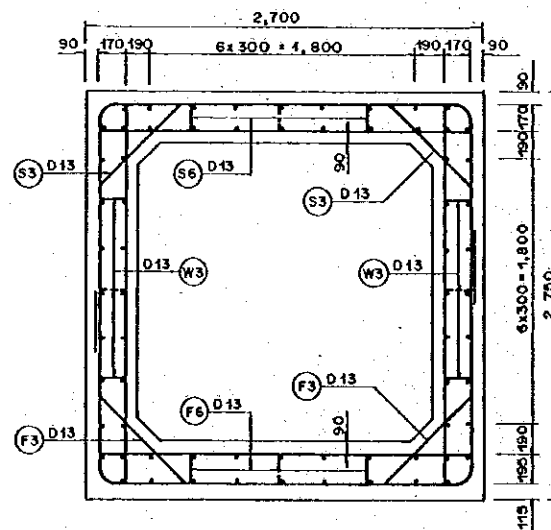
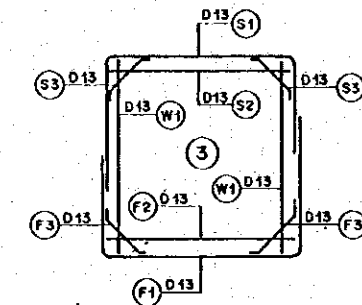
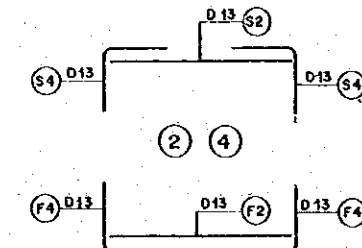
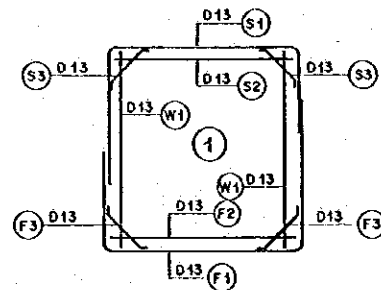


GENERAL CROSS SECTION
SCALE A

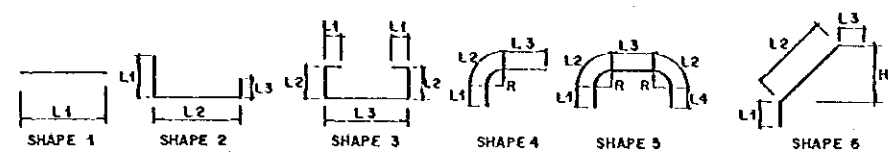


CROSS SECTION
SCALE A



BAR LAY OUT

BAR BENDING SCHEDULE FOR IP.CC.2



TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S1	5	Ø 13	25	5380	4575	220	2240	1120	-	140
S2	1	Ø 13	50	2550	2546					
S3	6	Ø 13	50	970	100	768	100		543	
S4	4	Ø 13	50	2290	1116	220	957			140
FS.1/S5.1	1	Ø 13	2	6230	6228					
FS.2/S5.2	1	Ø 13	4	6060	6059					
FS.3/S5.3	1	Ø 13	4	5870	5870					
FS.4/S5.4	1	Ø 13	4	5570	5571					
FS.5/S5.5	1	Ø 13	4	5270	5273					
FS.6/S5.6	1	Ø 13	4	4980	4974					
FS.7/S5.7	1	Ø 13	4	4680	4676					
FS.8/S5.8	1	Ø 13	4	4380	4377					
FS.9/S5.9	1	Ø 13	4	4080	4079					
FS.10/S5.10	1	Ø 13	4	3890	3890					
FS.11/S5.11	1	Ø 13	2	3720	3721					
S6.1	3	Ø 13	12	840	100	195	250			
S6.2	3	Ø 13	12	820	100	195	225			
S6.3	3	Ø 13	12	790	100	195	201			
W1	1	Ø 13	50	2570	2571					
W2.1	1	Ø 13	7	6230	6228					
W2.2	1	Ø 13	7	6060	6059					
W2.3	1	Ø 13	7	3890	3890					
W2.4	1	Ø 13	7	3720	3721					
W3	2	Ø 13	74	400	100	196	100			
F1	5	Ø 13	25	5430	4445	220	2240	1600		140
F2	1	Ø 13	50	2550	2546					
F3	6	Ø 13	50	1040	100	803	100		568	
F4	4	Ø 13	50	2240	4071	220	941			140
F6.1	3	Ø 13	12	890	100	221	250			
F6.2	3	Ø 13	12	870	100	221	225			
F6.3	3	Ø 13	12	840	100	221	201			

BAR WEIGHT FOR IP.CC.2

TYPE	DIA	LENGTH	NUMBER	WEIGHT PER BAR (kg/m)	WEIGHT PER BAR (kg/m)	WEIGHT (kg)	SHAPE
S1	Ø 13	5380	25	1.040	5.595	139.880	5
S2	Ø 13	2550	50	1.040	2.652	132.600	1
S3	Ø 13	970	50	1.040	1.009	50.440	6
S4	Ø 13	2290	50	1.040	2.381	119.080	4
FS.1/S5.1	Ø 13	6230	2	1.040	6.479	42.958	1
FS.2/S5.2	Ø 13	6060	4	1.040	6.302	25.210	1
FS.3/S5.3	Ø 13	5870	4	1.040	6.105	24.419	1
FS.4/S5.4	Ø 13	5570	4	1.040	5.793	23.171	1
FS.5/S5.5	Ø 13	5270	4	1.040	5.481	21.923	1
FS.6/S5.6	Ø 13	4980	4	1.040	5.179	20.717	1
FS.7/S5.7	Ø 13	4680	4	1.040	4.867	19.469	1
FS.8/S5.8	Ø 13	4380	4	1.040	4.555	18.221	1
FS.9/S5.9	Ø 13	4080	4	1.040	4.243	16.973	1
FS.10/S5.10	Ø 13	3890	4	1.040	4.046	16.182	1
FS.11/S5.11	Ø 13	3720	2	1.040	3.869	7.738	1
S6.1	Ø 13	840	12	1.040	0.874	10.483	3
S6.2	Ø 13	820	12	1.040	0.853	10.234	3
S6.3	Ø 13	790	12	1.040	0.822	9.859	3
W1	Ø 13	2570	50	1.040	2.673	133.640	1
W2.1	Ø 13	6230	7	1.040	6.479	45.354	1
W2.2	Ø 13	6060	7	1.040	6.302	44.117	1
W2.3	Ø 13	3890	7	1.040	4.046	28.319	1
W2.4	Ø 13	3720	7	1.040	3.869	27.082	1
W3	Ø 13	870	74	1.040	0.905	66.955	2
F1	Ø 13	5430	25	1.040	5.647	141.180	5
F2	Ø 13	2550	50	1.040	2.652	132.600	1
F3	Ø 13	1040	50	1.040	1.052	52.520	6
F4	Ø 13	2240	50	1.040	2.330	116.480	4
F6.1	Ø 13	890	12	1.040	0.926	11.107	3
F6.2	Ø 13	870	12	1.040	0.905	10.858	3
F6.3	Ø 13	840	12	1.040	0.874	10.483	3

BAR BENDING DETAIL

DIA	a	b	l	R	OVERLAP	
					L	WEIGHT (kg)
Ø 13	66	156	222	42	455	0.473
Ø 16	75	193	268	48	560	0.85
Ø 19	94	236	330	60	665	1.483
Ø 22	104	272	376	66	770	2.295
Ø 25	122	306	428	78	875	3.369

SCALE A 0 0.50 1.0 1.50 2.0 2.50m

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT			PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND PUBLIC INFRASTRUCTURE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA		
JATUNINGRATA FLOOD CONTROL PROJECT COMPONENT : URBAN DRAINAGE SYSTEM IMPROVEMENT BARU CONVEYANCE CHANNEL CURVE STRUCTURE REINFORCING BAR ARRANGEMENT (2/4)			OFFICE SEMARANG CITY DRAWING NO. U-PS-CO-C1-7 SHEET NO. 150		
JAPAN INTERNATIONAL COOPERATION AGENCY JICA ENGINEERING CO., LTD. (AS ASSOCIATE FIRM) PACIFIC CONSULTANTS INTERNATIONAL AND JACOBS INTERNATIONAL INC.			DESIGNED CHECKED DATE CONTRACT NO.		
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER			APPROVED		
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

BAR BENDING SCHEDULE FOR IP.CC.4 AND IP.CC.5

TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S 1	5	Ø 13	41	5380	1575	220	2240	1120		140
S 2	1	Ø 13	83	2550	2546					
S 3	6	Ø 13	83	970	100	768	100		543	
S 4	4	Ø 13	83	2290	1116	220	997			140
F31/SS1	1	Ø 13	2	10380	10378					
F32/SS2	1	Ø 13	4	10320	10322					
F33/SS3	1	Ø 13	4	10260	10259					
F34/SS4	1	Ø 13	4	10160	10159					
F35/SS5	1	Ø 13	4	10060	10060					
F36/SS6	1	Ø 13	4	9960	9960					
F37/SS7	1	Ø 13	4	9860	9860					
F38/SS8	1	Ø 13	4	9760	9761					
F39/SS9	1	Ø 13	4	9660	9661					
F310/SS10	1	Ø 13	4	9600	9598					
F311/SS11	1	Ø 13	2	9540	9542					
S 6.1	3	Ø 13	21	860	100	196	271			
S 6.2	3	Ø 13	21	880	100	196	266			
S 6.3	3	Ø 13	21	850	100	196	262			
W 1	1	Ø 13	83	2570	2571					
W 2.1	1	Ø 13	7	10380	10378					
W 2.2	1	Ø 13	7	10320	10322					
W 2.3	1	Ø 13	7	9600	9598					
W 2.4	1	Ø 13	7	9540	9542					
W 3	2	Ø 13	124	400	100	196	100			
F 1	5	Ø 13	41	5430	1145	220	2240	1600		140
F 2	1	Ø 13	83	2550	2546					
F 3	6	Ø 13	83	1010	100	803	100		568	
F 4	4	Ø 13	83	2240	1071	220	941			140
F 6.1	3	Ø 13	21	910	100	221	271			
F 6.2	3	Ø 13	21	910	100	221	266			
F 6.3	3	Ø 13	21	900	100	221	262			

