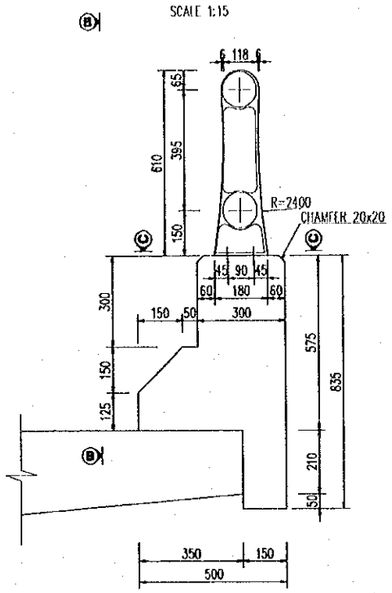
IV. MISCELLANEOUS

DETAIL OF PARAPET AND RAILING

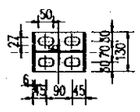
SCALE 1:20

A - A

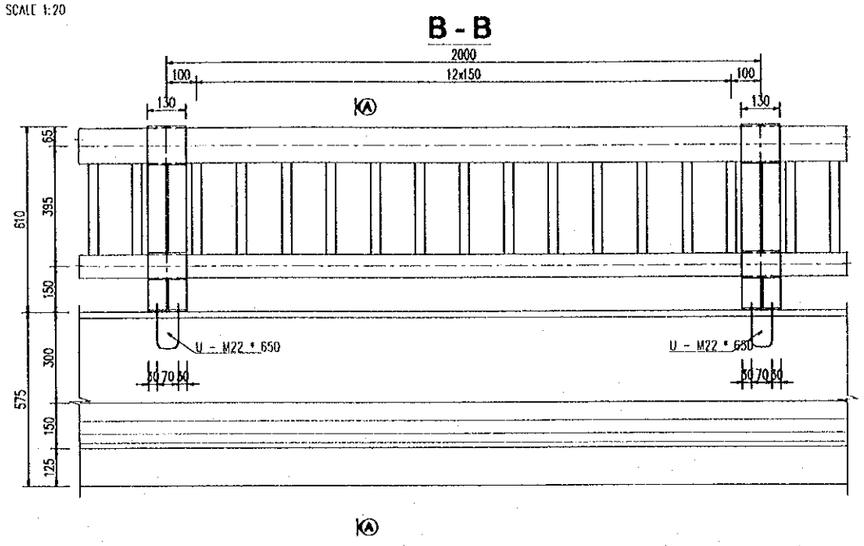
SCALE 1:15



C - C

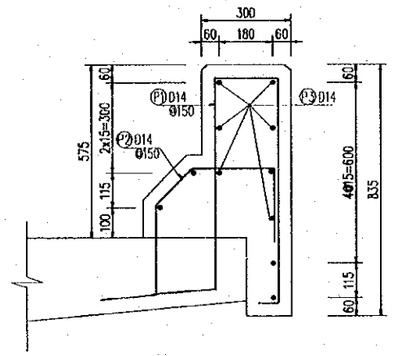


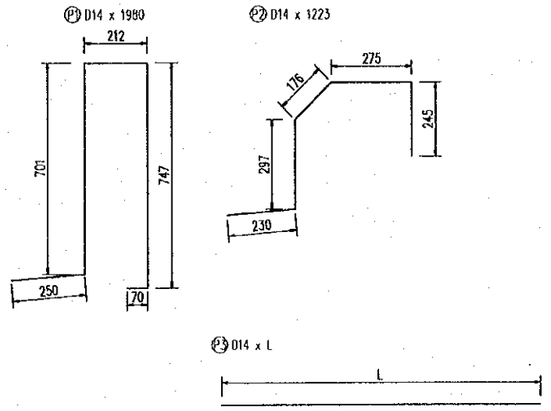
B - B



REINFORCEMENT OF PARAPET

SCALE 1:20





NOTES:

1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR4/0030.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANISED FOLLOWED BY SPECIFICATION PAINT PROTECTION SYSTEM.

QUANTITY OF RAILING (PER 10M LONG)

ITEM	SIZE	MATERIAL	UNIT WEIGHT	QUANTITY	UNIT	WEIGHT(KG)	REMART
POST	610*180*130	FCD-450	18.1	5	EACH	90.5	GALVANIZING
UPPER RAIL	114.3*3.5T	STK-400	19.5	10	M	195.0	
BOTTOM RAIL	76.3*2.5T	STK-400	5.77	10	M	57.7	
CONNECTION	490*300	STK-400	2.13	1.67	EACH	3.6	
	67.5*300	STK-400	1.4	1.67	EACH	2.3	
ANCHO BOLT	M22. 650	SS-400	2.9	20	EACH	58.0	
VERTICAL MEMBER	FB6*32*300	SS-400	2.09	65	EACH	135.9	

LIST OF REINFORCEMENT OF PARAPET (PER 10M LONG)

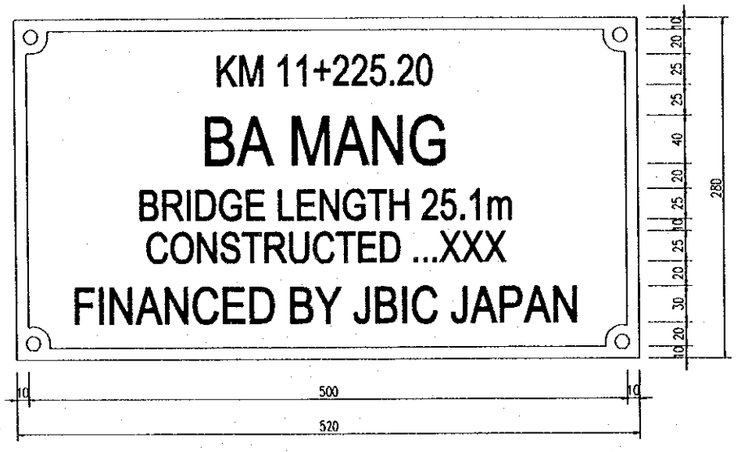
NAME	DIAMETER (mm)	LENGTH (mm)	NUMBER	U. WEIGHT (kg/m)	WEIGHT (kg)
P1	14	1980	68	1,208	162.7
P2	14	1223	68	1,208	100.5
P3	14	10000	11	1,208	132.9
D14				396.1	(kg)
CONCRETE				2.55	m3

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	BA MANG BRIDGE MISCELLANEOUS DETAILS OF PARAPET AND RAILINGS	P3/BR4/0270
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

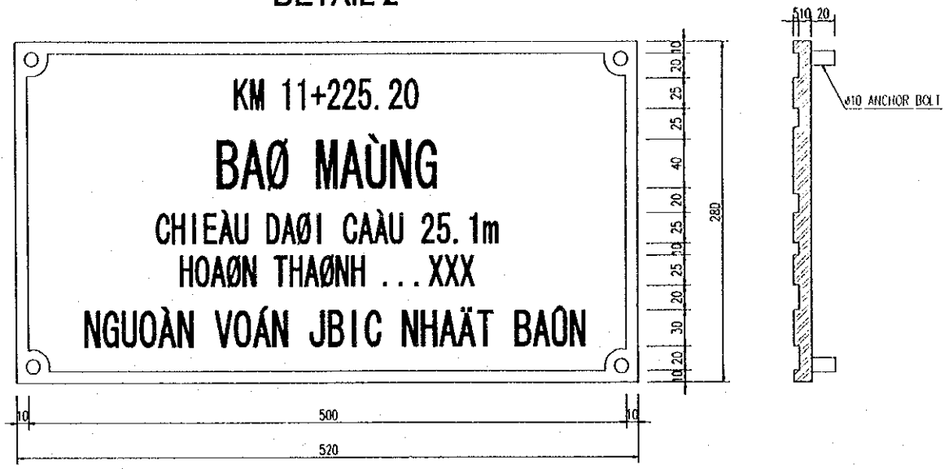
DETAIL OF BRIDGE NAME PLAQUE

SCALE 1:5

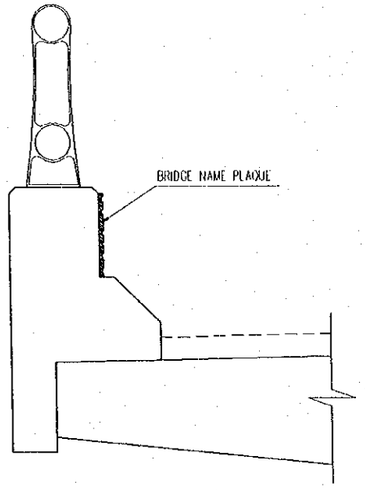
DETAIL 1



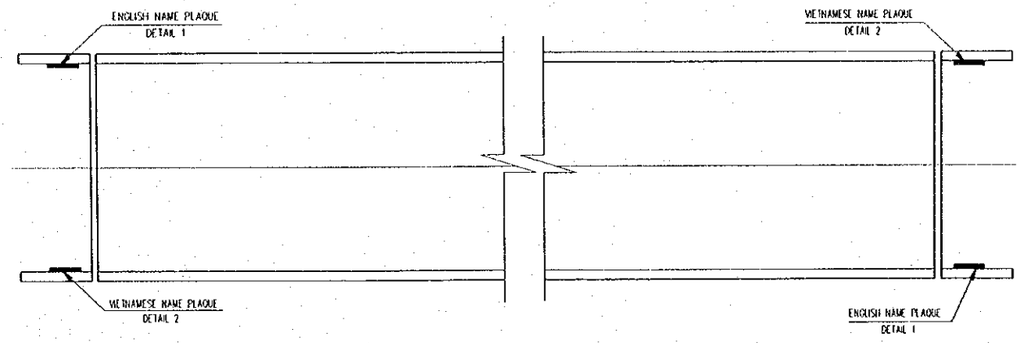
DETAIL 2



LOCATION OF NAME PLAQUE



PLAN



A1
ABUTMENT

A2
ABUTMENT

NOTES

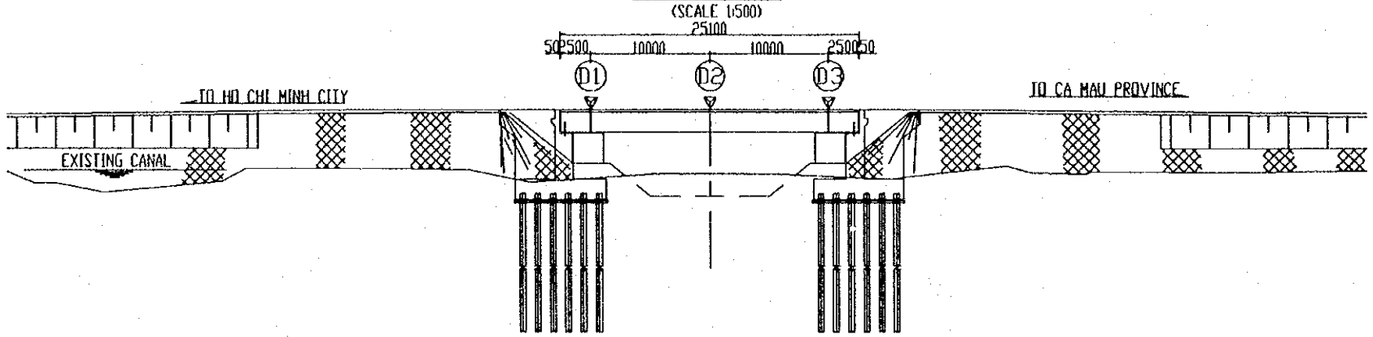
1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING No.P3/BR4/0030.
2. MATERIAL SHALL BE BRONZE.
3. THE DATE TO BE ENTERED AGAINST CONSTRUCTED SHALL BE AS INSTRUCTED BY THE ENGINEER.
4. ONE PLATE SHALL BE WRITTEN IN ENGLISH AND ONE IN VIETNAMESE.
   THE EXACT FIXING LOCATIONS TO BE INSTRUCTED BY THE ENGINEER.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	BA MANG BRIDGE MISCELLANEOUS BRIDGE NAME PLAQUE	P3/BR4/0280
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

DRAINAGE AND LIGHTING POLES LAYOUT

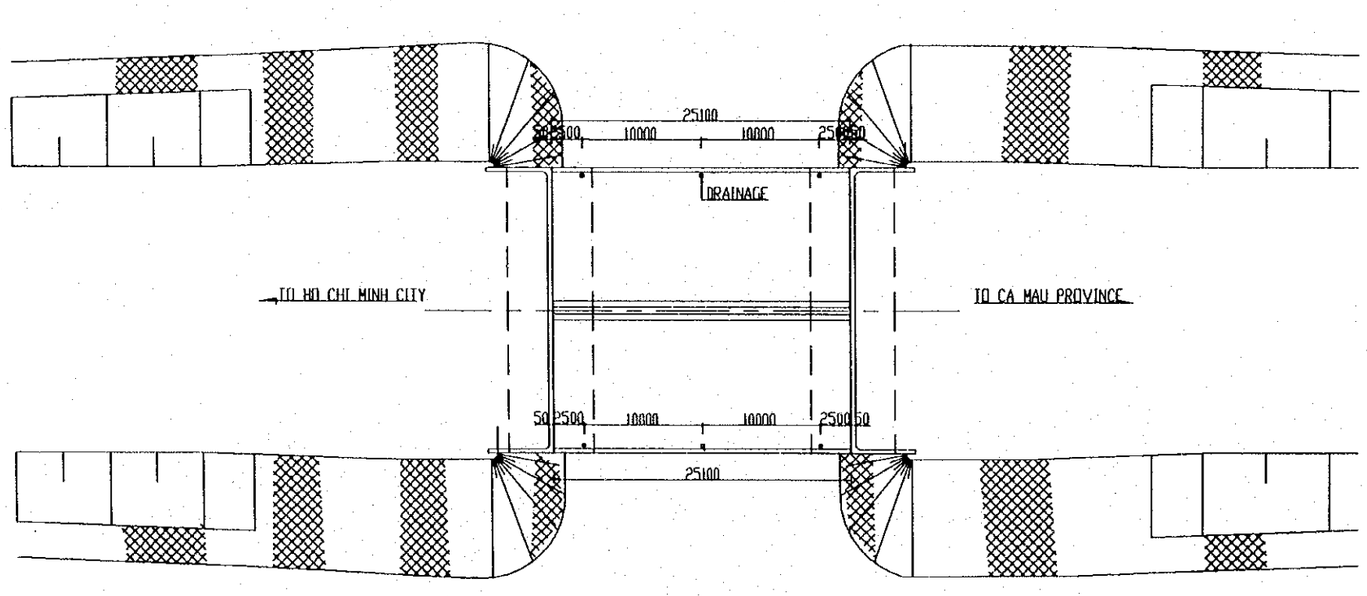
ELEVATION

(SCALE 1:500)



PLAN

(SCALE 1:500)

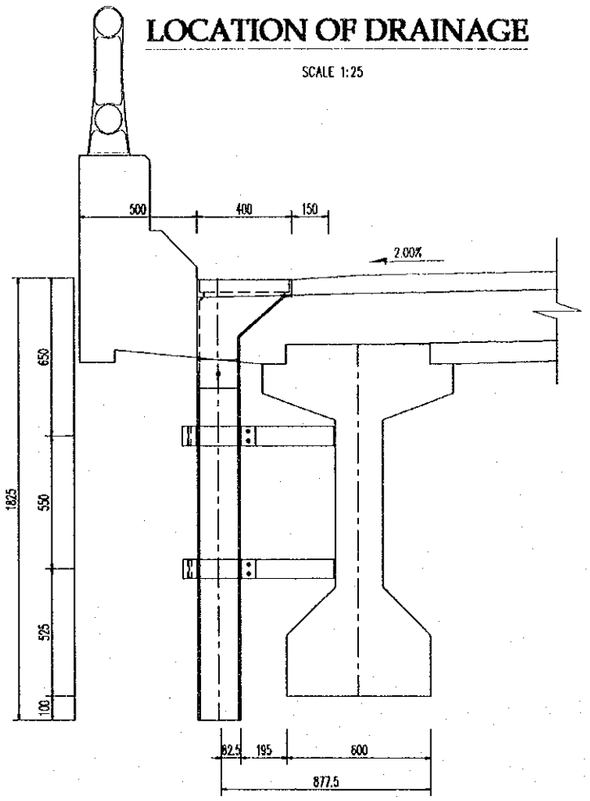


PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	BAMANG BRIDGE MISCELLANEOUS DRAINAGE LAYOUT	P3/BR4/0290
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

DETAILS OF DRAINAGE ON BRIDGE

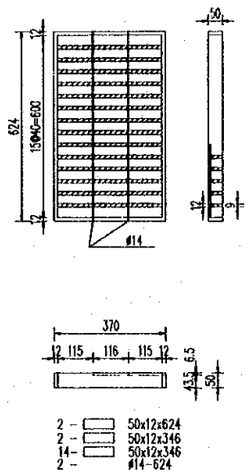
LOCATION OF DRAINAGE

SCALE 1:25



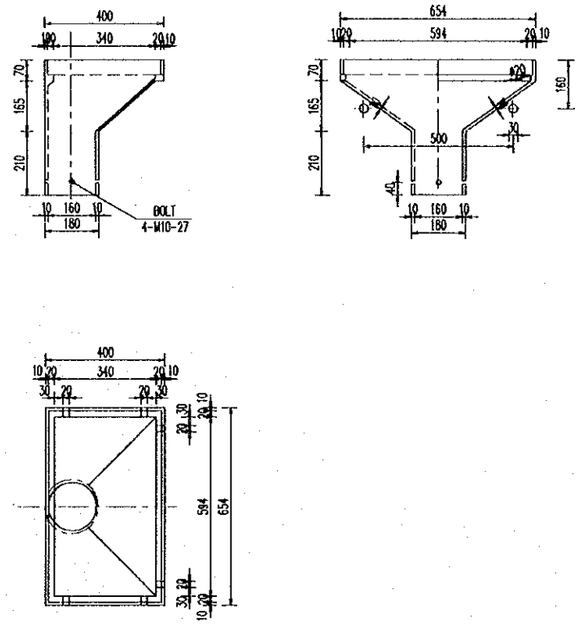
SCREEN

SCALE 1:20



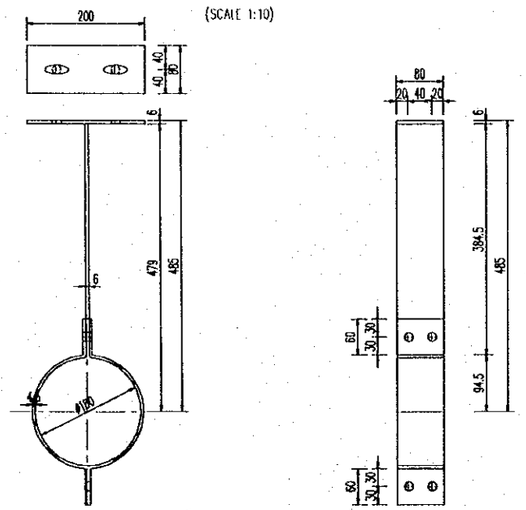
DRAIN BOX

SCALE 1:20



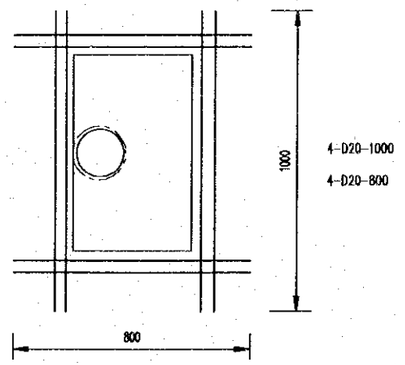
HANGER

(SCALE 1:10)



