2.2.3 Basic Design Drawings

The major components of the project are shown on Table 2.2-8. The Basic Design Drawings are shown on the following pages.

Table 2.2-8 Major Components of the Project

Stage	No	Bridge No.	Bridge Name	Bridge Length (m)	No. of Span	Carriageway Width (m)	Superstructure Type	Foundation Type	Approach Road Length (m)
Phase 2	1	BR-1	Air Keruh I	20.0	1	4.5	RC Girder	Spread Footing	130.0
	2	BR-2	Air Keruh II	20.0	1	4.5	RC Girder	Spread Footing	90.0
	3	BR-3	Negene I	35.0	1	4.5	Plate Girder	Spread Footing	104.4
	4	BR-8	Tatar Loka	55.0	2	4.5	Plate Girder	Steel Tubular Pile + Shallow Caisson	125.0
	Subtotal			130.0	5	—	—	—	449.4
Phase 3	1	BR-13	Mone I	20.0	1	4.5	RC Girder	Spread Footing	109.5
	2	BR-16	Telonang I	50.0	2	4.5	Plate Girder	Steel Tubular Pile	119.5
	3	BR-19	Sepang	40.0	1	4.5	Plate Girder	Steel Tubular Pile	148.0
	4	BR-20	Bontong	20.0	1	4.5	RC Girder	Spread Footing	130.0
	5	BR-22	Blengkon	20.0	1	4.5	RC Girder	Spread Footing	120.0
	6	BR-27	Lamar	55.0	2	6.0	Plate Girder	Steel Tubular Pile + Shallow Caisson	149.7
	7	BR-29	Liang Bagik	20.0	1	6.0	RC Flat Slab	Steel Tubular Pile	109.2
	8	BR-32	Petain III	20.0	1	6.0	RC Girder	Spread Footing	108.9
	9	BR-33	Molong	20.0	1	6.0	RC Girder	Spread Footing	140.0
	10	BR-34	Emang	45.0	2	6.0	Plate Girder	Steel Tubular Pile	97.8
	11	BR-35	Kalbir	25.0	1	6.0	Plate Girder	Steel Tubular Pile	97.3
	Subtotal			335.0	14	—	—	—	1329.9
Total				465.0	19	—	—	—	1779.3

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

THE BASIC DESIGN STUDY ON THE PROJECT FOR THE CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA

BASIC DRAWINGS

JAPAN INTERNATIONAL COOPERATION AGENCY

KATAHIRA & ENGINEERS INTERNATIONAL

GENERAL

INDEX OF DRAWINGS
(1 of 2)

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	KEI KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: INDEX OF DRAWINGS (1 of 2)	SCALE: AS SHOWN	DRAWING No: 0-1	Rev.

INDEX OF DRAWINGS
(2 of 2)

DRAWING NO.	TITLE OF DRAWING	SHEET NO.

DRAWING NO.	TITLE OF DRAWING	SHEET NO.

DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

KATAHIRA & ENGINEERS INTERNATIONAL

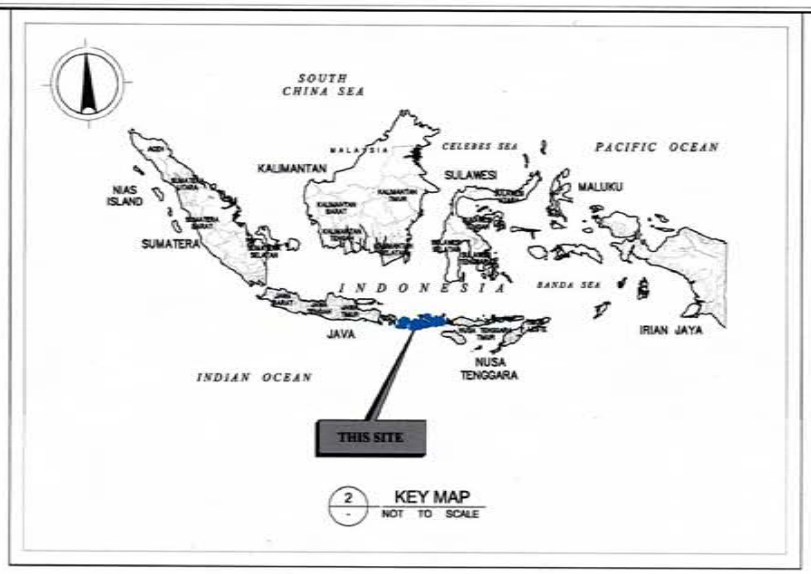
THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA

TITLE: INDEX OF DRAWINGS (2 of 2)

SCALE: AS SHOWN

DRAWING No: 0-2

Rev.



2 KEY MAP
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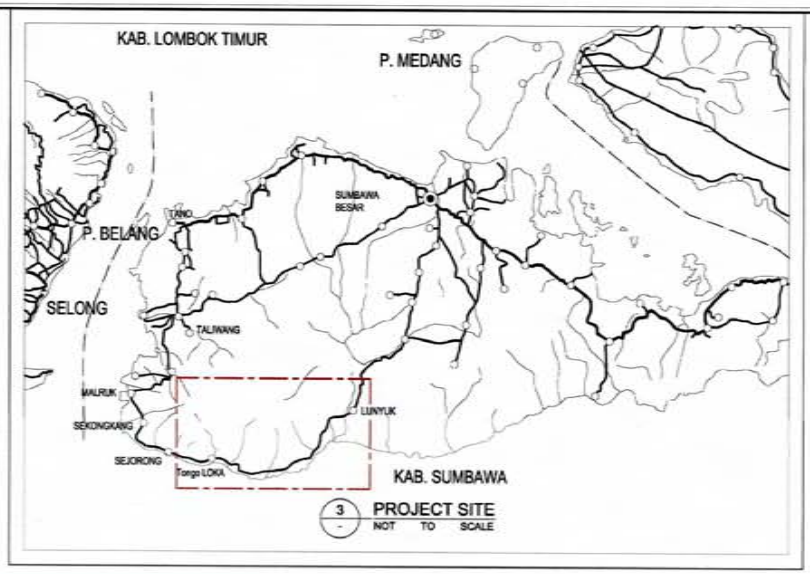

3 PROJECT SITE
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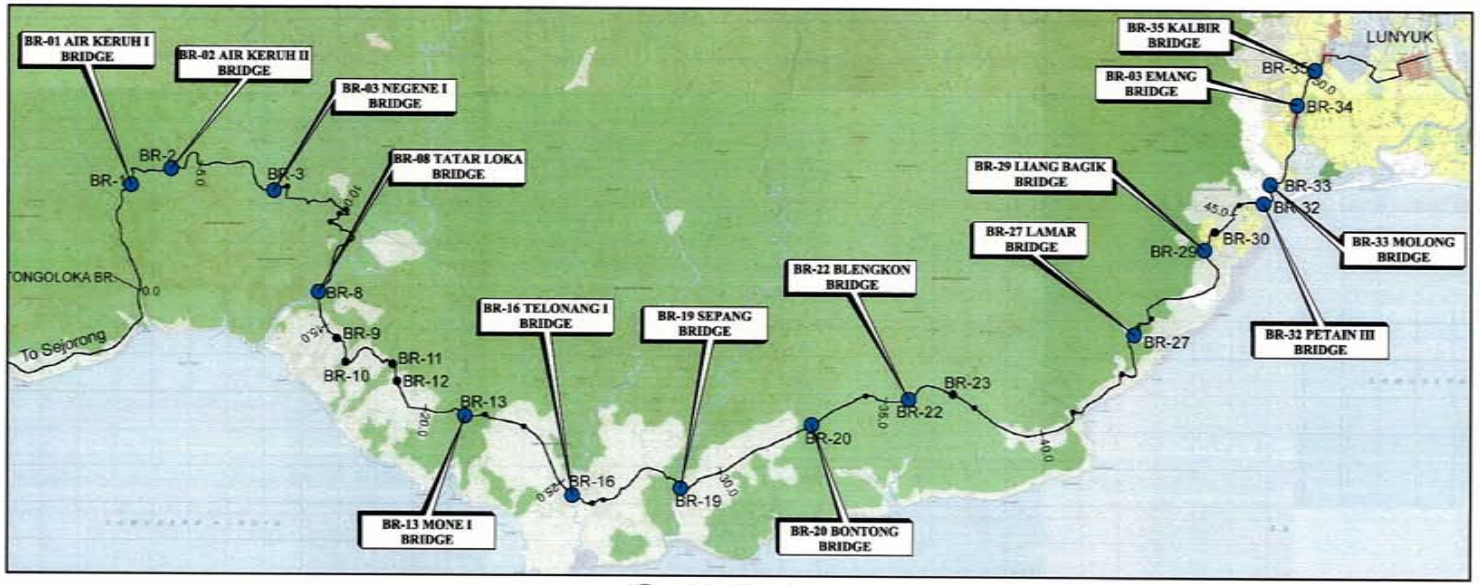


1 LOCATION MAP
NOT TO SCALE

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: LOCATION MAP AND KEY MAP	SCALE: AS SHOWN	DRAWING No: 0-2

GENERAL NOTES FOR BRIDGES

A. DESIGN CRITERIA

1. CODES AND SPECIFICATIONS

THE DESIGN STANDARDS FOR THE STRUCTURES ARE :