BAR BENDING SCHEDULE FOR IP.CC.6

TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S 1	5	Ø 13	55	5380	1575	220	2240	1120		140
S 2	1	Ø 13	111	2550	2546					
S 3	6	Ø 13	111	970	100	768	100		543	
S 4	4	Ø 13	111	2290	1116	220	997			140
F31/SS1	1	Ø 13	2	13890	13887					
F32/SS2	1	Ø 13	4	13800	13797					
F33/SS3	1	Ø 13	4	13700	13697					
F34/SS4	1	Ø 13	4	13540	13538					
F35/SS5	1	Ø 13	4	13380	13380					
F36/SS6	1	Ø 13	4	13220	13221					
F37/SS7	1	Ø 13	4	13060	13062					
F38/SS8	1	Ø 13	4	12900	12904					
F39/SS9	1	Ø 13	4	12750	12745					
F310/SS10	1	Ø 13	4	12640	12644					
F311/SS11	1	Ø 13	2	12560	12555					
S 6.1	3	Ø 13	28	860	100	196	270			
S 6.2	3	Ø 13	28	860	100	196	264			
S 6.3	3	Ø 13	28	850	100	196	258			
W 1	1	Ø 13	111	2570	2571					
W 2.1	1	Ø 13	7	13890	13887					
W 2.2	1	Ø 13	7	13800	13797					
W 2.3	1	Ø 13	7	12640	12644					
W 2.4	1	Ø 13	7	12560	12555					
W 3	2	Ø 13	166	400	100	196	100			
F 1	5	Ø 13	55	5430	1145	220	2240	1600		140
F 2	1	Ø 13	111	2550	2546					
F 3	6	Ø 13	111	1010	100	803	100		568	
F 4	4	Ø 13	111	2240	1071	220	941			140
F 6.1	3	Ø 13	28	910	100	221	270			
F 6.2	3	Ø 13	28	910	100	221	264			
F 6.3	3	Ø 13	28	900	100	221	258			

BAR WEIGHT FOR IP.CC.4 AND IP.CC.5

TYPE	DIA	LENGTH	NUMBER	WEIGHT PER m(kg/m)	WEIGHT PER BAR(kg/m)	WEIGHT (kg)	SHAPE
S 1	Ø 13	5380	41	1.040	5.995	229.403	5
S 2	Ø 13	2550	83	1.040	2.652	220.116	1
S 3	Ø 13	1480	83	1.040	1.539	127.754	6
S 4	Ø 13	2290	83	1.040	2.362	197.673	4
F31/SS1	Ø 13	10380	2	1.040	10.795	21.590	1
F32/SS2	Ø 13	10320	4	1.040	10.733	42.931	1
F33/SS3	Ø 13	10260	4	1.040	10.670	42.682	1
F34/SS4	Ø 13	10160	4	1.040	10.566	42.266	1
F35/SS5	Ø 13	10060	4	1.040	10.462	41.850	1
F36/SS6	Ø 13	9960	4	1.040	10.358	41.434	1
F37/SS7	Ø 13	9860	4	1.040	10.254	41.018	1
F38/SS8	Ø 13	9760	4	1.040	10.150	40.602	1
F39/SS9	Ø 13	9660	4	1.040	10.046	40.186	1
F310/SS10	Ø 13	9600	4	1.040	9.994	39.936	1
F311/SS11	Ø 13	9540	2	1.040	9.921	19.843	1
S 6.1	Ø 13	860	21	1.040	0.894	18.782	3
S 6.2	Ø 13	880	21	1.040	0.915	19.219	3
S 6.3	Ø 13	850	21	1.040	0.884	18.564	2
W 1	Ø 13	2570	83	1.040	2.673	221.842	1
W 2.1	Ø 13	10380	7	1.040	10.795	75.566	1
W 2.2	Ø 13	10320	7	1.040	10.733	73.130	1
W 2.3	Ø 13	9600	7	1.040	9.984	69.888	1
W 2.4	Ø 13	9540	7	1.040	9.922	69.451	1
W 3	Ø 13	400	124	1.040	0.416	51.584	3
F 1	Ø 13	5470	41	1.040	5.689	233.241	5
F 2	Ø 13	2550	83	1.040	2.652	220.216	1
F 3	Ø 13	1010	83	1.040	1.090	87.183	6
F 4	Ø 13	2240	83	1.040	2.330	193.357	4
F 6.1	Ø 13	910	21	1.040	0.946	19.874	3
F 6.2	Ø 13	910	21	1.040	0.946	19.874	3
F 6.3	Ø 13	900	21	1.040	0.936	19.656	3

BAR WEIGHT FOR IP.CC.6

TYPE	DIA	LENGTH	NUMBER	WEIGHT PER m(kg/m)	WEIGHT PER BAR(kg/m)	WEIGHT (kg)	SHAPE
S 1	Ø 13	5380	55	1.040	5.995	307.736	5
S 2	Ø 13	2550	111	1.040	2.652	294.372	1
S 3	Ø 13	1480	111	1.040	1.009	111.977	6
S 4	Ø 13	2290	111	1.040	2.382	264.358	4
F31/SS1	Ø 13	13890	2	1.040	14.446	28.891	1
F32/SS2	Ø 13	13800	4	1.040	14.352	57.408	1
F33/SS3	Ø 13	13700	4	1.040	14.248	56.992	1
F34/SS4	Ø 13	13540	4	1.040	14.082	56.326	1
F35/SS5	Ø 13	13380	4	1.040	13.915	55.661	1
F36/SS6	Ø 13	13220	4	1.040	13.749	54.995	1
F37/SS7	Ø 13	13060	4	1.040	13.582	54.330	1
F38/SS8	Ø 13	12900	4	1.040	13.416	53.664	1
F39/SS9	Ø 13	12750	4	1.040	13.260	53.040	1
F310/SS10	Ø 13	12640	4	1.040	13.146	52.582	1
F311/SS11	Ø 13	12560	2	1.040	13.062	26.125	1
S 6.1	Ø 13	860	28	1.040	0.894	25.043	3
S 6.2	Ø 13	860	28	1.040	0.894	25.043	3
S 6.3	Ø 13	850	28	1.040	0.884	24.752	3
W 1	Ø 13	2570	111	1.040	2.673	296.681	1
W 2.1	Ø 13	13890	7	1.040	14.446	101.119	1
W 2.2	Ø 13	13800	7	1.040	14.352	100.464	1
W 2.3	Ø 13	12640	7	1.040	13.146	92.019	1
W 2.4	Ø 13	12560	7	1.040	13.062	91.437	1
W 3	Ø 13	400	166	1.040	0.416	69.056	2
F 1	Ø 13	5430	55	1.040	5.647	310.596	5
F 2	Ø 13	2550	111	1.040	2.652	294.372	1
F 3	Ø 13	1010	111	1.040	1.050	116.594	6
F 4	Ø 13	2240	111	1.040	2.330	258.586	4
F 6.1	Ø 13	910	28	1.040	0.946	26.499	3
F 6.2	Ø 13	910	28	1.040	0.946	26.499	3
F 6.3	Ø 13	900	28	1.040	0.936	26.208	3

BAR BENDING DETAIL

DIA	a	b	l	R	OVERLAP	
					L	WEIGHT(kg)
Ø 13	65	156	222	42	455	0.473
Ø 16	75	193	268	48	560	0.85
Ø 19	94	236	330	60	665	1.483
Ø 22	104	272	376	66	770	2.293
Ø 25	122	306	428	78	875	3.369

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

PROVINCE: CENTRAL JAVA
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
 CONTRACT: SEMARANG CITY
 DRAWING NO. U-PB-CO-61-8
 SHEET NO. 181

COMPONENT: URBAN DRAINAGE SYSTEM IMPROVEMENT
 BARU CONVEYANCE CHANNEL
 CURVE STRUCTURE
 REINFORCING BAR ARRANGEMENT (3/4)

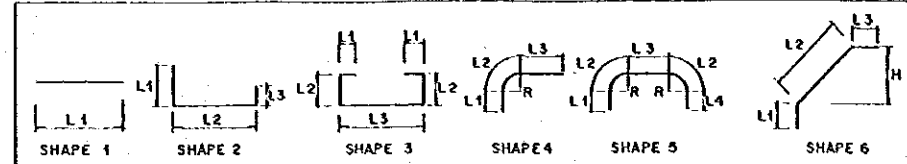
DATE: _____ CONTRACT NO.: _____

APPROVED: _____ PROJECT MANAGER

DESIGNED: _____
 CHECKED: _____
 DATE: _____

NO. DATE REVISIONS ORIGINATED DESIGNED APPROVED

BAR BENDING SCHEDULE FOR IP.CC.7



TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S 1	5	D 13	54	5380	1575	220	2240	1120		140
S 2	1	D 13	107	2550	2546					
S 3	6	D 13	107	970	100	768	100		543	
S 4	4	D 13	107	2290	1416	220	957			140
F5.1/S5.1	1	D 13	2	13520	13521					
F5.2/S5.2	1	D 13	4	13430	13433					
F5.3/S5.3	1	D 13	4	13340	13335					
F5.4/S5.4	1	D 13	4	13180	13181					
F5.5/S5.5	1	D 13	4	13030	13026					
F5.6/S5.6	1	D 13	4	12870	12872					
F5.7/S5.7	1	D 13	4	12720	12717					
F5.8/S5.8	1	D 13	4	12560	12563					
F5.9/S5.9	1	D 13	4	12410	12408					
F5.10/S5.10	1	D 13	4	12310	12311					
F5.11/S5.11	1	D 13	2	12220	12223					
S 6.1	3	D 13	27	860	100	196	270			
S 6.2	3	D 13	27	860	100	196	268			
S 6.3	3	D 13	27	850	100	196	258			
W 1	1	D 13	107	2570	2574					
W 2.1	1	D 13	7	13520	13521					
W 2.2	1	D 13	7	13430	13433					
W 2.3	1	D 13	7	12310	12311					
W 2.4	1	D 13	7	12220	12223					
W 3	2	D 13	162	400	100	196	100			
F 1	5	D 13	54	5430	1145	220	2240	1600		140
F 2	1	D 13	107	2550	2546					
F 3	6	D 13	107	1010	100	803	100		568	
F 4	4	D 13	107	2240	4071	220	941			140
F 6.1	3	D 13	27	940	100	221	270			
F 6.2	3	D 13	27	940	100	221	268			
F 6.3	3	D 13	27	900	100	221	258			

