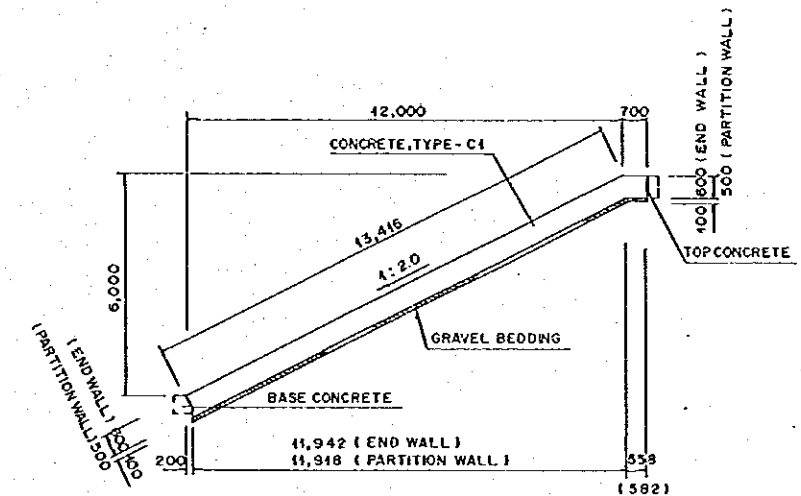
TOP CONCRETE  
SCALE C



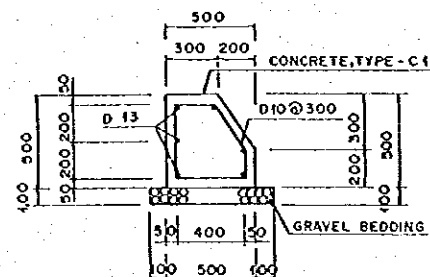
END WALL  
SCALE C



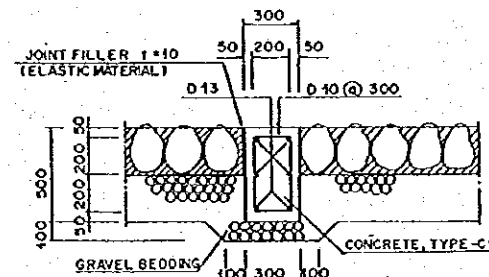
PARTITION WALL (H)  
SCALE C



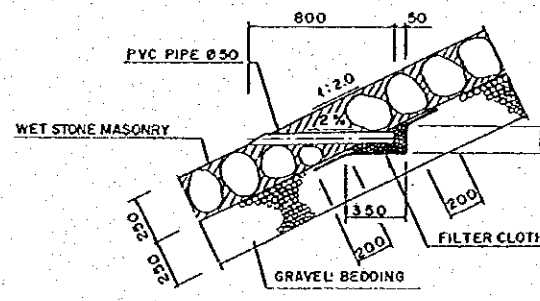
PROFILE OF END WALL & PARTITION WALL  
SCALE A



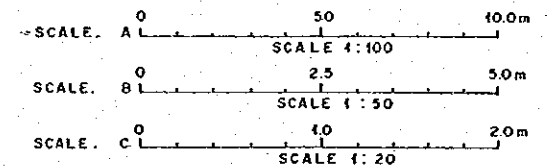
BASE CONCRETE  
SCALE C



PARTITION WALL (V)  
SCALE C

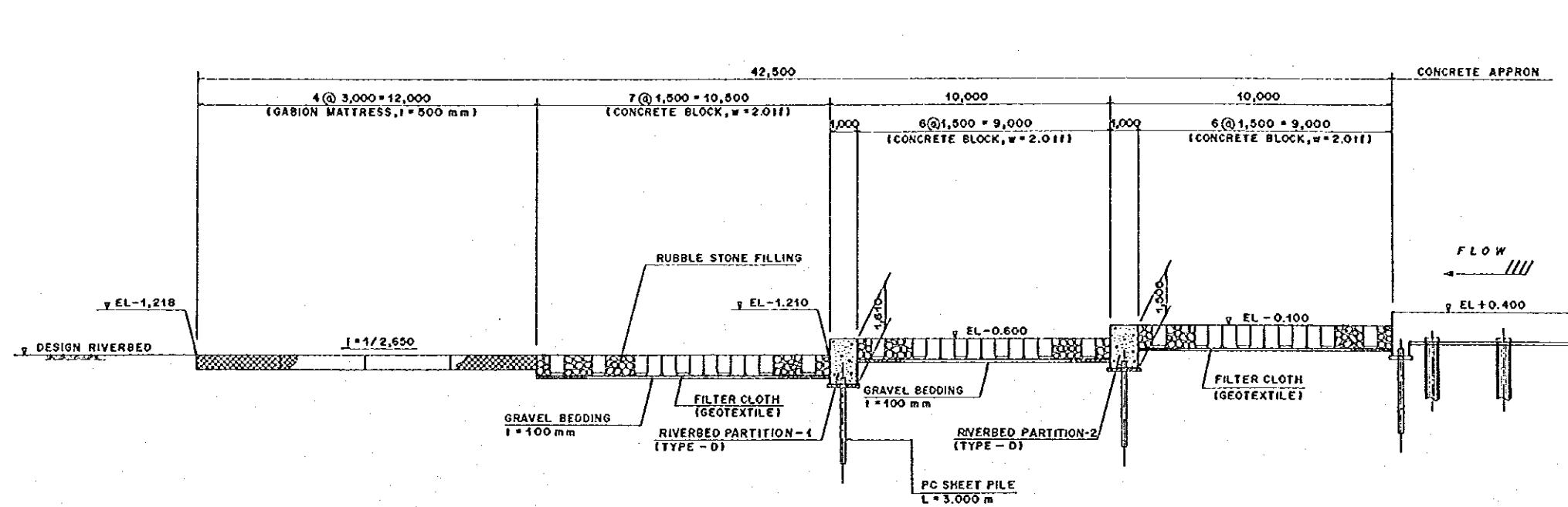


DETAIL OF WEEP HOLE  
SCALE C

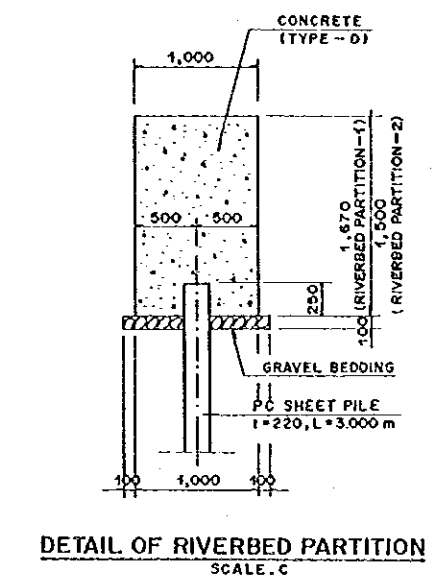


NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

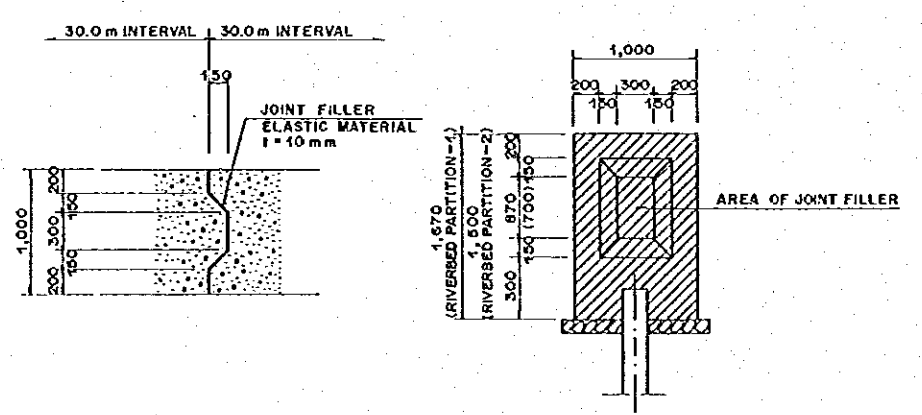
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK & RIVERBED RIVER SECTION : WF.100 TO WF.104 (RIGHT & LEFT BANK) STRUCTURAL DETAILS OF REVETMENT		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
LAPAN INTERNATIONAL COOPERATION AGENCY CII ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PABCO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED		DRAWING NO. WB-F2-PR-S1-5 SHEET NO. 119 DATE CONTRACT NO.
CHIEF OF PLANNING AND DESIGN		PROJECT MANAGER



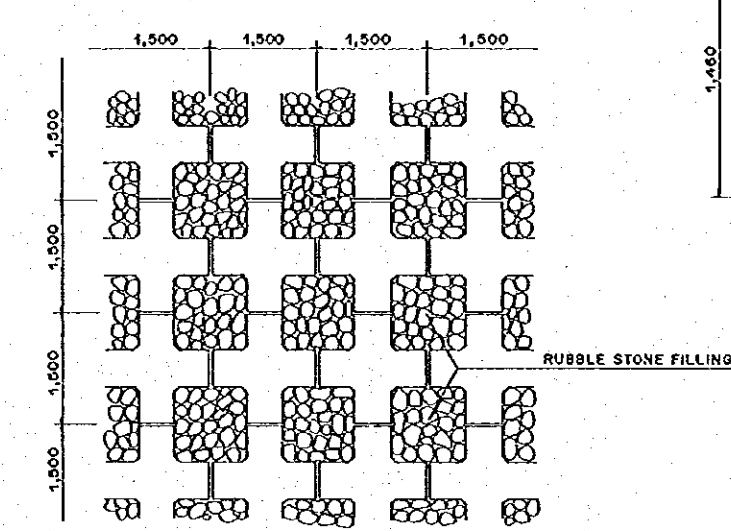
PROFILE OF RIVERBED PROTECTION  
SCALE A



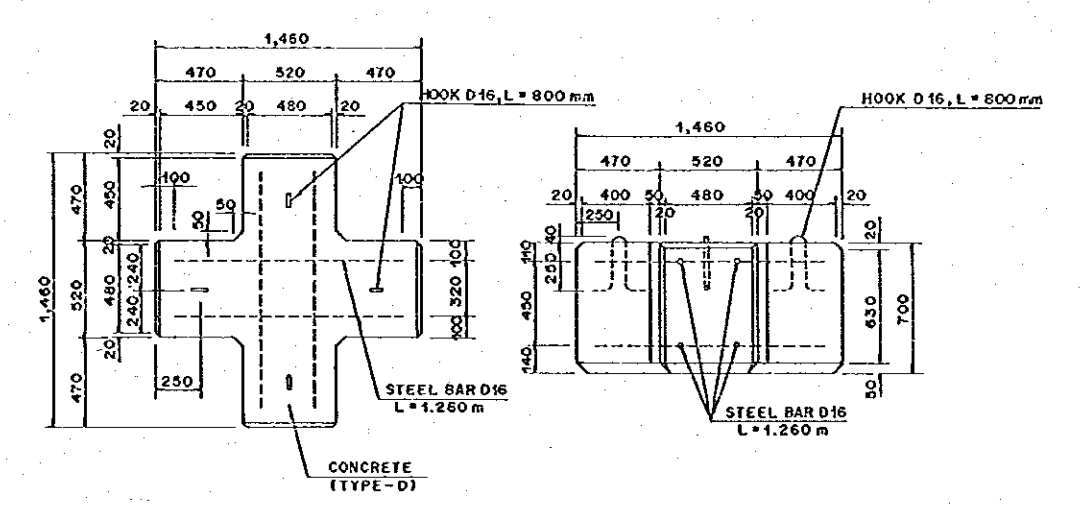
DETAIL OF RIVERBED PARTITION  
SCALE C



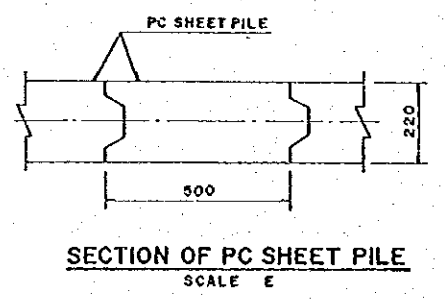
DETAIL OF JOINTING (RIVERBED PARTITION)  
SCALE C