BOLT

SCALE 1:10



NOTES

FOR STANDARD STRUCTURAL NOTES SEE DRAWING P3/BR4/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	BA MANG BRIDGE MISCELLANEOUS DETAILS OF DRAINAGE ON BRIDGE	P3/BR4/0300
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

QUANTITY TABLE OF MISCELLANEOUS

ITEM		WORK ITEM	UNIT	QUANTITY
CONCRETE	CLASS E	PARAPET	M3	25.53
FORM		PARAPET	M2	160.20
RE-BAR		PARAPET	TON	3.960
STEEL RAILING			M	119.60
DRAINAGE		POT	SET	6
		PIPE ø180	M	10.44

NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR4/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	BA MANG BRIDGE MISCELLANEOUS QUANTITY TABLE OF MISCELLANEOUS	P3/BR4/0310
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

P3/BR5 CAI NAI BRIDGE

I. GENERAL

DRAWING LIST

NO.	CODE	DRAWING NAME
I		**GENERAL**
1	P3/BR5/0010	DRAWING LIST
2	P3/BR5/0020	ABBREVIATIONS AND SYMBOLS
3	P3/BR5/0030	STRUCTURAL NOTES
4	P3/BR5/0040	LOCATION MAP
5	P3/BR5/0050	COORDINATES OF BRIDGE
6	P3/BR5/0060	GENERAL VIEW - SHEET 1
7	P3/BR5/0070	GENERAL VIEW - SHEET 2
8	P3/BR5/0080	QUANTITY TABLE OF BRIDGE
II		**SUPERSTRUCTURE**
9	P3/BR5/0090	GIRDER LAYOUT
10	P3/BR5/0100	GENERAL VIEW OF " I " GIRDER L=28.0M.
11	P3/BR5/0110	GENERAL VIEW OF " I " GIRDER L=37.0M.
12	P3/BR5/0120	TENDONS ARRANGEMENT OF " I " GIRDER L=28.0M.
13	P3/BR5/0130	TENDONS ARRANGEMENT OF " I " GIRDER L=37.0M.
14	P3/BR5/0140	TENDONS ARRANGEMENT OF DIAPHRAGMS.
15	P3/BR5/0150	REINFORCEMENT OF " I " GIRDER L=28.0M
16	P3/BR5/0160	REINFORCEMENT OF " I " GIRDER L=37.0M
17	P3/BR5/0170	REINFORCEMENT OF DIAPHRAGMS - SHEET 1
18	P3/BR5/0180	DECK SLAB REINFORCEMENT - SHEET 1
19	P3/BR5/0190	DECK SLAB REINFORCEMENT - SHEET 2
20	P3/BR5/0200	DECK SLAB REINFORCEMENT - SHEET 3
21	P3/BR5/0210	DECK SLAB REINFORCEMENT - SHEET 4
22	P3/BR5/0220	DETAILS OF BEARINGS.
23	P3/BR5/0230	DETAILS OF EXPANSION JOINTS
24	P3/BR5/0240	QUANTITY TABLE OF SUPERSTRUCTURE
III		**ABUTMENTS**
25	P3/BR5/0250	GENERAL VIEW OF ABUTMENTS A1 & A2
26	P3/BR5/0260	ABUTMENTS A1&A2 RC PILE 450 L=40.0m SHEET-1
27	P3/BR5/0270	ABUTMENTS A1&A2 RC PILE 450 L=40.0m SHEET-2
28	P3/BR5/0280	REINFORCEMENT OF ABUTMENTS A1 & A2 - SHEET 1
29	P3/BR5/0290	REINFORCEMENT OF ABUTMENTS A1 & A2 - SHEET 2
30	P3/BR5/0300	REINFORCEMENT OF ABUTMENTS A1 & A2 - SHEET 3
31	P3/BR5/0310	EARTHWORKS SLOPE PROTECTION - SHEET 1
32	P3/BR5/0320	EARTHWORKS SLOPE PROTECTION - SHEET 2
33	P3/BR5/0330	DETAILS OF APPROACH SLAB
34	P3/BR5/0340	QUANTITY TABLE OF ABUTMENTS
IV		**PIERS**
35	P3/BR5/0350	GENERAL VIEW OF PIERS P1& P2
36	P3/BR5/0360	PIER P1- BORED PILE DETAILS , L=66.0M
37	P3/BR5/0370	PIER P2- BORED PILE DETAILS , L=55.0M
38	P3/BR5/0380	REINFORCEMENT OF PIERS P1 & P2 - SHEET 1
39	P3/BR5/0390	REINFORCEMENT OF PIERS P1 & P2 - SHEET 2
40	P3/BR5/0400	PIERS PROTECTION
41	P3/BR5/0410	QUANTITY TABLE OF PIERS
	V	**MISCELLANEOUS**
42	P3/BR5/0420	DETAILS OF PARAPET AND RAILINGS
43	P3/BR5/0430	BRIDGE NAME PLAQUE
44	P3/BR5/0440	DRAINAGE AND LIGHTING POLES LAYOUT
45	P3/BR5/0450	DETAILS OF DRAINAGE ON BRIDGE
46	P3/BR5/0460	DETAILS OF LIGHTING POLE BASES
47	P3/BR5/0470	QUANTITY TABLE OF MISCELLANEOUS WORKS

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME				CAI NAI BRIDGE GENERAL DRAWING LIST	P3/BR5/0010
				SIGNATURE					
				DATE					

ABBREVIATIONS AND SYMBOLS

A	PARAMETER OF CLOTHOID CURVE
@	AT
ABUT	ABUTMENT
AC	ASPHALT CONCRETE
APPR	APPROACH
ASPH	ASPHALT
&	AND
A > B	A IS LARGER THAN B
BOR	BORING
BR	BRIDGE
BX	BOX CULVERT
C	CUT
CTC	CENTER TO CENTER
℄	CENTERLINE
CM	CENTIMETER
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
C.S	CIRCULAR CURVE TO SPIRAL CURVE
CU.M	CUBIC METER
DIA or ø	DIAMETER
DC	DRAINAGE CATCHBASIN
DI	DRAINAGE INLET
DL	DATUM LINE
DO	DRAINAGE OUTLET
DS	DRAINAGE SIDEDITCH
DW	MORTARED RUBBLE PAVED WATERWAY
E.P	END POINT
E.V	MIDDLE ORDINATE VERTICAL CURVE
EL	ELEVATION
EQ	EQUAL
EXC	EXCAVATION
EXP	EXPANSION
F	FILL
FG	FINISHED GRADE
FIX	FIXED
FR	FRONTAGE ROAD
FTOF	FACE TO FACE
G.F	GUARD FENCE
GR	GUARD RAIL
GIR	GIRDER
H	HEIGHT
D.F.W.L	DATUM FLOODED WATER LEVEL
HWY	HIGHWAY
i	GRADIENT
I.C	INTERCHANGE
I.P	POINT OF INTERSECTION
KG	KILOGRAM
KM	KILOMETER
KPH	KILOMETER PER HOUR
L	LEGNTH OF CURVE WITH SPIRAL
LC	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL CURVE
LVC	LENGTH OF VERTICAL CURVE
LIN.M	LINEAR METER
M	METER
M^2	SQUARE METER
M^3	CUBIC METER
MAX	MAXIMUM
MIN	MINIMUM
MOV	MOVABLE
N.G.L	NATURAL GROUND LEVEL
OV	OVER BRIDGE
%	PERCENT
P	PIPE CULVERT
PC	BEGINNING POINT OF SIMPLE CURVE
PE.W	PARAPET WALL
P.C	PRESTRESSED CONCRETE
P/C	PRE – CAST
PH	PLAN HEIGHT
P.I	POINT OF INTERSECTION FOR HORIZONTAL ALIGNMENT
PT	END OF POINT OF SIMPLE CURVE
PC	PLATE COVER
R	RADIUS OF CIRCULAR CURVE
R.C	REINFORCED CONCRETE
R.O.W	RIGHT OF WAY
RW	RETAINING WALL
S.C	SPIRAL CURVE TO CIRCULAR CURVE
S.P	SLOPE PROTECTION
S.P.P	STEEL PIPE PILE
SQ	SQUARE
SQ.M	SQUARE METER
S.T	SPIRAL CURVE TO TANGENT
STA	STATION
SM	STONE MASONRY
T	THICKNESS
T.S	TANGENT TO SPIRAL
T.L	TANGENT LENGTH OF CIRCULAR CURVE
Ts	TANGENT LENGTH OF SPIRAL
V	DESIGN SPEED IN KPH
W	WIDTH
X	EASTING COORDINATE IN METERS

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL ABBREVIATIONS AND SYMBOLS	P3/BR5/0020
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

STRUCTURAL NOTES

1. GENERAL

1.1. UNLESS OTHERWISE NOTED THESE NOTES ARE APPLIED TO ALL DRAWINGS.

1.2. THE SCALE INDICATED IN DRAWINGS IS FOR 'A3' SIZE.

1.3. ALL CHAINAGES, COORDIANATES, ELEVATIONS ARE IN METRES.
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.

1.4. THE ELEVATION SYSTEM IS REFERED TO THE MEAN SEA DATUM ELEVATION AT HONDAU – DO SON.
COORDINATE REFER TO THE NATIONAL GRID SYSTEM.

2. DESIGN CRITERIA & LOADS

2.1. DESIGN STANDARDS:
- AASHTO 1998 – LRFD BRIDGE DESIGN SPECIFICATIONS
- AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES
- JAPANESE HIGHWAY AND BRIDGE STANDARDS 1996
- VIETNAMESE HIGHWAY BRIDGES STANDARDS 1979

2.2. DESIGN LOADS:
- B_LOADING IN ACCORDANCE WITH JAPANESE CODE
- PEDESTRIAN LOAD : 3.6 kN/M2 – AASHTO LRFD 1998
- BASIC WIND VELOCITY : 160 KM/H – AASHTO LRFD 1998
- LATERAL SEISMIC RESPONSE COEFFICIENT : 0.12
- VESSEL IMPACT : VIETNAMESE HIGHWAY BRIDGES STANDARDS 1979
- TEMPERATURE RANGE : 17.7℃ TO 36.7℃
- UNIFORM TEMPERATURE : ±10℃
- TEMPERATURE DIFFERENTIAL : 5℃

3. CONCRETE

3.1. UNLESS OTHERWISE INDECATED CONCRETE SHALL BE OF THE FOLLOWING GRADES BASED ON 28 DAY CYLINDER STRENGTH fc:

CONCRETE CLASS	STRENGTH fc MPa	KIND OF STRUCTURE IN USE
B	40	PC BOX GIRDER, I-GIRDER
C	35	HOLLOW SLAB
D	30	IN-SITU DECK SLAB, BORED PILE
E	24	PIER, ABUTMENT, PILE CAP, RETAINING WALL, PARAPET, BARRIER, KERB
G	15	LEAN CONCRETE

3.2. WHEREVER FORMS ARE NOT USED REINFORCED CONCRETE SHALL BE PLACED AGAINST 100mm MINIMUM THICKNESS LEAN CONCRETE.

3.3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20x20mm UNLESS OTHERWISE NOTED.

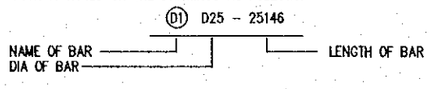
3.4. ALL CONSTRUCTION JOINTS ARE TO BE LOCATED AS SHOWN ON THE DRAWINGS OR AS ENGINEER'S APPROVAL.

4. REINFORCEMENT

4.1. REINFORCEMENT SHALL BE DEFORMED, EXCEPT THAT PLAIN BARS OR PLAIN WIRE MAY BE USED FOR SPIRALS, HOOPS, AND WIRE FABRIC.

4.2. REINFORCEMENT SHALL BE SD390 OR EQUIVALENT. PLAIN ROUND BAR WITH fy(min) 250 MPa AND HIGH YIELD DEFORMED BARS WITH YIELD STRENGTH NOT LESS THAN fy(min) 390 MPa SHALL BE USED.

4.3. REINFORCEMENT IS NOTED ON THE DRAWINGS AS FOLLOWS:



4.4. ALL REINFORCEMENTS ARE SHOWN AS ————

4.5. SPLICES IN ADJACENT BARS SHALL BE STAGGERED EXCEPT WHERE NOTED ON THE DRAWINGS. SPLICES OTHER THAN THOSE SHOWN ON THE DRAWINGS MAY ONLY BE MADE WITH THE ENGINEER'S APPROVAL.

4. REINFORCEMENT (CONTINUED)

4.6. REINFORCEMENTS INDECATED AS RANDOM LENGTH MAY BE LAP SPLICED AS NECESSARY SUBJECT TO THE FOLLOWING CONDITIONS:
- A) LAP SPLICES IN ADJACENT BARS SHALL BE STAGGERED
- B) MINIMUM LAP LENGTHS SHALL BE IN ACCORDANCE WITH AASHTO LRFD 1998, EXCEPT BORED PILE SHALL BE 40 BAR DIAMETERS
- C) NOT MORE THAN ONE BAR PER LINE IS TO BE SHORTER THAN 12 METRES FOR ANY DIAMETER

4.7. UNLESS OTHERWISE INDECATED ON THE DRAWINGS, THE MINIMUM COVER TO ANY REINFORCEMENT SHALL BE AS FOLLOWS:

75mm BORED PILE, RETAINING WALL & ABUTMENT
50mm PILE CAP, DECK SLAB, PIER & ABUTMENT, PARAPET, KERB, APPROACH SLAB, etc...
TOLERANCE ON COVER IS +/-5MM

5. PRESTRESSING

5.1. NOMINAL DIAMETER, YIELD AND TENSILE STRENGTH OF PRESTRESSED TENDON ARE SPECIFIED AS FOLLOWS:

UTILIZATION	NOMINAL DIAMETER (mm)	TENSILE STRENGTH (MPa)	YIELD STRENGTH (MPa)	JACKING FORCE (kN)
INTERNAL CABLE	12S12.7	1860	1675	1650
TRANSVERSE CABLE	3S12.7	1860	1675	415

5.2. PRESTRESSED TENDONS SHALL BE FORMED FROM THE STRANDS OF 12.7mm DIAMETER MADE BY 7 LOW RELAXATION WIRES GRADE 270 CORRESPONDING WITH ASTM A416M. THE ACTUAL TENDON SIZES AND INITIAL PRESTRESSED FORCE ARE GIVEN ON THE DETAIL DRAWINGS.

5.3. PRESTRESSED SYSTEMS TO BE ADOPTED SHALL BE IN ACCORDANCE WITH THE ENGINEER'S APPROVAL.

5.4. DUCTS FOR INTERNAL TENDONS SHALL BE SEMI-RIGID GALVANISED SHEATHING UNLESS OTHERWSE NOTED AND SHALL BE RIGIDLY SUPPORTED AT NOT MORE THAN 750mm FROM CENTRES.

5.5. THE METHOD TO FIX THE DUCTS AND THE METHOD OF JOINTING AND SEALING OF DUCTS AT CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH THE ENGINEER'S APPROVAL.

5.6. TENDON PROFILES ARE SPECIFIED TO THE CENTER OF SHEATHING. THE TENDON ARE TO BE PLACED TO SMOOTH PROFILES PASSING THROUGH THE SPECIFIED POINTS.

5.7. EACH TENDON SHALL BE KEPT STRAIGHT FOR A MINIMUM LENGTH OF 1000mm FROM ANCHORAGE FACES.

5.8. GROUTING POINTS SHALL BE PROVIDED AT ALL CROWN POINTS, SAG POINTS, ANCHORAGES AND DEVIATORS.

6. WATERPROOF

6.1. ALL REINFORCED CONCRETE SURFACES IN CONTACT WITH BACKFILL SHALL BE COATED WITH TWO COATS OF BITUMINOUS MEMBRANE.

6.2. THE BRIDGE DECK SHALL BE WATERPROOFED WITH APPROVED PROPRIETARY WATERPROOFING SYSTEM IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

7. SUPERSTRUCTURE

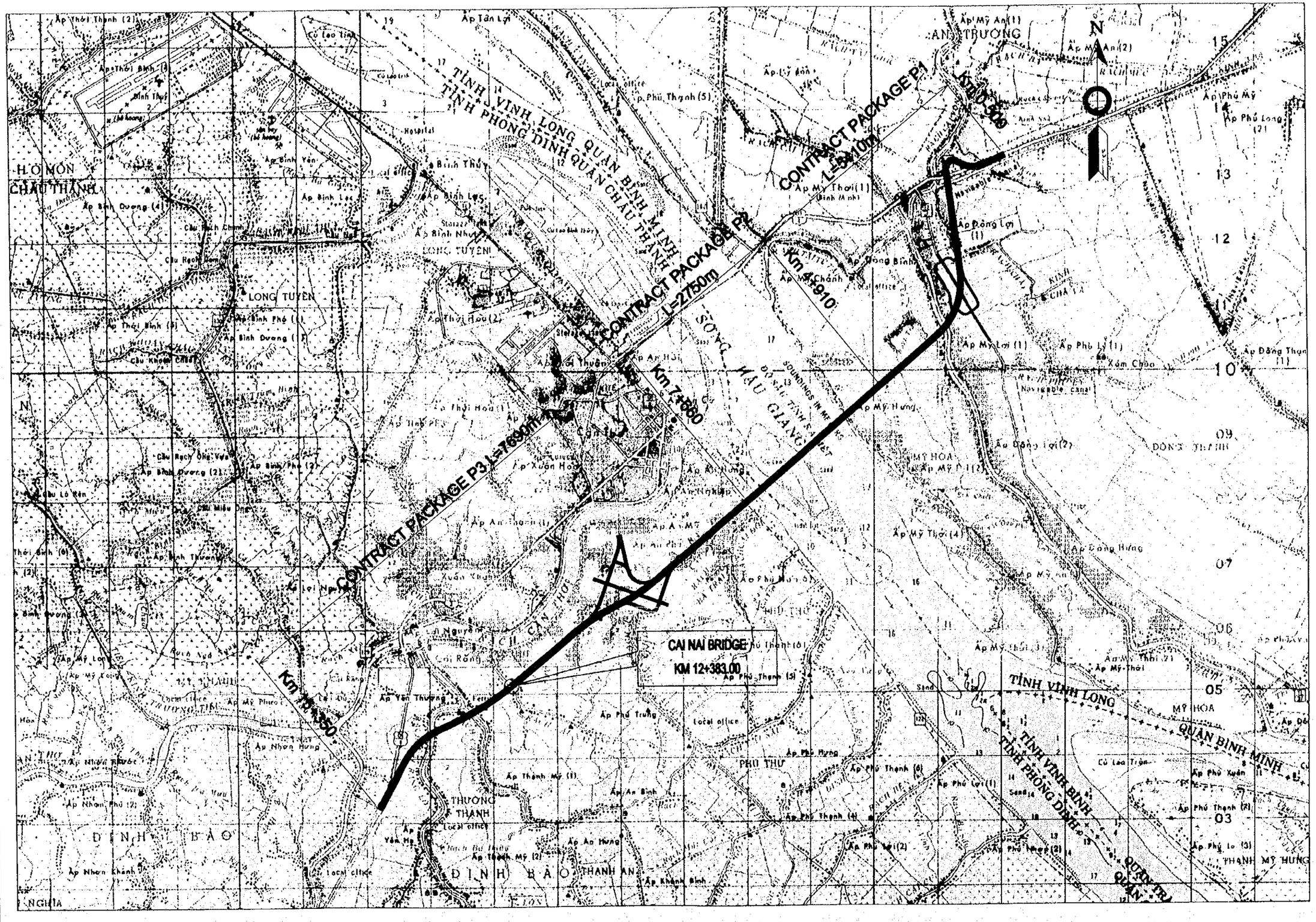
7.1. SUPERSTRUCTURE IS DESIGNED ON THE BASIS OF CONSTRUCTION SEQUENCE DETAILED ON THE DRAWINGS. ANY CHANGES TO THE CONSTRUCTION SEQUENCE WILL REQUIRE A RE-DESIGN OF THE BRIDGE.

