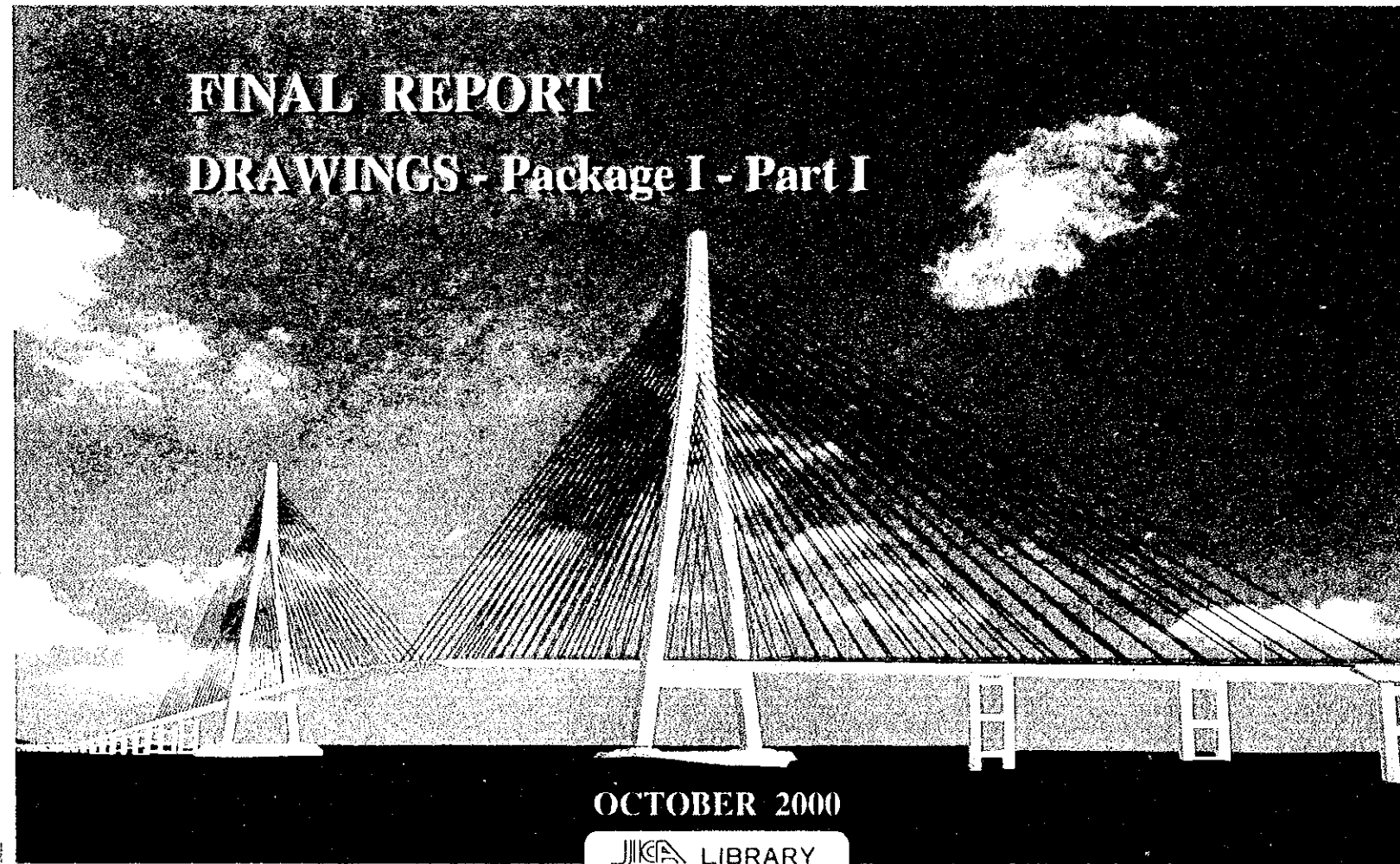


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF TRANSPORT
SOCIALIST REPUBLIC OF VIET NAM

THE DETAILED DESIGN
ON
THE CAN THO BRIDGE CONSTRUCTION
IN
SOCIALIST REPUBLIC OF VIET NAM



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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF TRANSPORT
SOCIALIST REPUBLIC OF VIET NAM

**THE DETAILED DESIGN
ON
THE CAN THO BRIDGE CONSTRUCTION
IN
SOCIALIST REPUBLIC OF VIET NAM**

FINAL REPORT

DRAWINGS - Package I - Part I

OCTOBER 2000

NIPPON KOEI CO., LTD.



1161220 [7]



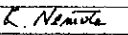


PACKAGE I (PART - 1)

P1/GE	GENERAL
P1/TW	THROUGHWAY
P1/IC1	INTERCHANGE NO.1 (NH NO.1)
P1/IC2	INTERCHANGE NO2 (NH NO.54)
P1/SA	VINH LONG SERVICE AREA
P1/BC	DRAINAGE SYSTEM
P1/SGT	EMBANKMENT AND SOFT GROUND TREATMENT
P1/LS	LIGHTING SYSTEM
P1/MS	MISCELLANEOUS

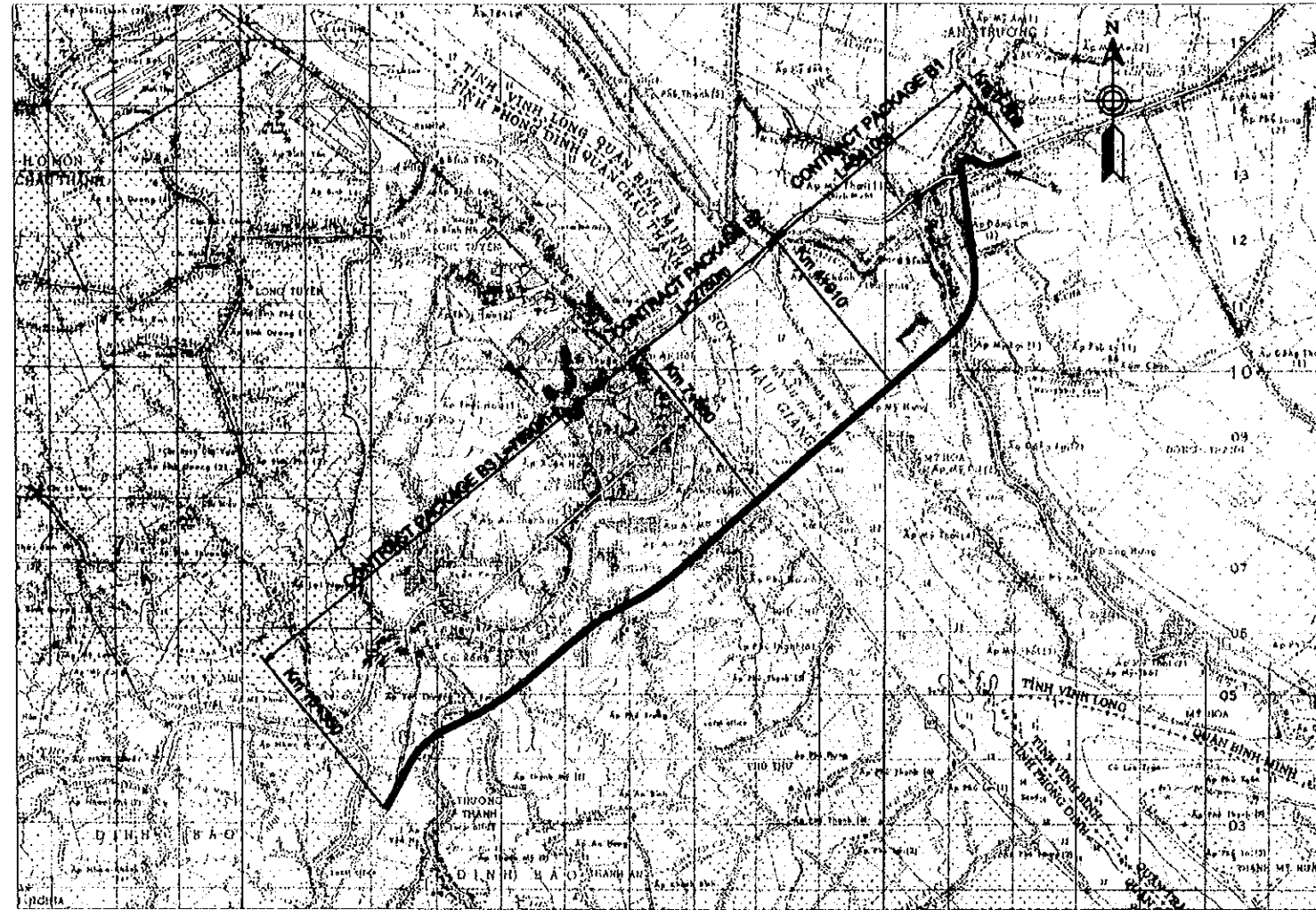
DRAWING LIST (1/3)

DRAWING NO.	DRAWING TITLE
P1/GE	GENERAL
P1/GE/0010	KEY MAP AND LAYOUT PLAN
P1/GE/0020	ABBREVIATIONS AND SYMBOLS
P1/GE/0030	LEGEND
P1/GE/0040	GENERAL NOTES
P1/TW	THROUGHWAY
P1/TW/0010	DETAIL OF GEOMETRIC DESIGN
P1/TW/0020	SUPERELEVATION DIAGRAMS
P1/TW/0030	ALIGNMENT LAYOUT AND GEOMETRIC DATA
P1/TW/0040	TRAVERSE NETWORK OF SURVEY CONTROLS KM0+500 - KM2+700 (1/2)
P1/TW/0050	TRAVERSE NETWORK OF SURVEY CONTROLS KM2+700 - KM4+910 (2/2)
P1/TW/0060	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE (1/2)
P1/TW/0070	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE (2/2)
P1/TW/0080	PLAN AND PROFILE KM0+500 - KM0+860 (1/4)
P1/TW/0090	PLAN AND PROFILE KM0+860 - KM2+220 (2/4)
P1/TW/0100	PLAN AND PROFILE KM2+220 - KM3+580 (3/4)
P1/TW/0110	PLAN AND PROFILE KM3+580 - KM4+940 (4/4)
P1/IC1	INTERCHANGE NO.1 (NH NO.1)
P1/IC1/0010	ALIGNMENT LAYOUT AND GEOMETRIC DATA
P1/IC1/0020	PLAN (1/2)
P1/IC1/0030	PLAN (2/2)
P1/IC1/0040	PROFILE OF "A" RAMP (1/2)
P1/IC1/0050	PROFILE OF "A" RAMP (2/2)
P1/IC1/0060	PROFILE OF "B" RAMP (1/2)
P1/IC1/0070	PROFILE OF "B" RAMP (2/2)
P1/IC1/0080	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE
P1/IC1/0090	DETAIL OF RAMP TERMINAL
P1/IC1/0100	DETAIL OF INTERSECTION (1/2)
P1/IC1/0110	DETAIL OF INTERSECTION (2/2)
P1/IC2	INTERCHANGE NO.2 (NH NO.54)
P1/IC2/0010	ALIGNMENT LAYOUT AND GEOMETRIC DATA
P1/IC2/0020	PLAN
P1/IC2/0030	PROFILE OF "A" RAMP
P1/IC2/0040	PROFILE OF "B" RAMP
P1/IC2/0050	PROFILE OF "C" RAMP
P1/IC2/0060	PROFILE OF "D" RAMP
P1/IC2/0070	PROFILE OF NATIONAL HIGHWAY NO.54
P1/IC2/0080	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE
P1/IC2/0090	DETAIL OF RAMP TERMINAL (1/3)
P1/IC2/0100	DETAIL OF RAMP TERMINAL (2/3)
P1/IC2/0110	DETAIL OF RAMP TERMINAL (3/3)
P1/IC2/0120	DETAIL OF INTERSECTION (1/3)
P1/IC2/0130	DETAIL OF INTERSECTION (2/3)
P1/IC2/0140	DETAIL OF INTERSECTION (3/3)

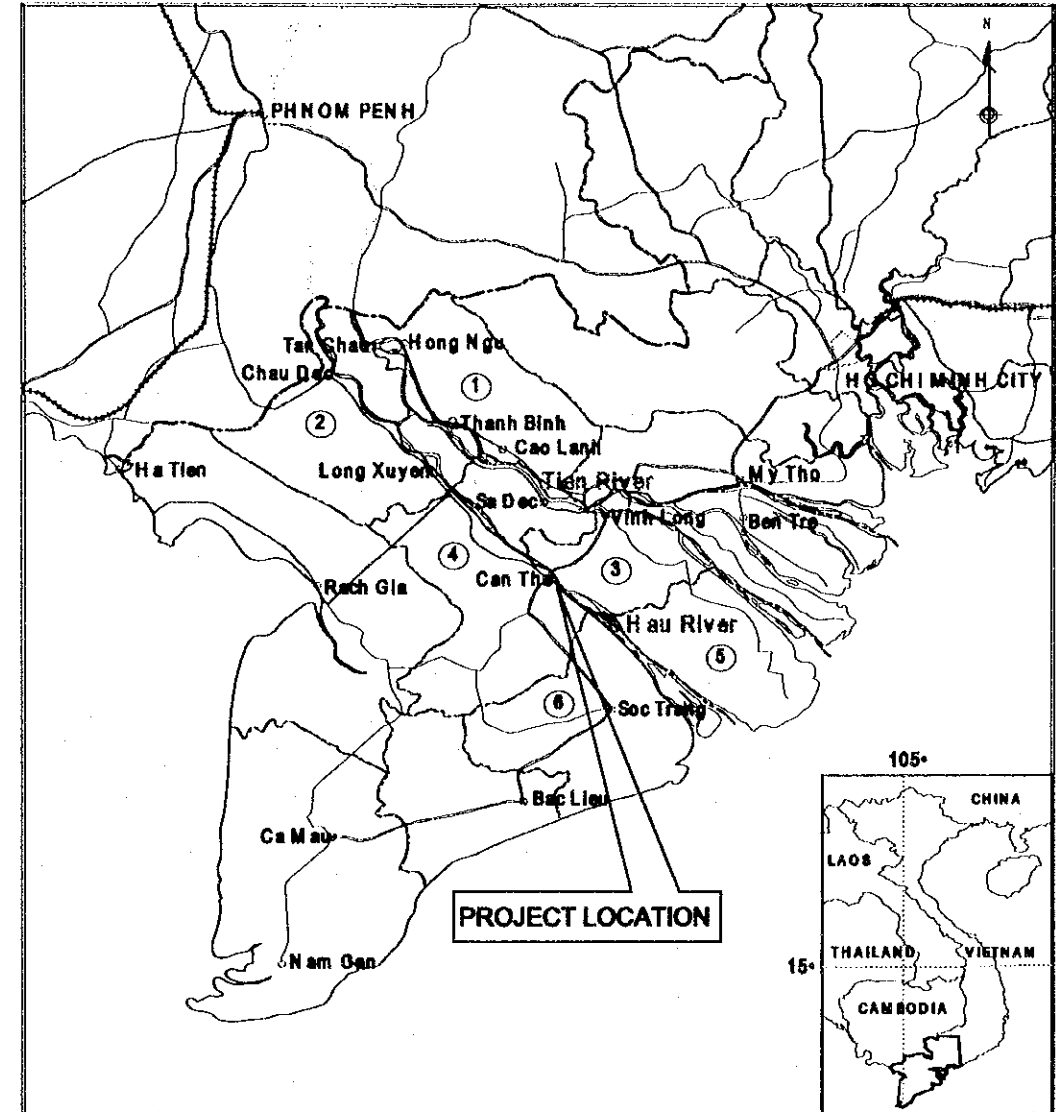
DRAWING NO.	DRAWING TITLE
P1/SA	VINH LONG SERVICE AREA
P1/SA/0010	ALIGNMENT LAYOUT AND GEOMETRIC DATA
P1/SA/0020	PLAN
P1/SA/0030	PROFILE OF RAMP
P1/SA/0040	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE
P1/SA/0050	DETAIL OF RAMP TERMINAL (1/2)
P1/SA/0060	DETAIL OF RAMP TERMINAL (2/2)
P1/SA/0070	ISLAND'S LAYOUT AND GEOMETRIC DATA
P1/SA/0080	PLAN LAYOUT FOR DRAINAGE SYSTEM
P1/SA/0090	STRUCTURAL OF STORM WATER SYSTEM (1/3)
P1/SA/0100	STRUCTURAL OF STORM WATER SYSTEM (2/3)
P1/SA/0110	STRUCTURAL OF STORM WATER SYSTEM (3/3)
P1/SA/0120	REINFORCED CONCRETE PIPE ϕ 400
P1/SA/0130	REINFORCED CONCRETE PIPE ϕ 500
P1/BC	DRAINAGE SYSTEM
P1/BC/0010	DRAWING LIST
P1/BC/0020	ABBREVIATIONS AND SYMBOLS
P1/BC/0030	STRUCTURAL NOTES
P1/BC/0040	CULVERT SCHEDULE
P1/BC/0050	GENERAL VIEW OF R.C.P CULVERT STATION 0+051.80
P1/BC/0060	GENERAL VIEW OF WING WALL STATION 0+051.080
P1/BC/0070	REINFORCEMENT OF WING WALL STATION 0+051.80
P1/BC/0080	REINFORCEMENT OF HEAD WALL STATION 0+051.80
P1/BC/0090	REINFORCEMENT OF PIPE SEGMENT - 1.50M DIAMETER STATION 0+051.80
P1/BC/0100	REINFORCEMENT OF CRADLE - R.C.P 1.50M DIAMETER STATION 0+051.80
P1/BC/0110	GENERAL VIEW OF BOX CULVERT STATION 0+183.70
P1/BC/0120	GENERAL VIEW OF WING WALL STATION 0+183.70
P1/BC/0130	REINFORCEMENT OF WING WALL STATION 0+183.70
P1/BC/0140	REINFORCEMENT OF CULVERT STATION 0+183.70 - SHEET 1
P1/BC/0150	REINFORCEMENT OF CULVERT STATION 0+183.70 - SHEET 2
P1/BC/0160	GENERAL VIEW OF BOX CULVERT STATION 0+369.50
P1/BC/0170	GENERAL VIEW OF WING WALL STATION 0+369.50
P1/BC/0180	REINFORCEMENT OF WING WALL TYPE I STATION 0+369.50
P1/BC/0190	REINFORCEMENT OF WING WALL TYPE II STATION 0+369.50
P1/BC/0200	REINFORCEMENT OF CULVERT STATION 0+369.50 - SHEET 1
P1/BC/0210	REINFORCEMENT OF CULVERT STATION 0+369.50 - SHEET 2
P1/BC/0220	GENERAL VIEW OF BOX CULVERT STATION 1+063.20
P1/BC/0230	GENERAL VIEW OF WING WALL STATION 1+063.20
P1/BC/0240	REINFORCEMENT OF WING WALL TYPE I STATION 1+063.20
P1/BC/0250	REINFORCEMENT OF WING WALL TYPE II STATION 1+063.20
P1/BC/0260	REINFORCEMENT OF WING WALL TYPE III STATION 1+063.20
P1/BC/0270	REINFORCEMENT OF CULVERT STATION 1+063.20
P1/BC/0280	REINFORCEMENT OF RETAINING WALL STATION 1+063.20
P1/BC/0290	GENERAL VIEW OF BOX CULVERT STATION 1+300
P1/BC/0300	REINFORCEMENT OF CULVERT STATION 1+300
P1/BC/0310	GENERAL VIEW OF BOX CULVERT STATION 1+560
P1/BC/0320	GENERAL VIEW OF WING WALL STATION 1+560
P1/BC/0330	REINFORCEMENT OF WING WALL STATION 1+560