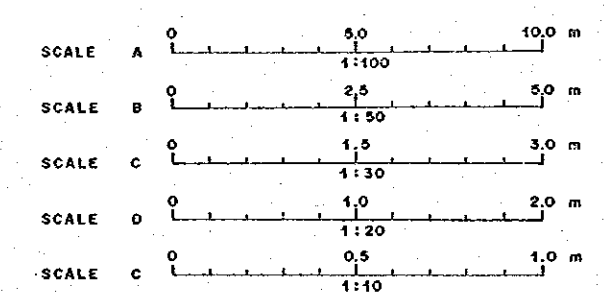
LAYOUT OF CONCRETE BLOCK  
SCALE B



DETAIL OF CONCRETE BLOCK (w=2.0 ft)  
SCALE D

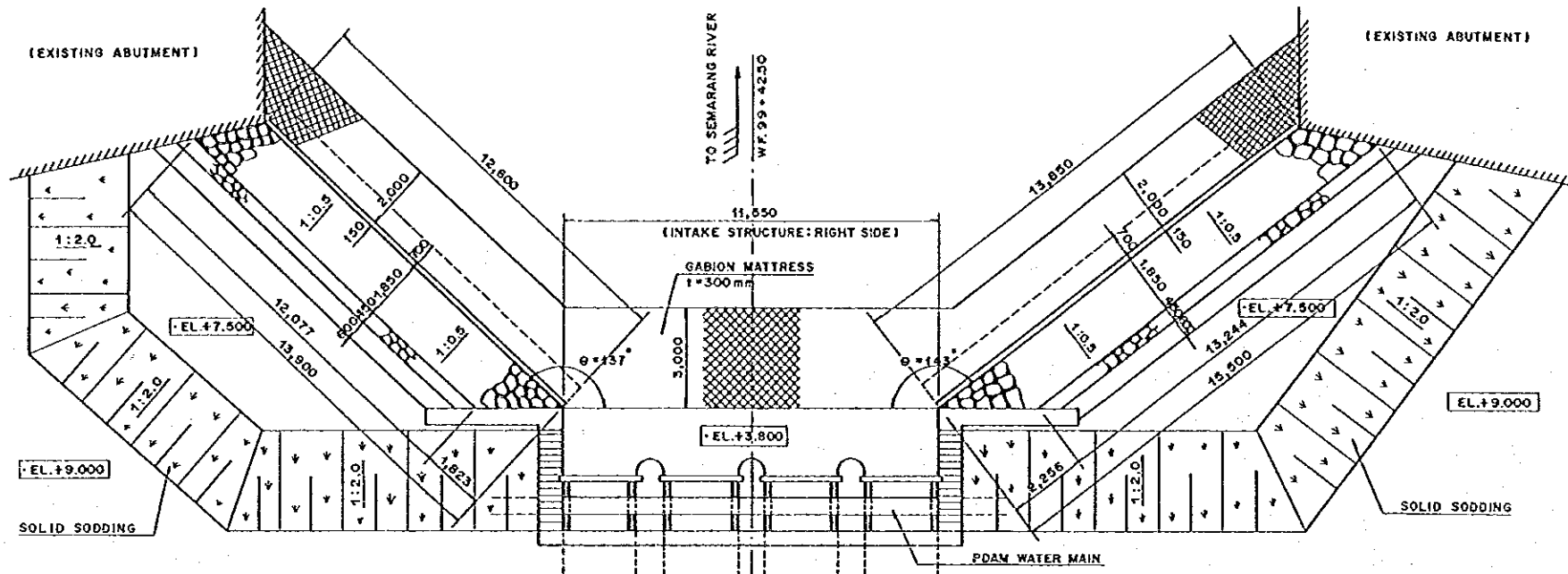


SECTION OF PC SHEET PILE  
SCALE E

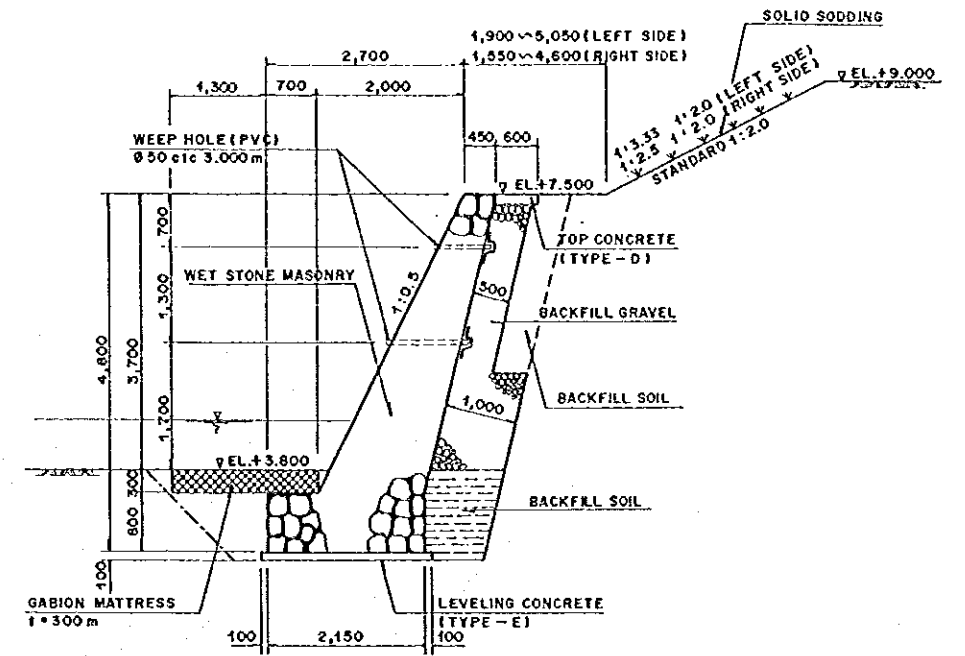


NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED

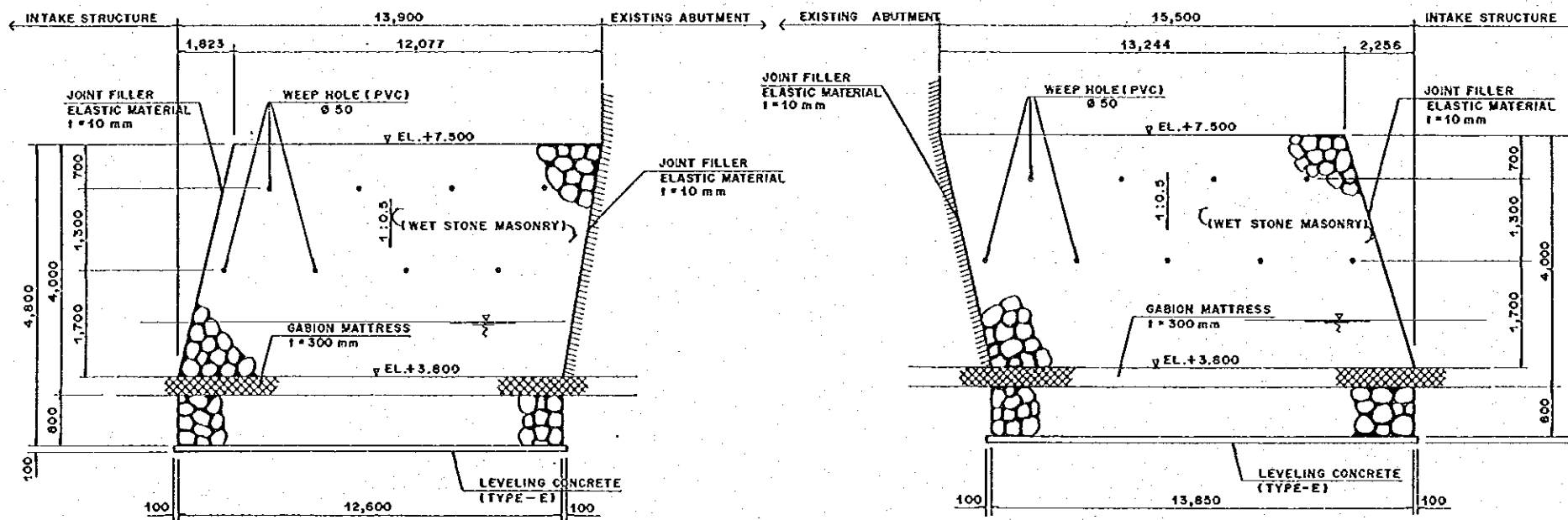
<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT <b>PROTECTION WORKS FOR RIVERBANK AND RIVERBED          DETAILS OF CONCRETE BLOCK          AND GABION MATTRESS</b>		PROVINCE: <b>CENTRAL JAVA</b> PROJECT NAME: <b>FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA</b> DISTRICT: <b>SEMARANG CITY</b> DRAWING NO. <b>W3-P2-PR-S1-8</b> SHEET NO. <b>130</b>
JAPAN INTERNATIONAL COOPERATION AGENCY CIL INDONESIA CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PARCO CONSULTANTS PTE. LTD.	DESIGNED: <i>[Signature]</i> CHECKED: <i>[Signature]</i> DATE: <i>[Date]</i>	CONTRACT NO.: <i>[Number]</i>
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		



ARRANGEMENT OF APPROACH LEANING WALLS  
SCALE A

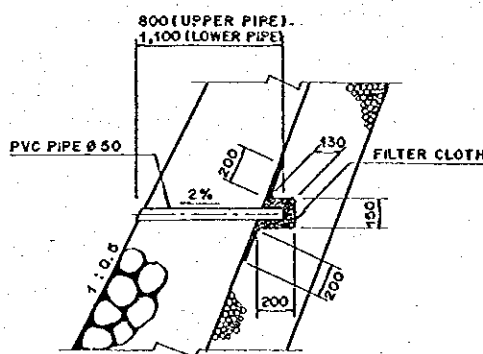


STANDARD CROSS SECTION OF LEANING WALL  
SCALE B

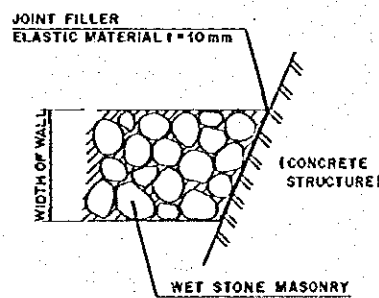


DEVELOPMENT OF LEANING WALL (LEFT SIDE)  
SCALE H = A/V \* B

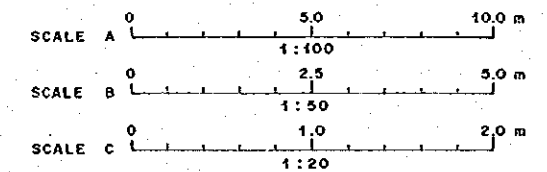
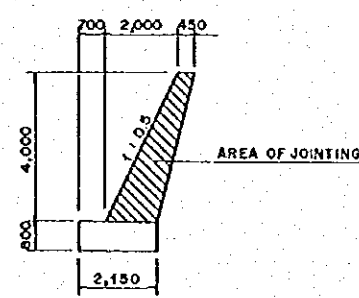
DEVELOPMENT OF LEANING WALL (RIGHT SIDE)  
SCALE H = A/V \* B



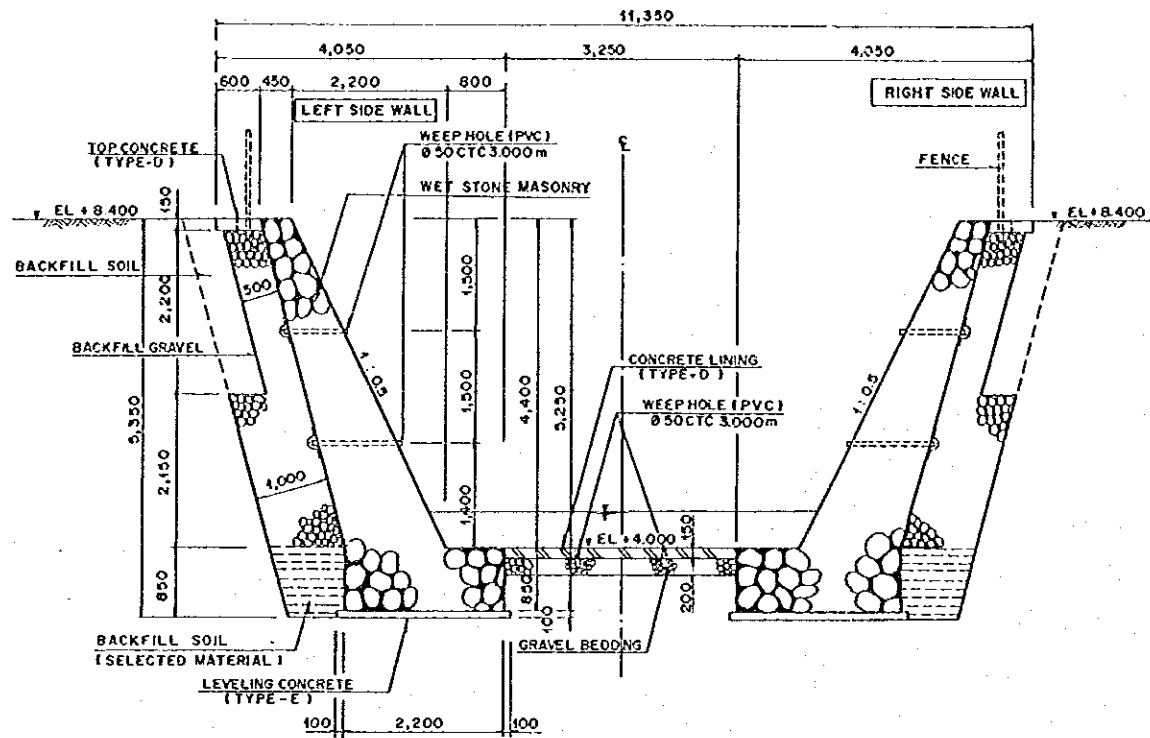
DETAIL OF WEEP HOLE  
SCALE C



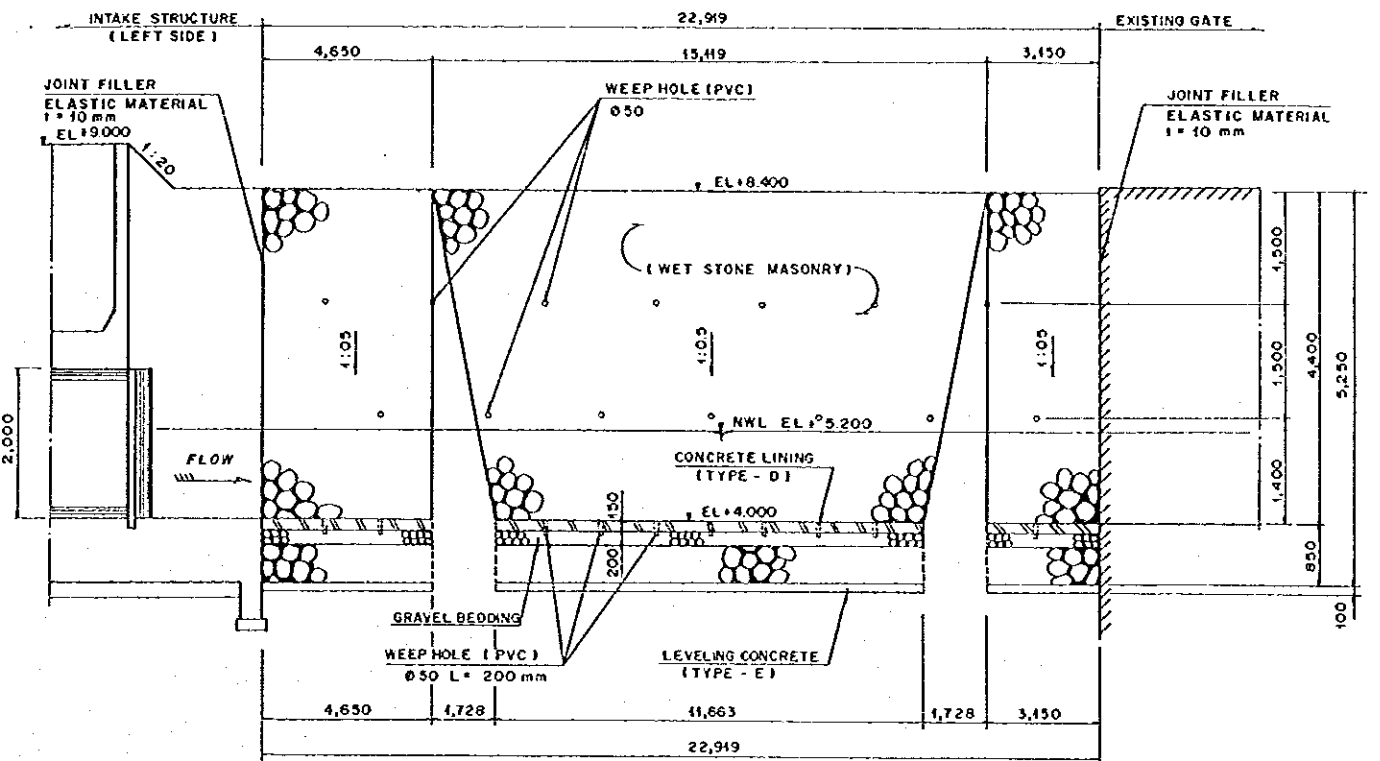
JOINTING  
SCALE C



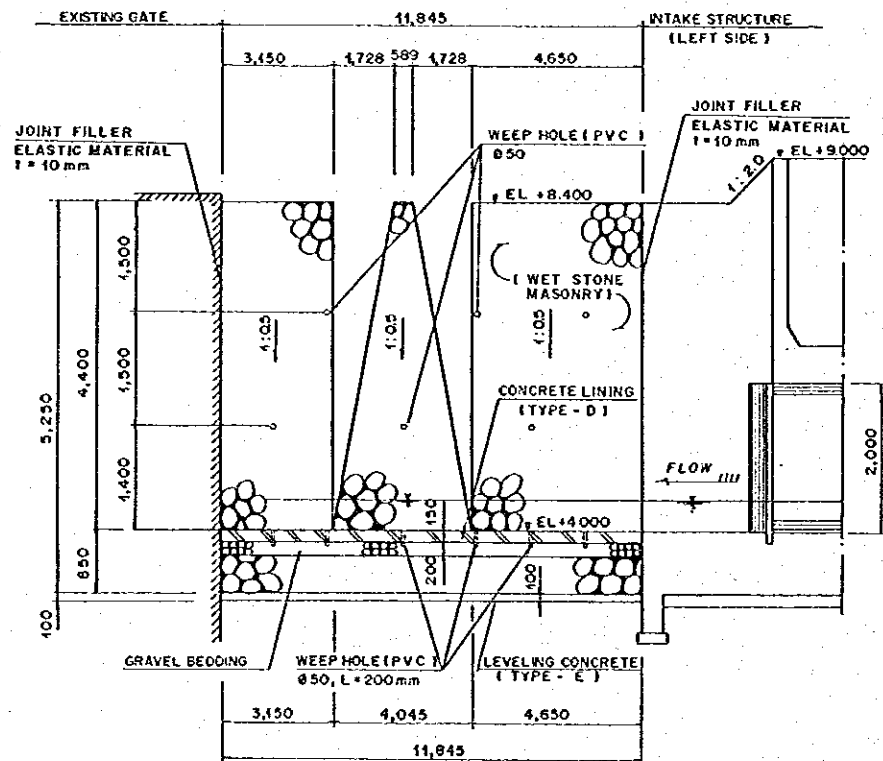
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAYA
PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA		DISTRICT SEMARANG CITY
COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK AND RIVERBED RETEVALMENT FOR OUTLET RIVERBANK OF RIGHT INTAKE GATE		DRAWING NO. W8-P2-PA-81-7 SHEET NO. 131
JAPAN INTERNATIONAL COOPERATION AGENCY OTE ENGINEERING CO., LTD. (CONSULTANT) PACIFIC CONSULTANTS INTERNATIONAL AND PAKO INTERNATIONAL INC.		DATE CONTRACT NO.
CHIEF OF PLANNING AND DESIGN		PROJECT MANAGER
NO.	DATE	KEYS
		ORDINATED
		DESIGNED
		APPROVED
		APPROVED