- BRIDGE DESIGN MANUAL, BRIDGE MANAGEMENT SYSTEM (BMS6), BINA MARGA, 1992.
- STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 17TH EDITION 2002.
- SPECIFICATIONS FOR HIGHWAY BRIDGES, JAPAN ROAD ASSOCIATION (JRA), 2002

2. UNIT WT. OF MATERIALS

	UNIT WEIGHT
A. REINFORCED CONCRETE	25.00 kN/m^3
B. PLAIN CONCRETE	24.00 kN/m^3
C. ASPHALT WEARING COARSE	22.00 kN/m^3
D. STEEL	77.00 kN/m^3
E. COMPACTED SAND, EARTH OR GRAVEL	19.00 kN/m^3
F. SATURATED EARTH OR WATER	9.81 kN/m^3
G. OTHERS	AS INDICATED

B. MATERIALS

1. CONCRETE

a). UNLESS OTHERWISE INDICATED ON PLANS, THE CONCRETE CLASS / 28-DAY COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:

STRUCTURAL MEMBER	CLASS	28-DAY COMPRESSIVE STRENGTH MPa	MAX. AGG. SIZE	SLUMP
DECK SLAB, SIDEWALK, APPROACH SLAB, RC GIRDER	A	30	25	8-12
ABUTMENTS & PIERS	B	30	25	8-12
RAIL POST	C	30	15	8-12
CONCRETE BASE LEAN CONCRETE	D	18	25	8-12
SEAL CONCRETE	E	24	25	8-22

CONCRETE COVER OF REINFORCEMENT

MINIMUM CLEAR COVER FOR REINFORCEMENT		
STRUCTURE MEMBER	BR01, BR02, BR03, BR08, BR13 BR16, BR19, BR20, BR22, BR27, BR29, BR34, BR35	BR32 & BR33
SLAB, RC GIRDER	40 mm	40 mm
ABUTMENT & PIER COPING	75 mm	75 mm
FOOTING & WALL	75 mm	100 mm
RAILINGS AND SIDEWALK	40 mm	40 mm

2. STRUCTURAL STEEL, BOLTS AND WELDS

MATERIALS	REFERENCE SPECIFICATIONS
FOR MAIN MEMBER AND SPLICE	JIS G 3106-SM490Y
FOR DIAPHRAGM AND STIFFENER	JIS G 3101-SM400
OTHER MINOR MEMBERS	JIS G 3101-SS400

ALL STEEL MATERIALS SHALL BE GALVANIZED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION OF THIS CONTRACT.

3. REINFORCING STEEL

a) ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO SD 40, MINIMUM YIELD POINT 390 N/MM.

BAR SIZE	BAR AREA mm^2	WT. (Kg/m)
10mm	78.5	0.617
13mm	132.7	1.042
16mm	201.1	1.578
19mm	283.5	2.226
22mm	360.1	2.984
25mm	490.9	3.853
29mm	662.9	5.185
32mm	804.2	6.313

b) UNLESS OTHERWISE INDICATED IN THE PLANS, THE MINIMUM DEVELOPMENT LENGTH.

BAR SIZE	MIN DEVELOPMENT LENGTH		MIN LAP SPLICE	
	COMP.	TENSION	COMP.	TENSION
10mm	200mm	300mm	300mm	325mm
13mm	260mm	390mm	390mm	422mm
16mm	320mm	480mm	480mm	520mm
19mm	380mm	570mm	570mm	617mm
22mm	440mm	660mm	660mm	715mm
25mm	500mm	750mm	750mm	812mm
29mm	580mm	870mm	870mm	942mm
32mm	640mm	960mm	960mm	1040mm

C. CONSTRUCTION

ALL WORKS SHALL COMPLY WITH THE TECHNICAL SPECIFICATIONS OF THIS CONTRACT.

1. DIMENSIONS
   - 1.1 SECTION, DIMENSIONS AND DISTANCES SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES. THE INDICATED DIMENSION SHALL GOVERN UNLESS OTHERWISE SPECIFIED.
   - 1.2 ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
   - 1.3 ALL STATIONING ARE IN KILOMETER PLUS METER AND ELEVATION IN METER.
2. REINFORCED CONCRETE

a. ALL EXPOSED EDGES SHALL BE CHAMFERED 25mm EXCEPT RAILINGS WHICH SHALL BE CHAMFERED AND FILLETED 13mm.

b. FOR CONCRETE DEPOSITED AGAINST THE GROUND, LEAN CONCRETE WITH A MINIMUM THICKNESS OF 50mm SHALL LAID FIRST BEFORE INSTALLING THE REINFORCEMENT. THIS LEAN CONCRETE SHALL NOT BE CONSIDERED IN MEASURING THE STRUCTURAL DEPTH OF CONCRETE SECTION.

c. BAR BENDING, SPLICING AND PLACING

(1) THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER/CONSULTANT FOR APPROVAL OF SHOP DRAWINGS INDICATING THE BENDING, CUTTING, SPLICING AND INSTALLATION OF ALL REINFORCING BARS.

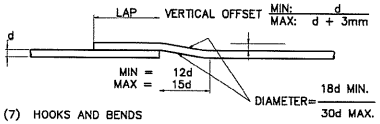
(2) BARS SHALL BE BEND COLD. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS PERMITTED BY THE ENGINEER/CONSULTANT.

(3) BAR SPLICING NOT INDICATED ON DRAWINGS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

(4) NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION SHALL BE SPLICED.

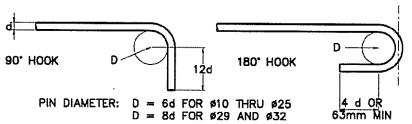
(5) UNLESS OTHERWISE SHOWN ON DRAWINGS, THE CLEAR DISTANCE BETWEEN PARALLEL BARS IN A LAYER SHALL NOT BE LESS THAN 1.5 TIMES THE NOMINAL DIAMETER OF THE BAR NOR LESS THAN 1.5 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE. THE CLEAR DISTANCE BETWEEN LAYERS SHALL NOT BE LESS THAN 25mm NOR ONE BAR DIAMETER. THE BARS IN THE UPPER LAYER SHALL BE PLACED DIRECTLY ABOVE THOSE IN THE BOTTOM LAYER.

(6) CRANKED SPLICES

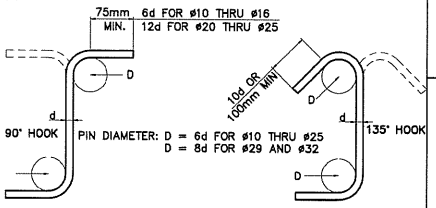


(7) HOOKS AND BENDS

DIMENSIONS OF 90-DEGREE AND 180-DEGREE HOOKS



(8) DIMENSIONS FOR STIRRUPS AND TIE HOOKS



d. CONSTRUCTION JOINT

(1) THE POSITION AND FORM OF ANY CONSTRUCTION JOINT SHALL BE AS SHOWN ON DRAWINGS OR AS AGREED WITH THE ENGINEER/CONSULTANT.

(2) THE INTERFACE BETWEEN THE FIRST AND SECOND POUR CONCRETES SHALL BE ROUGHENED WITH AN AMPLITUDE OF 6MM MINIMUM.

e. FALSEWORK

ALL FALSEWORK SHALL BE DESIGNED BY THE CONTRACTOR SUBJECT TO THE APPROVAL BY THE ENGINEER/CONSULTANT.

f. FORMWORK

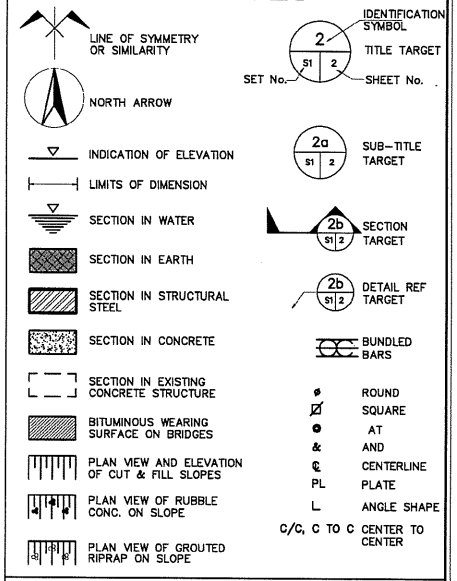
FORMWORKS SHALL BE CONSTRUCTED SUCH THAT IT WILL NOT YIELD UNDER THE LOAD AND SHALL BE SUCH AS TO AVOID THE FORMATION OF FINE. ALL CORNERS OF CONCRETE MEMBERS SHALL BE CHAMFERED TO 25mm UNLESS NOTED OTHERWISE ON DRAWINGS. STRIPPING OF FORMS AND SHORES SHALL BE AS DESIGNATED BY THE ENGINEER/CONSULTANT. THE FOLLOWING MAYBE USED AS A GUIDE.

	MIN. TIME
SHORING UNDER GIRDERS, BEAMS, FRAMES.	14 DAYS
DECK SLABS	14 DAYS
WALLS.	7 DAYS
COLUMNS.	7 DAYS
SIDES OF BEAMS AND ALL OTHER VERTICAL SURFACES	2 DAYS

g. PROTECTION AND CURING OF CONCRETE

CONCRETE SURFACES SHALL BE PROTECTED FROM HARMFULS EFFECTS OF SUN, WIND AND RUNNING WATERS AND SHALL BE KEPT DAMP FOR AT LEAST 7 DAYS.

