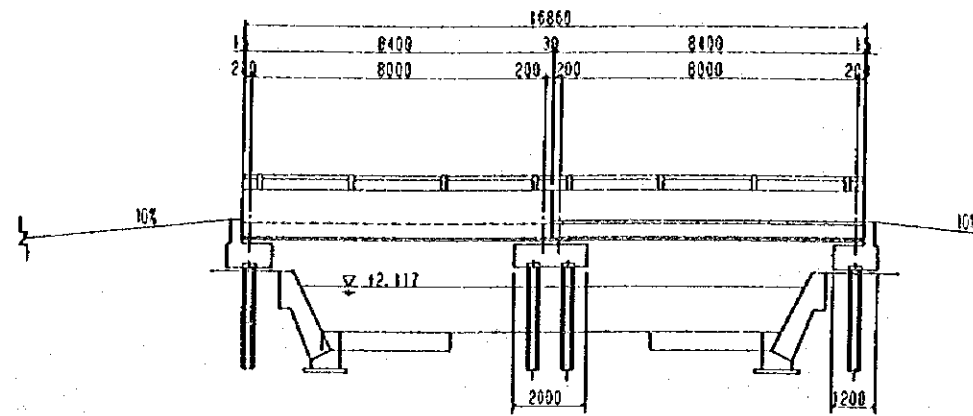
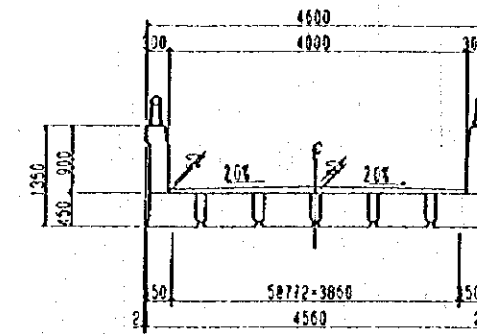


SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	SRL=17.144		1.5% 8.75		VCL=16.830		1.5% 8.75		SRL=17.144
PROPOSED HEIGHT	(3.059) 3.000 (3.003)		2.230		0.000 0.000 (3.120)		2.230		(3.003) 3.000 (3.059)
GROUND HEIGHT	2.300		2.230		0.000		2.230		2.340
ALONG-AXIS DISTANCE	25.559		8.215		0.000		8.215		25.559
SHORT-DISTANCE	17.144		8.209		0.000		8.209		17.144
STATION									
PLANE CURVE					R=*				

Note: Figures in () are applicable to the initial stage construction

DESIGN CONDITION

BRIDGE NAME	BKE9(KE10-1)
LIVE LOAD	BM 70
GIRDER LENGTH	8.40 m
SPAN LENGTH	8.00 m
WIDTH	4.60 m
BRIDGE ANGLE	90°

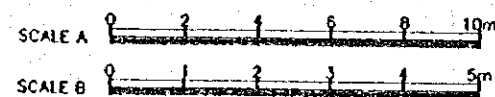
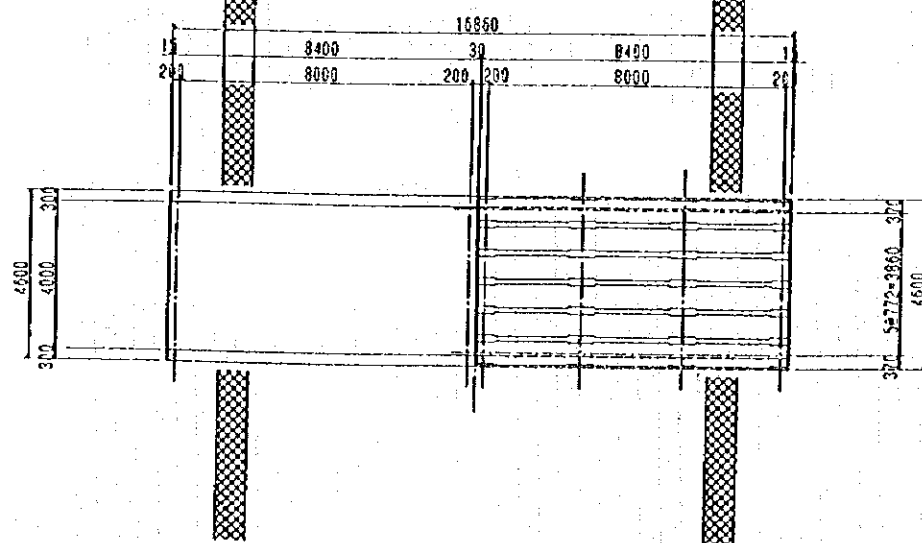
REACTION

	ABUTMENT(1)	PIER(1)
DEAD LOAD	30.8	61.6
LIVE LOAD	20.0	20.0
TOTAL	50.8	81.6

MATERIAL TABLE

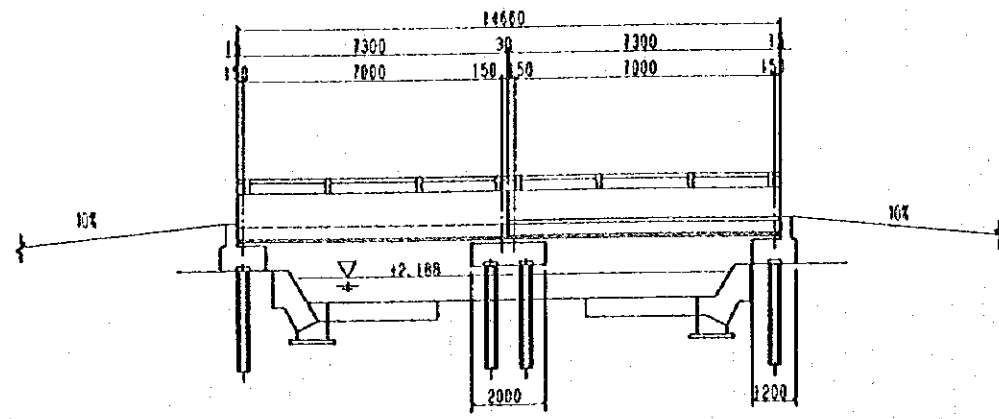
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	12	BM70-02
	CONCRETE DESIGN STRENGTH	m ³	4.8	
FORMING	FORM	m ²	9.0	ROADWAY
	PAVEMENT	m ²	67.2	
MISCELLANEOUS	PAVEMENT	m ²	---	SIDE WALK
	SUB-CONCRETE	m ³	---	
	SIDE BLOCK	m	---	GUARD RAIL
	FILLING MORTAR	m ³	---	
	CONCRETE	m ³	7.6	DRAINAGE
	FORM	m ²	63.1	
RE-BAR	tf	0.358	EXPANSION	
STEEL-RAILING	m	33.6		
CROSS GIRDER	NUMBER	m	8	PC-TENDON
	LENGTH	m	13.8	
	TOTAL LENGTH	m	24	SHEATH
	TOTAL WEIGHT	tf	4.440	
	SHEATH	m	106.560	GROUT
GROUT	m	0.176		
		m	26.6	
		m	106.6	

PLAN SCALE A

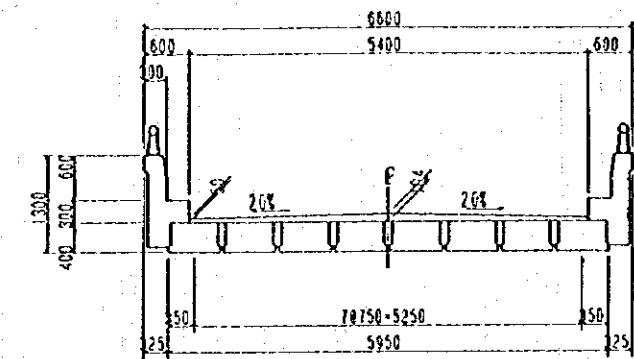


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING GENERAL PLAN OF BRIDGE BKE9(KE10-1)	APPROVED
CHECKED.....		DWG NO J-70-10-209	DATE
SUBMITTED.....			
DATE.....			
REFERENCE	D.NO		

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT					SRL=22 900
PROPOSED HEIGHT	2.020	(2.988) 3.835 (2.992)	2.140 3.000 (2.050)	(2.987) 3.835 (2.998)	
GROUND HEIGHT	2.01	2.140	2.140	2.140	2.250
ACCUMULATED DISTANCE	30.215	7.363	0.000	7.315	
SHORT DISTANCE	22.900	9.188	0.000	7.158	
STATION					
PLANE CURVE	R=∞				

Note Figures in () are applicable to the initial stage construction

DESIGN CONDITION

BRIDGE NAME	BKE10(KE12)
LIVE LOAD	BM 70
GIRDER LENGTH	7.30 m
SPAN LENGTH	7.00 m
WIDTH	6.60 m
BRIDGE ANGLE	90°

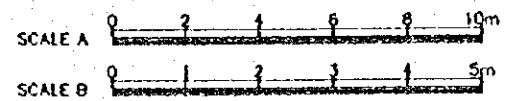
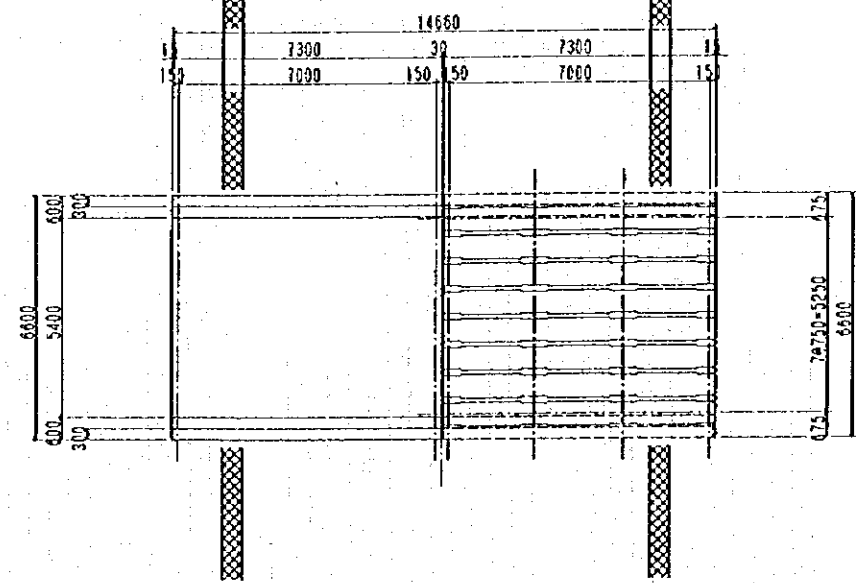
REACTION

	ABUTMENT(1)	PIER(1)
DEAD LOAD	30.9	61.9
LIVE LOAD	40.0	40.0
TOTAL	70.9	101.9

MATERIAL TABLE

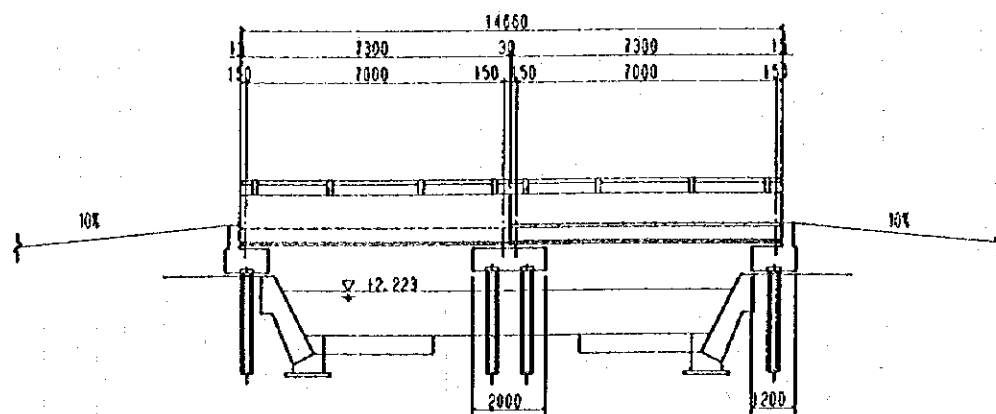
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION	
MAIN GIRDER	NUMBER	no	16	BM70-01	
	CONCRETE DESIGN STRENGTH	m ³	4.4		
FORMING	FORM	m ²	8.7		
	ROADWAY PAVEMENT	m ²	78.8		
MISCELLANEOUS	ROADWAY PAVEMENT	m ²	---		
	SIDE WALK SUB-CONCRETE	m ²	---		
	SIDE WALK SIDE BLOCK	m	---		
	SIDE WALK FILLING MORTAR	m ³	---		
	GUARD RAIL	CONCRETE	m ³		12.2
		FORM	m ²		74.3
		RE-BAR	lt	0.573	
GUARD RAIL STEEL-RAILING	m	29.2			
DRAINAGE	NUMBER		8		
EXPANSION	m		19.8		
CROSS GIRDER	NUMBER		24		
	PC-TENDON LENGTH	m	5.830		
	PC-TENDON TOTAL LENGTH	m	139.920		
	PC-TENDON TOTAL WEIGHT	lt	0.231		
	SHEATH	m	33.6		
GROUT	m		139.9		

PLAN SCALE A

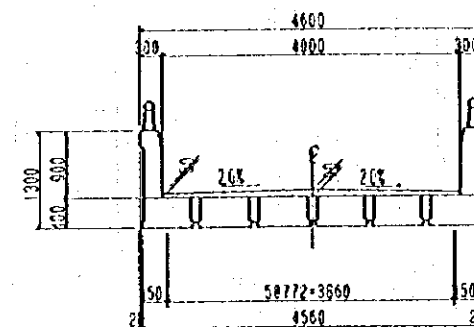


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BKE10(KE12)	
SUBMITTED.....		DWG NO	DATE
DATE.....		J-70-10-210	
REFERENCE	NO		

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	STL=22900	10% 15% 18.000	15% 15% VOL=14640	15% 10% 7.170	STL=22900
PROPOSED HEIGHT	2.020	(3.017) 2.837 (3.017)	(3.017) 2.837 (3.017)	(3.017) 2.837 (3.017)	
GROUND HEIGHT	2.01	2.140	2.094	2.140	2.250
ACCUMULATED DISTANCE	30.215	7.763	0.000	7.395	
SHORT DISTANCE	22.900	0.180	0.000	0.180	
STATION					
PLANE CURVE		R=∞			

Note: Figures in () are applicable to the initial stage construction

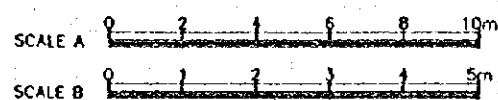
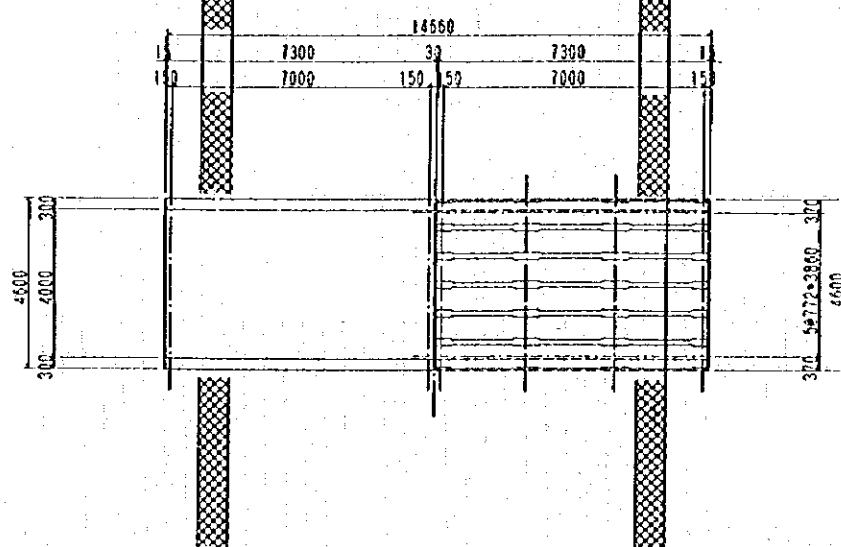
DESIGN CONDITION REACTION

BRIDGE NAME	BKE11(KE14)	ABUTMENT(II)	PIER(II)
LIVE LOAD	BM 70	30.8	61.6
GIRDER LENGTH	7.30 m	20.0	20.0
SPAN LENGTH	7.00 m	TOTAL	50.8
WIDTH	4.50 m		81.6
BRIDGE ANGLE	90°		

MATERIAL TABLE

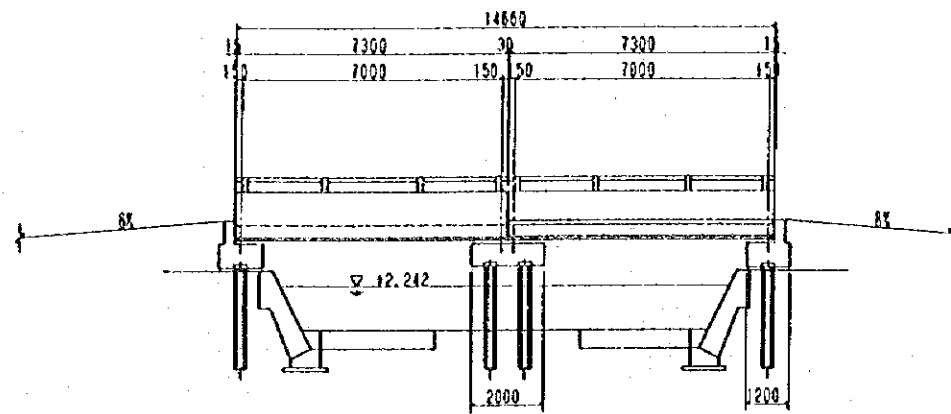
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION	
MAIN ORDER	CONCRETE	no	12	BM70-02	
	DESIGN STRENGTH	m ³	4.8		
FORMING	FORM	m ²	9.0		
	ROADWAY	PAVEMENT	m ²		67.2
MISCEL-LANEOUS	PAVEMENT	m ²	---		
	SUB-CONCRETE	m ²	---		
	SIDE WALK	SIDE BLOCK	m		---
	FILLING MORTAR	m ³	---		
	CONCRETE	m ³	7.6		
	FORM	m ²	63.1		
	RE-BAR	tf	0.358		
GUARD RAIL	STEEL-RAILING	m	33.6		
	DRAINAGE	NUMBER	8		
EXPANSION	m	13.8			
GROSS ORDER	NUMBER		24		
	LENGTH	m	4.440		
	TOTAL LENGTH	m	106.560		
	TOTAL WEIGHT	tf	0.176		
	SHEATH	m	26.6		
GROUT	m	106.6			

PLAN SCALE A

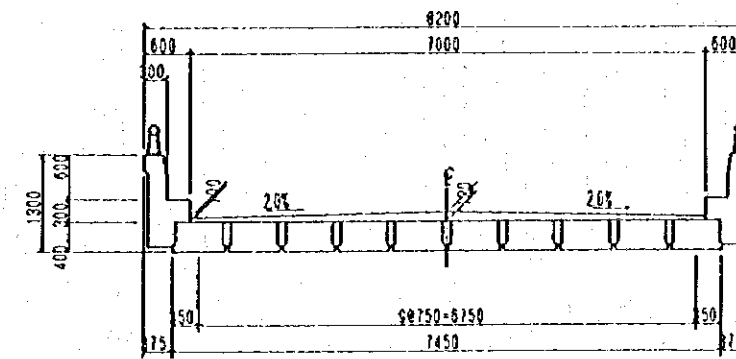


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BKE11(KE14)	DATE
SUBMITTED.....		DWG NO	
DATE.....		J-70-10-211	
REFERENCE (3.00)			

SIDE VIEW SCALE A



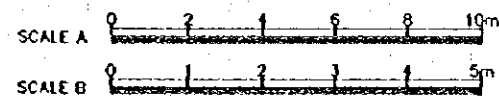
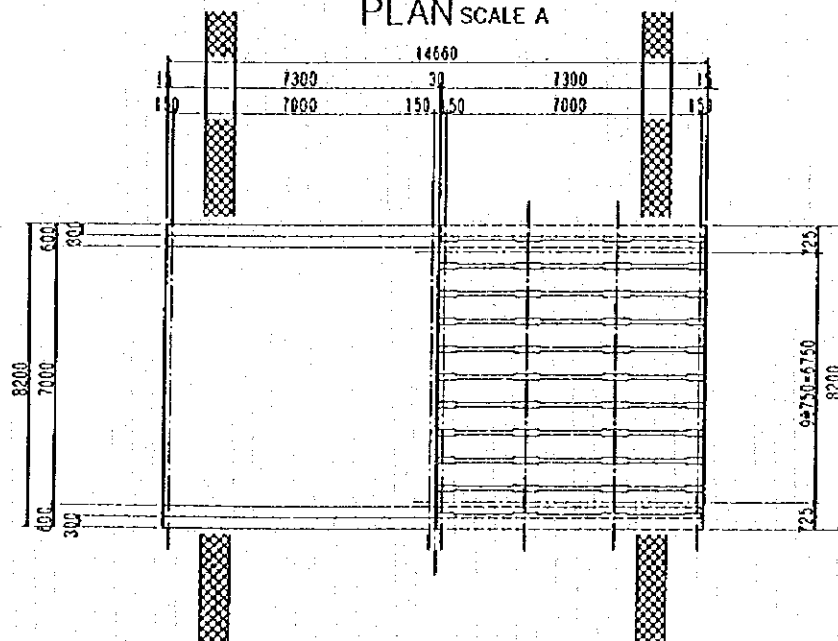
CROSS SECTION SCALE B