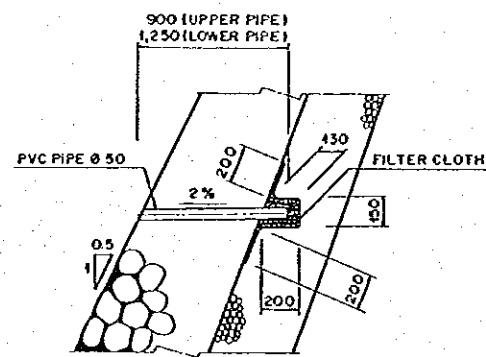
STANDARD CROSS SECTION OF OUTLET CHANNEL  
SCALE B



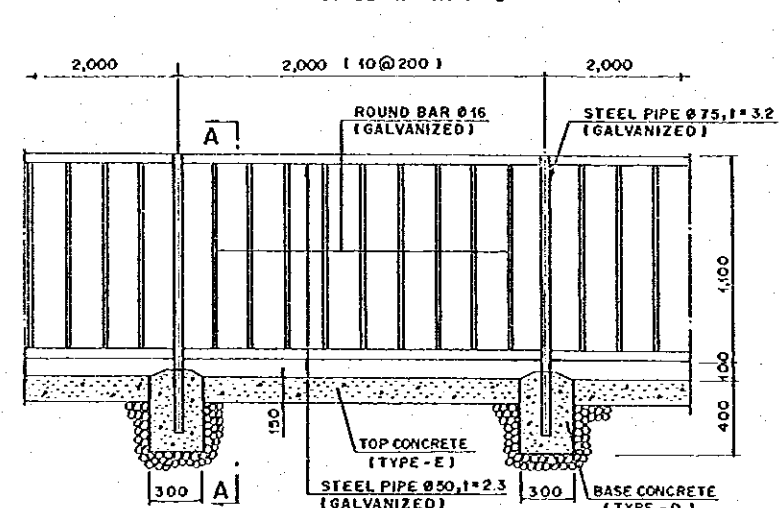
DEVELOPMENT OF LEANING WALL (LEFT SIDE)  
SCALE H = A / V = 8



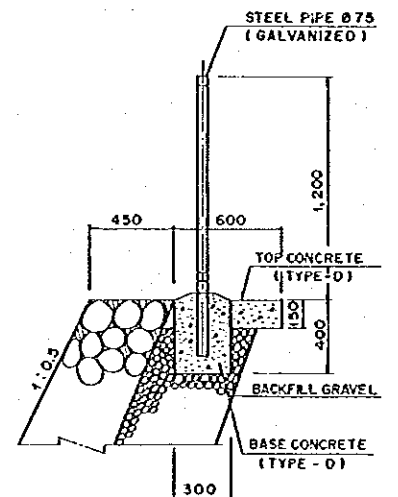
DEVELOPMENT OF LEANING WALL (RIGHT SIDE)  
SCALE H = A / V = 8



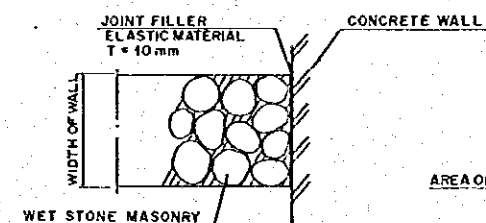
DETAIL OF WEEP HOLE  
SCALE C



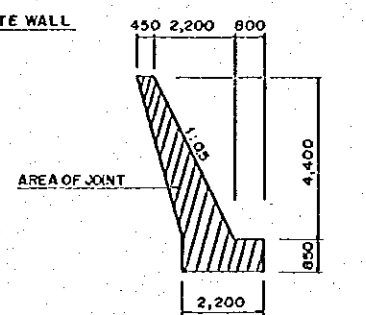
ELEVATION



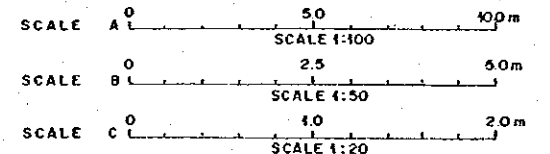
SECTION A-A



JOINTING  
SCALE C

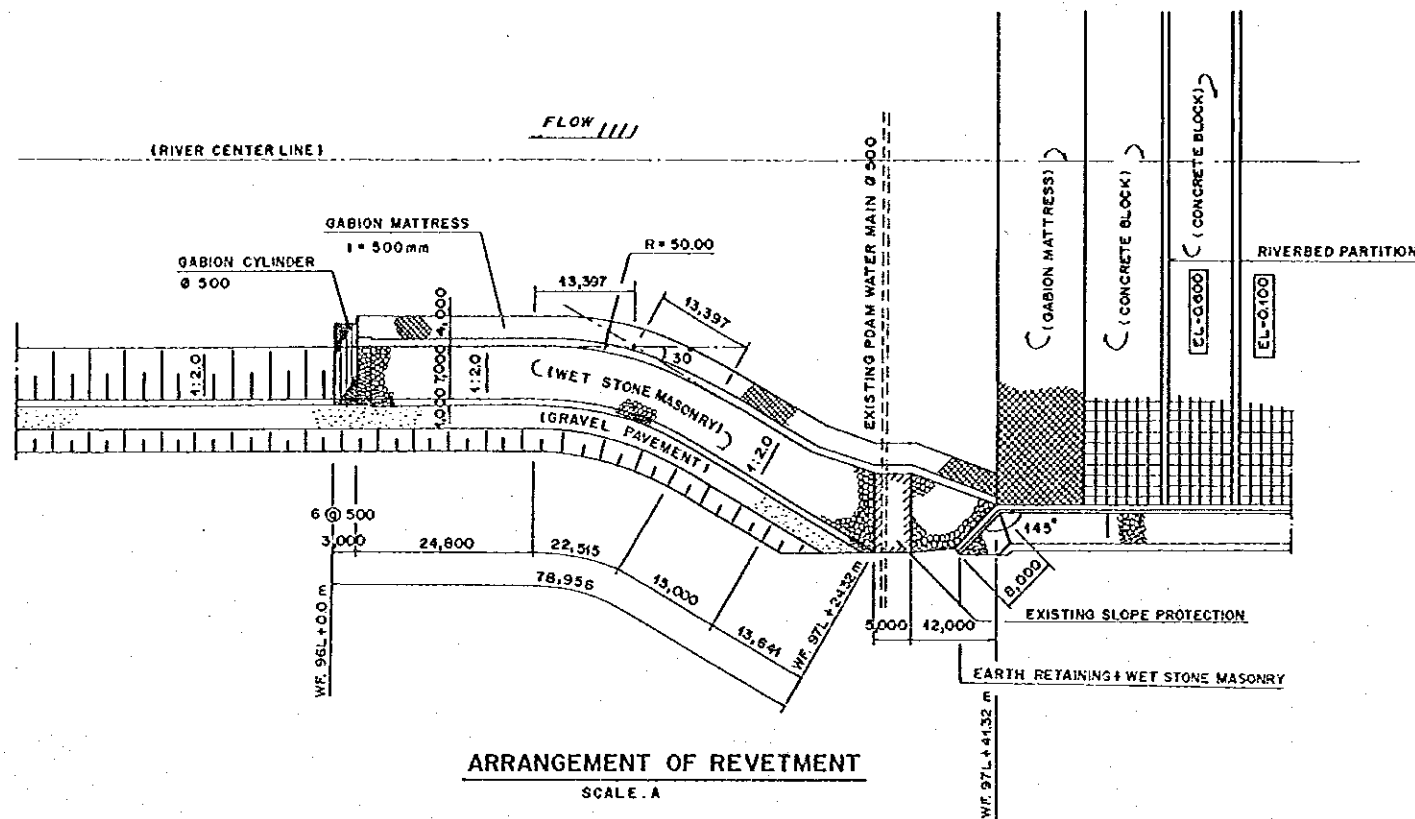


AREA OF JOINTING  
SCALE A

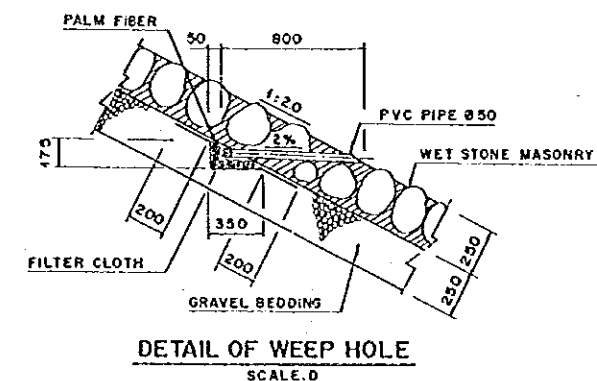


NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

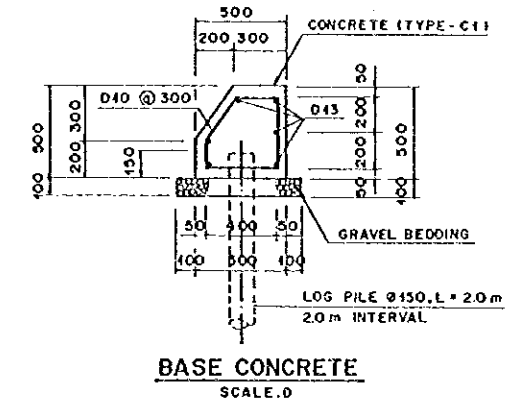
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK AND RIVERBED REVELTMENT FOR OUTLET RIVERBANK OF LEFT INTAKE GATE		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
PT. INDOCONSULTING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PARETO INTERNATIONAL INC.		PROJECT NO. SEMARANG CITY DRAWING NO. W6-P2-PR-51-B SHEET NO. 133
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.



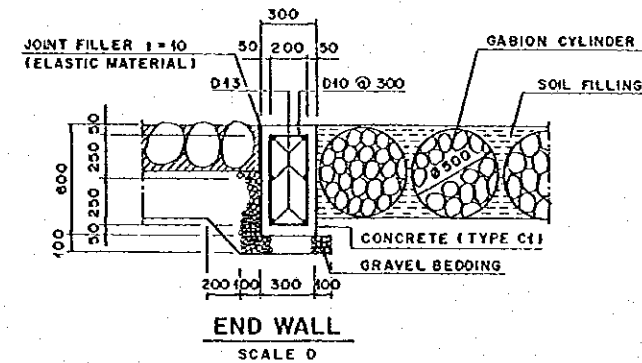
ARRANGEMENT OF REVETMENT  
SCALE A



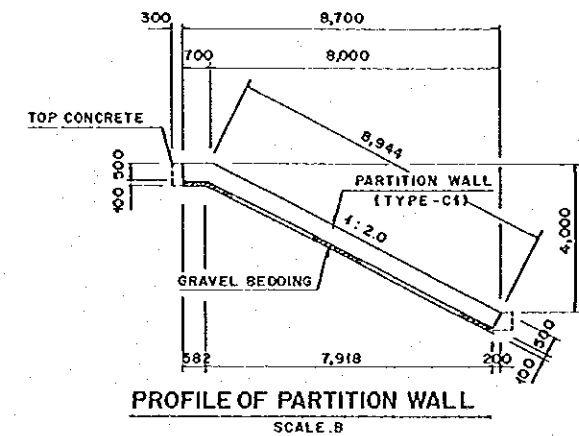
DETAIL OF WEEP HOLE  
SCALE D



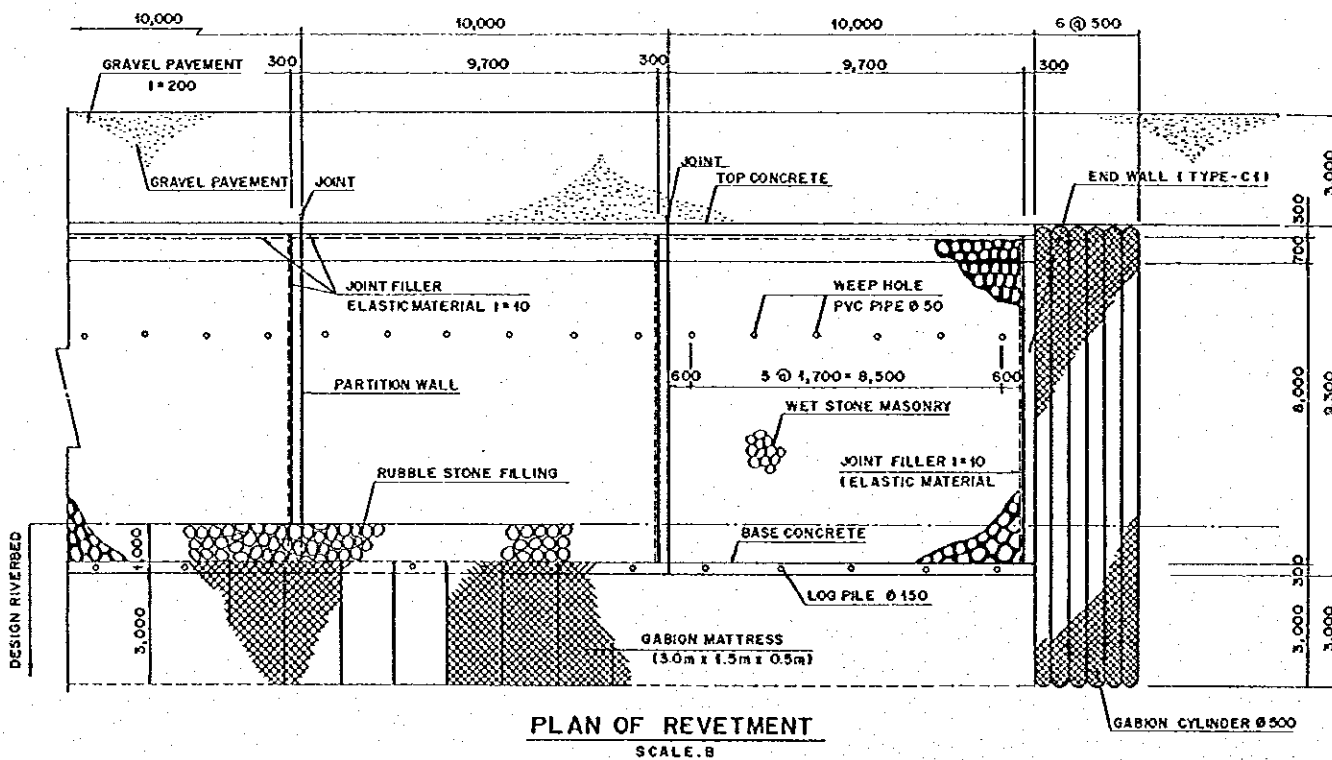
BASE CONCRETE  
SCALE D



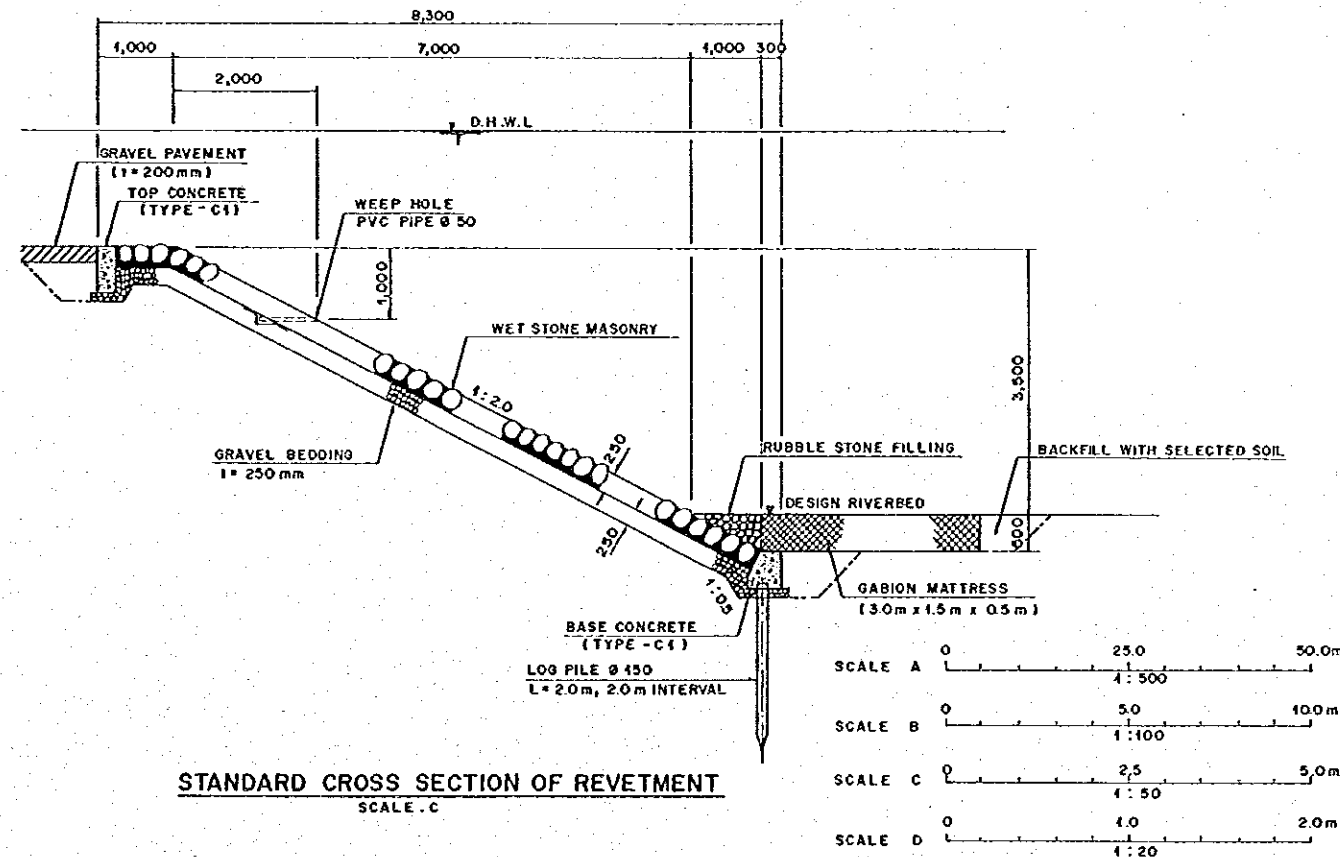
END WALL  
SCALE D



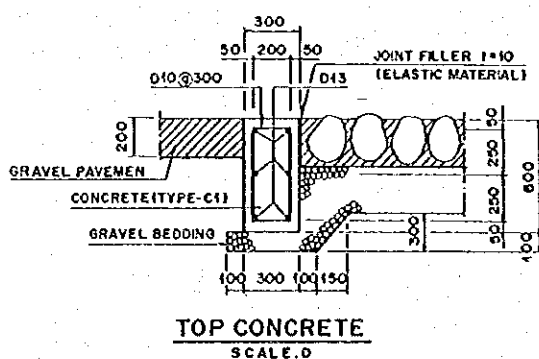
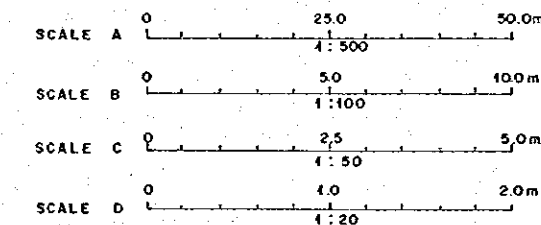
PROFILE OF PARTITION WALL  
SCALE B



