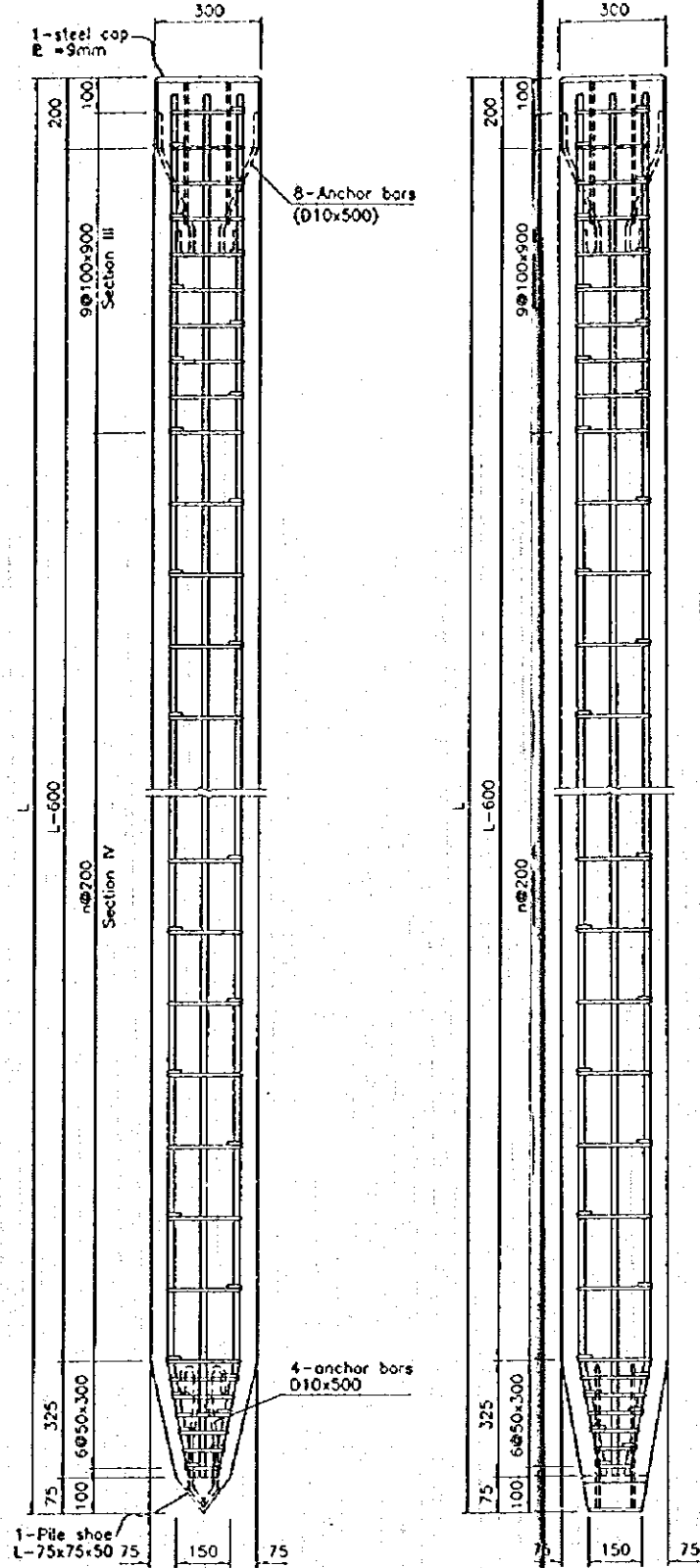
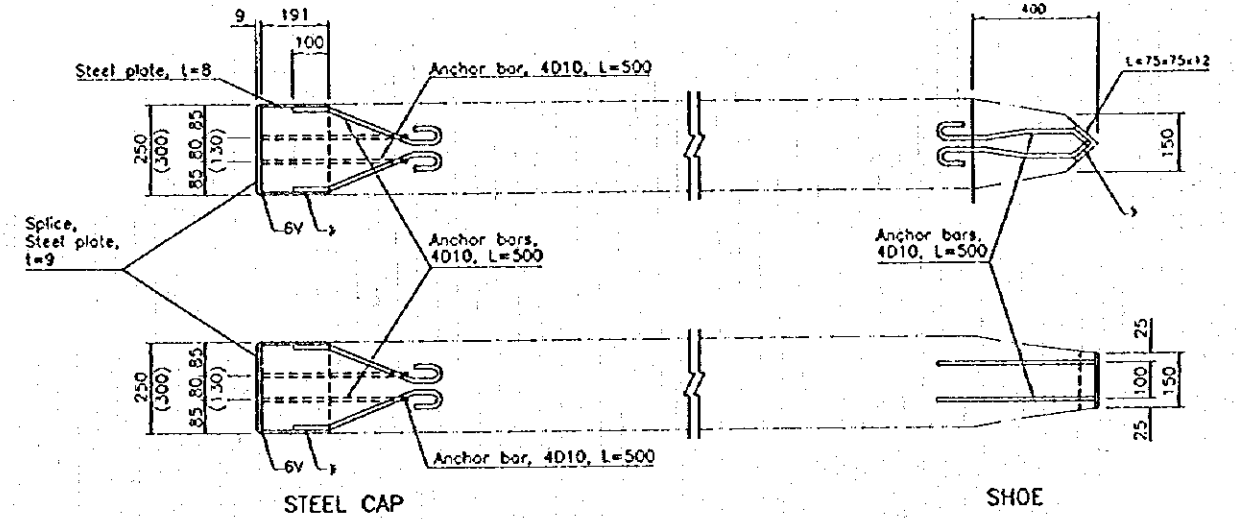
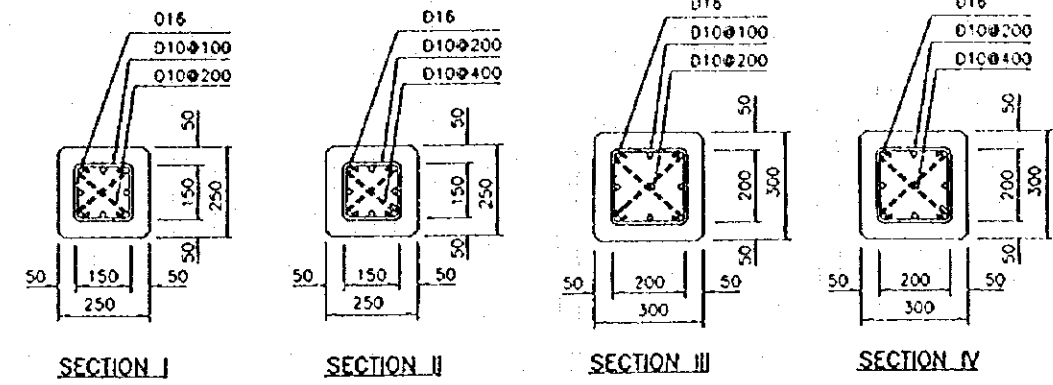


□ 250 REINFORCED CONCRETE PILE

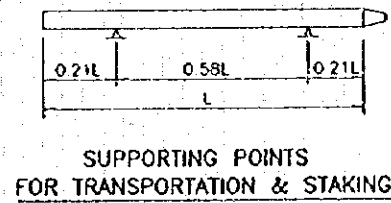


□ 300 REINFORCED CONCRETE PILE

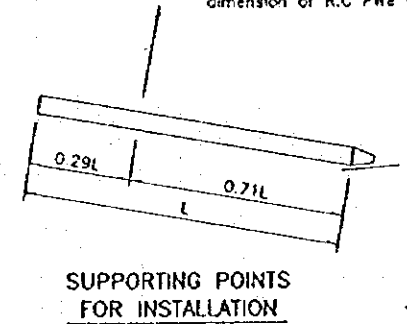


DETAILS OF STEEL CAP AND SHOE FOR REINFORCED CONCRETE PILE (250x250 AND 300x300)

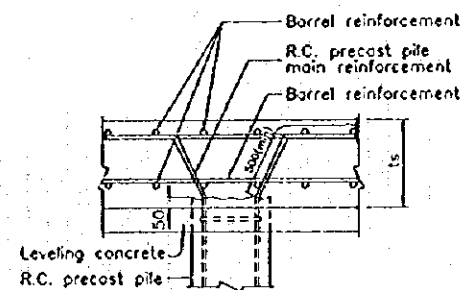
Note: Figures in parentheses show dimension of R.C. Pile (300x300)



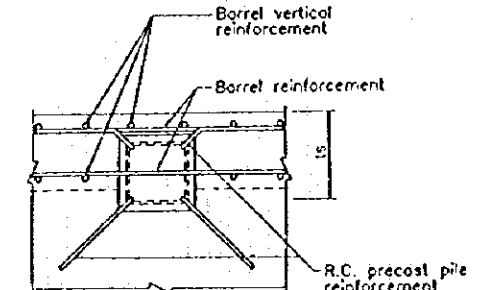
SUPPORTING POINTS FOR TRANSPORTATION & STAKING



SUPPORTING POINTS FOR INSTALLATION

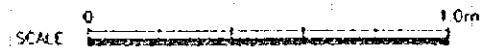


CROSS SECTION



PLAN

R.C. PILE - BOTTOM SLAB CONNECTION



PREPARED.....	
CHECKED.....	
SUBMITTED.....	
DATE.....	
NO.....	
REFERENCE	

MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

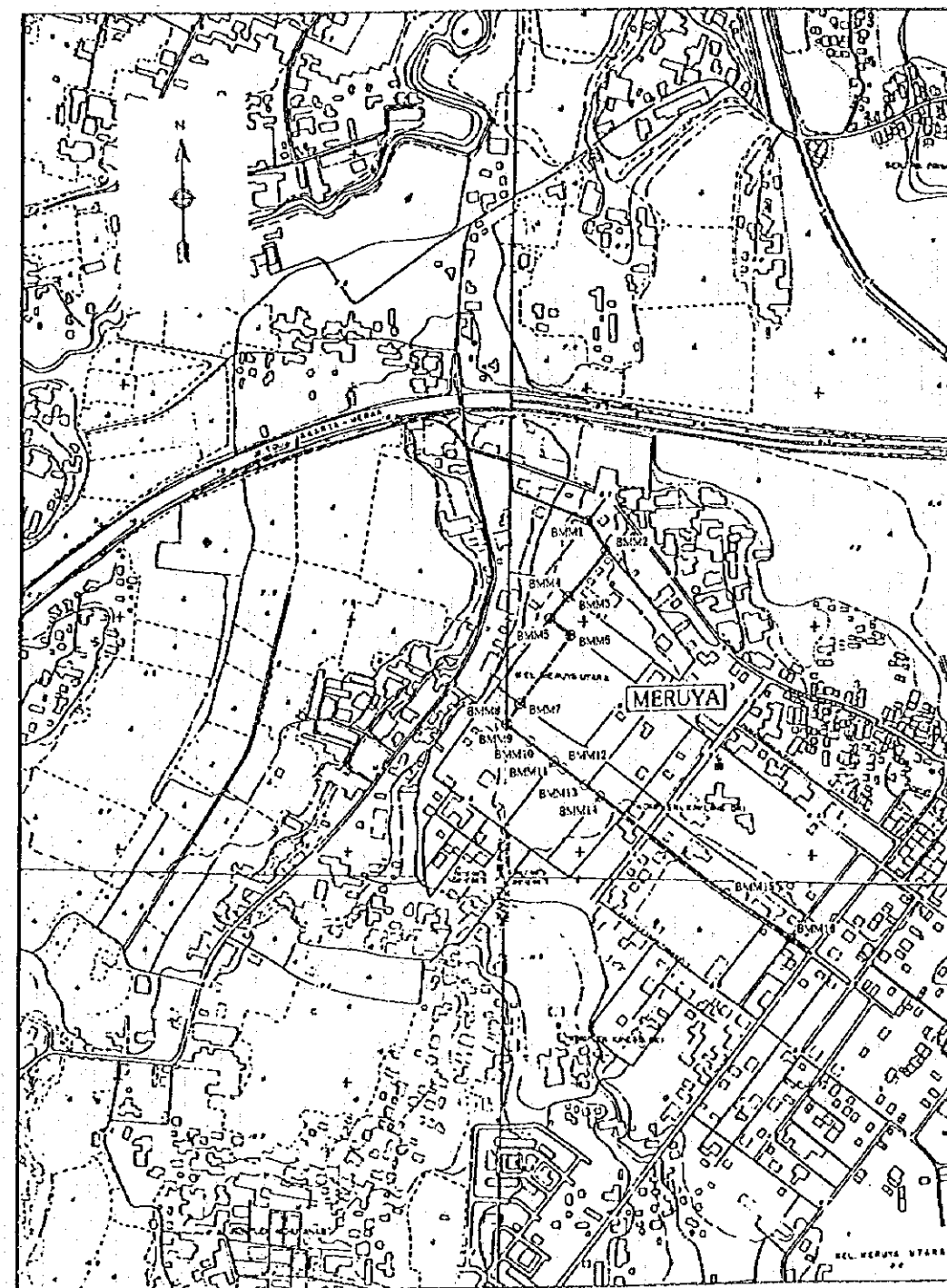
JAPAN INTERNATIONAL COOPERATION AGENCY
THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT
IN THE CITY OF JAKARTA

TITLE OF DRAWING
DRAINAGE FACILITIES,
MISCELLANEOUS DETAILS

DWG NO. J-30-40-001

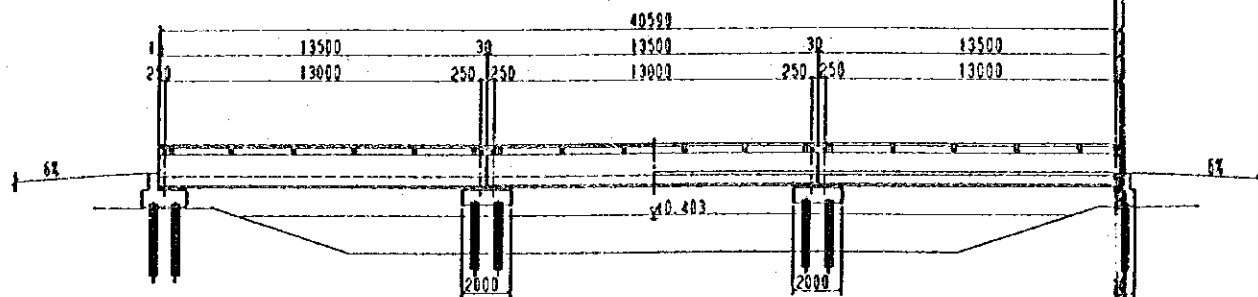
APPROVED

DATE

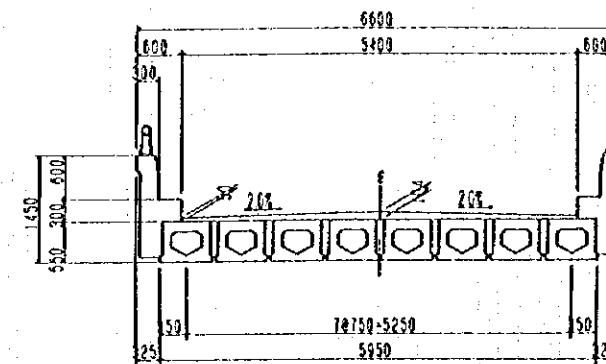


REFERENCE	DY. NO.	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED	
		CHECKED		LOCATION MAP OF BRIDGES		
		SUBMITTED		OWC NO.		DATE
		DATE		J - 60 - 00 - 001		
		JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA				

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	SFL=21.600		VOL=27.040		SFL=24.600	
PROPOSED HEIGHT	0.728		2.388		0.728	
GROUND HEIGHT	0.430		0.620		0.430	
ALONG-DISTANCE	4.800		0.765		44.800	
SHORT DISTANCE	24.800		0.765		24.800	
STATION						
PLANE CURVE						

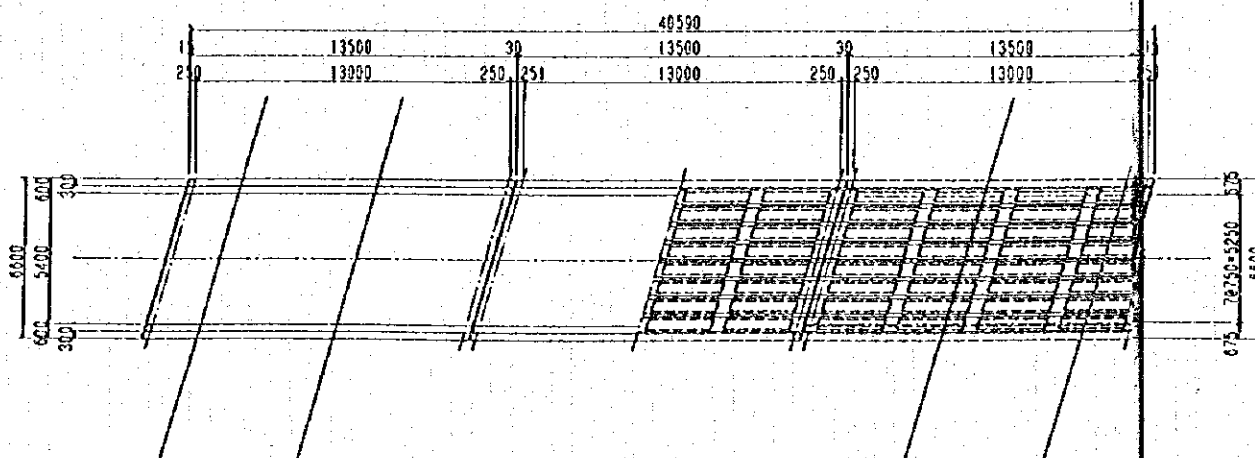
DESIGN CONDITION

BRIDGE NAME	BTM(TM1)
LIVE LOAD	BM 70
GIRDER LENGTH	13.50 m
SPAN LENGTH	13.00 m
WIDTH	6.60 m
BRIDGE ANGLE	7.4°

REACTION

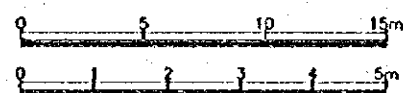
	ABUTMENT(I)	PIER(II)
DEAD LOAD	68.0	136.1
LIVE LOAD	40.0	40.0
TOTAL	108.0	176.1