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: K. Nemoto SIGNATURE:  DATE: 20/9/2000	NAME: K. Nakai SIGNATURE:  DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE:  DATE: 5/10/2000	GENERAL DRAWING LIST (1/3)	P1/PA1/010

P1/GE GENERAL



LAYOUT PLAN
SCALE 1:50000



KEY MAP



















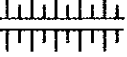
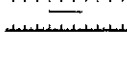




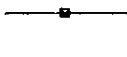







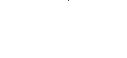













PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPON KOEI CO.,LTD.	K. Nemoto	K. Nakai	K. Enomoto	KEY MAP & LAYOUT PLAN	P1/GB/0010
				DATE: 20/9/2000	DATE: 29/9/2000	DATE: 5/10/2000		



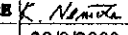

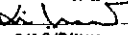
ABBREVIATIONS AND SYMBOLS

AMP	AMPERE	E	EASING	LT	LEFT SIDE OF ALIGNMENT	R.C.P.C	REINFORCED CONCRETE PIPE CULVERT
A	CLOTHOID PARAMETER	EB	EAST BOUND	L.V.C	LENGTH OF VERTICAL CURVE	RERD	RELOCATION OF ROAD
AC	ALTERNATING CURRENT	ELEV(EL)	ELEVATION	M	METER	REWY	RELOCATION OF WATERWAY
AC	ASPHALT CONCRETE	EGL	EXISTING GROUND LEVEL	M ² , M2	SQUARE METER	R.O.W	RIGHT OF WAY
AD	ABSOLUTE DIFFERENCE	EP	END POINT	M ³ , M3	CUBIC METER	RP	RADIUS POINT
AIFB	ASPHALT-IMPREGNATED FIBERBOARD	EQ	EQUAL	MAX	MAXIMUM	RT	RIGHT SIDE OF ALIGNMENT
APPR	APPROACH	EXC	EXCAVATION	MIN	MINIMUM	RW	RETAINING WALL
ASPH	ASPHALT	EXP	EXPANSION	MM	MILLIMETER	SB	SOUTH BOUND
BC	BOX CULVERT	EVCS	ENDING OF VERTICAL CURVE STATION	MO	MIDDLE ORDINATE	SC	SPIRAL CURVE TO CIRCULAR CURVE
BOR	BORING	EVCE	ENDING OF VERTICAL CURVE ELEVATION	N	NORTHING	SCP	SAND COMPACTION PILE
BP	BEGINNING POINT	F	FILL	NA, N/A	NOT APPLICABLE	SD	SIDE DITCH
BR	BRIDGE	F	FIXED	NB	NORTH BOUND	SDBT	SAND BLANKET
BRG	BEARING	FF	FACE TO FACE	NC	NORMAL CROWN	SE	SUPERELEVATION
BVCS	BEGINNING OF VERTICAL CURVE STATION	FG	FINISHED GRADE	NGL	NATURAL GROUND LEVEL	SM	STONE MASONRY
BVCE	BEGINNING OF VERTICAL CURVE ELEVATION	FH	FINISHED HEIGHT	NH	NATIONAL HIGHWAY	SP	SLOPE PROTECTION
c/c	CENTER TO CENTER	FR	FRONTAGE ROAD	NO	NUMBER	SQ.M	SQUARE METER
CB	CATCH BASIN	GF	GUARD FENCE	NTS	NOT TO SCALE	SSP	SURFACE SETTLEMENT PLATE
CIP	CAST-IN-PLACE	GIR	GIRDER	OGL	ORIGINAL GROUND LEVEL	ST	SPIRAL CURVE TO TANGENT
CL	CENTER LINE	GL	GROUND LEVEL	OV	OVER BRIDGE	STA	STATION
CL	CURVE LENGTH	GR	GUARD RAIL	OR	OVER ROAD	STRUC	STRUCTURE
CM	CENTIMETER	H	HORIZONTAL	P	PIPE CULVERT	STS	SPIRAL TO SPIRAL POINT
CHA	CHAINAGE	Havg	AVERAGE HEIGHT	PC	TANGENT TO CIRCULAR	SURG	SUR-CHARGE
CONC	CONCRETE	H.W.L	HIGH WATER LEVEL	P.C	PRESTRESSED CONCRETE	SV	SUPERVISION
CONST	CONSTRUCTION	HWY	HIGHWAY	PCC	POINT OF COMPOUND CURVE	T	THICKNESS
CONT	CONTINUOUS	G1,G2	GRADIENT	PCCP	PORTLAND CEMENT CONCRETE PAVEMENT	TL	TANGENT'S LENGTH
CS	CIRCULAR CURVE TO SPIRAL CURVE	IA	INTERSECTION ANGLE	PH	PLAN HEIGHT	TW	THROUGHWAY
CU.M	CUBIC METER	IP	INTERSECTION POINT	Pi	POINT OF HORIZONTAL INTERSECTION	TS	TANGENT TO SPIRAL
CJ	CONSTRUCTION JOINT	INV	INVERT	PNT	POINT	TYP	TYPICAL
CWB	COUNTER WEIGHT BERM	JT	JOINT	PR	PROVINCIAL ROAD	V	DESIGN SPEED IN kph
DC	DRAINAGE CATCH BASIN	K	VERTICAL CURVE COEFFICIENT	PRC	POINT OF REVERSE CURVE	V	VERTICAL
DFWL	DESIGN FLOOD WATER LEVEL	kg	KILOGRAM	PT	CIRCULAR CURVE TO TANGENT	VOLT	VOLTAGE
DI	DRAINAGE INLET	km	KILOMETER	PVD	PREFABRICATED VERTICAL DRAIN	VC	VERTICAL CURVE
DIA or ϕ	DIAMETER	kph	KILOMETER PER HOUR	PVI	POINT OF VERTICAL INTERSECTION	W	WIDENING
DL	DATUM LINE	L	LEFT	P.W	PARAPET WALL	WB	WEST BOUND
DO	DRAINAGE OUTLET	L	LENGTH	R	RIGHT	WHM	WATT HOUR METER
DS	DRAINAGE SIDE DITCH	LA	LAND ACQUISITION	R	RADIUS OF CIRCULAR CURVE	X	EASTING COORDINATE IN METERS
DSP	DEEP SETTLEMENT PLATE	LC	LENGTH OF CURVE	RL	RIGHT LANE	Y	NORTHING COORDINATE IN METERS
DW	MORTARED RUBBLE PAVED WATERWAY	L.M	LINEAR METER	R.C	REINFORCED CONCRETE	@	AT
DWG	DRAWING	LL	LEFT LANE	R.C.B.C	REINFORCED CONCRETE BOX CULVERT	&	AND
						%	PERCENT

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	K. Nemoto	K. Nakai	ABBREVIATIONS AND SYMBOLS	P1/GE/0020
				SIGNATURE	<i>K. Nemoto</i>	<i>K. Nakai</i>		
				DATE	20/9/2000	29/9/2000		
						<i>K. Enomoto</i>		

LEGENDS

- | | | |
|--|---|---|
| <p> : PERMANENT HOUSE</p> <p> : TILE-ROOFED BRICK-WALLED HOUSE</p> <p> : HATCHED-ROOF TEMPORARY HOUSE</p> <p> : CHURCH</p> <p> : PAGODA, TEMPLE</p> <p> : CEMETERY, GRAVE YARD, TOMB</p> <p> : POST-OFFICE</p> <p> : ELECTRIC STATION</p> <p> : WELL</p> <p> : WATER TOWER</p> <p> : MONUMENT</p> <p> : PORCH, GATE</p> <p> : FENCE</p> <p> : RAILWAY</p> <p> : HIGH VOLTAGE ELECTRIC LINE (6KV-55KV)</p> <p> : ELECTRIC POLE - LINE 220KV</p> <p> : LATERITE ROAD</p> <p> : LIGHT POLE</p> | <p> : EMBANKMENT (FILL)</p> <p> : CANAL, DRAINAGE CHANNEL, SIDE DITCH</p> <p> : SMALL BRIDGE</p> <p> : CULVERT</p> <p> : ASPHALT (CONCRETE) PAVED ROAD</p> <p> : BRICK WALL</p> <p> : WATER PIPE</p> <p> : OIL, PETROL PIPE</p> <p> : GAS PIPE</p> <p> : PROVINCIAL BOUNDARY</p> <p> : DISTRICT BOUNDARY</p> <p> : TELEPHONE LINE</p> <p> : EXCAVATION</p> <p> : RIVER, STREAM</p> <p> : POND, LAKE</p> | <p> : COCONUT TREE</p> <p> : RICE FIELD</p> <p> : CROP FIELD (PEANUT, SUGAR CANE, SESAME...)</p> <p> : FOREST, OTHER TREE</p> <p> : ORCHARD</p> <p> : GPS : GLOBAL POSITIONING SYSTEM</p> <p> : TRAVERSE POINT</p> <p> : BENCH MARK</p> <p> : KM POST</p> <p> : BORE HOLE</p> <p> : NIPA</p> <p> : BANUCO</p> <p> : GRASS</p> |
|--|---|---|

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GENERAL 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, COORDINATES, ELEVATIONS ARE IN METRES. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
- 1.4. THE ELEVATION SYSTEM IS REFERRED TO THE MEAN SEA DATUM ELEVATION AT HONDAU - DO SON. COORDINATES ARE REFERRED TO THE NATIONAL GRID SYSTEM.

2. DESIGN CRITERIA

- VIETNAMESE HIGHWAY SPECIFICATIONS TCVN 4054-98.
- VIETNAMESE URBAN DESIGN SPECIFICATIONS FOR STREET, SQUARE 20TCN-104-83.
- VIETNAMESE EXPRESSWAY SPECIFICATIONS TCVN 5729-1997.
- VIETNAMESE HIGHWAY BRIDGES STANDARDS 1979.
- SIGNAL REGULATION OF HIGHWAY 22 TCN 237-97.
- AASHTO GUIDE FOR PAVEMENT STRUCTURES.
- AASHTO 98 LRFD BRIDGE DESIGN SPECIFICATIONS.
- AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES.

3. CONCRETE

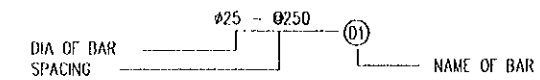
- 3.1. UNLESS OTHERWISE INDICATED, CONCRETE SHALL BE OF THE FOLLOWING GRADES BASED ON 28 DAY CYLINDER STRENGTH f_c :

CONCRETE CLASS	STRENGTH f_c MPa	KIND OF STRUCTURE IN USE
D-1	30	IN-SITU DECK SLAB, BOX CULVERT, RIGID PAVEMENT
E	24	RETAINING WALL, WINGWALL, APRON, KERB
F	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

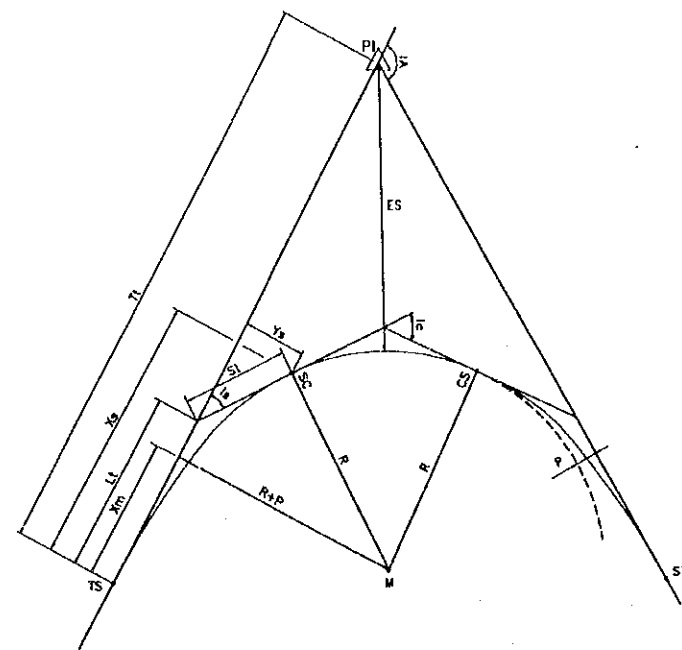
- 4.1. REINFORCEMENT SHALL BE DEFORMED, EXCEPT PLAIN BARS AS SHOWN ON DRAWING.
- 4.2. REINFORCEMENT SHALL BE ASTM A615 OR EQUIVALENT, PLAIN ROUND BAR WITH $f_y(\min)$ 250 MPa AND HIGH YIELD DEFORMED BARS WITH YIELD STRENGTH NOT LESS THAN $f_y(\min)$ 390 MPa SHALL BE USED.
- 4.3. REINFORCEMENT IS NOTED 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.
- 4.6. MINIMUM SPLICE LENGTH SHALL BE IN ACCORDANCE WITH AASHTO LRFD 98.
- 4.7. STANDARD HOOKS AND MINIMUM BEND DIAMETER SHALL BE IN ACCORDANCE WITH AASHTO LRFD 98.
- 4.8. REINFORCEMENTS INDICATED 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 98.
 - C) NOT MORE THAN ONE BAR PER LINE IS TO BE SHORTER THAN 12 METRES

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPTON KOEI CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	GENERAL NOTES	P1/GE/0040

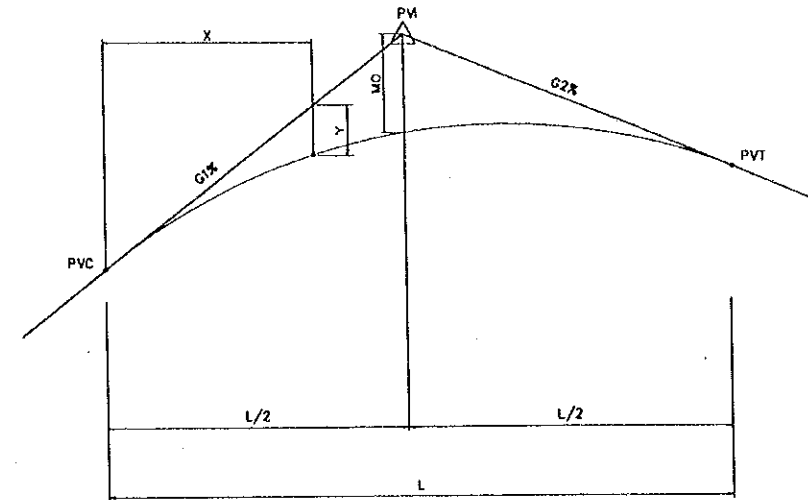
P1/TW THROUGH WAY



HORIZONTAL CURVE WITH SPIRAL TRANSITION

LEGEND:

- PI = POINT OF INTERSECTION
- IA = INTERSECTION AND CENTRAL ANGLE OF ENTIRE CURVE
- R = RADIUS OF THE CIRCULAR CURVE
- A = PARAMETER OF THE TRANSITION CURVE $A = \sqrt{R \times L_s}$
- Ls = LENGTH OF SPIRAL
- Is = SPIRAL ANGLE AT SC OR CS
- Ic = CENTRAL ANGLE OF THE CIRCULAR CURVE SC TO CS
- Lc = LENGTH OF THE CIRCULAR CURVE FROM SC TO CS
- Xs, Ys = TANGENT DISTANCE AND OFFSET FROM TS TO SC & ST TO CS
- ES = TOTAL EXTERNAL DISTANCE FROM PI TO MIDDLE OF CURVE
- P = OFFSET BETWEEN CIRCULAR CURVE & MAIN TANGENT
- Xm = TANGENT DISTANCE TO THE PROJECTION OF M
- Lt = LONG TANGENT OF SPIRAL
- St = SHORT TANGENT OF SPIRAL
- Tl = TOTAL TANGENT DISTANCE FROM TS TO PI
- Ts = BEGINNING OF SPIRAL CURVE
- Sc = POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE
- Cs = POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL
- St = END OF SPIRAL CURVE
- M = CENTER OF CIRCULAR CURVE



VERTICAL PARABOLIC CURVE

LEGEND:

- PVI = POINT OF VERTICAL INTERSECTION
- PVC = POINT OF VERTICAL CURVATURE
- PVT = POINT OF VERTICAL TANGENCY
- L = LENGTH OF VERTICAL CURVE
- G1, G2 = GRADES IN PERCENT
- A = ALGEBRAIC GRADE CHANGE EXPRESSED AS A PERCENT
- K = L/A
- MO = MIDDLE ORDINATE
- X = DISTANCE FROM PVC OR PVT TO POINT ON VERTICAL CURVE
- Y = VERTICAL OFFSET AT DISTANCE X FROM TANGENT TO VERTICAL CURVE

NOTES:

1. FOR SYMMETRICAL PARABOLIC CURVE:

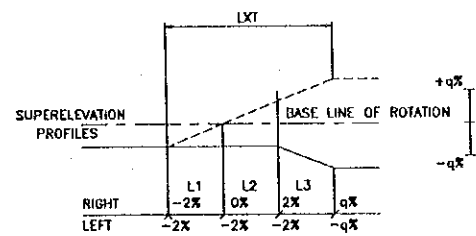
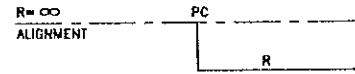
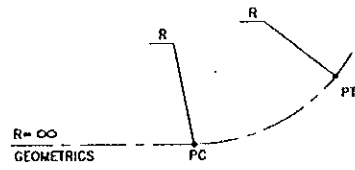
$$MO = \frac{(G1 - G2)L}{800} \quad Y = \frac{(G1 - G2)x^2}{200L}$$

2. TO CALCULATE INTERMEDIATE ELEVATIONS, PARABOLIC CURVE SHALL BE USED.
3. TO CONVERT THE SYMMETRICAL PARABOLIC CURVE TO EQUIVALENT CIRCULAR CURVE USE FORMULA:

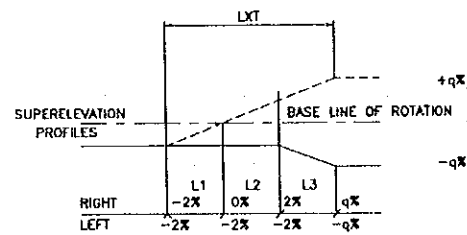
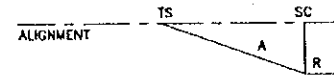
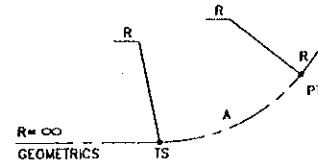
$$R = \frac{100 L}{G2 - G1} = 100 K$$

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO., LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	DETAIL OF GEOMETRIC DESIGN	P1/TW/0010

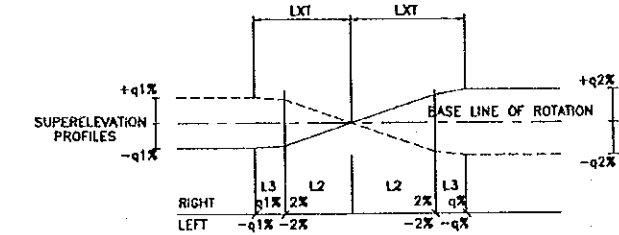
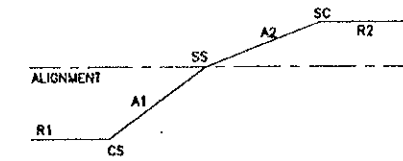
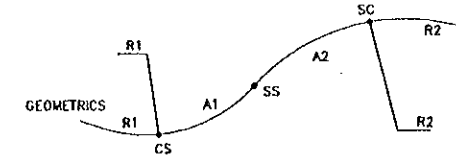
SUPERELEVATION DIAGRAMS



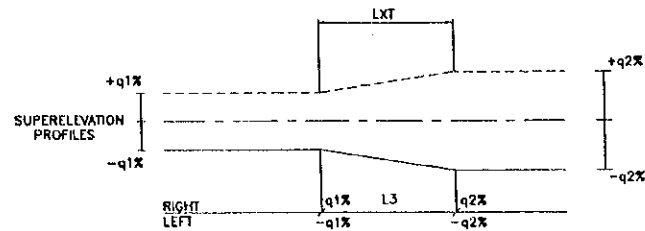
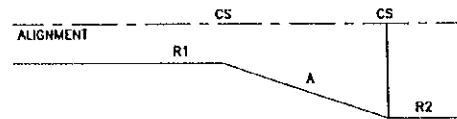
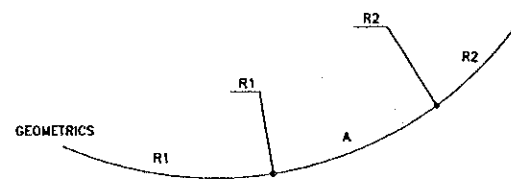
CASE 1. TANGENT-CIRCULAR (WITHOUT SPIRAL CURVE)



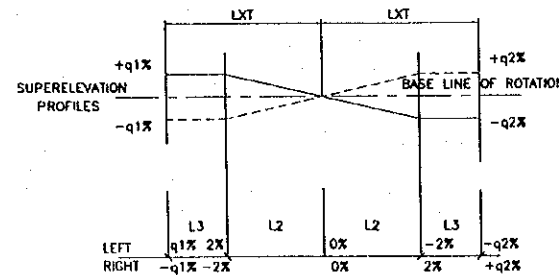
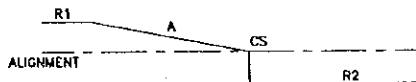
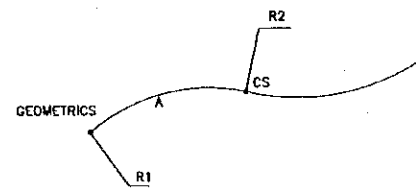
CASE 2. TANGENT-SPIRAL CURVE-CIRCULAR CURVE



CASE 3. CIRCULAR CURVE-REVERSE SPIRAL CURVE-CIRCULAR CURVE



CASSE 4. CIRCULAR CURVE-SPIRAL CURVE-CIRCULAR CURVE

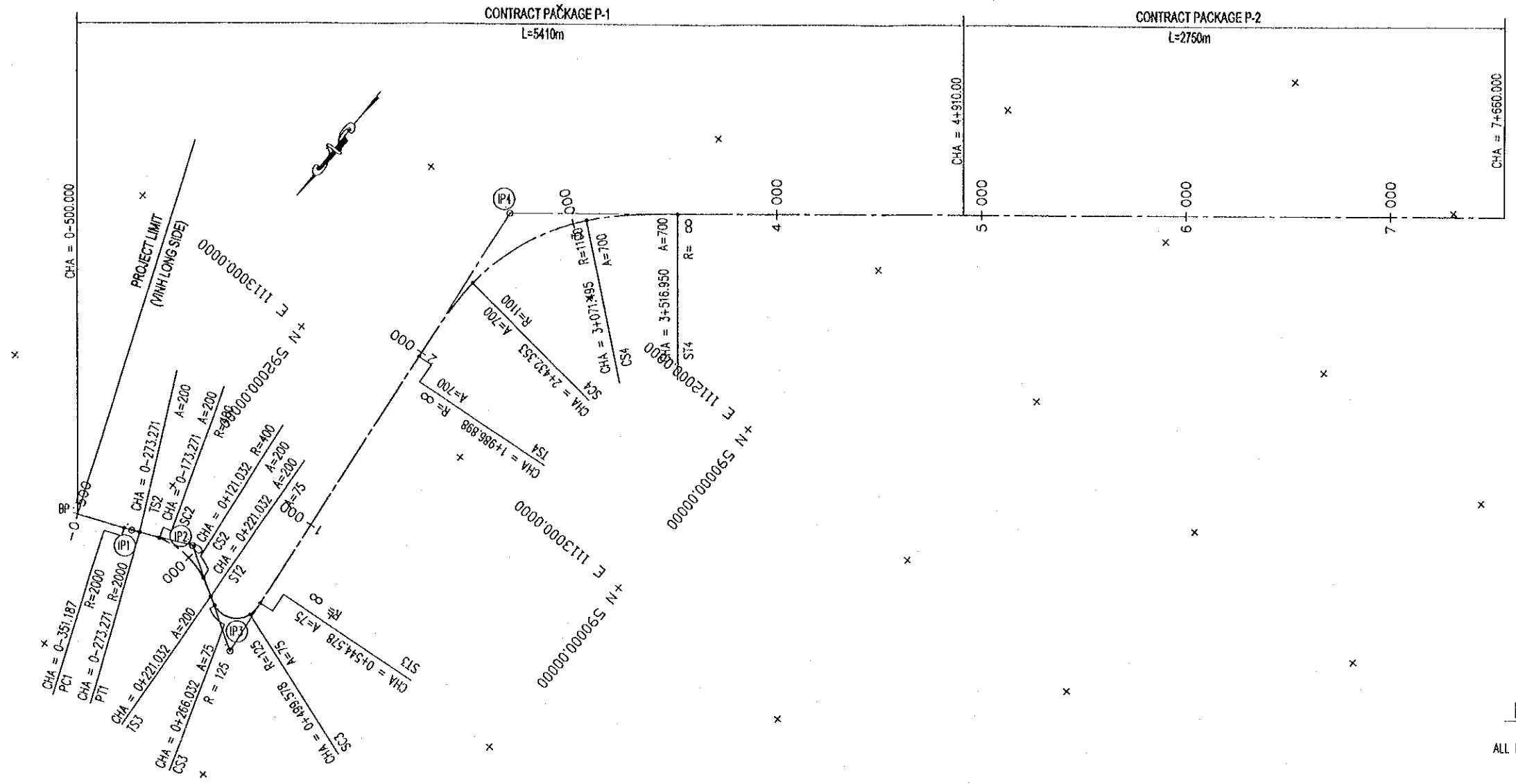


CASE 5. CIRCULAR CURVE-SPIRAL CURVE-CIRCULAR CURVE

LEGEND

- : CENTER OF ROADWAY
- : LEFT SIDE EDGE OF CARRIAGEWAY LOOKING UP CHAINAGE
- : RIGHT SIDE EDGE OF CARRIAGEWAY LOOKING UP CHAINAGE
- A : PARAMETER OF SPIRAL CURVE (CLOTHOID)
- CS : A POINT OF SPIRAL CURVE CONNECTED TO CIRCULAR CURVE
- SC : ANOTHER POINT OF SPIRAL CURVE CONNECTED TO CIRCULAR CURVE
- LXT : LENGTH OF SUPERELEVATION RUNOUT & RUNOFF
- L1 : TANGENT RUNOUT
- L2 : RUNOFF BEFORE NORMAL STRAIGHT CROSSFALL
- L3 : RUNOFF AFTER NORMAL STRAIGHT CROSSFALL TO FULL SUPERELEVATION POINT
- PC : TANGENT TO CIRCULAR CURVE
- PT : CIRCULAR CURVE TO TANGENT
- q : SUPERELEVATION RATE
- q1 : SUPERELEVATION RATE OF FRONT CURVE
- q2 : SUPERELEVATION RATE OF BEHIND CURVE
- R : RADIUS OF CIRCULAR CURVE
- ST : END POINT OF SPIRAL CURVE
- SS : SPIRAL CURVE TO SPIRAL CURVE
- TS : BEGINNING POINT OF SPIRAL CURVE

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	K. Nemoto	K. Nakai	SUPERELEVATION DIAGRAMS	P1/TW/0020
				SIGNATURE	<i>K. Nemoto</i>	<i>K. Nakai</i>		
				DATE	20/9/2000	29/9/2000		

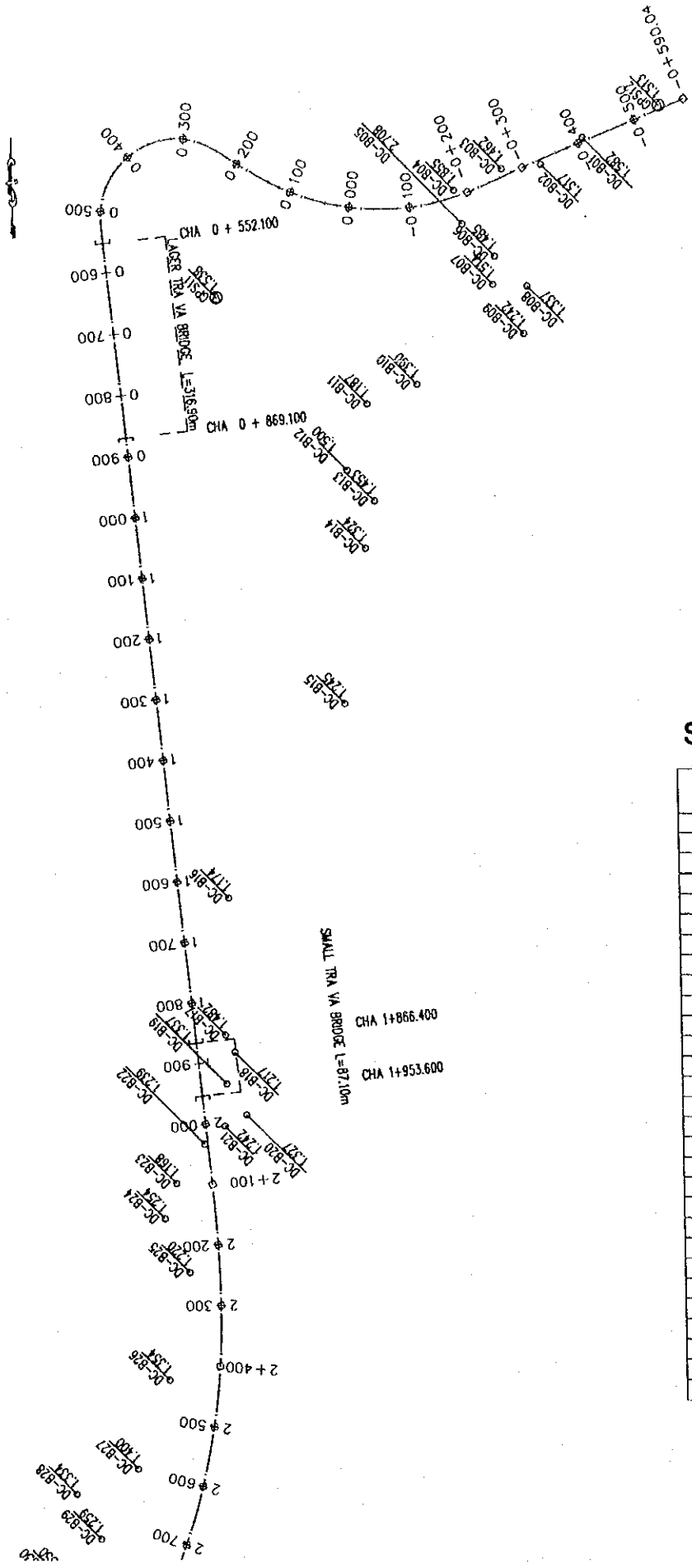


NOTES :
ALL LENGTH UNITS ARE IN METERS .