SYMBOLS



ABBREVIATIONS

ABT	ABOUT	kPa	KILOPASCAL
ABUT	ABUTMENT	m	METER
BEG	BEGINNING	mm	MILLIMETER
BET	BETWEEN	MAX	MAXIMUM
BOTT	BOTTOM	MFWL	MAX. FLOOD WATER LEVEL
BR	BRIDGE	MIN	MINIMUM
BRG	BEARING	MO	MIDDLE ORDINATE
CLR	CLEAR	MPa	MEGAPASCAL
cm	CENTIMETER	N	NEWTON
COL	COLUMN	NF	NEAR FACE
CONC	CONCRETE	No.	NUMBER
CONST	CONSTRUCTION	O.C.	ON CENTER
CTR	CENTER	PEJ	PREMOULDED EXPANSION JOINT
DET	DETAIL	PVC	POLYVINYL CHLORIDE
DIAM	DIAMETER	PVI	POINT OF VERT. INTERSECTION
DIAPH	DIAPHRAGM	QTY	QUANTITY
DWG	DRAWING	R	RADIUS
EA	EACH	RC	REINFORCED CONCRETE
EF	EACH FACE	RDWY	ROADWAY
ELEV	ELEVATION	REINF	REINFORCEMENT
ENGR	ENGINEER	SDWK	SIDEWALK
EQ	EQUAL	SL	SLOPE
EW	EACHWAY	SP	SPIRAL
EXP	EXPANSION	SPCD	SPACED
EXT	EXTERIOR	SPCS	SPACES
EXIST	EXISTING	STD	STANDARD
FF	FAR FACE	STIR	STIRRUP
FTG	FOOTING	STA	STATION
GEN	GENERAL	STRUCT	STRUCTURE
HOR	HORIZONTAL	SYMM	SYMMETRY
HW	HIGH WATER	THK	THICK
INT	INTERIOR	TYP	TYPICAL
INTERM	INTERMEDIATE	VAR	VARIABLE
JT	JOINT	VERT	VERTICAL
L	LENGTH	VOL	VOLUME
LG	LONG	W	WIDTH
kg	KILOGRAM	W/	WITH
kN	KILONEWTON	&	AND

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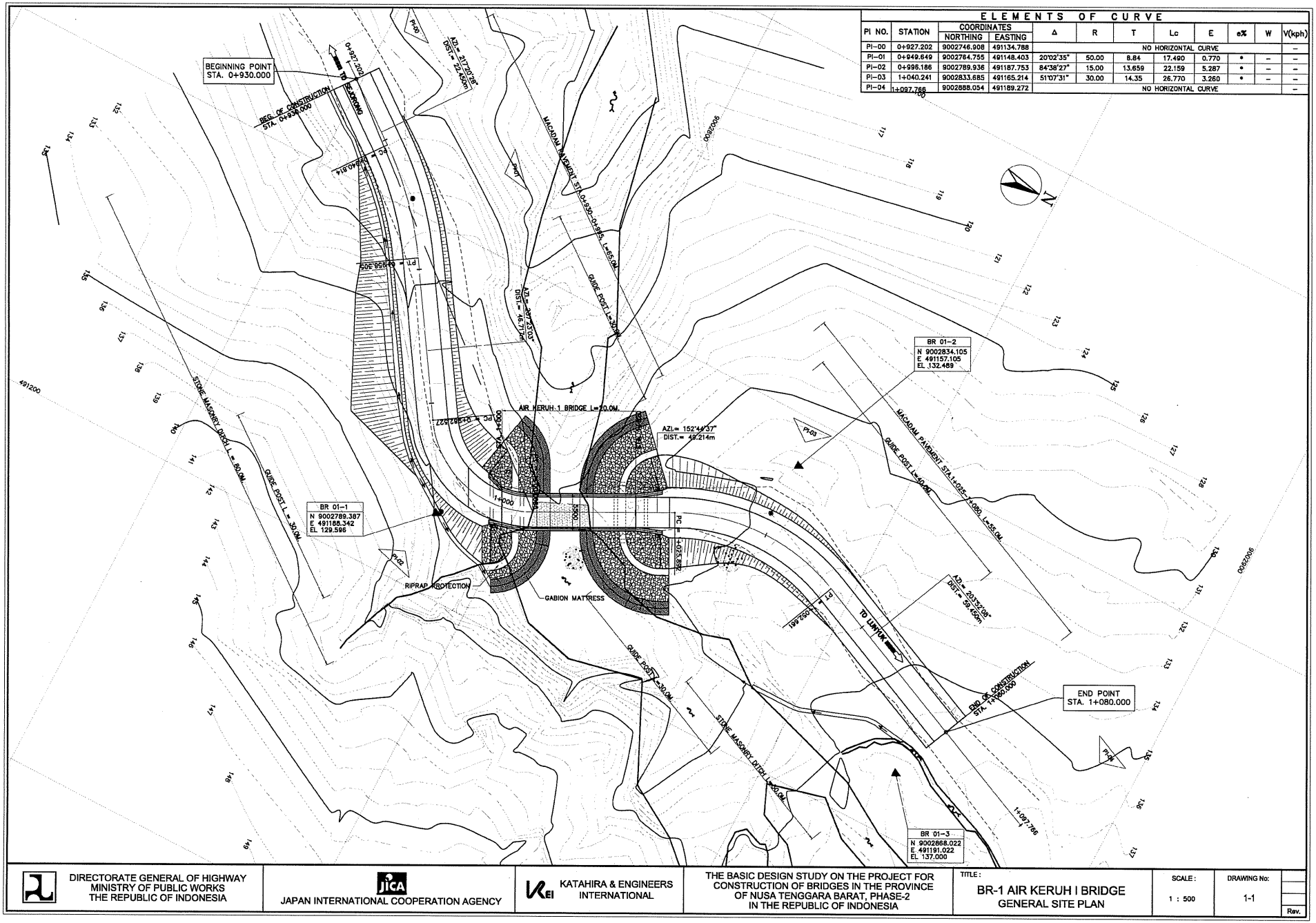
BR-01 AIR KERUH I BRIDGE



ELEMENTS OF CURVE

PI NO.	STATION	COORDINATES NORTHING	COORDINATES EASTING	Δ	R	T	Lc	E	e%	W	V(kph)
PI-00	0+927.202	9002746.908	491134.788	NO HORIZONTAL CURVE							–
PI-01	0+949.649	9002784.755	491148.403	20°02'35"	50.00	8.84	17.490	0.770	+	–	–
PI-02	0+996.186	9002789.936	491187.753	84°38'27"	15.00	13.659	22.159	5.287	+	–	–
PI-03	1+040.241	9002833.685	491165.214	51°07'31"	30.00	14.35	26.770	3.260	+	–	–
PI-04	1+097.766	9002888.054	491189.272	NO HORIZONTAL CURVE							–

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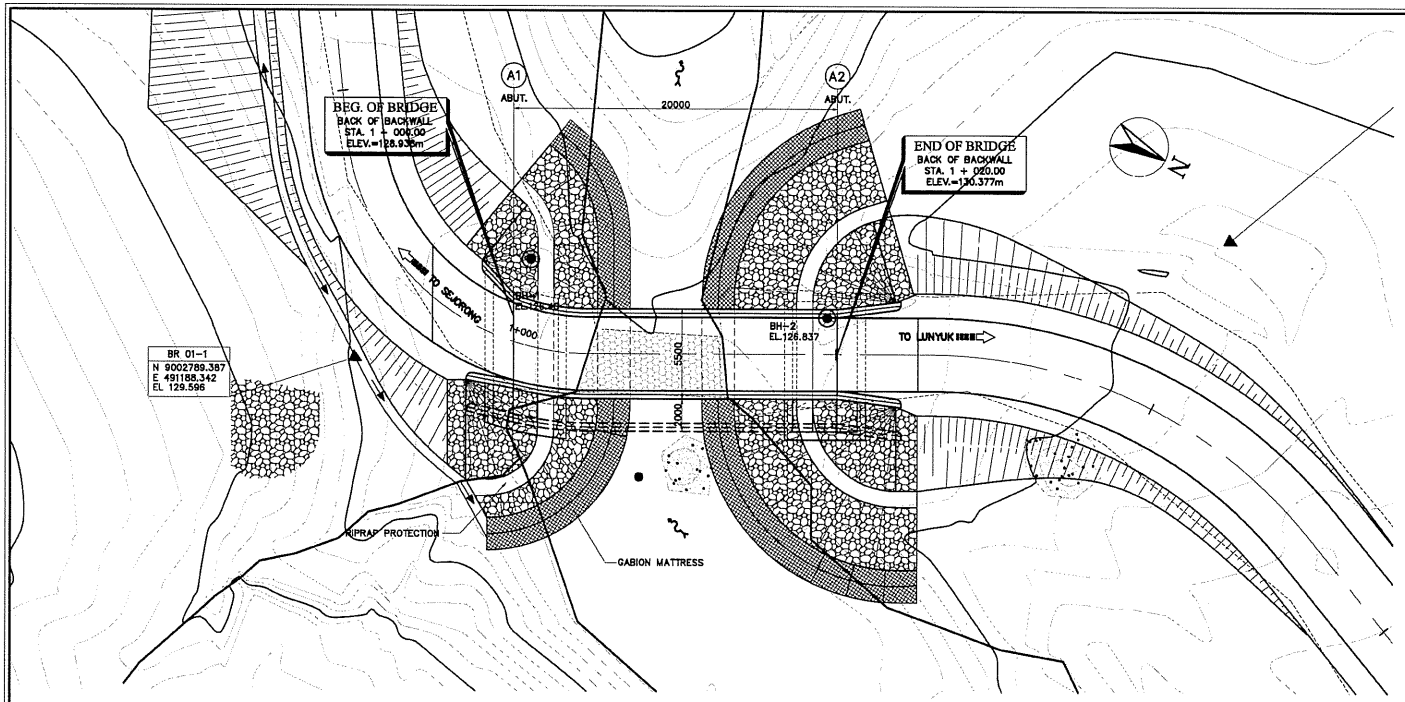
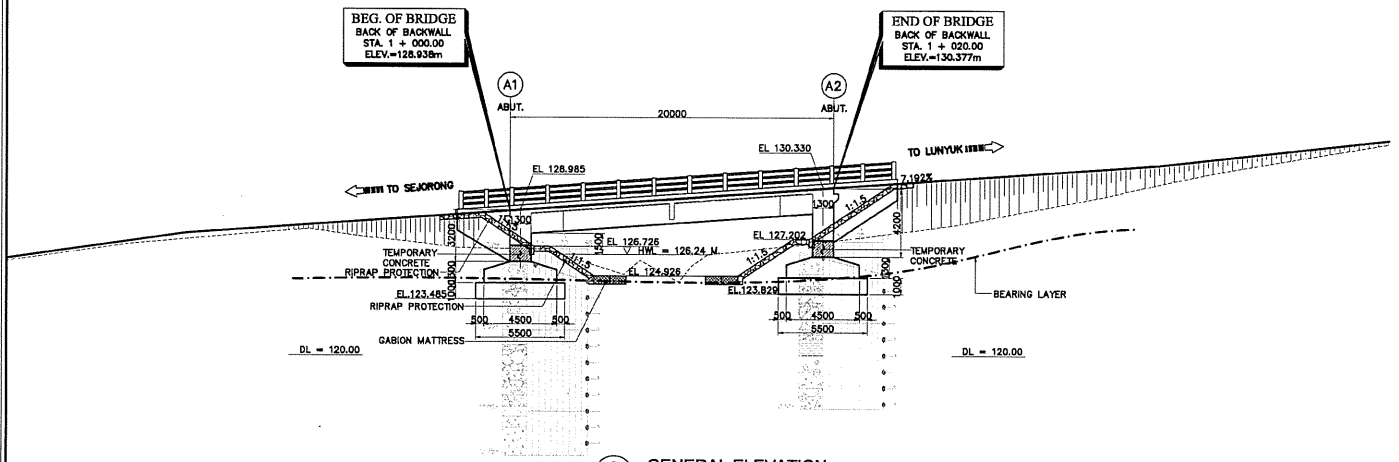