PLAN SCALE A



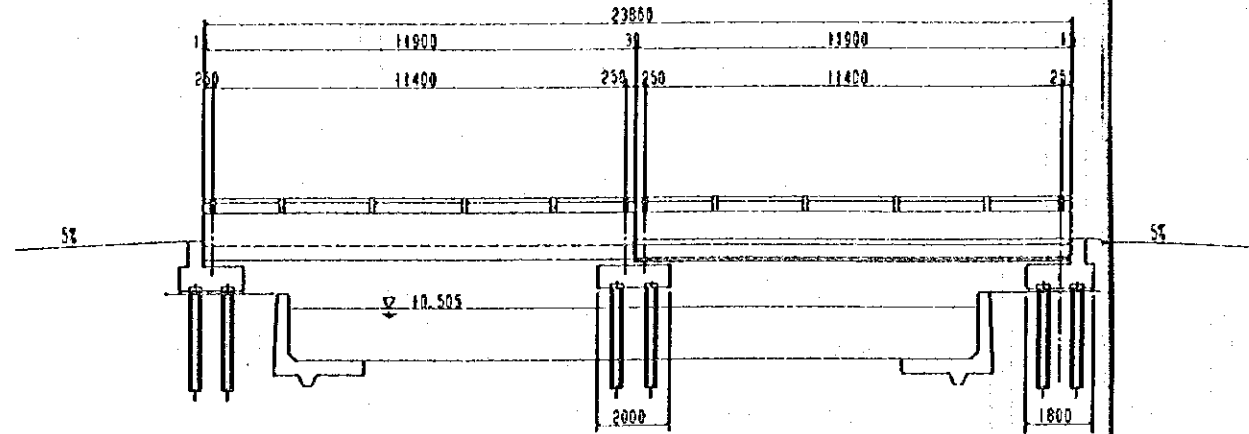
MATERIAL TABLE

KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	24	BM70-07
	DESIGN STRENGTH	m ²	16.5	
FORMING	CONCRETE	m ²	20.6	
	FORM	m ²	218.7	
MISCELLANEOUS	ROADWAY	PAVEMENT	m ²	
	SIDE WALK	PAVEMENT	m ²	
		SUB-CONCRETE	m ²	
		SIDE BLOCK	m	
	GUARD RAIL	FILLING MORTAR	m ³	
		CONCRETE	m ³	37.5
	EXPANSION	FORM	m ²	214.5
		RE-BAR	tf	1.770
		STEEL-RAILING	m	81.0
	DRAINAGE	NUMBER		12
CROSS GIRDER	EXPANSION	m	26.4	
	PC-TENDON	NUMBER		78.0
		LENGTH	m	5.830
		TOTAL LENGTH	m	454.740
	TOTAL WEIGHT	tf	0.750	
SHEATH	m	109.2		
GROUT	m	454.8		

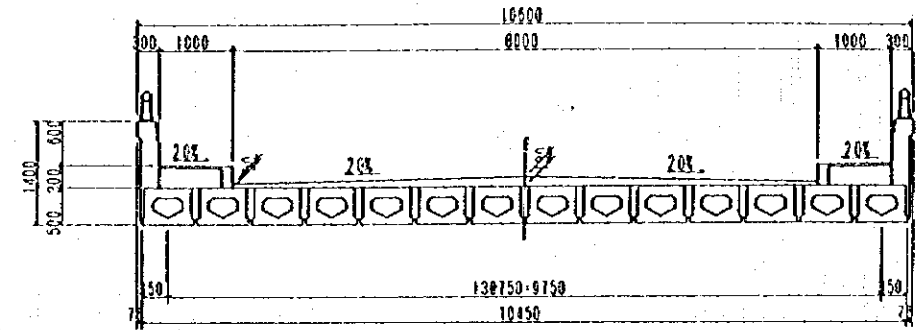


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED	
CHECKED.....		GENERAL PLAN OF BRIDGE BTM(TM1)		
SUBMITTED.....		DWG NO.		J-70-10-301
DATE.....				DATE

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	1.5% 11.670		2.5% 11.670		1.5% 11.670	
PROPOSED HEIGHT	0.143		2.371		0.143	
GROUND HEIGHT	0.860		-0.501		0.650	
ACQUANT LATED DISTANCE	38.900-53.380		11.015		44.505-56.480	
SHORT DISTANCE	0.230		0.000		11.065	
STATION	38.900-53.380		0.000		44.505-56.480	
PLANE CURVE	R=23840					

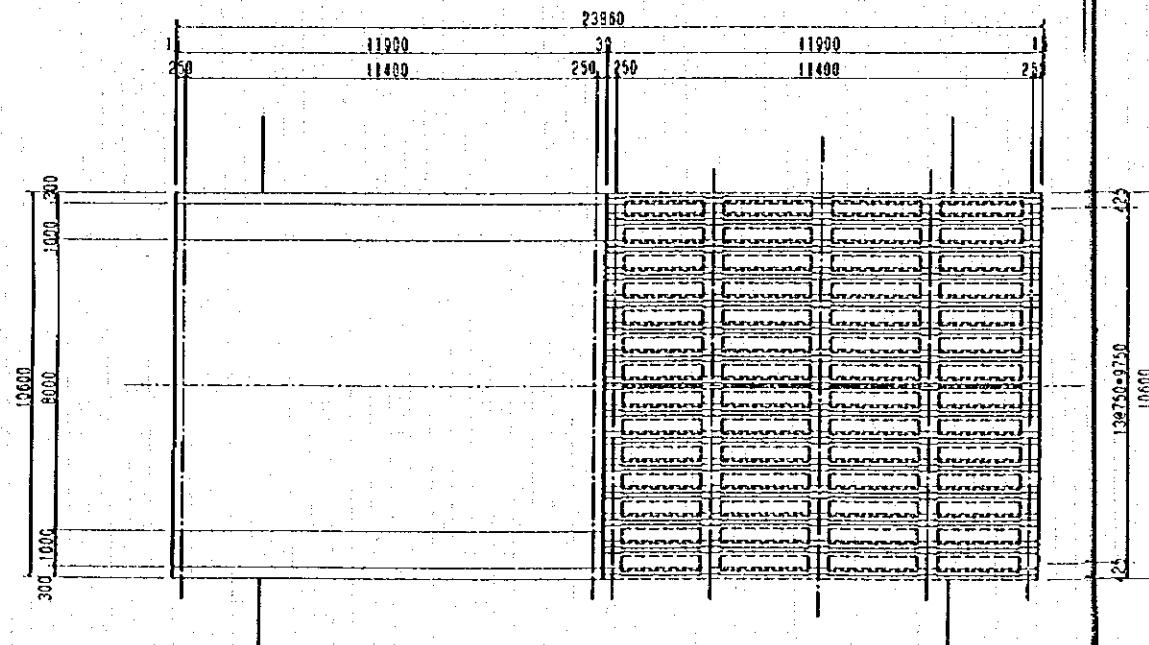
DESIGN CONDITION

BRIDGE NAME	BTM3(TM3-4)
LIVE LOAD	BM 100
GIRDER LENGTH	11.90 m
SPAN LENGTH	11.40 m
WIDTH	10.60 m
BRIDGE ANGLE	90°

REACTION

	ABUTMENT(I)	PIER(II)
DEAD LOAD	93.0	185.9
LIVE LOAD	61.6	61.6
TOTAL	154.7	255.8

PLAN SCALE A



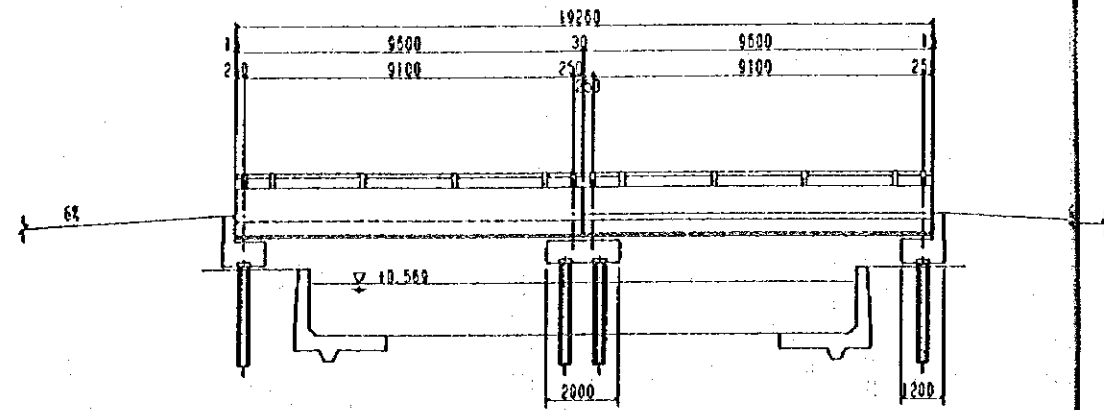
MATERIAL TABLE

KIND OF MATERIAL	NUMBER	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	28	no	28	BM100-02
CONCRETE	DESIGN STRENGTH	m ³	16.3	
FORMING	FORM	m ²	23.0	
MISCEL-LANEOUS	ROADWAY	PAVEMENT	m ²	190.4
		PAVEMENT	m ²	37.6
		SUB-CONCRETE	m ²	10.2
	SIDE WALK	SIDE BLOCK	m	47.6
		FILLING MORTAR	m ³	0.500
		CONCRETE	m ³	11.9
GUARD RAIL	FORM	m ²	110.5	
	RE-BAR	tf	0.560	
	STEEL-RAILING	m	47.6	
	DRAINAGE	NUMBER	8	
EXPANSION		m	31.8	
		NUMBER	52	
	PC-TENDON	LENGTH	m	10.330
		TOTAL LENGTH	m	537.160
		TOTAL WEIGHT	tf	0.897
GROSS GIRDER	SHEATH	m	135.2	
	GROUT	m	537.2	

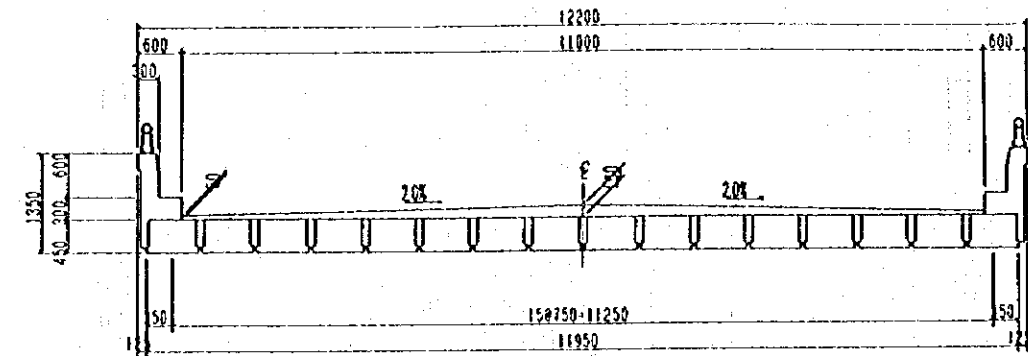


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING GENERAL PLAN OF BRIDGE BTM3(TM3-4)	APPROVED
CHECKED.....		DWG NO	DATE
SUBMITTED.....		J-70-10-302	
DATE.....			
REFERENCE	0/40		

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	SR-68834		1.5% 9.365		2.215 VXL=19240		1.5% 9.365		SR-68834	
PROPOSED HEIGHT	+0.300		2.371 2.375		+2.445		2.371 2.375		+0.300	
GROUND HEIGHT	0.386		0.380		-0.885		0.380		0.310	
ADJACENT PAVEMENT DISTANCE	78.449		44.032		0.000		44.032		78.449	
SHORT DISTANCE	34.417		34.417		0.000		34.417		34.417	
STATION										
PLANE CURVE	R=∞									

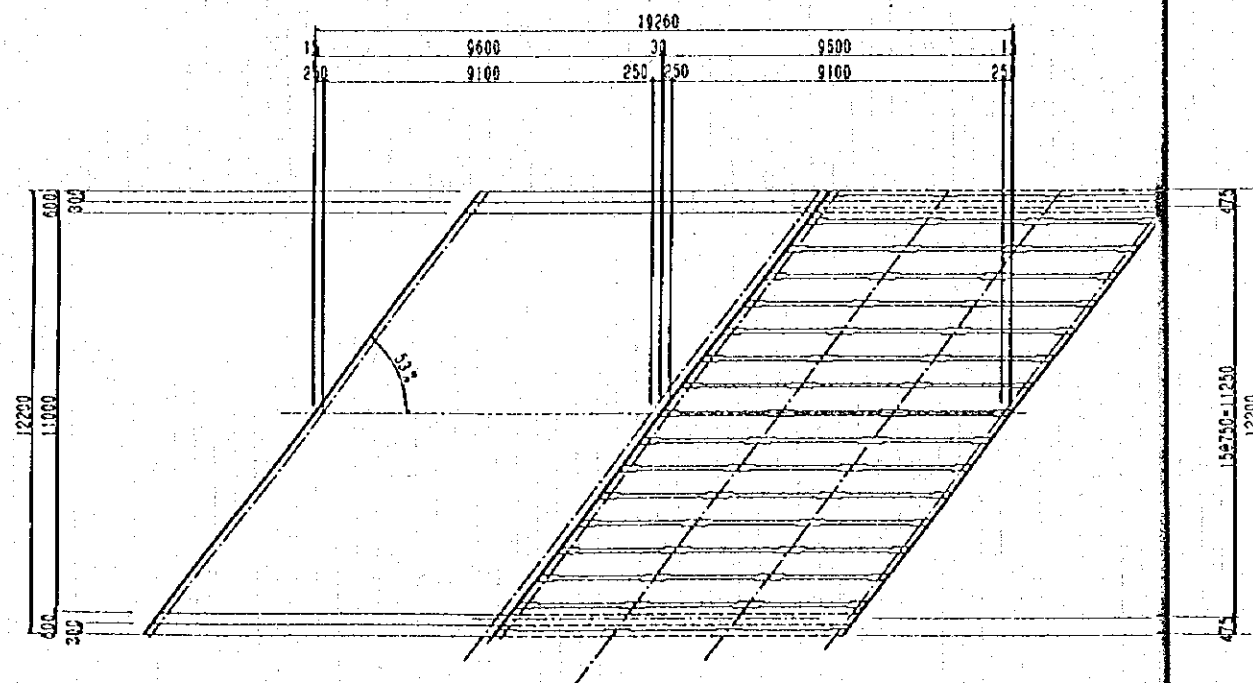
DESIGN CONDITION

BRIDGE NAME	BTM4(TM5)
LIVE LOAD	BM 70
GIRDER LENGTH	9.60 m
SPAN LENGTH	9.10 m
WIDTH	12.20 m
BRIDGE ANGLE	5.3°

REACTION

	ABUTMENT(I)	PIER(I)
DEAD LOAD	84.4	158.9
LIVE LOAD	60.0	60.0
TOTAL	144.4	228.9

PLAN SCALE A



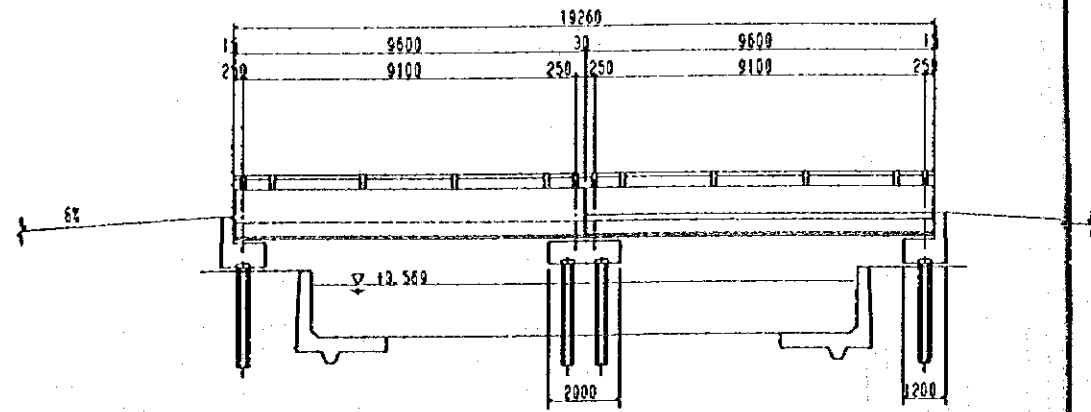
MATERIAL TABLE

KIND OF MATERIAL	NUMBER	UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	32	no	32	BM70-03
CONCRETE	DESIGN STRENGTH	m ³	13.7	
FORMING	FORM	m ²	22.6	
MISCELLANEOUS	ROADWAY	PAVEMENT	m ²	211.2
		PAVEMENT	m ²	---
		SUB-CONCRETE	m ²	---
	SIDE WALK	SIDE BLOCK	m	---
		FILLING MORTAR	m ³	---
		CONCRETE	m ³	13.7
	GUARD RAIL	FORM	m ²	90.4
		RE-BAR	tf	0.644
		STEEL-RAILING	m	38.4
	DRAINAGE	NUMBER		8
EXPANSION		m	36.6	
CROSS GIRDER		NUMBER	24	
	PC-TENDON	LENGTH	m	11830
		TOTAL LENGTH	m	283920
		TOTAL WEIGHT	tf	0.463
	SHEATH		m	72.0
CROUT		m	283.9	

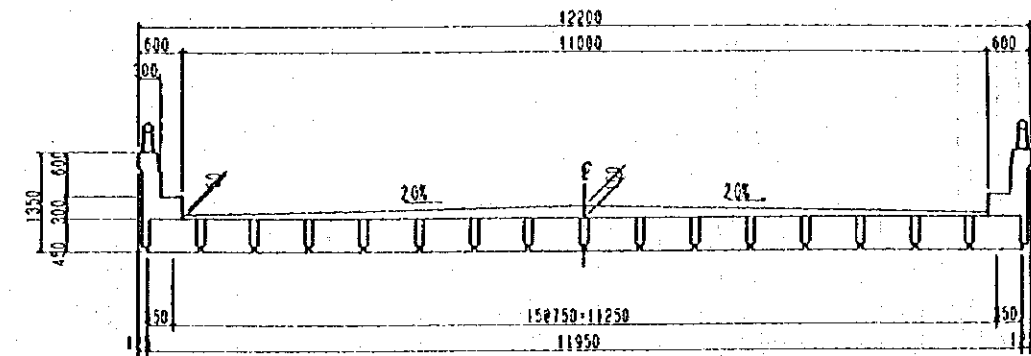


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	FILE OF DRAWING	GENERAL PLAN OF BRIDGE BTM4(TM5)	APPROVED
CHECKED.....		DWG NO		J-70-10-303
SUBMITTED.....				
DATE.....				