GRADIENT	15% 7.165		VOL=14640		15% 7.165		
PROPOSED HEIGHT	1.418	2.066	(3.074) 3.818	(3.970) (3.130)	(3.078) 3.818	(3.074) (3.078)	1.418
GROUND HEIGHT	1.800		1.950	+1.072	1.950	1.800	
ACCUMULATED DISTANCE	38.315	22.913	7.163	0.000	7.163	38.315	
SHORT DISTANCE	15.000	15.000	9.163	0.000	9.163	15.000	
STATION							
PLANE CURVE	R=∞						

Note: Figures in () are applicable to the initial stage construction

PLAN SCALE A



DESIGN CONDITION REACTION

BRIDGE NAME	BKE13(KE15-2)	
LIVE LOAD	EM 70	
GIRDER LENGTH	7.30 m	
SPAN LENGTH	7.00 m	
WIDTH	8.20 m	
BRIDGE ANGLE	90'	

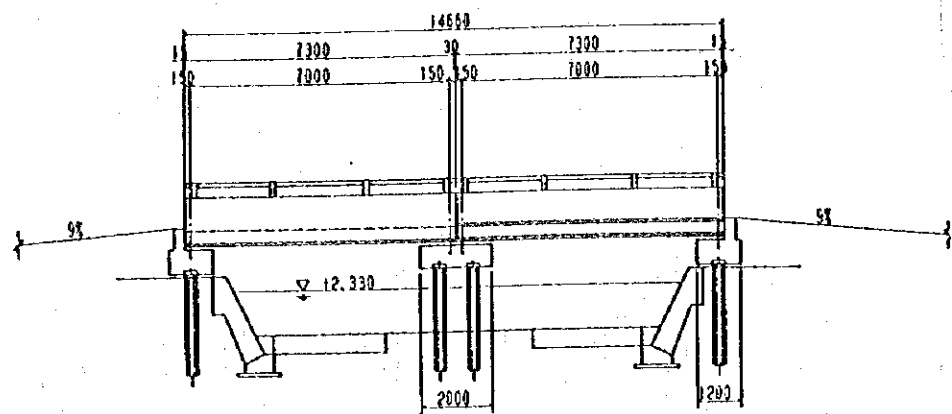
	ABUTMENT(I)	PIER(I)
DEAD LOAD	42.2	84.3
LIVE LOAD	40.0	40.0
TOTAL	82.2	124.3

MATERIAL TABLE

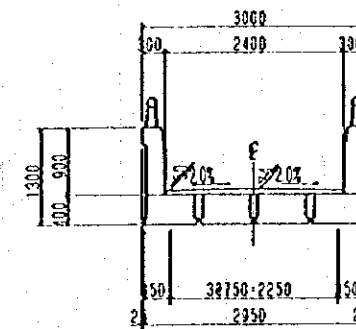
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	20	EM70-01
	DESIGN STRENGTH	m ³	5.7	
FORMING	FORM	m ²	11.2	
	ROADWAY PAVEMENT	m ²	102.2	
MISCELLANEOUS	SIDE WALK PAVEMENT	m ²	---	
	SUB-CONCRETE	m ³	---	
	SIDE BLOCK	m	---	
	FILLING MORTAR	m ³	---	
	GUARD RAIL CONCRETE	m ³	12.6	
	GUARD RAIL FORM	m ²	75.9	
	GUARD RAIL RE-BAR	tf	0.596	
	GUARD RAIL STEEL-RAILING	m	29.2	
	DRAINAGE	NUMBER	8	
	EXPANSION	m	24.6	
CROSS GIRDER	NUMBER		24	
	LENGTH	m	7.330	
	TOTAL LENGTH	m	175.920	
	TOTAL WEIGHT	tf	0.291	
	SHEATH	m	43.2	
GROUT	m	175.9		

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BKE13(KE15-2)	
SUBMITTED.....		DWG NO.	DATE
DATE.....		J-70-10-212	
REFERENCE		(NO)	

SIDE VIEW SCALE A



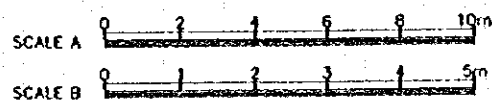
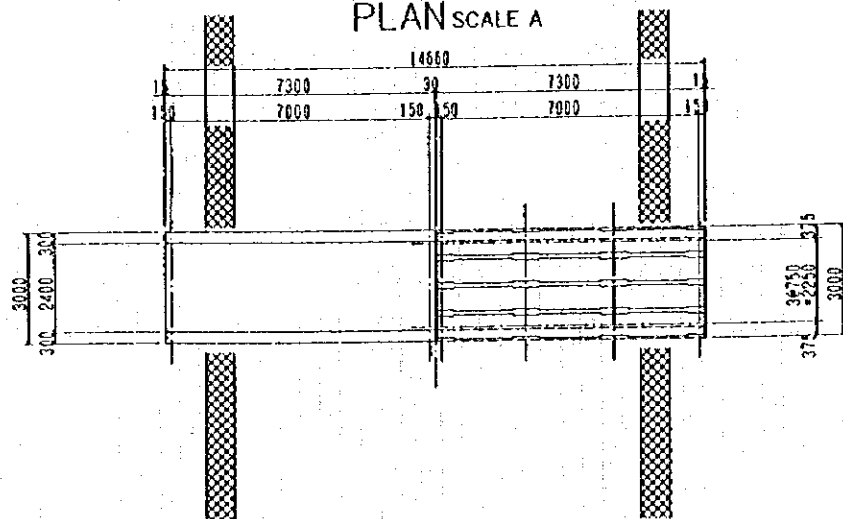
CROSS SECTION SCALE B



GRADIENT	PROPOSED HEIGHT	GROUND HEIGHT	ADJUSTED DISTANCE	SHORT DISTANCE	STATION	PLANE CURVE
1.5% SFL=24.498	1.747 2.152	1.790	31.813 27.315	4.498 20.000		
1.5% SFL=14.640	3.112 3.833 (C.B. 114)	2.000	7.165 0.000	9.165 0.000		R=∞
1.5% SFL=14.640	4.000 3.833 (C.B. 108)	1.170	0.000	0.000		
1.5% SFL=14.640	3.112 3.833 (C.B. 114)	1.810	7.165	7.165		
1.5% SFL=14.640	2.152	2.315	27.315	20.000		

Note: Figures in () are applicable to the initial stage construction

PLAN SCALE A



DESIGN CONDITION REACTION

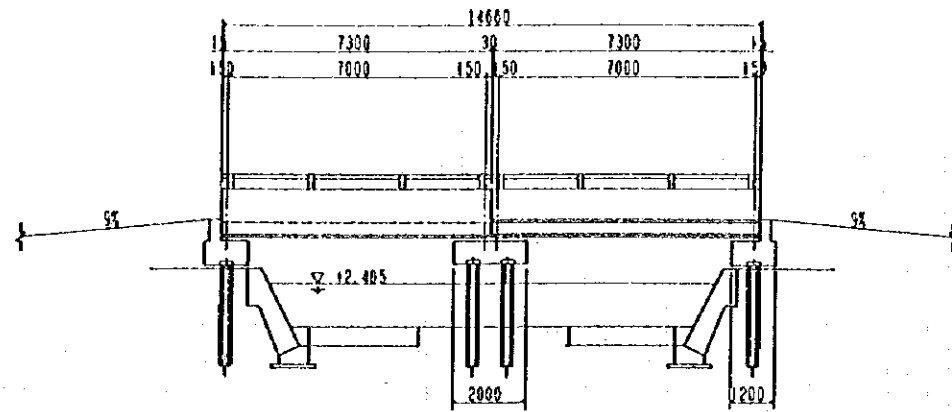
BRIDGE NAME	BKE14(KE16)	REACTION	
		ABUTMENT(I)	PIER(II)
LIVE LOAD	BM 70	17.8	35.5
CIRDER LENGTH	7.30 m	20.0	20.0
SPAN LENGTH	7.00 m	TOTAL	55.5
WIDTH	3.00 m		
BRIDGE ANGLE	90°		

MATERIAL TABLE

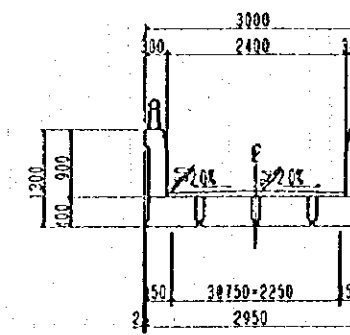
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	8	BM70-01
	CONCRETE DESIGN STRENGTH	m ³	1.9	
FORMING	FORM	m ²	3.7	
	ROADWAY PAVEMENT	m ²	35.0	
MISCEL-LANEWAYS	SIDE WALK PAVEMENT	m ²	---	
	SUB-CONCRETE	m ²	---	
	SIDE BLOCK	m	---	
	FILLING MORTAR	m ³	---	
	CONCRETE	m ³	6.6	
GUARD RAIL	FORM	m ²	55.1	
	RE-BAR	tf	0.313	
	STEEL-RAILING	m	29.2	
DRAINAGE	NUMBER		8	
EXPANSION	NUMBER	m	9.0	
CROSS GIRDER	NUMBER		24	
	PC-TENDON LENGTH	m	2.830	
	TOTAL LENGTH	m	67.920	
	TOTAL WEIGHT	tf	0.112	
	SHEATH	m	14.4	
GROUT	m	67.9		

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	GENERAL PLAN OF BRIDGE BKE14(KE16)	APPROVED
CHECKED.....		DWG NO.		J-70-10-213
SUBMITTED.....				
DATE.....				

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	1.5% 7.170		1.5% 7.170		1.5% 7.170		1.5% 7.170	
PROPOSED HEIGHT	1.040	2.281	(3.187) 4.887 (3.187)	4.000 4.250 (3.250)	(3.187) 4.887 (3.187)	1.040	1.040	1.040
GROUND HEIGHT	1.400		2.000	1.250	2.000	1.400	1.400	1.400
ADJUSTED LATERAL DISTANCE	34.375	27.315	2.763	0.000	2.763	34.375	34.375	34.375
SHORT DISTANCE	7.000	20.000	0.130	0.000	0.130	7.000	7.000	7.000
STATION								
PLANE CURVE	R=∞							

Note: Figures in () are applicable to the initial stage construction.

DESIGN CONDITION REACTION

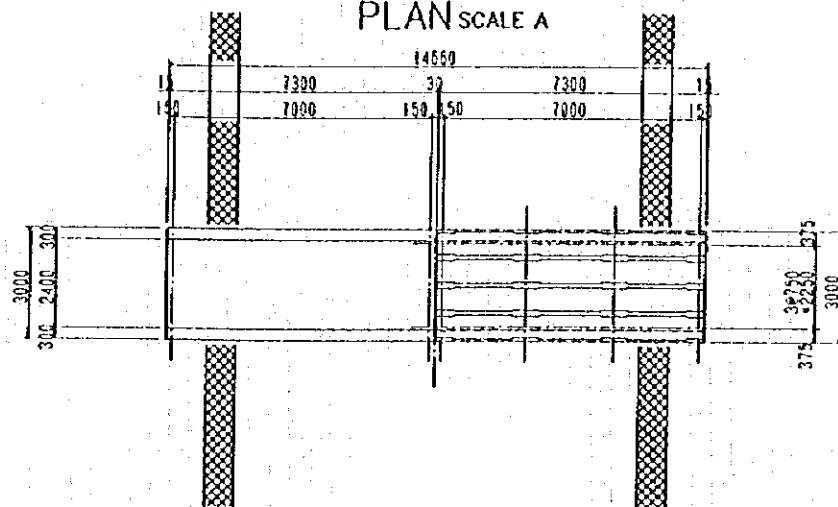
BRIDGE NAME	BKE15(KE17-1)	
LIVE LOAD	BM 70	
GIRDER LENGTH	7.30 m	
SPAN LENGTH	7.00 m	
WIDTH	3.00 m	
BRIDGE ANGLE	90°	

	ABUTMENT(I)	PIER(II)
DEAD LOAD	17.8	35.5
LIVE LOAD	20.0	20.0
TOTAL	37.8	55.5

MATERIAL TABLE

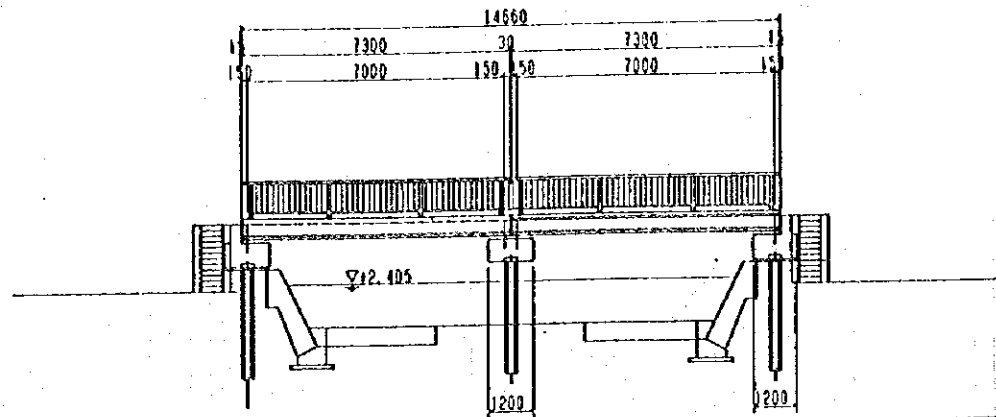
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	8	BM70-01
	DESIGN STRENGTH	m	1.9	
FORMING	FORM	m ²	3.7	ROADWAY
	PAVEMENT	m ²	35.0	
MISCELLANEOUS	PAVEMENT	m ²	---	SIDE WALK
	SUB-CONCRETE	m ²	---	
	SIDE BLOCK	m	---	GUARD RAIL
	FILLING MORTAR	m ³	---	
	CONCRETE	m ³	6.5	DRAINAGE
	FORM	m ²	55.1	
	RE-BAR	tf	0.313	EXPANSION
	STEEL-RAILING	m	29.2	
	NUMBER	m	8	CROSS GIRDER
	NUMBER	m	9.0	
PC-TENDON	NUMBER		24	SHEATH
	LENGTH	m	2.830	
	TOTAL LENGTH	m	67.920	
	TOTAL WEIGHT	tf	0.112	
	GROUT	m	14.4	
	m	67.9		

PLAN SCALE A



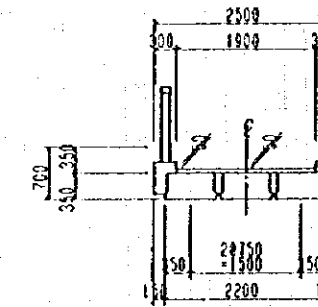
PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	FILE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BKE15(KE17-1)	
SUBMITTED.....		DWG NO.	
DATE.....		J-70-10-214	
REFERENCE	(NO)		

SIDE VIEW SCALE A



GRADIENT	1.5%		1.5%		1.5%		1.5%		1.5%	
PROPOSED HEIGHT	1.646	2.281	4.081	4.084	4.090	4.084	4.081	2.281	1.646	1.040
GROUND HEIGHT	1.400		2.000		+1.250		2.000		1.900	
ACCUMULATED DISTANCE	34.375	27.315	7.315	7.165	0.000		7.165	7.315	34.375	
SHORT DISTANCE	7.000	20.000	0.150	7.100	0.000		7.100	0.150	7.000	7.000
STATION										
PLANE CURVE	R=									

CROSS SECTION SCALE B



DESIGN CONDITION

BRIDGE NAME	BKE16(KE-18)
LIVE LOAD	HUMAN/ANIMALS
GIRDER LENGTH	7.30 m
SPAN LENGTH	7.00 m
WIDTH	2.50 m
BRIDGE ANGLE	90°

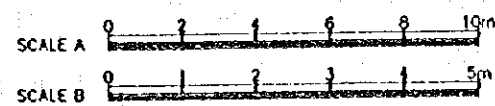
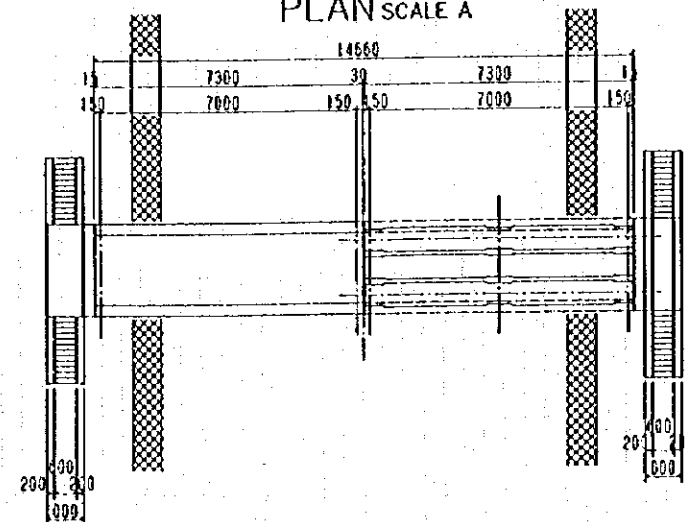
REACTION

	ABUTMENT(Lt)	PIER(Lt)
DEAD LOAD	9.8	19.6
LIVE LOAD	2.4	4.9
TOTAL	12.3	24.5

MATERIAL TABLE

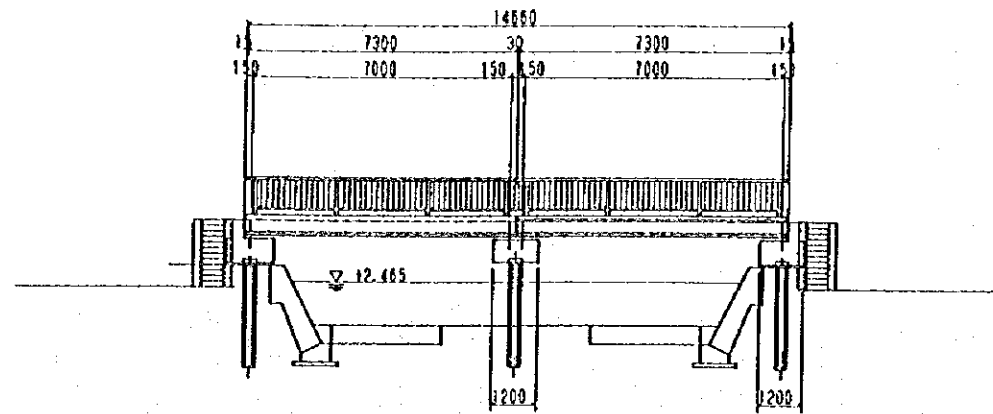
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION	
MAIN GIRDER	CONCRETE	no	6	PB-01	
	DESIGN STRENGTH	m ³	1.0		
FORMING	FORM	m ²	2.5		
	ROADWAY	PAVEMENT	m ²		27.7
MISCEL-LANEOUS	SIDE WALK	PAVEMENT	m ²		---
		SUB-CONCRETE	m ²		---
	SIDE BLOCK	m	---		
	FILLING MORTAR	m ³	---		
	GUARD RAIL	CONCRETE	m ³		4.5
		FORM	m ²		34.2
		RE-BAR	lt	0.213	
STEEL-RAILING	m	29.2			
DRAINAGE	NUMBER		4		
EXPANSION	m	7.5			
CROSS GIRDER	PC-TENDON	NUMBER	16		
		LENGTH	m	2 080	
		TOTAL LENGTH	m	33 280	
	TOTAL WEIGHT	tf	0.055		
	SHEATH	m	6.4		
GROUT	m	33.3			

PLAN SCALE A

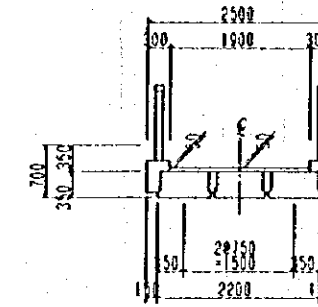


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BKE16(KE18)	
SUBMITTED.....		DWG NO	DATE
DATE.....		J-70-10-215	
REFERENCE			

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT					
PROPOSED HEIGHT	1.040	2.281	4.081	4.130	4.081
GROUND HEIGHT	1.400		2.000	1.256	2.000
ACCUMULATED DISTANCE	34.375	27.315	7.063	0.000	7.063
SHORT DISTANCE	7.000	20.000	0.188	0.000	0.188
STATION					
PLANE CURVE	R=∞				