BAR WEIGHT FOR IP.CC.7

TYPE	DIA	LENGTH	NUMBER	WEIGHT PER M (kg/m)	WEIGHT PER BAR (kg/m)	WEIGHT (kg)	SHAPE
S 1	D 13	5380	54	1.040	5.595	302.444	5
S 2	D 13	2550	107	1.040	2.652	283.764	1
S 3	D 13	970	107	1.040	1.009	107.942	6
S 4	D 13	2290	107	1.040	2.382	254.831	4
F5.1/S5.1	D 13	13520	2	1.040	14.061	28.122	1
F5.2/S5.2	D 13	13430	4	1.040	13.967	55.869	1
F5.3/S5.3	D 13	13340	4	1.040	13.873	55.494	1
F5.4/S5.4	D 13	13180	4	1.040	13.707	54.829	1
F5.5/S5.5	D 13	13030	4	1.040	13.551	54.205	1
F5.6/S5.6	D 13	12870	4	1.040	13.385	53.539	1
F5.7/S5.7	D 13	12720	4	1.040	13.228	52.915	1
F5.8/S5.8	D 13	12560	4	1.040	13.062	52.250	1
F5.9/S5.9	D 13	12410	4	1.040	12.906	51.626	1
F5.10/S5.10	D 13	12310	4	1.040	12.802	51.210	1
F5.11/S5.11	D 13	12220	2	1.040	12.709	25.418	1
S 6.1	D 13	860	27	1.040	0.894	24.149	3
S 6.2	D 13	860	27	1.040	0.894	24.149	3
S 6.3	D 13	850	27	1.040	0.884	23.868	3
W 1	D 13	2570	107	1.040	2.673	285.990	1
W 2.1	D 13	13520	7	1.040	14.061	98.426	1
W 2.2	D 13	13430	7	1.040	13.967	97.770	1
W 2.3	D 13	12310	7	1.040	12.802	89.617	1
W 2.4	D 13	12220	7	1.040	12.709	88.962	1
W 3	D 13	400	162	1.040	0.416	67.392	2
F 1	D 13	5430	54	1.040	5.647	304.948	5
F 2	D 13	2550	107	1.040	2.652	283.764	1
F 3	D 13	1010	107	1.040	1.050	112.393	6
F 4	D 13	2240	107	1.040	2.330	249.267	4
F 6.1	D 13	940	27	1.040	0.946	25.553	3
F 6.2	D 13	940	27	1.040	0.946	25.553	3
F 6.3	D 13	900	27	1.040	0.936	25.272	3

BAR BENDING DETAIL

DIA	a	b	l	R	OVERLAP	
					L	WEIGHT(kg)
D 13	66	156	222	42	455	0.473
D 16	75	193	268	48	560	0.85
D 19	94	236	330	60	665	1.483
D 22	104	272	376	66	770	2.295
D 25	122	306	428	78	875	3.369

NO.	DATE	REVISIONS	PREPARED	DESIGNED	APPROVED

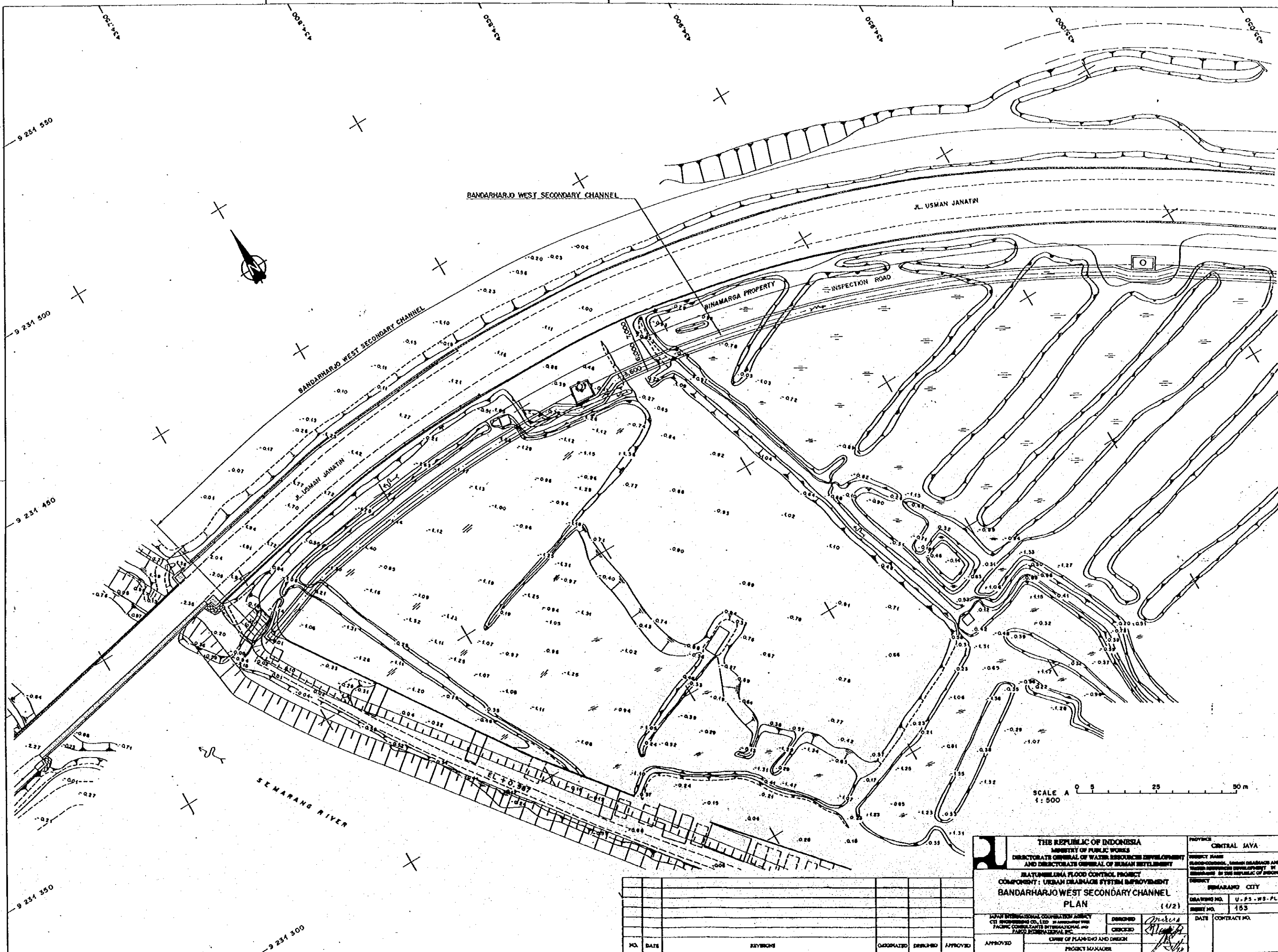
THE REPUBLIC OF INDONESIA
 MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
 AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT

PROVINCE: CENTRAL JAVA
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
 DISTRICT: SEMARANG CITY
 DRAWING NO. U-P3-CG-C1-9
 SHEET NO. 152
 DATE: CONTRACT NO.:

REINFORCING BAR ARRANGEMENT (4/4)

JAPAN INTERNATIONAL COOPERATION AGENCY
 CITI ENGINEERING CO., LTD. IN ASSOCIATION WITH
 PACIFIC CONSULTANTS INTERNATIONAL AND
 JACO INTERNATIONAL INC.

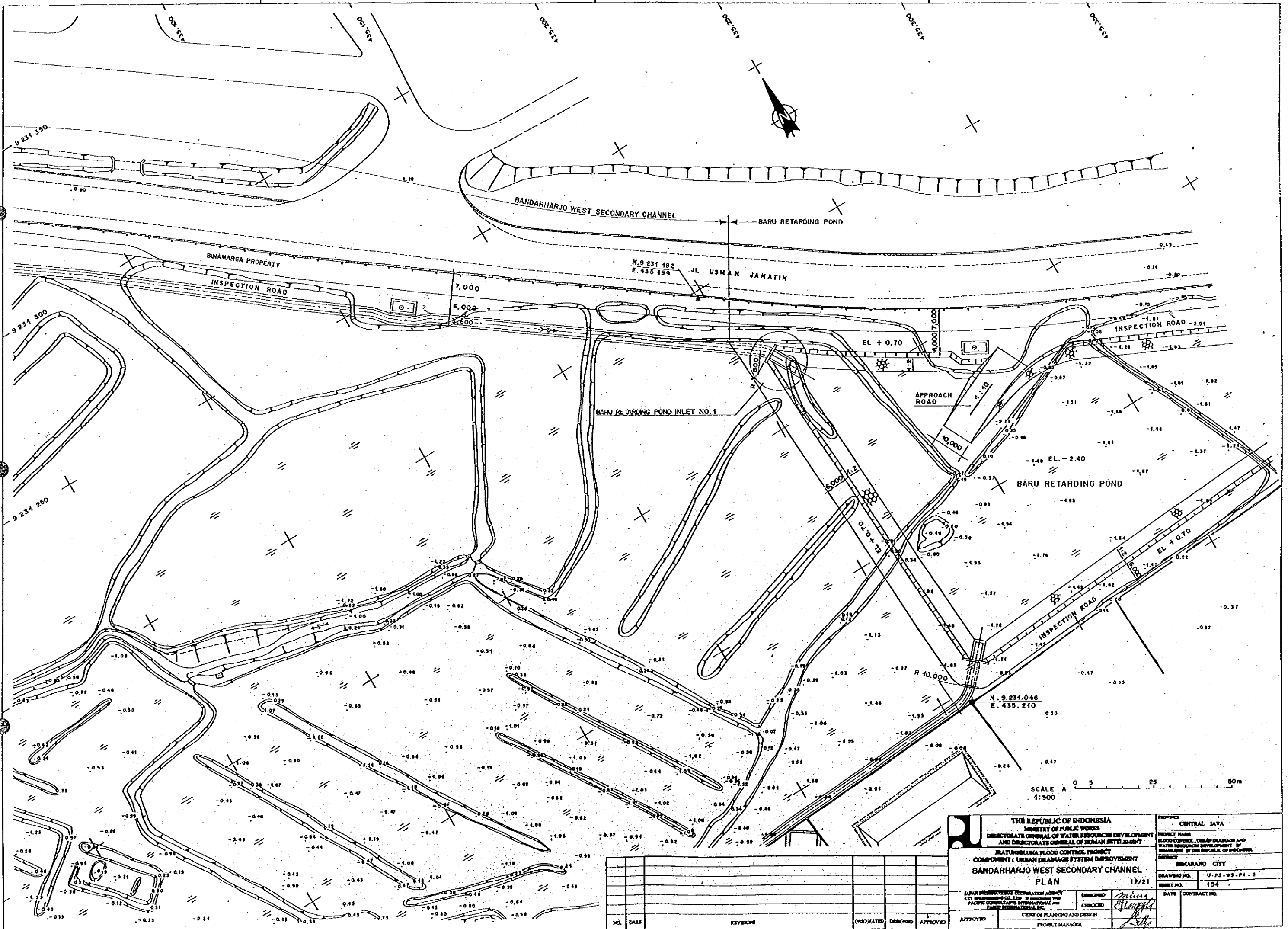
DESIGNED: [Signature]
 CHECKED: [Signature]
 CHIEF OF PLANNING AND DESIGN: [Signature]
 PROJECT MANAGER: [Signature]