1 - GENERAL PLAN
SCALE 1:300



2 - GENERAL ELEVATION
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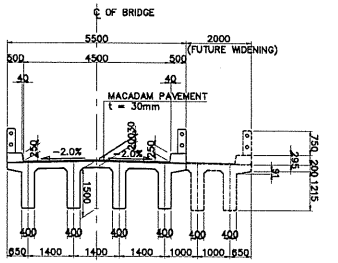

3 - SECTION @ MIDSPAN
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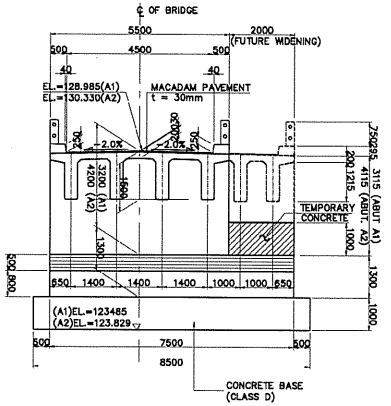
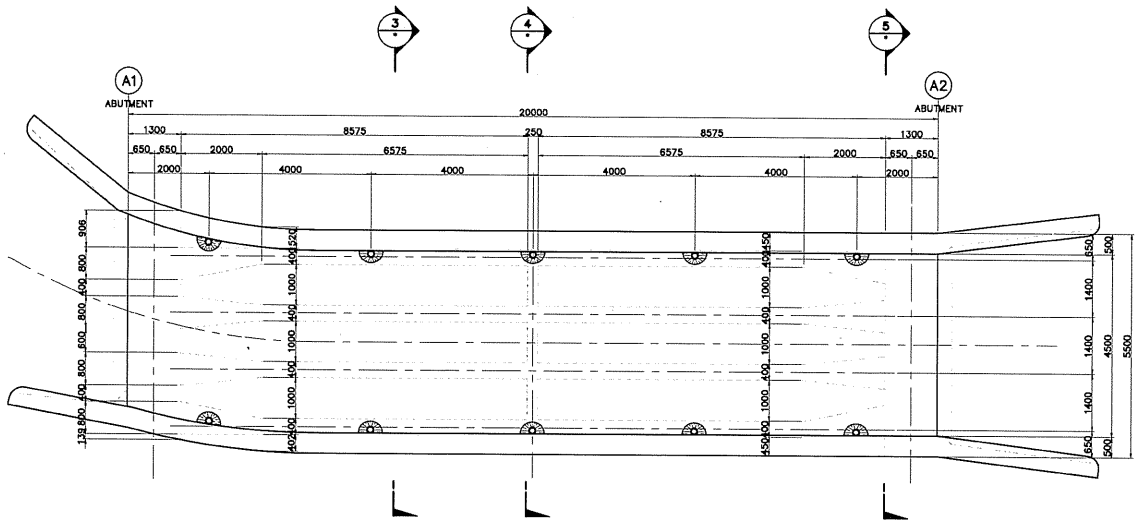


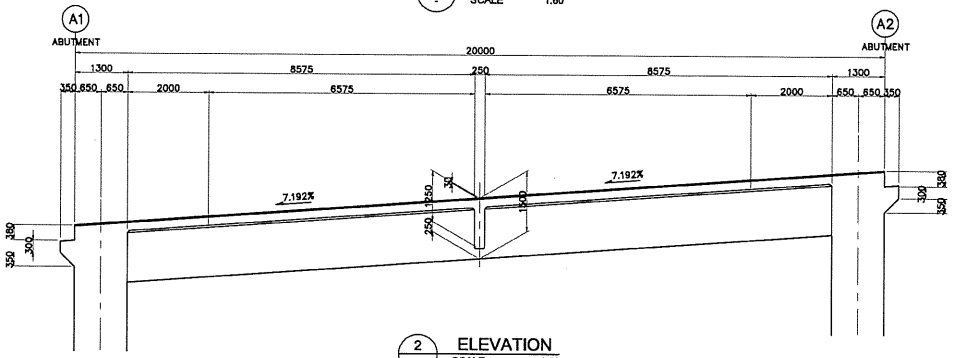
NOTE:
The base concrete thickness shall be adjusted with the actual depth of the hard soil when excavated.

4 - SECTION @ ABUTMENT
SCALE 1:150

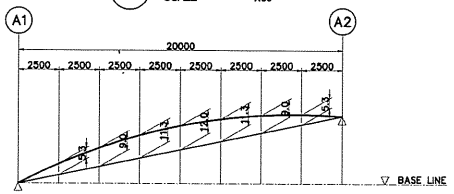
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-1 AIR KERUH I BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 1-2



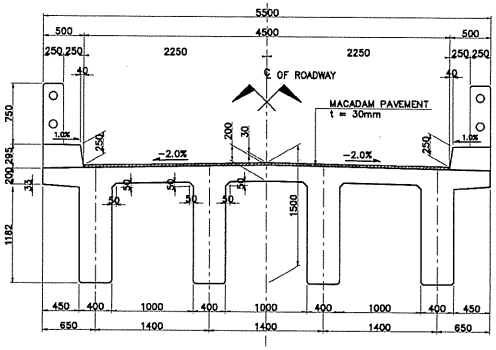
1 - PLAN
SCALE 1:60



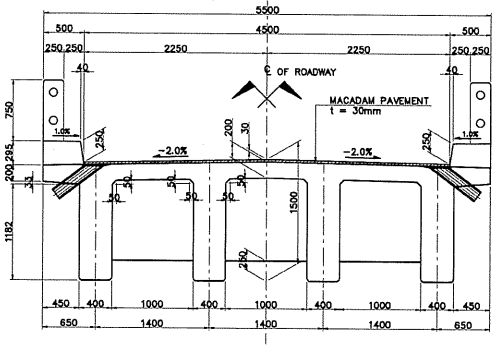
2 - ELEVATION
SCALE 1:60



6 - CAMBER DIAGRAM
NOT TO SCALE



3 - SECTION
SCALE 1:30



4 - SECTION
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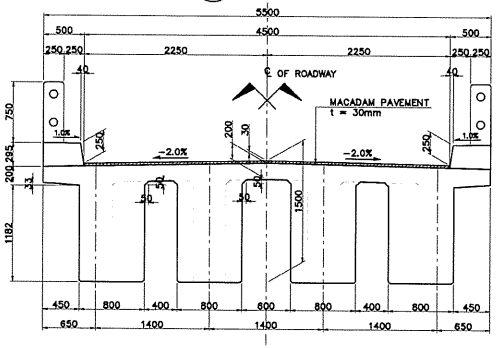