SIDE VIEW SCALE A



CROSS SECTION SCALE B



GRADIENT	SR=67.474		1.5% 9.365		1.5% 9.365		1.5% 9.365		SR=67.474	
PROPOSED HEIGHT	0.388		2.400 2.403		2.403		2.413 2.400		0.388	
GROUND HEIGHT	0.300		0.340		-0.855		0.340		0.300	
ACCUMULATED DISTANCE	77.049		9.615 9.365		0.000		9.365 9.615		43.392 77.049	
SHORT DISTANCE	33.717		0.330 9.365		0.000		9.365 0.330		33.717 33.717	
STATION										
PLANE CURVE	R=∞									

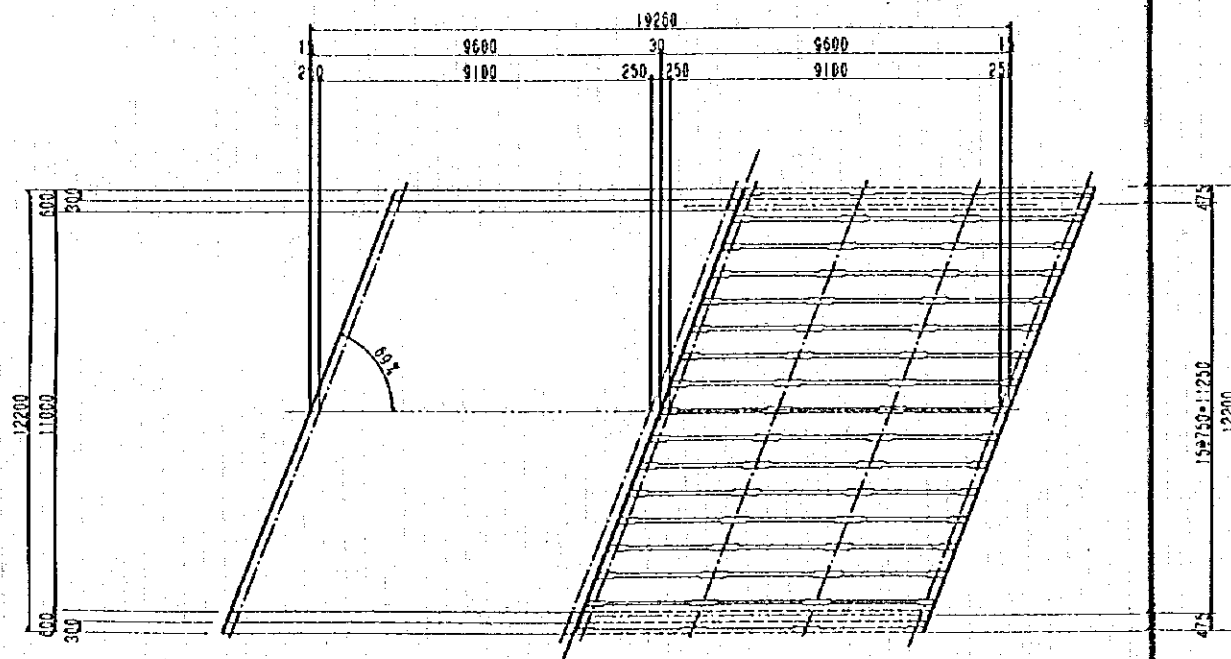
DESIGN CONDITION

BRIDGE NAME	BTMS(TM6)
LIVE LOAD	8M 70
GIRDER LENGTH	9.60 m
SPAN LENGTH	9.10 m
WIDTH	12.20 m
BRIDGE ANGLE	6.9°

REACTION

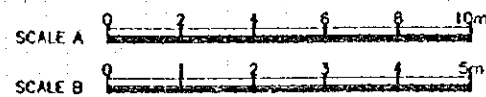
	ABUTMENT(I)	PIER(II)
DEAD LOAD	84.4	168.9
LIVE LOAD	60.0	60.0
TOTAL	144.4	228.9

PLAN SCALE A



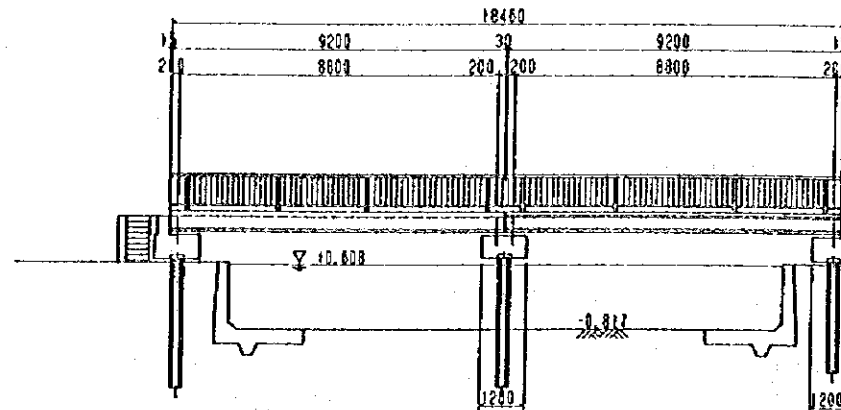
MATERIAL TABLE

KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION	
MAIN GIRDER	CONCRETE	no	32	BM70-03	
	DESIGN STRENGTH	m ³	13.7		
FORMING	FORM	m ²	22.6		
	ROADWAY	PAVEMENT	m ²		211.2
MISCELLANEOUS	SIDE WALK	PAVEMENT	m ²		---
		SUB-CONCRETE	m ²		---
	SIDE WALK	SIDE BLOCK	m		---
		FILLING MORTAR	m ³		---
	GUARD RAIL	CONCRETE	m ³		13.7
		FORM	m ²		90.4
		RE-BAR	tf	0.644	
	DRAINAGE	STEEL-RAILING	m	38.4	
		NUMBER		8	
	EXPANSION	NUMBER	m	36.6	
NUMBER			24		
CROSS GIRDER	PC-TENDON	LENGTH	m	11.830	
		TOTAL LENGTH	m	283.920	
		TOTAL WEIGHT	tf	0.463	
	SHEATH	m	72.0		
GROUT	m	283.9			



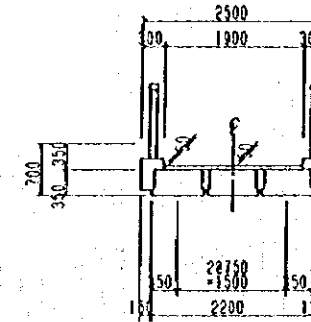
PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING GENERAL PLAN OF BRIDGE BTMS(TM6)	APPROVED
CHECKED.....		DWG NO.	DATE
SUBMITTED.....		J-70-10-304	
DATE.....			

SIDE VIEW SCALE A



GRABENT					
PROPOSED HEIGHT		2.245	2.314	2.245	
GROUND HEIGHT	-0.81	-0.81	-0.81	-0.81	12.115
ACCUMULATED DISTANCE	12.115	9.215	0.000	9.215	
SHORT DISTANCE	3.700	0.200	0.000	0.200	3.700
STATION					
PLANE CURVE	R=∞				

CROSS SECTION SCALE B



DESIGN CONDITION

BRIDGE NAME	BTMS(N/N)
LIVE LOAD	HUMAN/ANIMALS
GIRDER LENGTH	9.20 m
SPAN LENGTH	8.80 m
WIDTH	2.50 m
BRIDGE ANGLE	90°

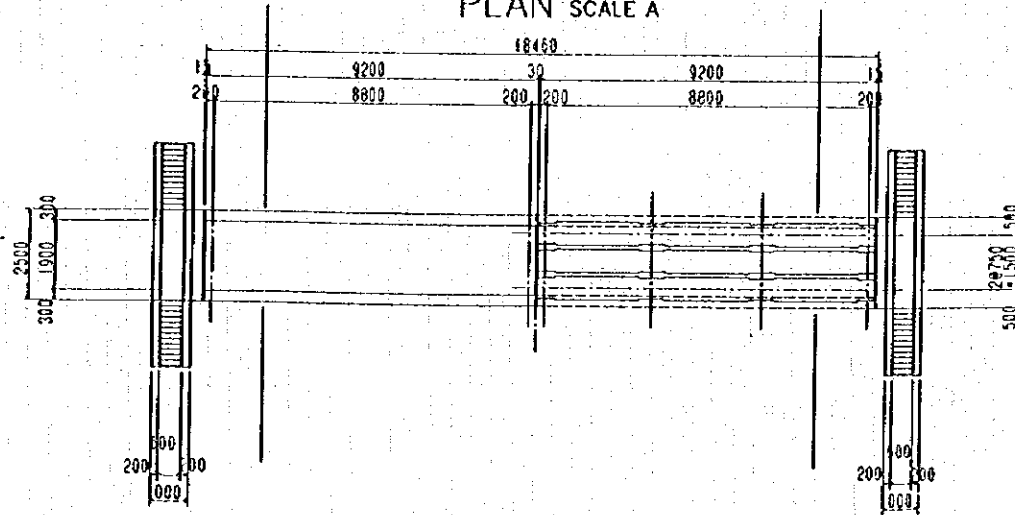
REACTION

	ABUTMENT(I)	PIER(II)
DEAD LOAD	11.8	23.6
LIVE LOAD	2.9	5.8
TOTAL	14.7	29.4

MATERIAL TABLE

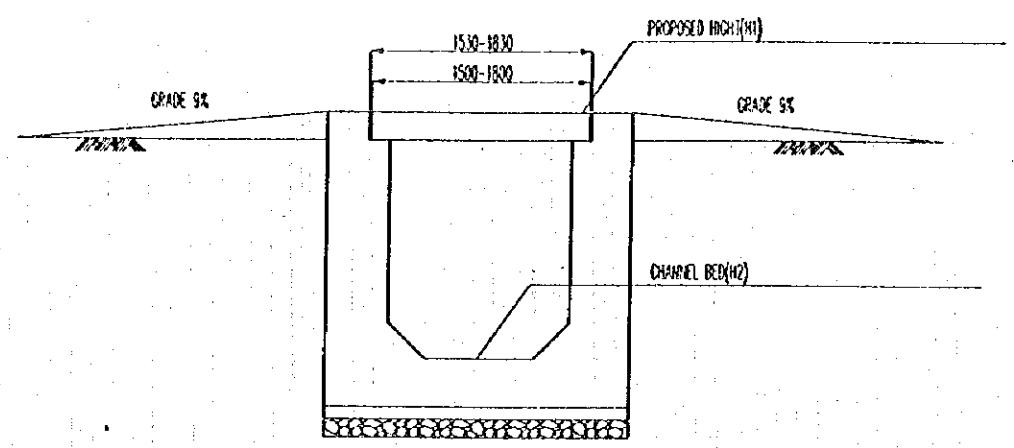
KIND OF MATERIAL		UNIT	VOLUME	DESCRIPTION
MAIN GIRDER	NUMBER	no	6	PB-02
	CONCRETE DESIGN STRENGTH	mp	1.3	
FORMING	FORM	m ²	3.0	
	ROADWAY PAVEMENT	m ²	35.1	
MISCEL-LANEOUS	PAVEMENT	m ²	---	
	SIDE WALK	m ²	---	
	SIDE BLOCK	m	---	
	FILLING MORTAR	m ³	---	
	CONCRETE	m ³	5.7	
	FORM	m ²	43.1	
	RE-BAR	tf	0.27	
GUARD RAIL	STEEL-RAILING	m	37.0	
CROSS GIRDER	DRAINAGE	NUMBER	4	
	EXPANSION	m	7.5	
	NUMBER		24	
	PC-TENDON	LENGTH	m	2.29
	TOTAL LENGTH	m	54.190	
	TOTAL WEIGHT	tf	0.900	
	SHEATH	m	10.6	
GROUT	m	54.9		

PLAN SCALE A

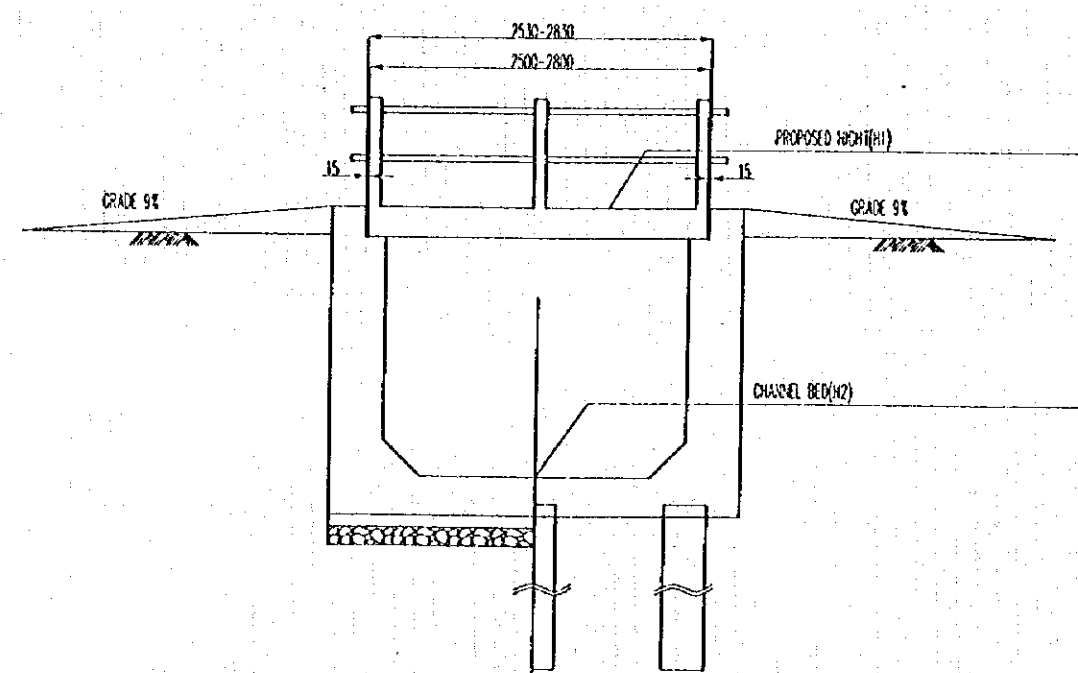


PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
CHECKED.....		GENERAL PLAN OF BRIDGE BTMS(N/N)	
SUBMITTED.....		DWG NO.	DATE
DATE.....		J-70-10-305	
REFERENCE			

SIDE VIEW

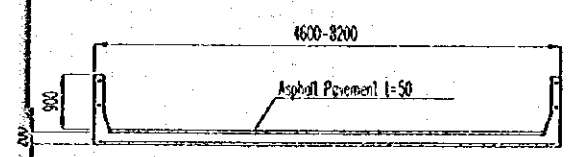
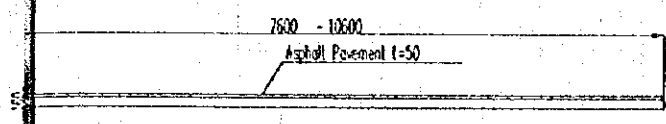


BMM1-12,15,16



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

CROSS SECTION



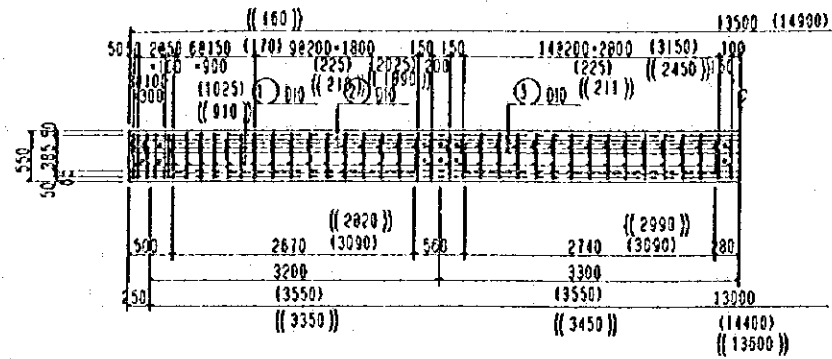
Bridge Name	H1 (TTG.m)	H2 (TTG.m)
BMM1	6.914	4.942
BMM2	6.971	4.976
BMM3	7.050	5.024
BMM4	7.050	5.024
BMM5	7.118	5.065
BMM6	7.118	5.065
BMM7	7.274	5.159
BMM8	7.377	5.221
BMM9	7.377	5.221
BMM10	7.429	5.253
BMM11	7.507	5.616
BMM12	7.507	5.616
BMM13	7.547	5.616
BMM14	7.629	5.994
BMM15	9.135	7.309
BMM16	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