SCALE A
1:500

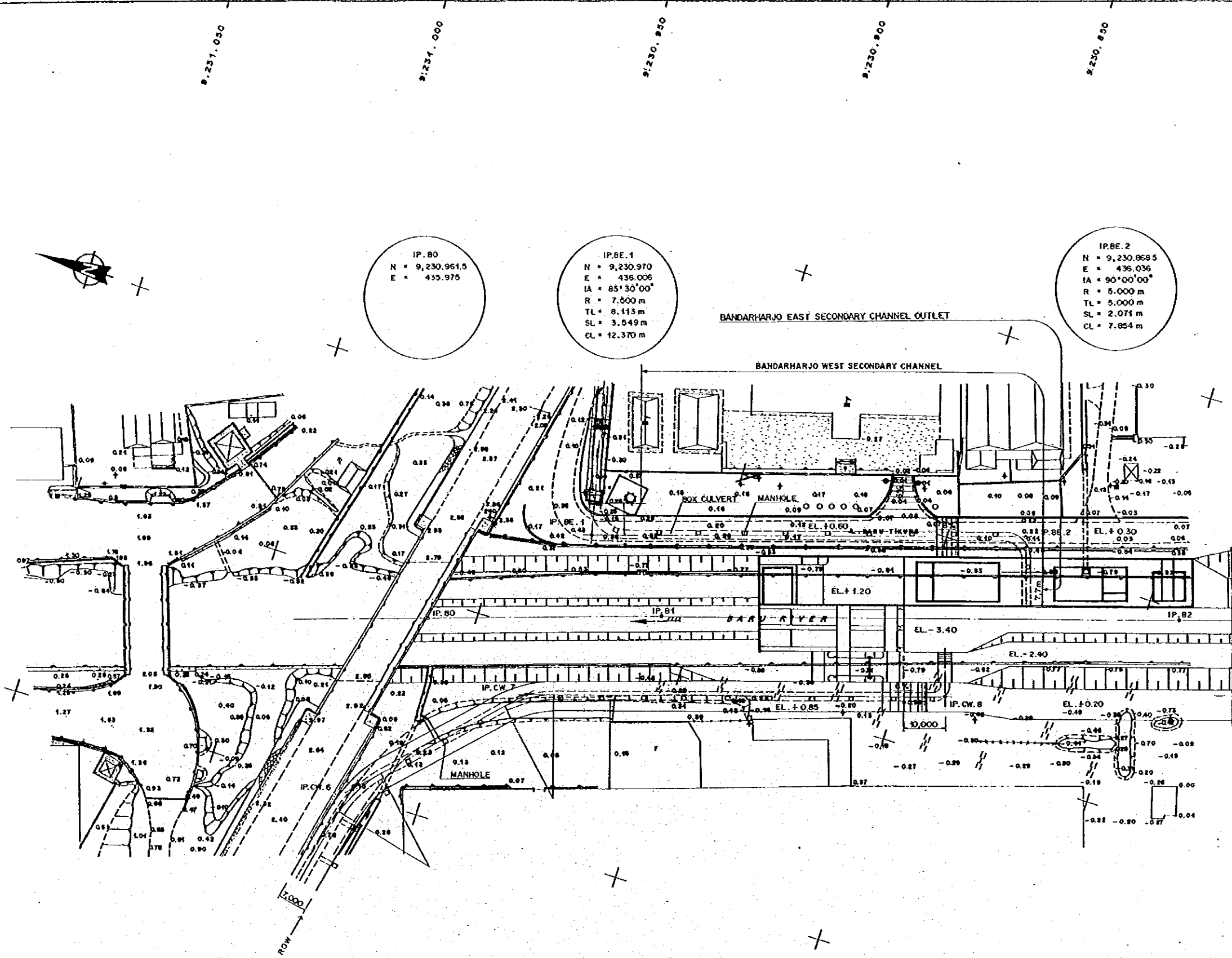
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCE DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
RATUMELINA FLOOD CONTROL PROJECT COMPONENT: URBAN DRAINAGE SYSTEM IMPROVEMENT BANDARHARJO WEST SECONDARY CHANNEL PLAN (1/2)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND HUMAN SETTLEMENT DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY JICA ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PANGLOSS INTERNATIONAL INC.		CITY SEMARANG CITY
DESIGNED CHECKED SUPERVISOR OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. U-PS-WB-PL-1 SHEET NO. 153 DATE CONTRACT NO.

NO.	DATE	REVISIONS	DESIGNED	CHECKED	APPROVED



NO.	DATE	REVISIONS	DESIGNED	CHECKED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF RURAL SETTLEMENT SURABAYA FLOOD CONTROL PROJECT COMPONENT 1: URBAN DRAINAGE SYSTEM IMPROVEMENT BANDARHARJO WEST SECONDARY CHANNEL PLAN 12/21		PROVINCE CENTRAL JAWA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SURABAYA IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. U-PS-WS-PI-2 SHEET NO. 154
SURABAYA REGIONAL COORDINATION AGENCY CITY ENGINEERING CO. LTD. in association with PACIFIC CONSULTANTS INTERNATIONAL and PANGLOSS INTERNATIONAL INC.	DESIGNED CHECKED APPROVED CEER OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.

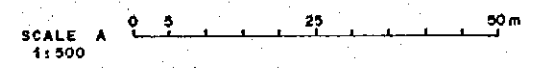


IP.B0
N = 9,230,961.5
E = 435,975

IP.BE.1
N = 9,230,970
E = 436,006
IA = 65°30'00"
R = 7,500 m
TL = 8,113 m
SL = 3,549 m
CL = 12,370 m

IP.BE.2
N = 9,230,868.5
E = 436,036
IA = 90°00'00"
R = 5,000 m
TL = 5,000 m
SL = 2,071 m
CL = 7,854 m

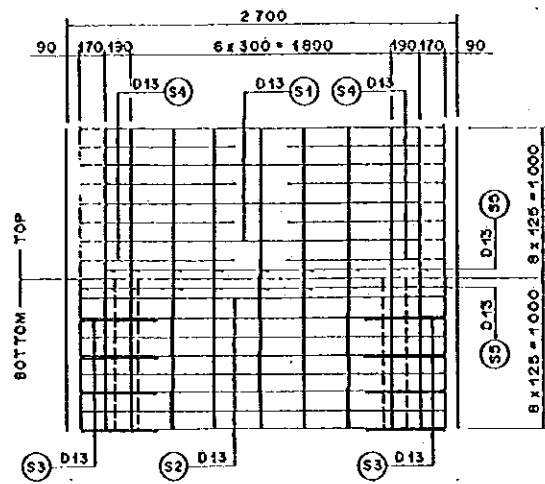
- LEGEND**
- △ GPS POINT
 - CROSS SECTION POINT
 - BUILDING
 - BUILDING (TEMPORARY OF WALLESS)
 - ▣ SCHOOL
 - ▣ MOSQUE
 - ▣ GOVERNMENT OFFICE
 - ▣ FACTORY
 - ▣ HOSPITAL
 - ▣ RIVER
 - ▣ BRIDGE
 - ▣ ROAD
 - ▣ FENCE (WALL)
 - ▣ FENCE (STEEL)
 - ▣ FENCE (WOOD)
 - ▣ FENCE (WIRE)
 - ▣ REVETMENT
 - ▣ REVETMENT (STONE)
 - ▣ WATER GATE
 - ▣ EARTHY SLOPE
 - ▣ CONCRETE
 - ▣ PARK
 - ELECTRIC TOWER LINE
 - TELEPHONE TOWER
 - ELECTRIC TOWER
 - STATIC WATER



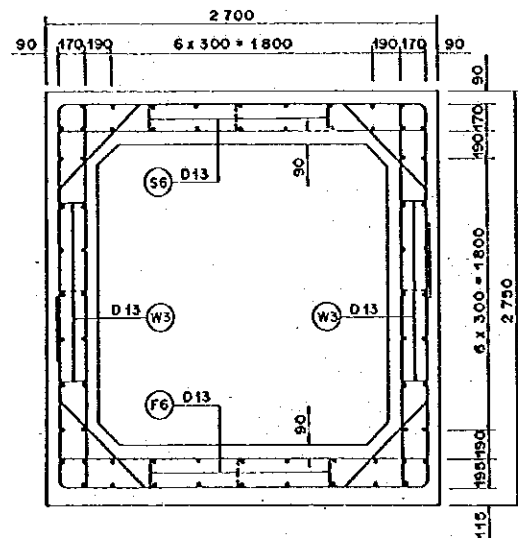
435.980
435.930
435.880

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

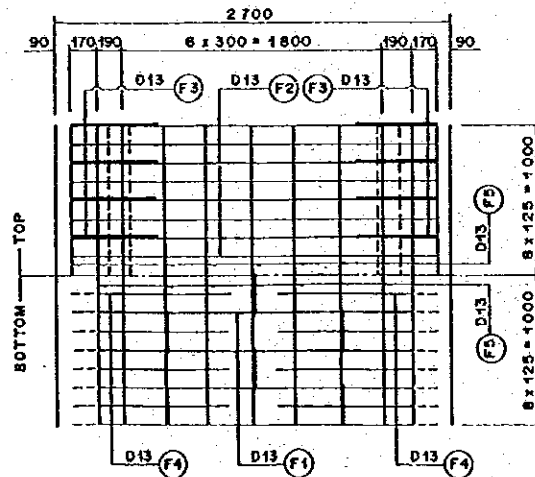
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
JBATUNSELLAMA FLOOD CONTROL PROJECT COMPONENT : URBAN DRAINAGE SYSTEM IMPROVEMENT BANDARHARJO EAST SECONDARY CHANNEL PLAN		PROJECT NAME FLOOD CONTROL URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CCI ENGINEERING CO., LTD. in association with PACIFIC CONSULTANTS INTERNATIONAL AND PABCO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. U-PS-ES-P1-1 SHEET NO. 156 DATE CONTRACT NO.