Note: Figures in () are applicable to the initial stage construction

DESIGN CONDITION

BRIDGE NAME	BKE17(KE19)
LIVE LOAD	HUMAN/ANIMALS
GIRDER LENGTH	7.30 m
SPAN LENGTH	7.00 m
WIDTH	2.50 m
BRIDGE ANGLE	90°

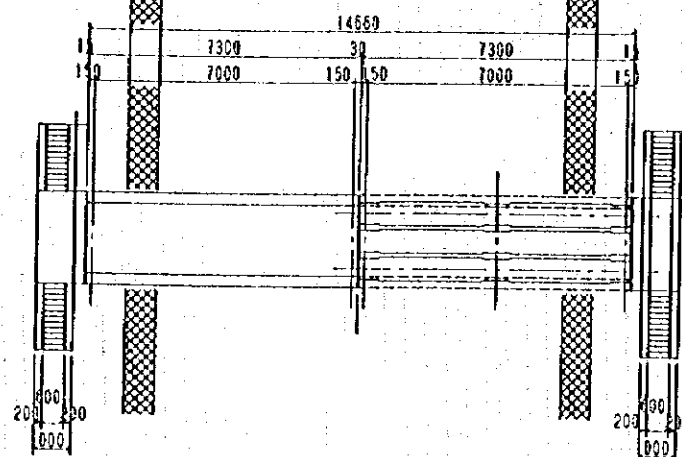
REACTION

	ABUTMENT(I)	PER(II)
DEAD LOAD	9.8	19.6
LIVE LOAD	2.4	4.9
TOTAL	12.3	24.5

MATERIAL TABLE

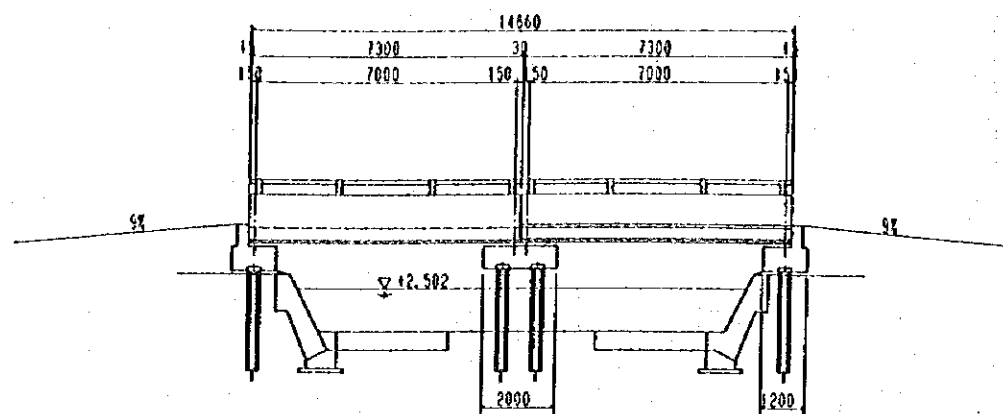
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	6	PB-01
	CONCRETE DESIGN STRENGTH	m ³	1.0	
FORMING	FORM	m ²	2.5	
	ROADWAY PAVEMENT	m ²	27.7	
MISCELLANEOUS	ROADWAY PAVEMENT	m ²	---	
	SIDE WALK SUB-CONCRETE	m ²	---	
	SIDE WALK SIDE BLOCK	m	---	
	SIDE WALK FILLING MORTAR	m ³	---	
	GUARD RAIL CONCRETE	m ³	4.5	
	GUARD RAIL FORM	m ²	34.2	
	GUARD RAIL RE-BAR	tf	0.213	
	GUARD RAIL STEEL-RAILING	m	29.2	
	DRAINAGE	NUMBER	4	
	EXPANSION	m	7.5	
CROSS GIRDER	PC-TENDON NUMBER	no	16	
	PC-TENDON LENGTH	m	2.080	
	PC-TENDON TOTAL LENGTH	m	33.280	
	PC-TENDON TOTAL WEIGHT	tf	0.055	
	SHEATH	m	6.4	
GROUT	m	33.3		

PLAN SCALE A

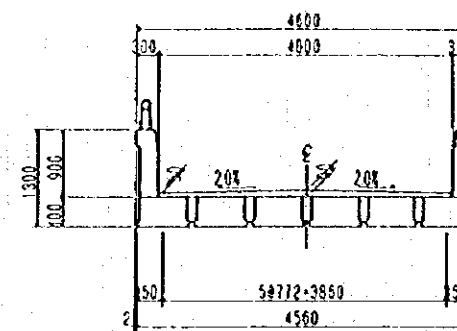


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	FILE OF DRAWING	GENERAL PLAN OF BRIDGE BKE17(KE19) DWG NO J-70-10-216	APPROVED
CHECKED.....		DATE		DATE
SUBMITTED.....		REFERENCE		NO
DATE.....				

SIDE VIEW SCALE A



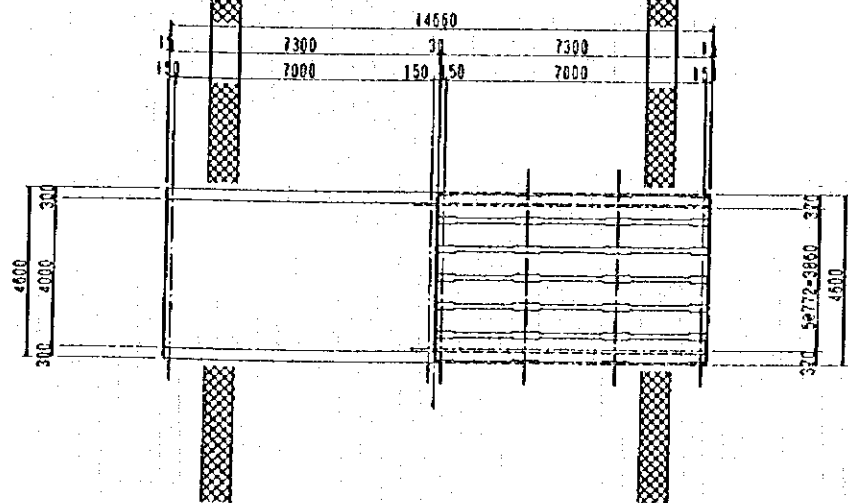
CROSS SECTION SCALE B



GRADE	1.5% 7/170		1.5% 7/170		1.5% 7/170		1.5% 7/170		1.5% 7/170	
PROPOSED HEIGHT	2.080	2.428	(3.354) 4.184 (3.358)	4.250 (3.410)	(3.358) 4.184 (3.354)	2.050	2.050	2.050	2.050	2.050
GROUND HEIGHT	1.650		2.050	+1.414	2.050					2.050
ACQUID. DISTANCE	31.182	27.315	7.315 7.165	0.000	7.315					31.182
SHORT DISTANCE	3.867	20.000	0.180 7.165	0.000	7.165					3.867
STATION										
PLANE CURVE	R=∞									

Note: Figures in () are applicable to the initial stage construction.

PLAN SCALE A



DESIGN CONDITION

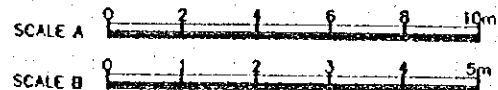
BRIDGE NAME	BKE18(KE20-1)
LIVE LOAD	BM 70
GIRDER LENGTH	7.50 m
SPAN LENGTH	7.00 m
WIDTH	4.60 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT(I)	PIER(II)
DEAD LOAD	24.7	49.4
LIVE LOAD	20.0	20.0
TOTAL	44.7	69.4

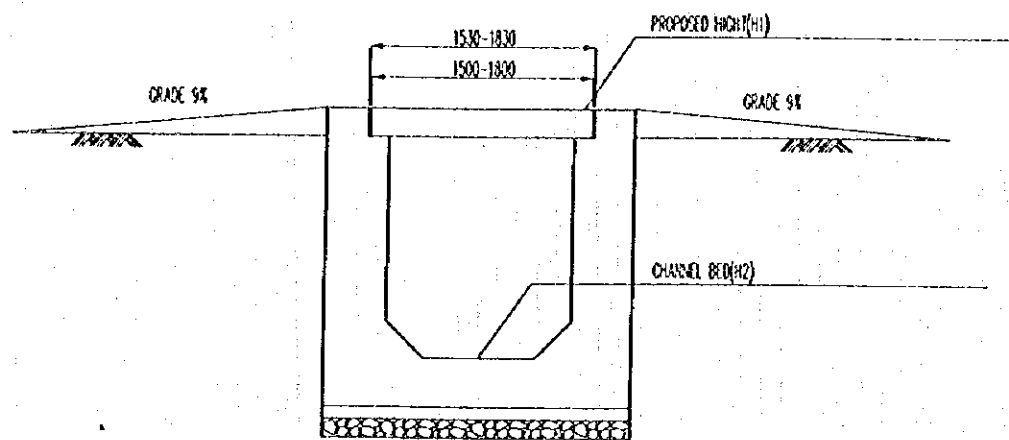
MATERIAL TABLE

KIND OF MATERIAL	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	12	BM70-01
CONCRETE	DESIGN STRENGTH	3.7	
FORMING	FORM	8.0	
MISCELLANEOUS	ROADWAY	PAVEMENT	58.4
		PAVEMENT	---
	SIDE WALK	SUB-CONCRETE	---
		SIDE BLOCK	---
		FILLING MORTAR	---
		CONCRETE	6.6
		FORM	55.1
		RE-BAR	0.311
		STEEL-RAILING	29.2
		DRAINAGE	NUMBER
CROSS GIRDER	EXPANSION		13.8
		NUMBER	24
		LENGTH	4.440
		TOTAL LENGTH	106.560
		TOTAL WEIGHT	0.175
		SHEATH	26.6
		GROUT	106.6

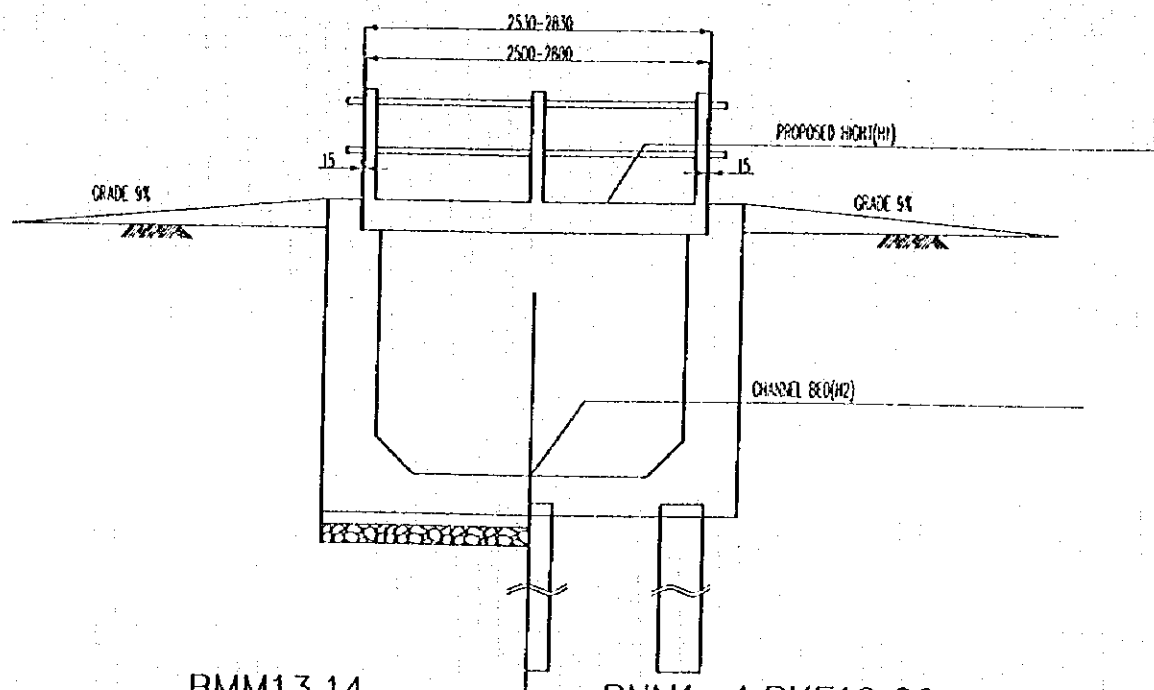


PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	GENERAL PLAN OF BRIDGE BKE18(KE20-1)	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-10-217	
REFERENCE	IN	THE CITY OF JAKARTA	

SIDE VIEW

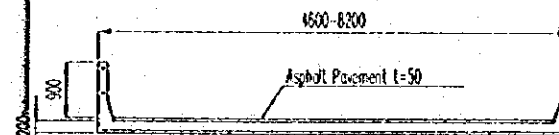
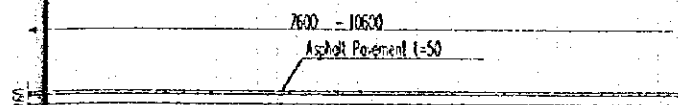


BMM1-12,15,16



BMM13,14
SPREAD FOUNDATION PILE FOUNDATION
BNM1-4, BKE19,20

CROSS SECTION



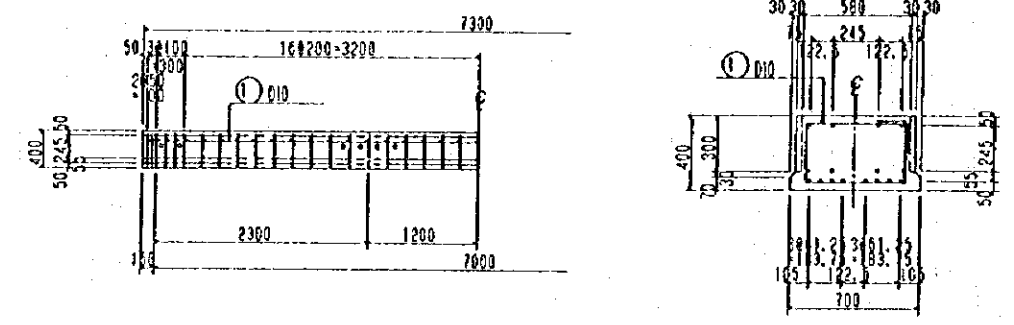
Bridge Name	H1 (TTG.m)	H2 (TTG.m)
BMM1	6.914	4.942
BMM2	6.971	4.976
BMM3	7.050	5.024
BMM4	7.050	5.024
BMM5	7.118	5.065
BMM6	7.118	5.065
BMM7	7.274	5.159
BMM8	7.377	5.221
BMM9	7.377	5.221
BMM10	7.429	5.253
BMM11	7.507	5.616
BMM12	7.507	5.616
BMM13	7.547	5.616
BMM14	7.629	5.994
BMM15	9.135	7.309
BMM16	9.161	7.463
BNM1	2.194	-0.041
BNM2	2.353	0.118
BNM3	2.544	0.308
BNM4	2.544	0.308
BKE19	3.195	1.477
BKE20	3.195	1.634

DESIGN CONDITION

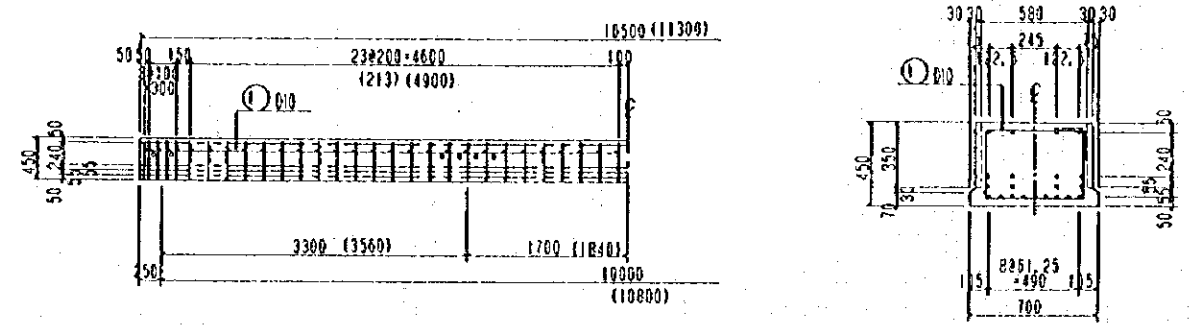
LIVE ROAD	BM 70
GIRDER	1.5~2.8m
WIDTH	7.6~10.6m
BRIDGE ANGLE	90°, 45°

PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF IN-SITU BRIDGE	DATE
SUBMITTED.....		DWG. NO.	
DATE.....		J-70-10-701	
REFERENCE	G. NO.		

BM70-01

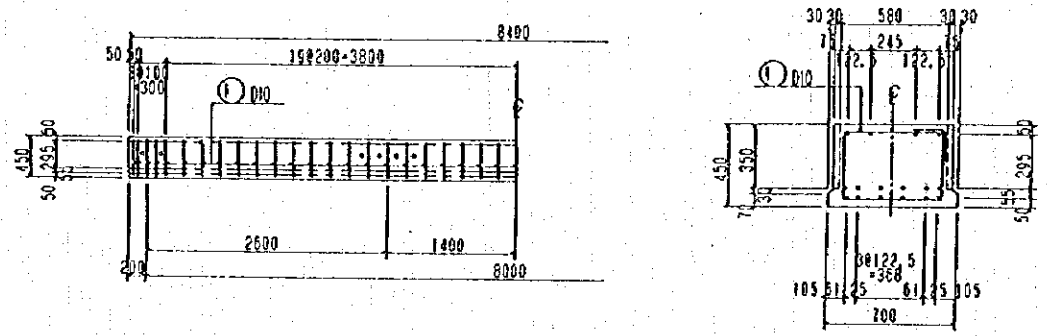


BM70-04

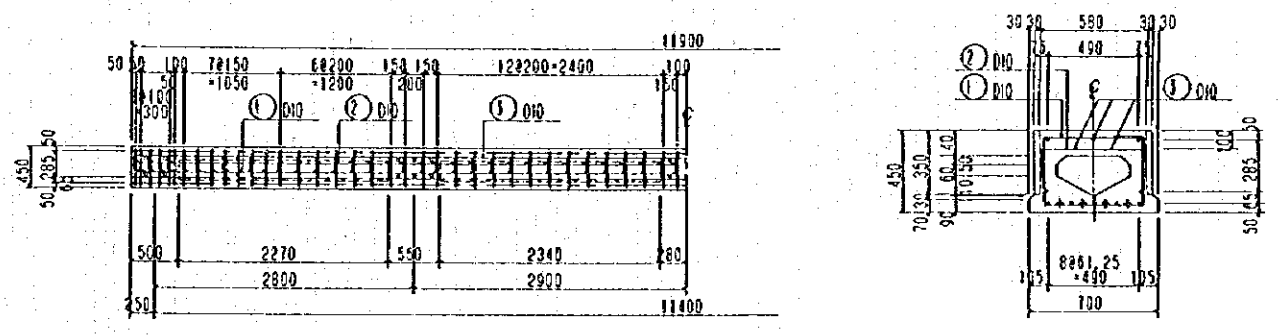


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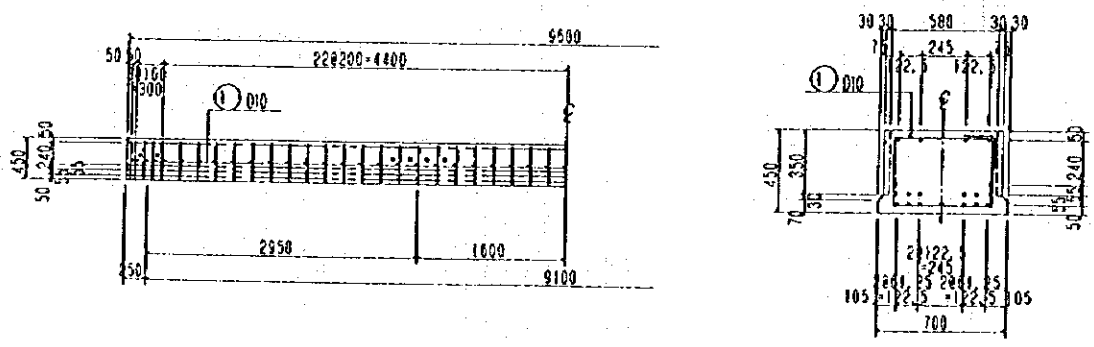
BM70-02