7.2. THE SUPERSTRUCTURE DESIGN IS BASED ON THE USE OF INTERNAL PRESTRESSING WITH THE FOLLOWING PARAMETERS:

COEFFICIENT OF FRICTION – 1/RAD	0.25
WOBBLE FACTOR K – 1/m (FOR INTERNAL ONLY)	0.004
DRAW-IN	5 mm
RELATIVE HUMIDITY	85%

7.3. ANCHOR BAR SHALL BE CONFORMING TO THE REQUIREMENTS OF SS400 OF JIS G3101.

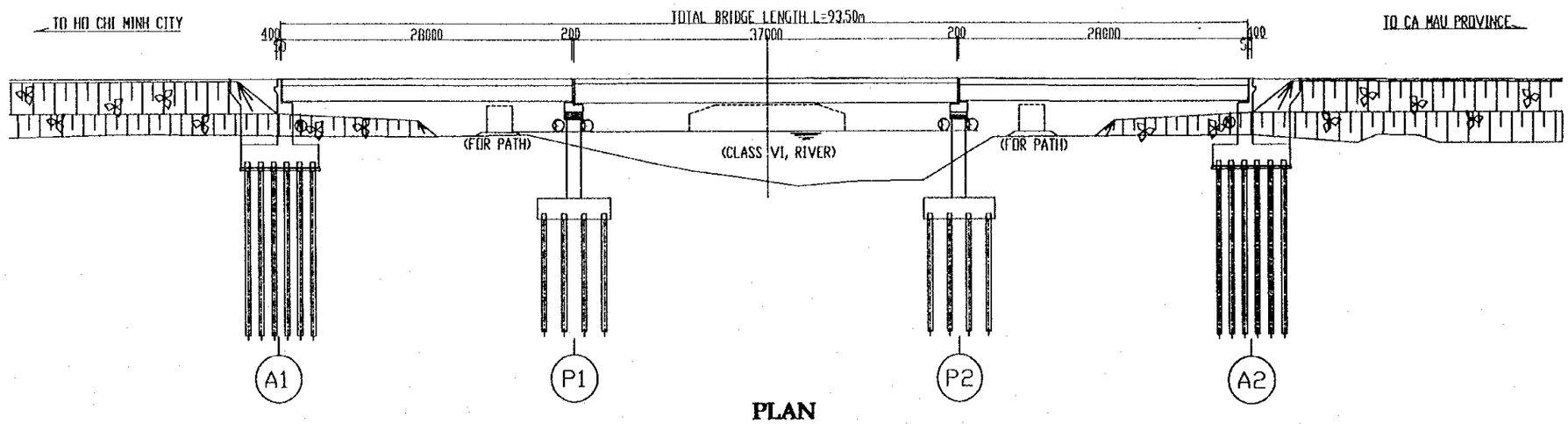
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL STRUCTURAL NOTES	P3/BR5/0030
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		



PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE LOCATION MAP	P3/BR5/0040
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

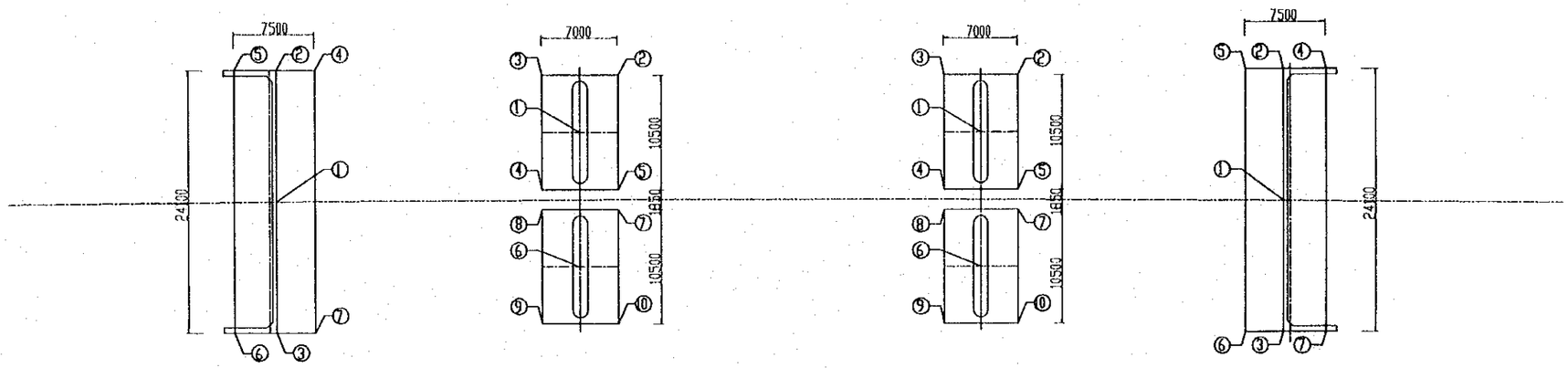
SIDE ELEVATION

(SCALE 1:500)



PLAN

(SCALE 1:500)



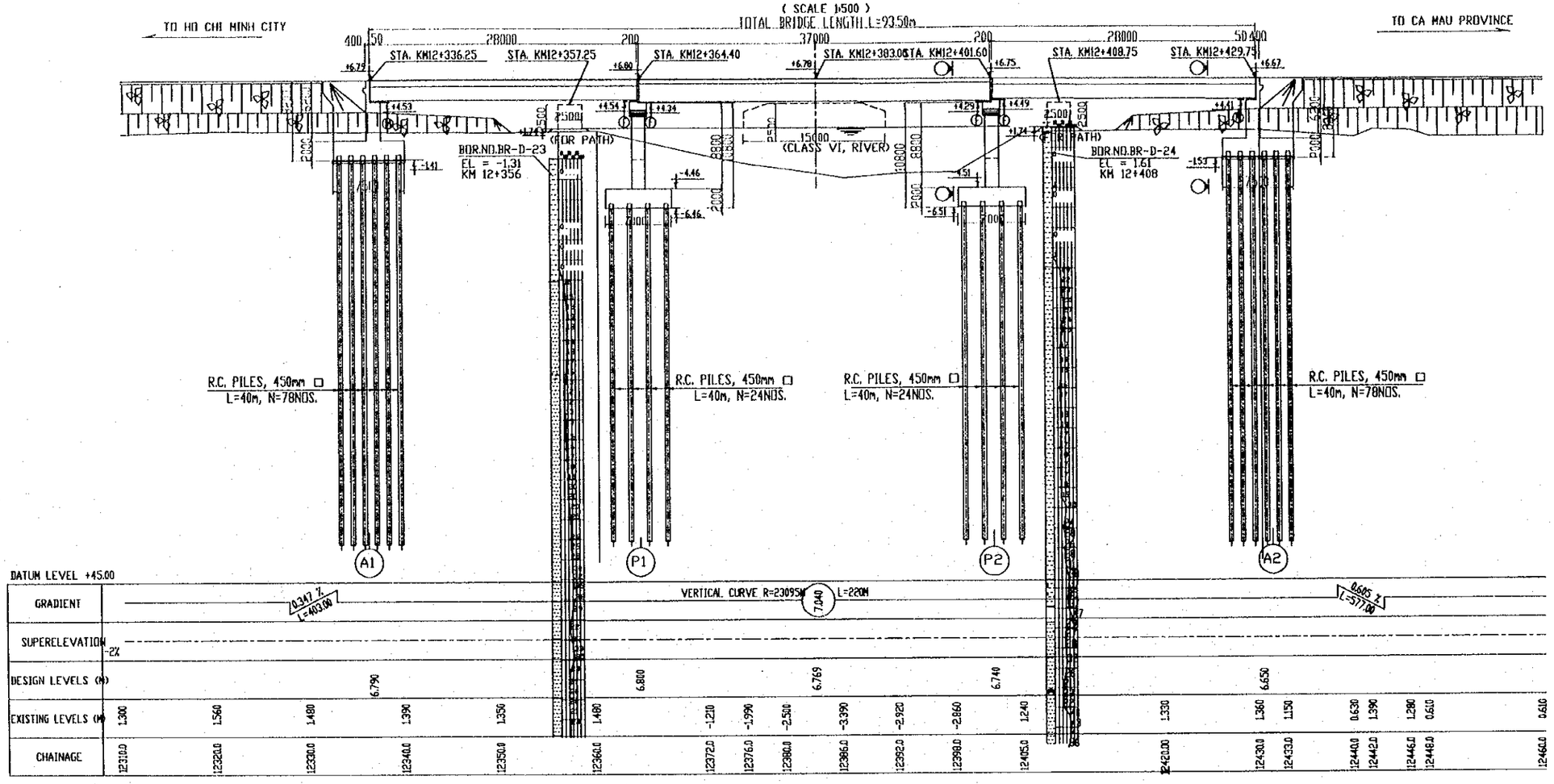
COORDINATES TABLE

POINT	A1		P1		P2		A2	
	N	E	N	E	N	E	N	E
1	583956.889	1106030.776	583937.877	1106009.065	583907.804	1105987.167	583881.303	1105975.740
2	583963.986	1106021.037	583938.138	1106002.761	583908.066	1105980.863	583888.395	1105966.001
3	583949.799	1106040.520	583943.796	1106006.881	583913.724	1105984.984	583874.212	1105985.479
4	583961.072	1106018.923	583937.615	1106015.370	583907.543	1105993.472	583885.242	1105963.706
5	583967.135	1106023.338	583931.957	1106011.249	583901.885	1105989.351	583891.305	1105968.121
6	583952.948	1106042.820	583930.607	1106019.049	583900.535	1105997.151	583877.119	1105987.603
7	583946.885	1106038.405	583930.868	1106012.745	583900.796	1105990.847	583871.056	1105983.188
8			583936.526	1106016.865	583906.454	1105994.967		
9			583930.346	1106025.353	583900.274	1106003.455		
10			583924.687	1106021.233	583894.615	1105999.335		

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL COORDINATES OF BRIDGE	P3/BRS/0050
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

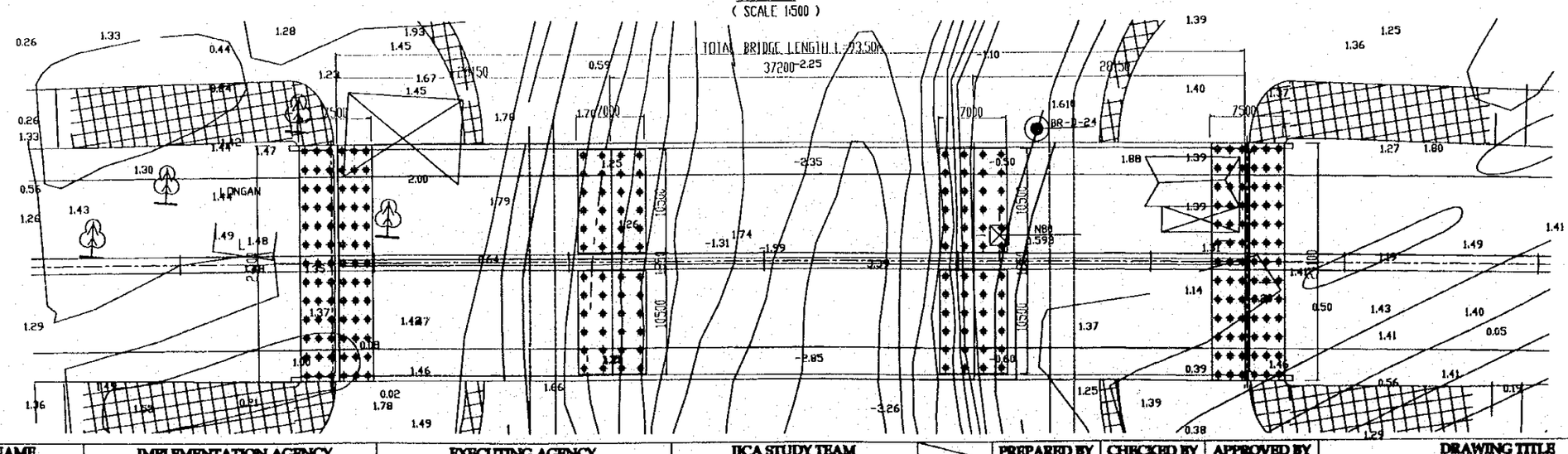
SIDE ELEVATION

(SCALE 1:500)



PLAN

(SCALE 1:500)

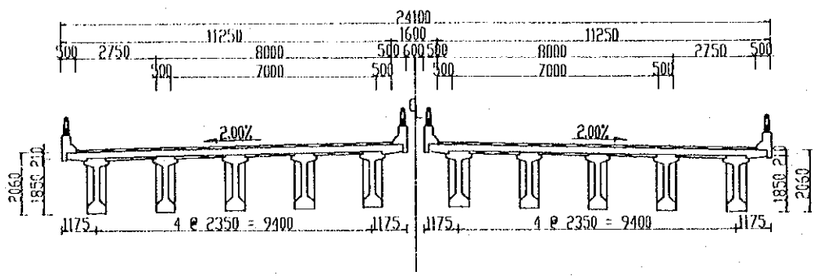


PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL GENERAL VIEW - SHEET 1	P5/BRS/0060
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

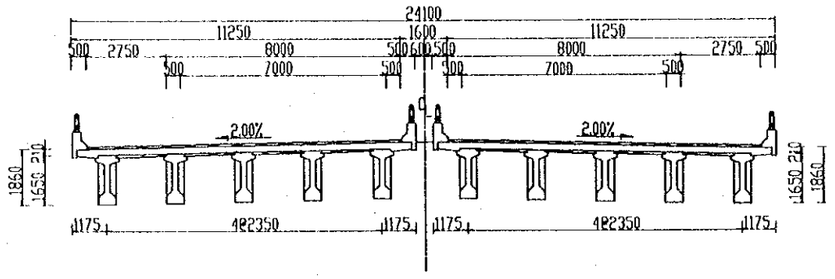
TYPICAL SECTIONS FOR SUPERSTRUCTURE

(SCALE 1:200)

MIDDLE SPAN



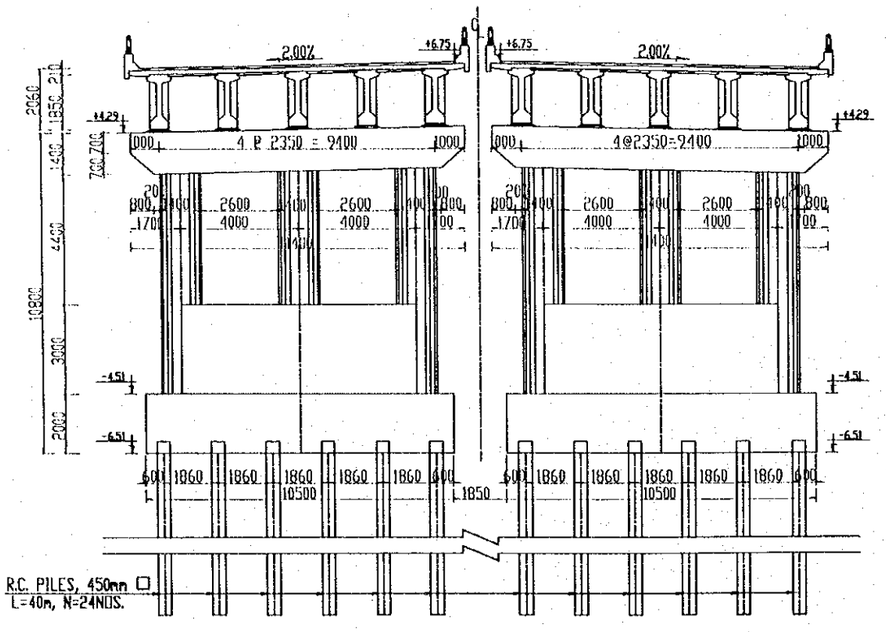
SIDE SPAN



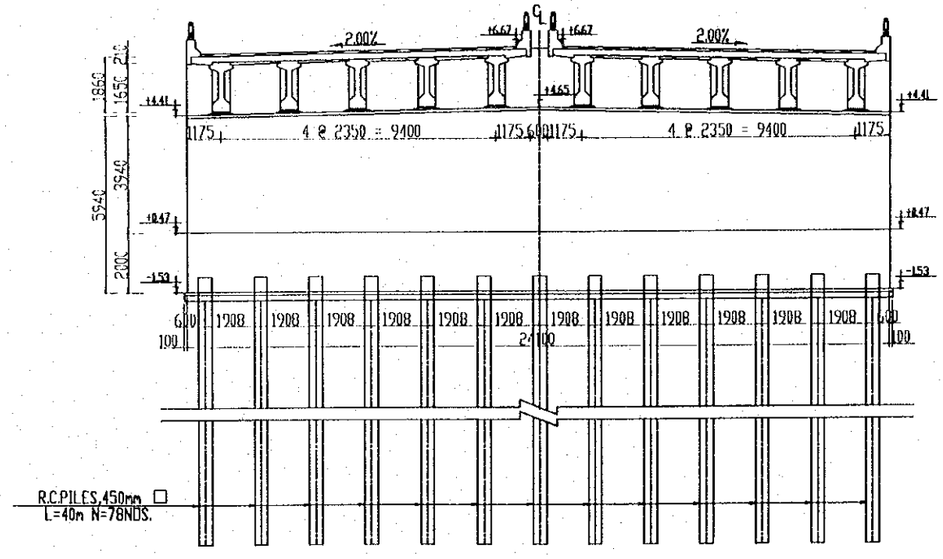
CROSS SECTIONS

(SCALE 1:200)