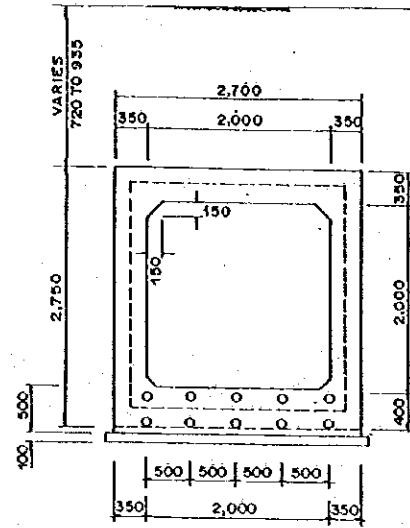
TOP SLAB
SCALE B



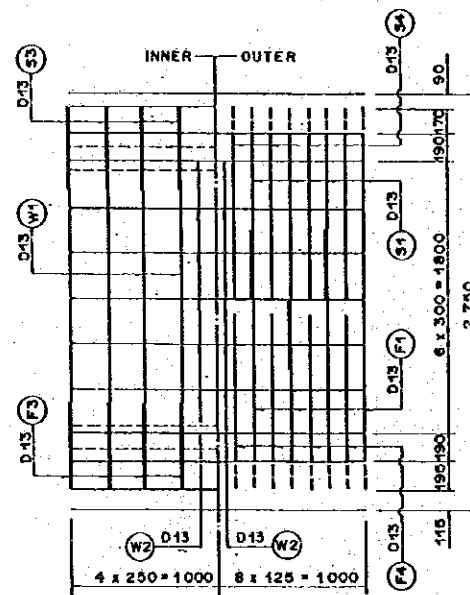
CROSS SECTION
SCALE B



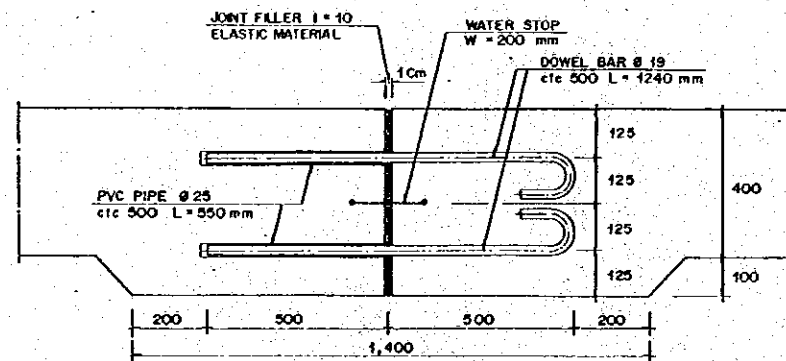
BOTTOM SLAB
SCALE B



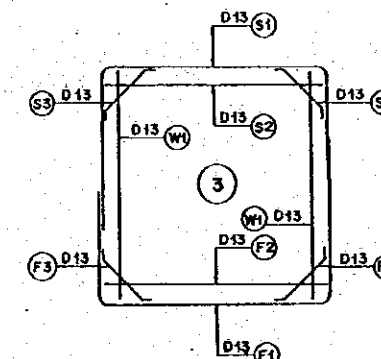
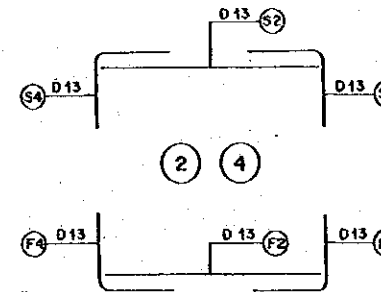
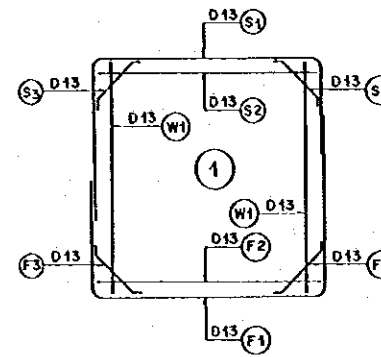
GENERAL CROSS SECTION
SCALE A



SIDE WALL
SCALE B



DETAIL OF JOINTING
SCALE C



BAR LAY OUT
SCALE A

BAR BENDING SCHEDULE

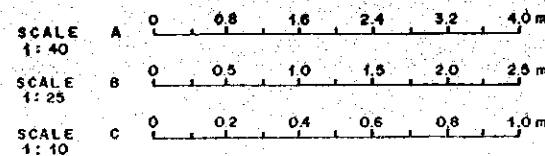
TYPE	SHAPE	DIA	NUMBER	LENGTH (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	H (mm)	R (mm)
S1	5	D13	4	5380	1575	220	2240	1120		140
S2	1	D13	8	2520	2520					
S3	6	D13	8	970	100	768	100		543	
S4	4	D13	8	2300	1116	220	957			140
S5	1	D13	20	1000	1000					
S6	3	D13	6	870	100	196	276			
W1	1	D13	8	2550	2545					
W2	1	D13	28	1000	1000					
W3	2	D13	12	400	100	196	100			
F1	5	D13	4	5430	1145	220	2240	1600		140
F2	1	D13	8	2520	2520					
F3	6	D13	8	1010	100	803	100		568	
F4	4	D13	8	2240	1071	220	941			140
F5	1	D13	20	1000	1000					
F6	3	D13	6	920	100	221	276			

BAR WEIGHT

TYPE	DIA	LENGTH (mm)	NUMBER	WEIGHT PER M (kg/m)	WEIGHT PER BAR (kg)	WEIGHT (kgf)	SHAPE
S1	D13	5380	4	1.040	5.595	22.381	[Diagram]
S2	D13	2520	8	1.040	2.621	20.966	[Diagram]
S3	D13	970	8	1.040	1.009	8.072	[Diagram]
S4	D13	2300	8	1.040	2.392	19.136	[Diagram]
S5	D13	1000	20	1.040	1.040	20.800	[Diagram]
S6	D13	870	6	1.040	0.905	5.429	[Diagram]
W1	D13	2550	8	1.040	2.652	21.216	[Diagram]
W2	D13	1000	28	1.040	1.040	29.120	[Diagram]
W3	D13	400	12	1.040	0.416	4.992	[Diagram]
F1	D13	5430	4	1.040	5.647	22.589	[Diagram]
F2	D13	2520	8	1.040	2.621	20.966	[Diagram]
F3	D13	1010	8	1.040	1.050	8.403	[Diagram]
F4	D13	2240	8	1.040	2.330	18.637	[Diagram]
F5	D13	1000	20	1.040	1.040	20.800	[Diagram]
F6	D13	920	6	1.040	0.937	5.741	[Diagram]

BAR BENDING DETAIL

DIA	a	b	l	r	OVERLAP	
					L	WEIGHT (kgf)
D13	66	156	222	42	455	0.473
D16	75	193	268	48	560	0.885
D19	94	236	330	60	665	1.483
D22	104	272	376	66	770	2.295
D25	122	306	428	78	875	3.369
D29	141	349	490	90	1015	5.268
D32	151	385	536	96	1120	7.067



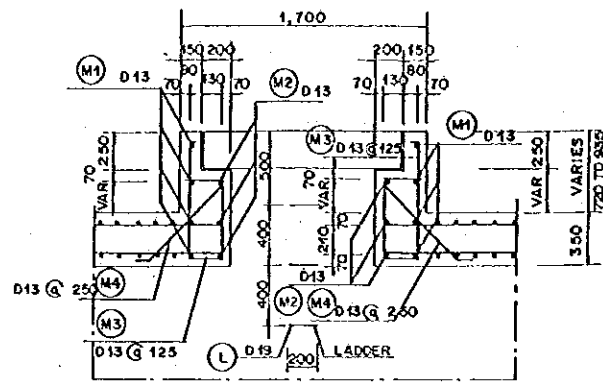
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA
 MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT
 JAWA BARAT FLOOD CONTROL PROJECT
 COMPONENT : URBAN DRAINAGE SYSTEM IMPROVEMENT
BANDARHARJO EAST SECONDARY CHANNEL REINFORCING BAR ARRANGEMENT

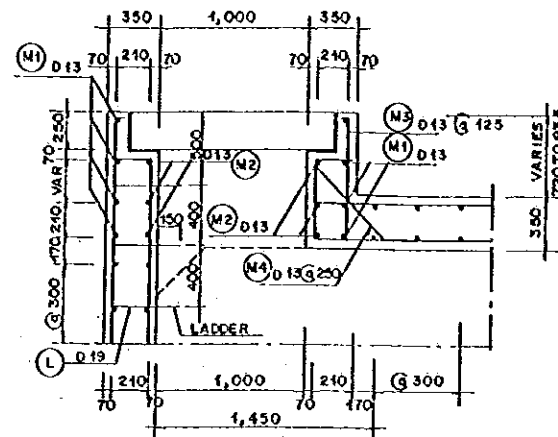
PROVINCE: CENTRAL JAVA
 PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
 DISTRICT: SEMARANG CITY
 DRAWING NO. U-P3-ES-CI-4
 SHEET NO. 158

DATE: _____ CONTRACT NO. _____

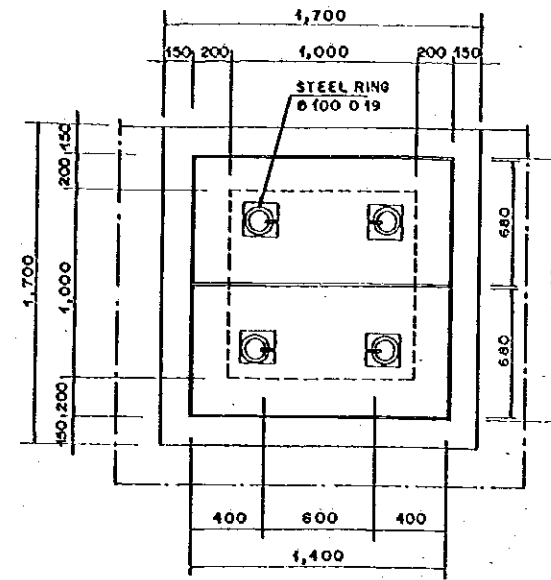
DESIGNED: [Signature]
 CHECKED: [Signature]
 PROJECT MANAGER: [Signature]