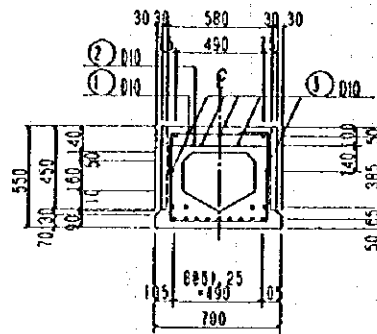
LIVE ROAD	BW 70
GIRDER	1.5~2.8m
WIDTH	7.6~10.6m
BRIDGE ANGLE	90°, 45°

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

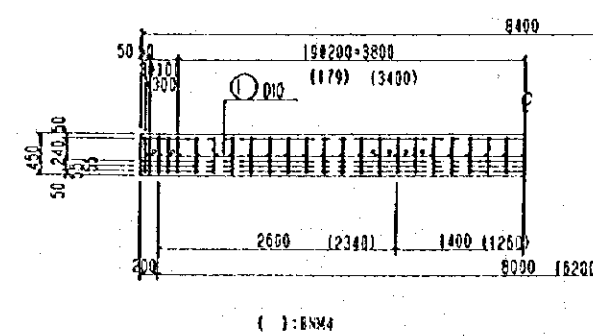
BM70-07



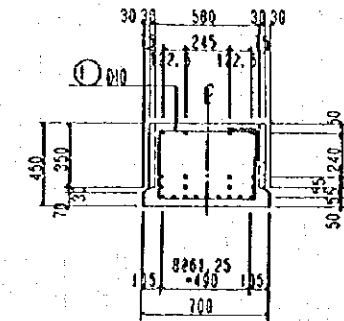
(): BKM1, BCM1B
 (()): BCM8



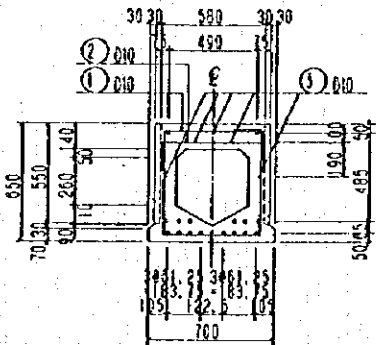
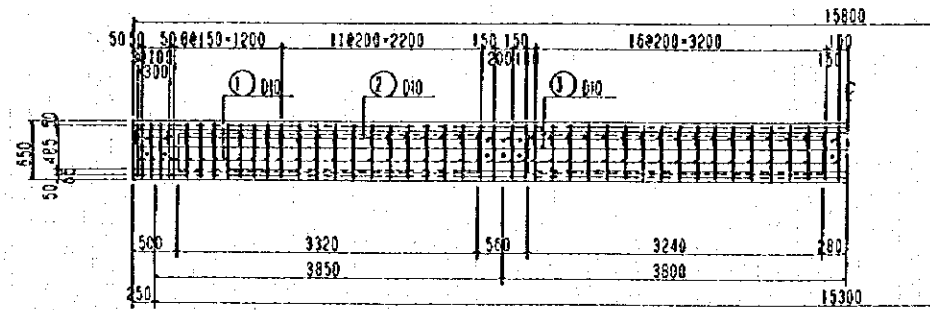
BM100-01



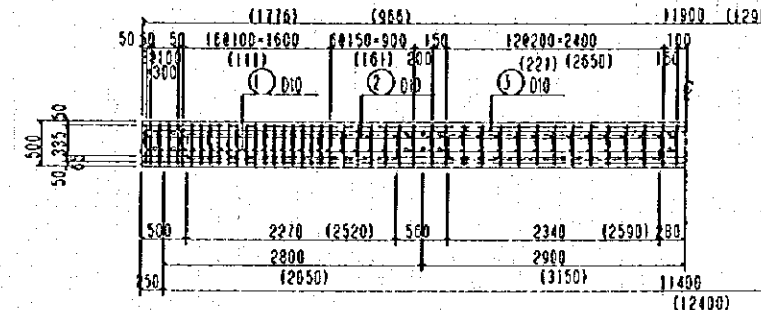
(): BKM4



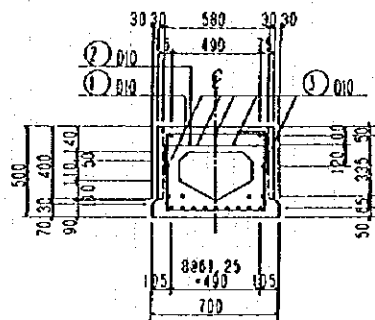
BM70-08



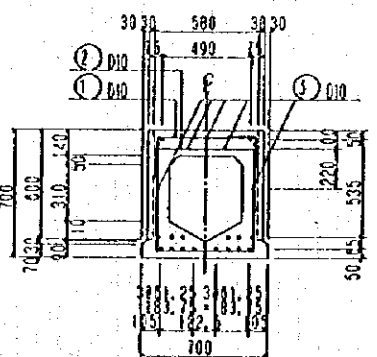
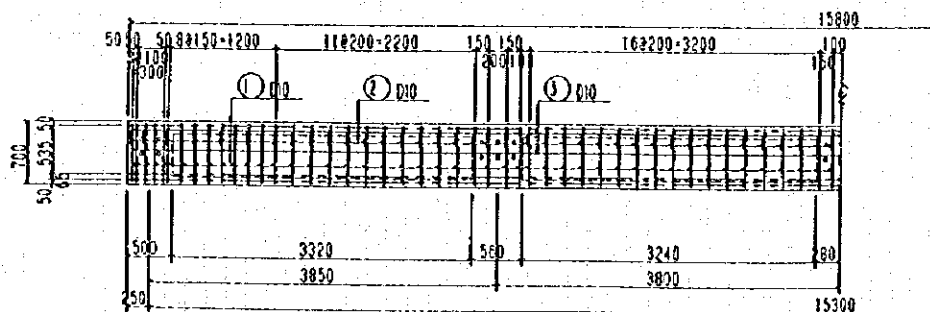
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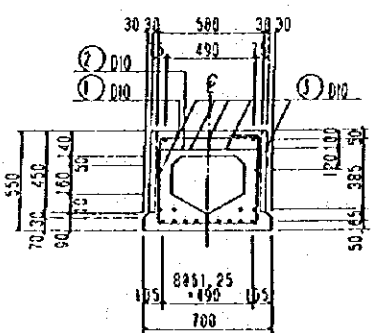
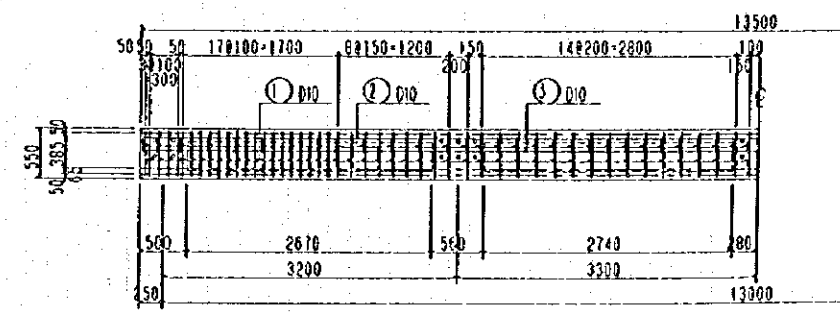
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BM70-09

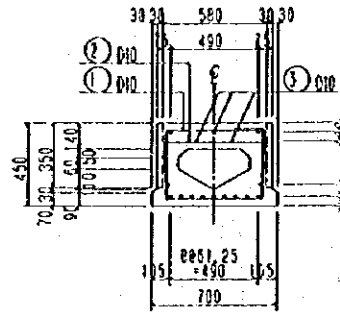
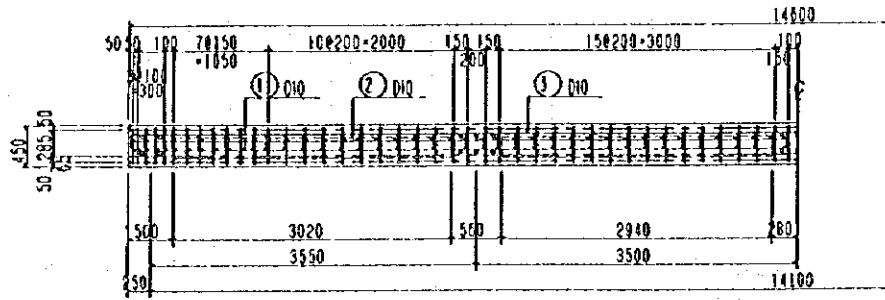


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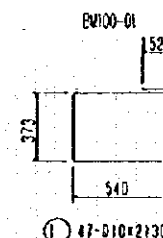
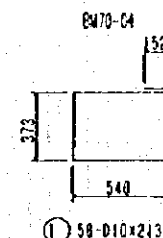
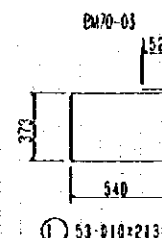
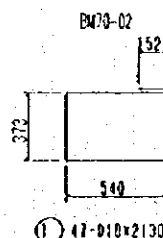
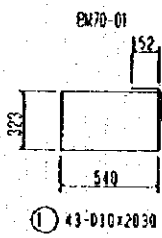
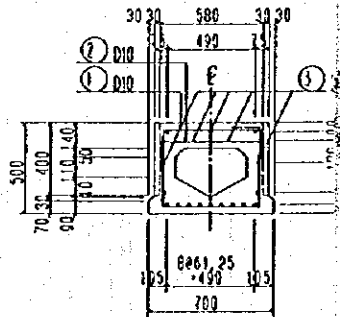
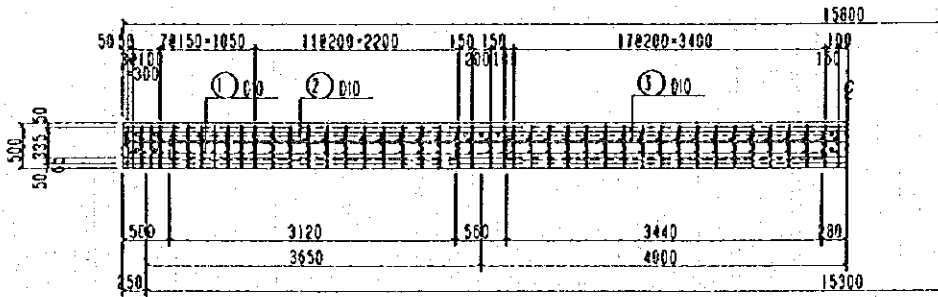


REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED.....		DETAIL OF MAIN ORDER-2	
	SUBMITTED.....		DWG NO.	DATE
	DATE.....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

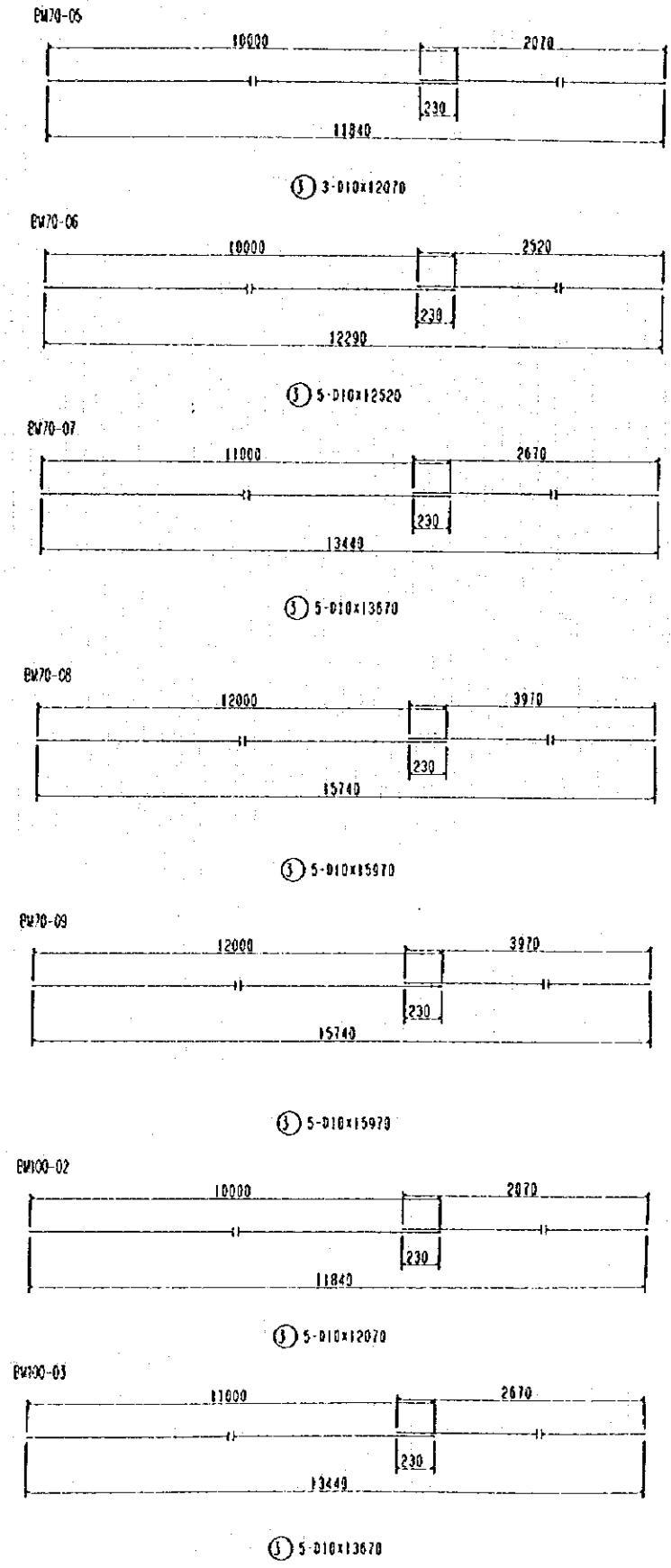
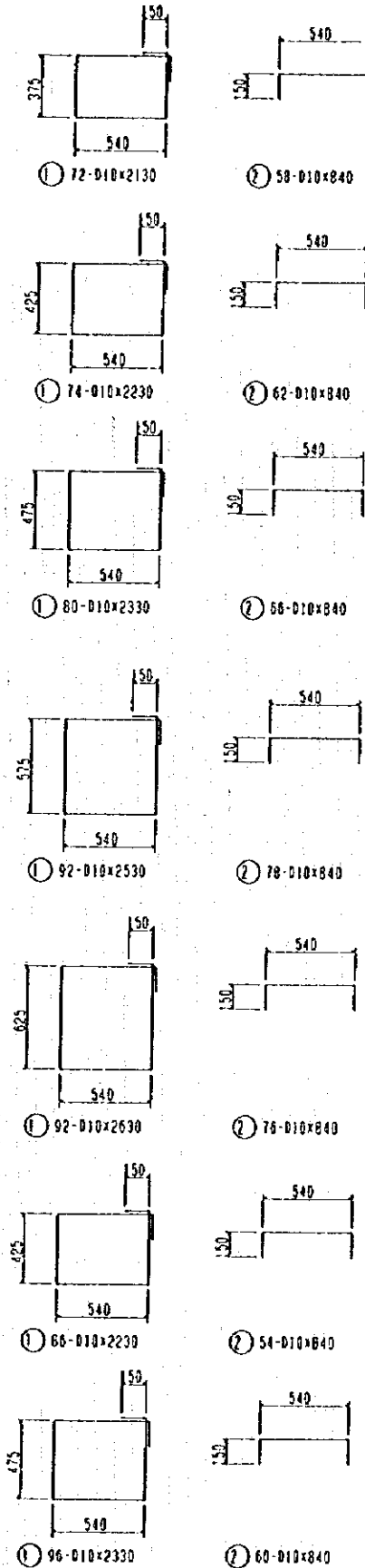
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PB-07

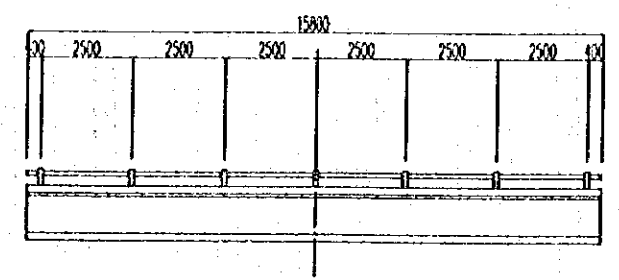


Remarks: Boring schedule shall be submitted for the approval of the Engineer.