	IA	R	A1	A2	IL1	IL2	CL	L1	L2	LC	IP		PC			PT		
											X	Y	X	Y	CHA	X	Y	CHA
B.P	-	-	-	-	-	-	-	-	-	-	1114395.90470	592300.00000	-	-	-	-	-	-
IP-1	2'13'55.64"	2000	-	-	38.96000	38.96000	77.915800	-	-	77.915800	1114290.56622	592042.92577	1114305.33946	592078.97925	0-351.18678	1114274.39998	592007.47504	0-273.27099
IP-2	56'28'46.96"	400	200.00000	200.00000	265.37000	265.37000	294.30276	100.00000	100.00000	494.30276	1114164.29429	591766.02573	-	-	-	-	-	-
IP-3	174'17'21.87"	125	75.00000	75.00000	278.31000	278.31000	233.54664	45.00000	45.00000	323.54664	1114452.12503	591304.78750	-	-	-	-	-	-
IP-4	56'29'36.56"	1100	700.00000	700.00000	817.42621	817.42621	1530.05170	445.45455	445.45455	639.14260	1111926.66483	591557.33352	-	-	-	-	-	-

	IS			SC			CS			ST			AZIMUTH	V (KM/H)	SE (%)	W (M)
	X	Y	CHA	X	Y	CHA	X	Y	CHA	X	Y	CHA				
B.P	-	-	-	-	-	-	-	-	-	-	-	-	247' 43' 5.50"	40	-	0
IP-1	-	-	-	-	-	-	-	-	-	-	-	-	245' 29' 9.85"	40	-	0
IP-2	1114274.39998	592007.47504	0-273.27099	1114255.45663	591627.80299	0-173.27099	1114236.76018	591914.90418	0+121.03177	1114304.78433	591540.89558	0+221.03177	301' 57' 56.81"	40	-	0
IP-3	1114304.78433	591540.89558	0+221.03177	1114220.09634	591330.69756	0+266.03177	1114326.24554	591501.41658	0+499.57841	1114175.19649	591332.48035	0+544.57841	174' 17' 21.87"	40	2.0	0.8
IP-4	1112740.03432	591475.99657	1+986.89854	1112295.62139	591490.31116	2+432.35308	1111713.55431	591248.78069	3+071.49568	1111409.83844	590924.02783	3+516.95023	230' 46' 58.43"	80	-	0

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	CAN THO BRIDGE ALIGNMENT LAYOUT AND GEOMETRIC DATA	P1/TW/0030



LEGEND

- ⊕ GPS POINT
- SECONDARY TRAVERSE POINT

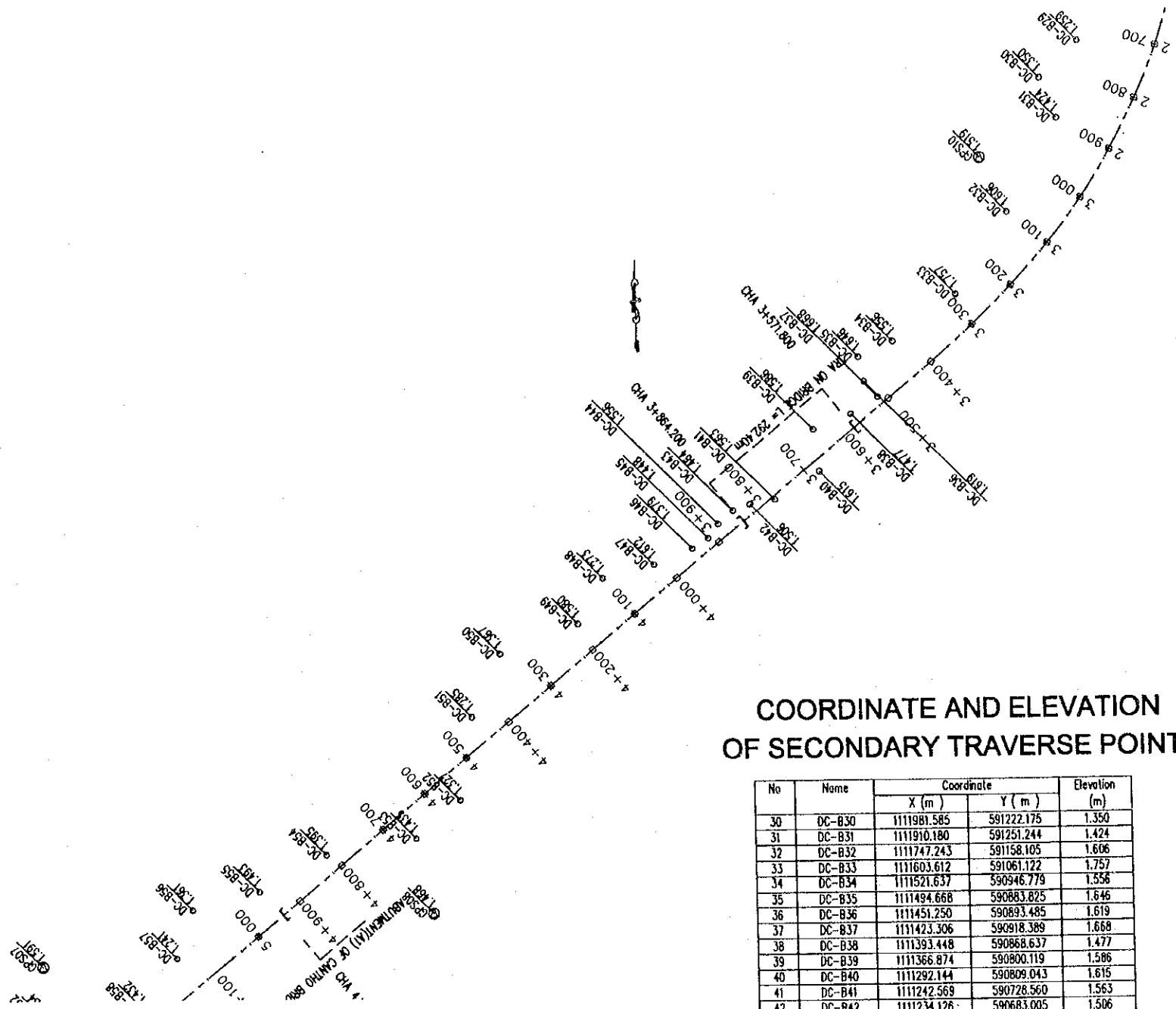
COORDINATE AND ELEVATION OF GPS POINTS

NO	NAME	COORDINATE		ELEVATION (m)
		X (m)	Y (m)	
1	GPS09	1112507.233	590687.774	1.318
2	GPS11	1114078.612	591519.564	1.538
3	GPS12	1114385.446	592257.998	1.513

COORDINATE AND ELEVATION SECONDARY TRAVERSE POINTS

No	Name	Coordinate		Elevation (m)
		X (m)	Y (m)	
1	DC-B01	1114333.434	592131.164	1.582
2	DC-B02	1114290.104	592062.565	1.517
3	DC-B03	1114283.294	591997.175	1.462
4	DC-B04	1114248.826	591917.612	1.855
5	DC-B05	1114194.043	591930.960	2.708
6	DC-B06	1114142.362	591983.770	1.485
7	DC-B07	1114097.117	591979.964	1.514
8	DC-B08	1114094.264	592036.873	1.337
9	DC-B09	1114017.462	592030.394	1.242
10	DC-B10	1113935.946	591850.516	1.390
11	DC-B11	1113904.763	591767.360	1.187
12	DC-B12	1113796.856	591732.631	1.500
13	DC-B13	1113746.681	591776.512	1.453
14	DC-B14	1113669.522	591760.508	1.324
15	DC-B15	1113415.052	591722.151	1.245
16	DC-B16	1113098.518	591523.362	1.174
17	DC-B17	1112873.507	591513.328	1.482
18	DC-B18	1112845.281	591528.814	1.217
19	DC-B19	1112793.019	591513.850	1.337
20	DC-B20	1112741.726	591546.743	1.327
21	DC-B21	1112723.207	591509.774	1.242
22	DC-B22	1112693.485	591475.140	1.239
23	DC-B23	1112629.070	591426.723	1.168
24	DC-B24	1112571.193	591406.322	1.254
25	DC-B25	1112482.530	591445.830	1.220
26	DC-B26	1112306.238	591408.763	1.354
27	DC-B27	1112160.384	591353.125	1.400
28	DC-B28	1112119.436	591251.057	1.334
29	DC-B29	1112045.255	591290.816	1.259

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO., LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	TRAVERSE NETWORK OF SURVEY CONTROLS KM -0+500 TO KM 2+700(1/2)	P1/TW/0040



COORDINATE AND ELEVATION OF SECONDARY TRAVERSE POINTS

No	Name	Coordinate		Elevation (m)
		X (m)	Y (m)	
30	DC-B30	1111981.585	591222.175	1.350
31	DC-B31	1111910.180	591251.244	1.424
32	DC-B32	1111747.243	591158.105	1.606
33	DC-B33	1111603.612	591061.122	1.757
34	DC-B34	1111521.637	590946.779	1.558
35	DC-B35	1111494.668	590883.825	1.646
36	DC-B36	1111451.250	590893.485	1.619
37	DC-B37	1111423.306	590918.389	1.668
38	DC-B38	1111393.448	590868.637	1.477
39	DC-B39	1111366.874	590800.119	1.586
40	DC-B40	1111292.144	590809.043	1.615
41	DC-B41	1111242.569	590728.560	1.563
42	DC-B42	1111234.126	590683.005	1.506
43	DC-B43	1111223.253	590653.237	1.464
44	DC-B44	1111199.769	590626.598	1.556
45	DC-B45	1111174.464	590608.248	1.448
46	DC-B46	1111156.337	590578.879	1.379
47	DC-B47	1111128.544	590509.206	1.612
48	DC-B48	1111105.537	590415.457	1.273
49	DC-B49	1111024.341	590368.566	1.580
50	DC-B50	1110972.149	590227.331	1.367
51	DC-B51	1110860.655	590174.094	1.285
52	DC-B52	1110712.995	590149.775	1.327
53	DC-B53	1110645.128	590068.140	1.435
54	DC-B54	1110617.304	589902.588	1.395
55	DC-B55	1110552.143	589778.699	1.493
56	DC-B56	1110520.291	589657.784	1.361
57	DC-B57	1110434.005	589626.749	1.241

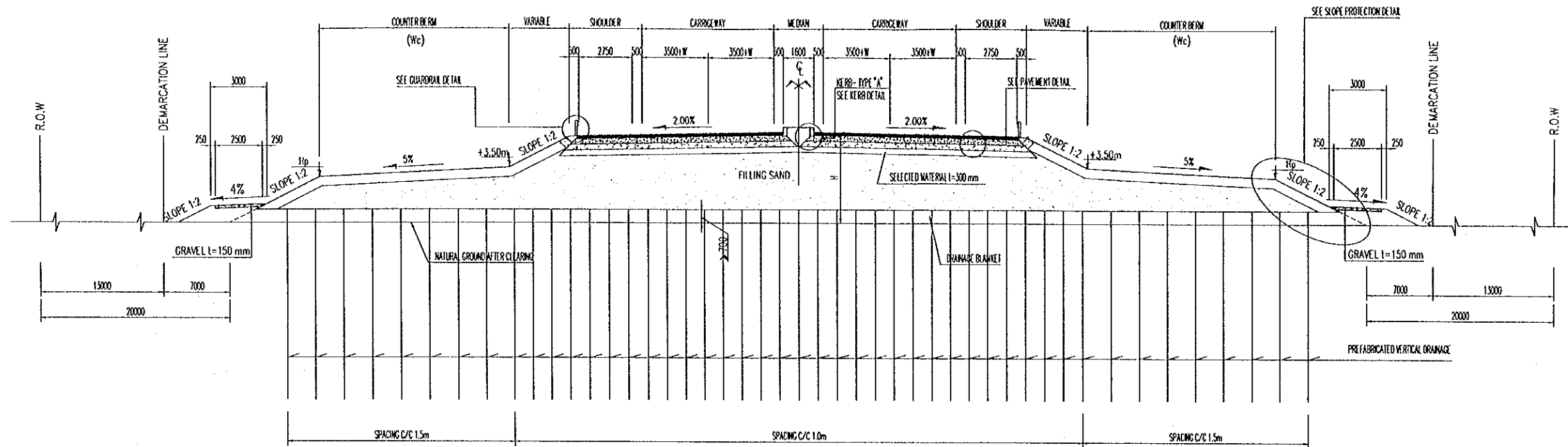
LEGEND

- ⊙ GPS POINT
- SECONDARY TRAVERSE POINT

COORDINATE AND ELEVATION OF GPS POINTS

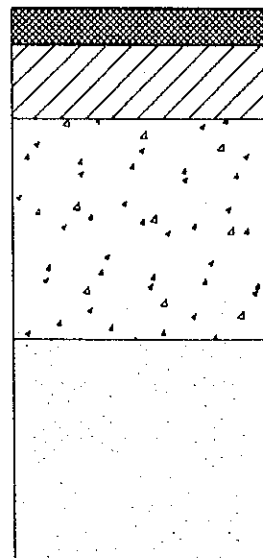
NO	NAME	COORDINATE		ELEVATION (M)
		X (M)	Y (M)	
1	GPS07	1110420.72	589379.969	1.591
2	GPS08	1110510.826	590096.639	1.468
3	GPS10	1111843.21	591109.838	1.519

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPPON KOBI CO., LTD.	PREPARED BY NAME K. Nemoto	CHECKED BY NAME K. Nakai	APPROVED BY NAME K. Enomoto	DRAWING TITLE TRAVERSE NETWORK OF SURVEY CONTROLS KM 2+700 TO KM 4+910(2/2)	DWG NO. P1/TW/0050
				SIGNATURE K. Nemoto	SIGNATURE K. Nakai	SIGNATURE K. Enomoto		
				DATE 20/9/2000	DATE 29/9/2000	DATE 5/10/2000		



TYPE 1: H > 5M
SCALE 1:250

PAVEMENT DETAILS
NOT TO SCALE



- 5cm ASPHALT SURFACE CONCRETE, HOTLAID
- TACK COAT, 0.6kg/Sqm
- 10cm ASPHALT BINDER CONCRETE, HOTLAID
- PRIME COAT, 2kg/Sqm
- 30cm FINE AGGREGATE BASE COURSE
- 30cm CRUSHED AGGREGATE SUBBASE COURSE

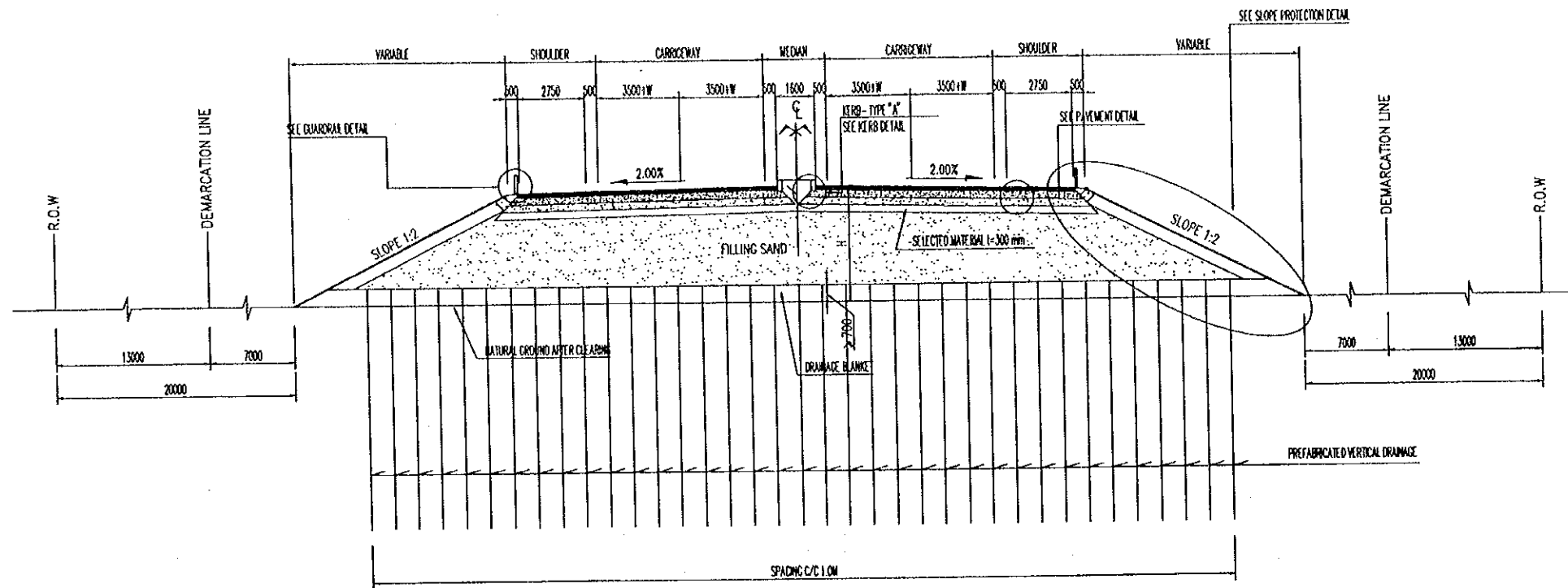
CHAINAGE		LENGTH OF PVD
FROM	TO	
-0+500	2+900	29m
2+900	4+910	38m

H	5m < H < 6m	H > 6m
Wc	12m	10m
Hp	+2.90	+3.00

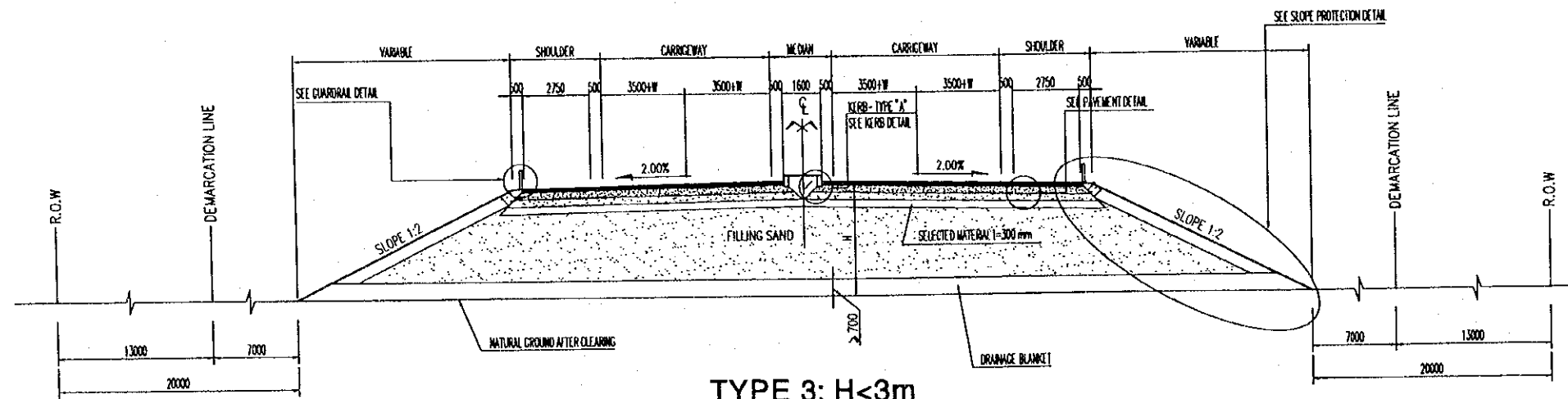
NOTES:

- 1) ALL DIMENSIONS ARE IN MILLIMETER, UNLESS OTHERWISE INDICATED.
- 2) DEMARCATIIONS WILL BE LOCATED 7 METERS FROM THE SLOPE TOE AND R.O.W LOCATED 20 METERS FROM IT.
- 3) BETWEEN DEMARCATIIONS, ANY RESIDENTS AND FACILITIES (MARKET, FACTORY...) WILL BE REMOVED.
- 4) "W" MEANS WIDENING AMOUNT OF CARRIAGEWAY AT THE CURVES.
- 5) "Wc" AND "Hp" ARE THE WIDTH AND THE ELEVATION OF COUNTER BERM
- 6) GUARDRAIL, KERB SEE DWG P1/MS/0060, P1/MS/0160.
- 7) SLOPE PROTECTION SEE DWG P1/MS/0180, P1/MS/0190.