A-A (PIER P2)



B-B (ABUTMENT A2)



PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL GENERAL VIEW - SHEET 2	F3/BR5/0070
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

QUANTITY TABLE OF CAI NAI BRIGDE

ITEMS			UNIT	SUPERSTRUCTERE	ABUTMENTS	PIERS	MISCELLANEOUS WORKS			TOTAL
							DRAINAGE	LIGHTING-BASE	RAILING	
CONCRETE	CLASS B		m3	703.6						703.6
	CLASS D		m3	696.4	2315.0	1906.2				4917.6
	CLASS E		m3		1241.5	780.4		0.2	95.4	2117.5
	CLASS G		m3		60.4					60.4
PC - STEEL	12 S15.2		ton							0.0
	12 S12.7		ton	7.7						7.7
	3 S12.7		ton	0.4						0.4
SHEATHING	CABLES ø80/85		m	3503.7						3503.7
	CABLES ø 90/100		m							0.0
	CABLES ø 50/55		m	522.6						522.6
	FLAT DUCT 25x80mm		m							0.0
	CEMENT GROUT IN SHEATHING		m3	18.6						18.6
STEEL JOINT KEY			set	240.0						240.0
ANCHORAGE	CABLES 12S15.2	live	set							0.0
	CABLES 12S12.7	live	set	220.0						220.0
		dead	set							0.0
	CABLES 3S12.7	live	set	104.0						104.0
		dead	set							0.0
REINFORCEMENT	D < = 14		ton	147.2	39.8	21.13			14.8	223.0
	16 < = D < = 25		ton	109.1	263.1	75.1		0.1		447.4
	25 < D < = 32		ton	0	0.80	44.0				44.8
	TOTAL		ton	256.3	303.7	140.2		0.1	14.8	715.1
EXPANSION JOINT	100mm		m	86.0						86.0
BEARING	Non- Shrink Mortar		m3							0.0
	550x250x25		set	40.0						40.0
	600x300x57		set	20						20.0
	1410x1410x214		set							0.0
ANCHORAGE BAR	ø 75 mm, L=1250mm		set	48.0						48.0
	ø 125 mm, L=2500mm		set							0.0
PVC PILE	ø 50 mm		m		132.0					132.0
DRAINAGE	Pot		m				14.0			14.0
	Pile ø 180		m				24.6			24.6
LIGHTING POLE			set					2		2.0
PAVEMENT	WATER PROOFING 5 mm		m2	2010.3						2010.3
	ASPHALT CONCRETE 70 mm		m2	2010.3						2010.3
GEOTEXTILE			m2		1191.0					1191.0
STONE MASONRY T=300mm			m3		1140.7					1140.7
BLINDING AGGREGATE T=100mm			m3		380.2					380.2
RIP RAP			m3			3150.2				3150.2
BLINDING STONE			m3		67.8	140				207.7
WOODEN PILE, L=3m			m		15837.0					15837.0
EXCAVATION			m3		4795.1	4206.4				9001.5
FILLING			m3		1107	2236.9				3343.8
COFFERDAMS	LARSEN IV		m			26581.5				26581.5
	I 400		m			1440.0				1440.0
	C 300		m			1086.0				1086.0

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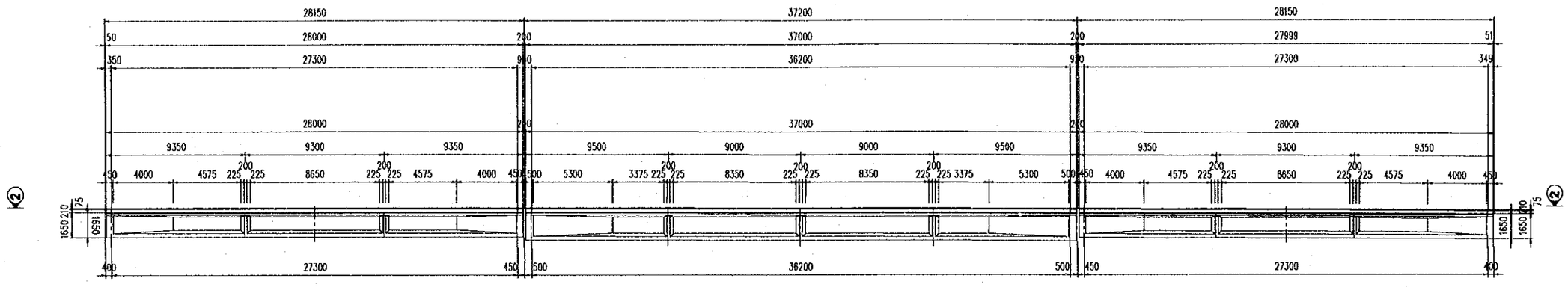
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE GENERAL QUANTITY TABLE OF BRIDGE	P3/BR5/0080
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

II. SUPERSTRUCTURE

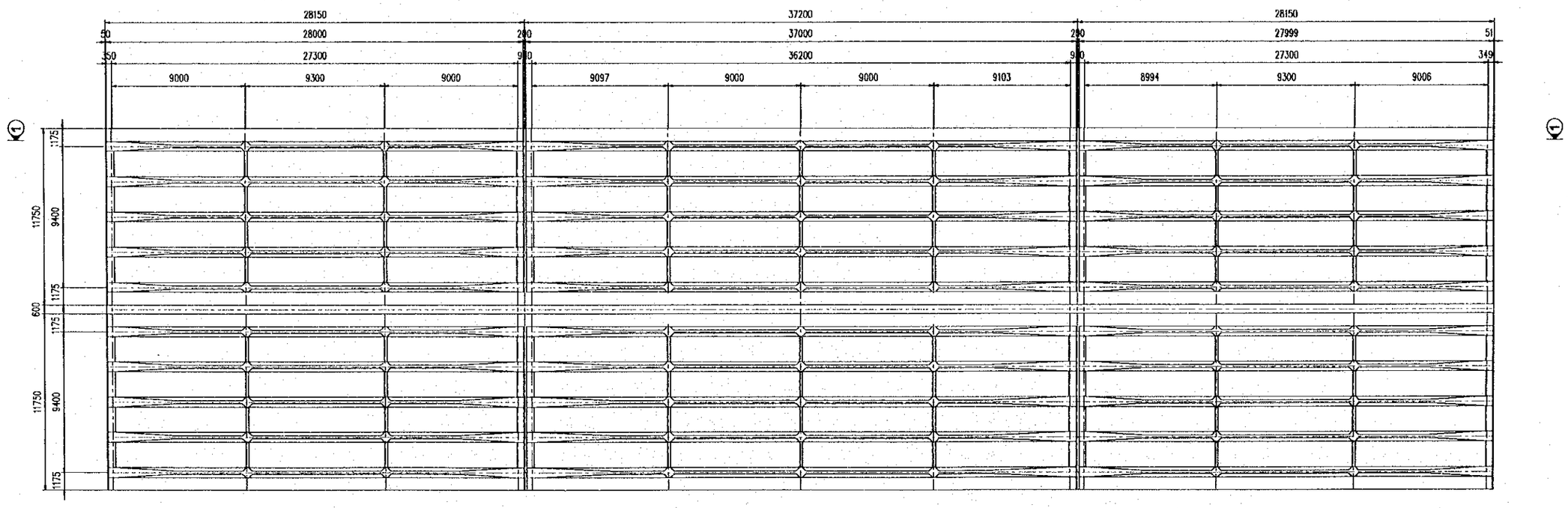
SECTION 1 - 1

(SCALE 1 : 300)



SECTION 2 - 2

(SCALE 1 : 300)



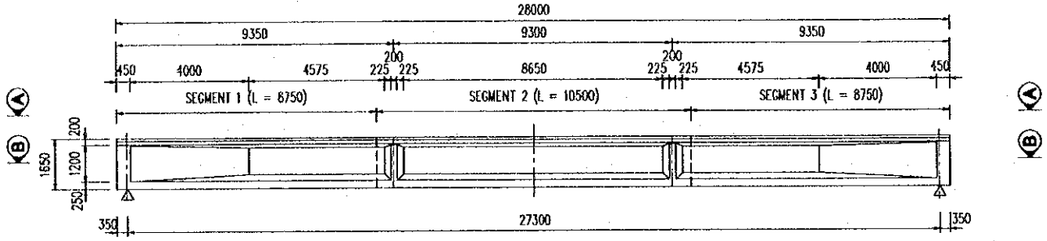
NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE GIRDER LAYOUT - SHEET 1	P3/BR5/0090
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

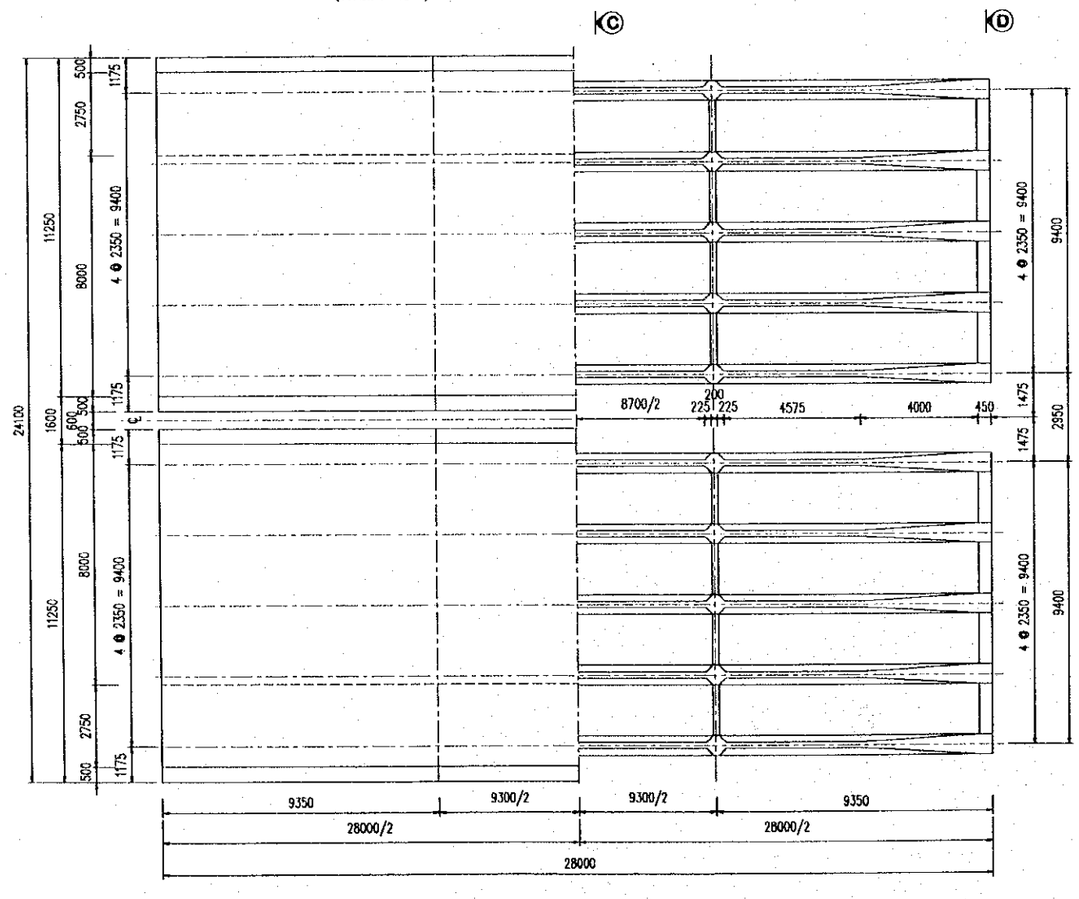
DETAIL OF SUPER STRUCTURE FOR CAI NAI BRIDGE
(Ls = 27.3M)

ELEVATION
(SCALE : 1:200)



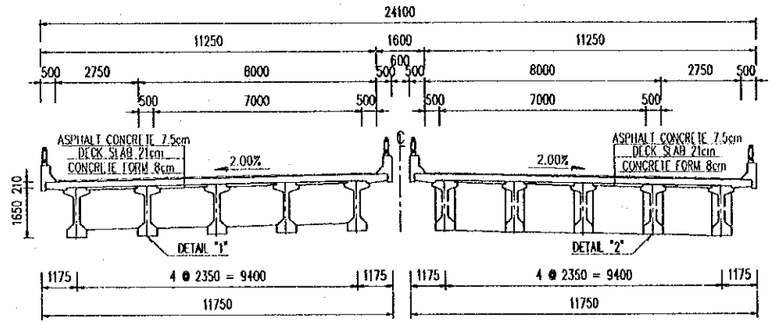
1/2 SECTION A - A
(SCALE : 1:200)

1/2 SECTION B - B
(SCALE : 1:200)

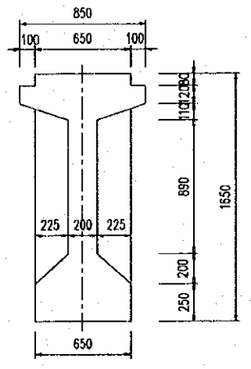


1/2 SECTION C - C
(SCALE : 1:200)

1/2 SECTION D - D
(SCALE : 1:200)



DETAIL "1"
(SCALE : 1:40)



DETAIL "2"
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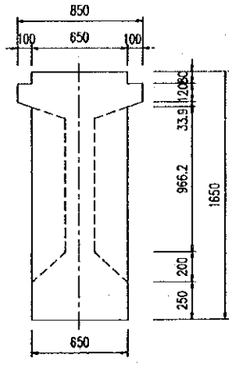


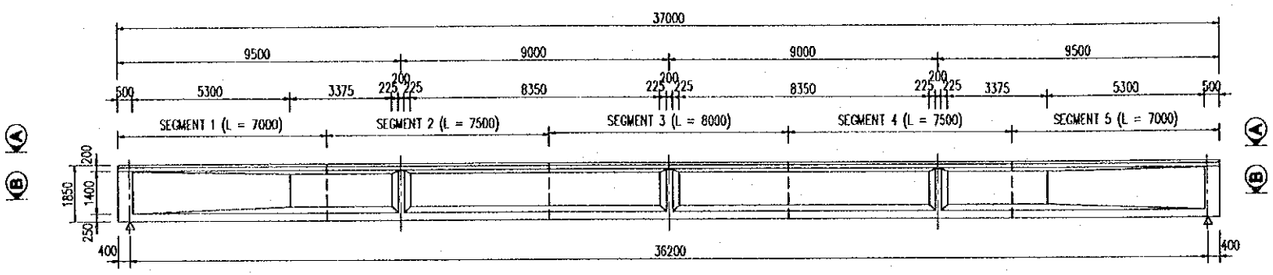
NOTES :

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE GENERAL VIEW OF "T" GIRDER L = 28M	P3/BR5/0100
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

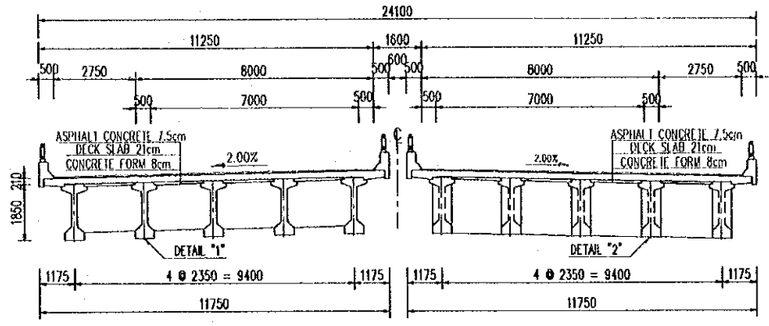
DETAIL OF SUPER STRUCTURE FOR CAI NAI BRIDGE
(Ls = 36.2M)

ELEVATION
(SCALE : 1:200)



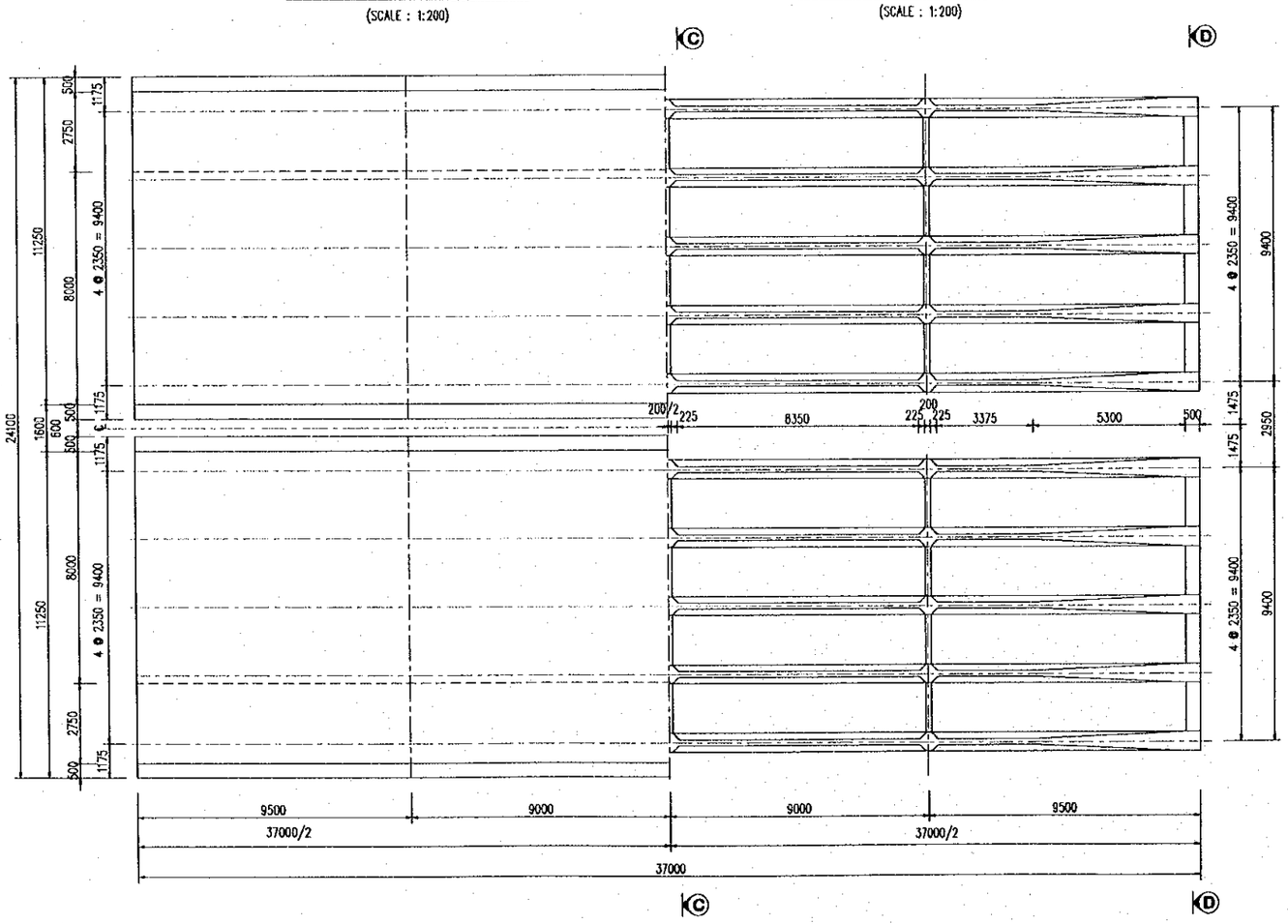
1/2 SECTION C - C
(SCALE : 1:200)