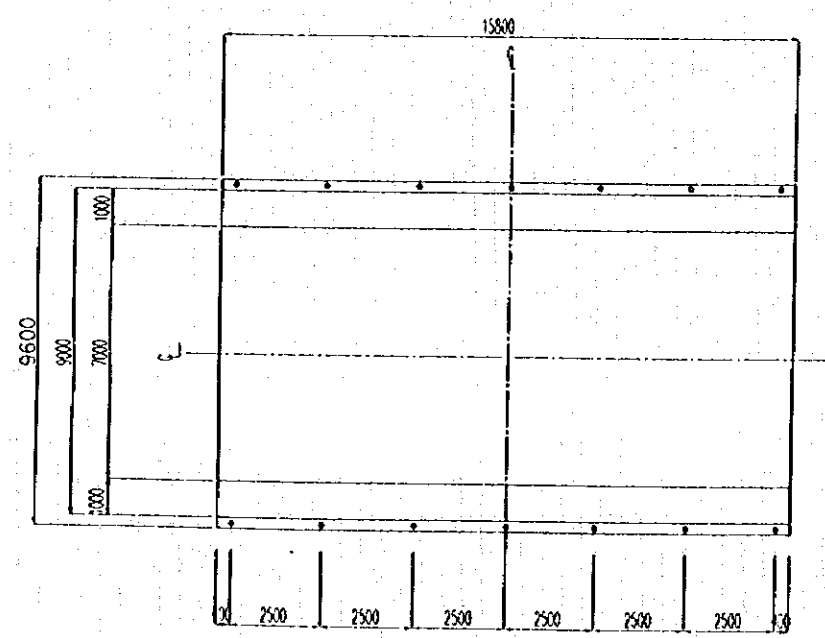


REFERENCE	PREPARED.....	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED.....		DETAIL OF MAIN GDRER-4	
	SUBMITTED.....		DWG NO	
	DATE.....		J-70-20-004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

SIDE VIEW SCALE A

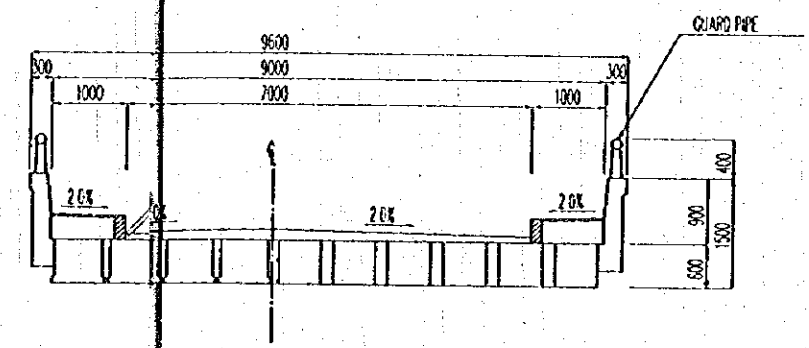


PLAN VIEW SCALE A



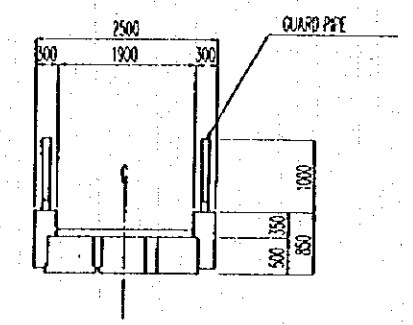
DETAIL OF PIPE

ROAD BRIDGE



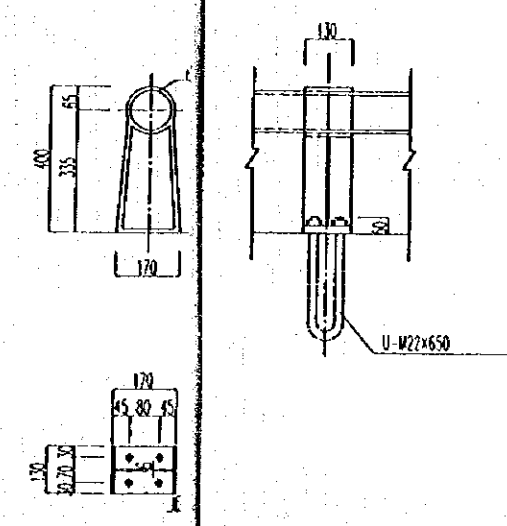
CROSS SECTION VIEW SCALE B

PEDESTRIAN

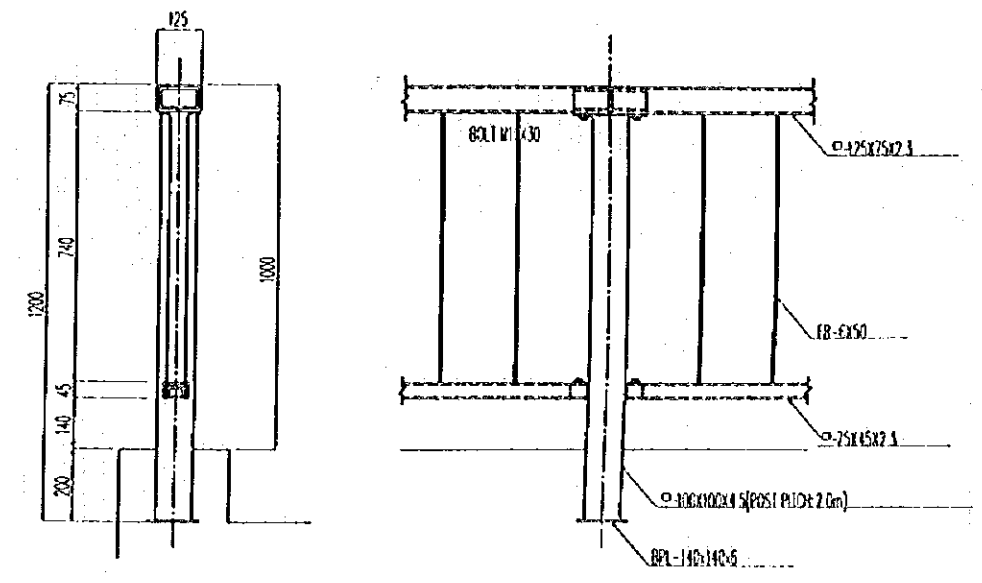


DETAIL OF GUARD PIPE SCALE C

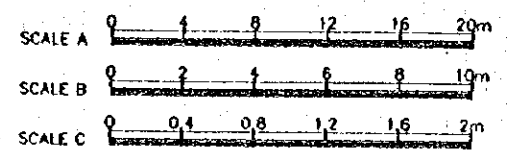
ROAD TYPE



PEDESTRIAN TYPE



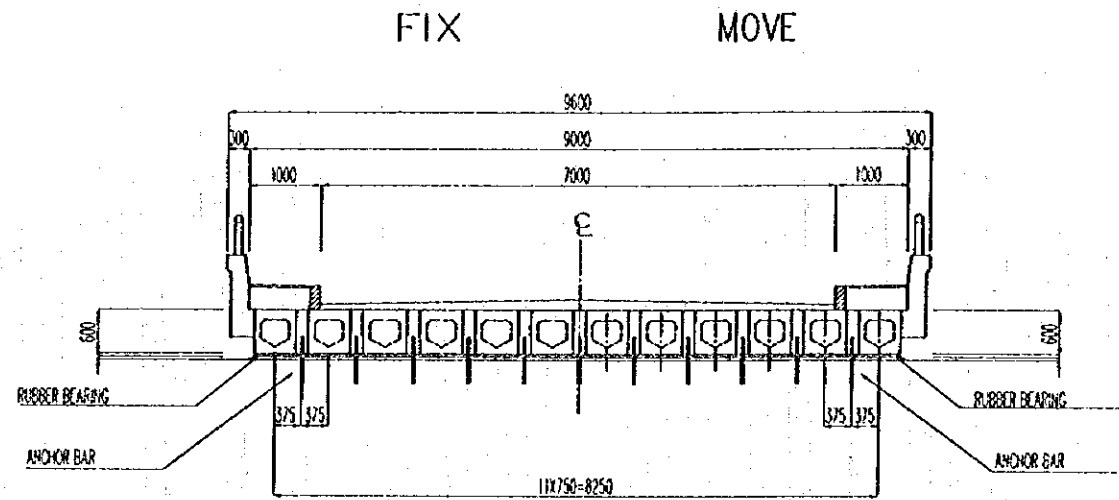
Remarks Shop drawings made according to these standard shall be submitted for the approval of the Engineer



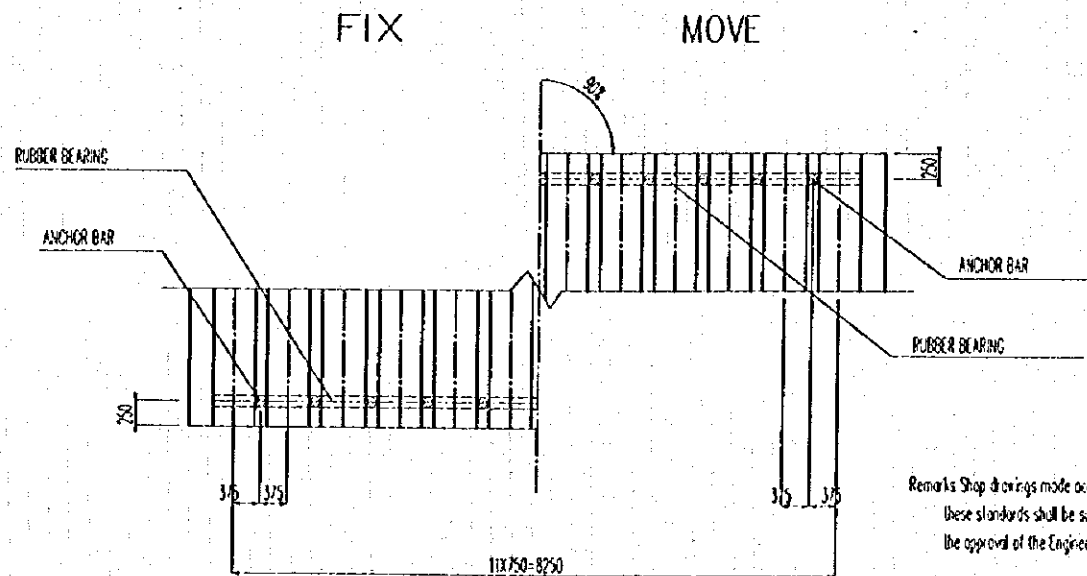
REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED		SIDE WALL/RAIL,WALKWAY AND GUARDRAIL	
	SUBMITTED		DWG NO	DATE
	DATE		J-70-30-001	

DETAILING

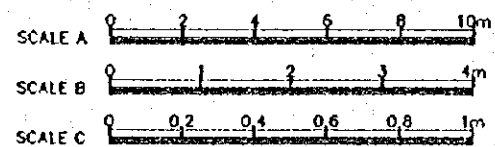
CROSS SECTION VIEW SCALE A



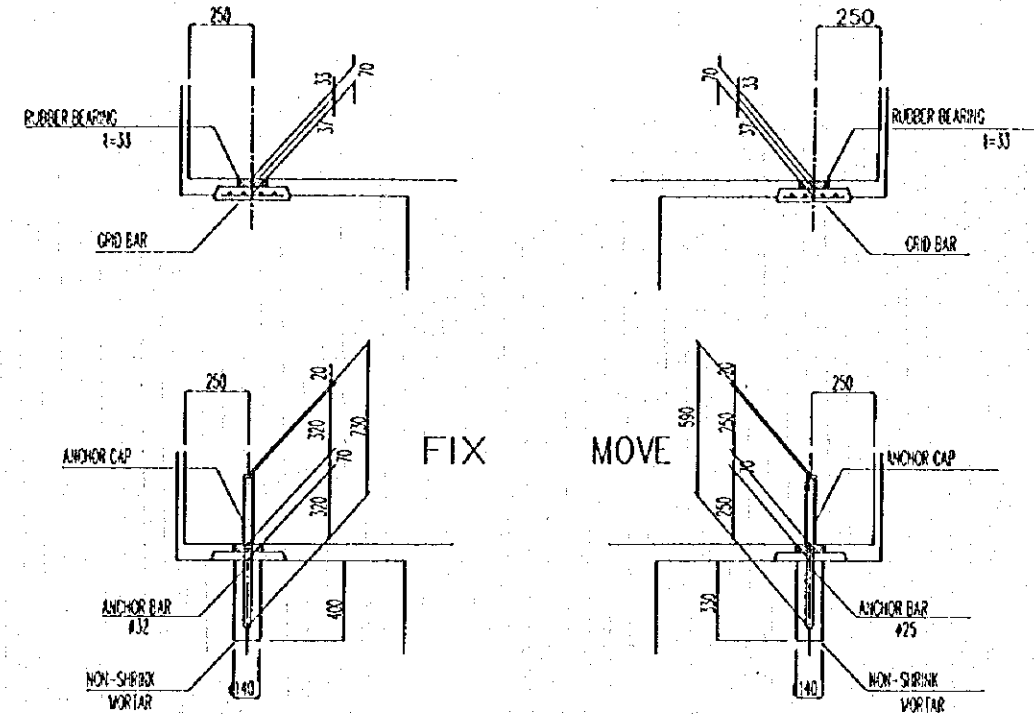
PLAN VIEW SCALE A



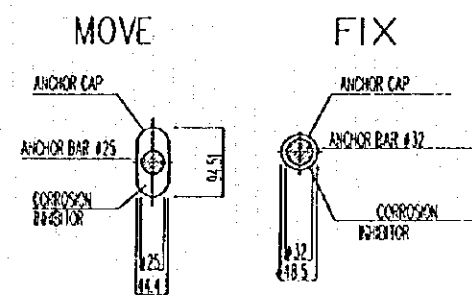
Remarks Shop drawings made according to these standards shall be submitted for the approval of the Engineer



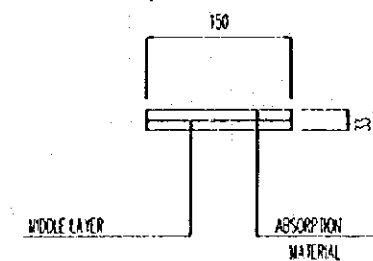
SIDE VIEW SCALE B



ANCHOR CAPS SCALE C



RUBBER BEARING SCALE C

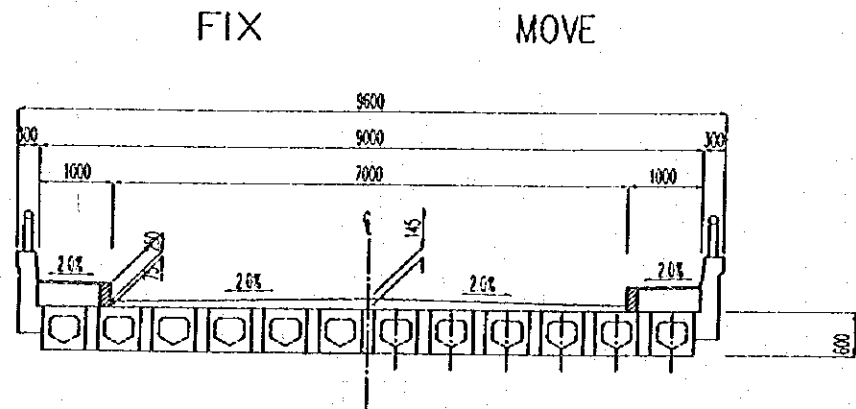


ROAD CASE	BEARING LENGTH (PER SPAN)	
	BRIDGE WIDTH (m)	LENGTH (m)
I-2	10.600	20.650
I-3	12.200	23.650
II-3	12.200	23.650
III-1	8.200	14.650
III-2	9.600	17.650
III-3	6.600	11.650
IV-1	4.600	8.880
IV-S	3.000	5.660
IV-S	3.500	5.660
P. B	2.500	4.160

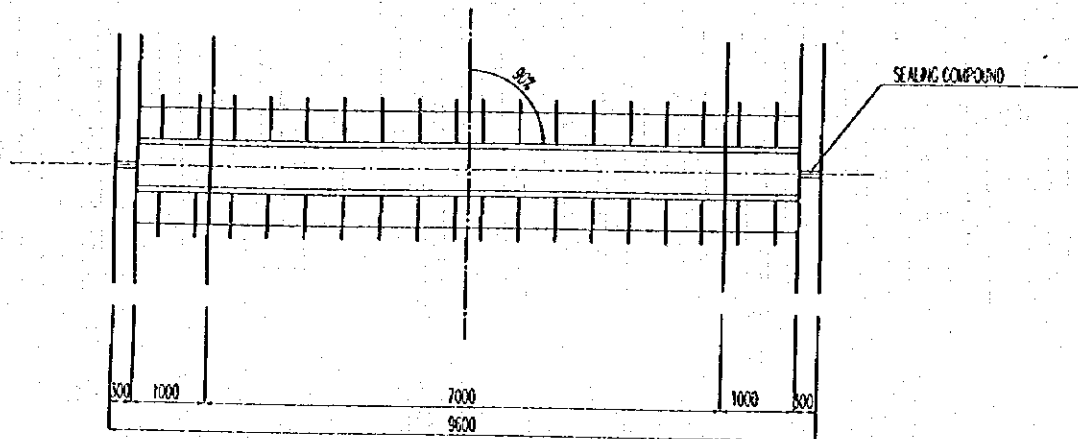
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CHECKED _____		DWG NO J-70-30-002	DATE _____
SUBMITTED _____			
DATE _____			
REFERENCE 0.			