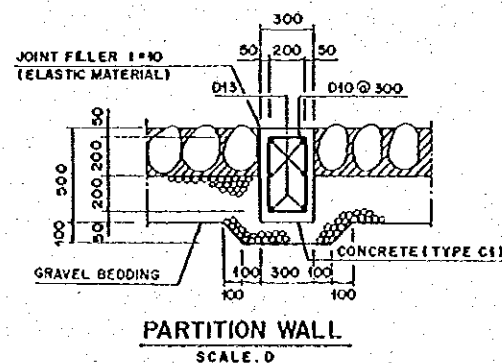
PLAN OF REVETMENT  
SCALE B



STANDARD CROSS SECTION OF REVETMENT  
SCALE C



TOP CONCRETE  
SCALE D



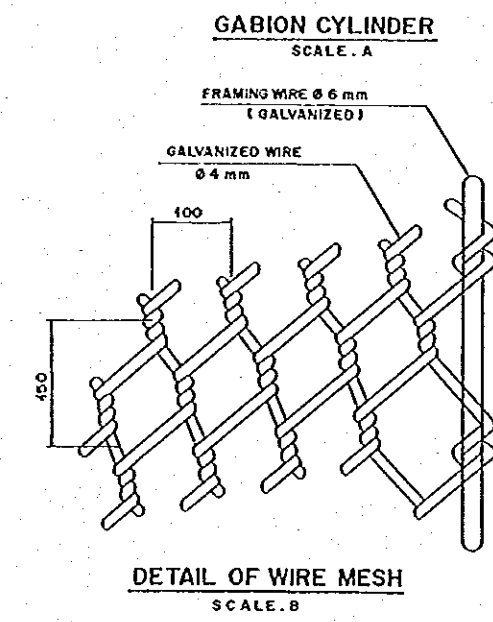
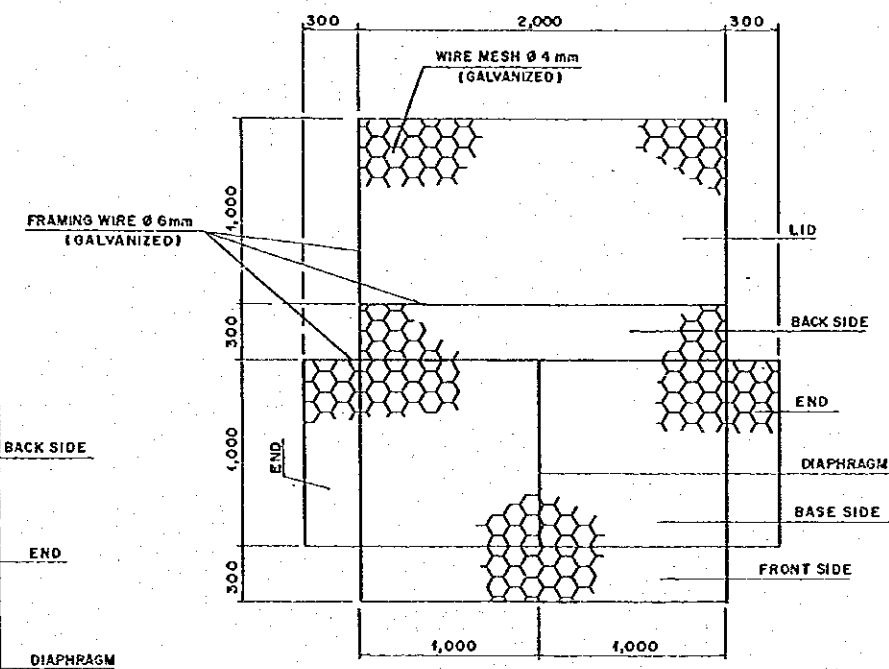
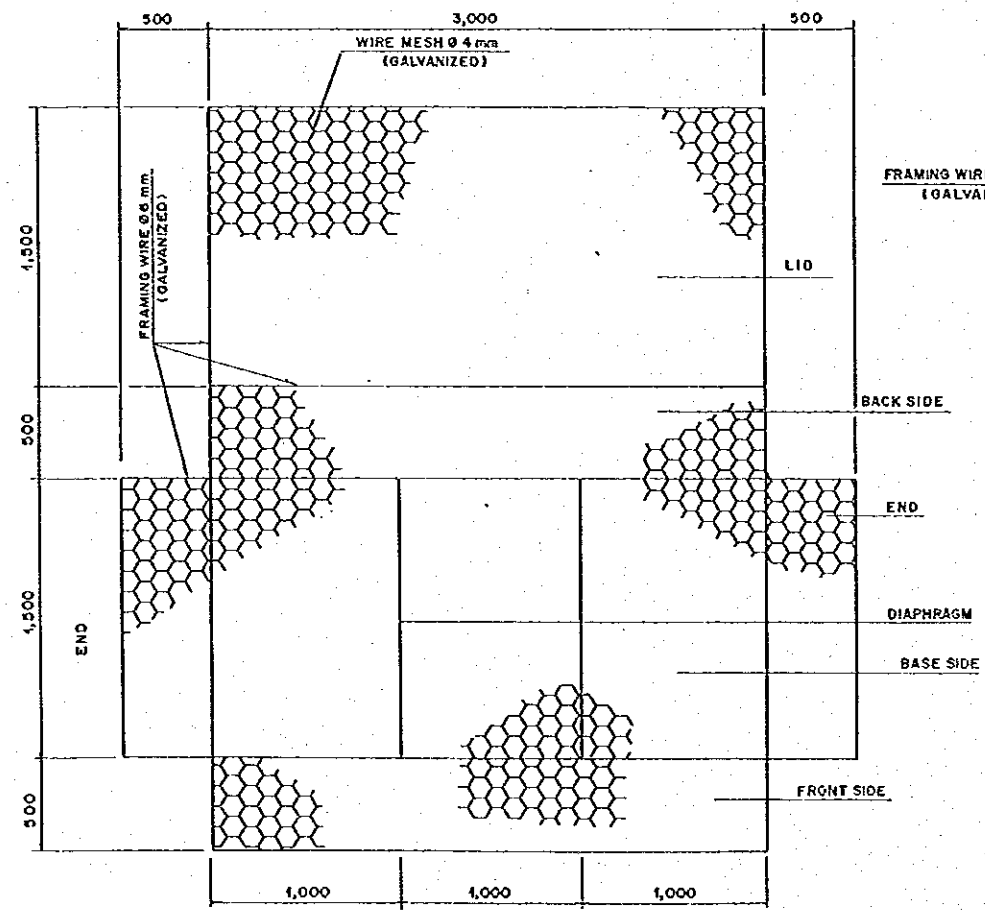
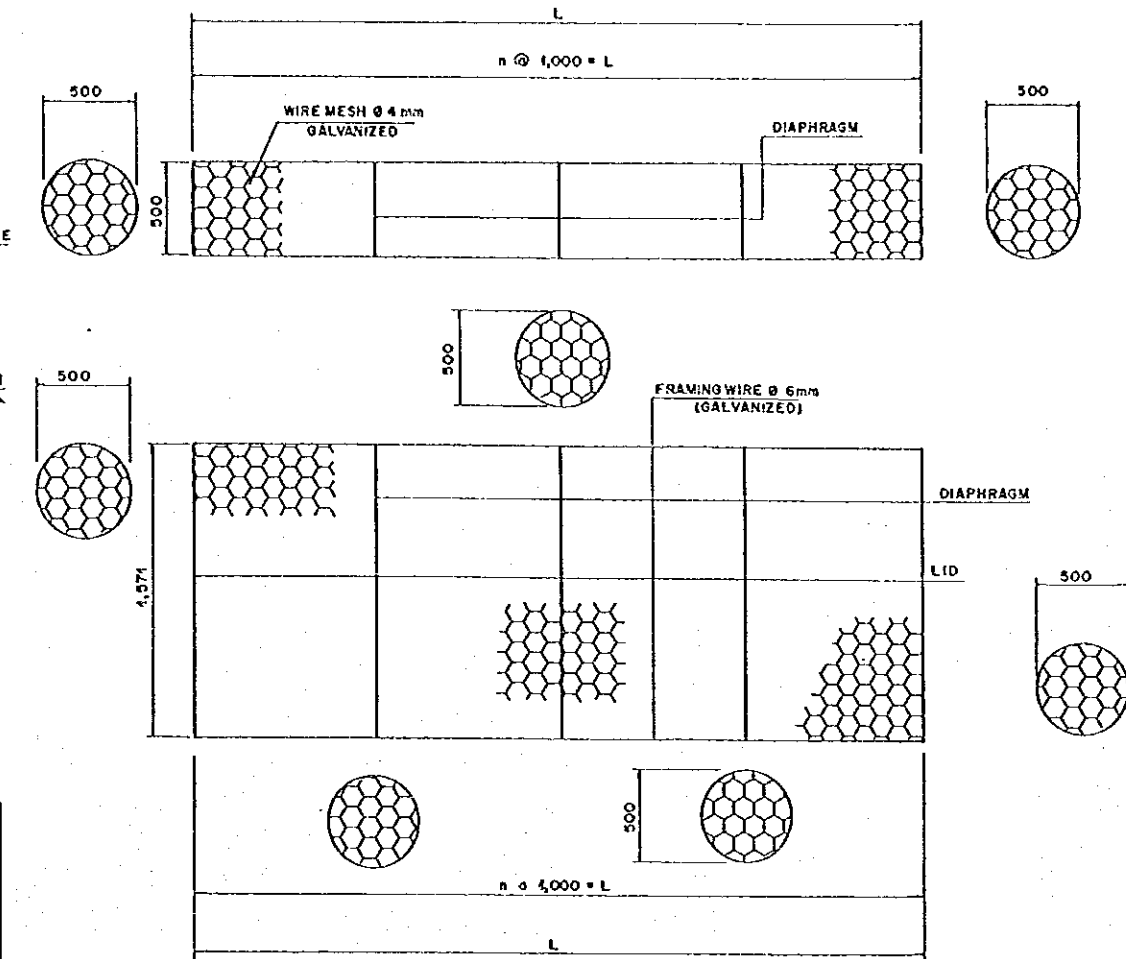
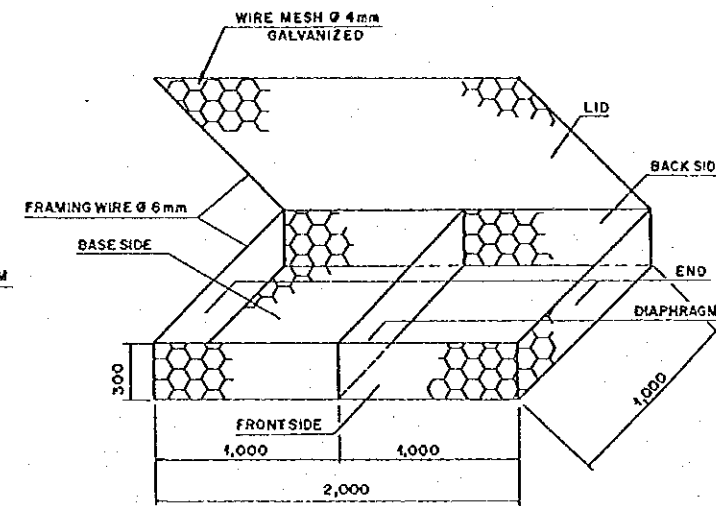
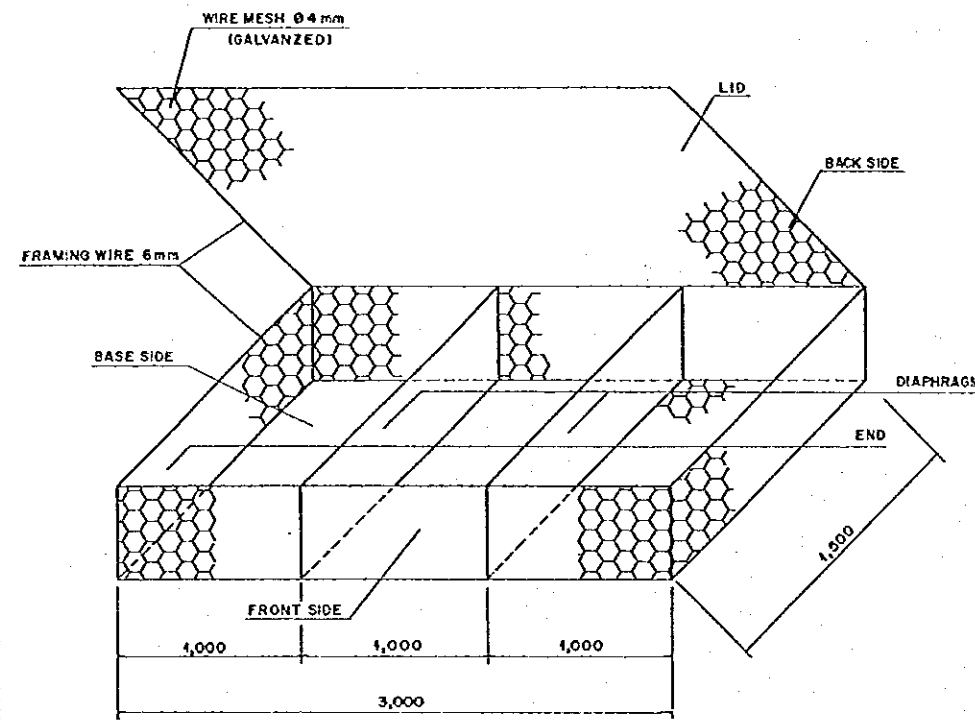
PARTITION WALL  
SCALE D

NOTE:

- 1 THE EXISTING SLOPE PROTECTION FOR PDAM WATER MAIN Ø 500 SHALL REMAIN INTACT AS INDICATED ON THE DRAWING
- 2 SPECIAL CARE SHALL BE TAKEN FOR PROTECTING PDAM WATER MAIN WHEN THE REVETMENT WORK IS DONE NEAR IT.

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
TRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK AND RIVERBED REVETMENT FOR DOWNSTREAM END OF WEIR (LEFT BANK)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
SAFARI INTERNATIONAL COOPERATION AGENCY CFI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND HANDBY INTERNATIONAL, INC.		OUTLET SEMARANG CITY
DESIGNED CHECKED		DRAWING NO. W-8-P2-PA-SI-9 SHEET NO. 133
GROUP OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.

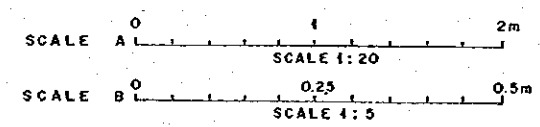


GABION MATTRESS (TYPE A)  
SCALE A

GABION MATTRESS (TYPE B)  
SCALE A

GABION CYLINDER  
SCALE A

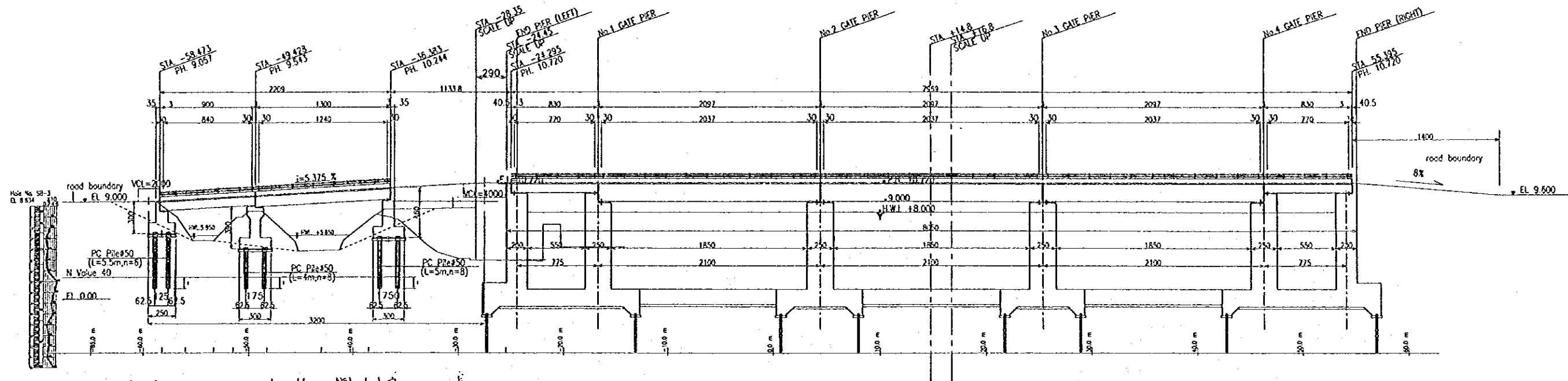
DETAIL OF WIRE MESH  
SCALE B



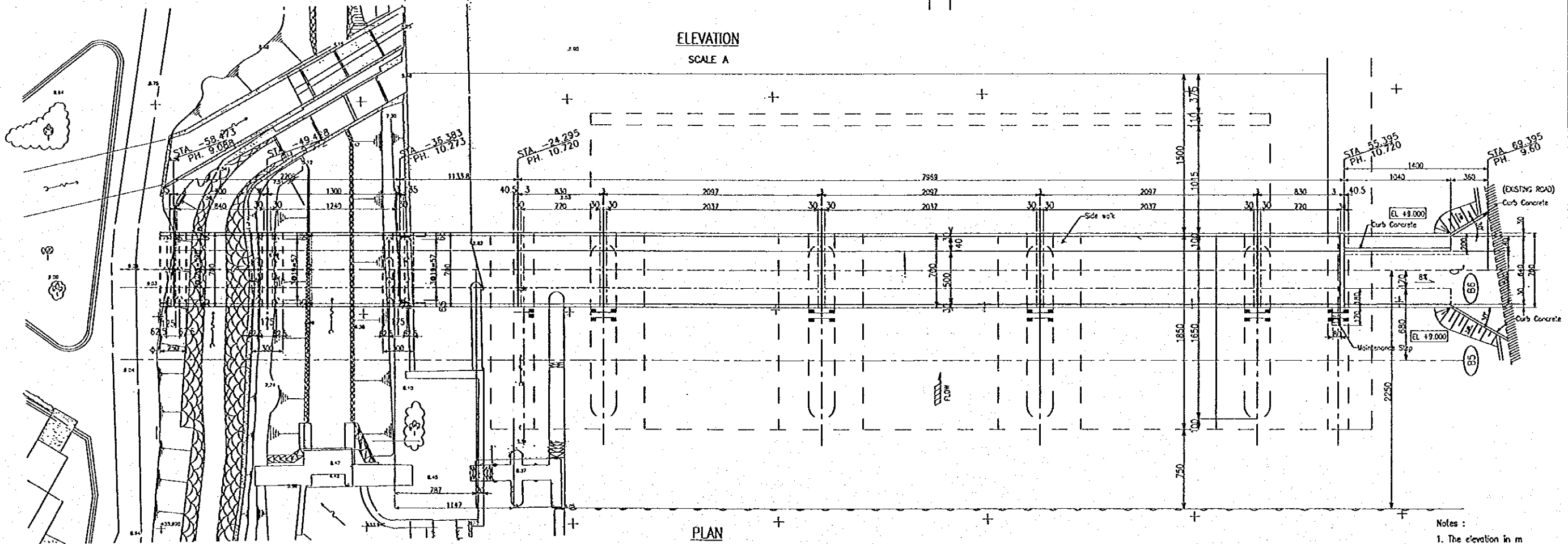
- NOTE :**
- 1 ALL WIRES USED IN GABION MATTRESS SHALL BE GALVANIZED
  - 2 ALL WIRES USED IN GABION CYLINDER SHALL BE COATED WITH POLY VINYL CHLORIDE AFTER BEING GALVANIZED
  - 3 "L" FOR GABION CYLINDER SHALL BE DETERMINED BY ADJUSTING TO THE SITE CONDITION

NO.	DATE	REVISIONS	ORIGINATED	DRAWING	APPROVED

	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT	PROVINCE CENTRAL JAWA
	JATUNSEJAJA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT PROTECTION WORKS FOR RIVERBANK & RIVERBED DETAILS OF GABION MATTRESS AND CYLINDER	PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
	SAFARI INTERNATIONAL COOPERATION AGENCY CII ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL INC. PACIFIC INTERNATIONAL INC.	DRAFTING NO. W8 - P2 - P8 - 01 - 15 SHEETING 114 DATE CONTRACT NO.
	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	APPROVED