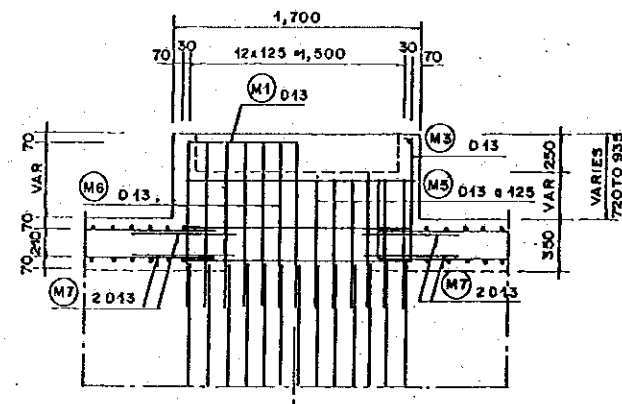
SECTION A-A
SCALE B



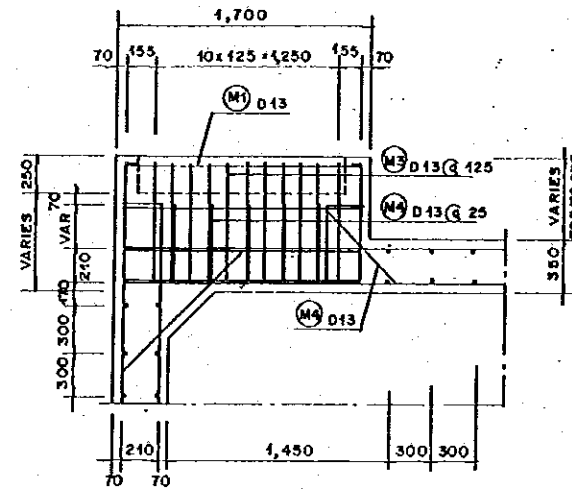
SECTION C-C
SCALE B



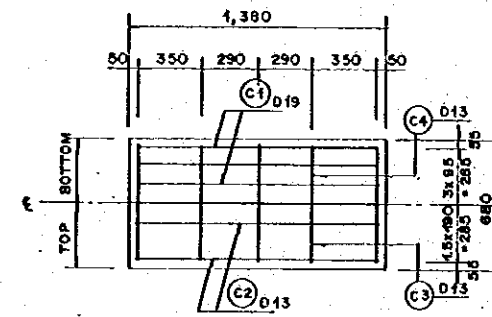
DETAIL OF COVER
SCALE C



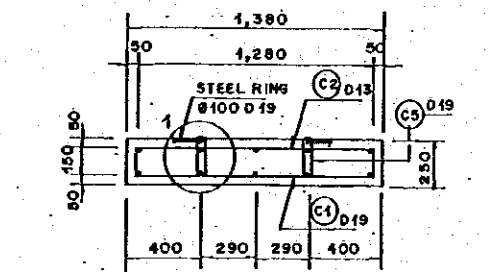
SECTION B-B
SCALE B



SECTION D-D
SCALE B



BAR ARRANGEMENT
OF COVER
SCALE C



SECTION G-G
SCALE C

BAR BENDING SCHEDULE

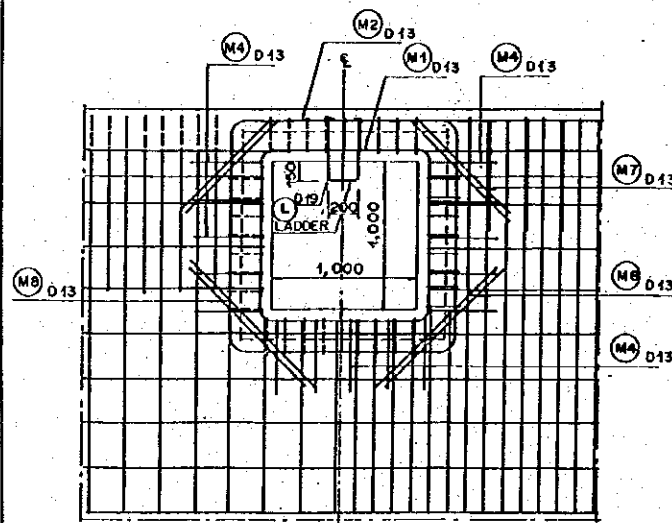
TYPE	SHAPE	DIA	NUMBER	LENGTH (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	H (mm)	R (mm)
M1	3	13	4	6,000	1,254	220	50			40
M2	3	13	3	4,650	1,026	110	50			70
M3	5	13	33	1,510	210	396	250	50		
M4	4	13	15	1,260	100	1,058	100		748	
M5	7	13	13	1,095	853	240				
M6	7	13	13	1,210	1,160	50				
M7	1	13	4	875	875					
M8	1	13	4	1,200	1,200					
C1	2	19	7	1,780	100	150	1,280			
C2	1	13	4	1,320	1,320					
C3	1	13	5	610	610					
C4	2	13	5	610	610					
C5	6	19	2	770	200	188	120	30		60
L	2	19	7	1,150	50	426	200			

BAR WEIGHT

TYPE	DIA	LENGTH (mm)	NUMBER	WEIGHT/M (Kg/m)	WEIGHT/BAR (Kgf)	WEIGHT (Kgf)	SHAPE
M1	13	6,000	4	1.040	6.240	24.960	3
M2	13	4,650	3	1.040	4.836	14.508	3
M3	13	1,510	33	1.040	1.570	51.823	5
M4	13	1,260	15	1.040	1.310	49.656	4
M5	13	1,095	13	1.040	1.139	14.804	7
M6	13	1,210	13	1.040	1.258	16.359	7
M7	13	875	4	1.040	0.910	3.640	1
M8	13	1,200	4	1.040	1.248	4.992	1
C1	19	1,780	7	2.230	3.969	27.786	2
C2	13	1,320	4	1.040	1.373	5.491	1
C3	13	610	5	1.040	0.634	3.172	1
C4	13	610	5	1.040	0.634	3.172	2
C5	19	770	2	2.230	1.717	3.434	6
L	19	1,150	7	2.230	2.565	17.953	2

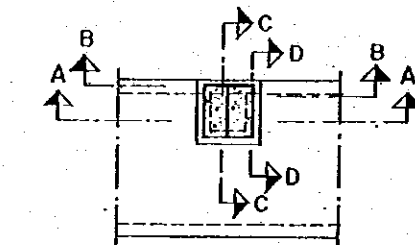
BAR BENDING DETAIL

DIA	a	b	l	R	OVERLAP	
					L	WEIGHT (Kg)
Ø13	66	156	222	42	455	0.473
Ø16	75	193	268	48	560	0.885
Ø19	94	236	330	60	665	1.483