1/2 SECTION D - D
(SCALE : 1:200)



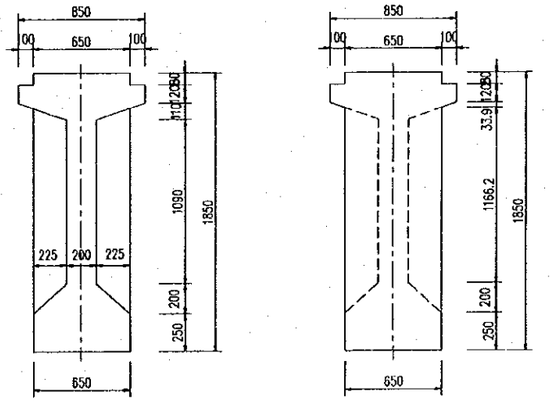
1/2 SECTION A - A
(SCALE : 1:200)

1/2 SECTION B - B
(SCALE : 1:200)



DETAIL "1"
(SCALE : 1:40)

DETAIL "2"
(SCALE : 1:40)

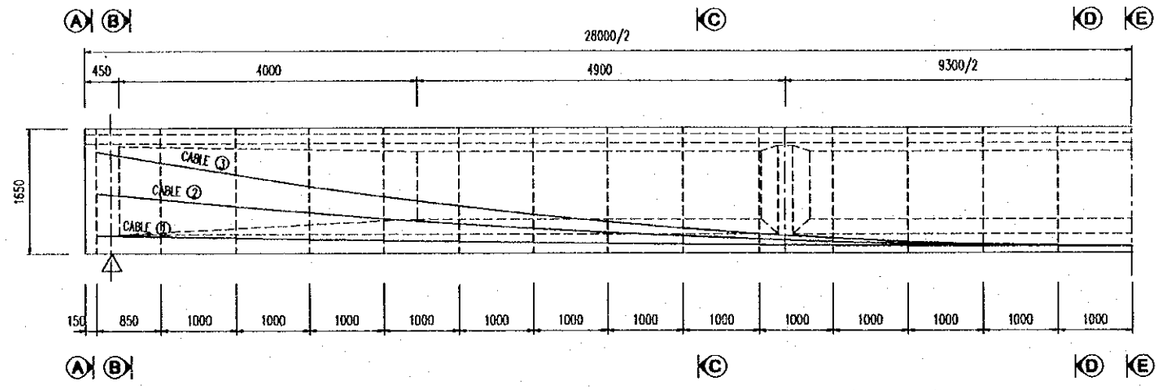


NOTES :

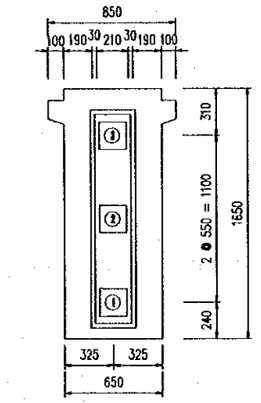
FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE GENERAL VIEW OF "T" GIRDER L = 37M	P3/BR5/0110
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

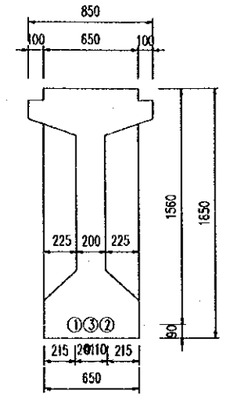
PC CABLE ARRANGEMENT OF GIRDER FOR CAI NAI BRIDGE
(Ls = 27.3M)



SECTION A - A
(SCALE 1 : 40)



SECTION E - E
(SCALE 1 : 40)

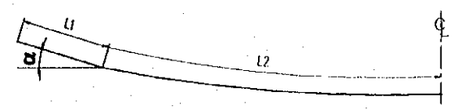


POSITION OF CABLE CENTER FROM BOTTOM OF GIRDER

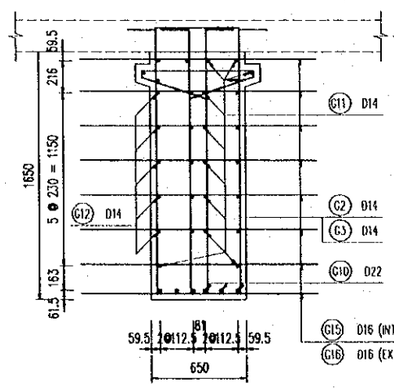
L	13850	13000	12000	11000	10000	9000	8000	7000	6000	5000	4000	3000	2000	1000
CABLE ①	225	207	185	166	149	134	121	110	101	94	89	86	85	85
CABLE ②	515	458	395	335	282	236	196	162	134	113	97	88	85	85
CABLE ③	805	710	601	503	416	338	271	214	168	131	106	90	85	85
CABLE ④	1095	976	841	718	608	511	427	356	298	253	221	201	195	195
CABLE ⑤	1385	1242	1080	932	801	685	584	499	429	375	336	313	305	305

PC CABLE 12 S 12.7				(UNIT : MM)
CABLE No	L1	L2	2x Σ Li	α
①	1000	12851	27702	19°
②	1004	12869	27746	523'
③	1014	12910	27848	935'

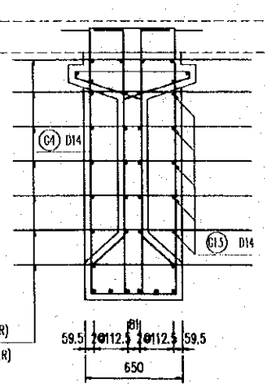
WEIGHT = 83.5 x 9.29 kg/m = 773.8 kg
SHEATHING Ø 80/85 : 83.5 M
ANCHORAGE : 6 SET
CEMENT GROUT IN SHEATHING : 0.42 M3
CONCRETE : 20.545 M3



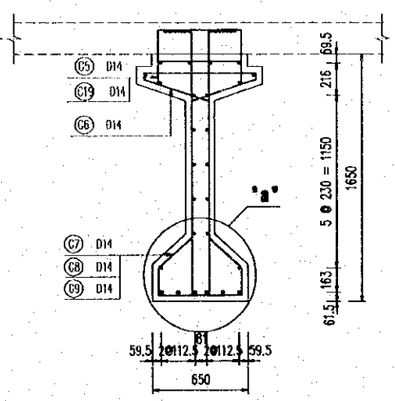
SECTION B - B
(SCALE : 1:40)



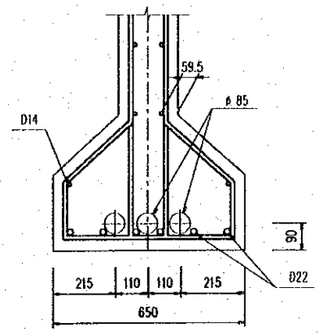
SECTION C - C
(SCALE : 1:40)



SECTION D - D
(SCALE : 1:40)



DETAIL "a"
(SCALE 1:20)

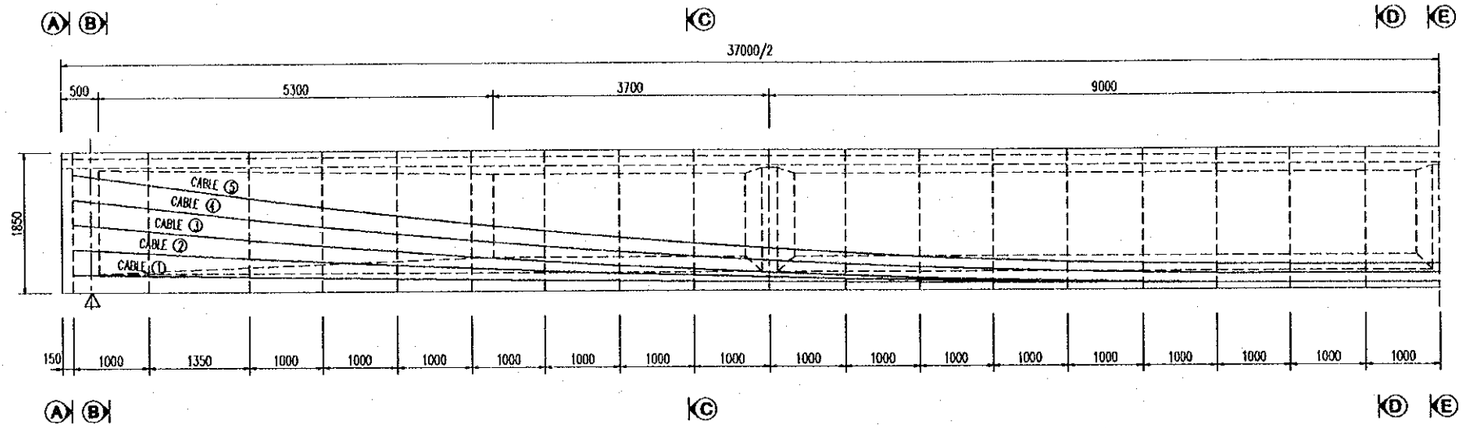


NOTES :

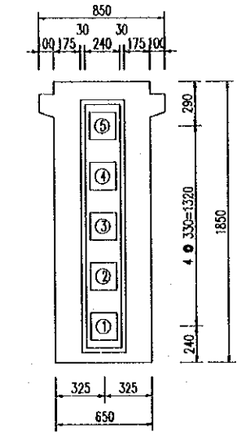
FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kamctani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE TENDON ARRANGEMENT OF "I" GIRDER L=28M	P3/BR5/0120
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

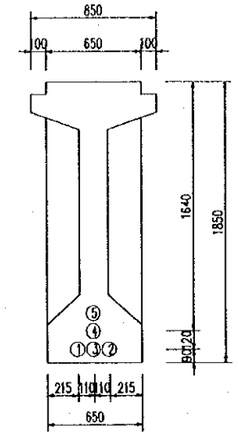
PC CABLE ARRANGEMENT OF GIRDER FOR CAI NAI BRIDGE
(Ls = 36.2M)



SECTION A - A
(SCALE 1 : 40)



SECTION E - E
(SCALE 1 : 40)



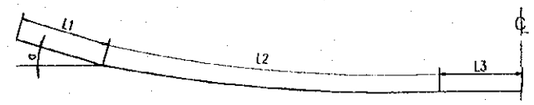
POSITION OF CABLE CENTER FROM BOTTOM OF GIRDER

L	18350	17350	16000	15000	14000	13000	12000	11000	10000	9000	8000	7000	6000	5000	4000	3000	2000	1000
CABLE ①	240	225	200	185	171	158	146	136	126	118	110	104	99	95	92	91	90	90
CABLE ②	570	515	443	395	350	308	270	236	205	178	155	135	119	106	97	92	90	90
CABLE ③	900	807	686	604	528	458	394	336	285	239	200	166	139	117	102	93	90	90
CABLE ④	1230	1112	961	857	762	673	593	520	455	398	348	306	271	245	225	214	210	210
CABLE ⑤	1560	1418	1235	1111	995	889	792	704	626	556	496	446	404	372	349	335	330	330

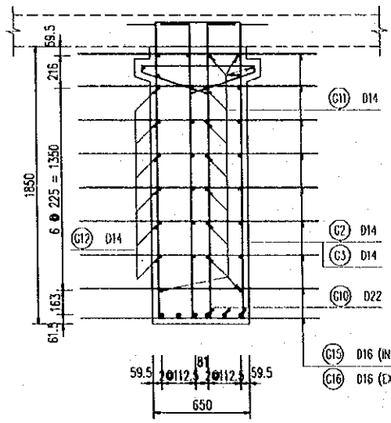
PC CABLE 12 S 12.7 (UNIT : MM)

CABLE No	L1	L2	L3	2x Σ Li	α
①	1000	15351	2000	36702	0°59'
②	1002	15355	2000	36714	2°52'
③	1004	15373	2000	36754	5°20'
④	1007	15385	2000	36784	6°42'
⑤	1010	15401	2000	36822	8°4'

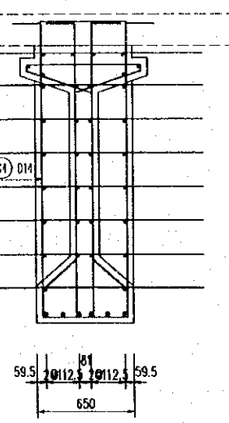
WEIGHT = 183.78 x 9.29 kg/m = 1707.5 kg
SHEATHING Ø 80/85 : 183.78 M
ANCHORAGE : 10 SET
CEMENT GROUT IN SHEATHING : 0.923 M3
CONCRETE : 29.226 M3



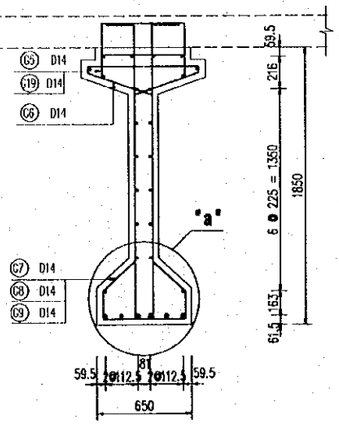
SECTION B - B
(SCALE : 1:40)



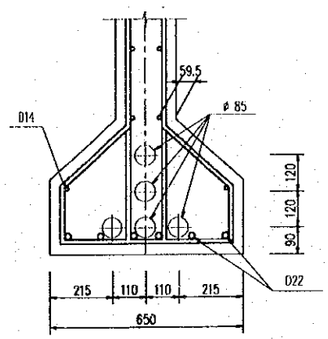
SECTION C - C
(SCALE : 1:40)



SECTION D - D
(SCALE : 1:40)



DETAIL "a"
(SCALE 1:20)



NOTES :

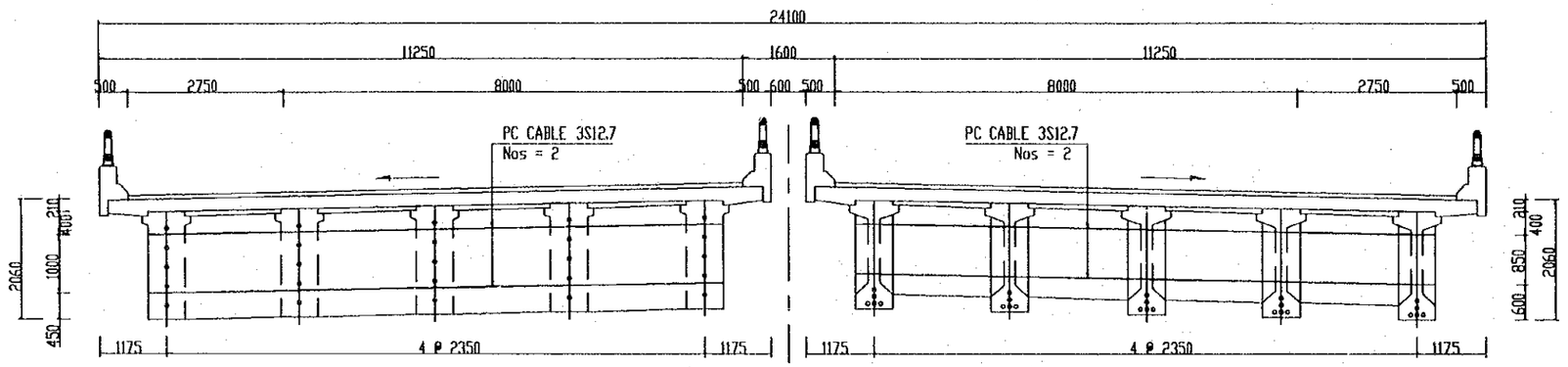
FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE TENDON ARRANGEMENT OF "I" GIRDER L=37M	P3/BR5/0130
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

SECTION OF "I" GIRDER L = 37M

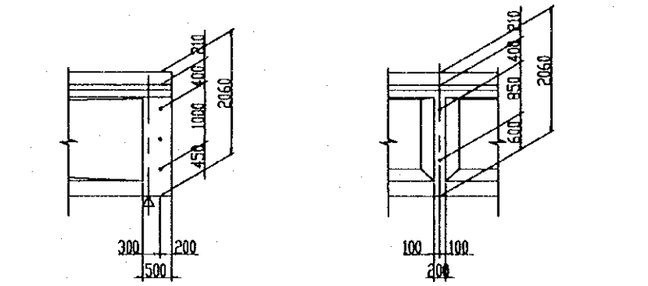
(SCALE 1 : 100)