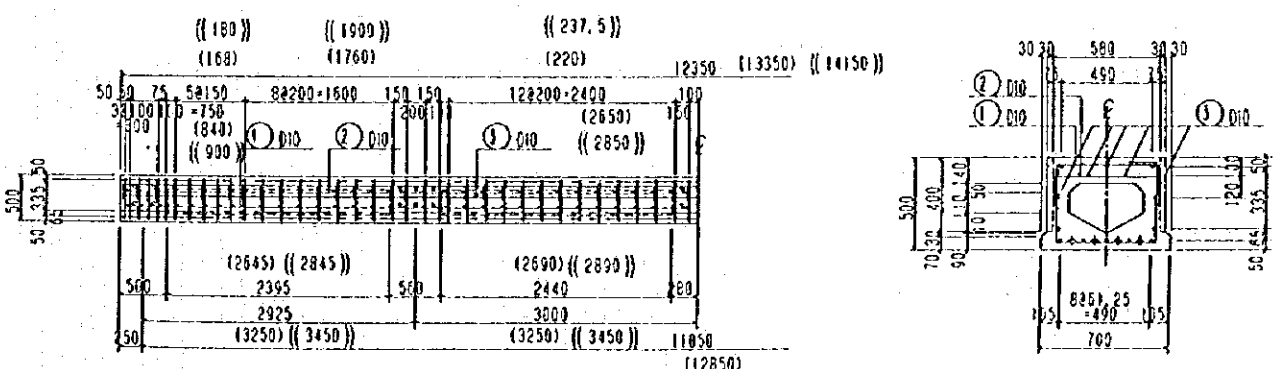
BM70-05



BM70-03



BM70-06

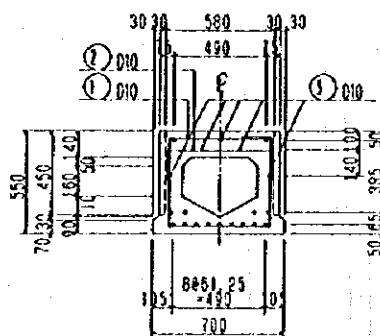
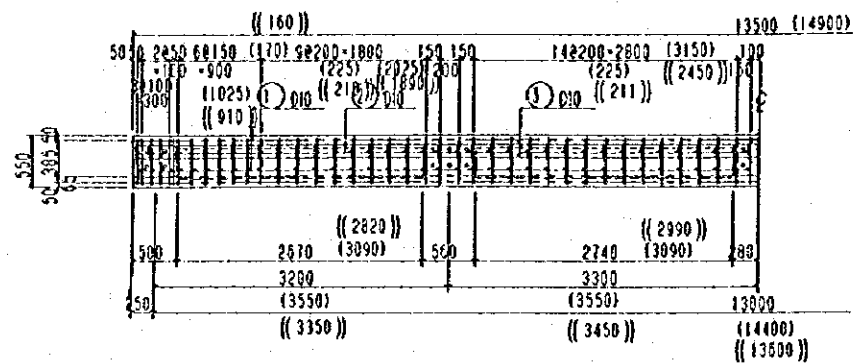


() : BKM3

(()) : BKM5

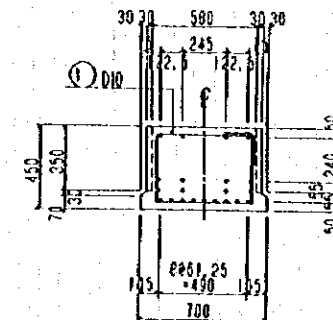
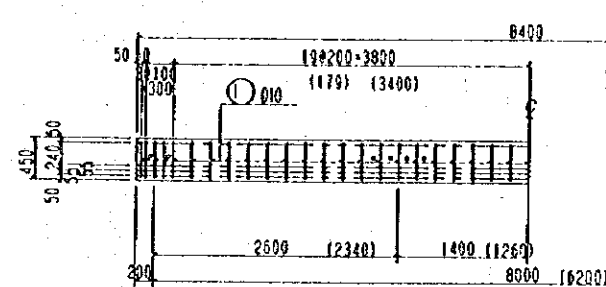
PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	DETAIL OF MAIN GIRDER-1	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-20-001	
REFERENCE NO	THE CITY OF JAKARTA		

BM70-07



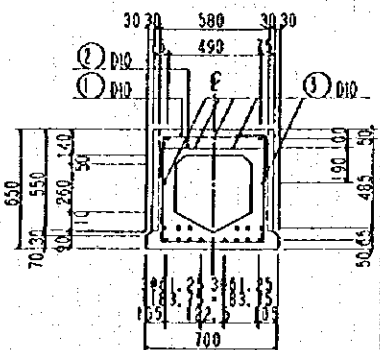
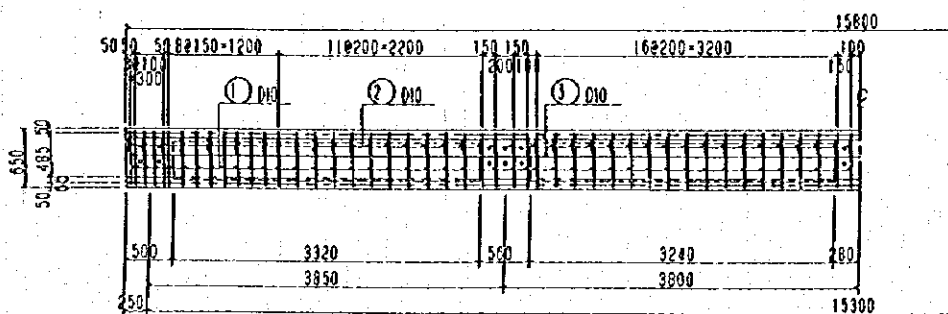
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 () : BCM5

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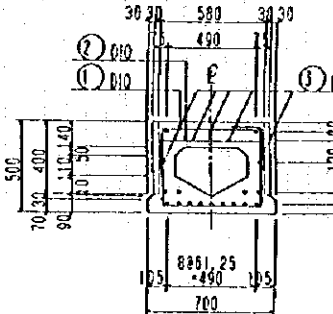
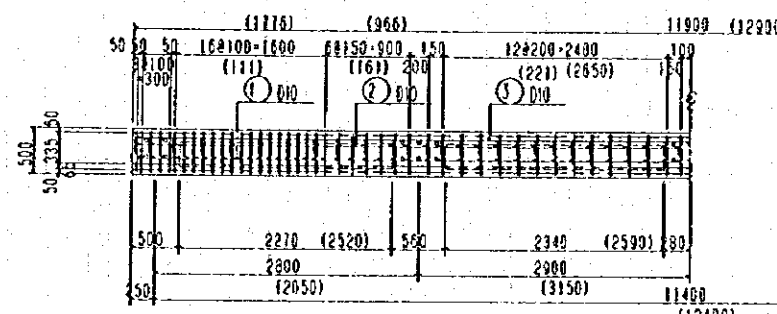


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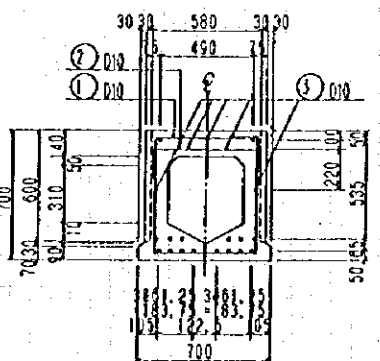
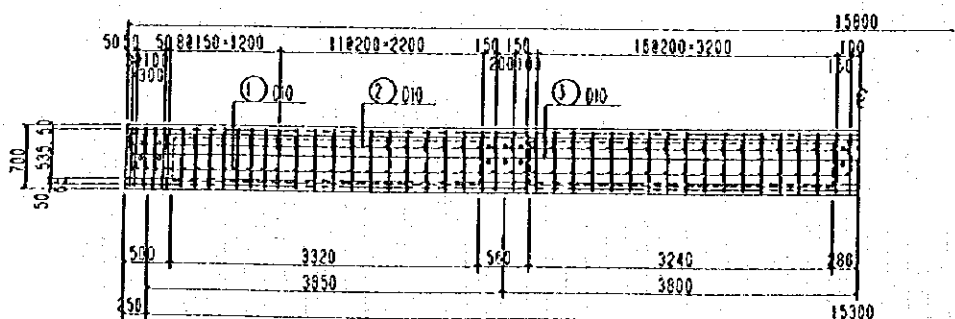


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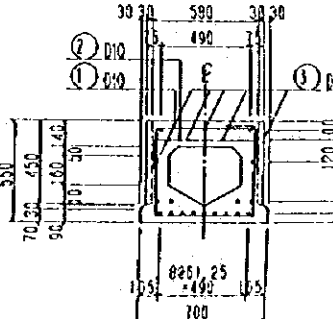
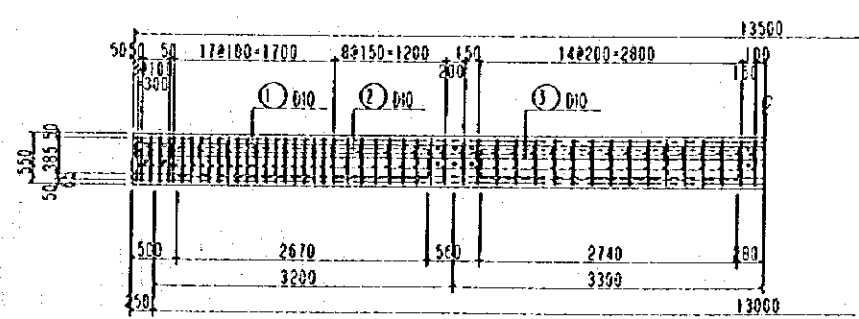


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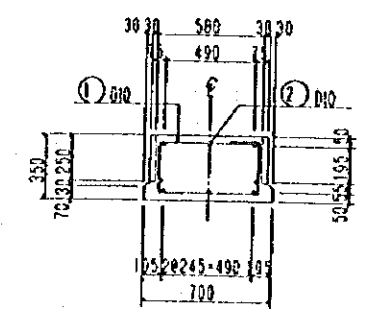
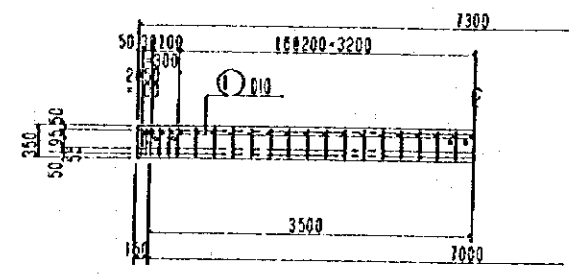


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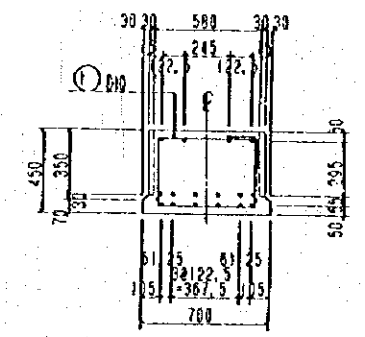
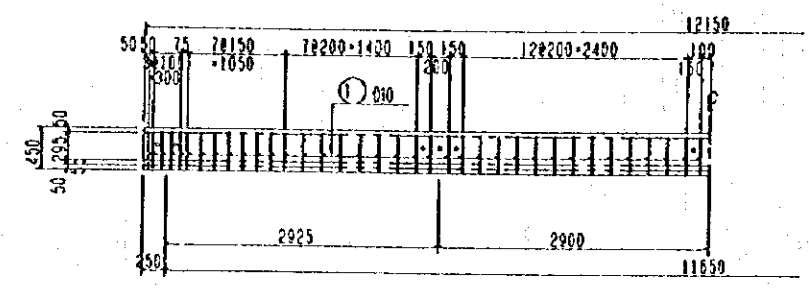


PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	DETAIL OF MAIN GRIDER-2	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-20-002	
REFERENCE	THE CITY OF JAKARTA		

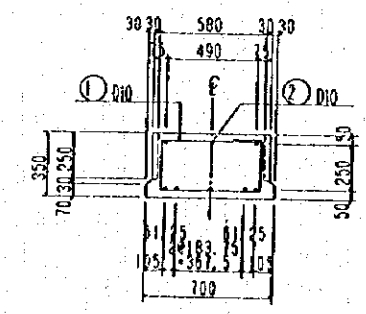
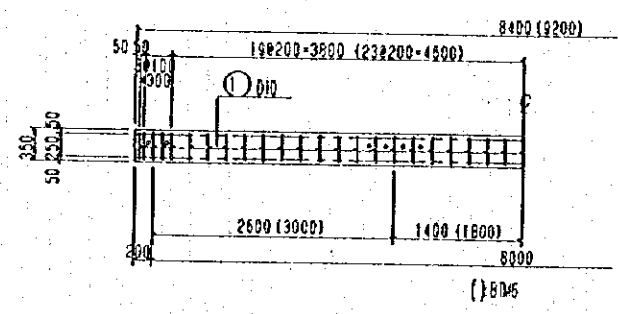
PB-01



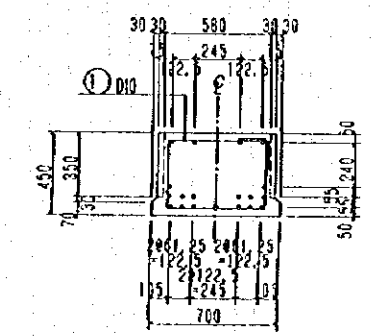
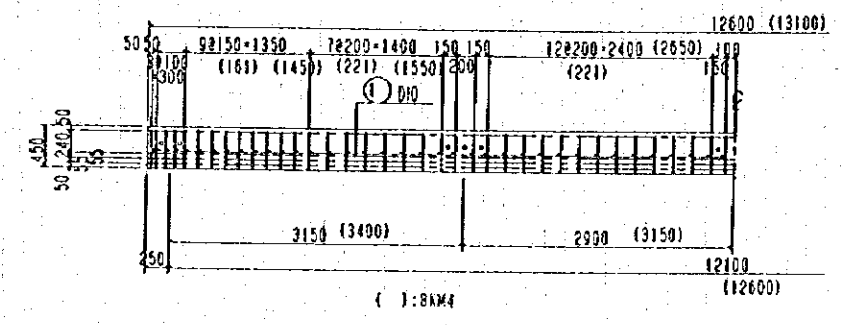
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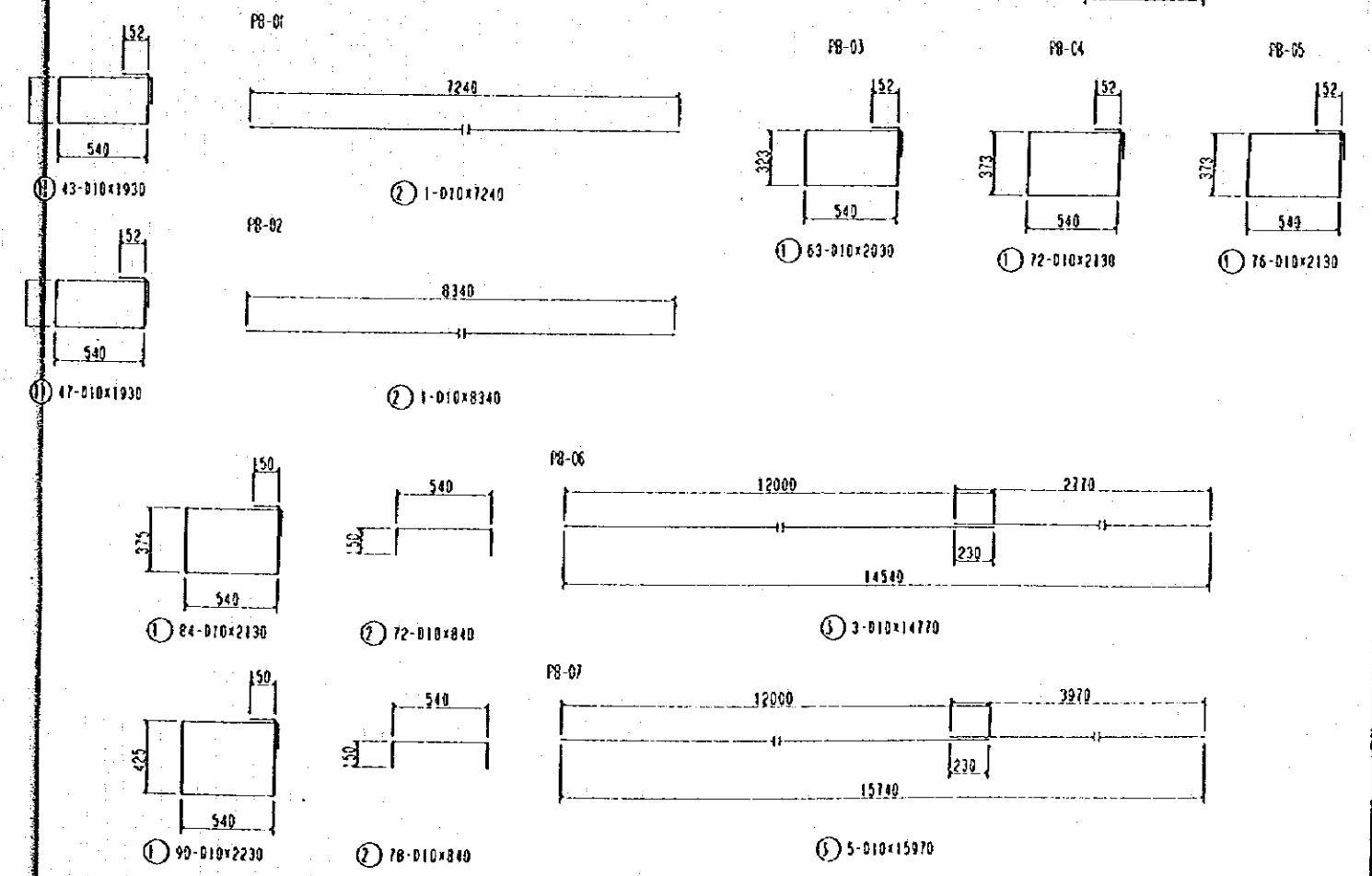
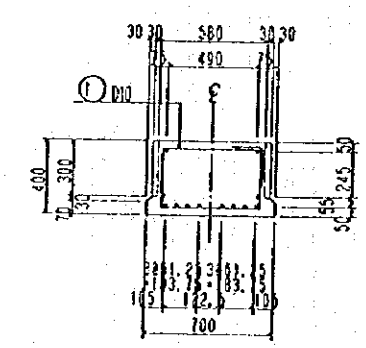
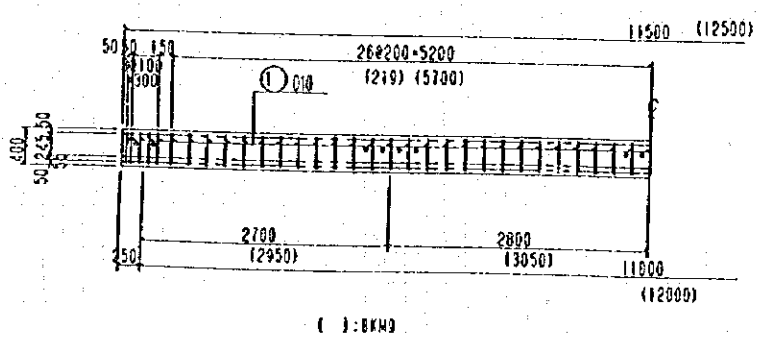
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PB-05

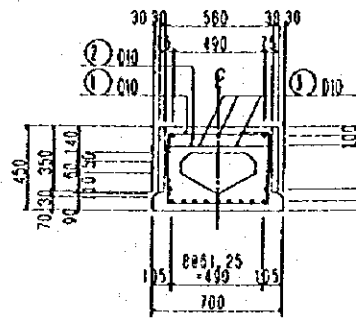
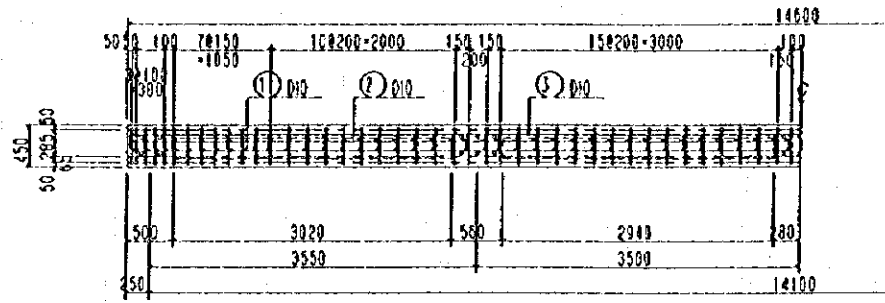


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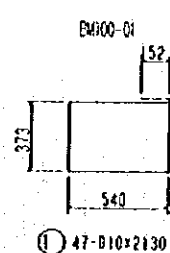
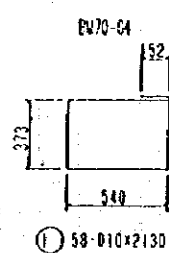
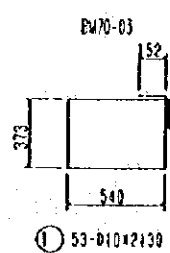
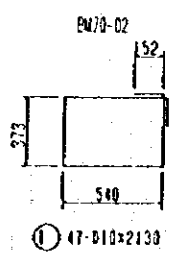
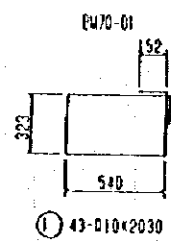
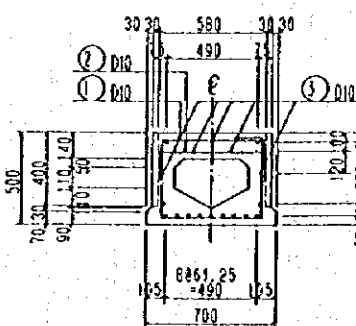
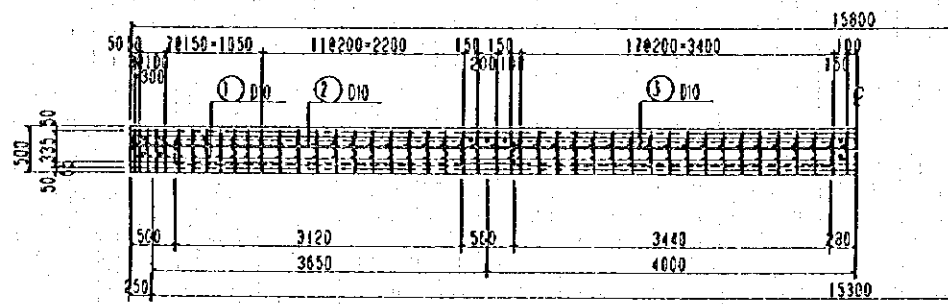