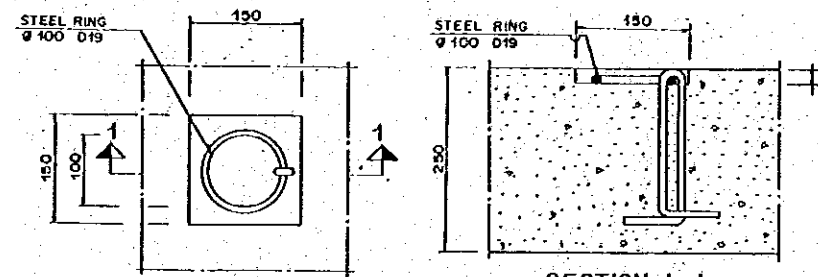


SECTION E-E
SCALE B

SECTION F-F
SCALE B



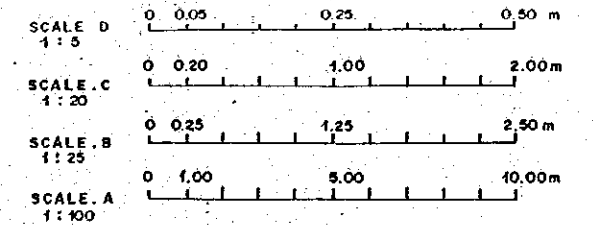
KEY PLAN
SCALE A



PLAN

SECTION 1-1

DETAIL 1
SCALE D



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

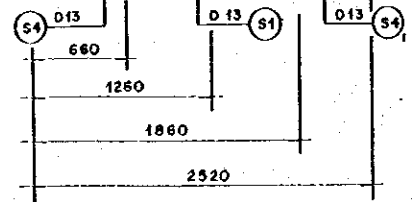
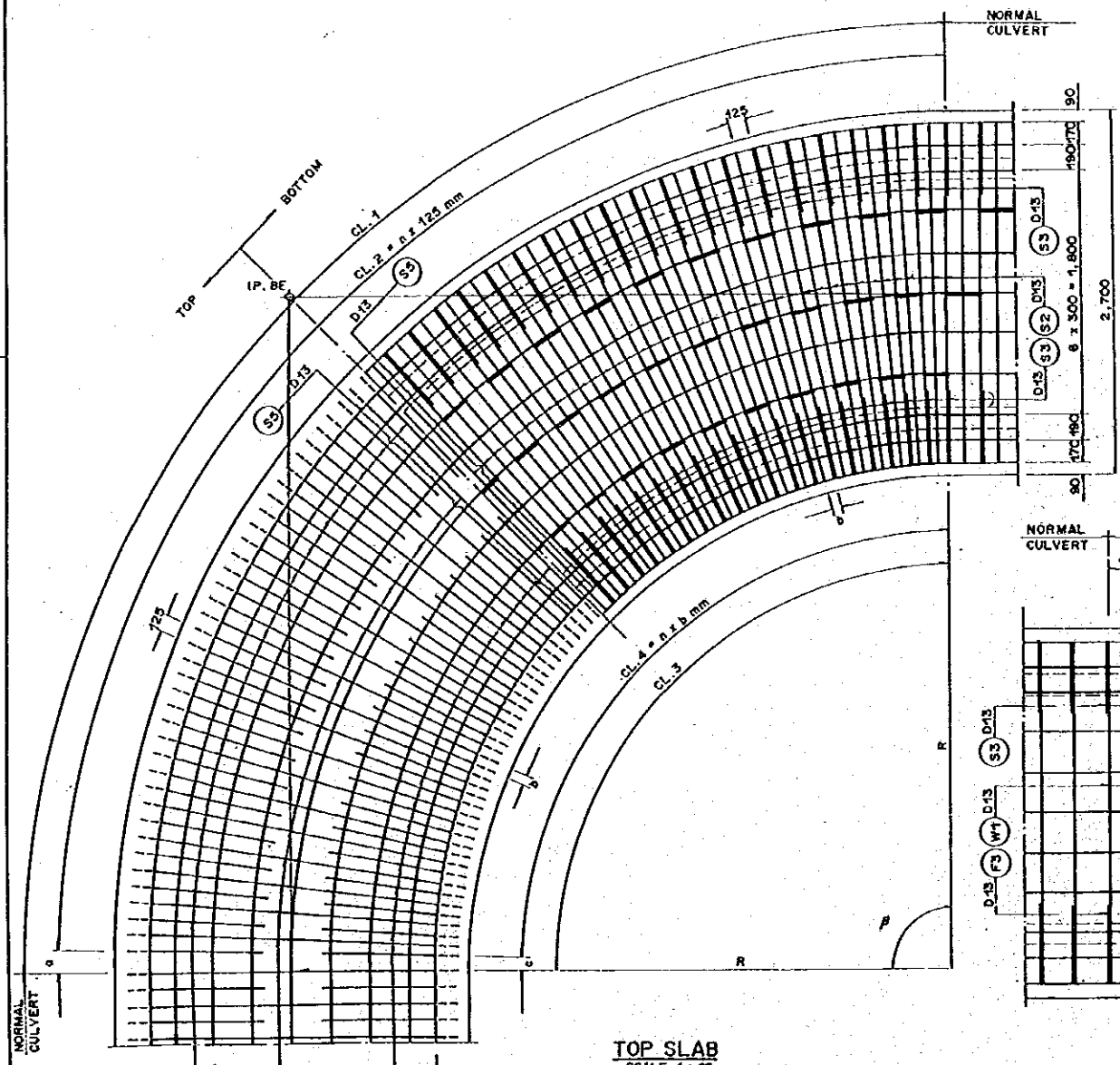
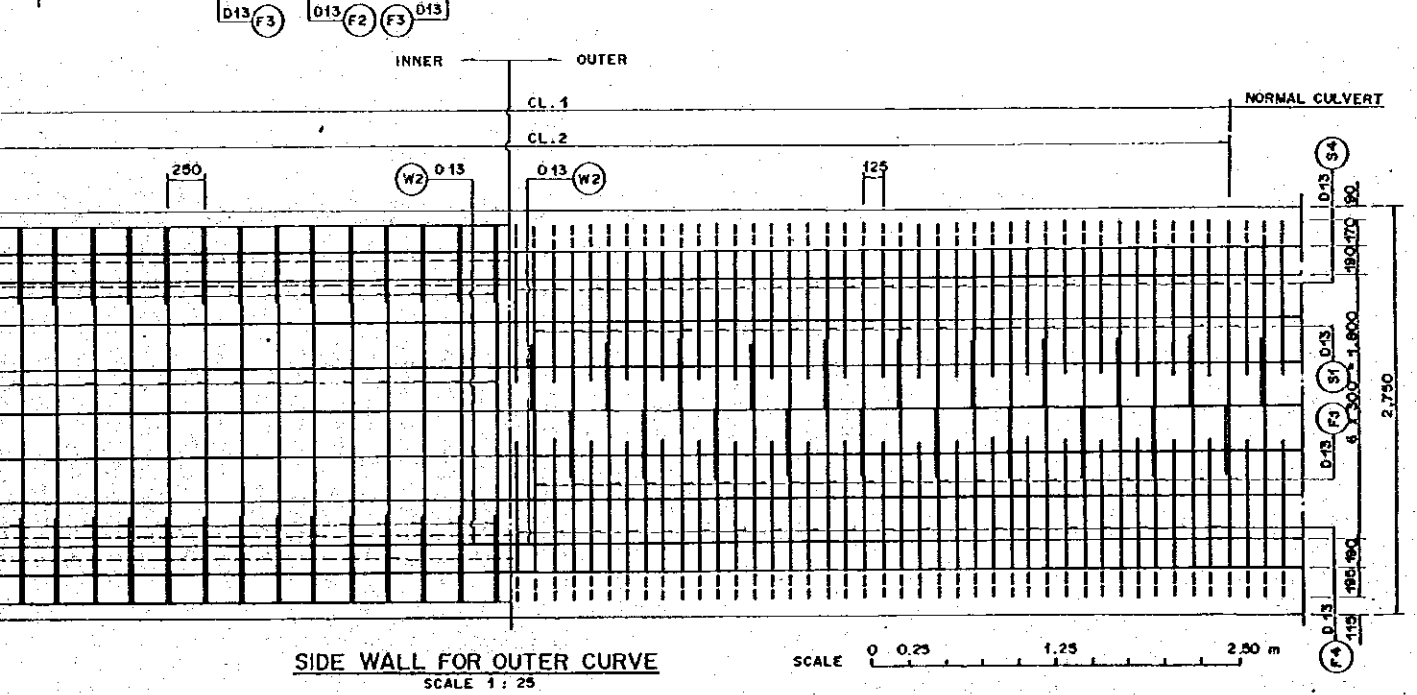
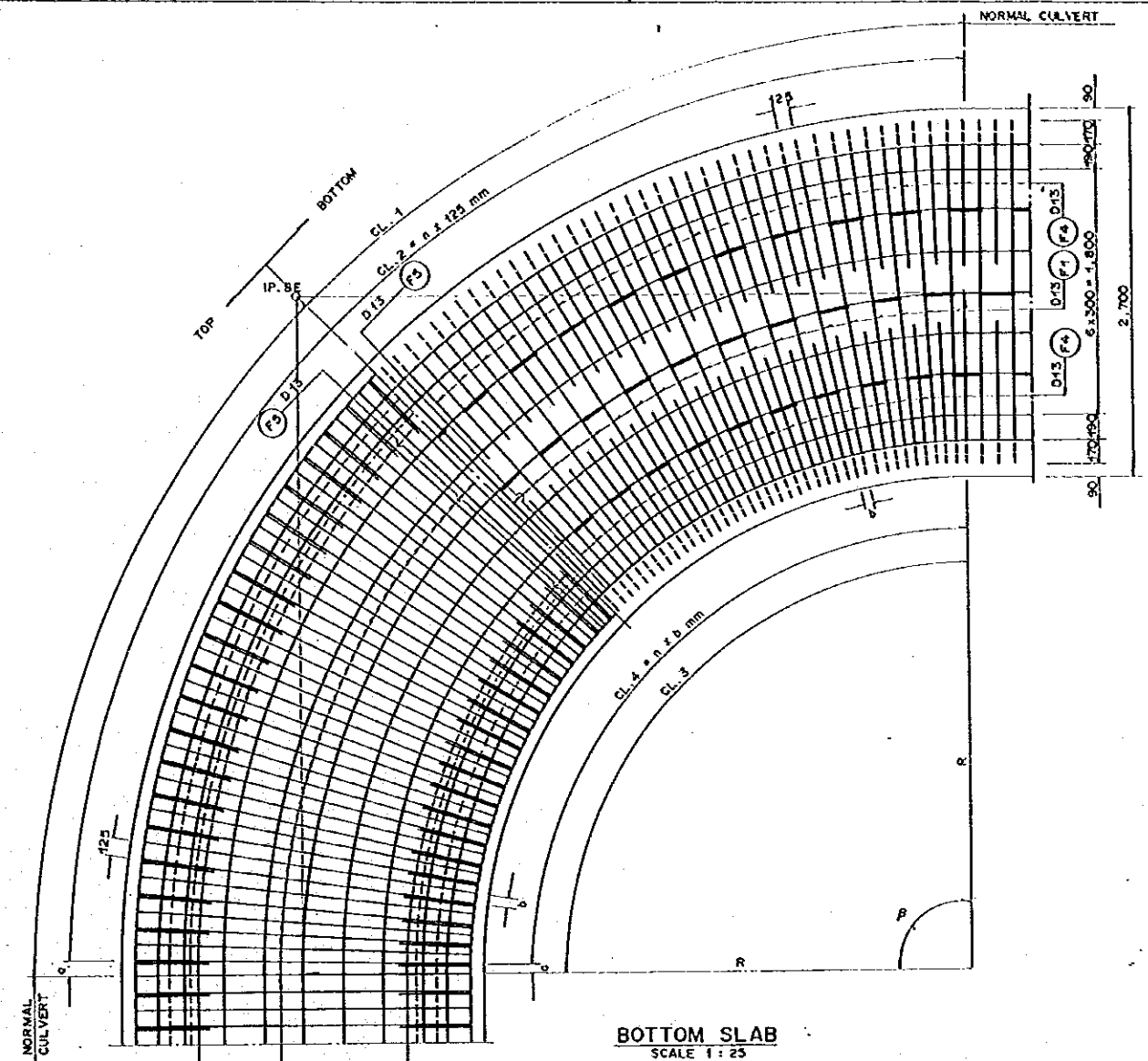
BRATUNGSILANA FLOOD CONTROL PROJECT
COMPONENT : URBAN DRAINAGE SYSTEM IMPROVEMENT
BANDARHARJO EAST SECONDARY CHANNEL
MANHOLE TYPE A
REINFORCING BAR ARRANGEMENT

PROVINCE: CENTRAL JAVA
CITY: SEMARANG CITY
DRAWING NO. U-PS-ES-CI-2
SHEET NO. 159

DESIGNED: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]
PROJECT MANAGER

TABLE OF DIMENSION OF BANDARHARJO EAST SECONDARY CHANNEL FOR REINFORCING BAR ARRANGEMENT IN CURVE PORTION

IP	NORTH (m)	EAST (m)	β	R (m)	CL. 1 (mm)	n	CL. 2 (mm)	a (mm)	CL. 3 (mm)	b (mm)	CL. 4 (mm)	c (mm)
IP. BE. 1	9,230,970	436,006	94°30'00"	7.50	14,448	114	14,250	198	10,292	89	10,146	146
IP. BE. 2	9,230,868.5	436,036	90°00'00"	5.00	9,833	77	9,625	208	5,875	75	5,775	100

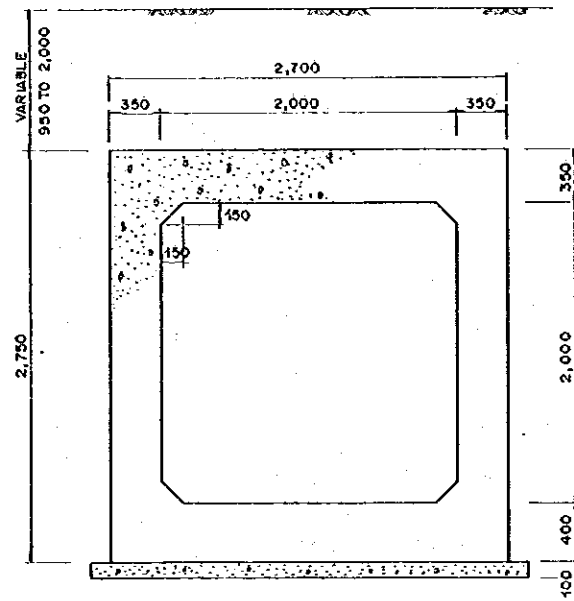


THE REPUBLIC OF INDONESIA
 MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
 AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT
 IRATUNSELUNA FLOOD CONTROL PROJECT
 COMPONENT: URBAN DRAINAGE SYSTEM IMPROVEMENT
BANDARHARJO EAST SECONDARY CHANNEL
CURVE STRUCTURE
REINFORCING BAR ARRANGEMENT (1/3)
 JAPAN INTERNATIONAL COOPERATION AGENCY
 CITY ENGINEERING CO. LTD. IN ASSOCIATION WITH
 PACIFIC CONSULTANTS INTERNATIONAL INC.
 TAIKO INTERNATIONAL INC.

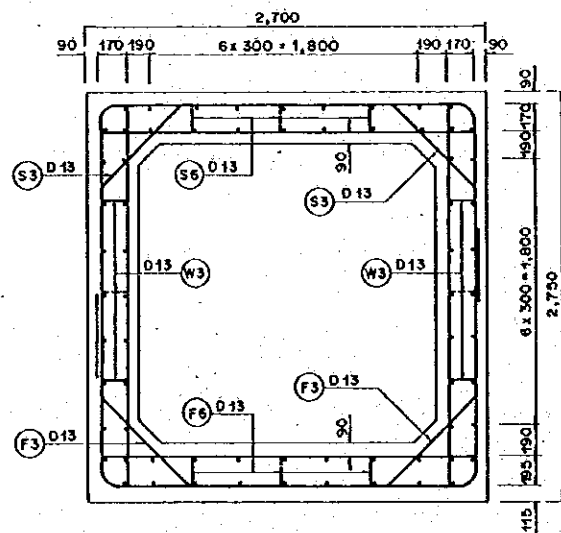
PROVINCE: **CENTRAL JAWA**
 PROJECT NAME: **FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA**
 DISTRICT: **SEMARANG CITY**
 DRAWING NO.: **U-P9-E9-C1-6**
 SHEET NO.: **160**
 DATE: _____ CONTRACT NO.: _____

DESIGNED: _____
 CHECKED: _____
 CREDIT OF PLANNING AND DESIGN: _____
 PROJECT MANAGER: _____

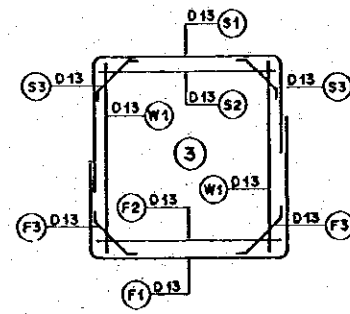
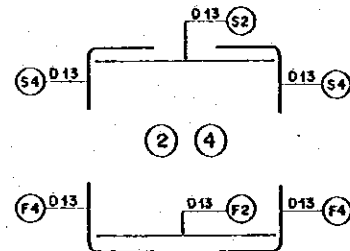
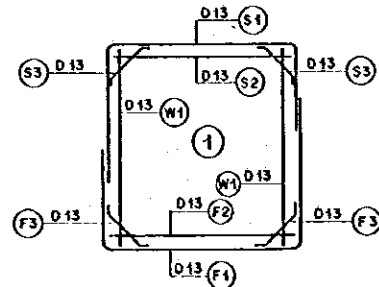
NO.	DATE	REVISIONS	COORDINATED	DESIGNED	APPROVED	ATTACHED