5 - SECTION
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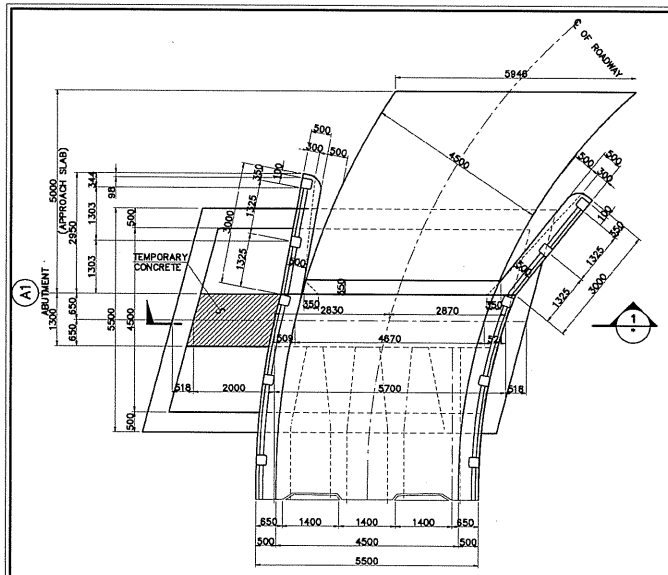
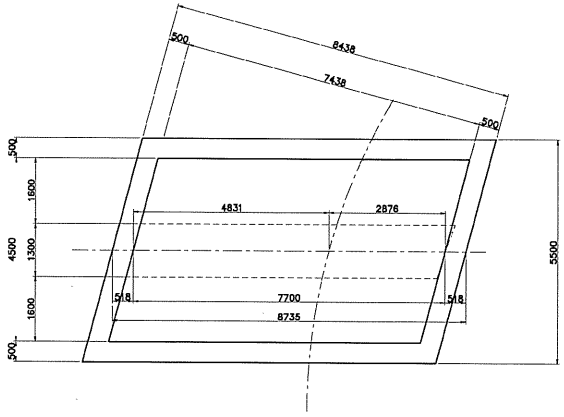
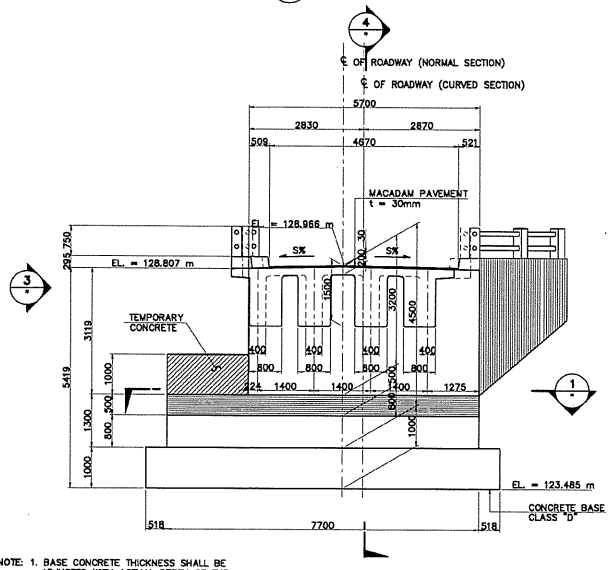


2 PLAN
SCALE 1:60

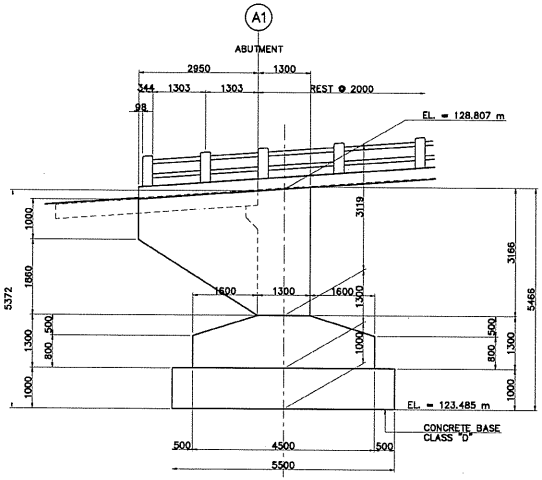


5 PLAN
SCALE 1:60

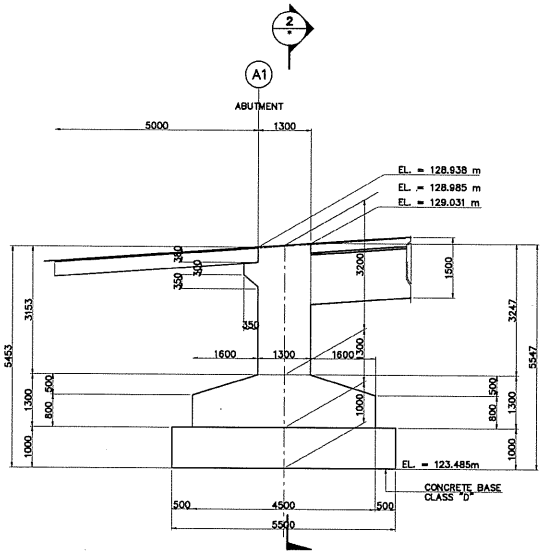


NOTE: 1. BASE CONCRETE THICKNESS SHALL BE ADJUSTED WITH ACTUAL DEPTH OF THE HARD SOIL WHEN EXCAVATED.
2. TOP OF BASE CONCRETE SHALL BE ROUGHENED WITH SHEAR KEYS.

1 ELEVATION
SCALE 1:60

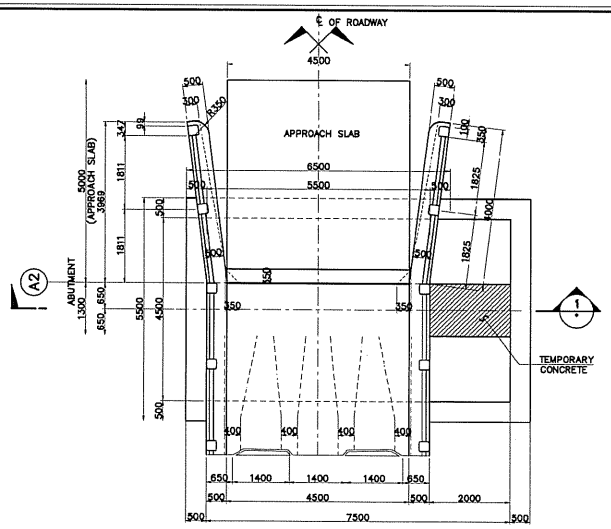


3 ELEVATION
SCALE 1:60

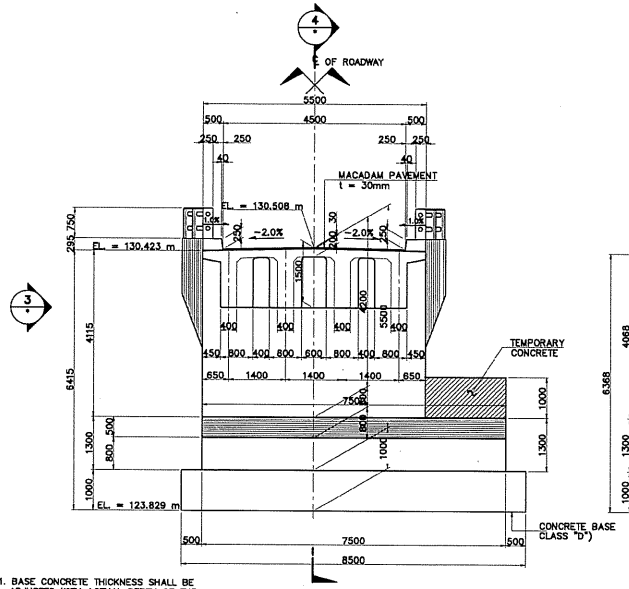


4 ELEVATION
SCALE 1:60

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR - 01 AIR KERUH I BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUT. A1)	SCALE: AS SHOWN	DRAWING No: 1-4 Rev.

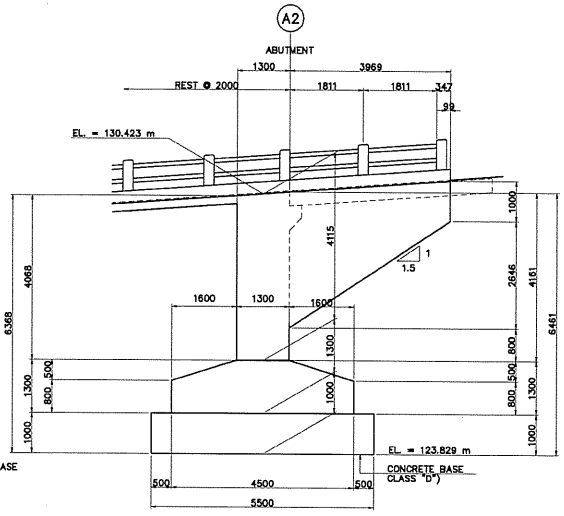


2 PLAN
SCALE 1:60

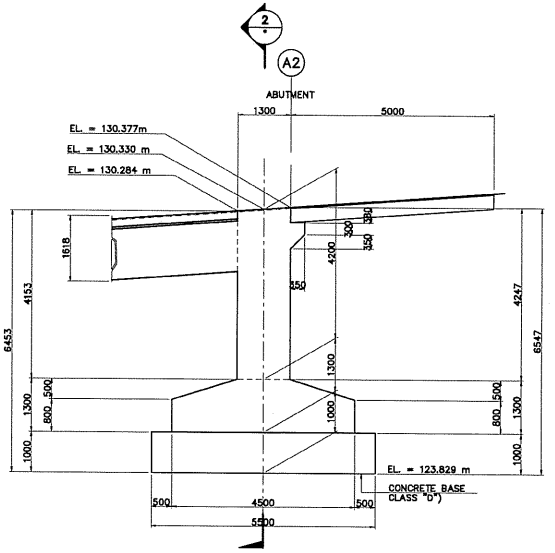


NOTE: 1. BASE CONCRETE THICKNESS SHALL BE ADJUSTED WITH ACTUAL DEPTH OF THE HARD SOIL WHEN EXCAVATED.
2. TOP OF BASE CONCRETE SHALL BE ROUGHENED WITH SHEAR KEYS.