PREPARED.....	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
CHECKED.....	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	DETAIL OF MAIN GIRDER-3	
SUBMITTED.....	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
DATE.....	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-20-003	
REFERENCE	THE CITY OF JAKARTA		

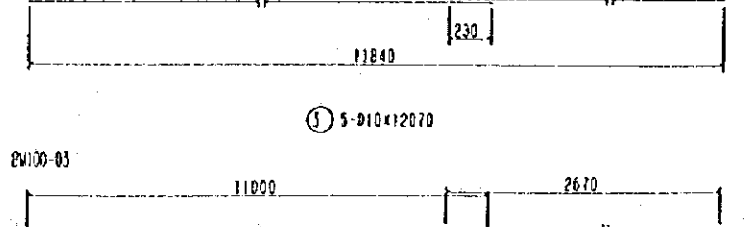
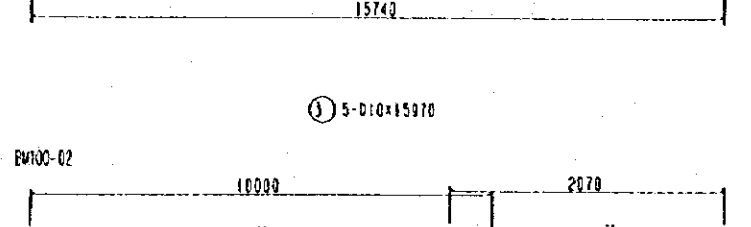
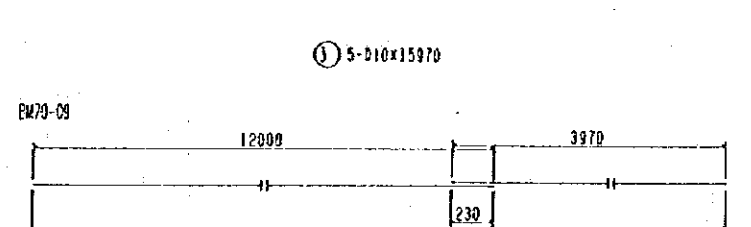
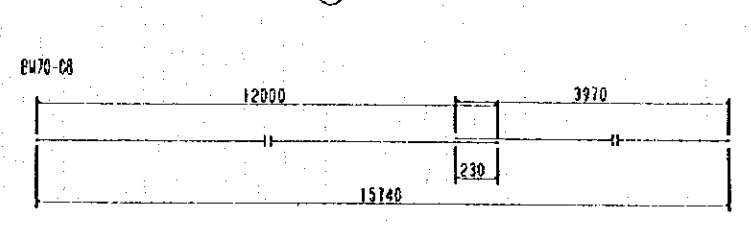
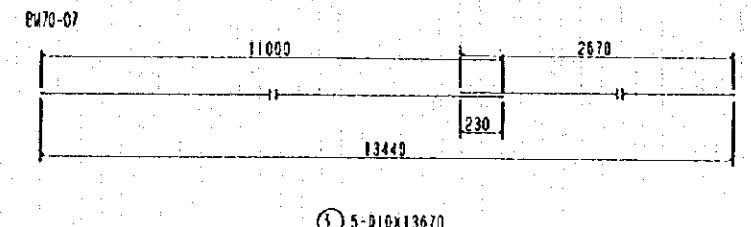
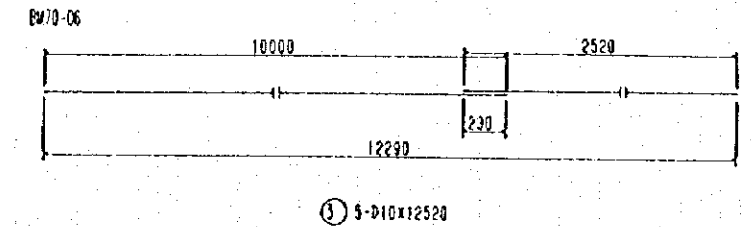
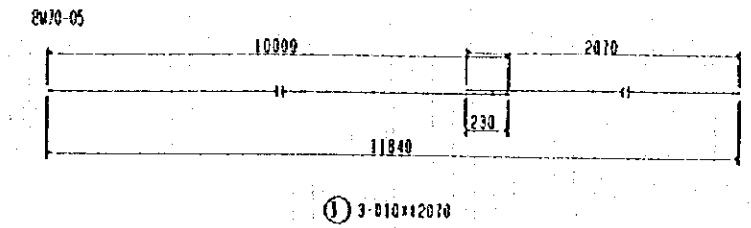
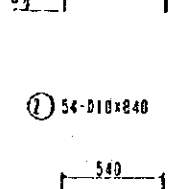
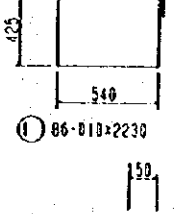
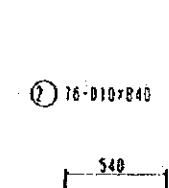
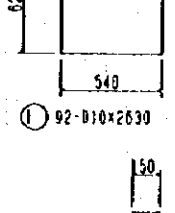
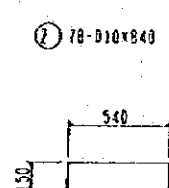
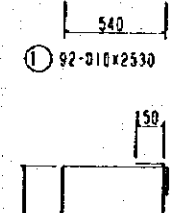
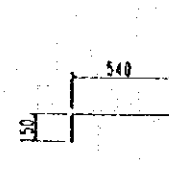
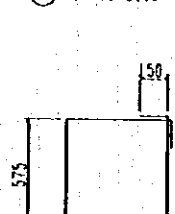
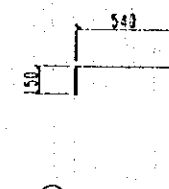
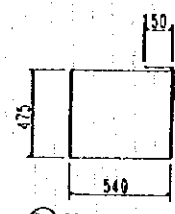
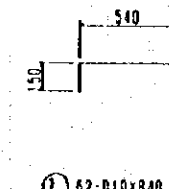
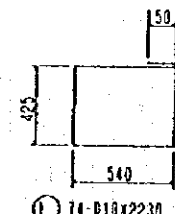
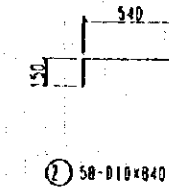
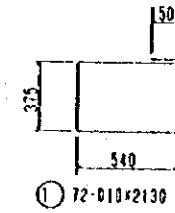
PB-06



PB-07

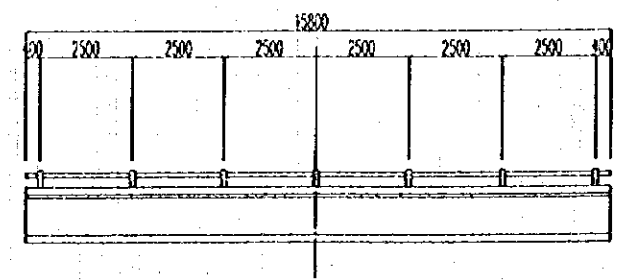


Remarks: Bending schedule shall be submitted for the approval of the Engineer.

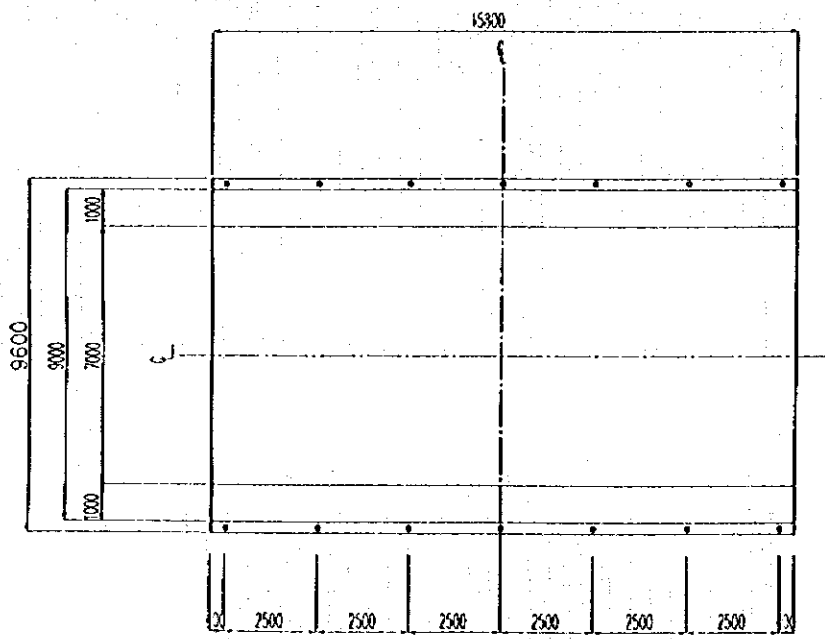


REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	FILE OF DRAWING	APPROVED
	CHECKED.....		DETAIL OF MAIN ORDER-4	
	SUBMITTED.....		DWG NO.	DATE
	DATE.....		J-70-20-004	

SIDE VIEW SCALE A

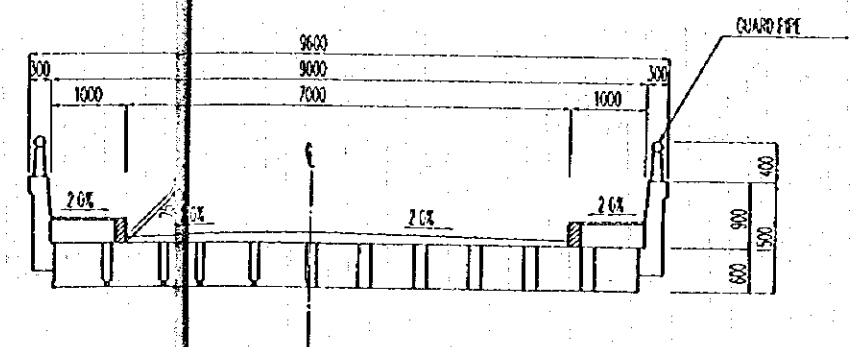


PLAN VIEW SCALE A



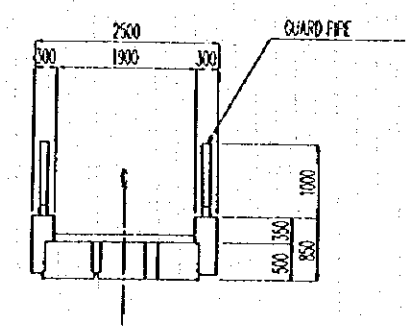
DETAIL OF RD PIPE

ROAD BRIDGE



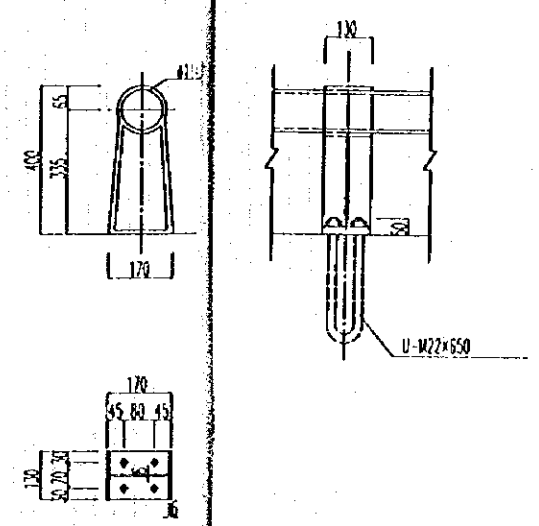
CROSS SECTION VIEW SCALE B

PEDESTRIAN

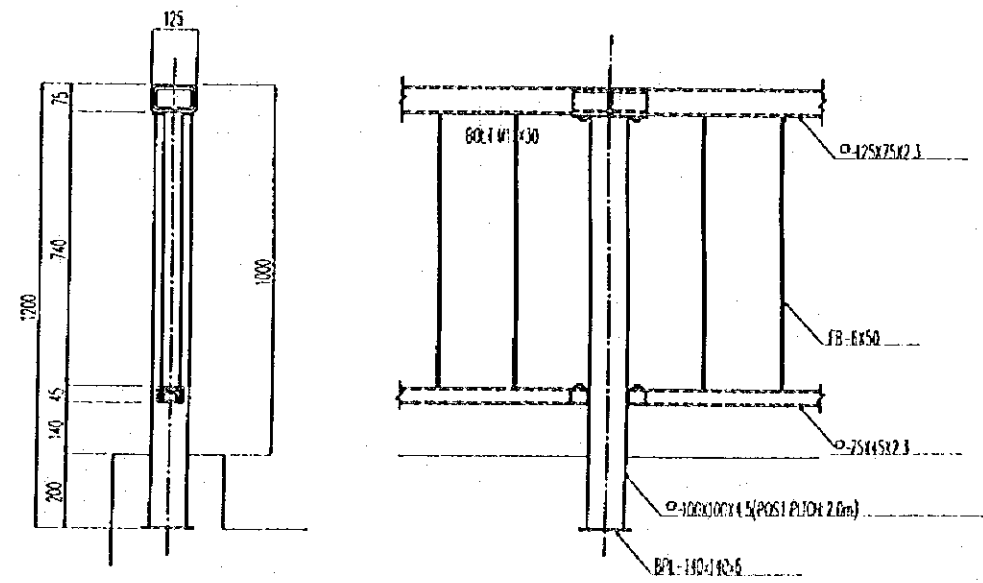


DETAIL OF GUARD PIPE SCALE C

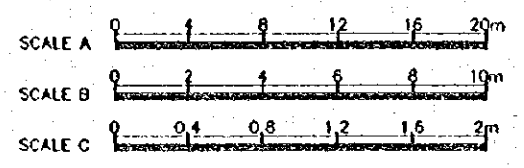
ROADGE TYPE



PEDESTRIAN TYPE



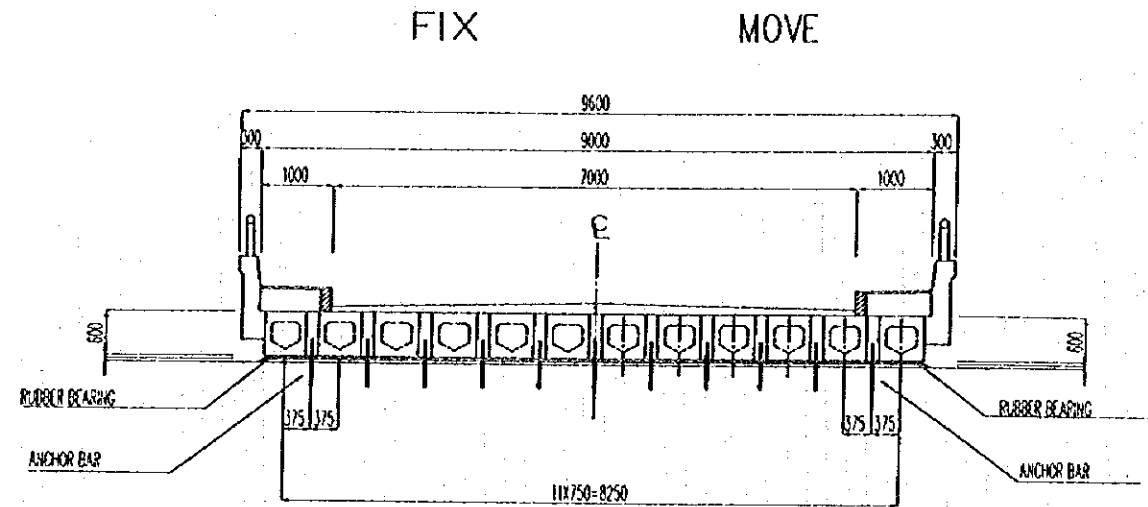
Remarks: Shop drawings made according to these standards shall be submitted for the approval of the Engineer



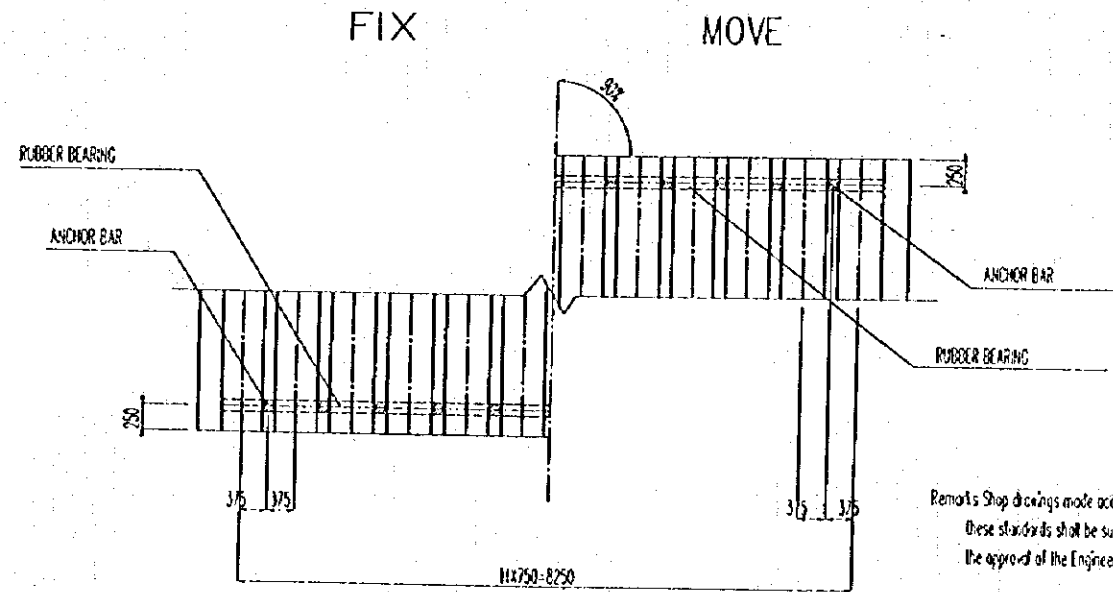
PREPARED	MINISTRY OF PUBLIC WORKS	FILE OF DRAWING	APPROVED
CHECKED	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	SIDE WALL/RAIL,WALKWAY AND GUARDRAIL	
SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO	DATE
DATE	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-30-001	
REFERENCE NO	IN THE CITY OF JAKARTA		

DETAIL BEARING

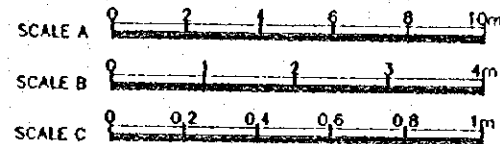
CROSS SECTION VIEW SCALE A



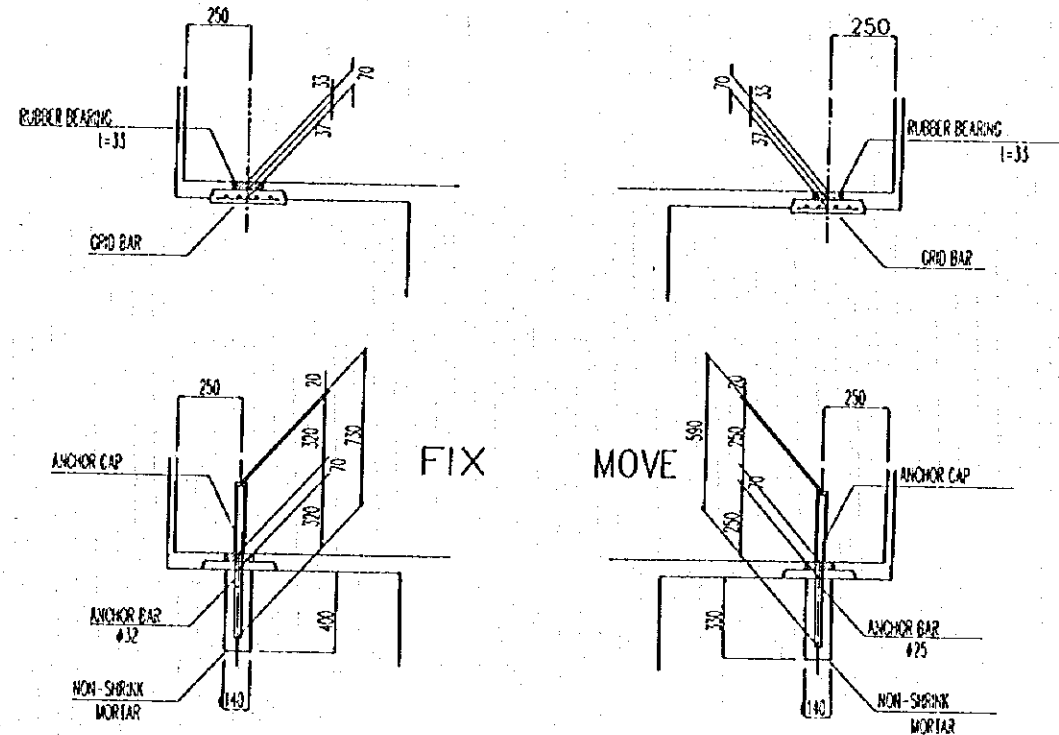
PLAN VIEW SCALE A



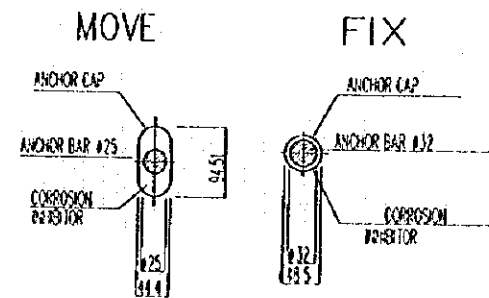
Remarks Shop drawings made according to these standards shall be submitted for the approval of the Engineer.