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE (1/2)	P1/TW/0060

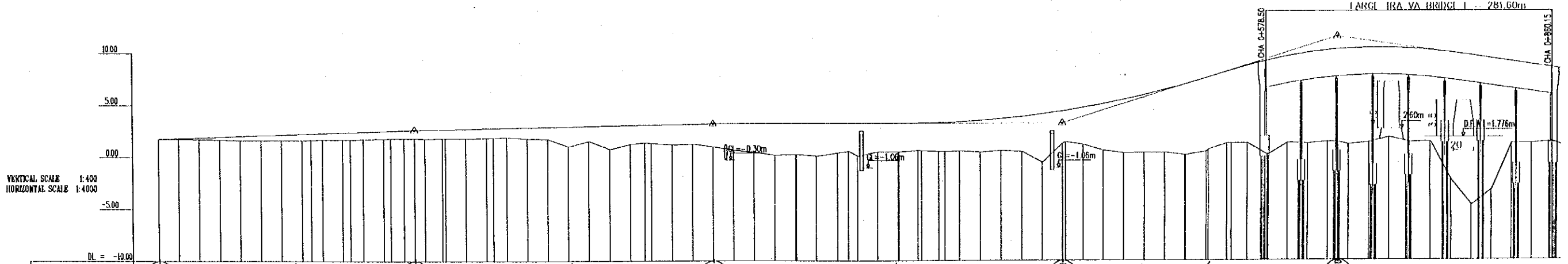
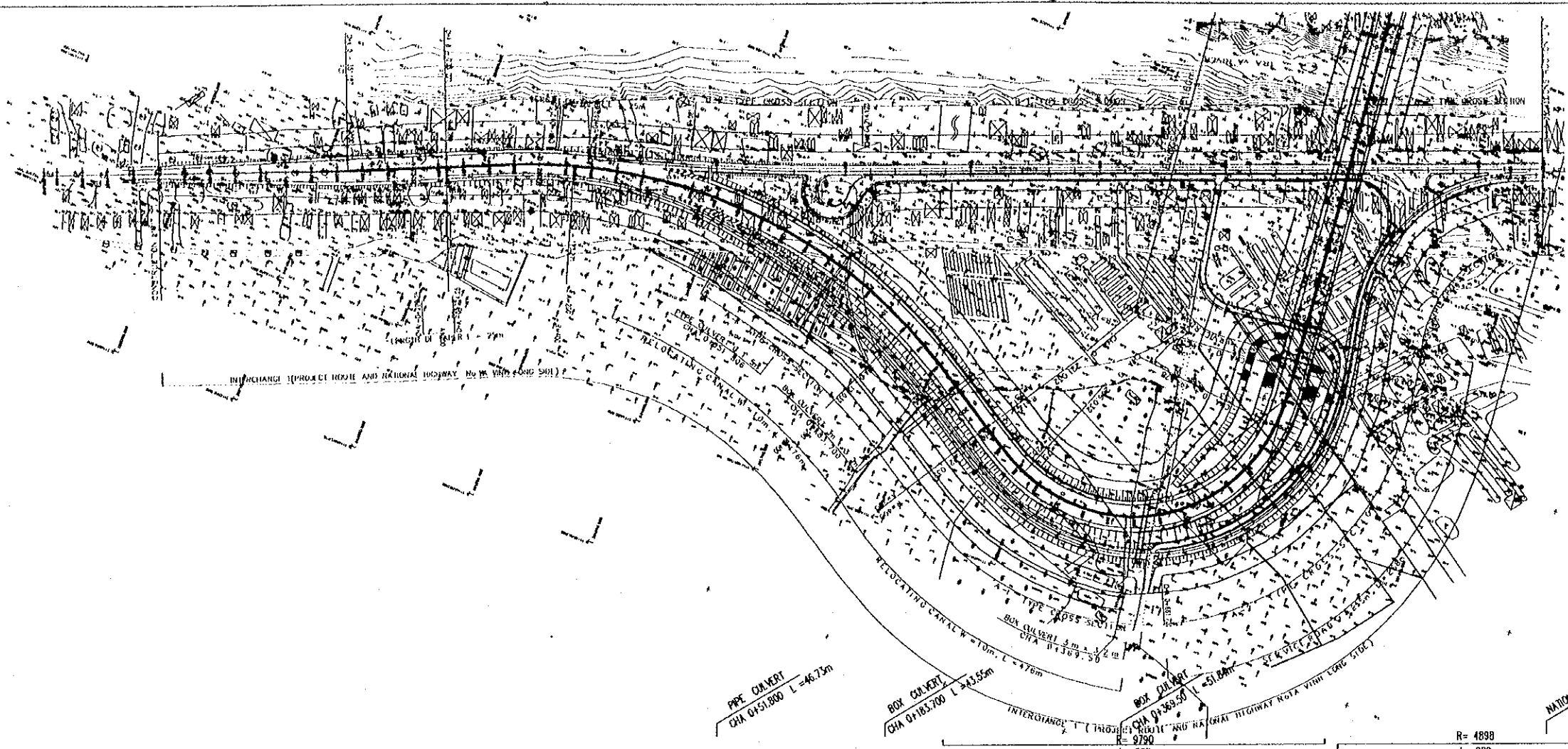


TYPE 2: $3m \leq H < 5m$
SCALE 1:250



TYPE 3: $H < 3m$
SCALE 1:250

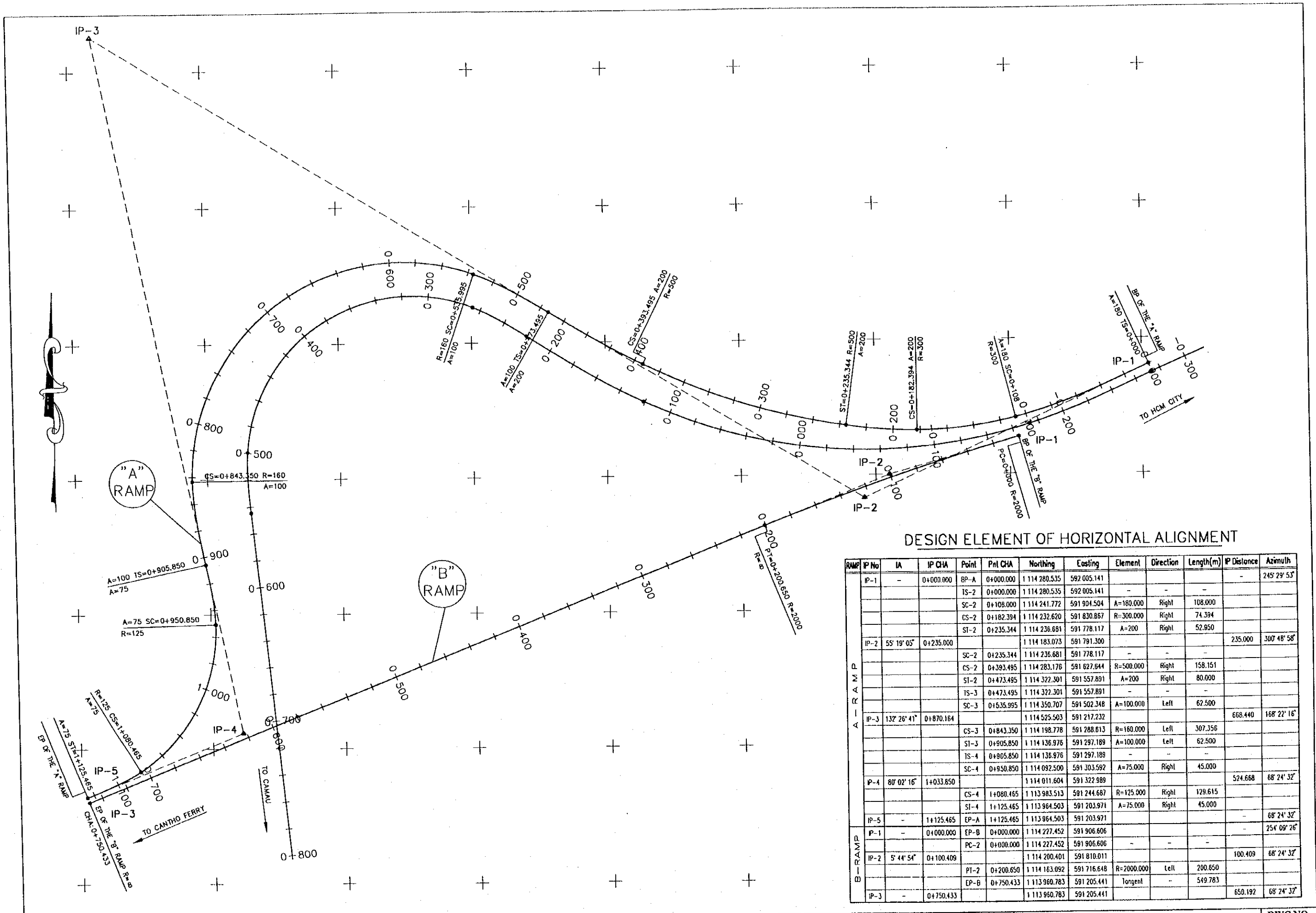
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO., LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 24/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	TYPICAL CROSS SECTIONS AND PAVEMENT STRUCTURE (2/2)	P1/TW/0070



GRADIENT	1.75%	I=250.000 / I=0.340%		2.60%	I=290.000 / I=0.202%		3.18%	I=340.000 / I=0.001%		3.18%	I=270.000 / I=3.067%		1.47%
DESIGN LEVELS (m)	1.74	1.750	1.750	1.818	1.770	1.770	1.802	1.802	1.802	1.802	1.802	1.802	1.802
EXISTING LEVEL (m)	1.74	1.74	1.74	1.869	1.68	1.68	1.954	1.62	1.62	1.62	1.62	1.62	1.62
DISTANCE (m)	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500
ACCUMULATED DISTANCE (m)	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500
CHAINAGE	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500	0+500
CURVE ELEMENT	IA=177'46.5" R=2000.00 II=38.96 CL=77.91				IA=123'31'13" R=400.00 II=265.37 CL=494.30				IA=52'19'25" R=125.00 II=278.31 CL=323.55				A=75 L=45.00
SUPBR ELEVATION	+2.5												

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE PLAN AND PROFILE KM 0+500 - KM 0+860 (1/4)	DWG NO. P1/TW/0080	
				NAME	K. Nemoto	K. Nakai			K. Enomoto
				SIGNATURE	<i>K. Nemoto</i>	<i>K. Nakai</i>			<i>K. Enomoto</i>
DATE	20/9/2000	29/9/2000	5/10/2000						

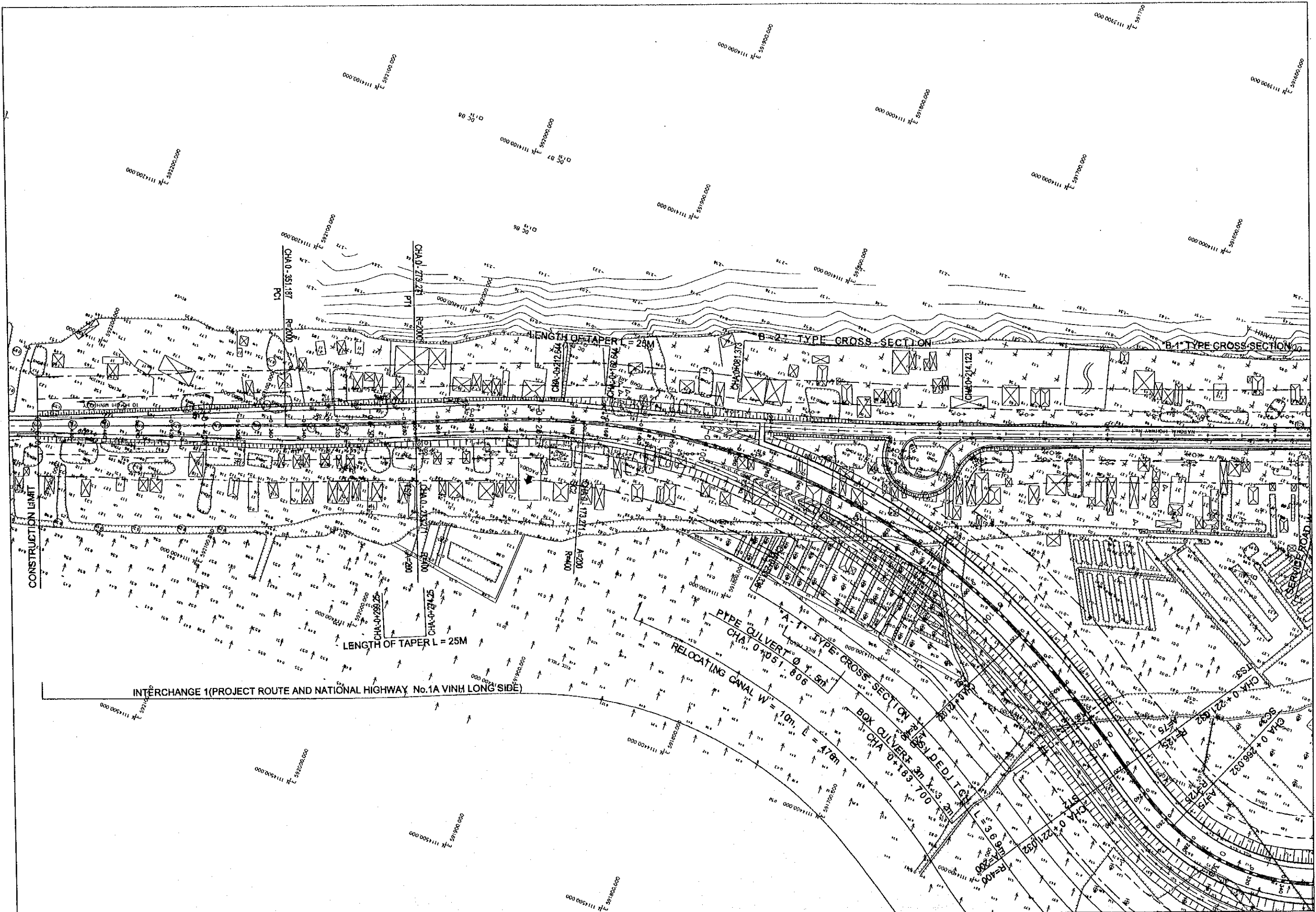
P1/IC1 INTERCHANGE NO.1 (NH NO.1)