1 ELEVATION
SCALE 1:60

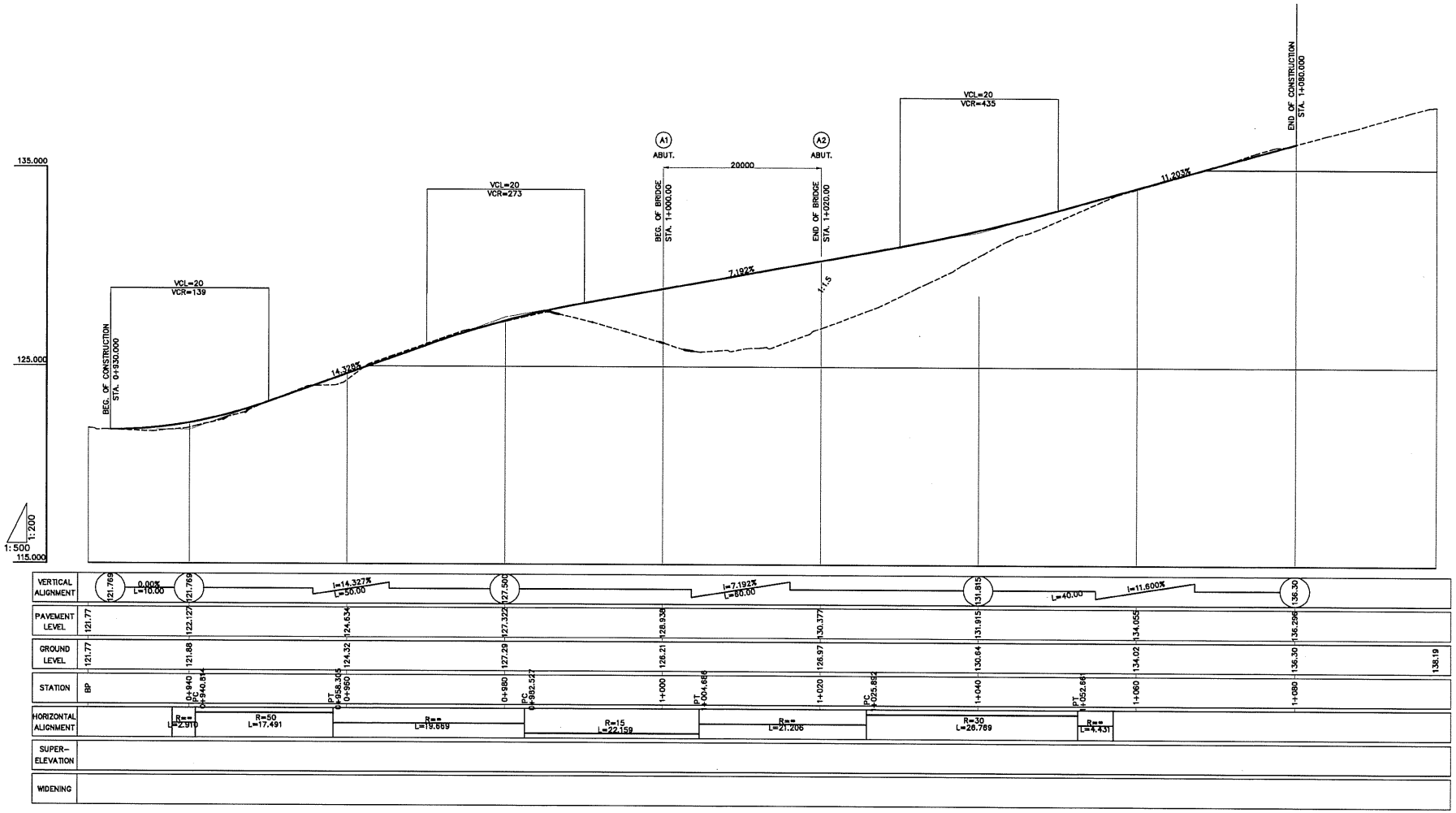


3 ELEVATION
SCALE 1:60



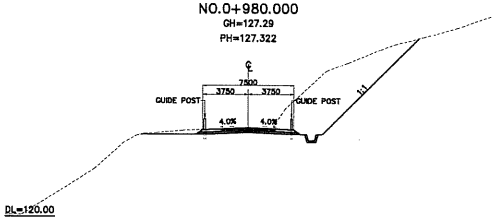
4 ELEVATION
SCALE 1:60

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR - 01 AIR KERUH I BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUT. A2)	SCALE: AS SHOWN	DRAWING No: 1-5 Rev.



DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-01 AIR KERUH I BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:500 V = 1:200	DRAWING No: 1-6 Rev.

NO.0+980.000
GH=127.29
PH=127.322



NO.0+960.000
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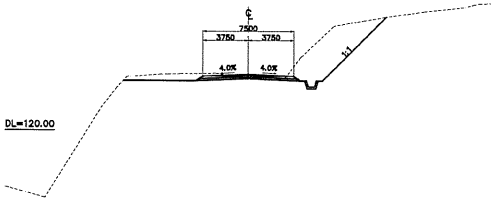
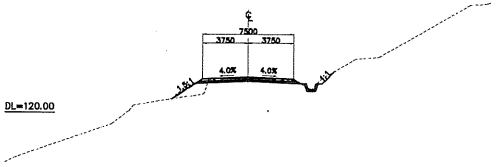
PH=124.634



NO.0+940.000
GH=127.29
PH=122.99



NO.0+930.000
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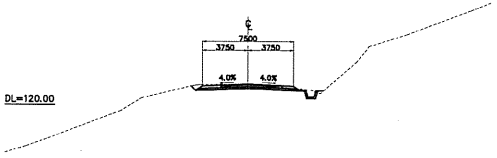
PH=121.769



NO.1+080.000
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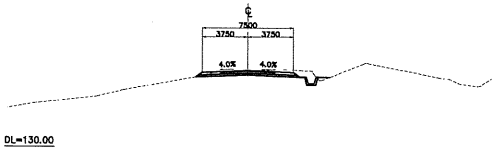

NO.1+060.000
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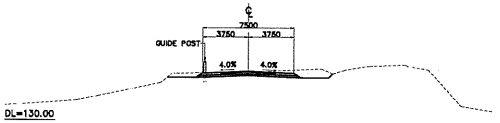

NO.1+040.000
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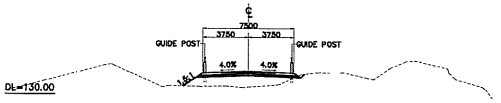
PH=131.915



NO.1+025.000
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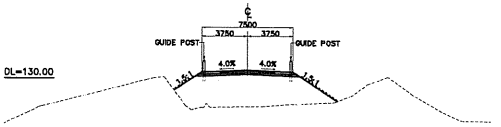
PH=130.736