DETAIL OF ENTION JOINT

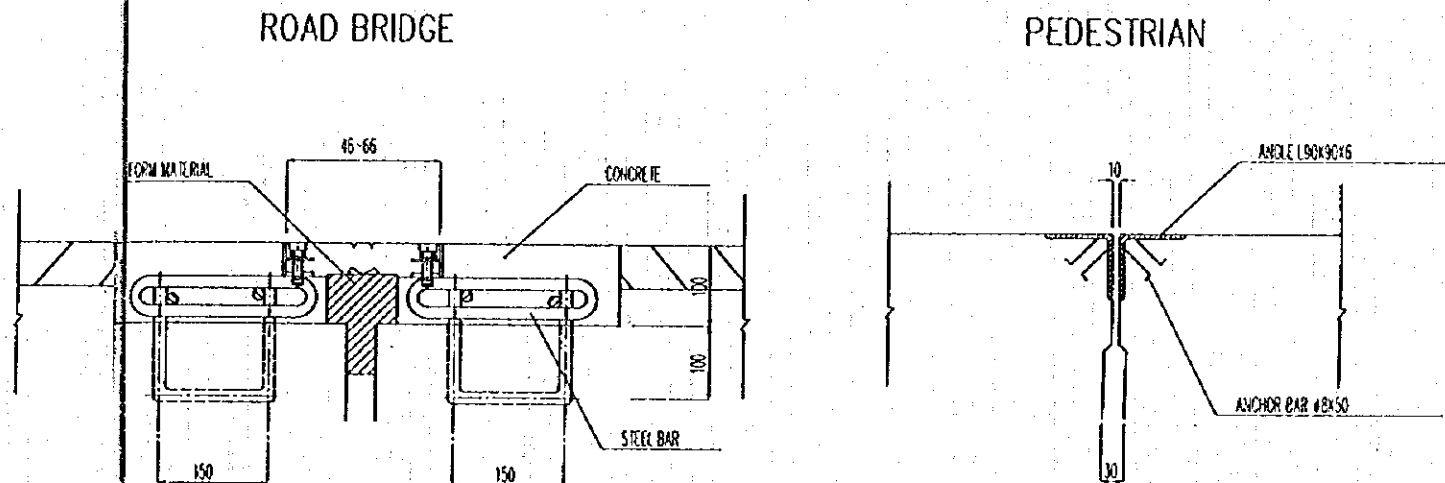
CROSS SECTION VIEW SCALE 1/100



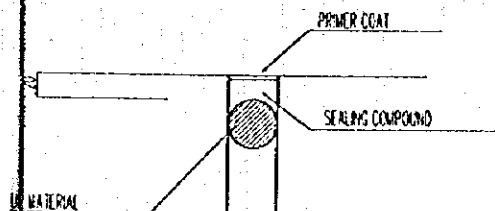
PLAN VIEW SCALE 1/100



SECTION OF EXPANTION JOINT SCALE 1/10

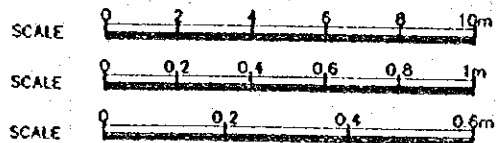


DETAIL OF SEALING COMPOUND SCALE 1/6



ROAD CASE	EXPANSION LENGTH (PER I 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

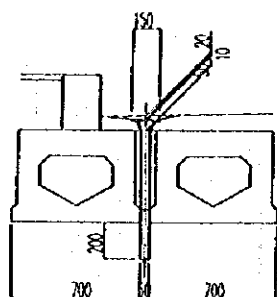


REFERENCE	NO.	PREPARED	MINISTRY OF PUBLIC WORKS	TITLE OF DRAWING	APPROVED
		CHECKED	DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	EXPANSION	
		SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY	DWG NO.	DATE
		DATE	THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT	J-70-30-003	
			IN THE CITY OF JAKARTA		

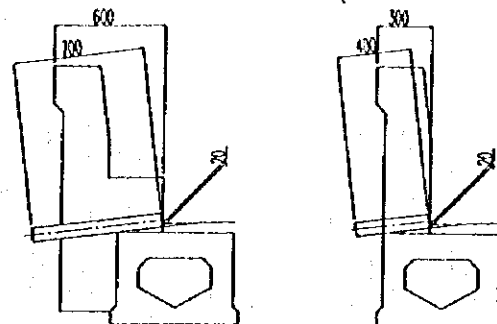
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SECTION OF DRAIN BASIN SCALE 1/40

WITH SIDEWALK

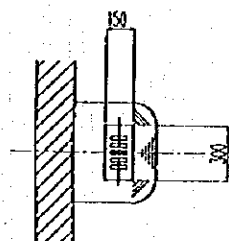


WITHOUT SIDEWALK AND PEDESTRIAN

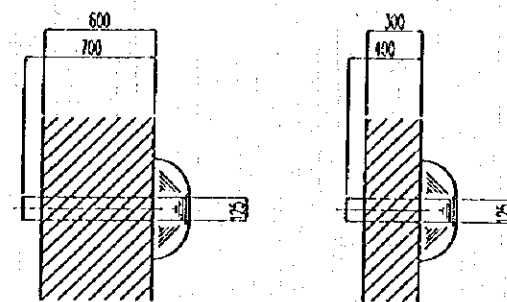


PLAN OF DRAIN BASIN SCALE 1/40

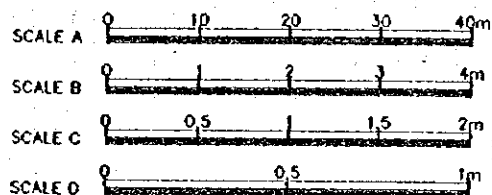
WITH SIDEWALK



WITHOUT SIDEWALK AND PEDESTRIAN



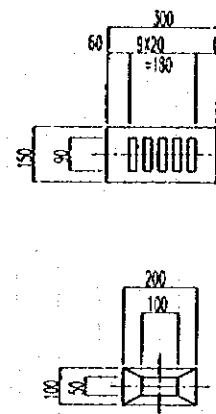
MATERIAL (PER UNIT)				
WITH SIDEWALK				
DESCRIPTION	SIZE	UNIT	WEIGHT	REMARKS
CAP	1- PL 300X150X10	kgf	3.54	
DRAIN BASIN	2- PL 150X56X6	kgf	0.79	
	2- PL 63X70X6	kgf	0.42	
DRAIN PIPE	1- Ø100X50X3.2X840	kgf	5.89	W=7.01kgf/m
TOTAL			10.64	
WITHOUT SIDEWALK AND PEDESTRIAN				
DESCRIPTION	SIZE	UNIT	WEIGHT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



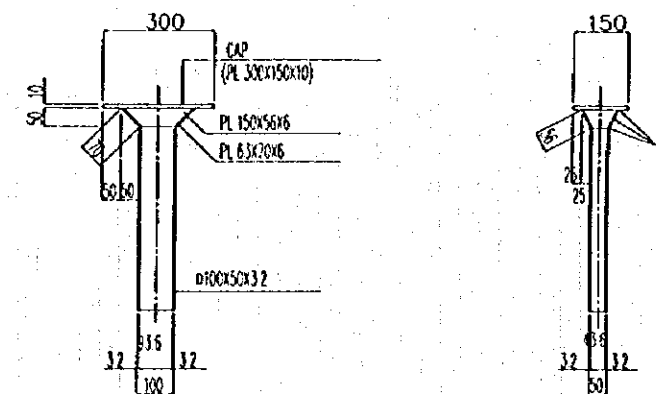
DETAIL OF DRAINAGE SCALE 1/20

WITH SIDEWALK

DETAIL OF CAP

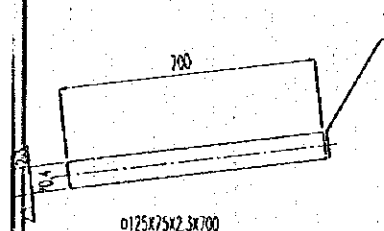


DETAIL OF DRAIN PIPE

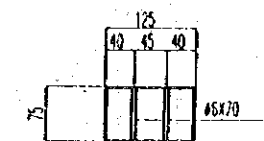


WITHOUT SIDEWALK AND PEDESTRIAN SCALE 1/10

DETAIL OF DRAIN PIPE

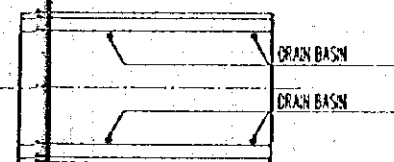


DETAIL OF "A"

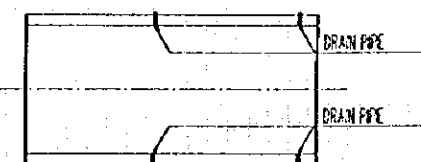


KEY PLAN SCALE 1/400

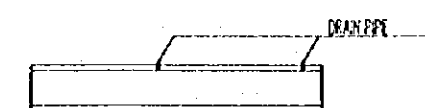
WITH SIDEWALK



WITHOUT SIDEWALK



PEDESTRIAN

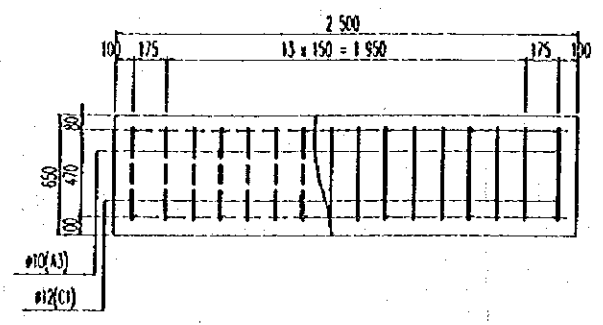


Remarks: Shop drawings made according to these standards shall be submitted for the approval of the Engineer.

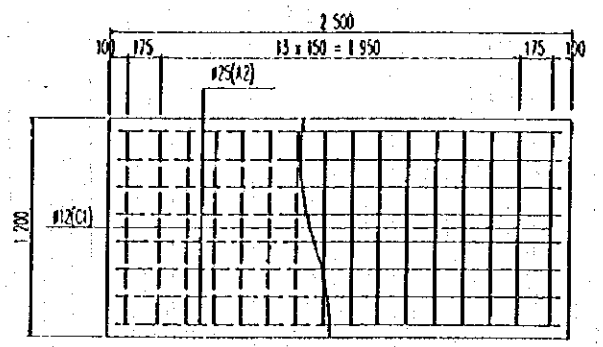
REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT IN THE CITY OF JAKARTA	TITLE OF DRAWING	APPROVED
	CHECKED		DRAINAGE	
	SUBMITTED		DWG NO	DATE
	DATE		J-70-30-004	

RE-BAR ARRANGEMENT OF PIER-1 SCALE A

SIDE VIEW



A - A PLAN B - B



CROSS SECTION

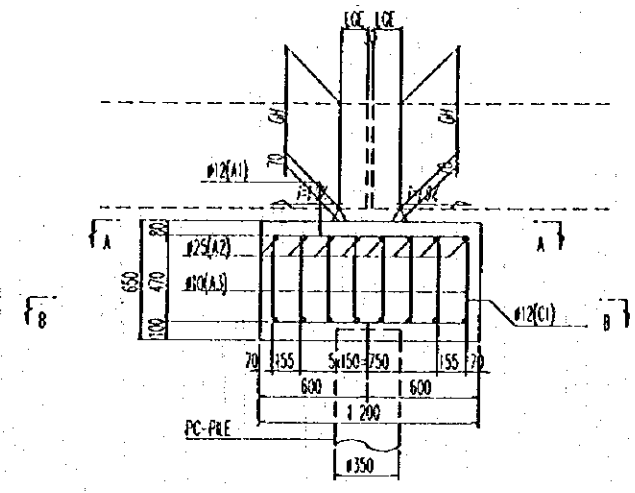
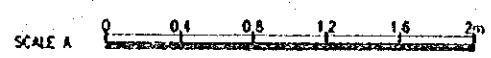


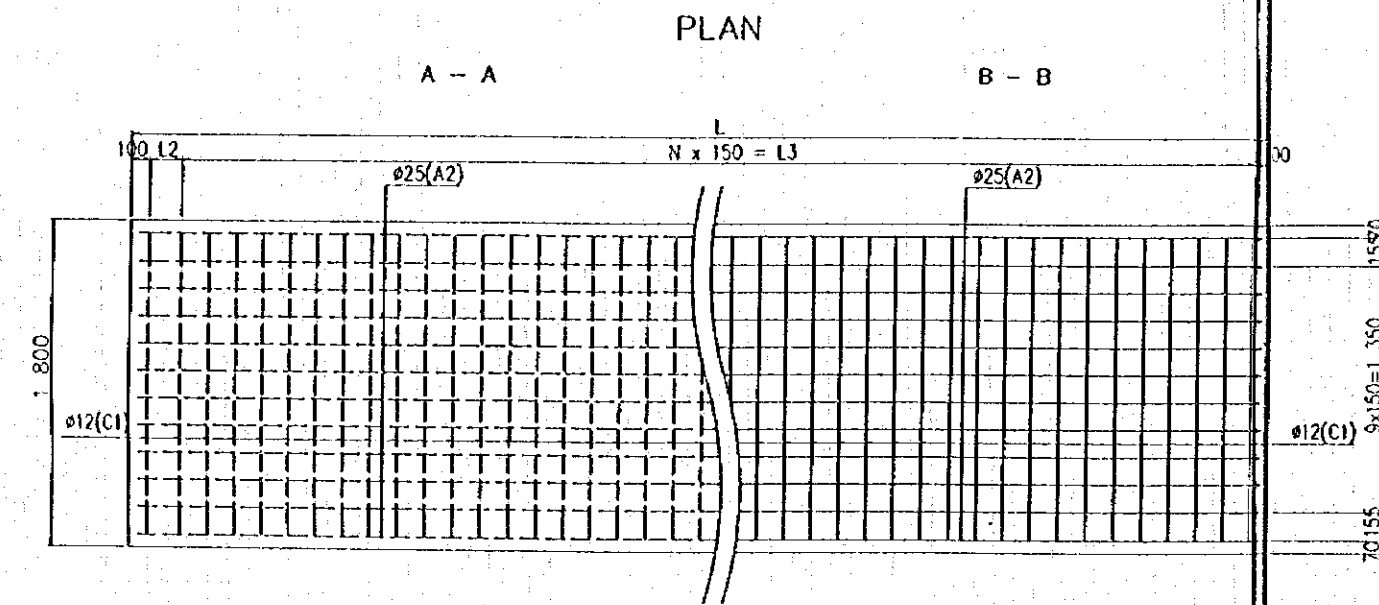
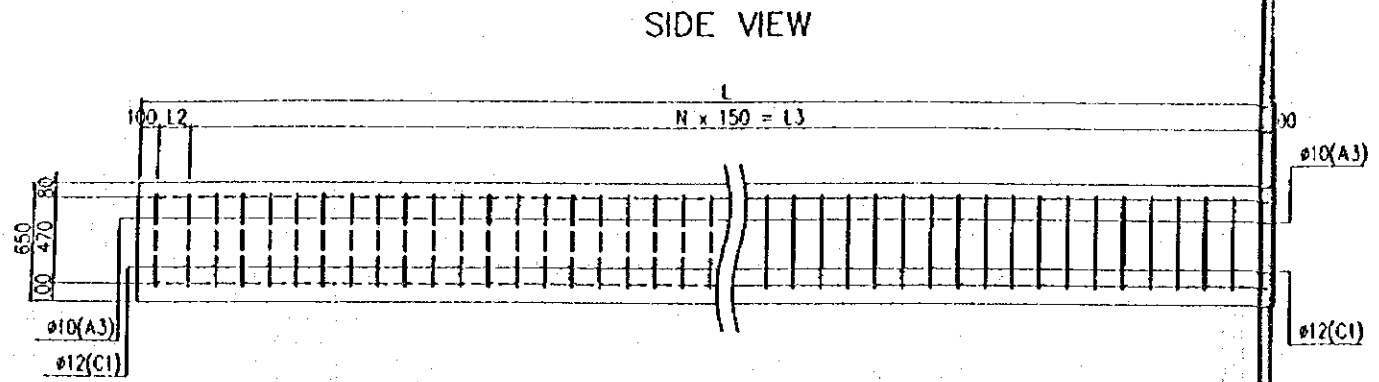
TABLE I

①	L (mm)		2 500			
	Type		A1	A2	A3	C
a2 o1	Diameter (mm)	a1	12	25	10	12
		a2	1060	2400	470	
		a3	85		75	
c2 c1	Length (mm)	c1	85		75	
		c2				1060
		c3				565
	Total Length (mm)		1230	2400	620	2190
	Length / Steel frame		1230	2400	620	2190
	Total of steel frame		1x16	1x16	6x 6	1x16
	Total length of whole steel frame (mm)		16	16	36	16
			19.7	38.4	22.3	35.0

Bar with single spool piles is placed only for the pedestrian bridges.
 Changing length of the girder, "LCE" varies from 150mm to 250mm.
 Order height of the new bridges "G" varies from 350mm to 450mm.