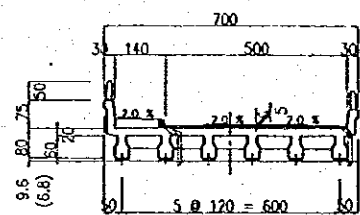


ELEVATION  
SCALE A

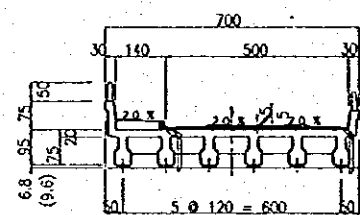


PLAN  
SCALE A

- Notes:
1. The elevation in m
  2. The dimension in cm
  3. The station in m
  4. i=more than 1.2 m



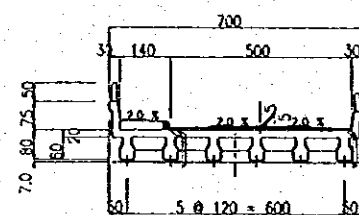
RC CL=9.0m



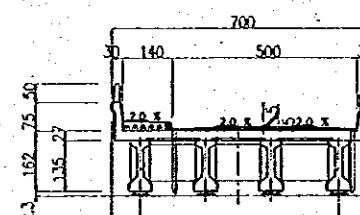
RC CL=13.0m

TYPICAL CROSS SECTION

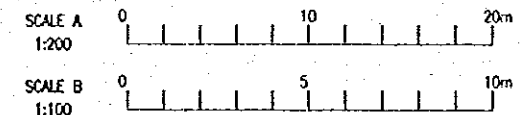
SCALE B



RC CL=8.3m(9.0m)

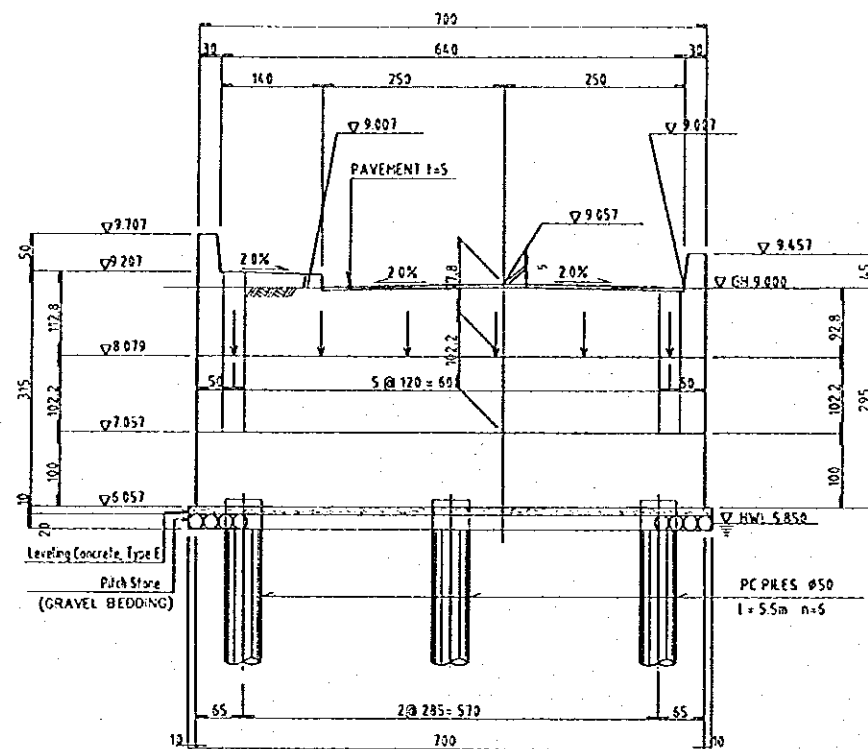


PC CL=20.97m(22.6m)

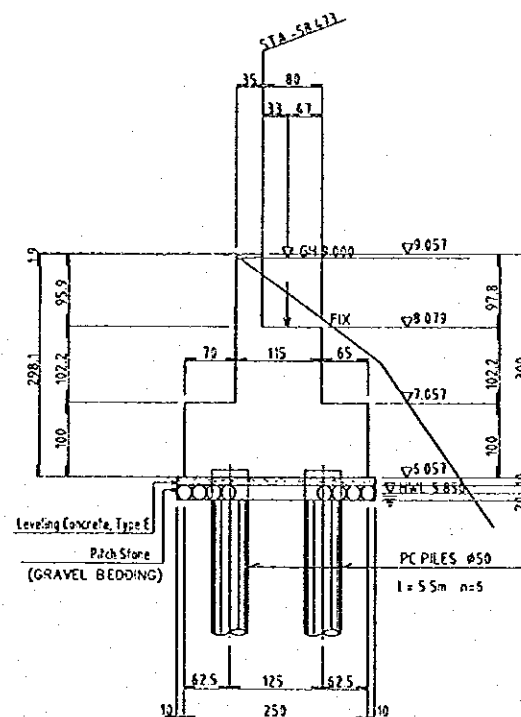


THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: WEST FLOODWAY / GARANG RIVER IMPROVEMENT <b>MAINTENANCE BRIDGE</b> <b>GENERAL PLAN</b> <b>PROFILE AND UPSTREAM ELEVATION</b>		PROVINCE CENTRAL JAWA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT OF SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. W9-P2-MB-PI-4 SHEET NO. 135
JAPAN INTERNATIONAL COOPERATION AGENCY CII ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL INC.	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.

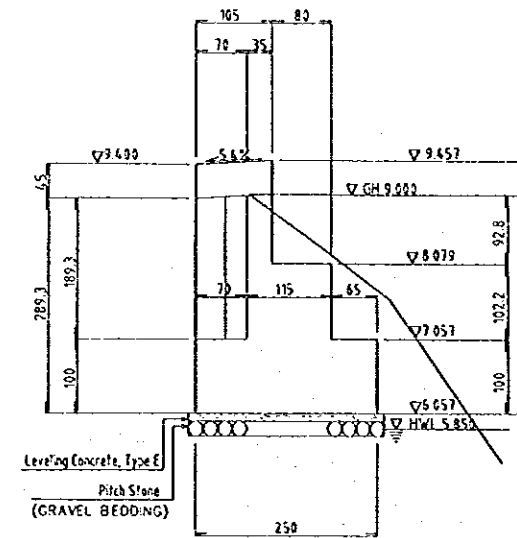
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED



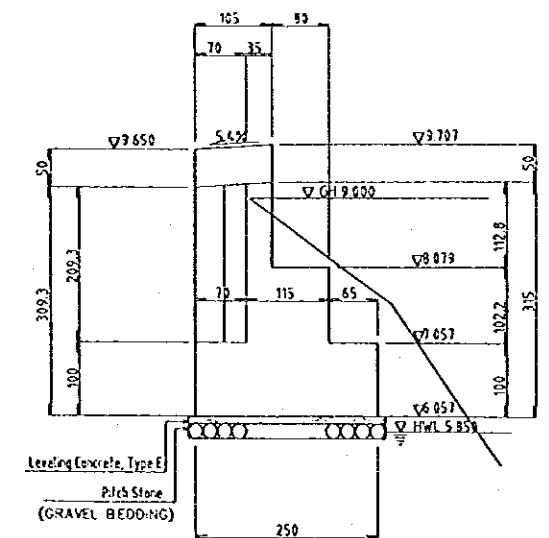
ELEVATION  
SCALE A



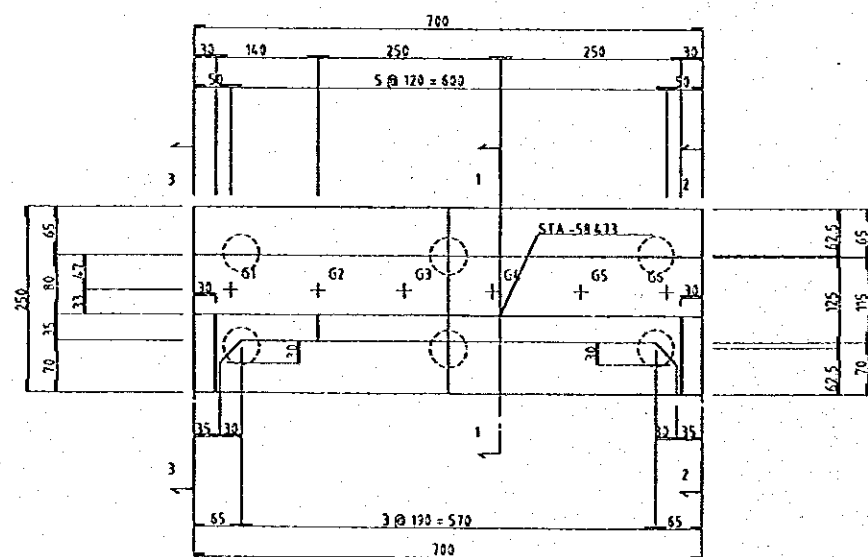
1-1  
SCALE A



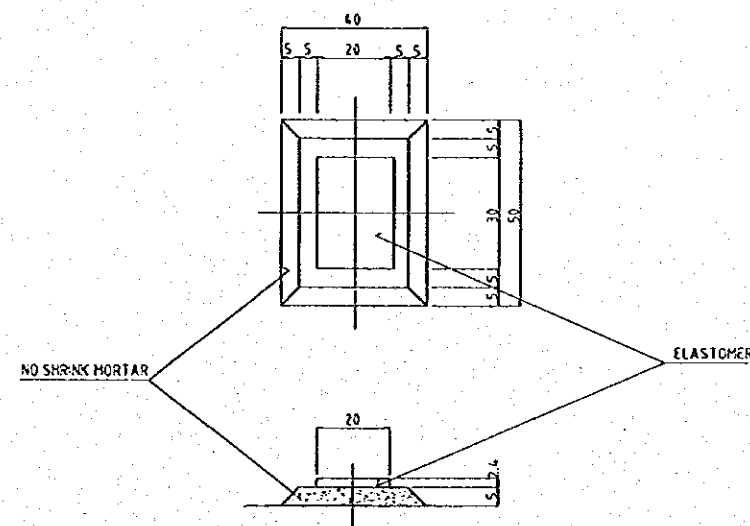
2-2  
SCALE A



3-3  
SCALE A

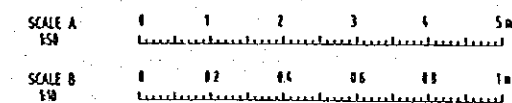


PLAN  
SCALE A



BEARING PAD  
SCALE B

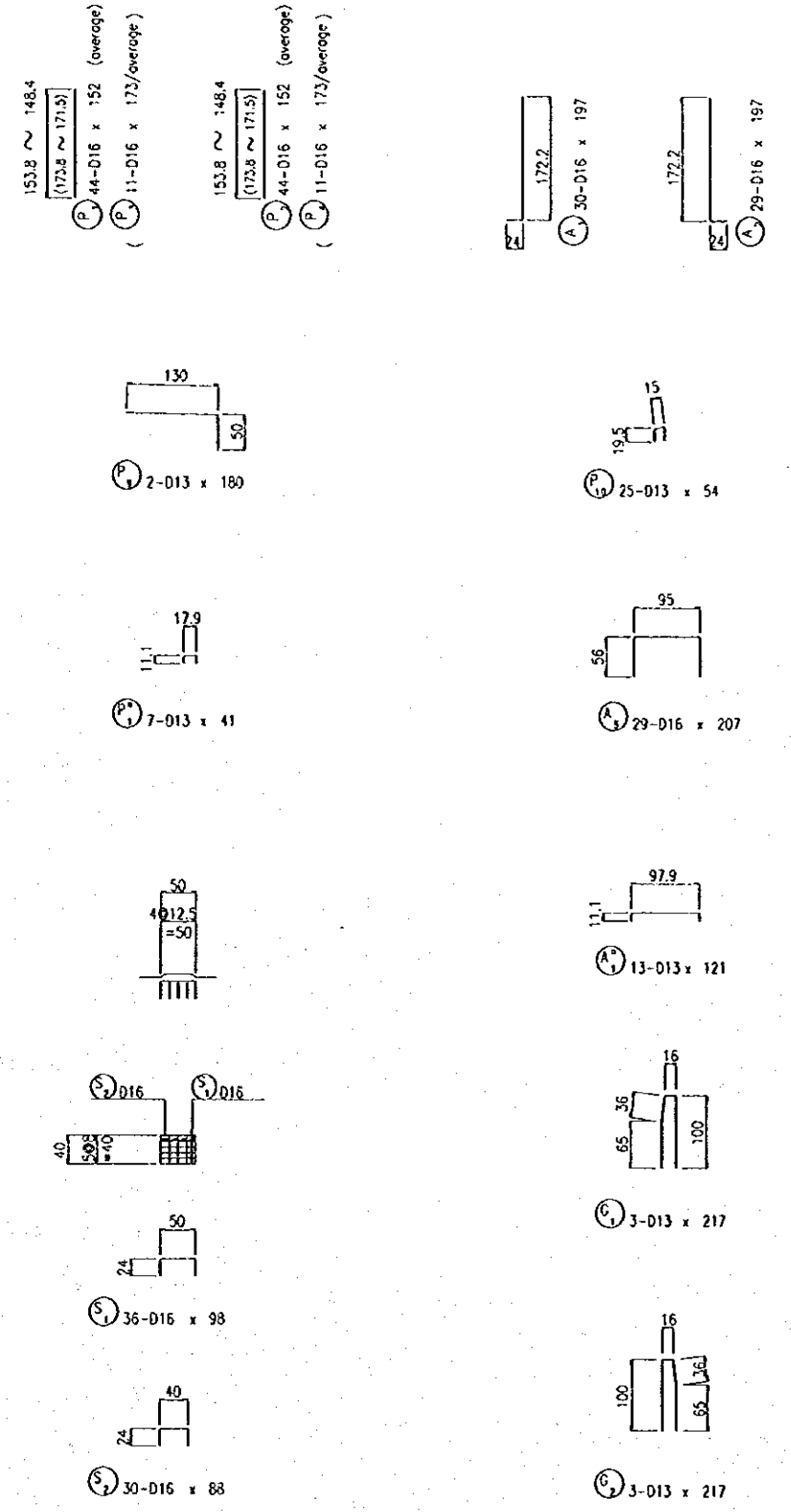
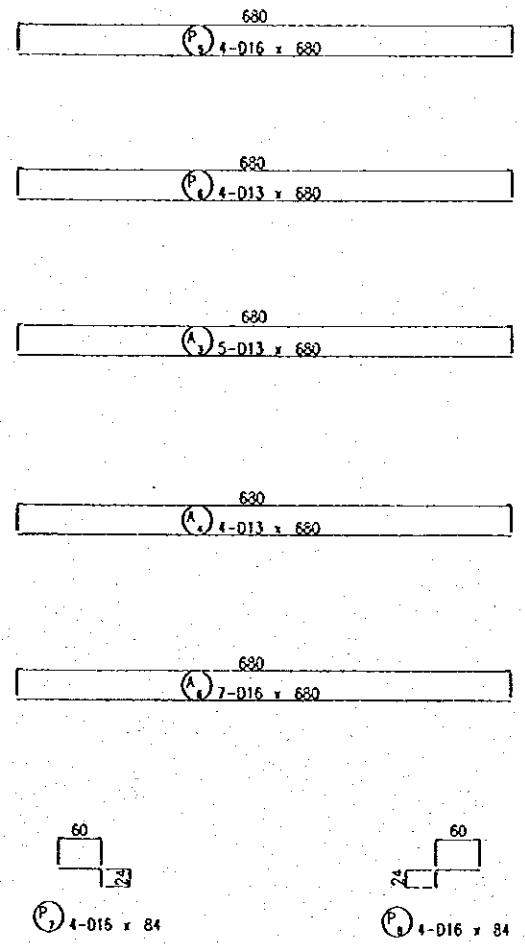
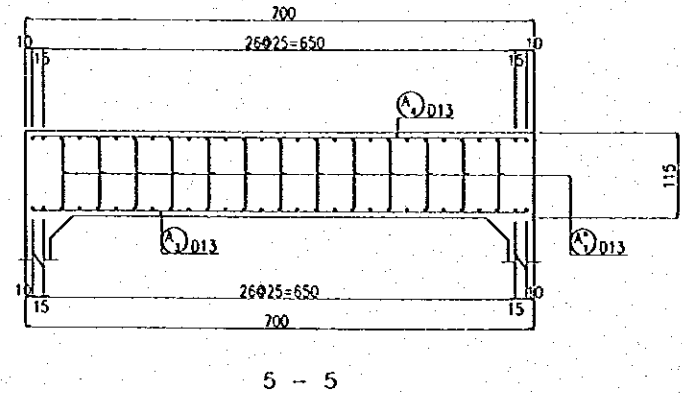
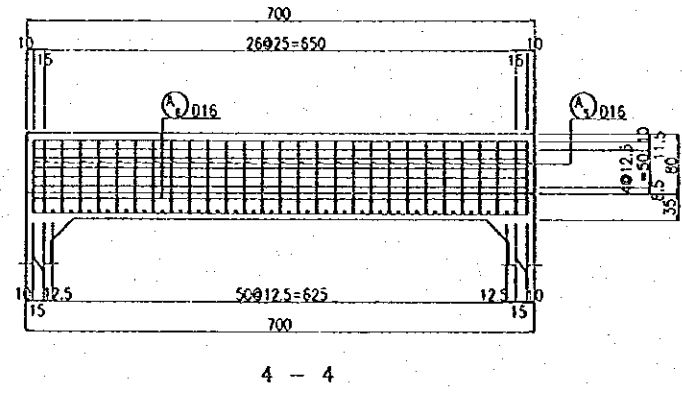
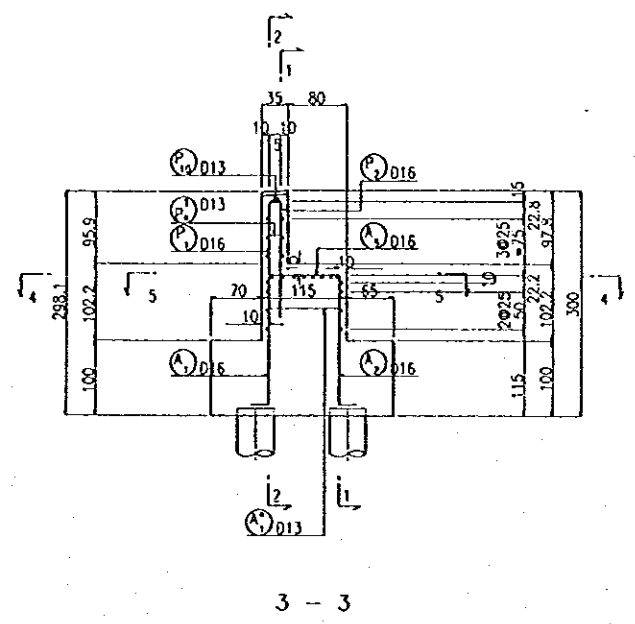
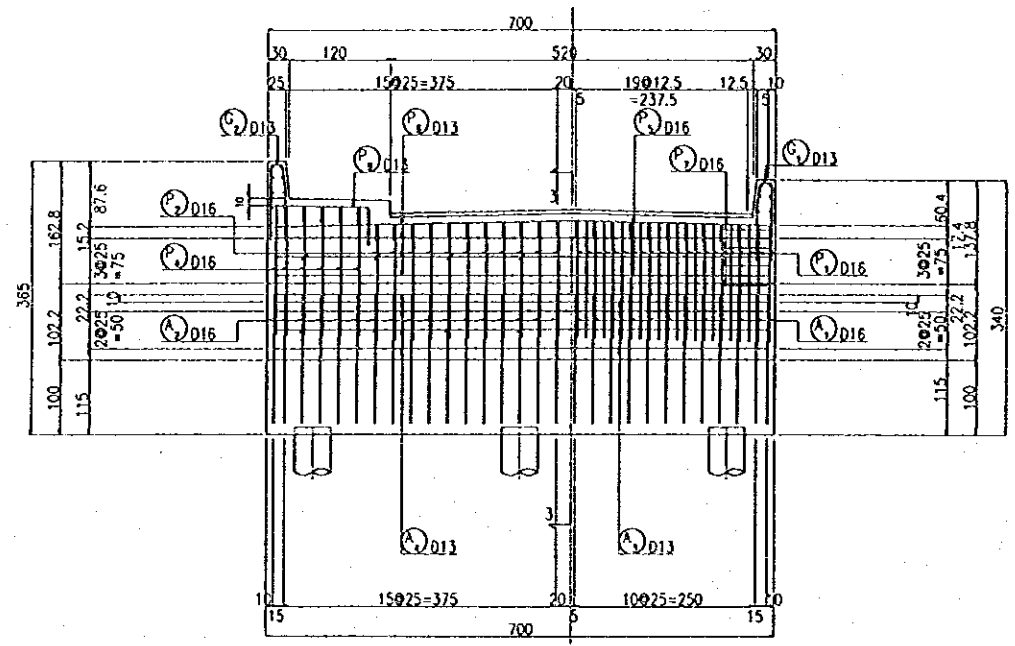
- Notes:
1. The dimension in cm
  2. The elevation in m
  3. Concrete for structure, Type C1