END DIPHRAGM **INTERMEDIATE DIPHRAGM**



PROFILE

END DIPHRAGM **INTERMEDIATE DIPHRAGM**

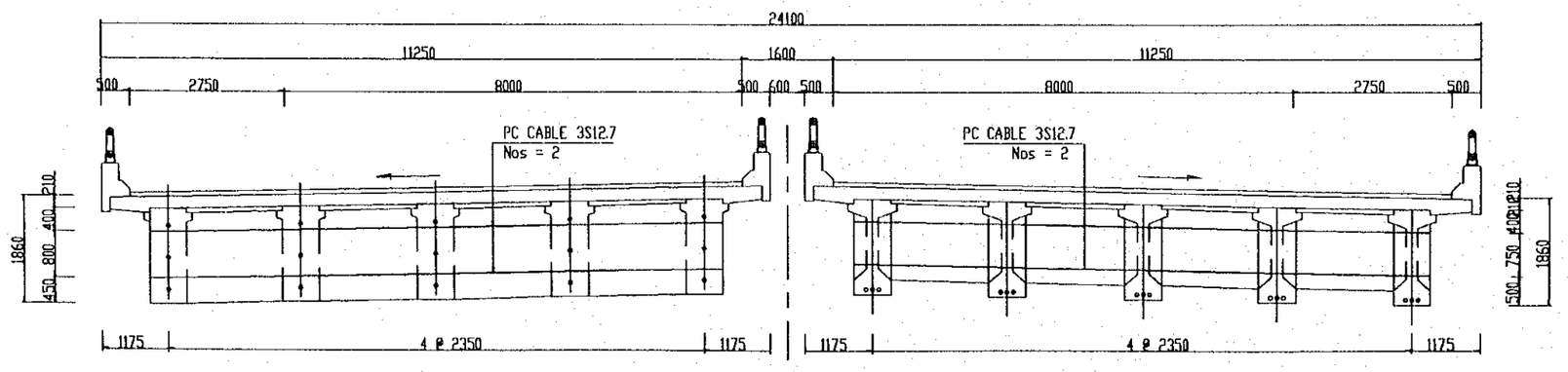


TOTAL QUANTITY

SECTION OF "I" GIRDER L = 28M

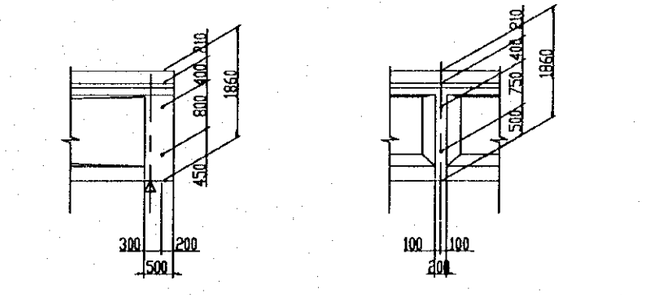
(SCALE 1 : 100)

END DIPHRAGM **INTERMEDIATE DIPHRAGM**



PROFILE

END DIPHRAGM **INTERMEDIATE DIPHRAGM**

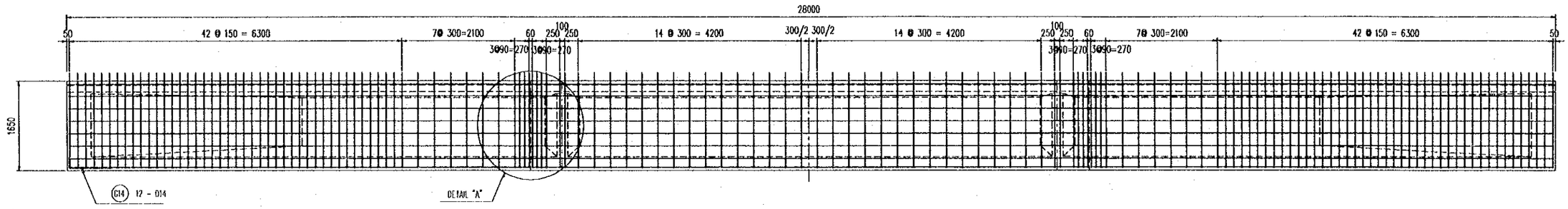


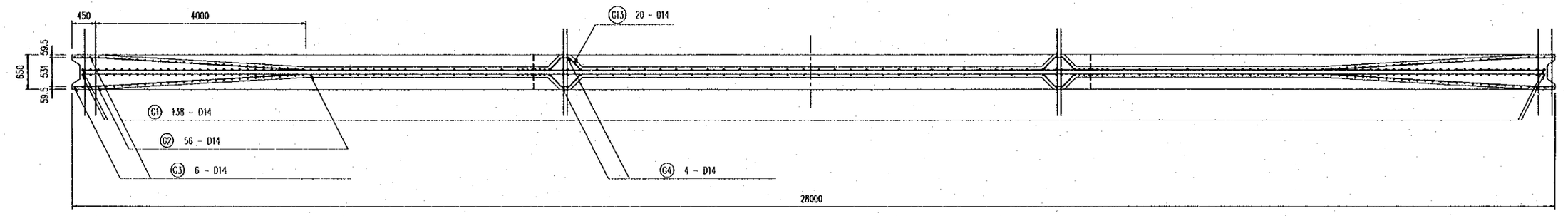
TOTAL QUANTITY

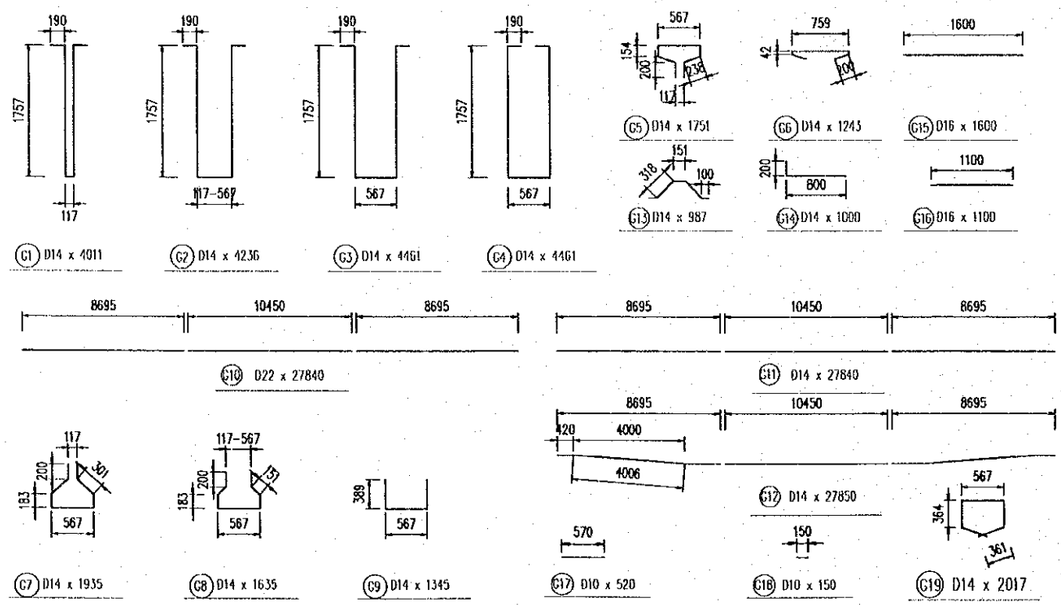
TOTAL WEIGHT OF PC CABLE 3S12.7 = 522.6 x 2.32 kg/m = 1212.4 (kg)
SHEATHING ⌀ 50/55 : 522.6 M
ANCHORAGE : 104 SET
CEMENT GROUT IN SHEATHING : 1.03 M3

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE TENDON ARRANGEMENT OF DIAPHRAGM	P3/BR5/0140
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

BAR ARRANGEMENT OF GIRDER FOR CAI NAI BRIDGE
(Ls = 27.3M)



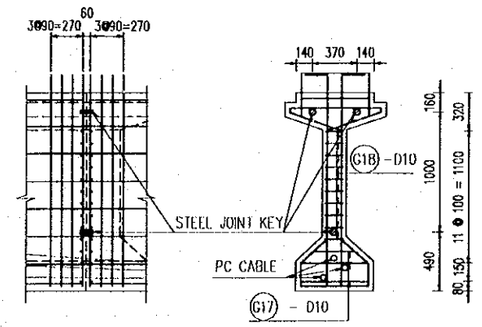




BAR LIST (FOR 1 GIRDER)

REINF No	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARKS
G1	14	4011	138	1.208	668.9	
G2	14	4236	56	1.208	286.7	AVERAGE
G3	14	4461	6	1.208	32.3	
G4	14	4461	4	1.208	21.6	
G5	14	1751	148	1.208	313.2	
G6	14	1243	148	1.208	222.3	
G7	14	1935	86	1.208	201.1	
G8	14	1635	56	1.208	110.6	AVERAGE
G9	14	1345	6	1.208	9.8	
G10	22	27840	6	2.984	498.5	
G11	14	27840	20	1.208	672.8	
G12	14	27850	10	1.208	336.5	
G13	14	987	20	1.208	23.9	
G14	14	1000	12	1.208	14.5	
G15	16	1600	50	1.578	126.3	INTERIOR GIRDER
G16	16	1100	50	1.578	86.7	EXTERIOR GIRDER
G17	10	570	12	0.617	4.2	
G18	10	150	40	0.617	5.7	
G19	14	2017	138	1.208	336.4	
	TOTAL		3883.3		(3843.7)	
		D10	7.9		(7.9)	
		D14	3250.6		(3250.6)	
		D16	126.3		(86.7)	
		D22	498.5		(498.5)	
STEEL JOINT KEY : 6 SET						

DETAIL "A"
(SCALE 1 : 50)

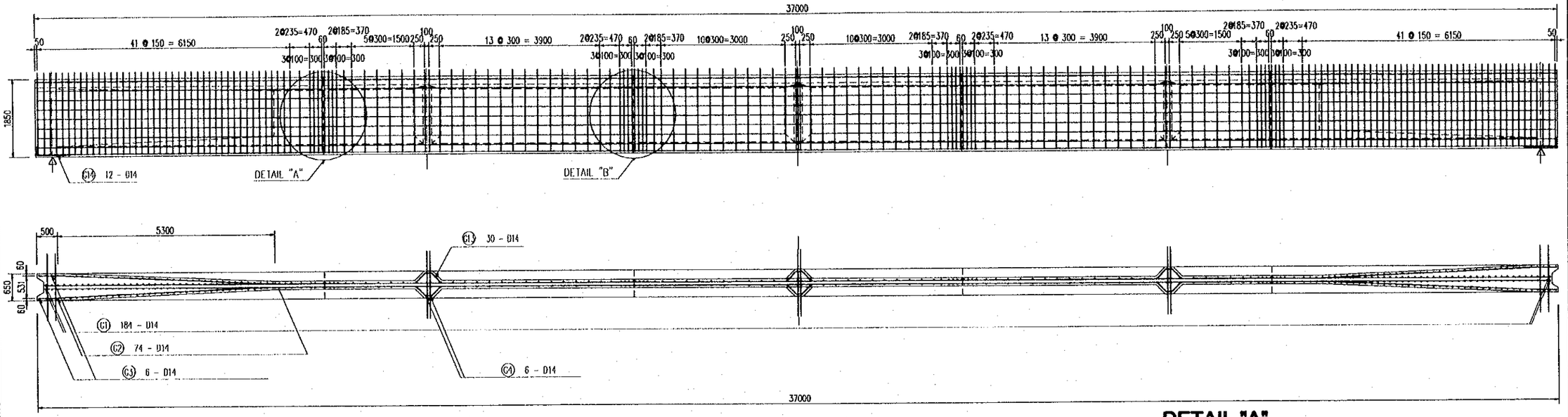


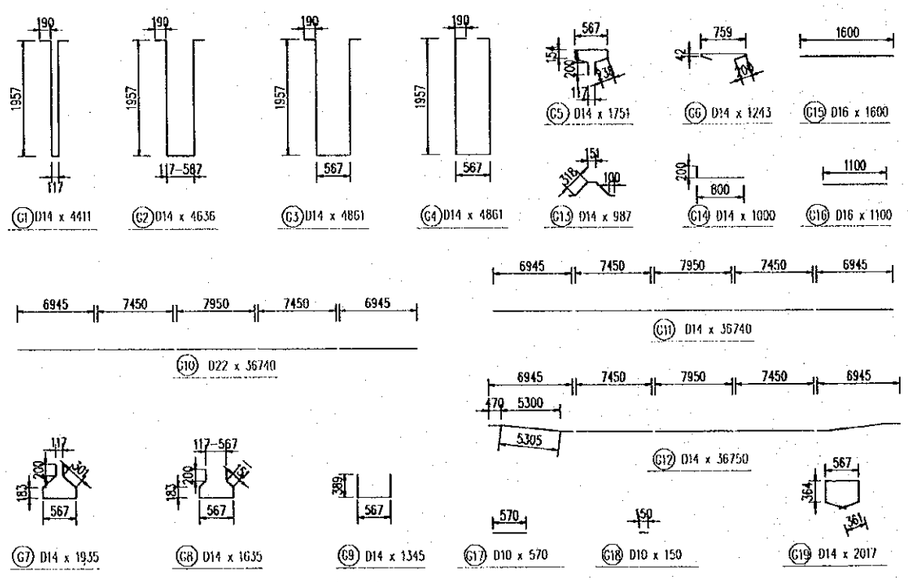
NOTES :

1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.
2. THE VALUE OF INSIDE ( ) ARE FOR EXTERIOR GIRDER.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE REINFORCEMENT OF "I" GIRDER L = 28M	P3/BR5/0150
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

BAR ARRANGEMENT OF GIRDER FOR CAI NAI BRIDGE
(Ls = 36.2M)

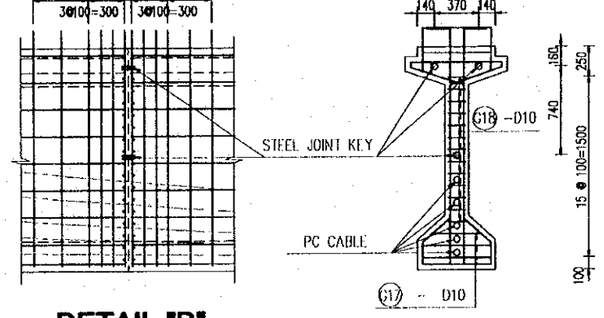




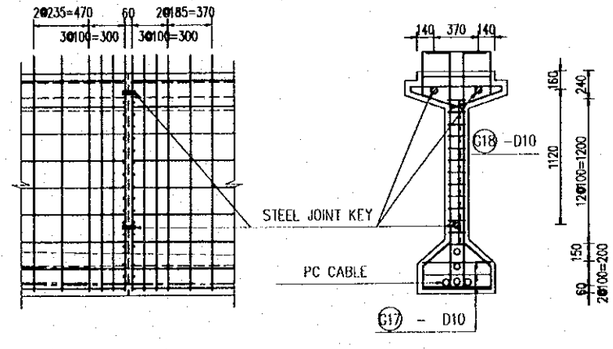
BAR LIST (FOR 1 GIRDER)

REINF No	DIA (mm)	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARKS
G1	14	4411	184	1.208	980.8	
G2	14	4636	74	1.208	414.6	AVERAGE
G3	14	4861	6	1.208	35.2	
G4	14	4861	6	1.208	35.2	
G5	14	1751	196	1.208	414.8	
G6	14	1243	196	1.208	294.4	
G7	14	1935	122	1.208	285.3	
G8	14	1635	74	1.208	146.2	AVERAGE
G9	14	1345	6	1.208	9.8	
G10	22	36740	6	2.984	657.8	
G11	14	36740	22	1.208	976.7	
G12	14	36750	12	1.208	532.9	
G13	14	987	30	1.208	35.8	
G14	14	1000	12	1.208	14.5	
G15	16	1600	74	1.578	186.9	INTERIOR GIRDER
G16	16	1100	74	1.578	128.5	EXTERIOR GIRDER
G17	10	570	24	0.617	8.4	
G18	10	150	104	0.617	9.6	
G19	14	2017	184	1.208	448.5	
	TOTAL		5487.3		(5428.9)	
		D10	18.0		(18.0)	
		D14	4624.7		(4624.7)	
		D16	186.9		(128.5)	
		Ø22	657.7		(657.7)	
STEEL JOINT KEY : 12 SET						

DETAIL "A"
(SCALE 1 : 50)



DETAIL "B"
(SCALE 1 : 50)

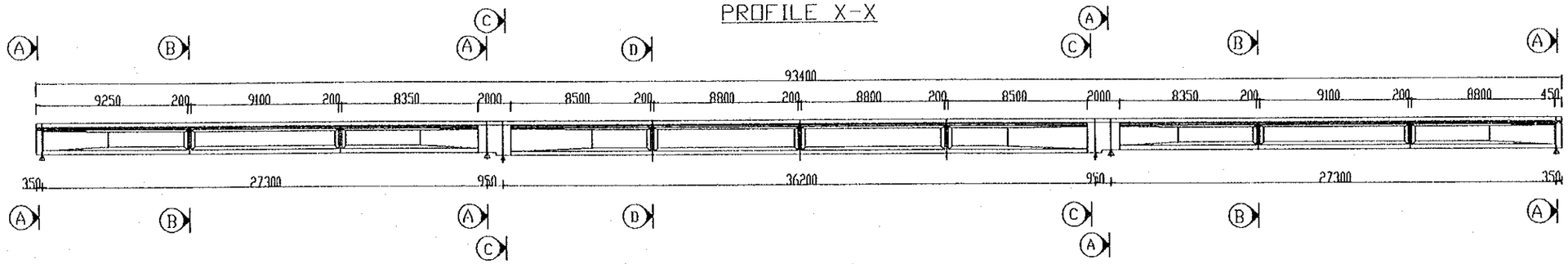


NOTES :

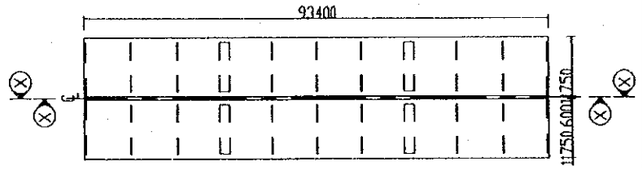
1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.
2. THE VALUE OF INSIDE ( ) ARE FOR EXTERIOR GIRDER.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE REINFORCEMENT OF "I" GIRDER L = 37M	P3/BR5/0160
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