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



CROSS SECTION

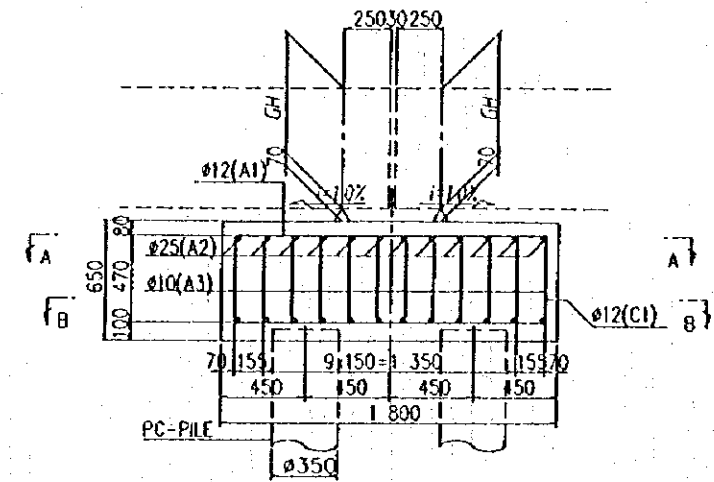


TABLE 2

Total width of new bridge (m)	3.0	4.6	6.6	8.2	9.6	10.6	12.2
L	3000	4600	6600	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, "CH" 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	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	
Length (mm)	a1	1660	2900	470	1660	4500	470	1660	6500	470	1660	6500	470	1660	9500	470	1660	10500	470	1660	12100	470	1660	12100	470	1660	12100	
	a2	85		75	85		75	85		75	85		75		85		85		75	85		75	85		75		75	
	a3	85		75	85		75	85		75	85		75		85		85		75	85		75	85		75		75	
Total Length (mm)	c1			1660				1660					1660			1660			1660			1660				1660		1660
	c2			565				565				565			565			565		565			565			565		565
	c3			565				565				565			565			565		565			565			565		565
Length / Steel frame	1830	2900	620	2790	1830	4500	620	2790	1830	6500	620	2790	1830	620	2790	1830	9500	620	2790	1830	10500	620	2790	1830	12100	620	2790	
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	
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	94.4	117.8	150.7	115.3	228.0	136.4	175.8	128.1	252.0	148.8	195.3	148.2	290.4	173.6	226.0	



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

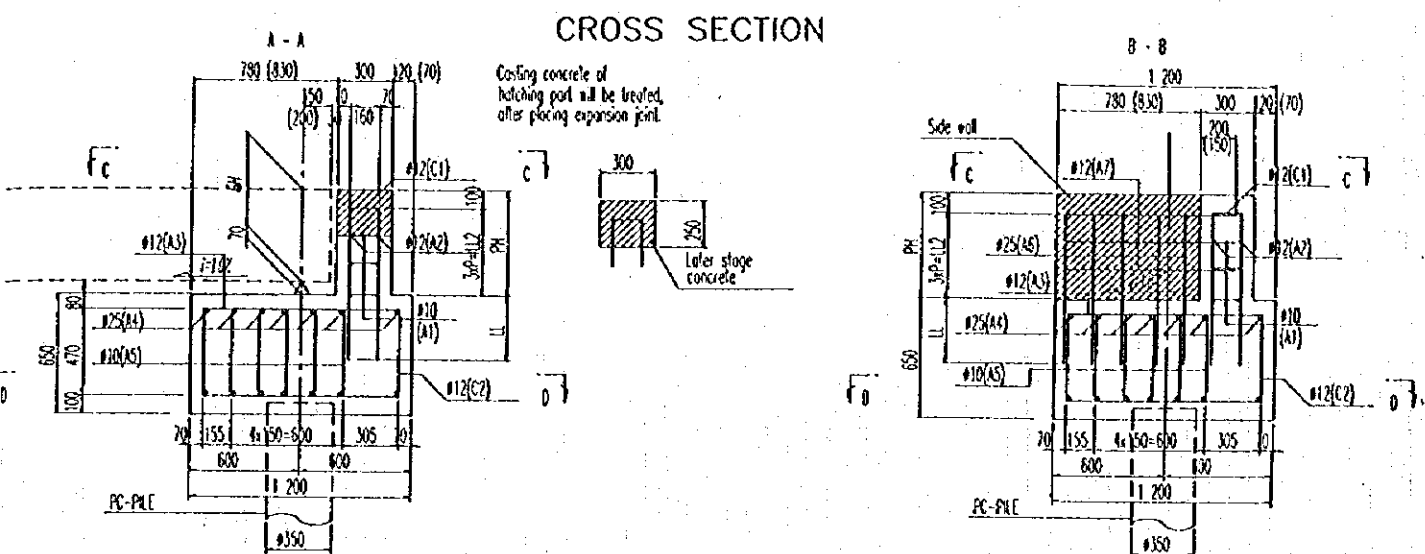
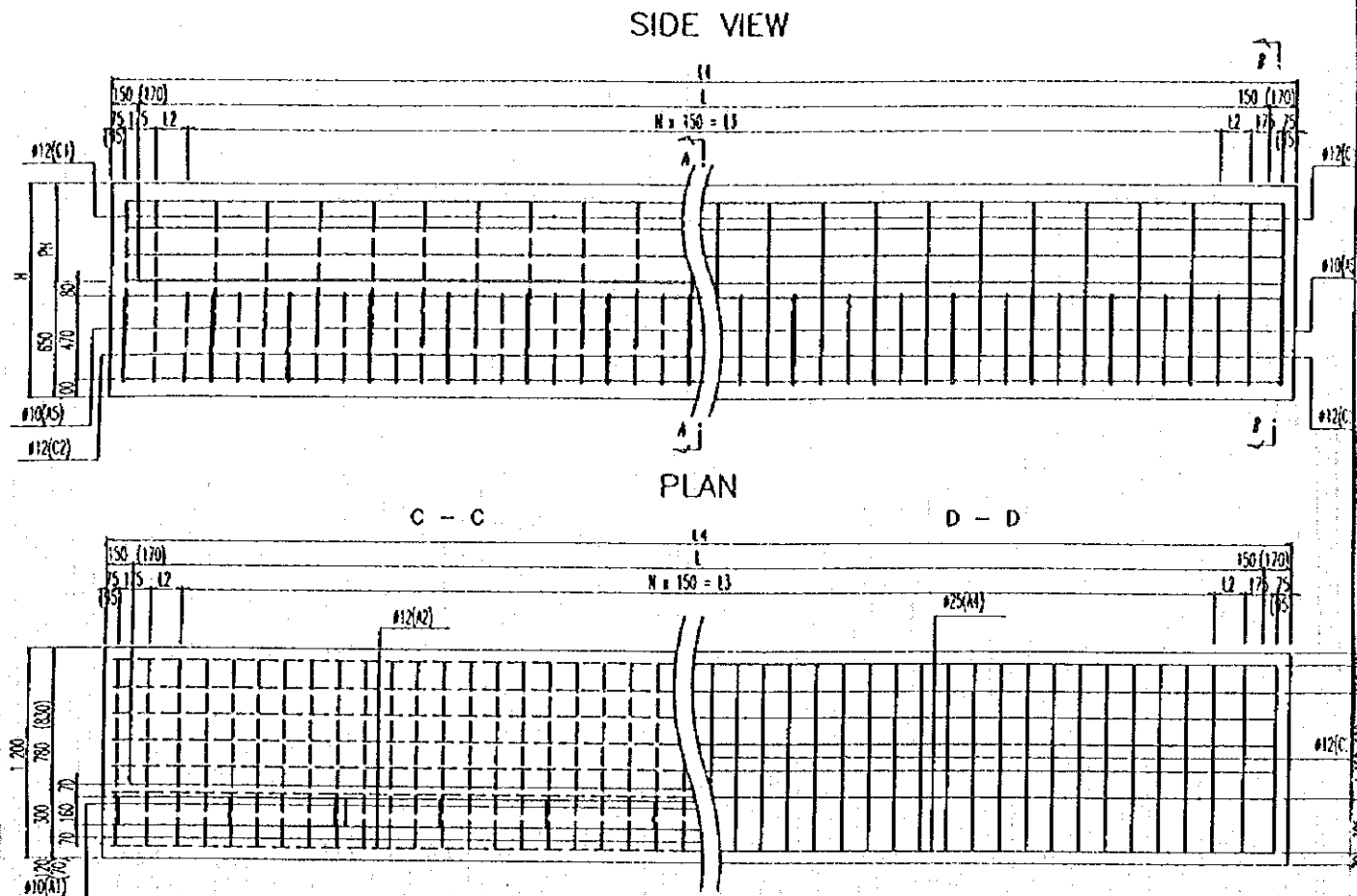


TABLE 2

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

H	1070	1120	1170	1220
GH	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

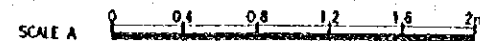
"L" is equal to the total width of the new bridges. (Each width is shown in TABLE 2)
 Girder height of the new bridges, "GH" varies from 350mm to 450mm.
 Parapet height of the abutment, "PH" is proportional, and anchorage length of the steel, "LL" is inversely proportional to "GH".
 (Each dimension is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

TABLE 1-1

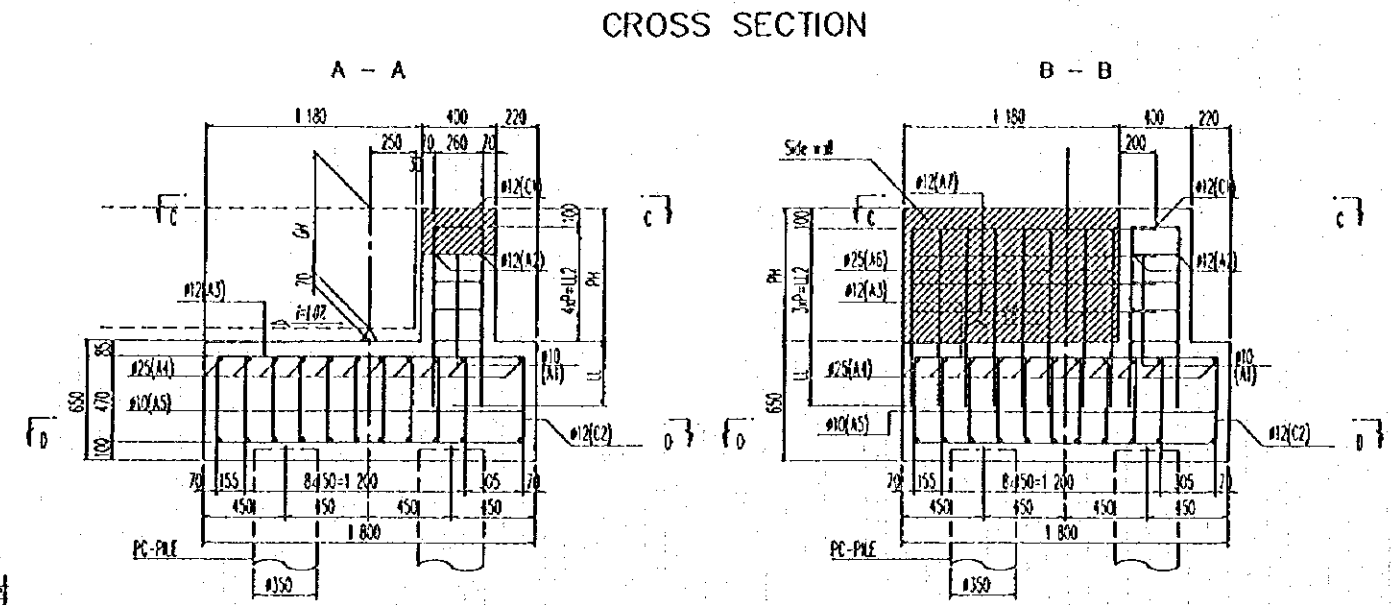
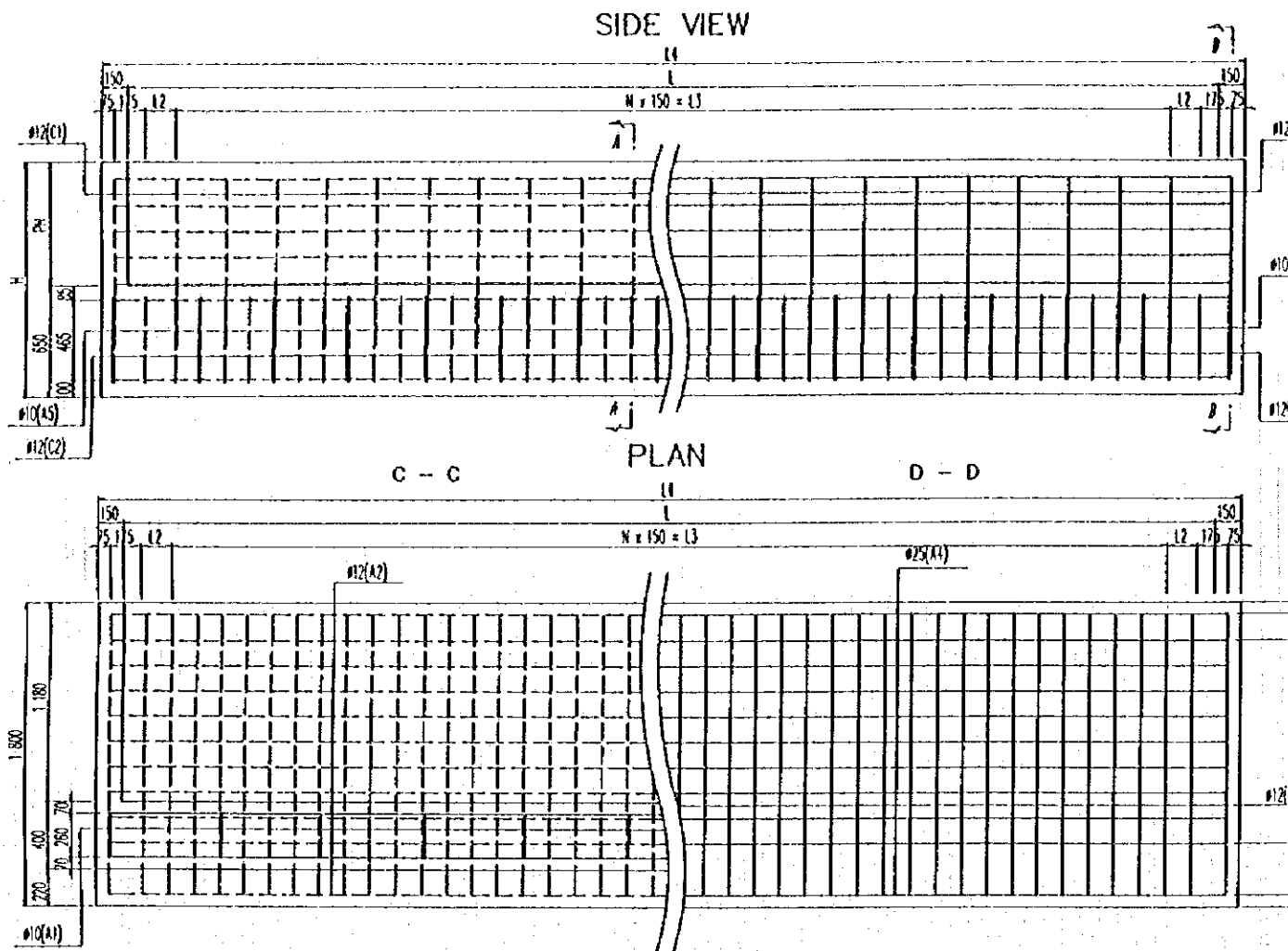
L (mm)		2 500										3 000										3 500										4 600									
Type		A					C					A					C					A					C														
Diameter (mm)		A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2	A1	A2	A3	A4	A5	A6	A7	C1	C2				
a2	a1	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12	10	12	12	25	10	25	12	12	12				
		a1	169	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					
		a2	75		85		75	180	85			75		85		180	85				75		85		180	85				75		85		180	85						
c2	c1	a3	75		85		75	180	85			75		85		180	85				75		85		180	85				75		85		180	85						
		c1							160	1060									160	1060									160	1060											
		c2							895	565									895	565									895	565											
c2	c3	c3						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				
c2	c1	Total of steel frame	3x 5	1x 8	1x18	1x14	5x 7	5x 2	3x 2	1x10	1x18	3x 6	1x 8	1x21	1x14	5x 2	3x 2	1x13	1x25	3x 9	1x 8	1x32	1x14	5x11	5x 2	3x 2	1x17	1x32													
		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

L (mm)		6 600										8 200										9 600										12 200									
Type		A					C					A					C					A					C														
Diameter (mm)		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	A1	A2	A3	A4	A5	A6	A7	C1	C2				
a2	a1	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	10	12	12	25	10	25	12	12	12				
		a1	150	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					
		a2	75		85		75	180	85			75		85		180	85				75		85		180	85				75		85		180	85						
c2	c1	a3	75		85		75	180	85			75		85		180	85				75		85		180	85				75		85		180	85						
		c1							160	1060									160	1060									160	1060											
		c2							895	565									895	565									895	565											
c2	c3	c3						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				
c2	c1	Total of steel frame	3x12	1x 8	1x45	1x14	5x16	5x 2	3x 2	1x23	1x45	3x15	1x 8	1x56	1x14	5x 2	3x 2	1x33	1x65	3x21	1x 8	1x83	1x14	5x28	5x 2	3x 2	1x42	1x83													
		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	85.8	11.6	6.5	81.9	181.8				



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



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

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

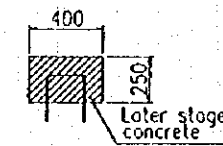


TABLE 2

Total width of new bridge (m)	4.6	6.6	8.2	9.6	10.6	12.2
L	4600	6600	8200	9600	10600	12200
L2	175	200	175	200	175	150
L3	4050	6000	7650	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

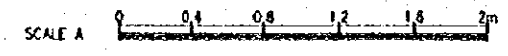
"L" is equal to the total width of the new bridges (Each width is shown in TABLE 2).
 Order height of the new bridges, "GH" varies from 450mm to 700mm.
 Parapet height of the abutment, "PH" is proportional, and anchorage length of the steel, "LL" is inversely proportional to "GH".
 (Each dimension is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

TABLE 1-1

Type	L (mm) 4 600										L (mm) 6 600										L (mm) 8 200									
	A1	A2	A3	A4	A5	A6	A7	C1	C2	C	A1	A2	A3	A4	A5	A6	A7	C1	C2	C	A1	A2	A3	A4	A5	A6	A7	C1	C2	C
Diameter (mm)	10	12	12	25	10	25	12	12	12	12	10	12	12	25	10	25	12	12	12	12	10	12	12	25	10	25	12	12	12	12
Length (mm)	o1	260	4750	1660	4750	465	950	1310			260	6750	1660	6750	465	950	1310			260	8350	1660	8350	465	950	1310				
	o2	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85				
	o3	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85				
Total Length (mm)	c1							260	1560									260	1660									260	1660	
	c2							1045	565									1045	565									1045	565	
	c3							1045	565									1045	565									1045	565	
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	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	
Total of steel frame	4x 9	1x10	1x32	1x22	9x11	8x 2	4x 2	1x17	1x32	4x12	4x12	1x10	1x45	1x22	9x16	8x 2	4x 2	1x23	1x45	4x15	4x15	1x10	1x56	1x22	9x19	8x 2	4x 2	1x29	1x56	
Total length of whole steel frame (mm)	14.8	47.5	58.6	104.5	60.9	21.0	11.8	40.0	89.3	19.7	67.5	82.4	143.5	88.6	11.8	54.1	125.6	24.6	83.5	102.5	183.7	105.2	21.0	11.8	68.2	156.2				