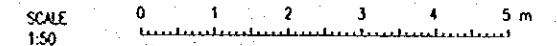
NO	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: URBAN DRAINAGE SYSTEM IMPROVEMENT MAINTENANCE BRIDGE SUBSTRUCTURE PLAN AND PROFILE OF ABUTMENT 1		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT OF SEMARANG, IN THE REPUBLIC OF INDONESIA
CI ENGINEERING CO., LTD. PACIFIC CONSULTANTS INTERNATIONAL AND PARTNER MATERIAL INC.		DISTRICT SEMARANG CITY
DESIGNED: [Signature] CHECKED: [Signature]		DRAWING NO. WB-P2-MB-01-2 SHEET NO. 134
APPROVED: [Signature] CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DATE CONTRACT NO.





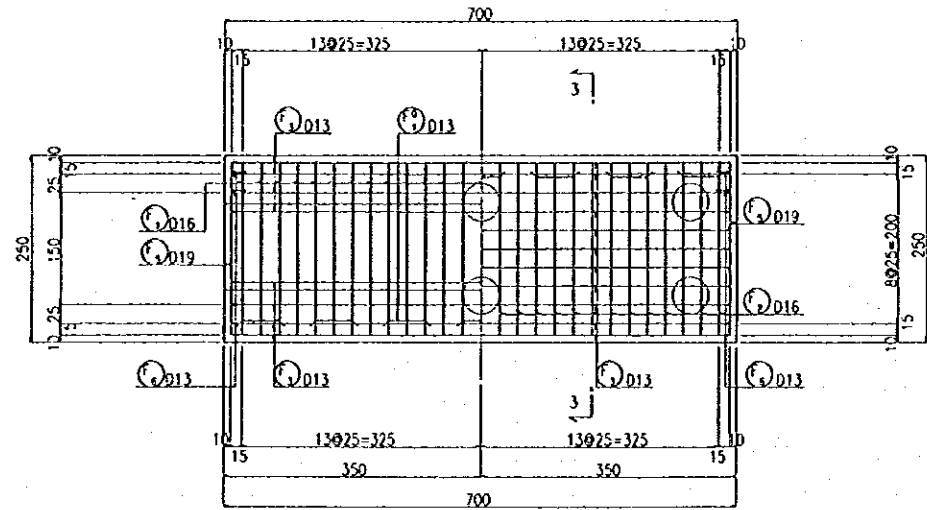
DETAILS OF BEARING SHOES



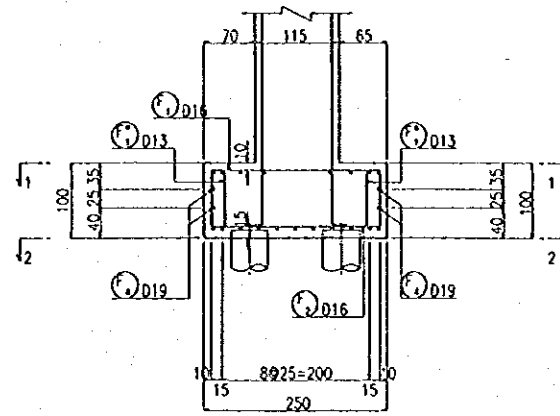
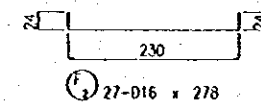
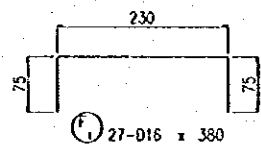
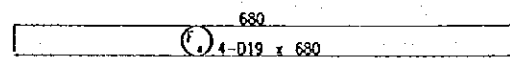
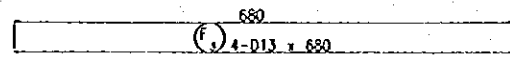
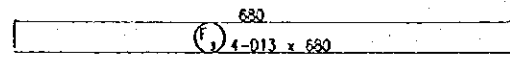
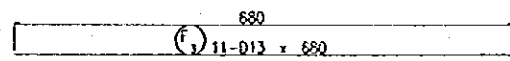
Note : The dimension in cm, except for reinforcing bar diameter in mm

NO.	DATE	REVISION	ORIGINATED	DESIGNED	APPROVED

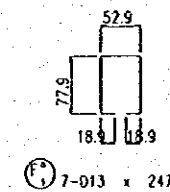
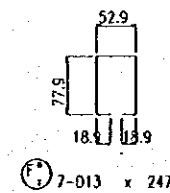
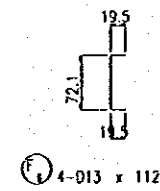
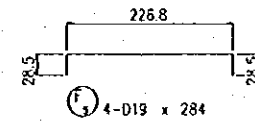
<b>THE REPUBLIC OF INDONESIA</b> MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVIDOR CENTRAL JAVA
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT <b>MAINTENANCE BRIDGE</b> <b>SUBSTRUCTURE</b> <b>REINFORCING BAR ARRANGEMENT OF ABUTMENT (1/4)</b>		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. WB-P2-M8-Ra-5 SHEET NO. 137
DESIGNED <i>[Signature]</i>	CHECKED <i>[Signature]</i>	DATE CONTRACT NO.
APPROVED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		



1 - 1                  2 - 2



3 - 3

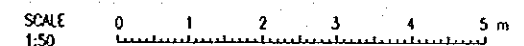
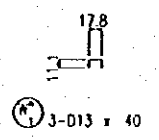
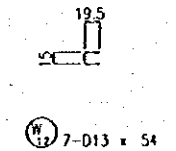
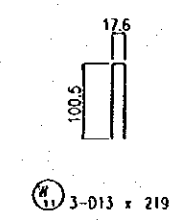
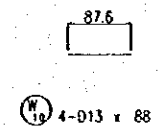
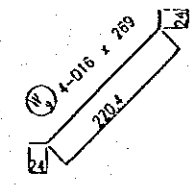
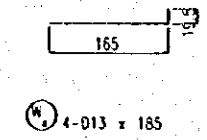
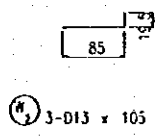
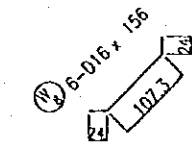
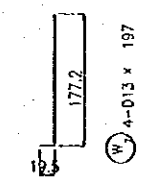
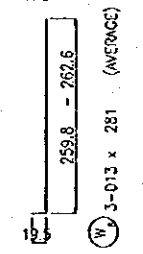
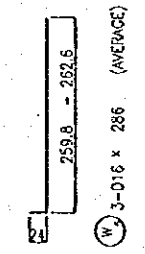
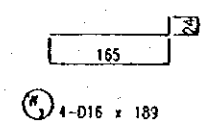
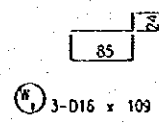
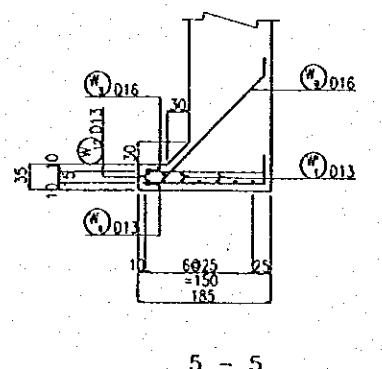
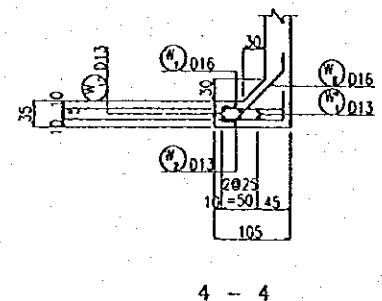
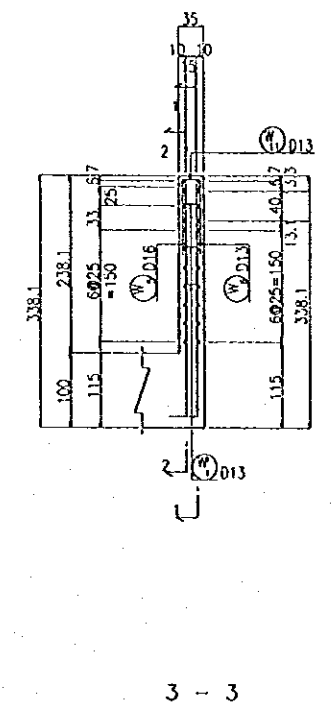
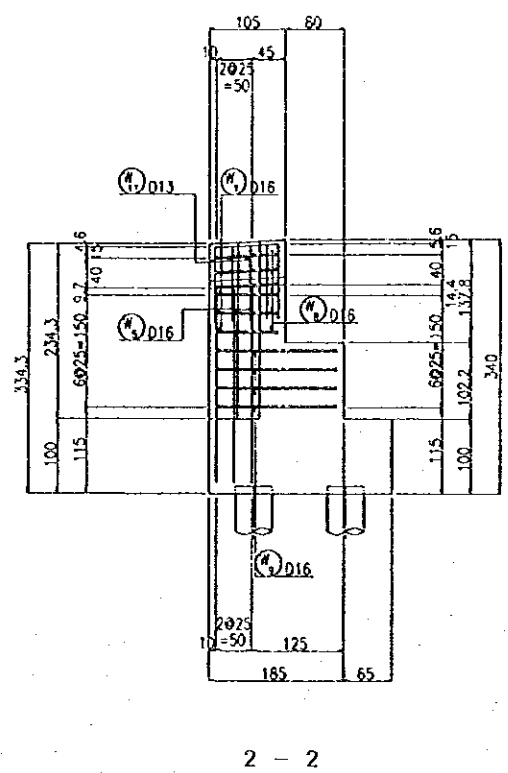
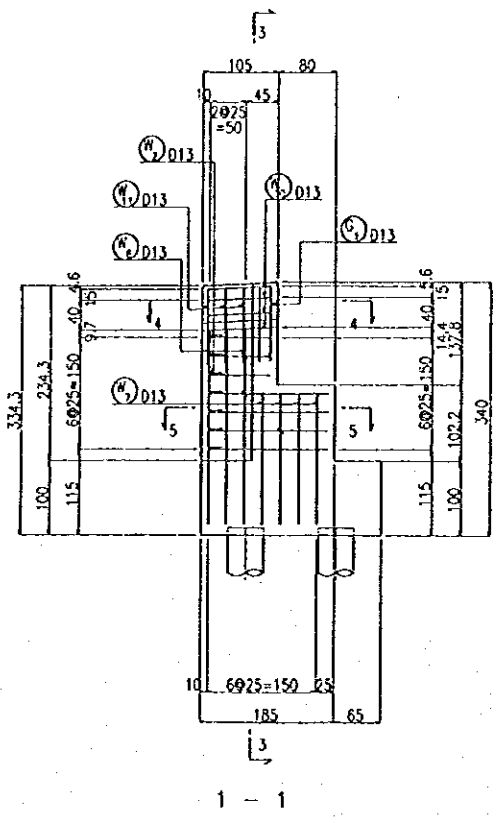


SCALE 1:50

Note : The dimension in cm, except for reinforcing bar diameter in mm

NO	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT MAINTENANCE BRIDGE SUBSTRUCTURE REINFORCING BAR ARRANGEMENT OF ABUTMENT (12/4)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO WB - P2 - MB - R0 - 4 SHEET NO 138
JATI INTERNATIONAL CORPORATION PT. ENGINEERING CO. LTD. PACIFIC CONCRETE PAPER INTERNATIONAL JAPAN INTERNATIONAL INC.	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN	DATE CONTRACTING PROJECT MANAGER

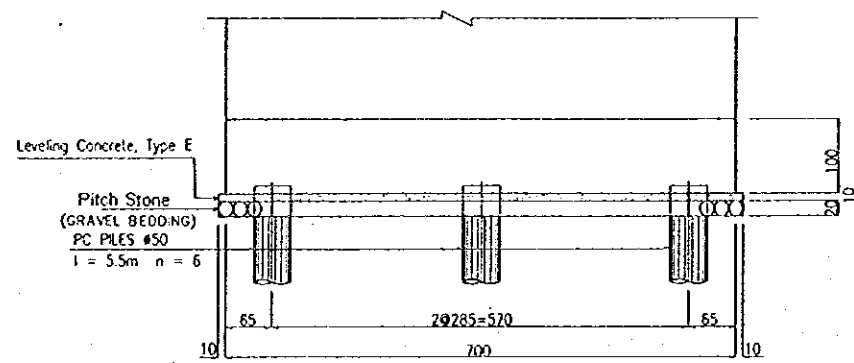


Note : The dimension in cm, except for reinforcing bar diameter in mm

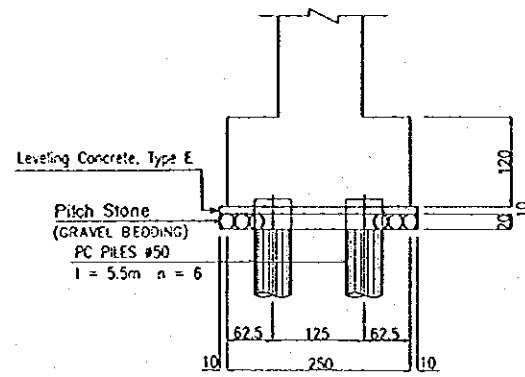
NO	DATE	REVISIONS	COORDINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT <b>MAINTENANCE BRIDGE</b> <b>SUBSTRUCTURE</b> <b>REINFORCING BAR ARRANGEMENT OF ABUTMENT 13/4</b>		PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. WB-P2-M8-R4-5 SHEET NO. 139 DATE CONTRACTING NO.
DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACTING NO.	APPROVED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER