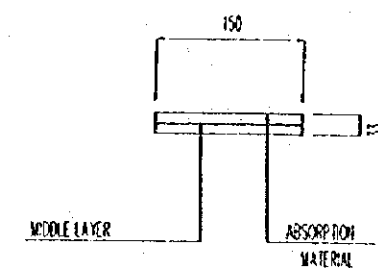
SIDE VIEW SCALE B



ANCHOR CAPS SCALE C



RUBBER BEARING SCALE C

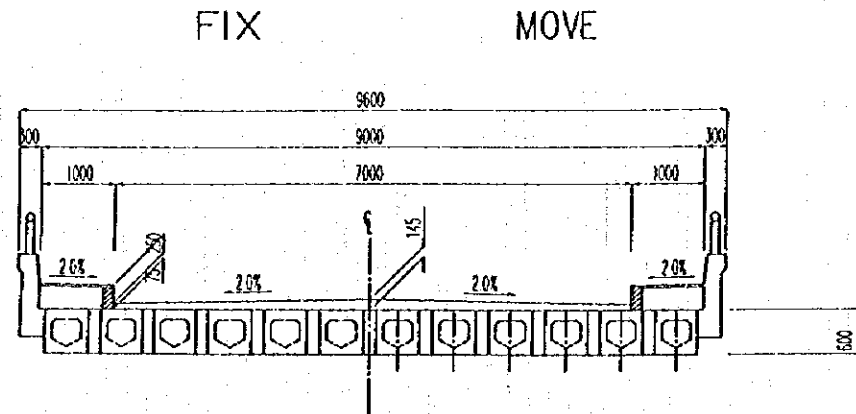


ROAD CASE	BRIDGE WIDTH (m)	LENGTH (m) (PER SPAN)
I-2	10 600	20 660
I-3	12 200	23 660
II-3	12 200	23 660
III-1	8 200	14 660
III-2	9 600	17 660
III-3	6 600	11 660
IV-1	4 600	8 880
IV-S	3 000	5 660
IV-S	3 500	5 660
P B	2 500	4 160

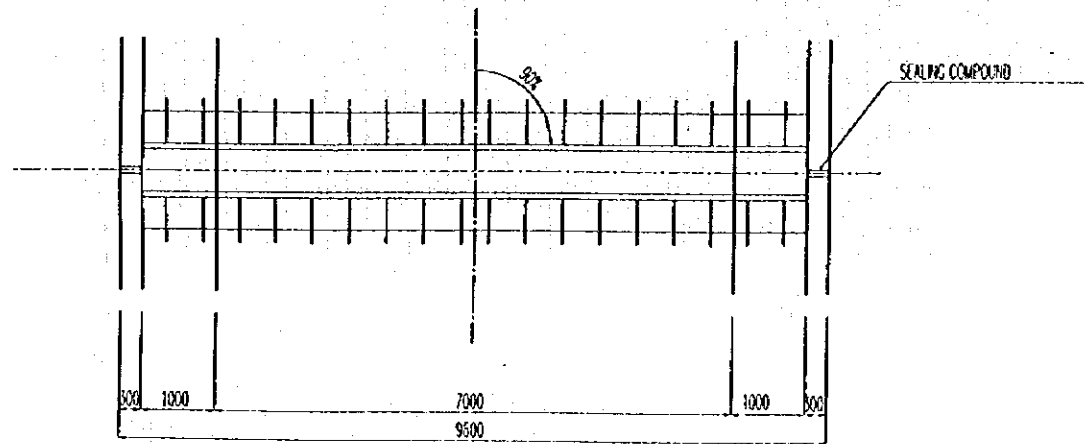
PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	BEARING DWG NO J-70-30-002	APPROVED
CHECKED		DATE		DATE
SUBMITTED		REFERENCE		NO.
DATE				

DETAIL OF EXPANTION JOINT

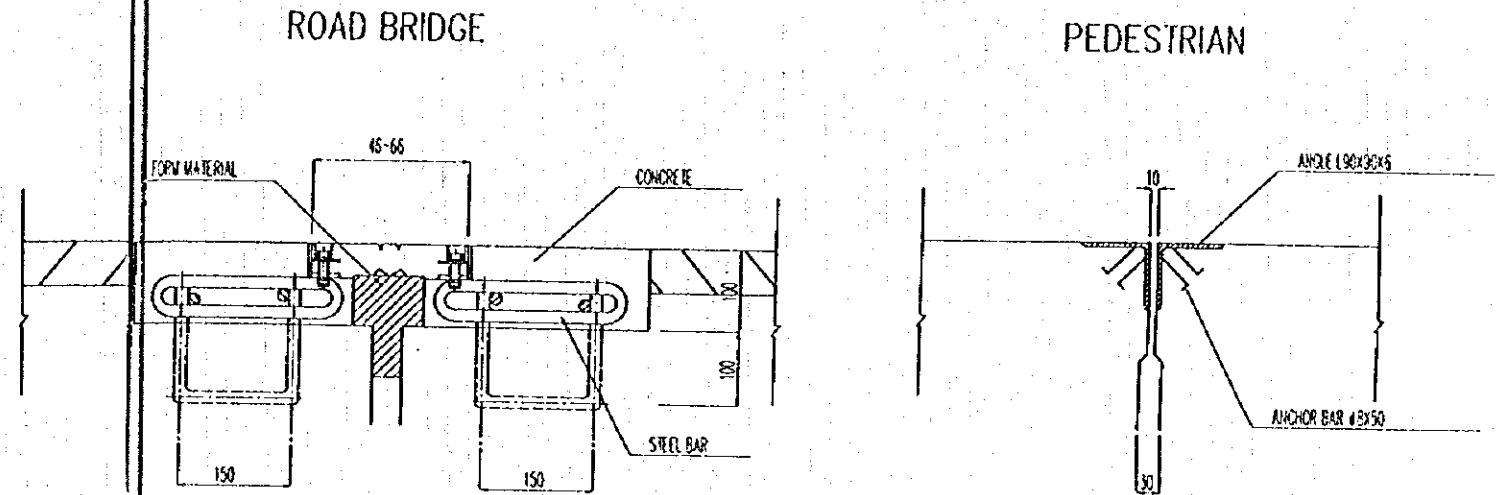
CROSS SECTION VIEW SCALE 1/100



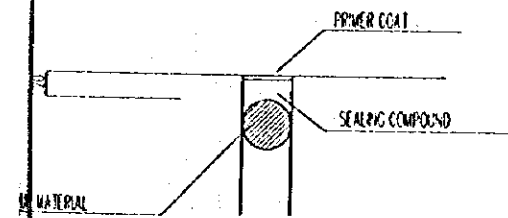
PLAN VIEW SCALE 1/100



SECTION OF EXPANTION JOINT SCALE 1/10

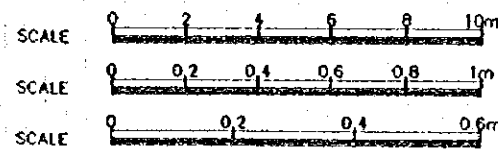


DETAIL OF SEALING COMPOUND SCALE 1/6



ROAD CASE	EXPANSION LENGTH (PER SPAN)	
	BRIDGE WIDTH (m)	LENGTH (m)
I-2	10.600	21.200
I-3	12.200	24.400
II-3	12.200	24.400
III-1	8.200	16.400
III-2	9.600	19.200
III-3	6.600	13.200
IV-1	4.600	9.200
IV-S	3.000	6.000
IV-S	3.500	7.000
P. B	2.500	5.000

Remarks: Shop drawings made according to these standards shall be submitted for the approval of the Engineer.

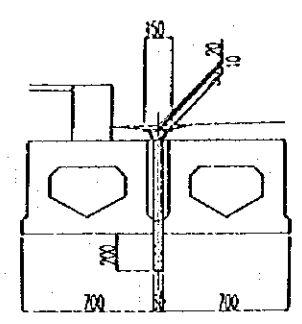


REFERENCE	NO.	PREPARED _____	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
		CHECKED _____		EXPANSION	
REFERENCE	NO.	SUBMITTED _____	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	DWG NO.	DATE
		DATE _____		J-70-30-003	

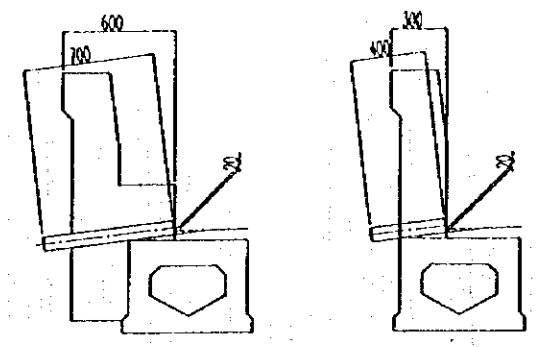
DRAINAGE

SECTION OF DRAIN BASIN SCALE 1/40

WITH SIDEWALK

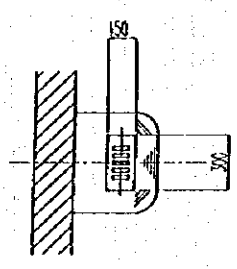


WITHOUT SIDEWALK AND PEDESTRIAN

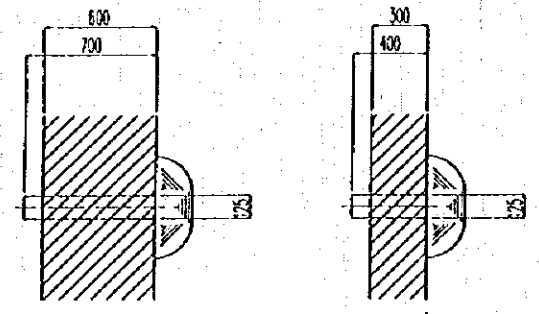


PLAN OF DRAIN BASIN SCALE 1/40

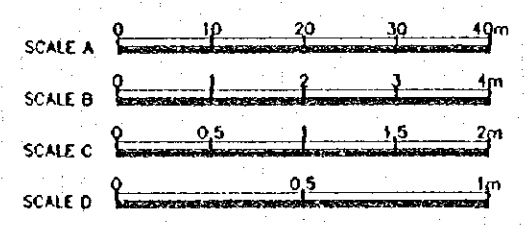
WITH SIDEWALK



WITHOUT SIDEWALK AND PEDESTRIAN



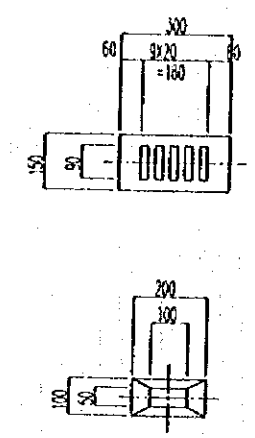
MATERIAL (PER UNIT)				
WITH SIDEWALK				
DESCRIPTION	SIZE	UNIT	WEIGHT	REMARKS
CAP	1-PL 300X150X10	kgf	3.54	
DRAIN BASIN	2-PL 150X56X6	kgf	0.79	
	2-PL 63X70X6	kgf	0.42	
DRAIN PIPE	1-Ø100X50X3.2X840	kgf	5.89	W=7.01kgf/m
TOTAL			10.64	
WITHOUT SIDEWALK AND PEDESTRIAN				
DESCRIPTION	SIZE	UNIT	WEIGHT	REMARKS
DRAIN PIPE	1-Ø125X75X2.3X700	kgf	4.87	W=6.95kgf/m
DRAIN PIPE	1-Ø125X75X2.3X400	kgf	2.78	W=6.95kgf/m



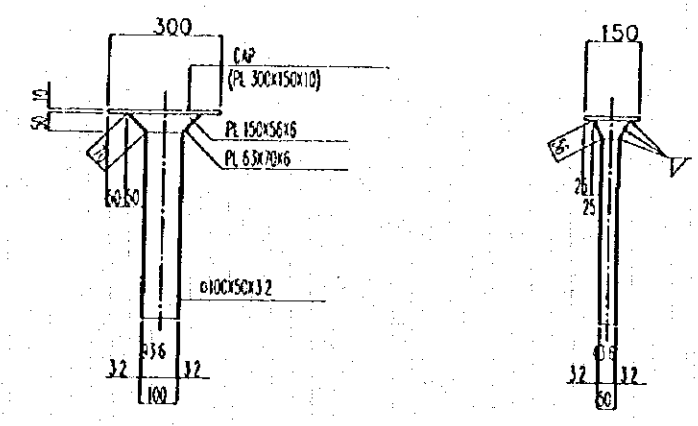
DETAIL OF DRAINAGE SCALE 1/20

WITH SIDEWALK

DETAIL OF CAP

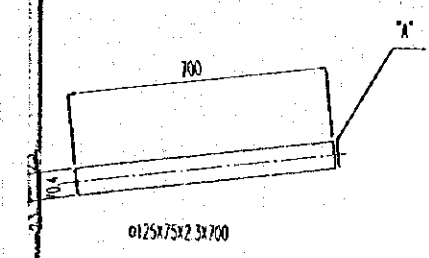


DETAIL OF DRAIN PIPE

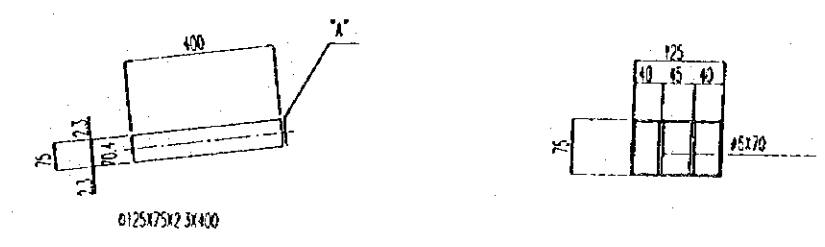


WITHOUT SIDEWALK AND PEDESTRIAN SCALE 1/10

DETAIL OF DRAIN PIPE

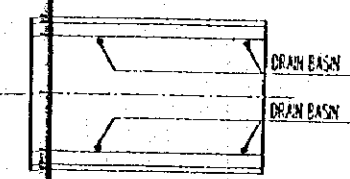


DETAIL OF "A"

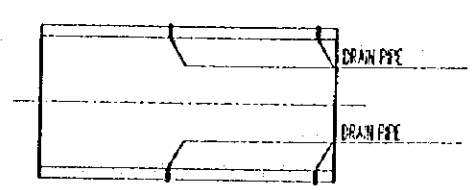


KEY PLAN SCALE 1/400

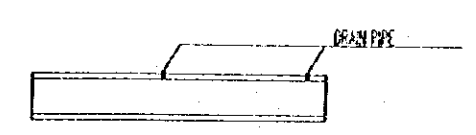
WITH SIDEWALK



WITHOUT SIDEWALK



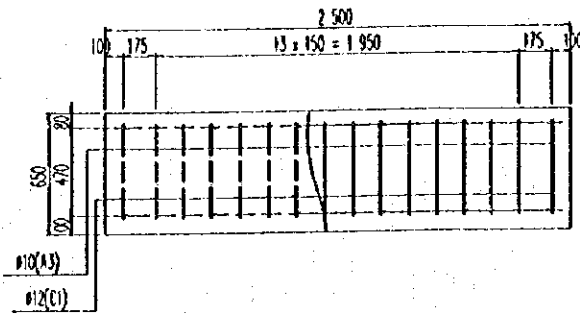
PEDESTRIAN



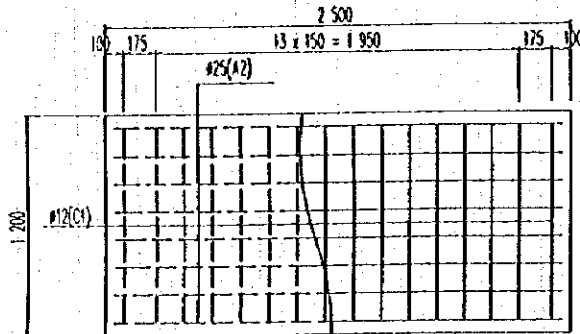
Remarks Shop drawings made according to these standards shall be submitted for the approval of the Engineer

REFERENCE NO	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED		DRAINAGE	
	SUBMITTED		DWG NO	
	DATE		J-70-30-004	
DATE			DATE	

SIDE VIEW



PLAN



CROSS SECTION

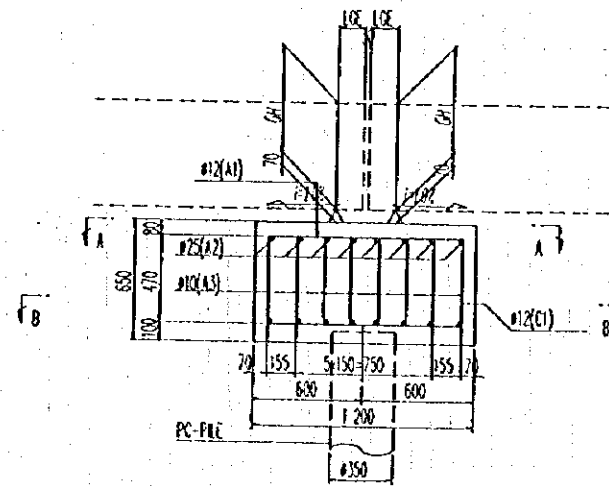
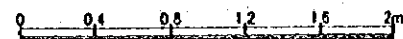


TABLE I

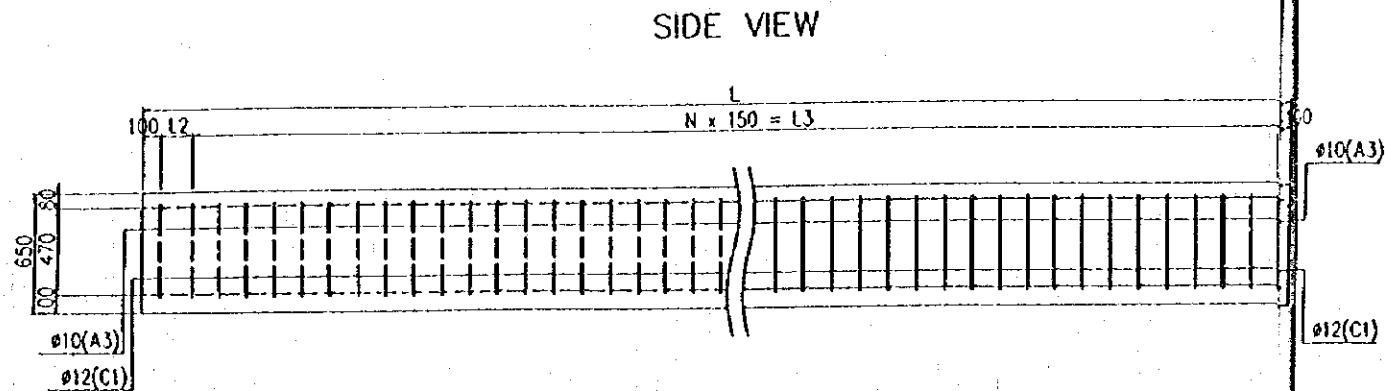
①	L (mm)	2 500				
		A1	A2	A3	C	
o2 o1	Type				C1	
	Diameter (mm)	12	25	10	12	
	Length (mm)	o1	1060	2400	470	
		o2	85		75	
		o3	85		75	
		c1			1060	
	c2			565		
	c3			565		
	Total Length (mm)	1230	2400	620	2190	
c2 c1	Length / Steel frame	1230	2400	620	2190	
	Total of steel frame	1x16	1x16	6x 6	1x16	
		16	16	36	16	
	Total length of whole steel frame (mm)	19.7	38.4	22.3	35.0	

Bar with single spud plate is placed only for the pedestrian bridges.
 Changing length of the girder, 'L' varies from 150mm to 250mm.
 Center height of the new bridge, 'OH' varies from 350mm to 450mm.