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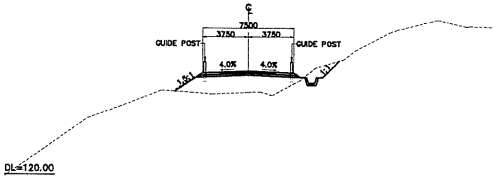
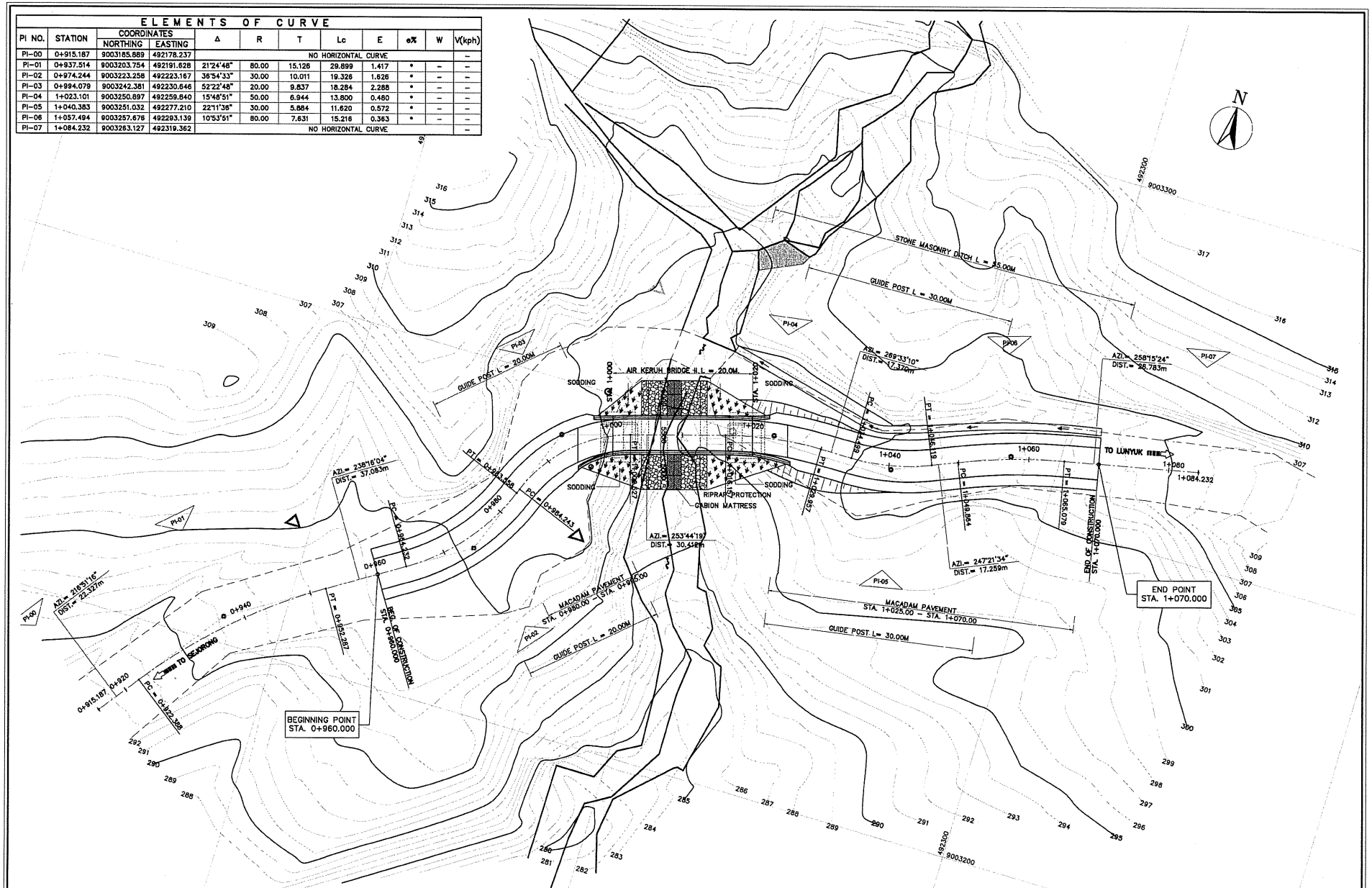
PH=128.579



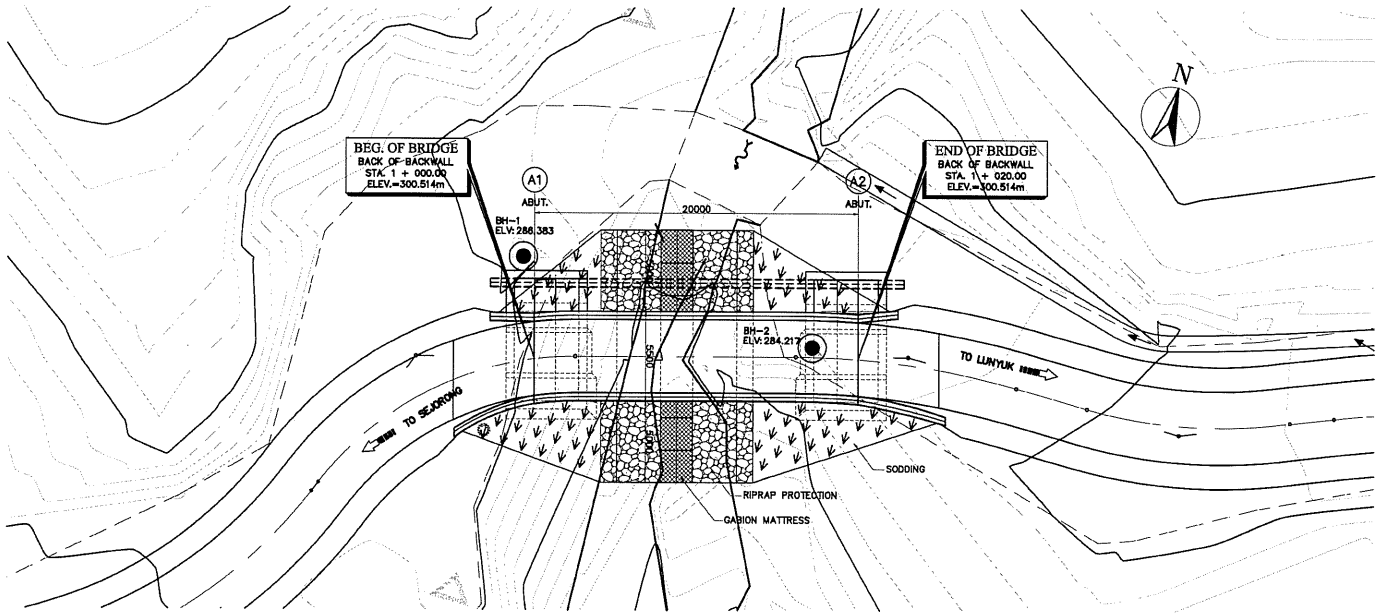
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-01 AIR KERUH I BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 1-7

BR-02 AIR KERUH II BRIDGE

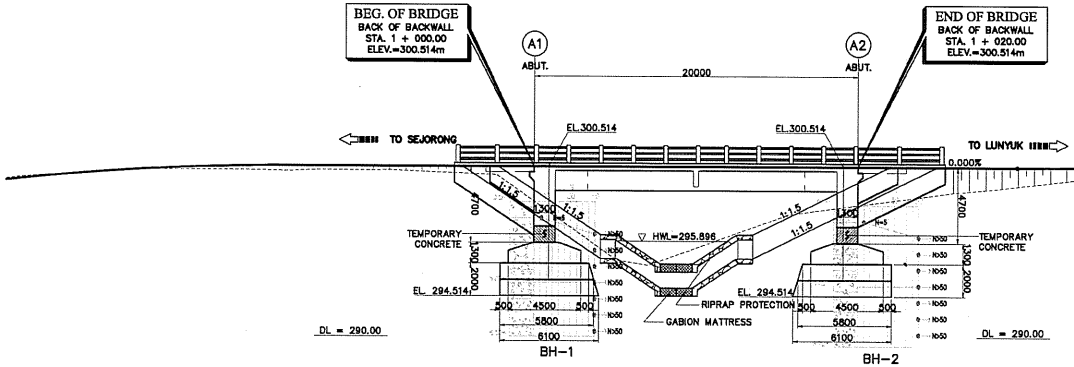
ELEMENTS OF CURVE											
PI NO.	STATION	COORDINATES		Δ	R	T	Lc	E	e%	W	V(kph)
		NORTHING	EASTING								
PI-00	0+915.187	9003185.889	492178.237	NO HORIZONTAL CURVE							--
PI-01	0+937.514	9003203.754	492191.628	21°24'48"	80.00	15.126	29.899	1.417	*	--	--
PI-02	0+974.244	9003223.258	492223.167	36°54'33"	30.00	10.011	19.326	1.626	*	--	--
PI-03	0+994.079	9003242.381	492230.646	52°22'48"	20.00	9.837	18.284	2.288	*	--	--
PI-04	1+023.101	9003250.897	492259.840	15°48'51"	50.00	6.944	13.800	0.480	*	--	--
PI-05	1+040.383	9003251.032	492277.210	22°11'36"	30.00	5.884	11.620	0.572	*	--	--
PI-06	1+057.494	9003257.676	492293.139	10°53'51"	80.00	7.631	15.216	0.363	*	--	--
PI-07	1+084.232	9003283.127	492319.362	NO HORIZONTAL CURVE							--



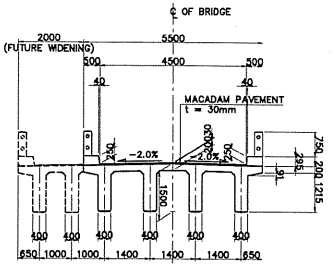
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-2 AIR KERUH II BRIDGE GENERAL SITE PLAN	SCALE: 1 : 500	DRAWING No: 2-1