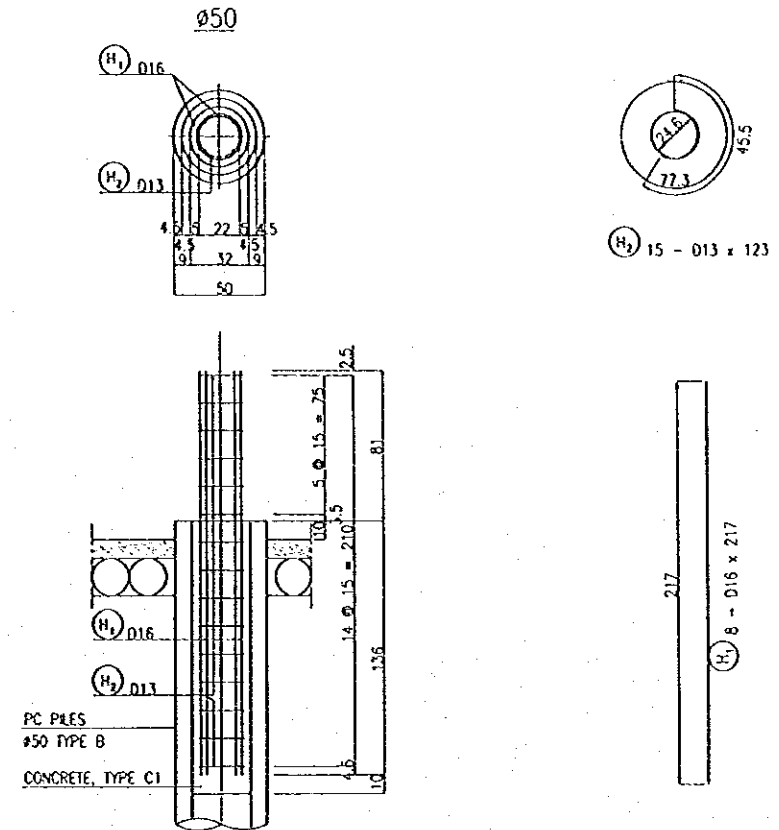




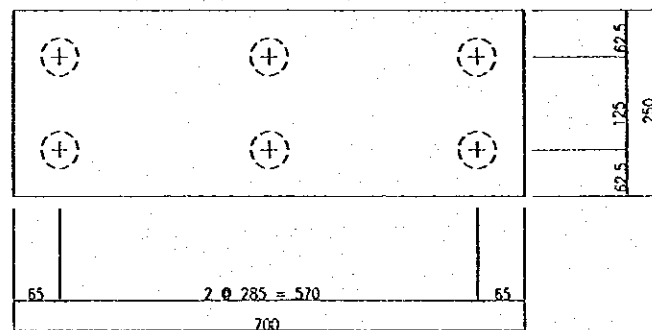
ELEVATION  
SCALE A



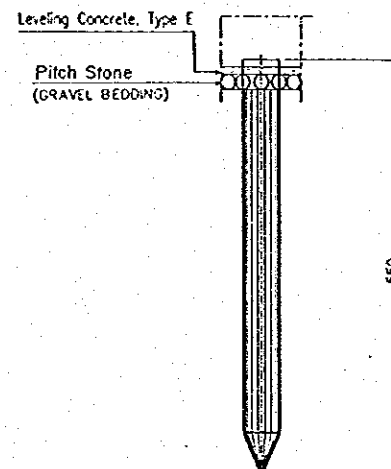
PROFILE  
SCALE A



REINFORCING BAR ARRANGEMENT FOR PILE  
SCALE B

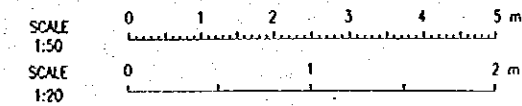


PLAN  
SCALE A



DETAIL OF PC PILE  
SCALE A

REIN. No.	#	LENGTH	NUM.	U.WEIGHT	WEIGHT/BAR	WEIGHT	REMARKS
H 1	016	217	8	1.58	3.43	28	I
H 2	013	123	15	1.04	1.28	19	O
						47 kg	
		WEIGHT/PILE	PILES NUM.	WEIGHT/ABUTMENT			
		D16	28 kg	6	168 kg		
		D13	19 kg	6	114 kg		
		TOTAL	47 kg	282 kg			
UPPER	TYPE-B	400					
		400					
		LENGTH/PILE	PILES NUM.	TOTAL LENGTH/ABUTMENT			
		TYPE-B	5.5 m	6	33 m		
		TOTAL	5.5 m	33 m			



- Notes :
1. The dimension in cm, except for reinforcing bar diameter in mm
  2. Concrete for structure, Type C1

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

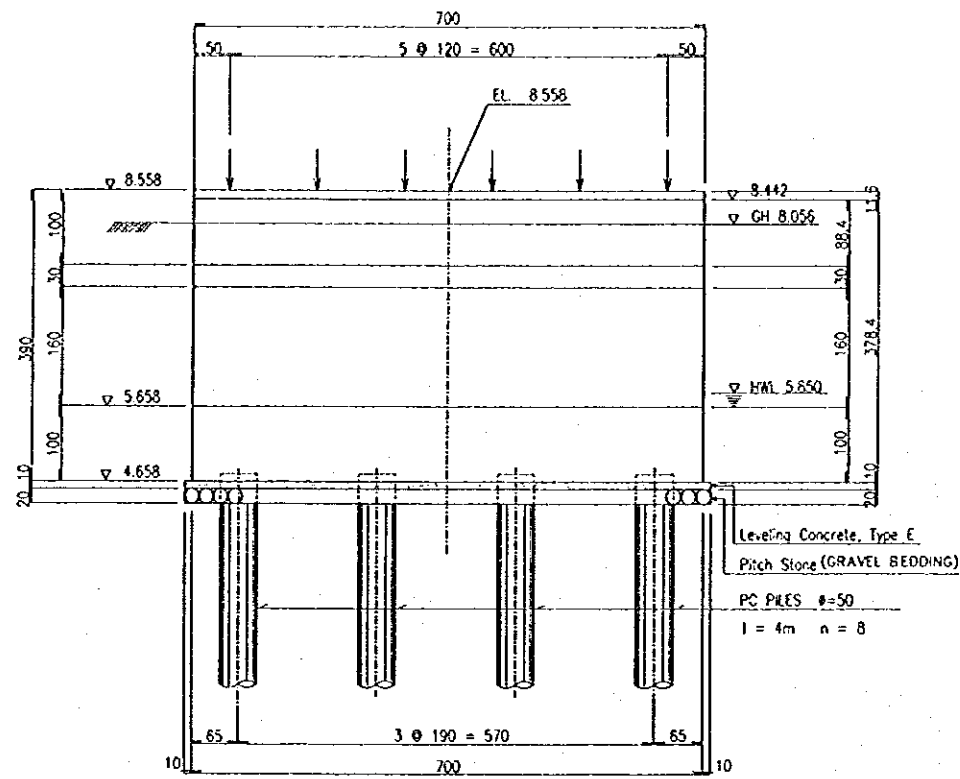
THE REPUBLIC OF INDONESIA  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT  
 AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

JRATUNSELUNA FLOOD CONTROL PROJECT  
 COMPONENT : URBAN DRAINAGE SYSTEM IMPROVEMENT  
 MAINTENANCE BRIDGE  
 SUBSTRUCTURE  
 PILE ARRANGEMENT AND DETAILS OF PILE HEAD

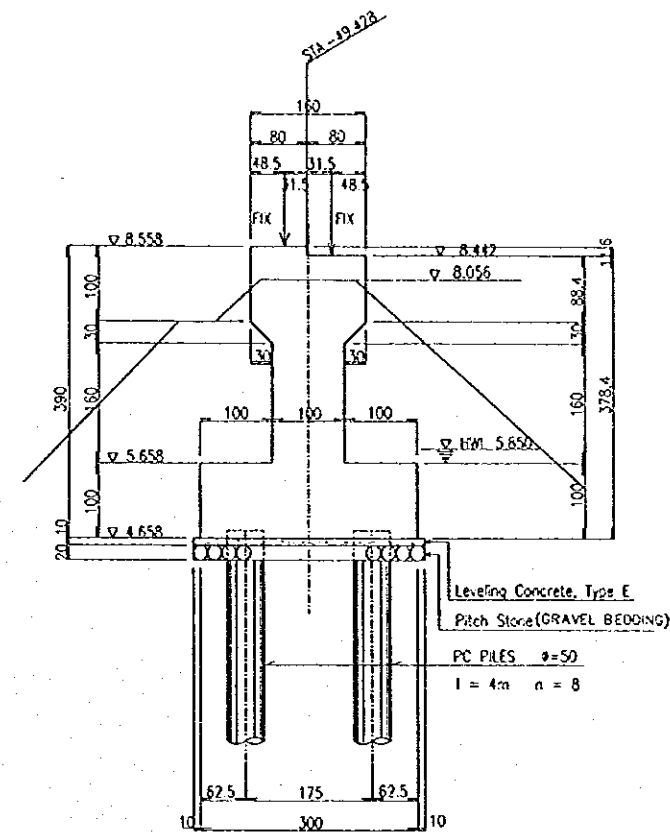
JAPAN INTERNATIONAL COOPERATION AGENCY  
 CITY ENGINEERING CO. LTD. IN ASSOCIATION WITH  
 PACIFIC CONSULTANTS INTERNATIONAL AND  
 PASCO INTERNATIONAL INC.

DESIGNED: *[Signature]*  
 CHECKED: *[Signature]*  
 CHIEF OF PLANNING AND DESIGN  
 PROJECT MANAGER

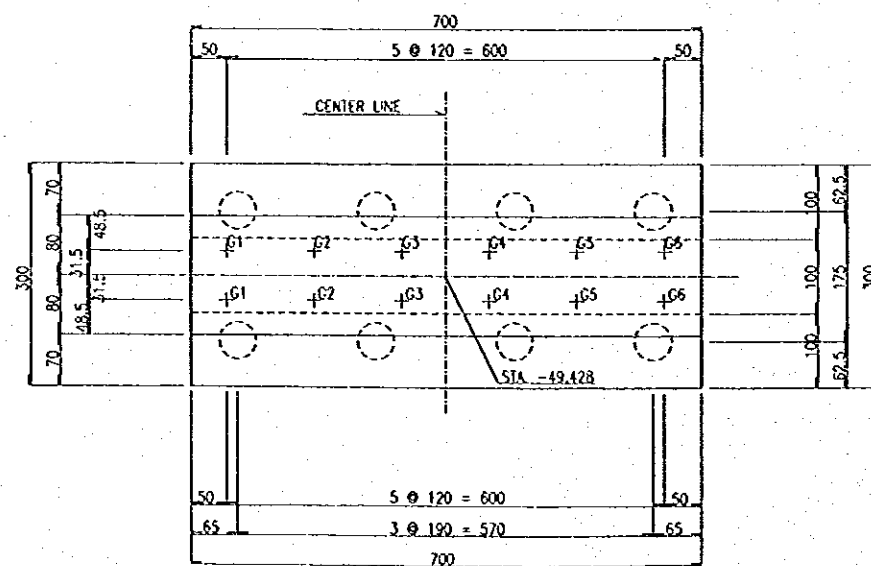
PROVINCE: CENTRAL JAVA  
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG, IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO: WS-#2-WB-SI-7  
 SHEET NO: 141  
 DATE: *[Date]*  
 CONTRACT NO: *[Contract No.]*



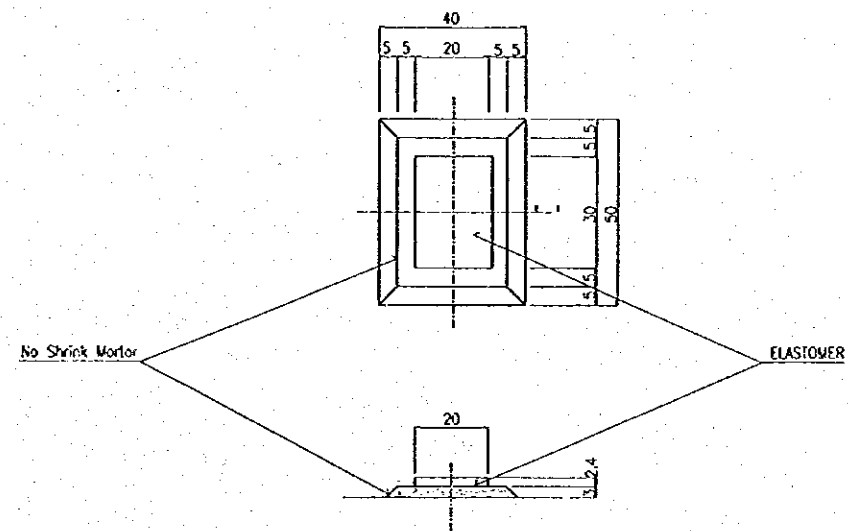
ELEVATION  
SCALE A



PROFILE  
SCALE A



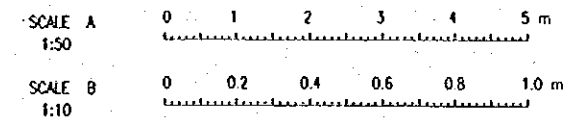
PLAN  
SCALE A



BEARING PAD  
SCALE B

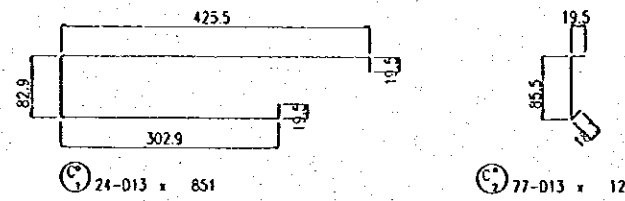
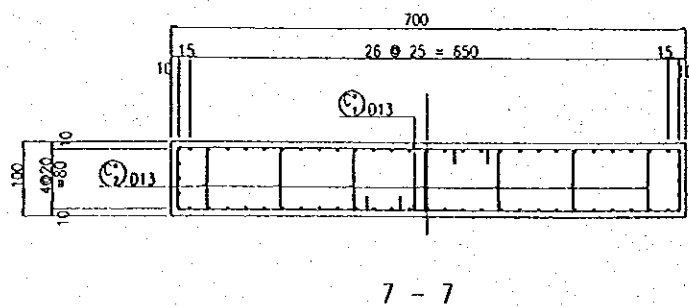
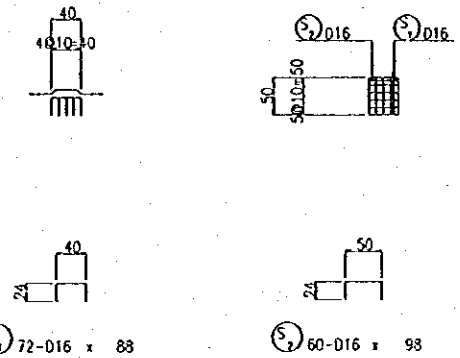
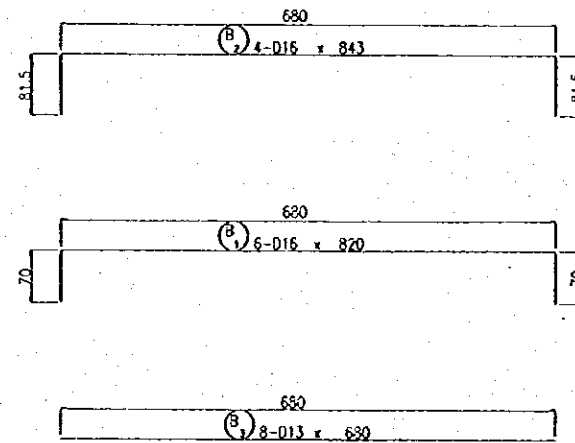
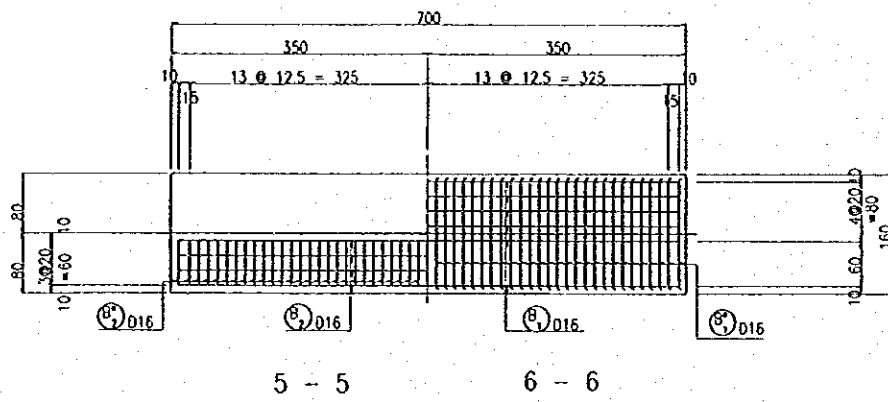
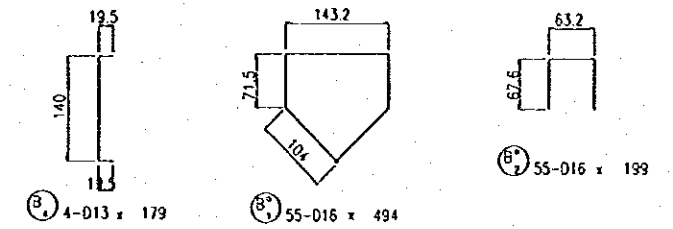
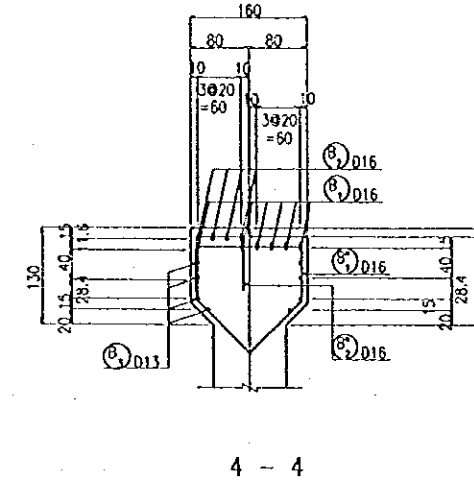
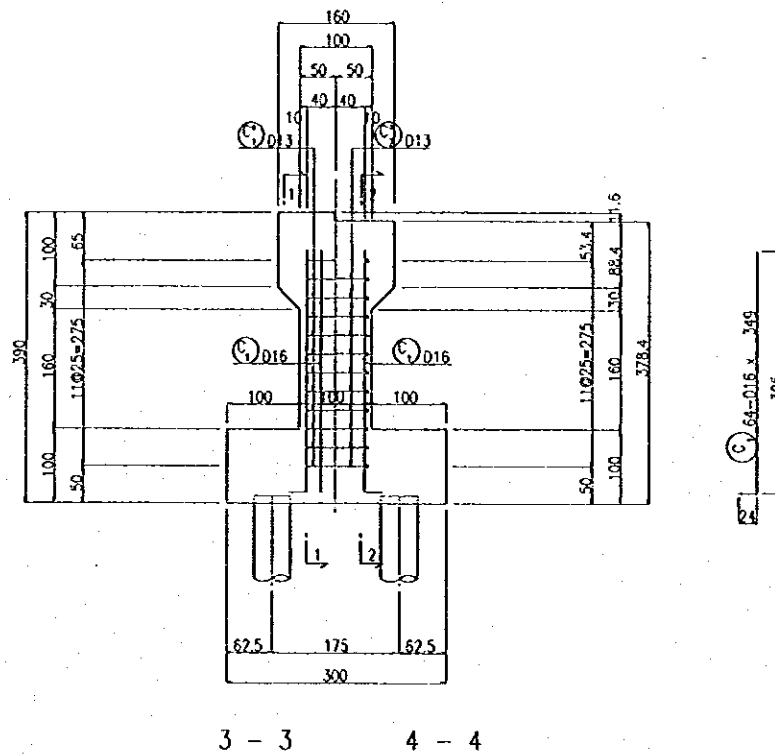
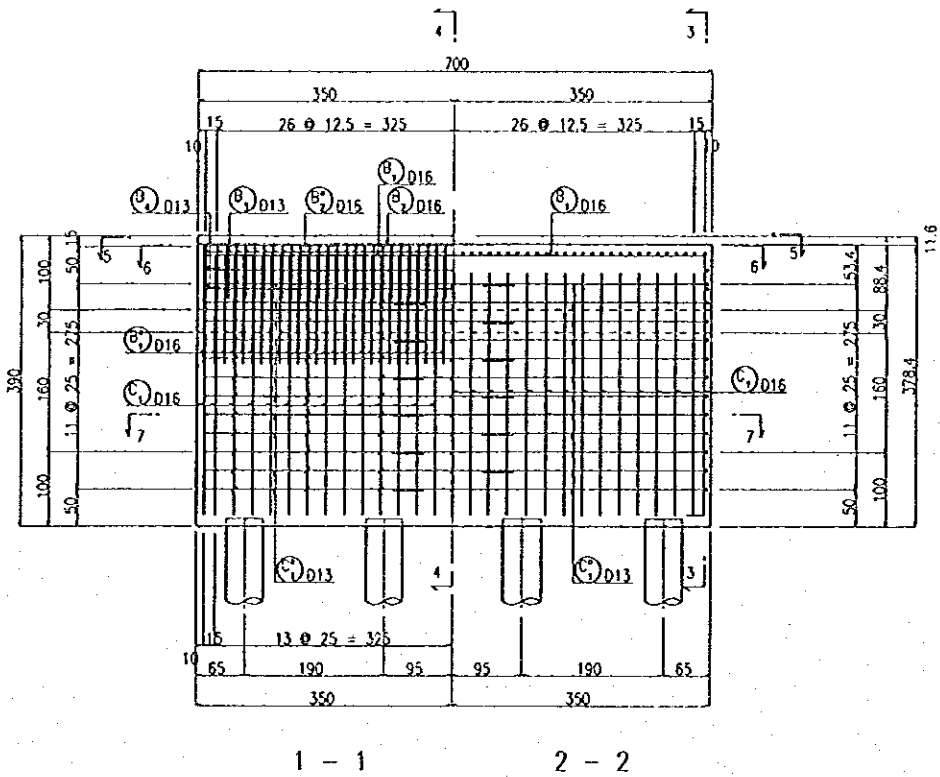
Notes :