TABLE 1-2

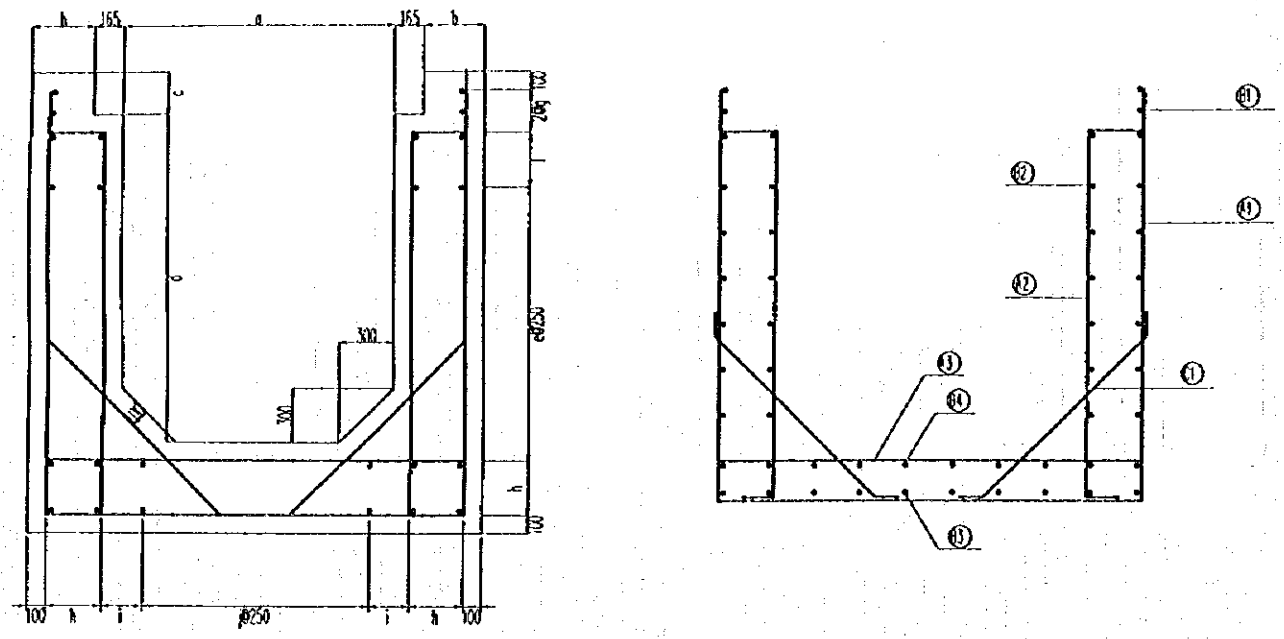
Type	L (mm) 9 600										L (mm) 10 600										L (mm) 12 200									
	A1	A2	A3	A4	A5	A6	A7	C1	C2	C	A1	A2	A3	A4	A5	A6	A7	C1	C2	C	A1	A2	A3	A4	A5	A6	A7	C1	C2	C
Diameter (mm)	10	12	12	25	10	25	12	12	12	12	10	12	12	25	10	25	12	12	12	12	10	12	12	25	10	25	12	12	12	12
Length (mm)	o1	260	9750	1660	9750	465	950	1310			260	10750	1660	10750	465	950	1310			260	12350	1660	12350	465	950	1310				
	o2	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85				
	o3	75		85		75	180	85			75		85		75	180	85			75		85		75	180	85				
Total Length (mm)	c1							260	1660									260	1660									260	1660	
	c2							1045	565									1045	565									1045	565	
	c3							1045	565									1045	565									1045	565	
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	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	
Total of steel frame	4x17	1x10	1x65	1x22	9x22	8x 2	4x 2	1x33	1x65	4x19	4x19	1x10	1x72	1x22	9x25	8x 2	4x 2	1x37	1x72	4x21	4x21	1x10	1x83	1x22	9x28	8x 2	4x 2	1x42	1x83	
Total length of whole steel frame (mm)	27.9	97.5	119.0	214.5	121.8	21.0	11.8	77.6	181.4	31.2	107.5	131.8	236.5	138.4	11.8	87.0	200.9	34.4	123.5	151.9	271.7	155.0	21.0	11.8	98.7	231.6				



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	RE-BAR ARRANGEMENT OF ABUTMENT-2	APPROVED
CHECKED		DWG NO	J-70-40-004	DATE
SUBMITTED				
DATE				

RE-BAR ARRANGEMENT OF RC SIDE DITCH

SIDE VIEW SCALE A

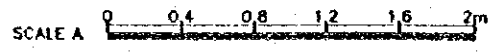


PILE ARRANGEMENT

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..... CHECKED..... SUBMITTED..... DATE.....	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 RE-BAR ARRANGEMENT OF RC SIDE DITCH DWG NO. J-70-40-005	APPROVED..... DATE.....
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APPROACH CUSHION SLAB

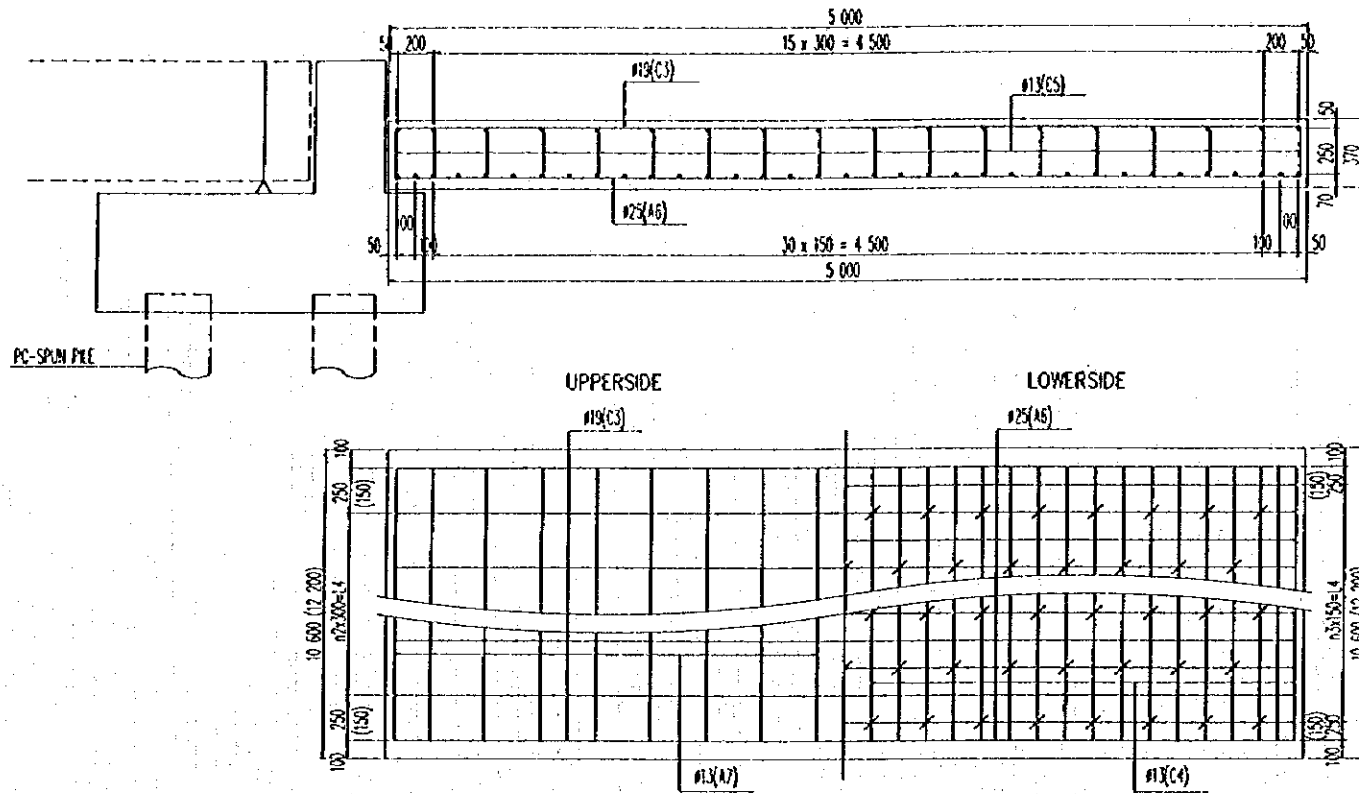


TABLE 2

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	
Type											
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
	c2			250	250	100			250	250	100
	c3			250	250	100			250	250	100
Total Length (mm)	4900	10400	5400	10900	490	4900	12000	5400	12500	490	
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	

SCALE A 0 0.4 0.8 1.2 1.6 2m

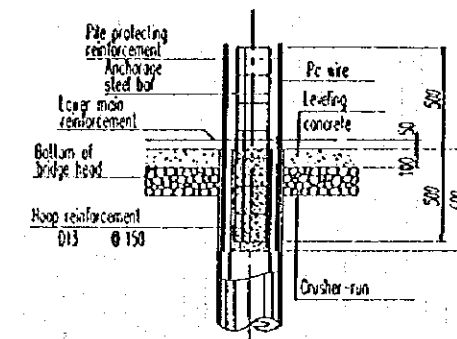
7. QUALITY

Raw Material

Raw Material shall be as follow :

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

DITAIL OF PILE HEAD



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 (PB1) 1981 should be 600 kg/cm² (k600) or equivalent with minimum cylinder strength (f_{ck}) of 500 kg/cm².

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 finishewd product with the following criterions : if no visual crack occured at the load corresponding to its M crack.

Description	Tolerance
Crack	No Visual Crack
Outside	+5mm
	-2mm
Wall thickness	-0mm
Length	± not specified
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

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

No. of		Pile Arrangement		Pile		Elevation		Remarks	No. of		Pile Arrangement		Pile		Elevation		Remarks
Bridge	Structure	Abutment	Pier	No.	Length	Abut	Pier		Bridge	Structure	Abutment	Pier	No.	Length	Abut	Pier	
BKM 1	KM 2		2- 350-TYPE B 	A 8	16.5	1.593	1.610	3-Span R.B	BKE 1	KE 1-1		1- 	A 4	9.5	2.612	2.618	2-Span R.B
BKM 3	KM11-1		2- 400-TYPE B 	A 16	11.5	1.977	1.992	3-Span R.B	BKE 2	KE 2		1- 	A 6	10.5	2.860	2.866	2-Span R.B
BKM 4	KM15		2- 400-TYPE B 	A 4	11.5	2.260	2.275	3-Span P	BKE 3	KE 3-2		1- 350-TYPE B 	A 6	11.5	2.953	2.959	2-Span R.B (Skew)
BKM 5	KM17-2		3- 400-TYPE B 	A 16	13.5	2.389	2.404	4-Span R.B (Skew)	BKE 4	KE 4		1- 350-TYPE B 	A 6	12.5	3.049	3.055	2-Span R.B
BKM 6	KM19		2- 400-TYPE B 	A 4	10.5	2.449	2.464	3-Span P	BKE 5	KE 5		1- 350-TYPE B 	A 6	12.5	3.139	3.143	2-Span R.B
BKM 7	KM20		2- 400-TYPE B 	A 4	10.5	2.507	2.522	3-Span P	BKE 6	KE 6		1- 	A 6	12.5	3.182	3.188	2-Span R.B
BKM 8	KM21-2		2- 	A 8	10.5	2.576	2.591	3-Span R.B	BKE 7	KE 7		1- 350-TYPE B 	A 6	12.5	3.231	3.237	2-Span R.B
BKM 9	KM22-3		2- 400-TYPE B 	A 4	11.5	2.685	2.700	3-Span P	BKE 8	KE 9		1- 350-TYPE B 	A 4	12.5	3.274	3.280	2-Span P
BKM10	KM22-4		2- 350-TYPE B 	A 16	11.5	2.746	2.761	3-Span R.B	BKE 9	KE10-1		1- 350-TYPE B 	A 6	12.5	3.313	3.319	2-Span R.B
BKM11	KM23-2		2- 350-TYPE B 	A 16	11.5	2.876	2.891	3-Span R.B	BKE10	KE12		1- 	A 6	12.5	3.282	3.288	2-Span R.B
									BKE11	KE14		1- 	A 6	11.5	3.317	3.323	2-Span R.B
									BKE12	KE15-1		1- 350-TYPE B 	A 8	11.5	3.336	3.342	2-Span R.B

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

Column Remarks
R.B : Road Bridge
P : Pedestrian Bridge

REFERENCE	
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PREPARED	
CHECKED	
SUBMITTED	
DATE	

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
PILE ARRANGEMENT-1
DWG NO
J-70-50-002

APPROVED
DATE

PILE ARRANGEMENT-2

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

TABLE4 CHANNEL : SALURAN CENKARENG (1)

No. of		Pile Arrangement		Pile		Elevation		Remarks
Bridge	Structure	Abutment	Pier	No.	Length	Abut	Pier	
BKE13	KE15-2		1- 350-TYPE B 	A 8	11.5	3.343	3.349	2-Span R.B
BKE14	KE16		1- 	A 4	14.5	3.434	3.440	2-Span R.B
BKE15	KE17-1		1- 	A 4	17.5	3.511	3.517	2-Span R.B
BKE16	KE18		1- 350-TYPE B 	A 4	17.5	3.584	3.590	2-Span P
BKE17	KE19		1- 350-TYPE B 	A 4	17.5	3.620	3.626	2-Span P
BKE18	KE20-1		1- 	A 6	17.5	3.658	3.664	2-Span R.B

No. of		Pile Arrangement		Pile		Elevation		Remarks
Bridge	Structure	Abutment	Pier	No.	Length	Abut	Pier	
BCM 2	CM 3		-----	A 16	6.5	2.451		1-Span R.B
BCM 3	CM 6		-----	A 8	6.5	2.484		1-Span R.B
BCM 4	CM 7		-----	A 4	7.5	2.506		1-Span P
BCM 5	CM 9		-----	A 12	8.5	2.612		1-Span R.B
BCM 6	CM11		-----	A 12	10.5	2.705		1-Span R.B
BCM 7	CM13		-----	A 4	10.5	2.854		1-Span P
BCM 8	CM15		-----	A 4	9.5	3.013		1-Span P
BCM 9	CM16		-----	A 4	8.5	3.096		1-Span P
BCM10	CM17-1		-----	A 12	9.5	3.157		1-Span R.B
BCM11	CM18-4		-----	A 16	9.5	3.273		1-Span R.B (Approach cushion slab)
BCM12	CM19-1		-----	A 16	8.5	3.321		1-Span R.B (Approach cushion slab)

TABLE3 CHANNEL : TANJUNGAN (1)

No. of		Pile Arrangement		Pile		Elevation		Remarks
Bridge	Structure	Abutment	Pier	No.	Length	Abut	Pier	
BTM 1	TM 1		2- 350-TYPE B 	A 12	16.5	1.508	1.518	3-Span R.B
BTM 3	TM 3-4		1- 350-TYPE B 	A 16	12.5	1.740	1.750	2-Span R.B (Approach cushion slab)
BTM 4	TM 5		1- 350-TYPE B 	A 10	11.5	1.715	1.725	2-Span R.B
BTM 5	TM 6		1- 350-TYPE B 	A 10	10.5	1.753	1.763	2-Span R.B (Skew)
BKM 6			1- 350-TYPE B 	A 4	10.5			2-Span P

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

Column Remarks
RB : Road Bridge
P : Pedestrian Bridge

REFERENCE

PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING PILE ARRANGEMENT-2	APPROVED
CHECKED			
SUBMITTED			
DATE	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	DAG NO. J-70-50-003	DATE

PILE ARRANGEMENT-3

TABLE 4 CHANNEL : SALURAN CENGKARENG (2)

Bridge	Structure	Pile Arrangement		Pier	Remarks
		Abutment	No.		
BCM13	CM20		A 8	7.5	1-Span R.B
			P		
				Elevation	
				Abut	3.396
				Pier	
BCM14	CM22		A 8	8.5	1-Span R.B
			P		
				Elevation	3.448

TABLE 5 CHANNEL : GEDE/BOR

Bridge	Structure	Pile Arrangement		Pier	Remarks
		Abutment	No.		
BGM 1	GM 1-2		A 16	9.5	1-Span R.B (2lanes)
			P		
				Elevation	3.970
BGM 2	GM 1-4		A 16	9.5	1-Span R.B (2lanes)
			P		
				Elevation	3.994
BGM 3	GM 5		A 4	9.5	1-Span R.B (changed from P)
			P		
				Elevation	4.102
BGM 4	GM 6		A 12	9.5	1-Span R.B
			P		
				Elevation	4.165
BGM 5	GM 7		A 8	10.5	1-Span R.B
			P		
				Elevation	4.165
BGM 6	GM 8		A 8	10.5	1-Span R.B
			P		
				Elevation	4.192
BGM 7	GM 9		A 8	10.5	1-Span R.B
			P		
				Elevation	4.192
BGM 8	GM10-2		A 12	10.5	1-Span R.B
			P		
				Elevation	4.254
BGM 9	GM11-2		A 12	10.5	1-Span R.B
			P		
				Elevation	4.299
BGM10	GM13-1		A 4	8.5	1-Span R.B
			P		
				Elevation	4.349

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

Column Remarks
 RB : Road Bridge
 P : Pedestrian Bridge

REFERENCE	PREPARED	MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HUMAN SETTLEMENTS	TITLE OF DRAWING	APPROVED
	CHECKED		PILE ARRANGEMENT-3	
	SUBMITTED	JAPAN INTERNATIONAL COOPERATION AGENCY THE DETAILED DESIGN FOR URBAN DRAINAGE PROJECT THE CITY OF JAKARTA	DWG NO	DATE
	DATE		J-70-50-004	