DESIGN ELEMENT OF HORIZONTAL ALIGNMENT

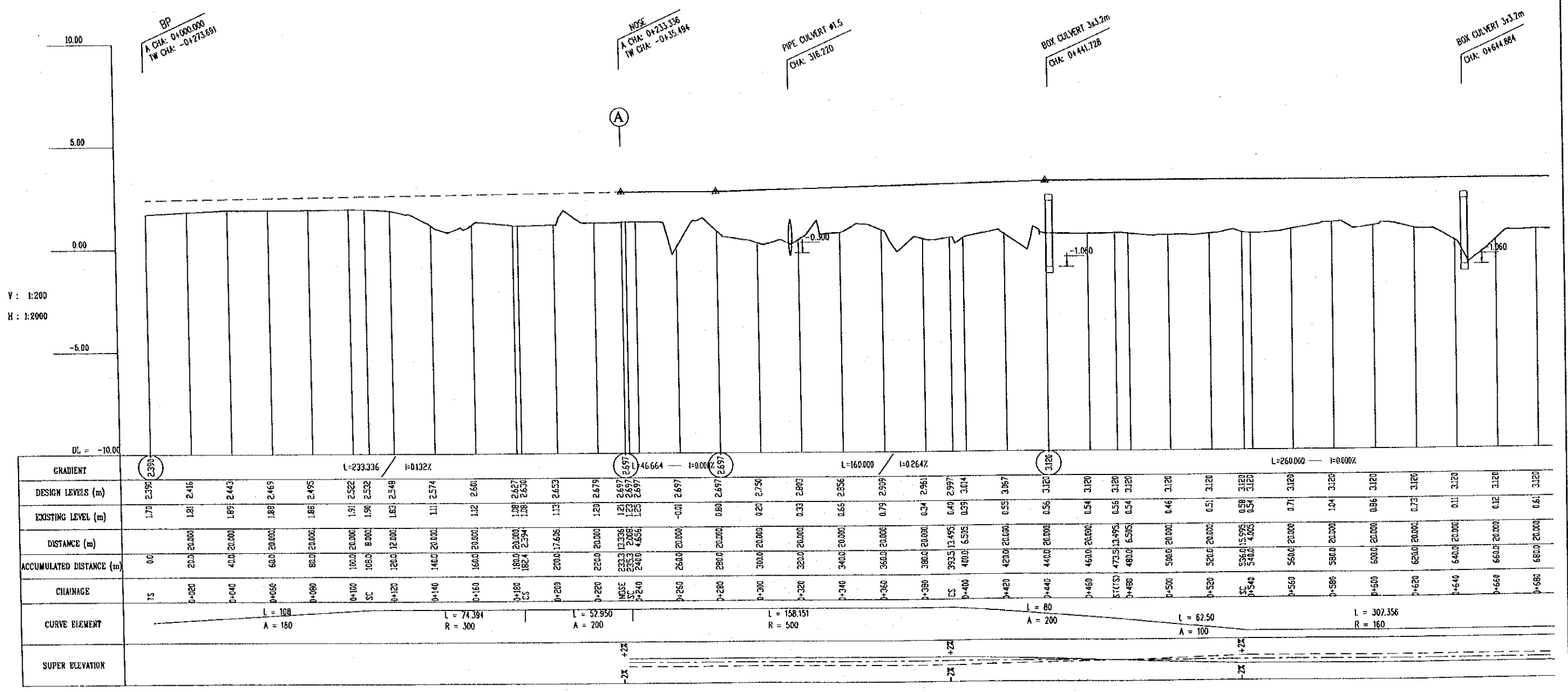
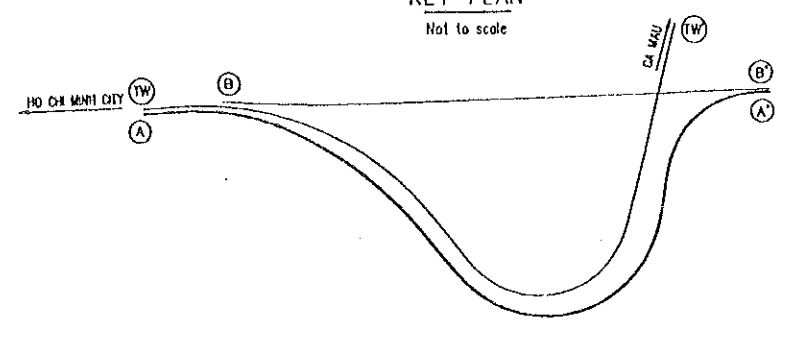
RAMP	IP No	IA	IP CHA	Point	PII CHA	Northing	Easting	Element	Direction	Length(m)	IP Distance	Azimuth	
A - RAMP	IP-1	-	0+000.000	BP-A	0+000.000	1114 280.535	592 005.141	-	-	-	-	245° 29' 53"	
				IS-2	0+000.000	1114 280.535	592 005.141	-	-	-	-	-	-
				SC-2	0+108.000	1114 241.772	591 904.504	A=180.000	Right	108.000	-	-	-
				CS-2	0+182.394	1114 232.620	591 830.867	R=300.000	Right	74.394	-	-	-
	IP-2	55° 19' 05"	0+235.000	ST-2	0+235.344	1114 236.681	591 778.117	A=200	Right	52.950	-	235.000	300° 48' 58"
				SC-2	0+235.344	1114 236.681	591 778.117	-	-	-	-	-	-
				CS-2	0+393.495	1114 283.176	591 627.644	R=500.000	Right	158.151	-	-	-
				SI-2	0+473.495	1114 322.301	591 557.891	A=200	Right	80.000	-	-	-
	IP-3	132° 26' 41"	0+870.164	IS-3	0+473.495	1114 322.301	591 557.891	-	-	-	-	-	-
				SC-3	0+535.995	1114 350.707	591 502.348	A=100.000	Left	62.500	-	668.440	168° 22' 16"
				CS-3	0+843.350	1114 198.778	591 288.613	R=160.000	Left	307.356	-	-	-
				SI-3	0+905.850	1114 136.976	591 297.189	A=100.000	Left	62.500	-	-	-
IP-4	80° 02' 16"	1+033.850	IS-4	0+905.850	1114 136.976	591 297.189	-	-	-	-	-	-	
			SC-4	0+950.850	1114 092.500	591 303.582	A=75.000	Right	45.000	-	524.668	68° 24' 32"	
			CS-4	1+080.165	1113 983.513	591 244.687	R=125.000	Right	129.615	-	-	-	
			SI-4	1+125.465	1113 964.503	591 203.971	A=75.000	Right	45.000	-	-	-	
B - RAMP	IP-1	-	0+000.000	EP-A	1+125.465	1113 964.503	591 203.971	-	-	-	-	68° 24' 32"	
				EP-B	0+000.000	1114 227.452	591 906.606	-	-	-	-	-	254° 09' 26"
				PC-2	0+000.000	1114 227.452	591 906.606	-	-	-	-	-	-
B - RAMP	IP-2	-	0+100.409	PI-2	0+200.650	1114 163.092	591 716.648	R=2000.000	Left	200.650	100.409	68° 24' 32"	
				EP-B	0+750.433	1113 960.783	591 205.441	-	-	-	-	549.783	-
				IP-3	0+750.433	1113 960.783	591 205.441	-	-	-	-	650.192	68° 24' 32"

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NK NIPPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE INTERCHANGE 1 ALIGNMENT LAYOUT AND GEOMETRIC DATA SCALE 1:2500	DWG NO. P1/IC1/0010	
				NAME	K. Nemoto	K. Nakai			K. Enomoto
				SIGNATURE	<i>K. Nemoto</i>	<i>K. Nakai</i>			<i>K. Enomoto</i>
				DATE	20/9/2000	29/9/2000	5/10/2000		



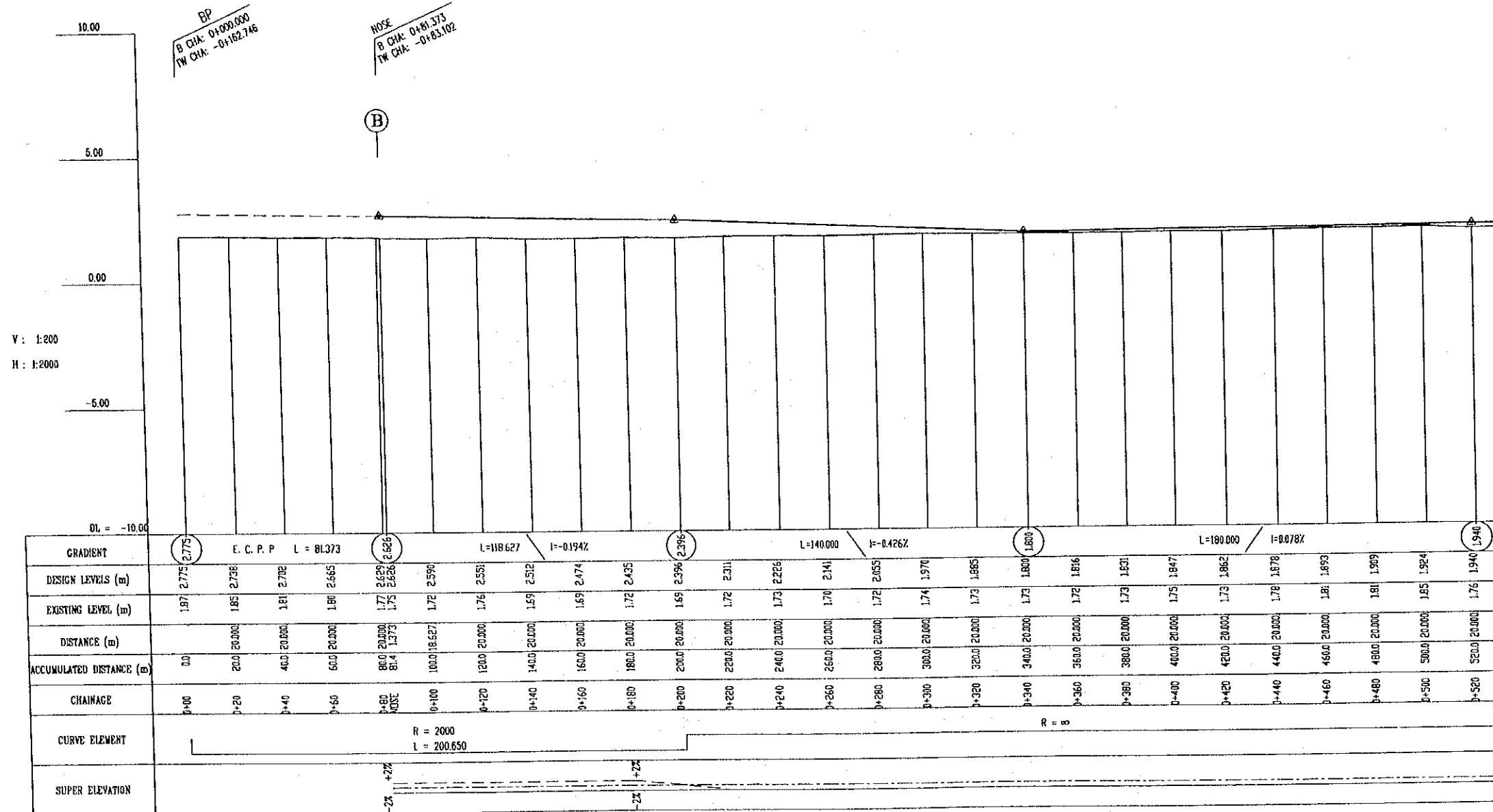
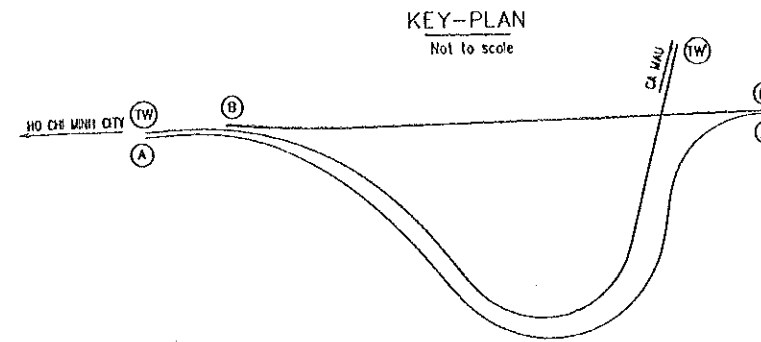
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOBİ CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	K. Nakai <i>K. Nakai</i> 29/9/2000	K. Enomoto <i>K. Enomoto</i> 5/10/2000	INTERCHANGE 1 PLAN (1/2) SCALE 1:2000	P1/IC1/0020

KEY-PLAN
Not to scale



NOTES:
- SCALE AS SHOWN.
- ALL UNITS ARE IN METERS,
UNLESS OTHERWISE INDICATED.

PROJECT NAME DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	IMPLEMENTATION AGENCY JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	EXECUTING AGENCY SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	JICA STUDY TEAM NIPON KOEI CO.,LTD.	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE INTERCHANGE 1 PROFILE OF "A" RAMP(1/2)	DWG NO. P1/IC1/0040
				NAME	K. Nemoto			

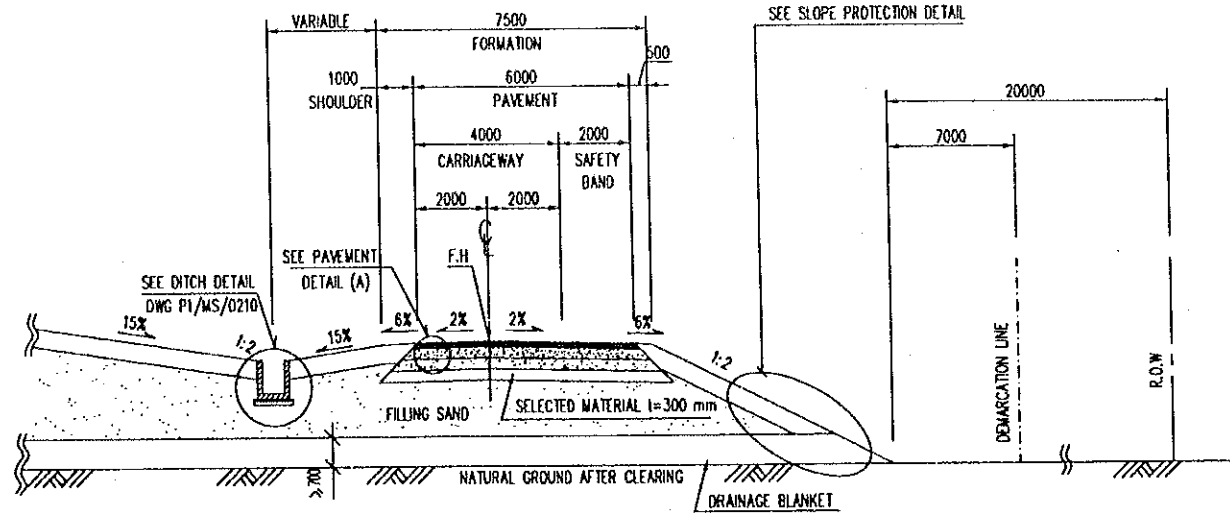


NOTES:
 - SCALE AS SHOWN
 - ALL UNITS ARE IN METERS,
 UNLESS OTHERWISE INDICATED.

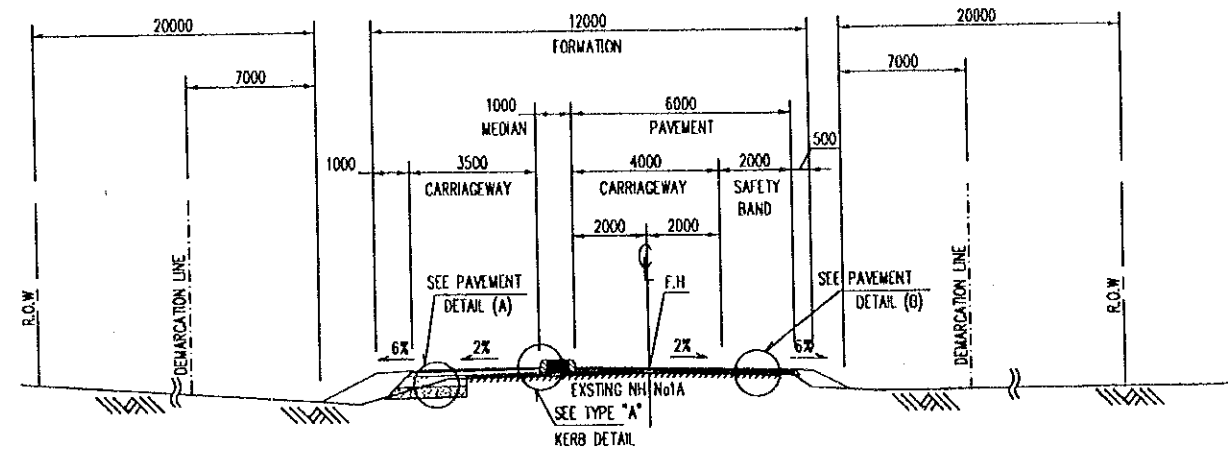
PROJECT NAME	IMPLEMENTATION AGENCY	EXECUTING AGENCY	JICA STUDY TEAM	PREPARED BY	CHECKED BY	APPROVED BY	DRAWING TITLE	DWG NO.
DETAILED DESIGN OF THE CAN THO BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	(NK) NIPPON KOEI CO.,LTD.	K. Nemoto	K. Nakai	K. Enomoto	INTERCHANGE 1 PROFILE OF "B" RAMP(1/2)	P1/IC1/0060
				SIGNATURE	DATE	DATE		
				R. Nemoto	20/9/2000	29/9/2000		