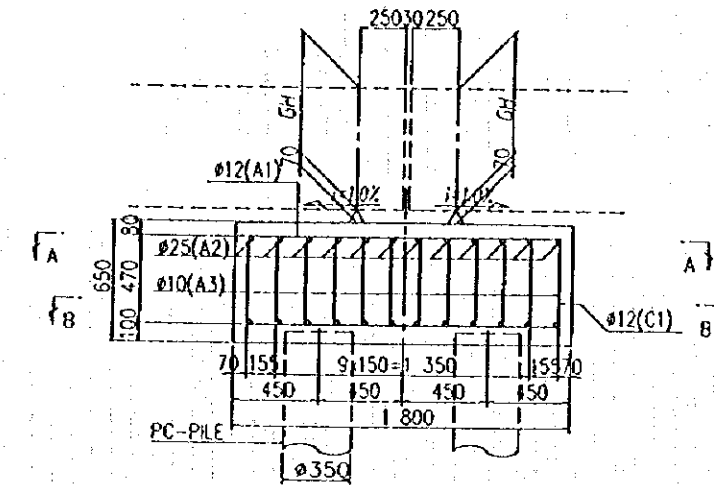
SCALE A



REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	FILE OF DRAWING	APPROVED
	CHECKED		RE-BAR ARRANGEMENT OF PIER-1	
	SUBMITTED		DWG NO	DATE
	DATE		J-70-40-001	



CROSS SECTION



PLAN

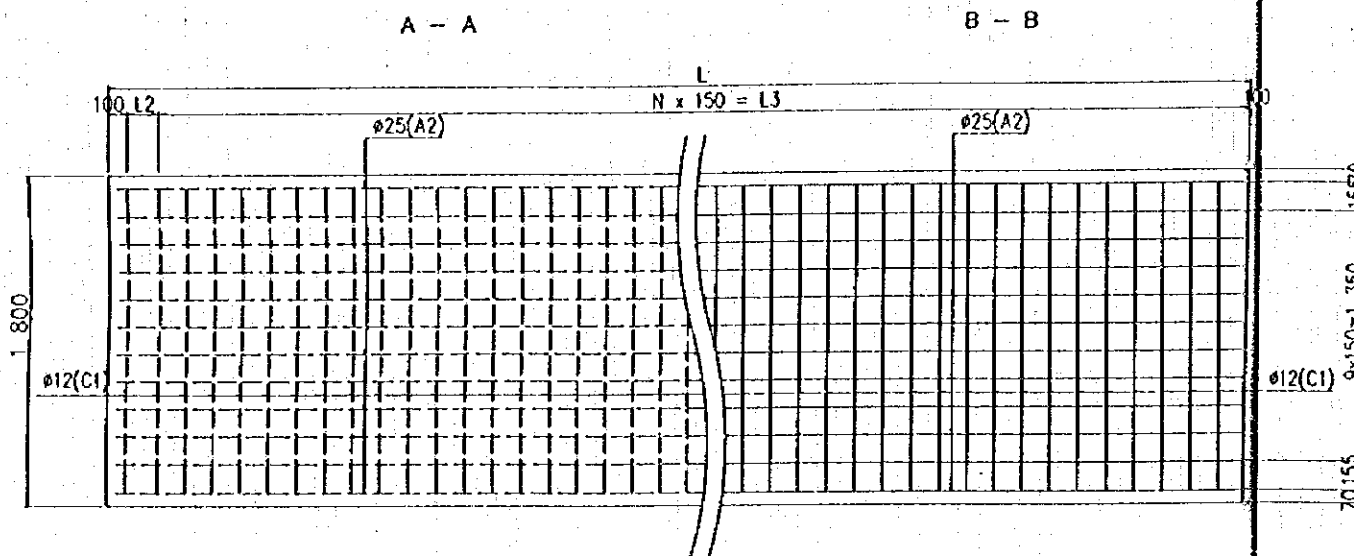


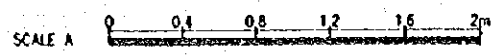
TABLE 2

Total width of new bridge (m)	3.0	4.6	6.6	8.2	9.6	10.6	12.2
L	3000	4500	6500	8200	9600	10600	12200
L2	200	175	200	175	200	175	150
L3	2400	4050	6000	7650	9000	10050	11700
N	16	27	40	51	60	67	78

"L" is equal to the total width of the new bridges (Each width is shown in TABLE 3).
Girder height of the new bridges, "GH" varies from 400mm to 700mm.

TABLE 1

Type	3 000				4 600				6 600				8 200				9 600				10 600				12 200						
	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1	A1	A2	A3	C1			
Diameter (mm)	12	25	10	12	12	25	10	12	12	25	10	12	25	10	12	12	25	10	12	12	25	10	12	12	25	10	12	12	25	10	12
Length (mm)	a1	1660	2900	470	1660	4500	470	1660	6500	470	1660	6500	470	1660	9500	470	1660	10500	470	1660	10500	470	1660	12100	470	1660	12100	470	1660	12100	
	a2	85		75	85		75	85		75	85		75		75	85		75	85		75	85		75	85		75	85		75	
	a3	85		75	85		75	85		75	85		75		75	85		75	85		75	85		75	85		75	85		75	
	c1				1660				1660				1660				1660				1660				1660				1660		1660
c2				565				565				565				565				565				565				565		565	
c3				565				565				565				565				565				565				565		565	
Total Length (mm)	1830	2900	620	2790	1830	4500	620	2790	1830	6500	620	2790	1830	9500	620	2790	1830	10500	620	2790	1830	10500	620	2790	1830	12100	620	2790	12100		
Length / Steel frame	1830	2900	620	2790	1830	4500	620	2790	1830	4500	620	2790	1830	4500	620	2790	1830	4500	620	2790	1830	4500	620	2790	1830	10500	620	2790	1830	12100	
Total of steel frame	1x19	1x24	10x7	1x19	1x30	1x24	10x11	1x30	1x43	1x24	10x15	1x43	1x24	10x19	1x54	1x63	1x24	10x22	1x63	1x70	1x24	10x24	1x70	1x81	1x24	10x28	1x81	1x24	10x28	1x81	
Total length of whole steel frame (mm)	34.8	69.6	43.4	53.0	54.9	108.0	68.2	83.7	78.7	156.0	93.0	120.0	84.4	117.8	150.7	115.3	228.0	136.4	175.8	128.1	252.0	148.8	195.3	148.2	290.4	175.6	226.0	175.6	226.0		



REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
	CHECKED		RE-BAR ARRANGEMENT OF PIER-2	
REFERENCE	SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	DWG. NO.	DATE
	DATE		J-70-40-002	

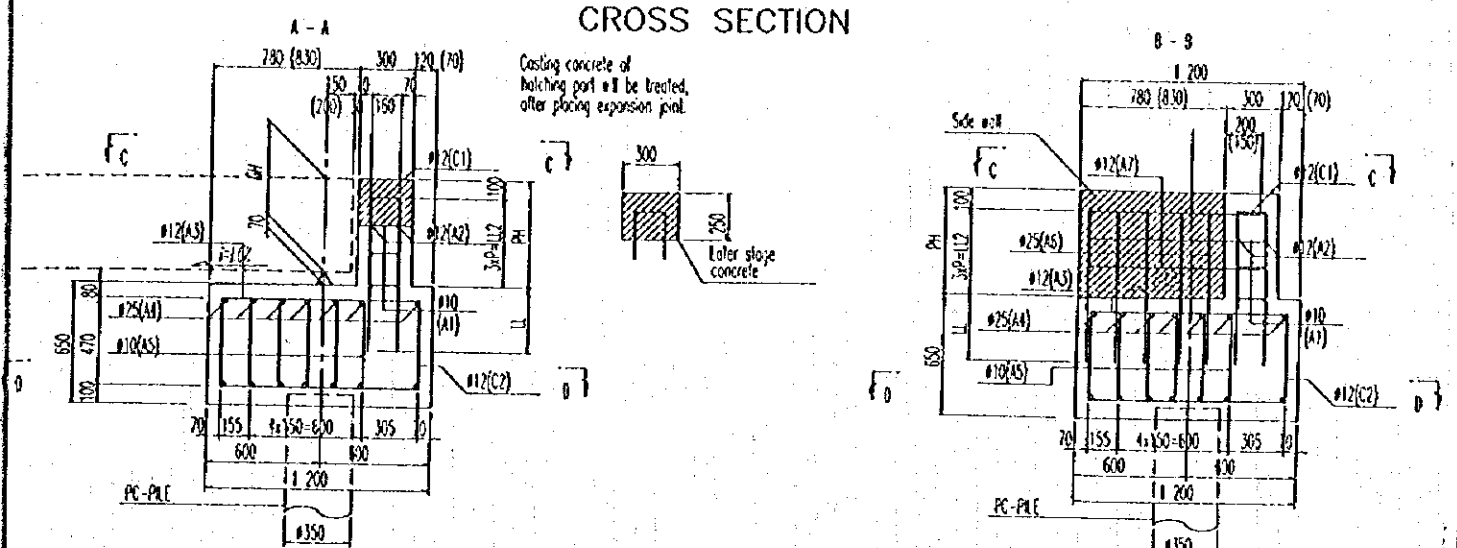
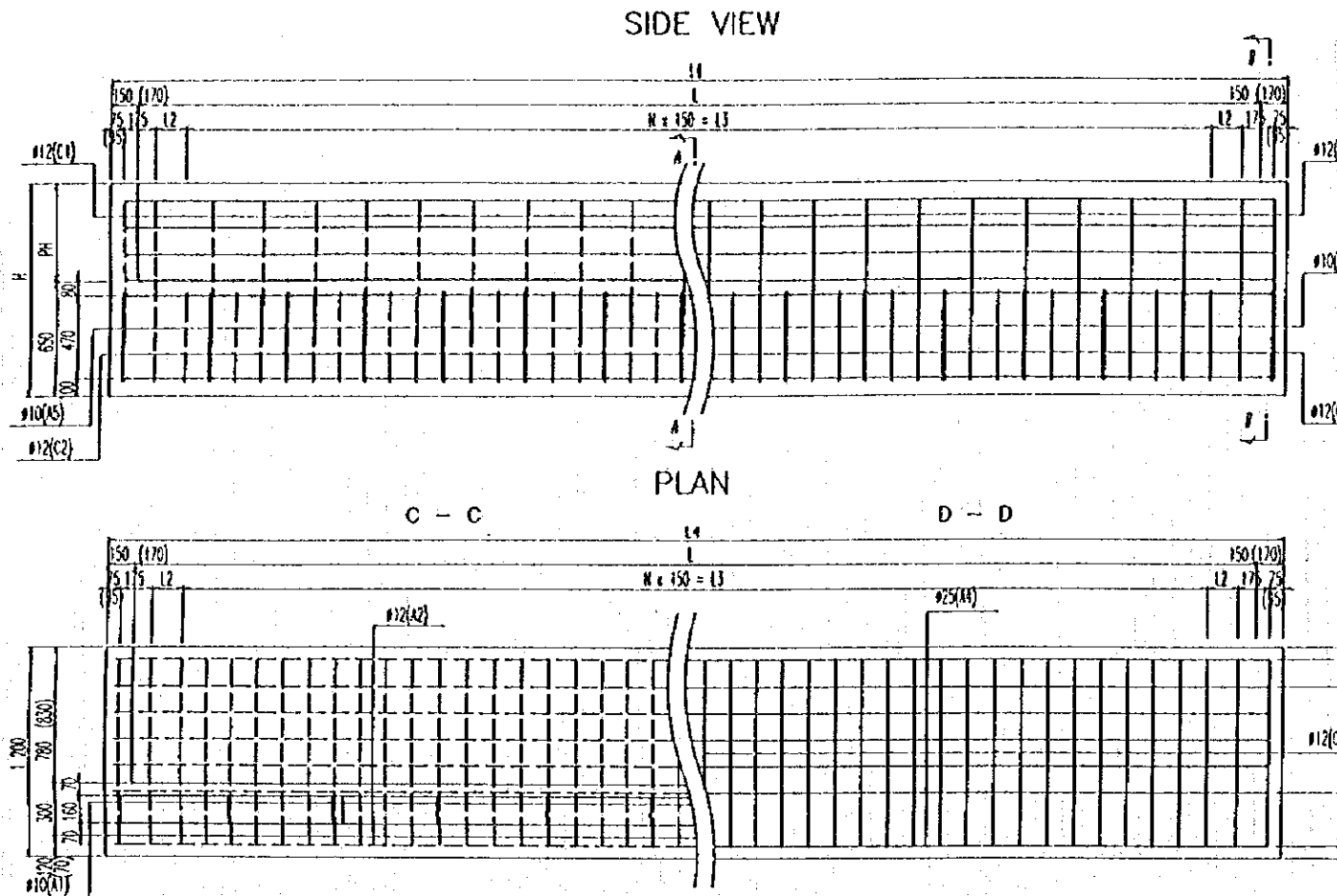


TABLE 2

Total width of new bridge (m)	2.5	3.0	3.5	4.6	6.6	8.2	9.6	12.2
L	2500	3000	3500	4600	6600	8200	9600	12200
L2	175	200	150	175	200	175	200	150
L3	1950	2400	3000	4050	6000	7650	9000	11700
L4	2840	3300	3800	4900	6900	8500	9900	12500
N	13	16	20	27	40	51	60	78

TABLE 3

	1070	1120	1170	1220
H	1070	1120	1170	1220
CH	350	400	450	500
PH	420	470	520	570
P	106.7	123.3	140.0	156.7
LL	500	450	400	350
LL2	300	350	400	450

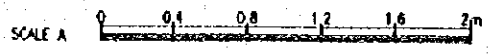
"L" is equal to the total width of the new bridges (Each width is shown in TABLE 2)
 Girder height of the new bridges, "CH" varies from 350mm to 450mm.
 Parapet height of the abutment, "PH" is proportional, and anchorage length of the steel, "LL" is inversely proportional to "CH".
 (Each dimension is shown in TABLE 3)

TABLE 1-1

Type	L (mm) 2 500										3 000																									
	A					C					A					C																				
Diameter (mm)	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12									
Length (mm)	a1	160	2650	1060	2650	470	800	910		160	3150	1060	3150	800	910		160	3650	1060	3650	470	800	910		160	4750	1060	4750	470	800	910		160	5650	1060	
	a2	75		85		75	180	85		75		85		75		85		75		85		75	180	85		75		85		75		85		75		85
	a3	75		85		75	180	85		75		85		75		85		75		85		75	180	85		75		85		75		85		75		85
	c1								160	1060								160	1060								160	1060							160	1060
c2								895	565								895	565								895	565							895	565	
c3								895	565								895	565								895	565							895	565	
Total Length (mm)	310	2650	1230	2650	620	1160	1000	1950	2190	310	3150	1230	3150	1160	1000	1950	2190	310	3650	1230	3650	620	1160	1000	1950	2190	310	4750	1230	4750	620	1160	1000	1950	2190	
Length / Steel frame	310	2650	1230	2650	620	1160	1000	1950	2190	310	3150	1230	3150	1160	1000	1950	2190	310	3650	1230	3650	620	1160	1000	1950	2190	310	4750	1230	4750	620	1160	1000	1950	2190	
Total of steel frame	3x 5	1x 8	1x 18	1x 14	5x 7	5x 2	3x 2	1x 10	1x 18	3x 6	1x 8	1x 21	1x 14	5x 2	3x 2	1x 11	1x 21	3x 7	1x 8	1x 25	1x 14	5x 9	5x 2	3x 2	1x 13	1x 25	3x 9	1x 8	1x 32	1x 14	5x 11	5x 2	3x 2	1x 17	1x 32	
Total length of whole steel frame (mm)	4.7	21.2	22.1	37.1	21.7	11.6	6.5	19.5	39.4	5.6	25.2	25.8	44.1	11.6	6.5	21.5	46.0	6.5	29.2	30.8	51.1	27.9	11.6	6.5	25.4	54.8	8.4	38.0	39.4	66.5	34.1	11.6	6.5	33.2	70.1	

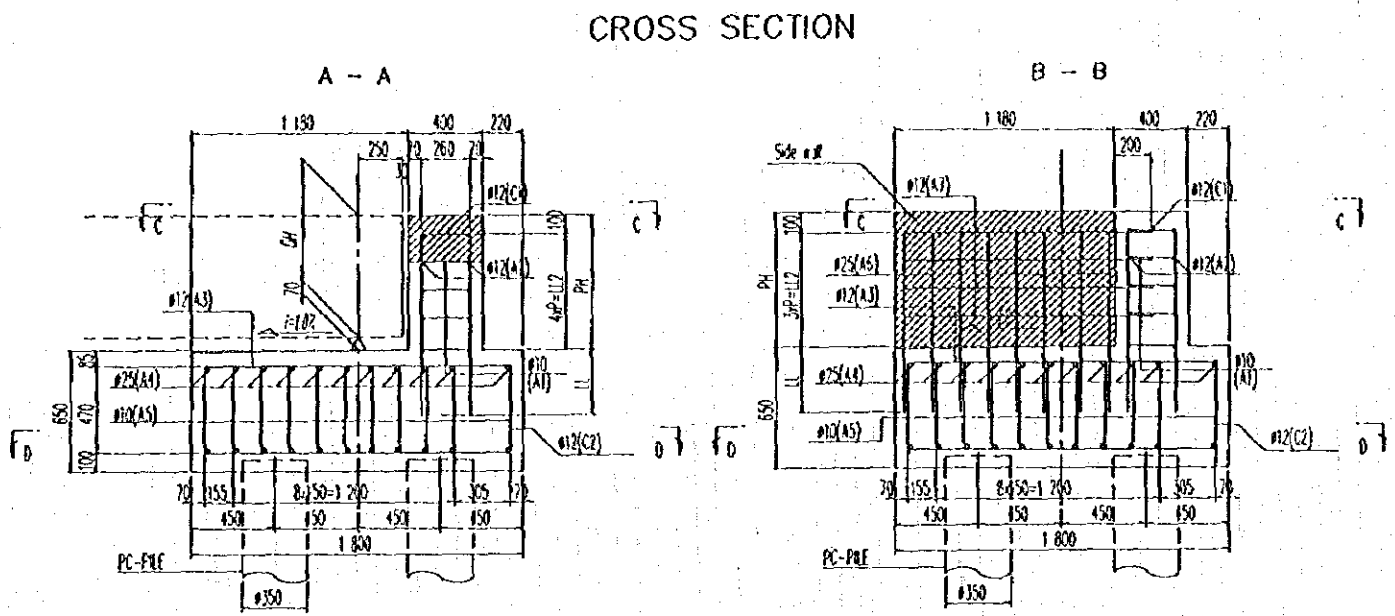
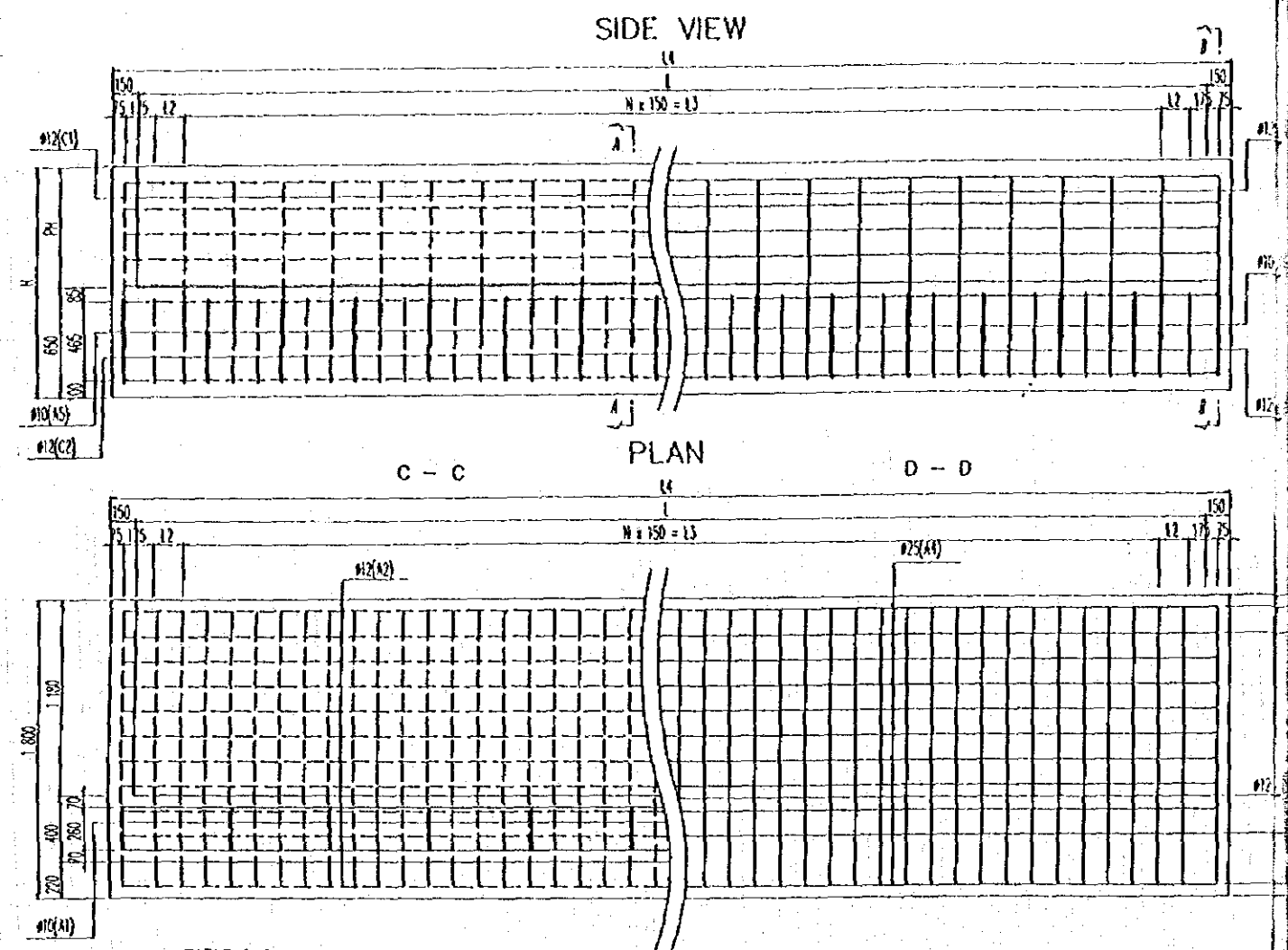
TABLE 1-2

Type	L (mm) 6 600										8 200																									
	A					C					A					C																				
Diameter (mm)	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12	A1: 10	A2: 12	A3: 12	A4: 25	A5: 10	A6: 25	A7: 12	C1: 12	C2: 12									
Length (mm)	a1	160	6750	1060	6750	470	800	910		160	8350	1060	8350	800	910		160	9750	1060	9750	470	800	910		160	12350	1060	12350	470	800	910		160	15950	1060	
	a2	75		85		75	180	85		75		85		75		85		75		85		75	180	85		75		85		75		85		75		85
	a3	75		85		75	180	85		75		85		75		85		75		85		75	180	85		75		85		75		85		75		85
	c1								160	1060								160	1060								160	1060							160	1060
c2								895	565								895	565								895	565							895	565	
c3								895	565								895	565								895	565							895	565	
Total Length (mm)	310	6750	1230	6750	620	1160	1000	1950	2190	310	8350	1230	8350	1160	1000	1950	2190	310	9750	1230	9750	620	1160	1000	1950	2190	310	12350	1230	12350	620	1160	1000	1950	2190	
Length / Steel frame	310	6750	1230	6750	620	1160	1000	1950	2190	310	8350	1230	8350	1160	1000	1950	2190	310	9750	1230	9750	620	1160	1000	1950	2190	310	12350	1230	12350	620	1160	1000	1950	2190	
Total of steel frame	3x 12	1x 8	1x 45	1x 14	5x 16	5x 2	3x 2	1x 23	1x 45	3x 15	1x 8	1x 56	1x 14	5x 2	3x 2	1x 33	1x 65	3x 17	1x 8	1x 65	1x 14	5x 22	5x 2	3x 2	1x 33	1x 65	3x 21	1x 8	1x 83	1x 14	5x 28	5x 2	3x 2	1x 42	1x 83	
Total length of whole steel frame (mm)	11.2	54.0	55.4	94.5	49.6	11.6	6.5	44.9	98.6	14.0	66.8	68.9	116.9	11.6	6.5	56.6	122.6	15.8	78.0	80.0	136.5	68.2	11.6	6.5	64.4	142.4	19.5	98.8	102.1	172.9	86.8	11.6	6.5	81.9	181.8	



REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING RE-BAR ARRANGEMENT OF ABUTMENT-1	APPROVED
	CHECKED			
NO.	SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	Dwg No J-70-40-003	DATE
	DATE			

RE-BAR ARRANGEMENT OF ABUTMENT-2 SCALE A



Casting concrete of side wall will be treated, after construction of superstructure.