1. The elevation in m
2. The dimension in cm
3. Concrete for structure, Type C1



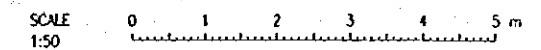
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
RATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT MAINTENANCE BRIDGE SUBSTRUCTURE PLAN AND PROFILE OF PIER		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING CO., LTD. PACIFIC CONSULTANTS INTERNATIONAL PAKYO INTERNATIONAL INC.		DRAWING NO. WE-P2-MB-31-8 SHEET NO. 143
DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN	DATE CONTRACTING NO.	PROJECT MANAGER



REINFORCEMENT OF BEARING PAD

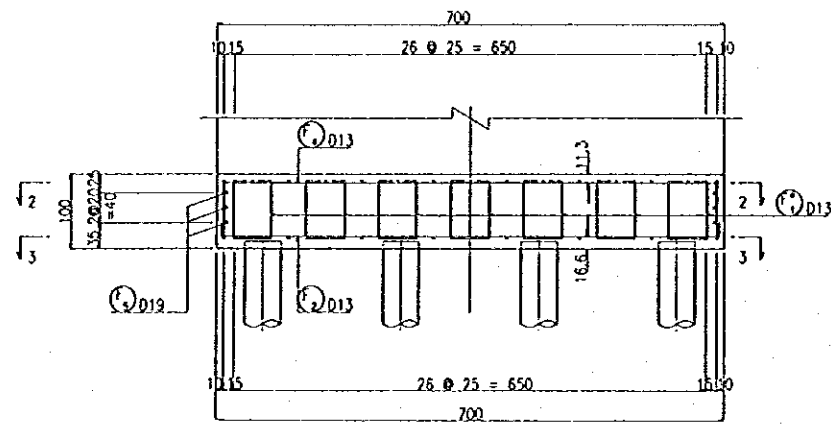
Note : The dimension in cm, except for Reinforcing bar diameter in mm



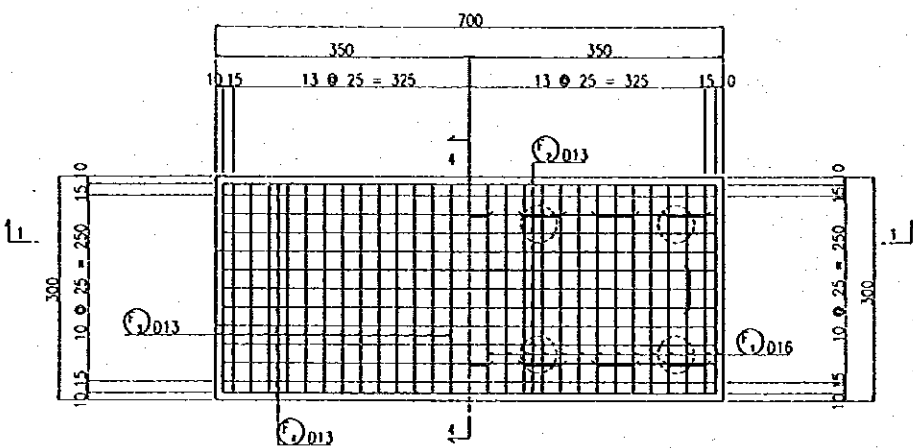
NO	DATE	REVISION	PREPARED	DESIGNED	APPROVED

	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT	PROVINCE CENTRAL JAVA
	JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : WEST FLOODWAY / GARANO RIVER IMPROVEMENT MAINTENANCE BRIDGE SUBSTRUCTURE REINFORCING BAR ARRANGEMENT OF PIER (1/2)	PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
	JEPAN INTERNATIONAL COOPERATION AGENCY PT. ENGINEERING CO. LTD. & ASSOCIATES PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL INC.	DRAWING NO. WS-P2-M3-R6-9 SHEET NO. 143
	DESIGNED CHECKED APPROVED	DATE CONTRACT NO.

STEEL BAR SHEET



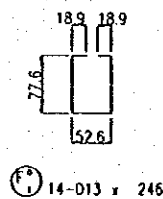
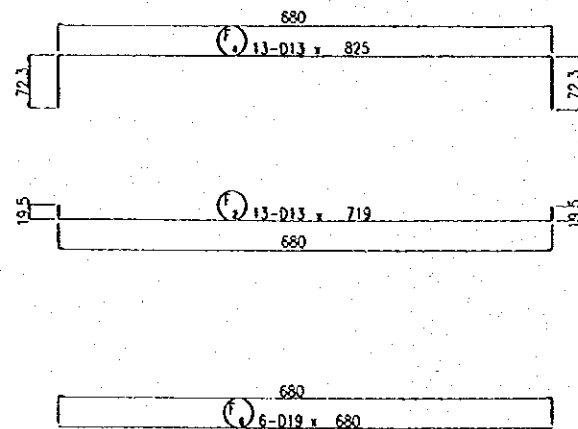
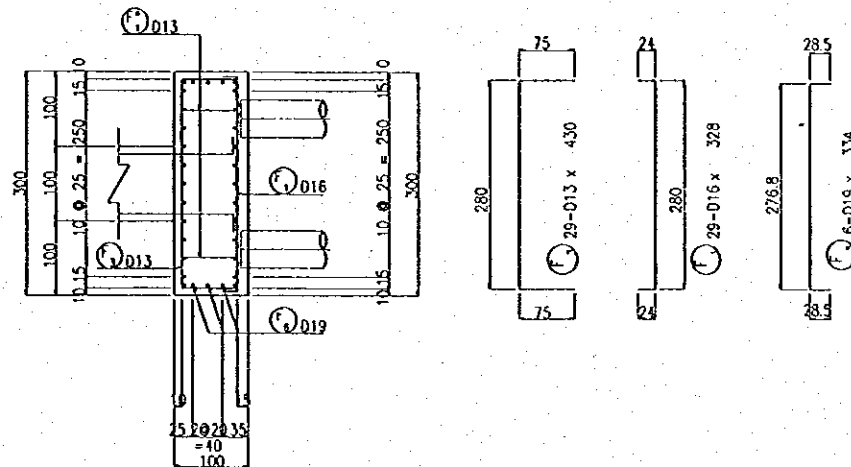
1 - 1



2 - 2

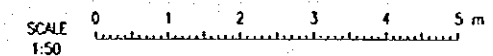
3 - 3

4 - 4



REINF No.	# (mm)	LENGTH (cm)	NUM.	U.WEIGHT (kg/m)	WEIGHT/BAR (kg/bar)	WEIGHT (kg)	REMARKS
B 1	D16	820	6	1.58	12.96	78	
B 2	D16	843	4	1.58	13.32	53	
B 3	D13	630	8	1.04	7.07	57	
B 4	D13	179	4	1.04	1.86	7	
B 1	D16	494	55	1.58	7.81	430	
B 2	D16	199	55	1.58	3.14	173	
S 1	D16	88	72	1.58	1.39	100	
S 2	D16	98	60	1.58	1.55	93	
C 1	D16	349	64	1.58	5.51	523	
C 1	D13	851	24	1.04	8.85	212	
C 2	D13	124	77	1.04	1.29	99	
F 1	D16	328	29	1.58	5.18	150	
F 2	D13	719	13	1.04	7.48	97	
F 3	D13	430	29	1.04	4.47	130	
F 4	D13	825	13	1.04	8.58	112	
F 5	D19	334	6	2.23	7.45	45	
F 6	D19	680	6	2.23	15.16	91	
F 1	D13	245	14	1.04	2.56	36	
				D19	135	Kg	
				D16	1600	Kg	
				D13	750	Kg	
				TOTAL	2486	Kg	

Note : The dimension in cm, except for reinforcing bar diameter in mm



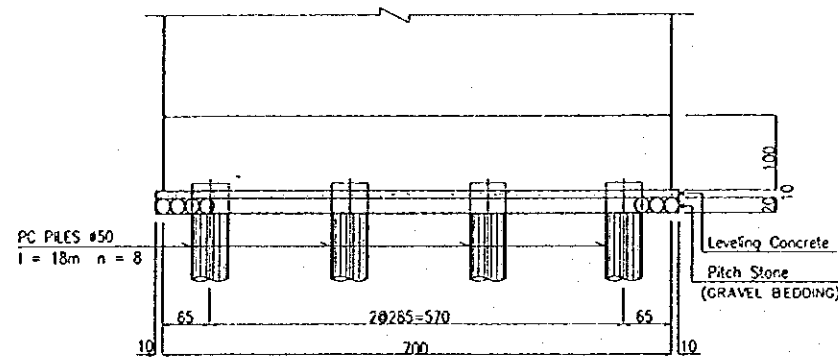
THE REPUBLIC OF INDONESIA  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT  
 JATUNSELUNA FLOOD CONTROL PROJECT  
 COMPONENT : WEST FLOODWAY / GARANO RIVER IMPROVEMENT  
**MAINTENANCE BRIDGE**  
 SUBSTRUCTURE  
**REINFORCING BAR ARRANGEMENT OF PIER (2/2)**

PROVINCE: CENTRAL JAWA  
 PROJECT NAME: FLOOD CONTROL, DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO. WB-P2-MB-R1-40  
 SHEET NO. 144  
 DATE: CONTRACT NO.

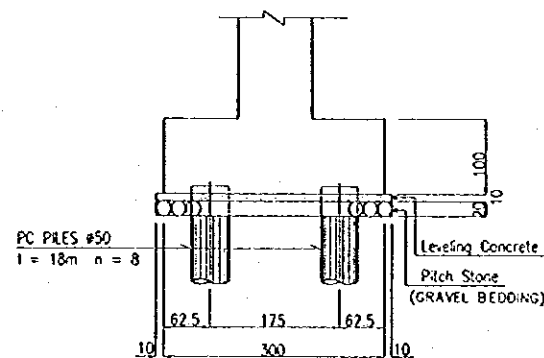
DESIGNED: [Signature]  
 CHECKED: [Signature]  
 CHIEF OF PLANNING AND DESIGN  
 PROJECT MANAGER

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



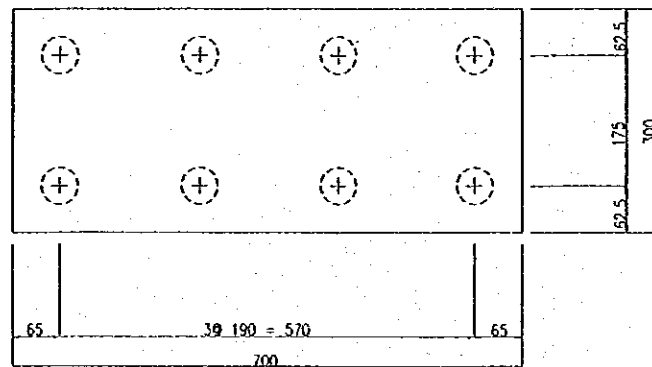
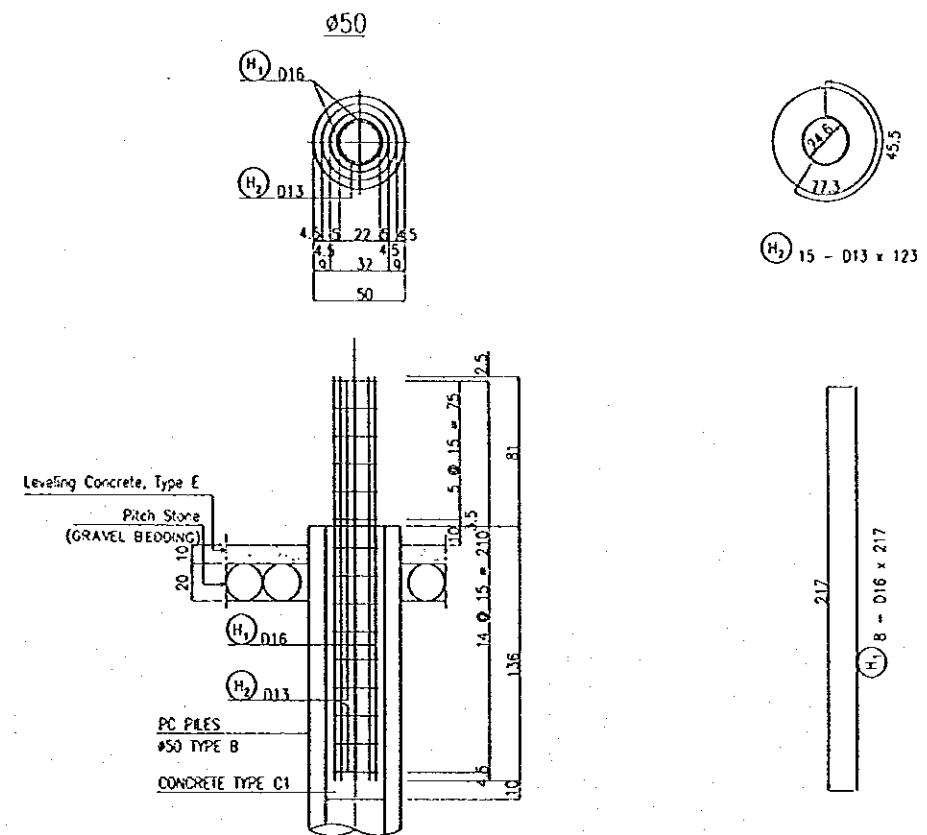


ELEVATION SCALE A

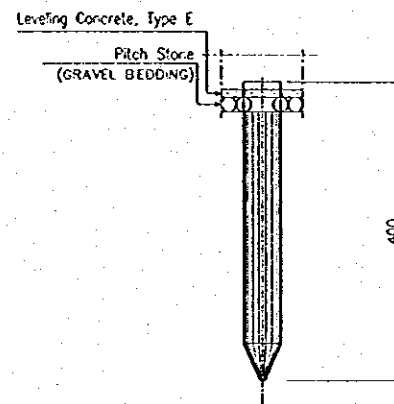


PROFILE SCALE A

PILE REINFORCING BAR ARRANGEMENT SCALE B

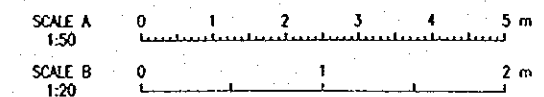


PLAN SCALE A



DETAIL OF PC PILE SCALE A

REF. No.	#	LENGTH	NUM.	U.WEIGHT	WEIGHT/BAR	WEIGHT	REMARKS
H 1	D16	217	8	1.58	3.43	28	I
H 2	D13	123	15	1.04	1.28	19	O
						47 kg	
		WEIGHT/PILE	PILES NUM.	WEIGHT/ABUTMENT			
		D16	28 kg	8	224 kg		
		D13	19 kg	8	152 kg		
		TOTAL	47 kg		376 kg		
UPPER	TYPE-B	400					
		400					
		LENGTH/PILE	PILES NUM.	TOTAL LENGTH/ABUTMENT			
		TYPE-B	4 m	8	32 m		
		TOTAL	4 m	8	32 m		



- NOTES :
- The dimension in cm, except for Reinforcing bar diameter in mm
  - Concrete for structure, Type C

NO	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA  
 MINISTRY OF PUBLIC WORKS  
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

BRATISELUNA FLOOD CONTROL PROJECT  
 COMPONENT : WEST FLOODWAY / GARANG RIVER IMPROVEMENT  
 MAINTENANCE BRIDGE

SUBSTRUCTURE  
 PILE ARRANGEMENT AND DETAILS OF PILE HEAD

PROVINCE: CENTRAL JAVA  
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA  
 DISTRICT: SEMARANG CITY  
 DRAWING NO. WB-92-MB-31-44  
 SHEET NO. 145  
 DATE: \_\_\_\_\_  
 CONTRACTING: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
 PROJECT MANAGER