TYPICAL CROSS SECTION

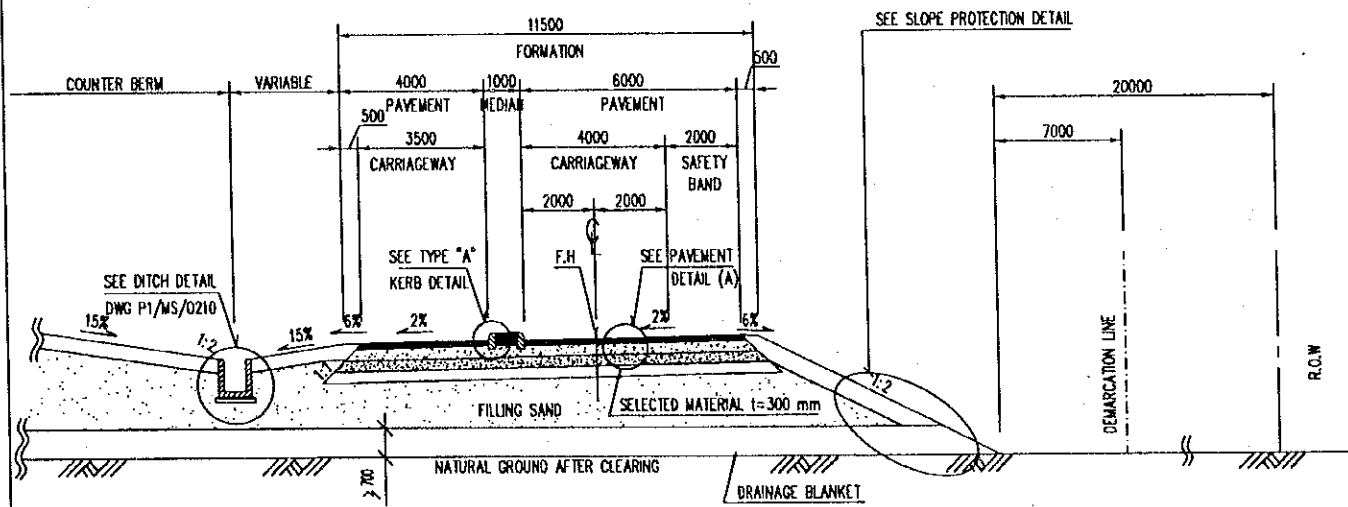
"A-1" TYPE
SCALE 1:200



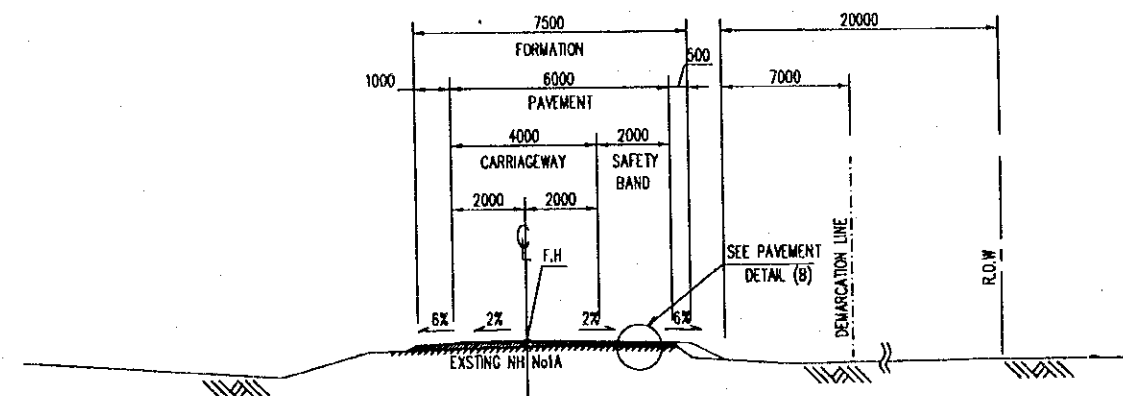
"B-1" TYPE
SCALE 1:200



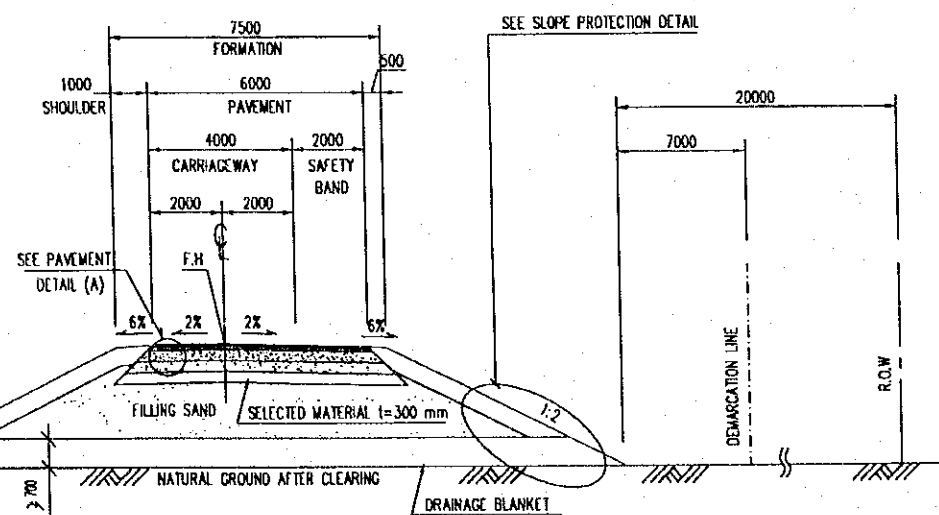
"A-2" TYPE
SCALE 1:200



"B-2" TYPE
SCALE 1:200

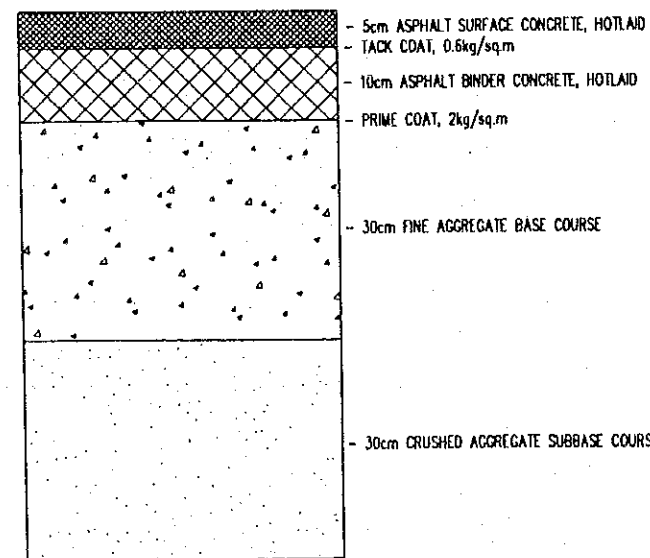


"A-3" TYPE
SCALE 1:200



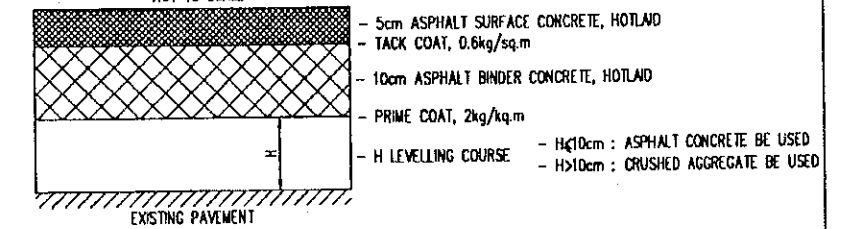
PAVEMENT DETAIL (A)

NOT TO SCALE



PAVEMENT DETAIL (B)

NOT TO SCALE



No	RAMPWAY	CROSS-SECTION SHALL BE USED FROM KM ... TO KM ...	TYPE	REMARK
1	A	KM0+233.336 - KM0+661.701	A-1	
2	A	KM0+661.701 - KM0+885.654	A-2	
3	A	KM0+885.654 - KM1+125.485	A-3	
4	B	KM0+214.123 - KM0+612.727	B-1	
5	B	KM0+081.373 - KM0+214.123	B-2	
6	B	KM0+612.727 - KM0+750.433	B-2	

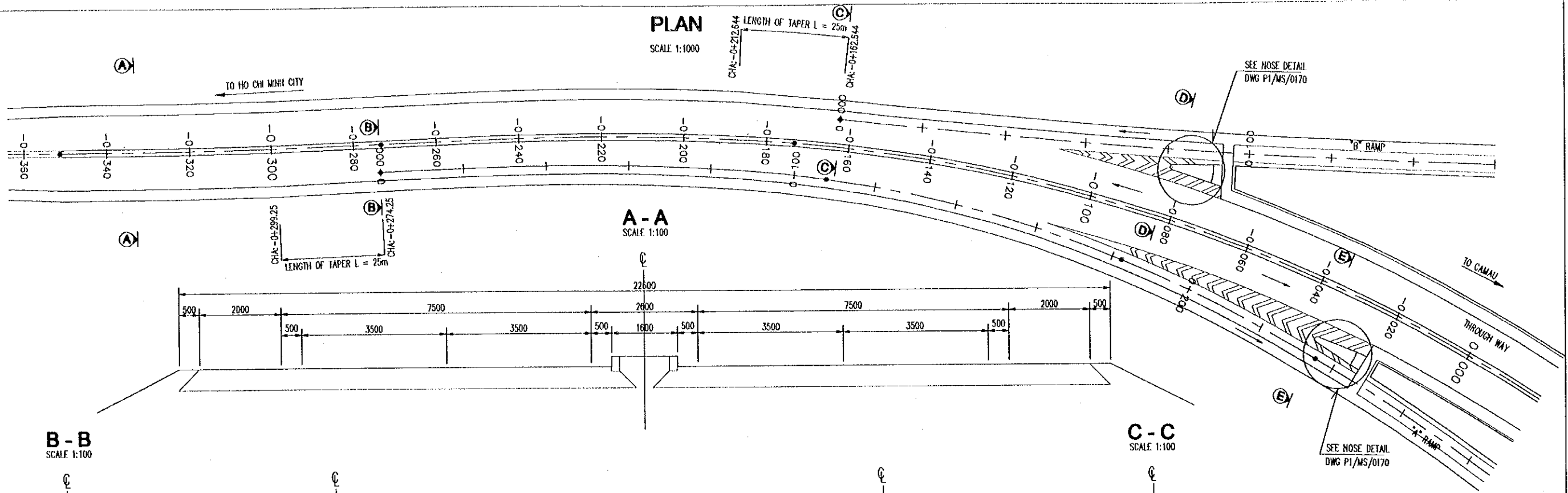
NOTES:

- NOT USING PVD FOR RAMPWAY
- SCALE AS SHOWN.
- ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE INDICATED.
- KERB SEE DWG P1/MS/0160.
- SLOPE PROTECTION SEE DWG P1/MS/0180 AND P1/MS/0190.
- LOCATION OF CROSS-SECTION SEE DWG P1/CI/0020 AND P1/CI/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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPON KOEI CO.,LTD.	K. Nemoto	K. Nakai	K. Enomoto	INTERCHANGE 1 TYPICAL CROSS SECTION AND PAVEMENT STRUCTURE	P1/CI/0080

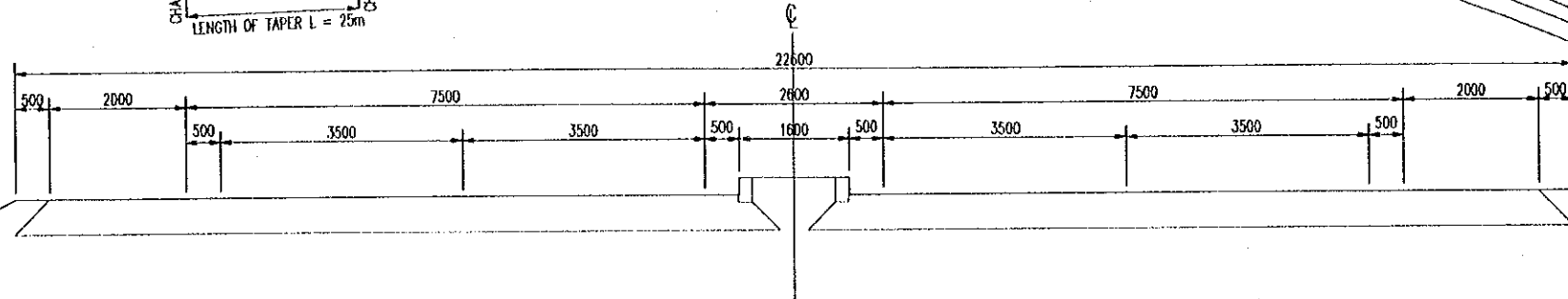
PLAN

SCALE 1:1000



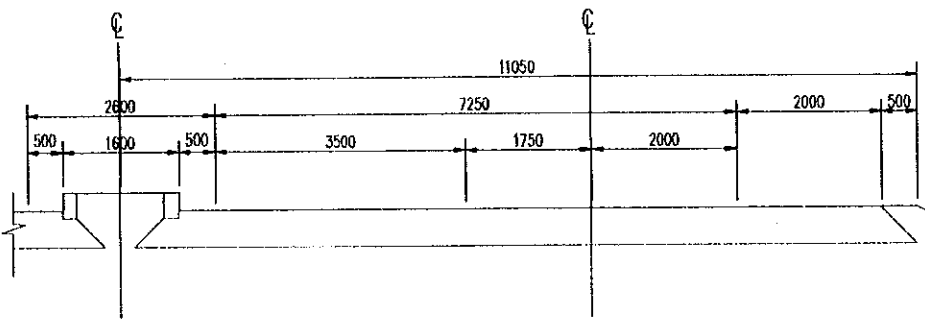
A-A

SCALE 1:100



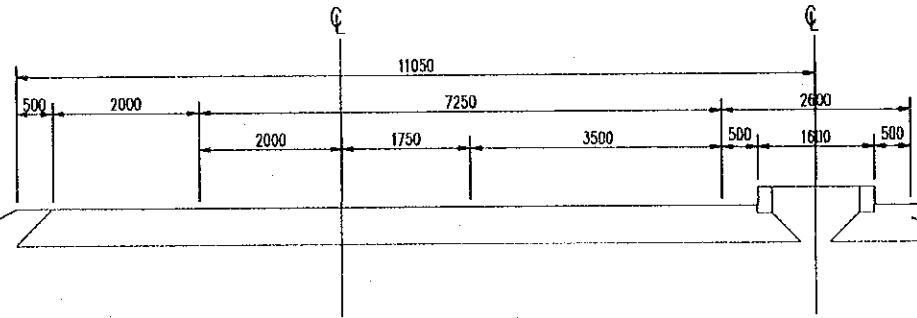
B-B

SCALE 1:100



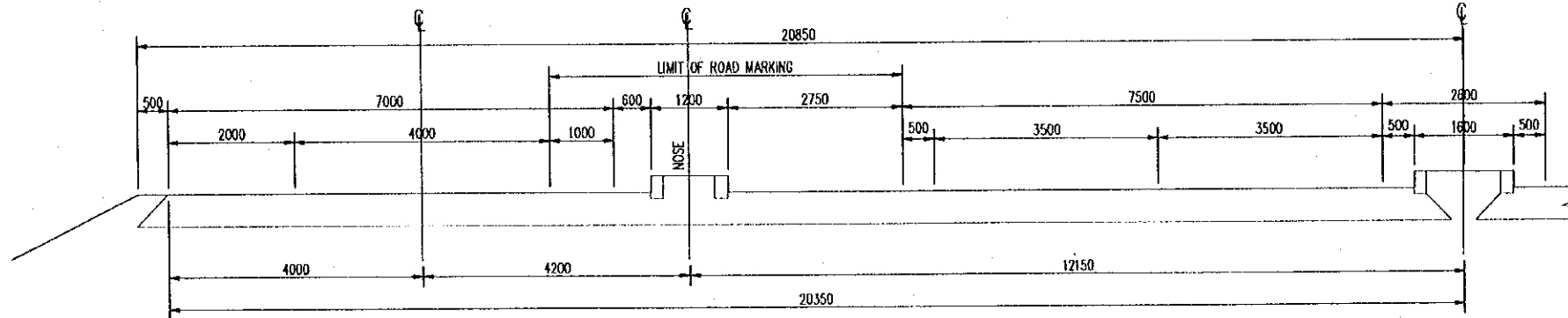
C-C

SCALE 1:100



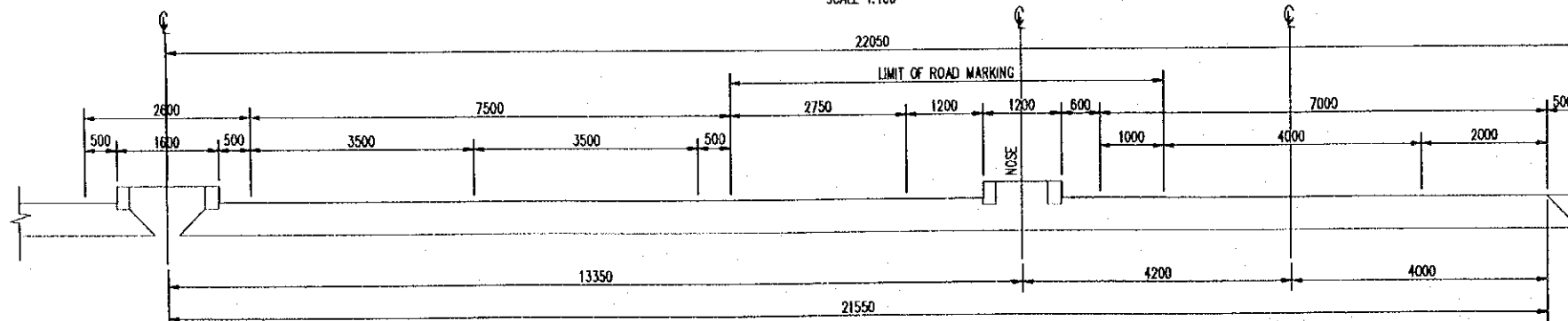
D-D

SCALE 1:100



E-E

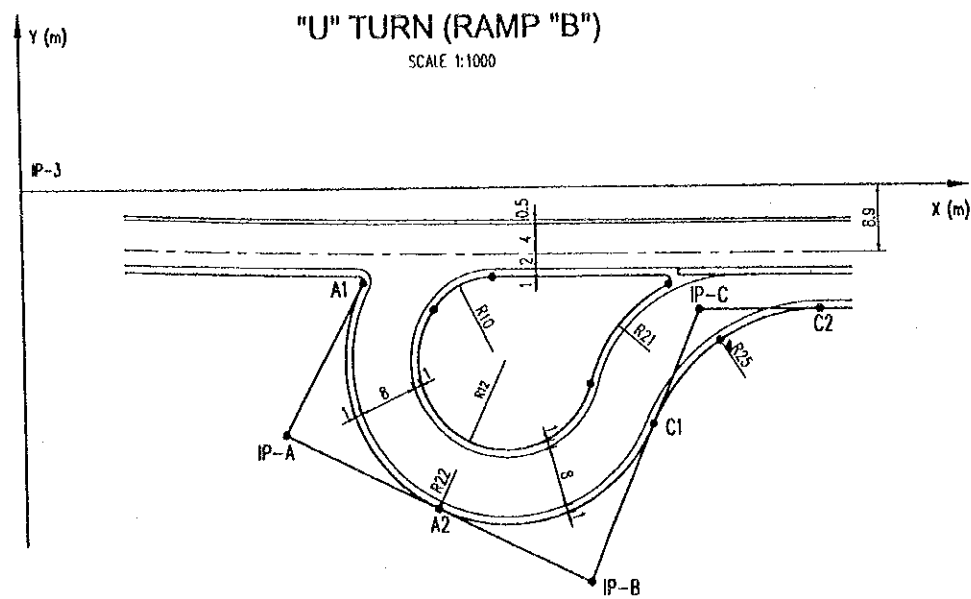
SCALE 1:100



NOTES:

- SCALE AS SHOWN.
- ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE INDICATED.