Casting concrete of hatching part will be treated, after placing expansion joint.

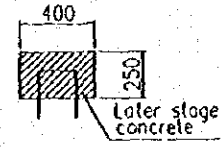


TABLE 2

Total width of new bridge (m)	4.6	6.6	8.2	9.6	10.6	12.2
L	4600	6500	8200	9600	10600	12200
L2	175	200	175	200	175	150
L3	4050	6000	7850	9000	10050	11700
L4	4900	6900	8500	9900	10900	12500
N	27	40	51	60	67	78

TABLE 3

H	1170	1220	1320	1370
GH	450	500	600	650
PH	520	570	670	720
P	105	117.5	142.5	155.0
LL	550	500	400	350
LL2	400	450	550	600

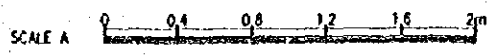
TABLE 1-1

L (mm)	4 600										6 600							8 200											
	A							C			A							C			A							C	
Type	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2		
Diameter (mm)	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12		
Length (mm)	a1	260	4750	1660	4750	465	950	1310		260	6750	1660	6750	465	950	1310		260	8350	1660	8350	465	950	1310					
	a2	75		85		75	180	85		75		85		75	180	85		75		85		75	180	85					
	a3	75		85		75	180	85		75		85		75	180	85		75		85		75	180	85					
	c1								260	1660								260	1660								260	1660	
Total Length (mm)	410 4750 1830 4750 615 1310 1480 2350 2790									410 6750 1830 6750 615 1310 1480 2350 2790							410 8350 1830 8350 615 1310 1480 2350 2790												
	Length / Steel frame									Length / Steel frame							Length / Steel frame												
	Total of steel frame									Total of steel frame							Total of steel frame												
	Total length of whole steel frame (mm)									Total length of whole steel frame (mm)							Total length of whole steel frame (mm)												

TABLE 1-2

L (mm)	9 600										10 600							12 200											
	A							C			A							C			A							C	
Type	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2		
Diameter (mm)	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12		
Length (mm)	a1	260	9750	1660	9750	465	950	1310		260	10750	1660	10750	465	950	1310		260	12350	1660	12350	465	950	1310					
	a2	75		85		75	180	85		75		85		75	180	85		75		85		75	180	85					
	a3	75		85		75	180	85		75		85		75	180	85		75		85		75	180	85					
	c1								260	1660								260	1660								260	1660	
Total Length (mm)	410 9750 1830 9750 615 1310 1480 2350 2790									410 10750 1830 10750 615 1310 1480 2350 2790							410 12350 1830 12350 615 1310 1480 2350 2790												
	Length / Steel frame									Length / Steel frame							Length / Steel frame												
	Total of steel frame									Total of steel frame							Total of steel frame												
	Total length of whole steel frame (mm)									Total length of whole steel frame (mm)							Total length of whole steel frame (mm)												

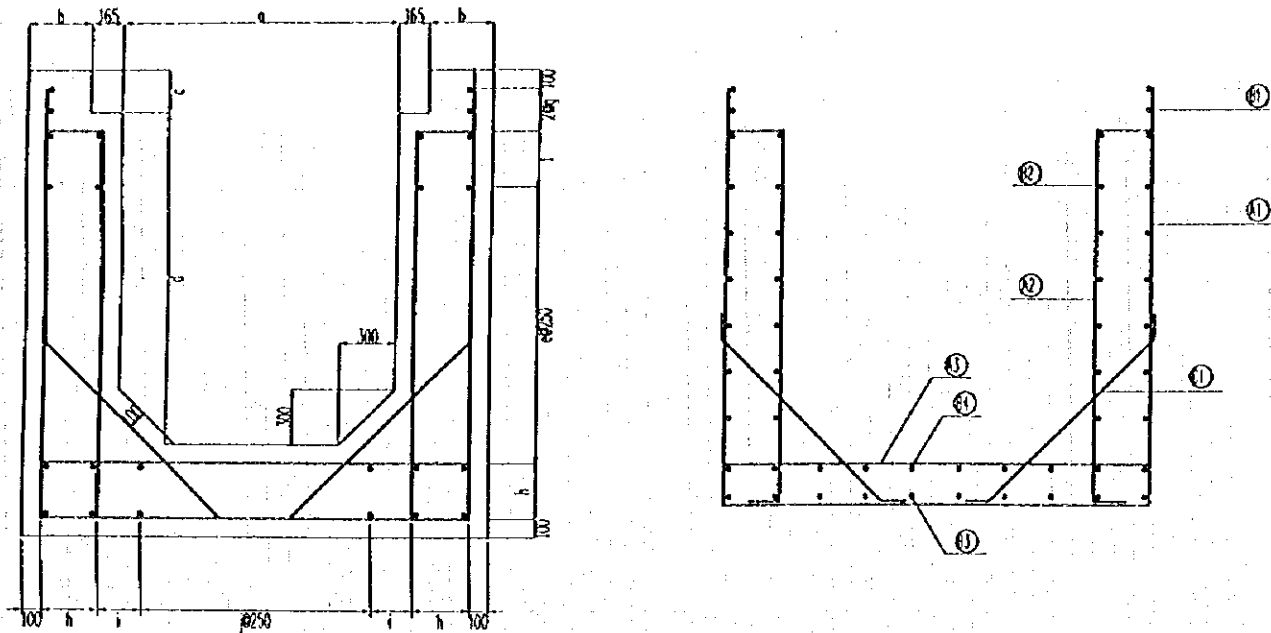
"L" is equal to the total width of the new bridges (Each width is shown in TABLE 2.)
 Girder height of the new bridges, "GH" varies from 450mm to 700mm.
 Parapet height of the abutment, "PH" is proportional, and anchorage length of the steel, "L" is inversely proportional to "GH".
 (Each dimension is shown in TABLE 3.)



REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED		RE-BAR ARRANGEMENT OF ABUTMENT-2	
	SUBMITTED		DWG NO	
	DATE		J-70-40-004	
			DATE	

RE-BAR ARRANGEMENT OF RC SIDE DITCH

SIDE VIEW SCALE A

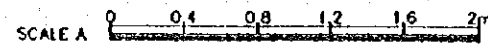


PILE ARRANGEMENT

Bridge Name	BNM1	BNM2~4	BKM19,20
Pile Arrangement			
Pile NO.	11	8	8
Pile Length(m)	8.0	8.0	14.0

	a	b	c	d	e	f	g	h	i	j
BMM1				1750	7	0				
BMM2				1770	6	270				
BMM3				1800	6	300				
BMM4				1800	6	300				
BMM5	1500	335	230	1830	7	80	115	300	225	5
BMM6				1830	7	80				
BMM7				1890	7	140				
BMM8				1930	7	180				
BMM9				1930	7	180				
BMM10				1950	7	200				
BMM11	1250	385	230	1670	6	170	115	350	225	4
BMM12				1670	6	170				
BMM13				1670	6	170				
BMM14	2200	335	270	1370	5	120	135	300	200	8
BMM15				1600	6	100				
BMM16	1200	235	230	1470	5	220	115	200	200	4
BNM1										
BNM2										
BNM3	2200	285	270	1970	7	220	135	250	200	8
BNM4										
BKE19				1450	5	200				
BKE20	2000	235	270	1300	4	300	135	200	225	7

	A1	A2	A3	B1	B2	B3	B4	C1
BMM1								
BMM2								
BMM3								
BMM4								
BMM5	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM6								
BMM7								
BMM8								
BMM9								
BMM10								
BMM11	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM12								
BMM13								
BMM14	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BMM15								
BMM16	D16 @ 125	D16 @ 250	D13 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D13 @ 250	D16 @ 250
BNM1								
BNM2								
BNM3	D19 @ 125	D19 @ 250	D16 @ 250	D19 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D19 @ 250
BNM4								
BKE19								
BKE20	D16 @ 125	D16 @ 250	D13 @ 250	D16 @ 250	D13 @ 250	D13 @ 250	D13 @ 250	D16 @ 250



PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		RE-BAR ARRANGEMENT OF RC SIDE DITCH	
SUBMITTED.....		DWG NO.	DATE
DATE.....		J-70-40-005	
REFERENCE.....			

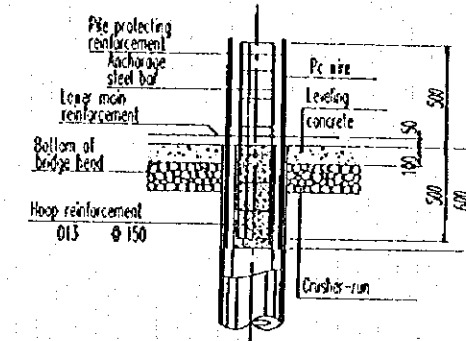
7. QUALITY

Raw Material

Raw Material shall be as follow :

TYPE	CODE/STANDARDS	DESCRIPTION
a Cement	SNI 15-2049-1994	Ordinary Portland Cement Type I.
b Aggregates	JIS A 5308	Aggregates for Ready Mixed Concrete For coarse aggregate, Max size 20mm
c. Chemical Admixture	ASTM C 494 or JIS A 6204	Standard Specification for Chemical Admixture Type G, Calcium Chloride free. Standard Type Water Reducing Chemical Admixture
d. Prestressing Steel	JIS G 3536	Uncoated Stress Relieved Steel Wire & Strand For Prestressed Concrete SPWD1-7mm, SPWD1-9mm
e. Spiral Wire	JIS G 3532	Low Carbon Steel Wire SWM-B or equivalent
f. Joint Plate	JIS G 3101	Rolled Steel for General Structure SS-400
g. Water		Shall not contain any jetriment amount of oils, acids, salts, etc.

DITAIL OF PILE HEAD



APPROACH CUSHION SLAB

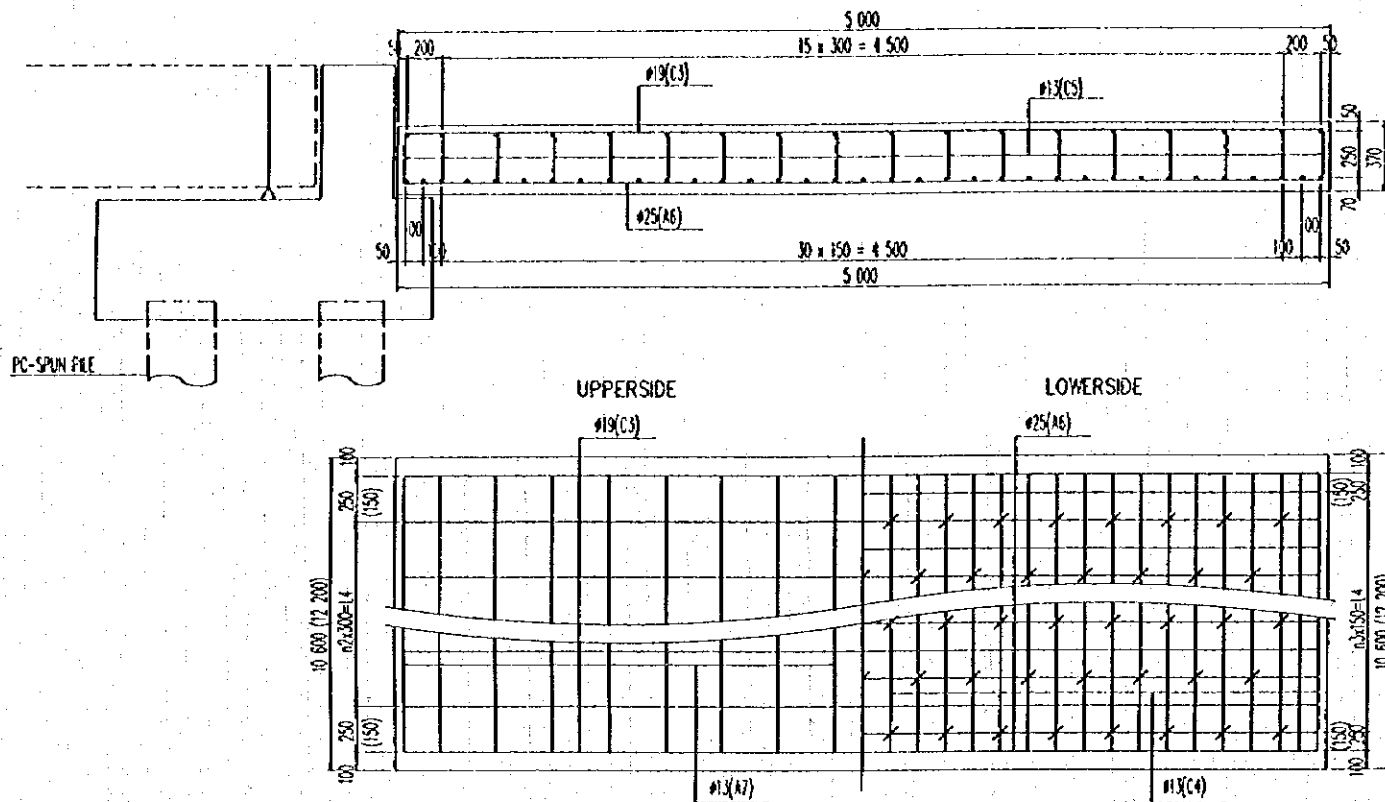


TABLE 2

No. of bridge L (mm)	BTM-3 10 600					BNM-4, BCM-11, BCM-12 12 200					
	A6	A7	C3	C4	C5	A6	A7	C3	C4	C5	
Diameter (mm)	25	13	19	13	13	10	12	12	25	10	
Length (mm)	a1	4900	10400			4900	12000				
	a2										
	a3										
	c1			4900	10400	290			4900	12000	290
Total Length (mm)	c2			250	250	100			250	250	100
	c3			250	250	100			250	250	100
Length / Steel frame	4900	10400	5300	10900	490	4900	12000	5300	12500	490	
Total of steel frame	1x29	1x18	1x69	1x35	8x34	1x81	1x18	1x81	1x35	8x40	
	29	18	69	35	272	81	18	81	35	320	
Total length of whole steel frame (mm)	142.1	187.2	372.6	381.5	133.3	396.9	216.0	437.4	437.5	156.8	

2 Compressive Strength test of concrete

Compressive Strength test will be done for each daily production work for the age of 1 day (before stress introduction), 7 days and 14 days (delivery period) and 28 days accordingly. Characteristic cube strength in accordance with Indonesian Concrete Code (PBI) 1981 should be 600 kg/cm² (k600) or equivalent with minimum cylinder strength (f_{ck}) of 500 kg/cm².

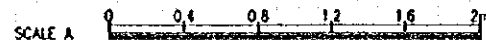
3 Pile Bending Test

Pile bending test of mainbody shall be made in accordance to clause 8 Bending Strength Test of JIS A 5335-1987. Unless specified otherwise, one pile of ever 500 piles the same diameter and type produced will be proof tested by Bending Strength Test. The Test will be considered as satisfactory

Appearance and dimension check

Appearance and dimension check are done for each finished product with the following criterions :
if no visual crack occurred at the load corresponding to its M crack.

Description	Tolerance
Crack	No Visual Crack
Outside	+5mm -2mm
Wall thickness	-0mm + not specified
Length	0.3% of PC Pile Length
Angle between joint plate and pile axis	90° ± 20°



REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
	CHECKED		APPROACH CUSHION SLAB AND PC-PILE	
	SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	DWG NO	DATE
	DATE		J-70-50-001	

PILE ARRANGEMENT--1

TABLE1 CHANNEL : KAMAL

No of Bridge	Structure	Pile Arrangement		Pile No	Pile length	Elevation		Remarks
		Abutment	Pier			Abut	Pier	
BKM 1	KM 2		2- 350-TYPE B	A 8 P 12	16.5 16.5	1.593	1.610	3-Span R.B
BKM 3	KM11-1		2- 400-TYPE B	A 16 P 16	11.5 11.5	1.977	1.992	3-Span R.B
BKM 4	KM15		2- 400-TYPE B	A 4 P 4	11.5 11.5	2.260	2.275	3-Span P
BKM 5	KM17-2		3- 400-TYPE B	A 16 P 24	13.5 13.5	2.389	2.404	4-Span R.B (Skew)
BKM 6	KM19		2- 400-TYPE B	A 4 P 4	10.5 10.5	2.449	2.464	3-Span P
BKM 7	KM20		2- 400-TYPE B	A 4 P 4	10.5 10.5	2.507	2.522	3-Span P
BKM 8	KM21-2		2- 400-TYPE B	A 8 P 12	10.5 10.5	2.576	2.591	3-Span R.B
BKM 9	KM22-3		2- 400-TYPE B	A 4 P 4	11.5 11.5	2.685	2.700	3-Span P
BKM10	KM22-4		2- 350-TYPE B	A 16 P 16	11.5 11.5	2.745	2.761	3-Span R.B
BKM11	KM23-2		2- 350-TYPE B	A 16 P 16	11.5 11.5	2.876	2.891	3-Span R.B

TABLE2--1,-2 CHANNEL : KAMAL(BRANCH) (1)

No of Bridge	Structure	Pile Arrangement		Pile No	Pile length	Elevation		Remarks
		Abutment	Pier			Abut	Pier	
BKE 1	KE 1-1		1- 350-TYPE B	A 4 P 4	9.5 9.5	2.612	2.618	2-Span R.B
BKE 2	KE 2		1- 400-TYPE B	A 6 P 6	10.5 10.5	2.860	2.866	2-Span R.B
BKE 3	KE 3-2		1- 350-TYPE B	A 6 P 6	11.5 11.5	2.953	2.959	2-Span R.B (Skew)
BKE 4	KE 4		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.049	3.055	2-Span R.B
BKE 5	KE 5		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.139	3.143	2-Span R.B
BKE 6	KE 6		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.182	3.188	2-Span R.B
BKE 7	KE 7		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.231	3.237	2-Span R.B
BKE 8	KE 9		1- 350-TYPE B	A 4 P 2	12.5 12.5	3.274	3.280	2-Span P
BKE 9	KE10-1		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.313	3.319	2-Span R.B
BKE10	KE12		1- 350-TYPE B	A 6 P 6	12.5 12.5	3.282	3.288	2-Span R.B
BKE11	KE14		1- 350-TYPE B	A 6 P 6	11.5 11.5	3.317	3.323	2-Span R.B
BKE12	KE15-1		1- 350-TYPE B	A 8 P 6	11.5 11.5	3.336	3.342	2-Span R.B

Column Remarks

R0 : Road Bridge
P : Pedestrian Bridge

All PC Pile are specified as #350(Type A) unless otherwise done.

REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	FILE OF DRAWING PILE ARRANGEMENT-1 DRAWING NO	APPROVED
	CHECKED			DATE