GENERAL CROSS SECTION
SCALE A



CROSS SECTION
SCALE A



BAR LAY OUT

BAR BENDING SCHEDULE FOR IP.BE.1

TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S1	5	0 13	58	5380	1575	220	2240	1120		140
S2	1	0 13	115	2520	2520					
S3	6	0 13	115	970	100	68	100		543	
S4	4	0 13	115	2290	1116	220	957			140
FS.1/SS.1	1	0 13	2	14450	14448					
FS.2/SS.2	1	0 13	4	14170	14168					
FS.3/SS.3	1	0 13	4	13860	13854					
FS.4/SS.4	1	0 13	4	13360	13360					
FS.5/SS.5	1	0 13	4	12870	12865					
FS.6/SS.6	1	0 13	4	12370	12370					
FS.7/SS.7	1	0 13	4	11880	11875					
FS.8/SS.8	1	0 13	4	11380	11380					
FS.9/SS.9	1	0 13	4	10890	10886					
FS.10/SS.10	1	0 13	4	10370	10372					
FS.11/SS.11	1	0 13	2	10290	10292					
SS.1	3	0 13	29	880	100	196	258			
SS.2	3	0 13	29	860	100	196	240			
SS.3	3	0 13	29	840	100	196	223			
W1	1	0 13	115	2570	2571					
W2.1	1	0 13	7	14450	14448					
W2.2	1	0 13	7	14170	14168					
W2.3	1	0 13	7	10570	10572					
W2.4	1	0 13	7	10290	10292					
W3	2	0 13	173	400	100	196	100			
F1	5	0 13	58	5430	1145	220	2240	1600		140
F2	1	0 13	115	2520	2520					
F3	6	0 13	115	1010	100	803	100		568	
F4	4	0 13	115	2240	1074	220	941			140
FB.1	3	0 13	29	900	100	221	258			
FB.2	3	0 13	29	880	100	221	240			
FB.3	3	0 13	29	870	100	221	223			

BAR WEIGHT FOR IP.BE.1

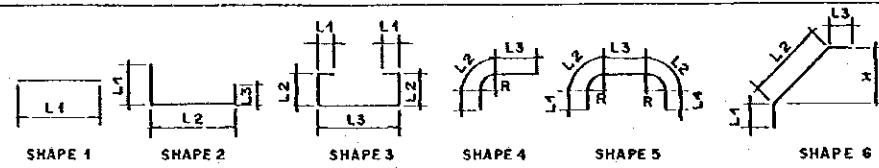
TYPE	DIA	LENGTH	NUMBER	WEIGHT PER m (kg/m)	WEIGHT PER BAR (kg/m)	WEIGHT (kg)	SHAPE
S1	0 13	5380	58	1.040	5.595	324.522	5
S2	0 13	2520	115	1.040	2.621	301.392	1
S3	0 13	970	115	1.040	1.009	116.021	6
S4	0 13	2290	115	1.040	2.362	273.884	4
FS.1/SS.1	0 13	14450	2	1.040	15.028	30.056	1
FS.2/SS.2	0 13	14170	4	1.040	14.736	58.947	1
FS.3/SS.3	0 13	13860	4	1.040	14.444	57.658	1
FS.4/SS.4	0 13	13360	4	1.040	13.894	55.577	1
FS.5/SS.5	0 13	12870	4	1.040	13.385	53.539	1
FS.6/SS.6	0 13	12370	4	1.040	12.865	51.459	1
FS.7/SS.7	0 13	11880	4	1.040	12.355	49.421	1
FS.8/SS.8	0 13	11380	4	1.040	11.835	47.341	1
FS.9/SS.9	0 13	10890	4	1.040	11.326	45.302	1
FS.10/SS.10	0 13	10370	4	1.040	10.993	43.971	1
FS.11/SS.11	0 13	10290	2	1.040	10.702	21.403	1
SS.1	0 13	880	29	1.040	0.915	26.541	3
SS.2	0 13	860	29	1.040	0.894	25.938	3
SS.3	0 13	840	29	1.040	0.874	25.334	3
W1	0 13	2570	115	1.040	2.673	307.372	1
W2.1	0 13	14450	7	1.040	15.028	105.196	1
W2.2	0 13	14170	7	1.040	14.737	103.158	1
W2.3	0 13	10570	7	1.040	10.993	76.950	1
W2.4	0 13	10290	7	1.040	10.702	74.911	1
W3	0 13	400	173	1.040	0.416	71.968	2
F1	0 13	5430	58	1.040	5.647	327.558	1
F2	0 13	2520	115	1.040	2.621	301.392	1
F3	0 13	1010	115	1.040	1.050	120.796	1
F4	0 13	2240	115	1.040	2.330	267.904	1
FB.1	0 13	900	29	1.040	0.936	27.144	3
FB.2	0 13	880	29	1.040	0.915	26.541	3
FB.3	0 13	870	29	1.040	0.905	26.239	3

BAR BENDING DETAIL

DIA	a	b	f	R	OVERLAP	
					L	WEIGHT (kg)
0 13	66	156	222	42	455	0.473
0 16	75	193	268	48	560	0.85
0 19	94	236	330	60	665	1.463
0 22	104	272	376	66	770	2.295
0 25	122	306	428	78	875	3.369

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT				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. U-PS-ES-CI-6 SHEET NO. 161	
BANDARHARJO EAST SECONDARY CHANNEL CURVE STRUCTURE REINFORCING BAR ARRANGEMENT (2/3)				DATE: _____ CONTRACT NO.: _____	
JAPAN INTERNATIONAL COOPERATION AGENCY CITI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL AND PACIFIC INTERNATIONAL INC.				DESIGNED: _____ CHECKED: _____ CHIEF OF PLANNING AND DESIGN: _____ PROJECT MANAGER: _____	
NO.	DATE	REVISIONS	CREATED	DESIGNED	APPROVED

BAR BENDING SCHEDULE FOR IP BE 2



TYPE	SHAPE	DIA	NUMBER	LENGTH	L1	L2	L3	L4	H	R
S1	5	013	38	5380	1575	220	2240	1120		140
S2	1	013	78	2520	2520					
S3	6	013	78	970	400	768	100		543	
S4	4	013	78	2290	1115	220	997			140
F5.1/S5.1	1	013	2	9830	9833					
F5.2/S5.2	1	013	4	9570	9566					
F5.3/S5.3	1	013	4	9270	9268					
F5.4/S5.4	1	013	4	8800	8796					
F5.5/S5.5	1	013	4	8330	8325					
F5.6/S5.6	1	013	4	7850	7854					
F5.7/S5.7	1	013	4	7380	7383					
F5.8/S5.8	1	013	4	6910	6912					
F5.9/S5.9	1	013	4	6440	6440					
F5.10/S5.10	1	013	4	6140	6142					
F5.11/S5.11	1	013	2	5880	5875					
S6.1	3	013	20	840	100	196	250			
S6.2	3	013	20	820	100	196	226			
S6.3	3	013	20	790	100	196	202			
W1	4	013	78	2570	2571					
W2.1	1	013	7	9830	9833					
W2.2	1	013	7	9570	9566					
W2.3	1	013	7	6140	6142					
W2.4	1	013	7	5880	5875					
W3	2	013	118	400	100	196	100			
F1	5	013	38	5430	1140	220	2240	1600		140
F2	1	013	78	2520	2520					
F3	6	013	78	1010	100	803	100		568	
F4	4	013	78	2240	1071	220	941			140
F6.1	3	013	20	890	100	221	250			
F6.2	3	013	20	870	100	221	226			
F6.3	3	013	20	840	100	221	202			

BAR WEIGHT FOR IP BE 2

TYPE	DIA	LENGTH	NUMBER	WEIGHT PER m (kg/m)	WEIGHT PER BAR (kg/m)	WEIGHT (kg)	SHAPE
S1	013	5380	38	1.040	5.595	212.618	5
S2	013	2520	78	1.040	2.621	204.422	1
S3	013	970	78	1.040	1.009	78.686	6
S4	013	2290	78	1.040	2.392	185.765	4
F5.1/S5.1	013	9830	2	1.040	10.223	20.446	1
F5.2/S5.2	013	9570	4	1.040	9.953	39.811	1
F5.3/S5.3	013	9270	4	1.040	9.641	38.563	1
F5.4/S5.4	013	8800	4	1.040	9.152	36.608	1
F5.5/S5.5	013	8330	4	1.040	8.663	34.652	1
F5.6/S5.6	013	7850	4	1.040	8.164	32.656	1
F5.7/S5.7	013	7380	4	1.040	7.675	30.701	1
F5.8/S5.8	013	6910	4	1.040	7.186	28.745	1
F5.9/S5.9	013	6440	4	1.040	6.698	26.790	1
F5.10/S5.10	013	6140	4	1.040	6.386	25.542	1
F5.11/S5.11	013	5880	2	1.040	6.115	12.230	1
S6.1	013	840	20	1.040	0.874	17.472	3
S6.2	013	820	20	1.040	0.853	17.056	3
S6.3	013	790	20	1.040	0.822	16.432	3
W1	013	2570	78	1.040	2.673	208.478	1
W2.1	013	9830	7	1.040	10.223	71.562	1
W2.2	013	9570	7	1.040	9.953	69.670	1
W2.3	013	6140	7	1.040	6.386	44.699	1
W2.4	013	5880	7	1.040	6.115	42.806	1
W3	013	400	118	1.040	0.416	49.088	2
F1	013	5430	38	1.040	5.647	214.994	5
F2	013	2520	78	1.040	2.621	204.422	1
F3	013	1010	78	1.040	1.050	81.931	6
F4	013	2240	78	1.040	2.330	181.708	4
F6.1	013	890	20	1.040	0.926	18.512	3
F6.2	013	870	20	1.040	0.905	18.096	3
F6.3	013	840	20	1.040	0.874	17.472	3

BAR BENDING DETAIL

DIA	a	b	l	R	OVERLAP	
					L	WEIGHT (kg)
013	66	166	222	42	455	0.473
016	75	193	268	48	560	0.65
019	94	236	330	60	665	1.483
022	104	272	378	66	770	2.295
025	122	306	428	78	875	3.569

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT				PROVINCE CENTRAL JAVA	
BANDAR HARJO EAST SECONDARY CHANNEL CURVE STRUCTURE REINFORCING BAR ARRANGEMENT (3/3)				PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG BY THE REPUBLIC OF INDONESIA	
SUBARANG CITY				DISTRICT	
DRAWING NO. U-P8-01-7				SHEET NO. 162	
DATE				CONTRACT NO.	
APPROVED: <i>[Signature]</i> PROJECT MANAGER				CHECKED: <i>[Signature]</i> DATE OF PLACING AND DESIGN	
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED



JICA