PROFILE X-X

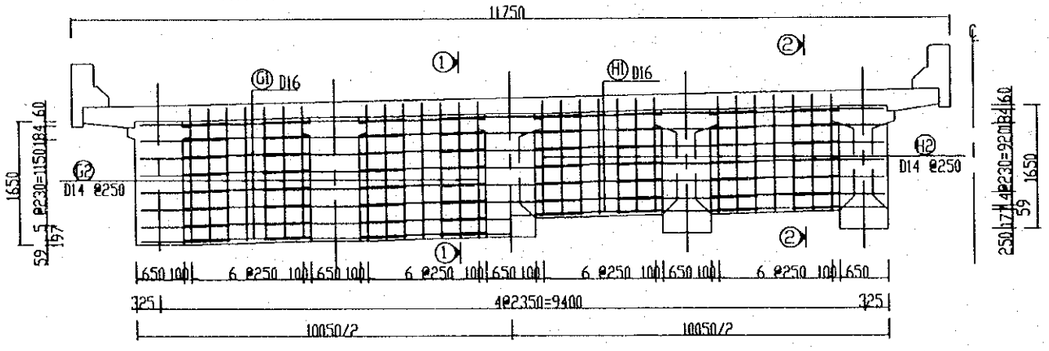


KEY PLAN



HALF SECTION A-A

SCALE 1:75

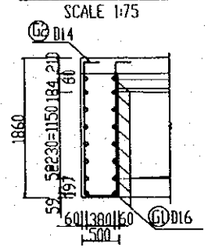


HALF SECTION B-B

SCALE 1:75

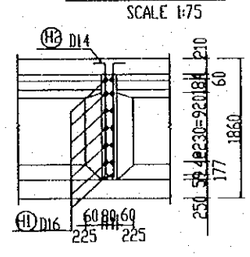
SECTION 1-1

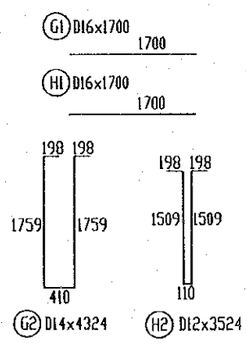
SCALE 1:75



SECTION 2-2

SCALE 1:75



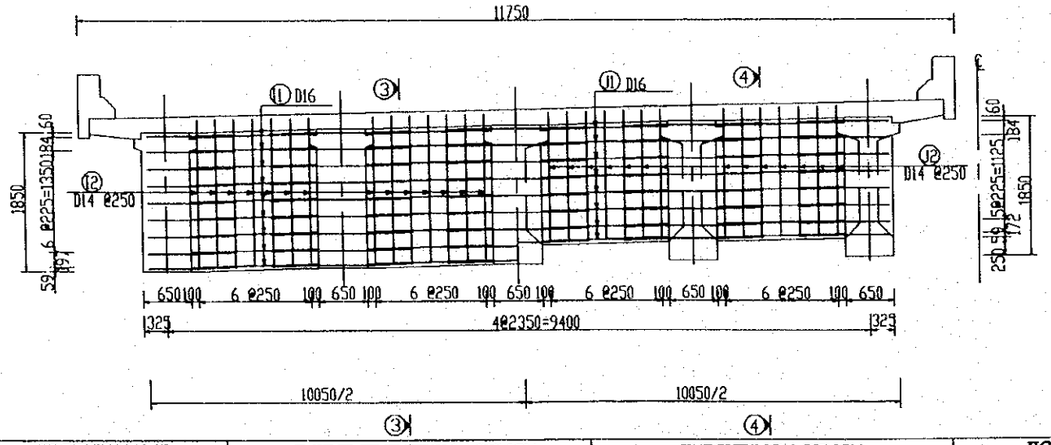


HALF SECTION C-C

SCALE 1:75

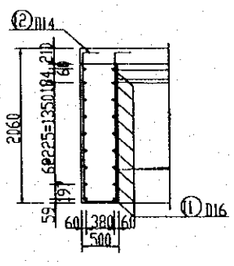
HALF SECTION D-D

SCALE 1:75



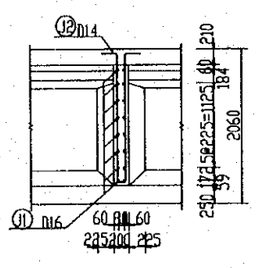
SECTION 3-3

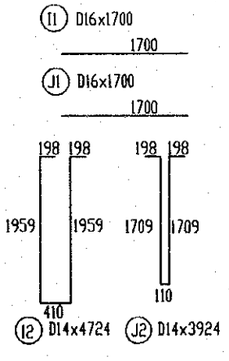
SCALE 1:75



SECTION 4-4

SCALE 1:75





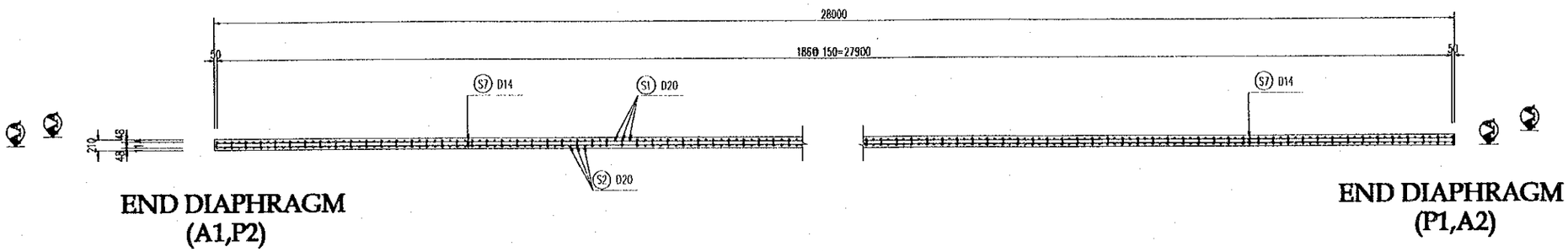
NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAINAI BRIDGE SUPERSTRUCTURE REINFORCEMENT OF DIAPHRAGMS	P3/BR5/0170
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

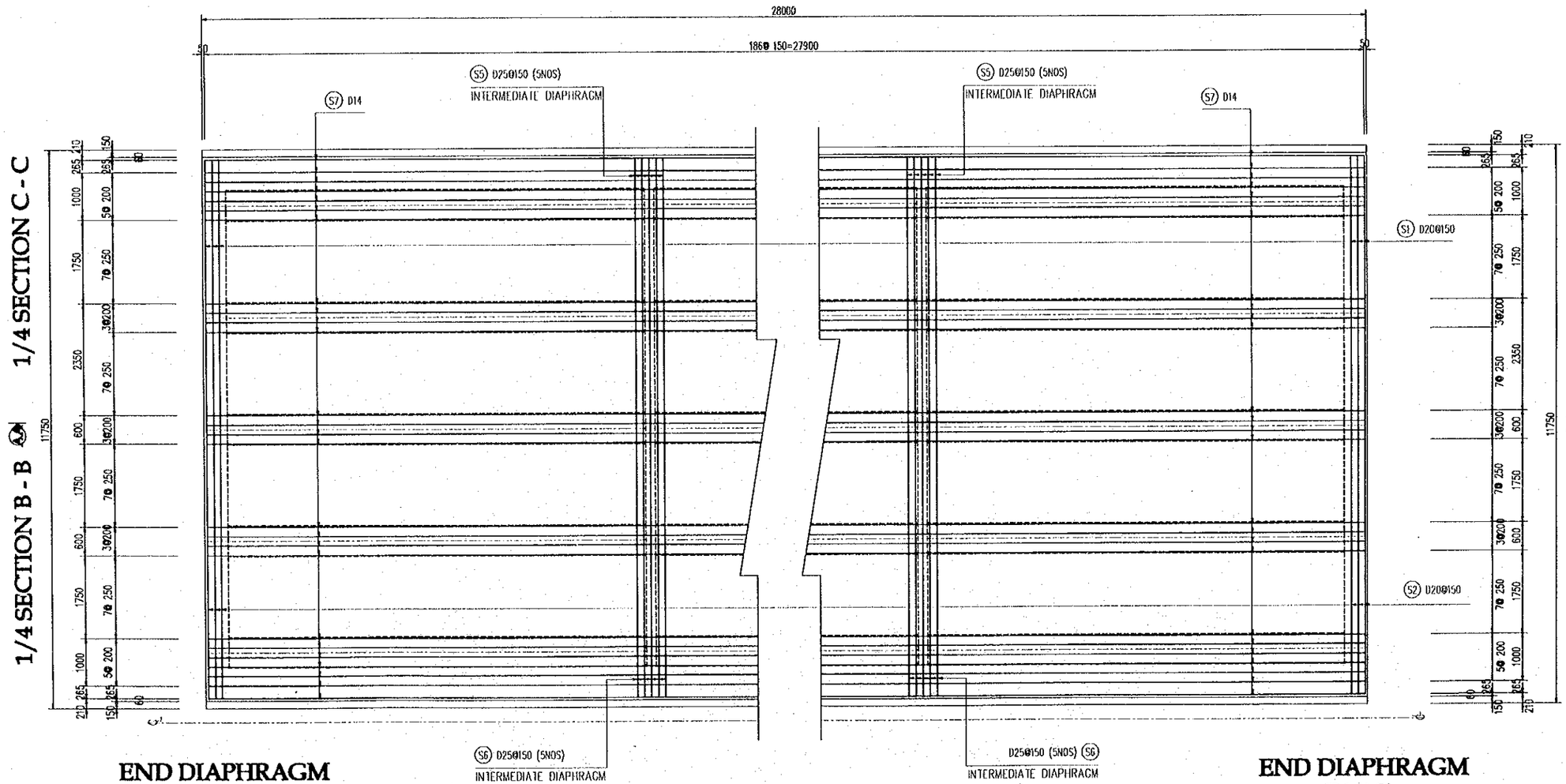
SECTION A - A

SCALE : 1:100



END DIAPHRAGM
(A1,P2)

END DIAPHRAGM
(P1,A2)



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(A1,P2)

PLAN

SCALE 1:100

END DIAPHRAGM
(P1,A2)

NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P1/BR3/0030

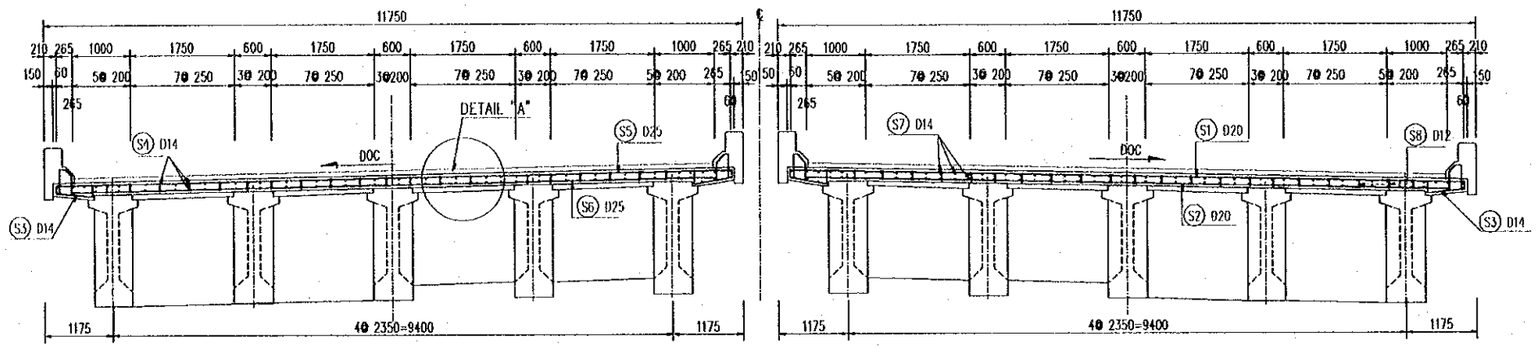
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE DECK SLAB REINFORCEMENT - SHEET 1	P3/BR5/0180
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

1/4 SECTION AT END DIAPHRAGM

1/4 SECTION AT INTERMEDIATE DIAPHRAGM

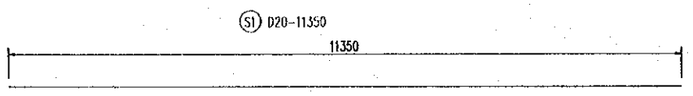
1/4 SECTION AT INTERMEDIATE DIAPHRAGM

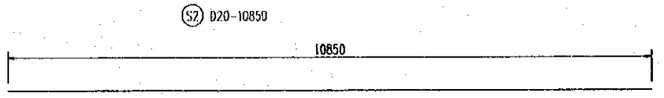
1/4 SECTION AT END DIAPHRAGM

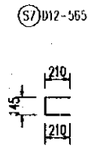


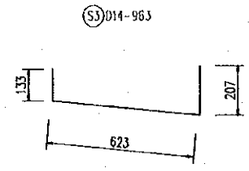
LIST OF REINFORCEMENT

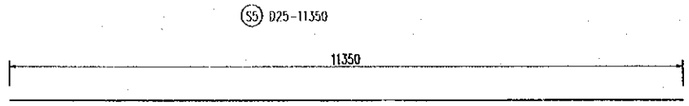
TYPE	DIAMETER (mm)	LENGTH (mm)	NUMBER	UNITWEIGHT (kg/m)	WEIGHT (kg)
S1	D20	11350	177	2.466	24014.6
S2	D20	10850	177	2.466	22956.7
S3	D14	963	374	1.208	2112.6
S4	D14	25752	200	1.208	7671.3
S5	D25	11350	10	3.854	2186.6
S6	D25	10850	10	3.854	2090.3
S7	D12	565	1032	0.888	5669.4
	TOTAL:	17756.6	(KG)		
	D25	855.0	(KG)		
	D20	9699.6	(KG)	CONCRETE :	335.8(M3)
	D14	6853.8	(KG)		
	D12	578.2	(KG)		

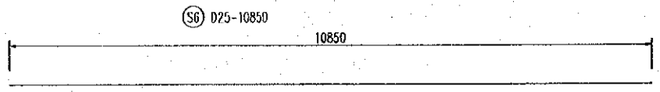






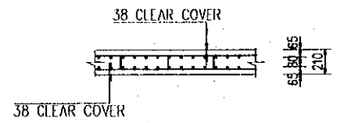


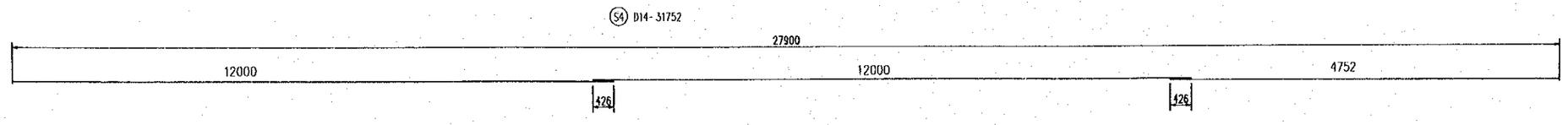




DETAIL "A"

SCALE 1:50





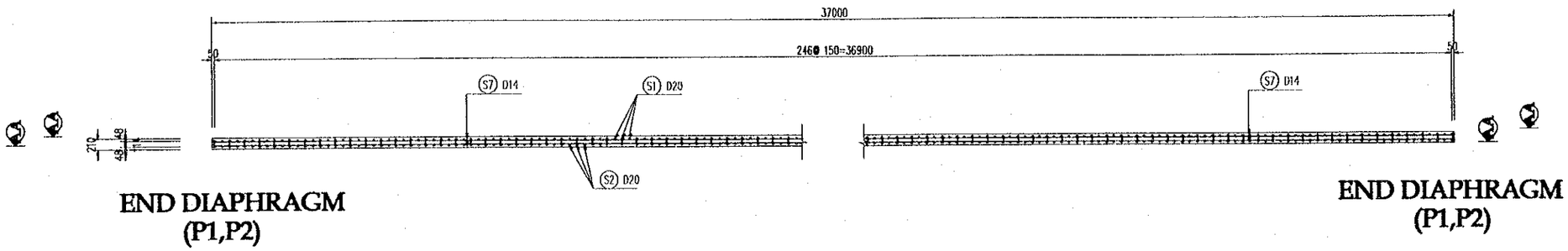
NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P1/BR5/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE DECK SLAB REINFORCEMENT - SHEET 2	P3/BR5/0190
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

SECTION A - A

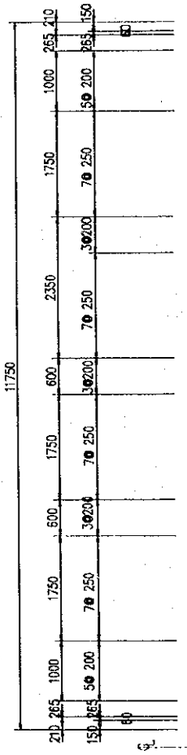
SCALE : 1:100



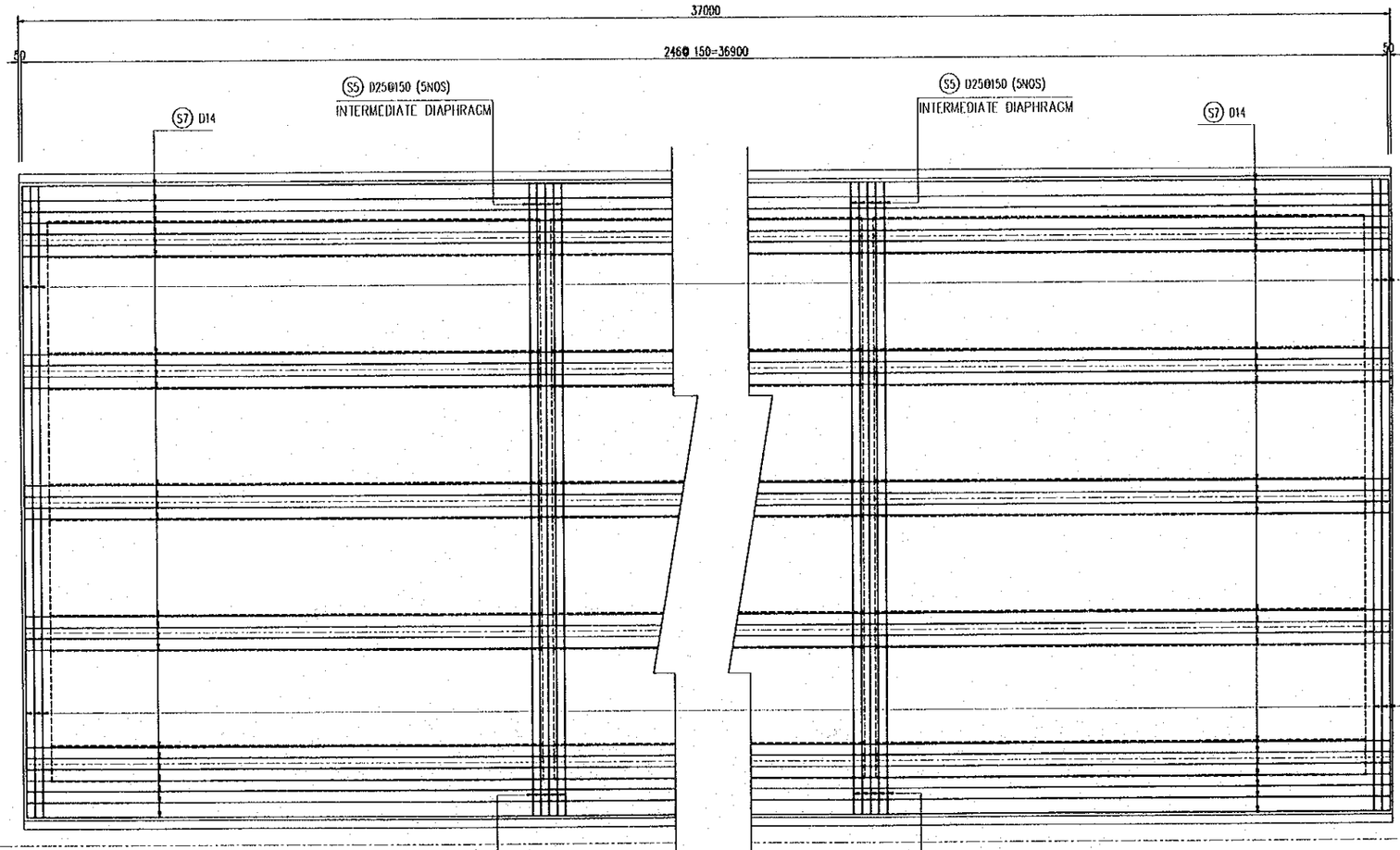
END DIAPHRAGM
(P1,P2)