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NIPPON KOEI CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	INTERCHANGE 1 DETAIL OF RAMP TERMINAL	P1/IC1/0090

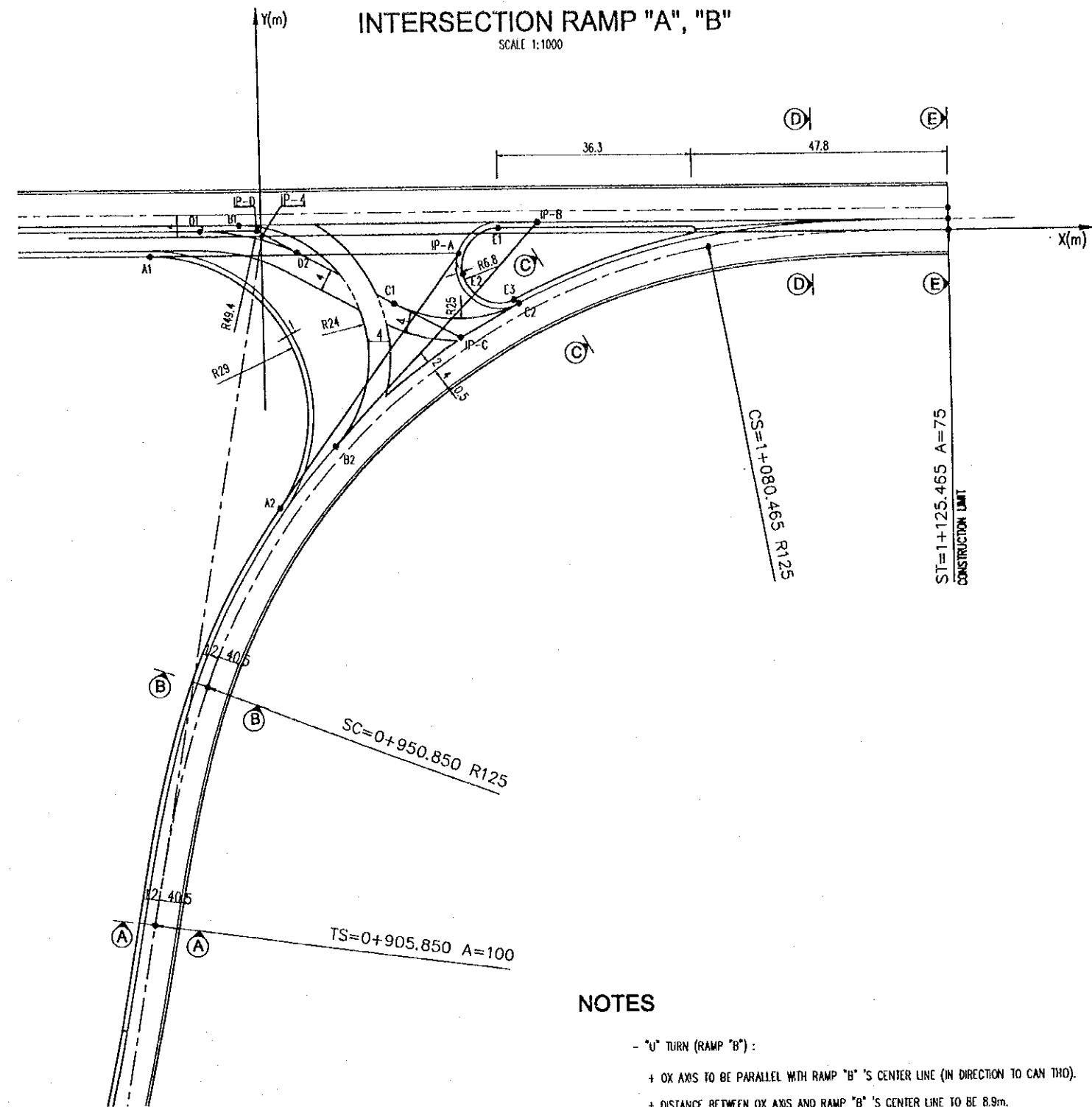


"U" TURN (RAMP "B")

POINT	X (m)	Y (m)	RADIUS (m)	IA
A1	47.016	-12.546	R=42	92°40'31"
IP-A	36.059	-32.827		
A2	56.830	-42.825		
A2	56.830	-42.825	R=42	92°40'31"
IP-B	77.600	-52.824		
C1	86.618	-31.609		
C1	86.618	-31.609	R=25	66°58'16"
IP-C	93.088	-16.389		
C2	109.626	-16.389		

LIST OF COORDINATES INTERSECTION RAMP "A", "B"

POINT	X (m)	Y (m)	RADIUS (m)	IA
A1	-20.700	-3.500	R=29	126°24'32"
IP-A	36.582	-3.500		
A2	2.498	-49.715		
B1	-4.263	2.000	R=24	133°22'01"
IP-B	51.420	2.000		
B2	13.184	-38.480		
C1	24.642	-12.475	R=25	56°56'32"
IP-C	36.618	-18.787		
C2	47.681	-12.616		
D1	-11.524	1.000	R=49.4	27°47'21"
IP-D	-0.928	1.000		
D2	6.658	-2.998		
E1	43.879	1.000		
E2	37.232	-7.235		
E3	46.685	-11.994		

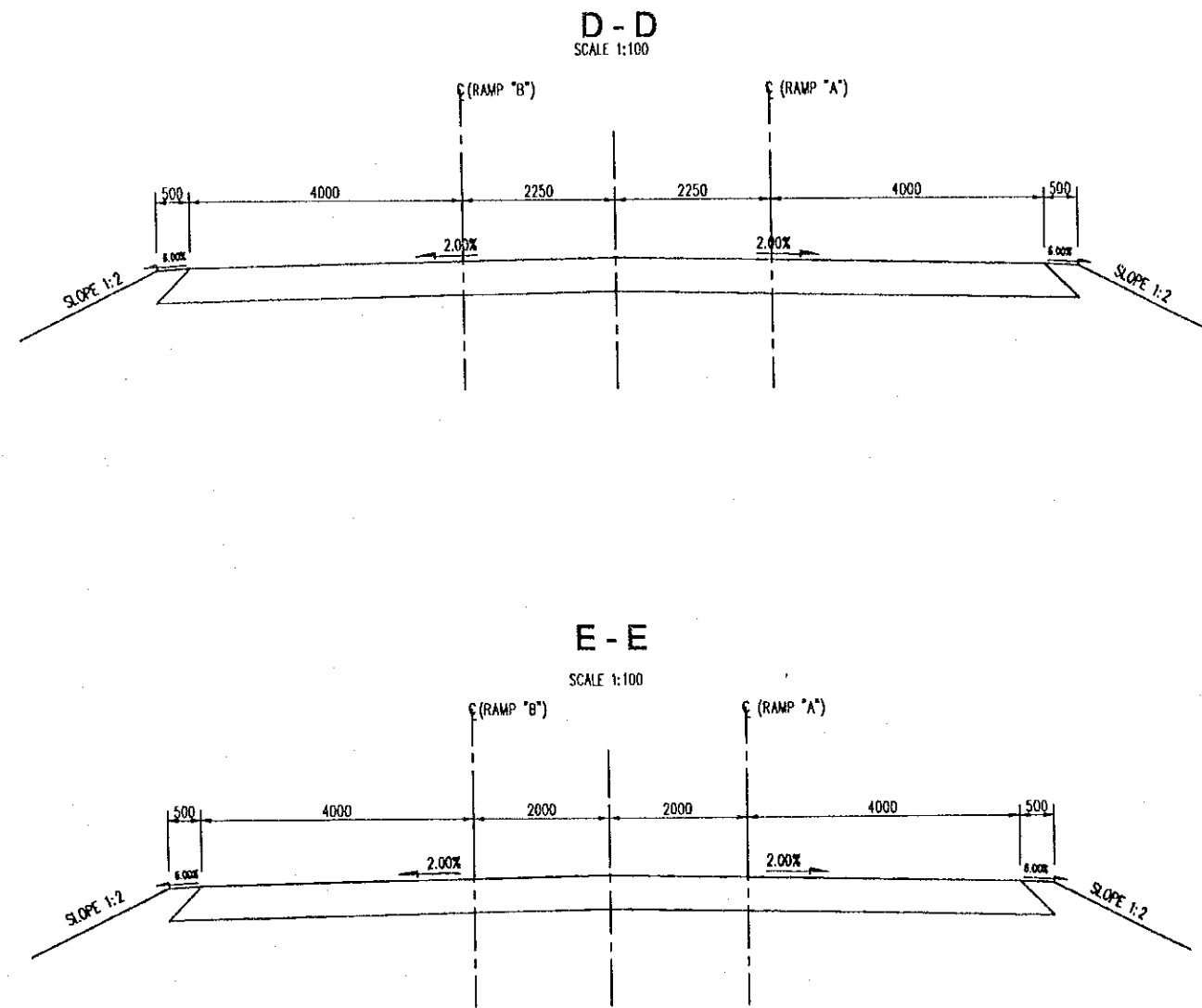
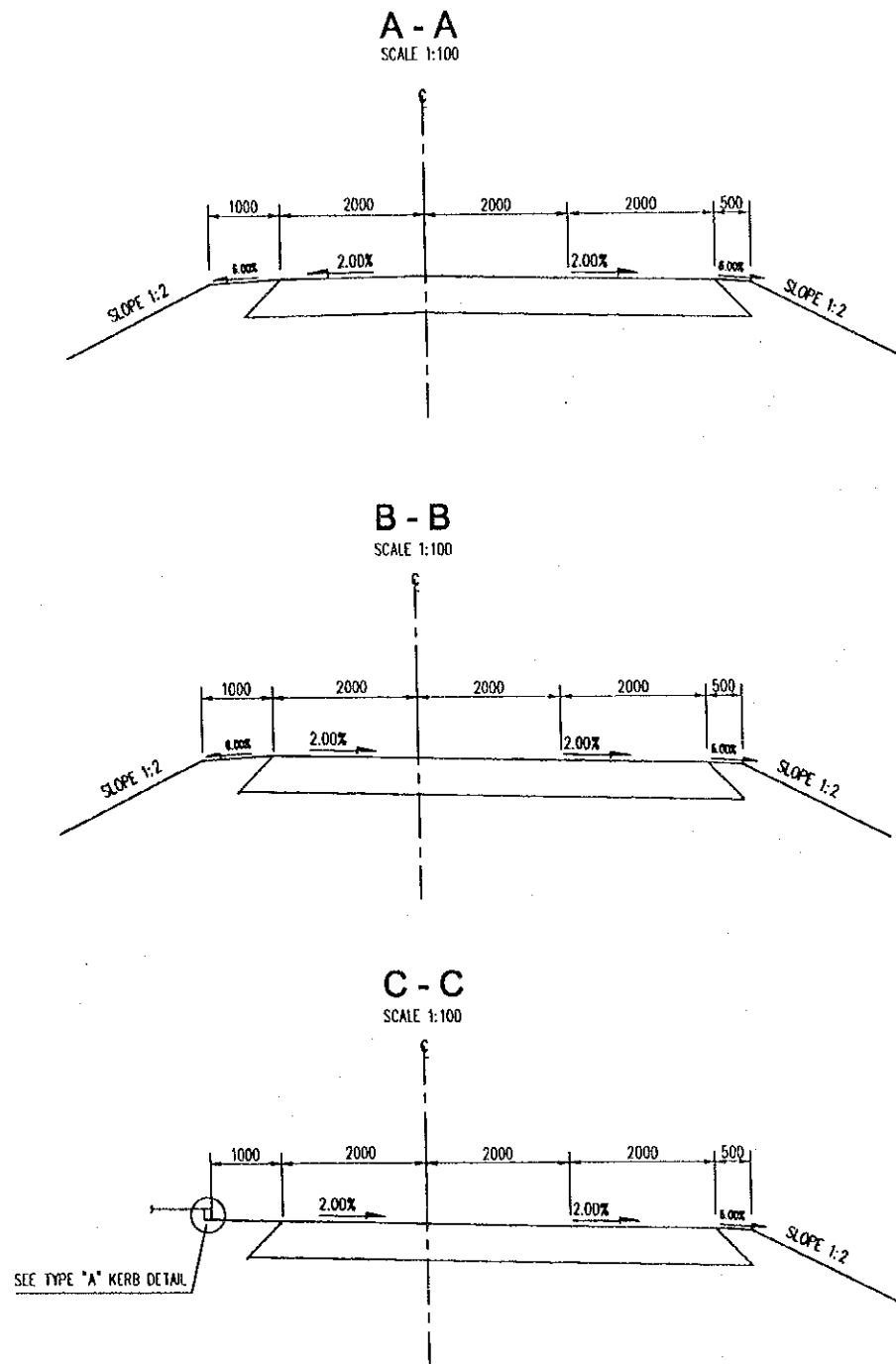


NOTES

- "U" TURN (RAMP "B") :
 - + OX AXIS TO BE PARALLEL WITH RAMP "B" 'S CENTER LINE (IN DIRECTION TO CAN THO).
 - + DISTANCE BETWEEN OX AXIS AND RAMP "B" 'S CENTER LINE TO BE 8.9m.
 - + CO-ORDINATE (0,0) TO BE POINT IP-3.
- INTERSECTION RAMP "A", "B" :
 - + OX AXIS TO BE PARALLEL WITH RAMP "B" 'S CENTER LINE (IN DIRECTION TO CAN THO).
 - + DISTANCE BETWEEN OX AXIS AND RAMP "B" 'S CENTER LINE TO BE 4.0m.
 - + CO-ORDINATE (0,0) TO BE POINT IP-4.
- CROSS-SECTION, SEE DWG P1/IC1/0110.
- ALL DIMENSIONS ARE 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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NK NIPPON KOEI CO.,LTD.	NAME: K. Nemoto SIGNATURE: <i>K. Nemoto</i> DATE: 20/9/2000	NAME: K. Nakai SIGNATURE: <i>K. Nakai</i> DATE: 29/9/2000	NAME: K. Enomoto SIGNATURE: <i>K. Enomoto</i> DATE: 5/10/2000	INTERCHANGE 1 DETAIL OF INTERSECTION (1/2)	P1/IC1/0100

CROSS - SECTION RAMP "A", "B"



NOTES:

- LOCATION OF CROSS - SECTION SEE, DWG P1/IC1/0100.
- ALL DIMENSIONS ARE IN MILLIMETERS.

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	JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	SOCIALIST REPUBLIC OF VIET NAM MINISTRY OF TRANSPORT (MOT) MY THUAN PROJECT MANAGEMENT UNIT	NK NIPPON KOEI CO., LTD.	K. Nemoto	K. Nakai	K. Enomoto	INTERCHANGE 1 DETAIL OF INTERSECTION (2/2)	P1/IC1/0110
				DATE 20/9/2000	DATE 29/9/2000	DATE 5/10/2000		