END DIAPHRAGM
(P1,P2)

1/4 SECTION C - C



1/4 SECTION B - B



END DIAPHRAGM
(P1,P2)

PLAN

SCALE 1:100

END DIAPHRAGM
(P1,P2)

NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P1/BR3/0030

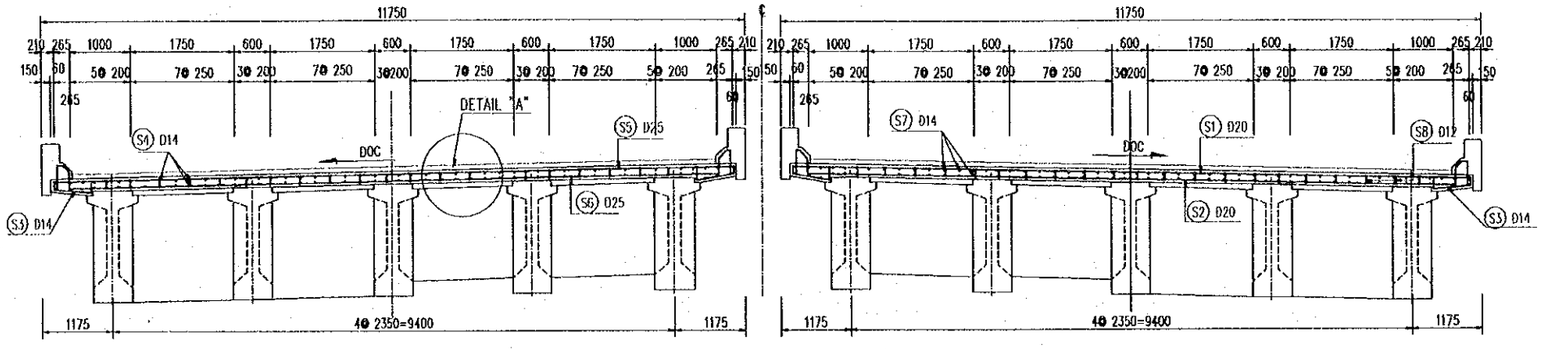
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE DECK SLAB REINFORCEMENT - SHEET 3	P3/BR.5/0200
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

1/4 SECTION AT END DIAPHRAGM

1/4 SECTION AT INTERMEDIATE DIAPHRAGM

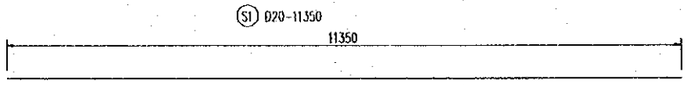
1/4 SECTION AT INTERMEDIATE DIAPHRAGM

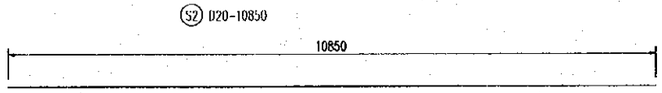
1/4 SECTION AT END DIAPHRAGM

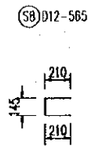


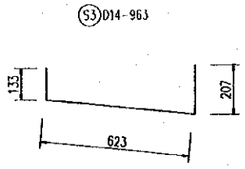
LIST OF REINFORCEMENT

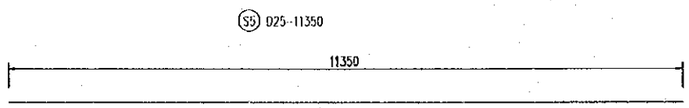
TYPE	DIAMETER (mm)	LENGTH (mm)	NUMBER	UNITWEIGHT (kg/m)	WEIGHT (kg)
S1	D20	11350	232	2.466	24014.6
S2	D20	10850	232	2.466	22956.7
S3	D14	963	494	1.208	2112.6
S4	D14	25752	200	1.208	7671.3
S5	D25	11350	15	3.854	2186.6
S6	D25	10850	15	3.854	2090.3
S7	D12	565	1452	0.888	5669.4
	TOTAL:	21518.0	(KG)		
	D25	1282.5	(KG)		
	D20	12713.6	(KG)	CONCRETE :	335.8(M3)
	D14	6793.0	(KG)		
	D12	728.9	(KG)		

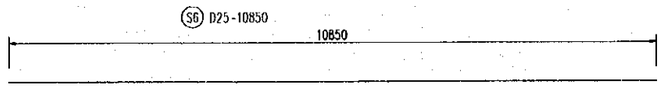






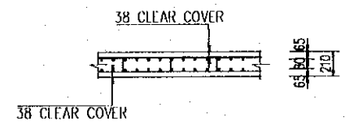


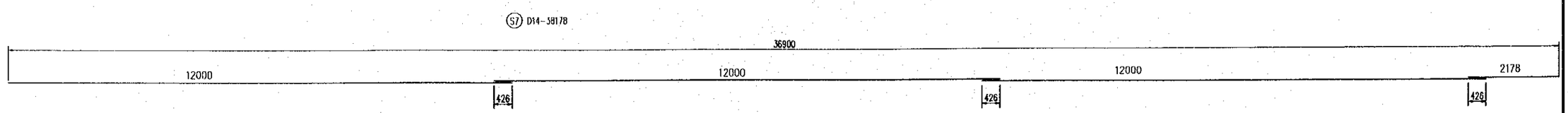




DETAIL "A"

SCALE 1:50





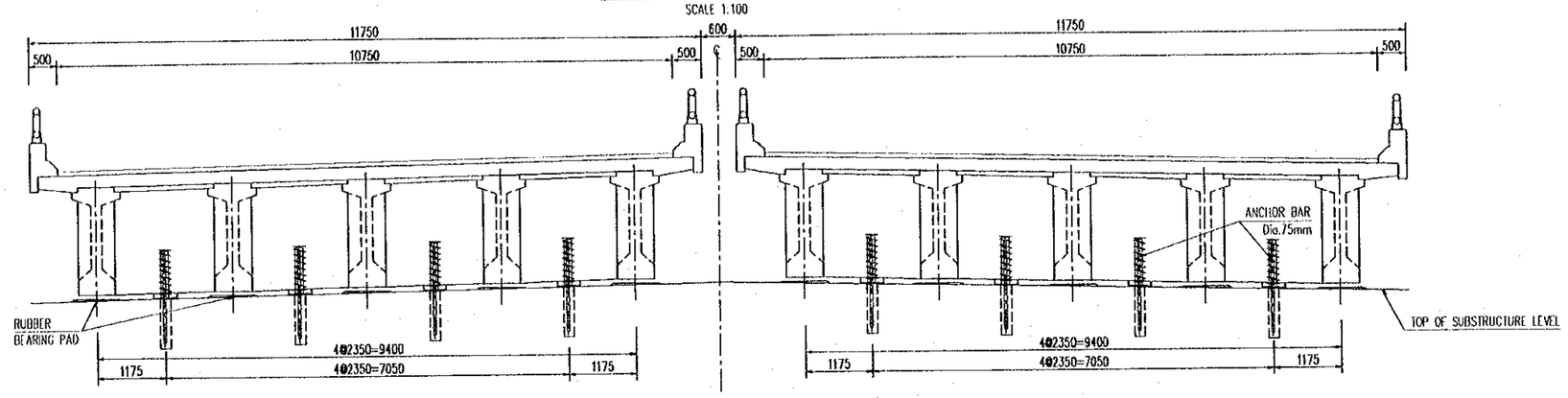
NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO.P1/BR3/0030

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	TRA ON BRIDGE SUPERSTRUCTURE DECK SLAB REINFORCEMENT - SHEET 4	P3/BR5/0210
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

CROSS SECTION

SCALE 1:100



BEARING PERFORMANCE REQUIREMENTS

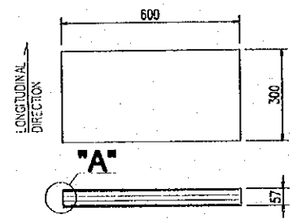
LOCATION	SERVICEABILITY	
	VERTICAL LOAD (kN)	
	MAXIMUM	MINIMUM
MOVABLE BEARINGS	1 180	535

QUANTITY TABLE (FOR ENTIRE BRIDGE)

ITEMS		UNIT	SERVICEABILITY
BEARINGS	600x300x57(mm)	SET	20
	500x250x50(mm)	SET	40
ANCHOR BAR Dia.75mm		SET	48

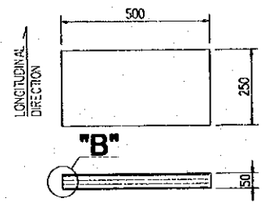
ELASTOMERIC BEARING OF GIRDER L=37M

SCALE 1:20



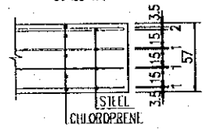
ELASTOMERIC BEARING OF GIRDER L=28M

SCALE 1:20



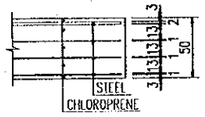
DETAIL "A"

SCALE 1:5

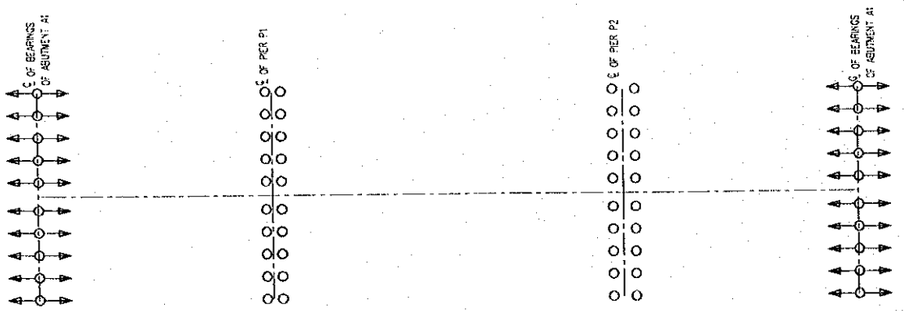


DETAIL "B"

SCALE 1:5



BEARING LAYOUT

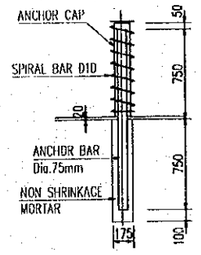


SYMBOLS :

DENOTES GUIDE SLIDING BEARING (IN THE DIRECTION GIVEN BY THE ARROWS)

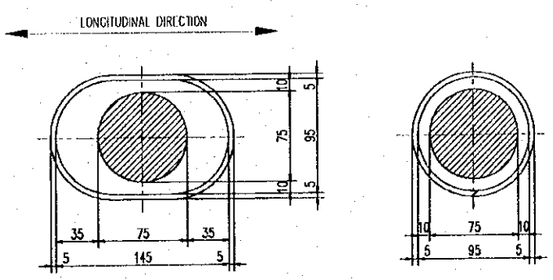
DENOTES GUIDE SLIDING FIXED BEARING

ANCHOR BAR



ANCHOR CAP

SCALE 1:5



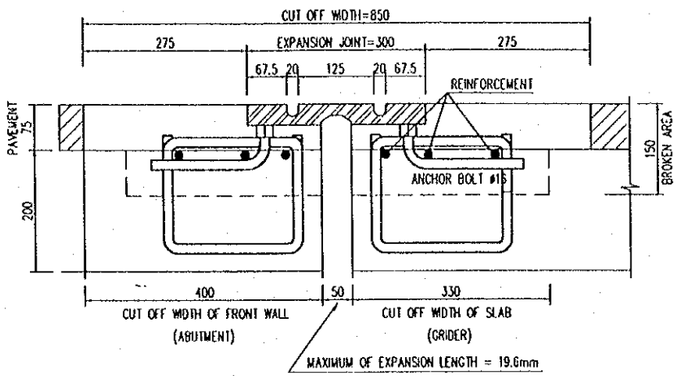
NOTES

1. FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE DETAILS OF BEARINGS	P3/BR5/0220
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

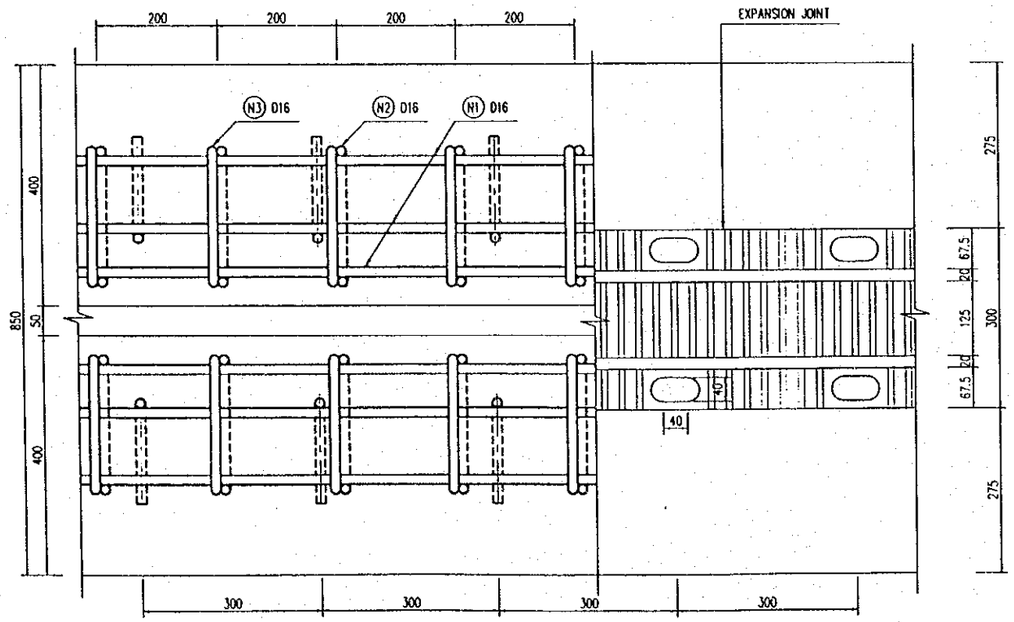
FOR ATBUTMENT

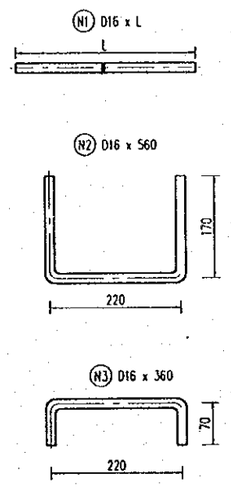
SCALE 1:10



PLAN OF EXPANSION JOINT

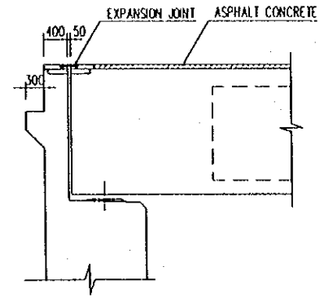
SCALE 1:10





DETAIL AT ABUTMENT

SCALE 1:100



QUANTITY TABLE(Per m)

ITEMS	KIND OR SIZE	QUANTITY	REMARKS
EXPANSION JOINT	NEOPRENE RUBBER	1M	JIS-K-6301
ANCHOR BOLT	#16 L =272 mm		@300
NUT	NEOPRENE RUBBER		
WASHER	NEOPRENE RUBBER		
REINFORCEMENT	(N1)3 - D16	4.72 kg	L=11.45 m, N=3
	(N2)5 - D16	4.42 kg	@200
	(N3)5 - D16	2.84 kg	@200
CUT OFF	PAVEMENT	0.057 m3	
	SLAB	0.050 m3	
CONCRETE	B - 1	0.095 m3	CAST IN PLACE

NOTES:

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO. P3/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE DETAILS OF EXPANSION JOINTS	230 P3/BR5/0250
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		

QUANTITY TABLE OF SUPERSTRUCTURE

ITEMS			UNIT	TOTAL
A- BEAM				
CONCRETE	GIRDER CONCRETE CLASS B		m^3	703.2
	PRECAST CONCRETE PLATE CLASS D		m^3	101.2
	DIAPHRAGM CLASS D		m^3	137.0
	DECK SLAB CLASS D		m^3	458.2
ASPHALT CONCRETE OF 70 MM THICKNESS			m^2	2010.3
WATER PROOFING OF 5 MM THICKNESS			m^2	2010.3
CABLE	CABLES 12S12.7		m	3503.8
	CABLES 3S12.7		m	522.6
ANCHORAGE	ANCHORAGE CABLES 12S12.7		set	220.0
	ANCHORAGE CABLES 3S12.7		set	104.0
SHEATHING	CABLES 12S12.7 ø 80/85 MM		m	3503.8
	CABLES 3S12.7 ø 50/55 MM		m	522.6
	CEMENT GROUT IN SHEATHING		m^3	18.6
STEEL SHEAR KEY			set	240.0
REINFORCEMENT		D25	kg	5987.6
		D22	kg	30869.2
		D20	kg	64380.4
		D16	kg	7917.5
		D14	kg	126861.1
		D12	kg	7814.3
		D10	kg	12482.0
		TOTAL	kg	256312.1
B-EXPANSION JOINT 50 MM			m	86.0
C-BEARING	500x250x50		set	40.0
	600x300x57		set	20.0
D- ANCHORAGE BAR			set	48.0

NOTES

FOR STANDARD STRUCTURAL NOTES SEE DRAWING NO PJ/BR5/0030.

PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM		PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME	T. Kametani	K.Matsumoto	K. Enomoto	CAI NAI BRIDGE SUPERSTRUCTURE QUANTITY TABLES OF SUPERSTRUCTURE	P3/BR5/0240
				SIGNATURE					
				DATE	20/9/2000	29/9/2000	5/10/2000		