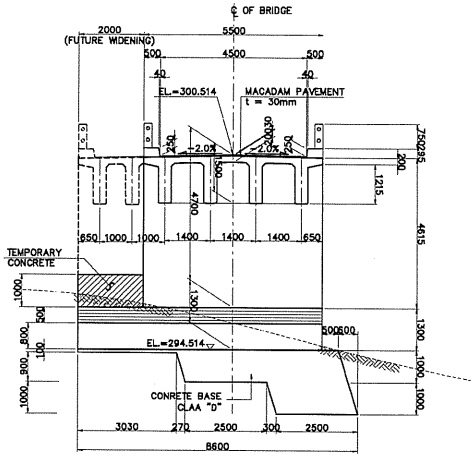
1 - GENERAL PLAN
SCALE 1:300



2 - GENERAL ELEVATION
SCALE 1:300



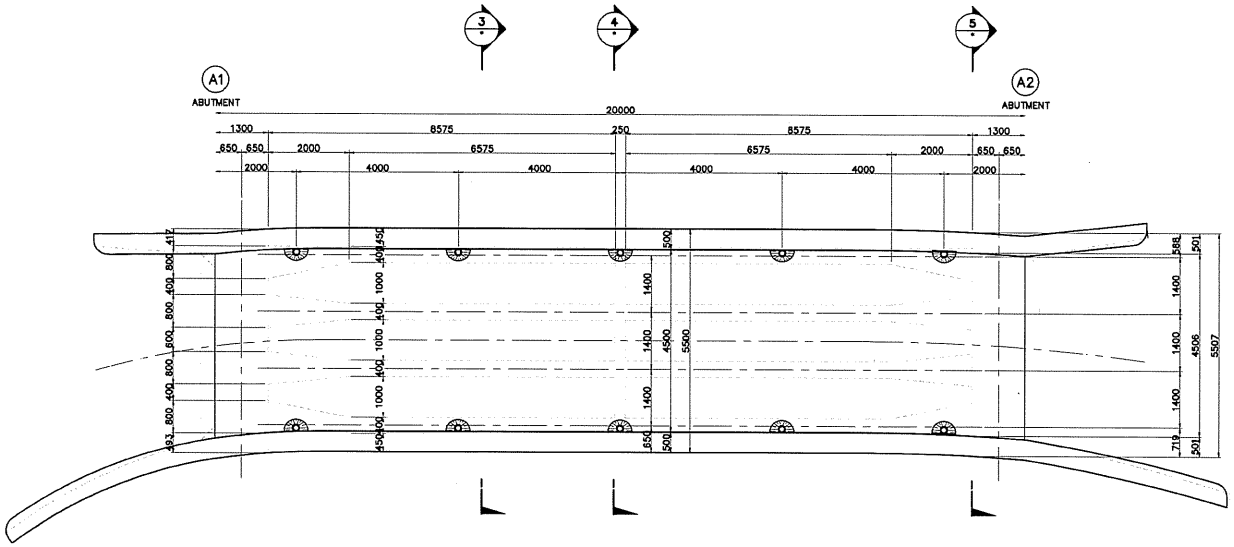
3 - SECTION @ MIDSPAN
SCALE 1:150



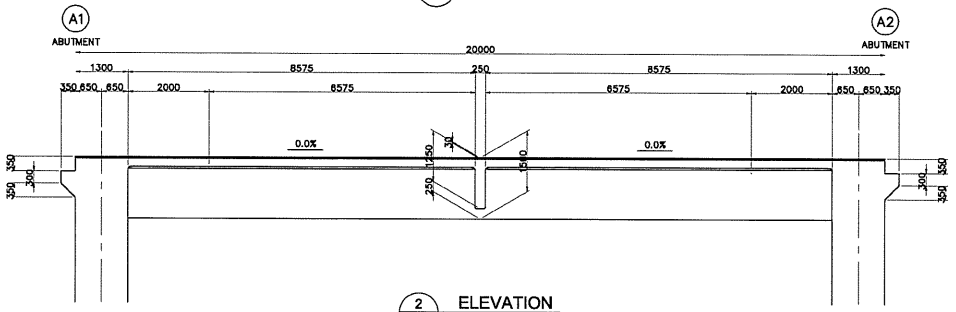
4 - SECTION @ ABUTMENT
SCALE 1:150

NOTE:
The concrete base thickness shall be adjusted with the actual depth of the hard soil when excavated.

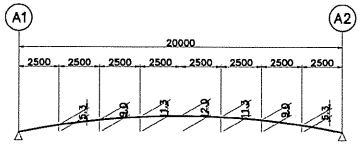
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-2 AIR KERUH II BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 2-2



1 - PLAN
SCALE 1:60

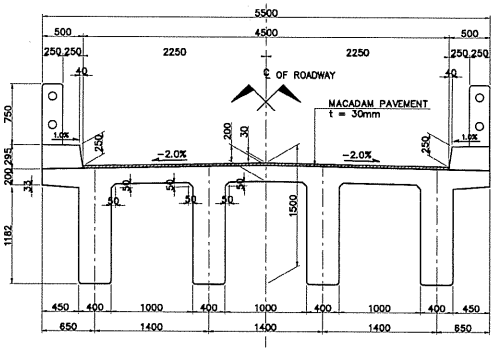


2 - ELEVATION
SCALE 1:60

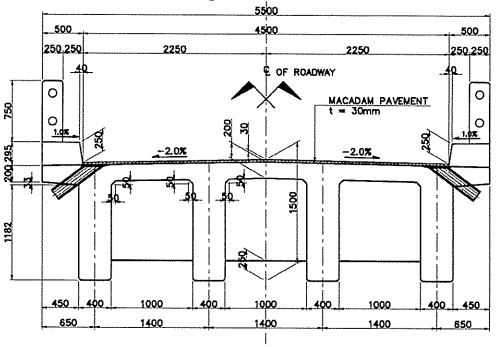


▽ BASE LINE

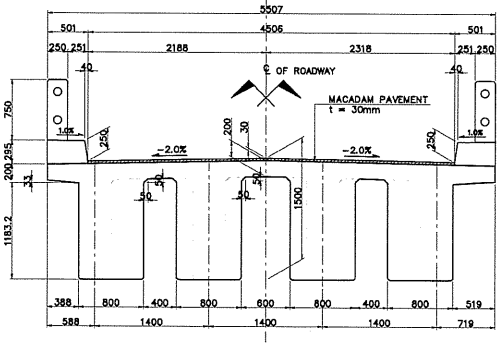
6 - CAMBER DIAGRAM
NOT TO SCALE



3 - SECTION
SCALE 1:30

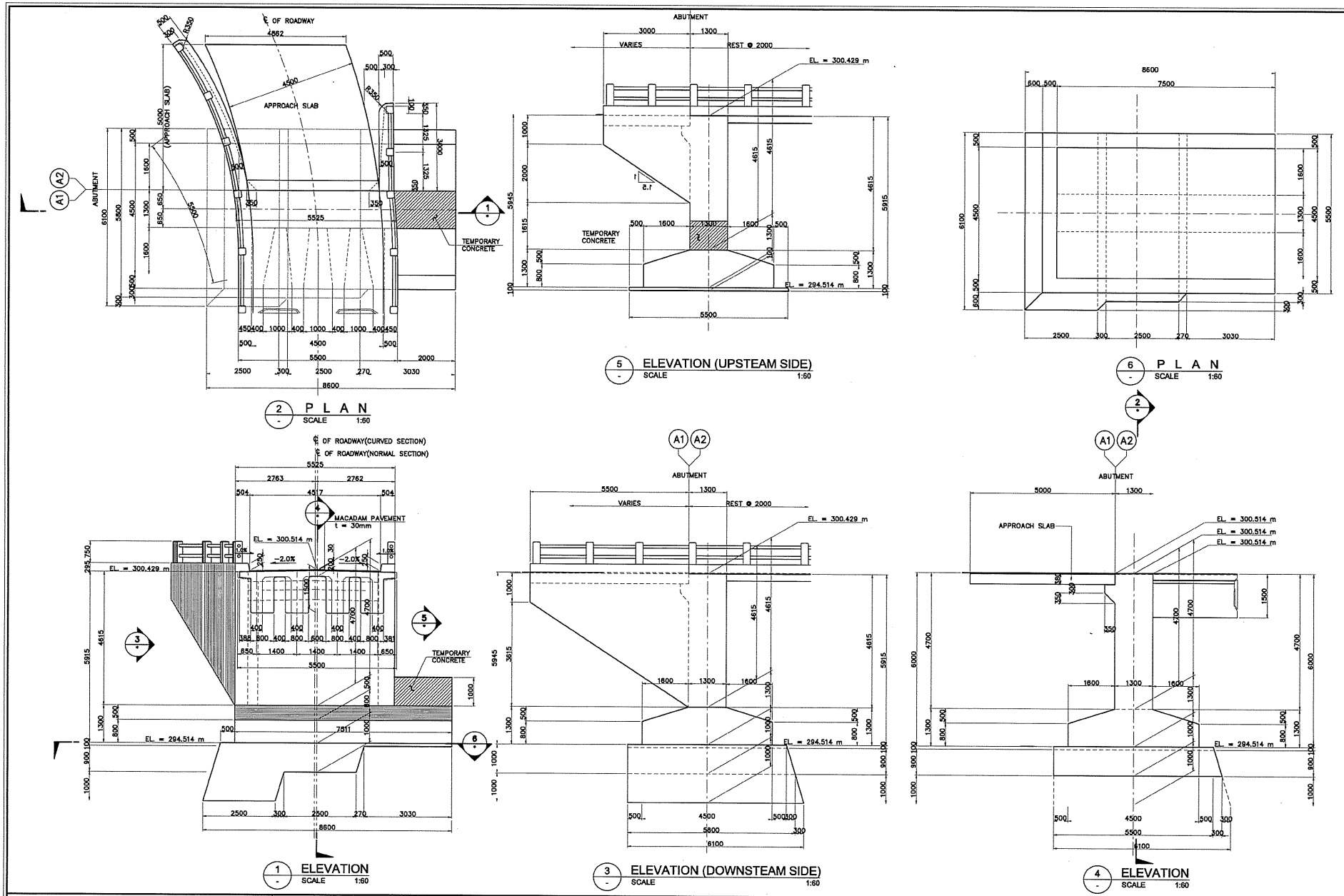


4 - SECTION
SCALE 1:30



5 - SECTION
SCALE 1:30

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-2 AIR KERUH II BRIDGE SUPERSTRUCTURE STRUCTURAL DIMENSION	SCALE: AS SHOWN	DRAWING No: 2-3 Rev.



DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
THE REPUBLIC OF INDONESIA

JAPAN INTERNATIONAL COOPERATION AGENCY

KATAHIRA & ENGINEERS INTERNATIONAL

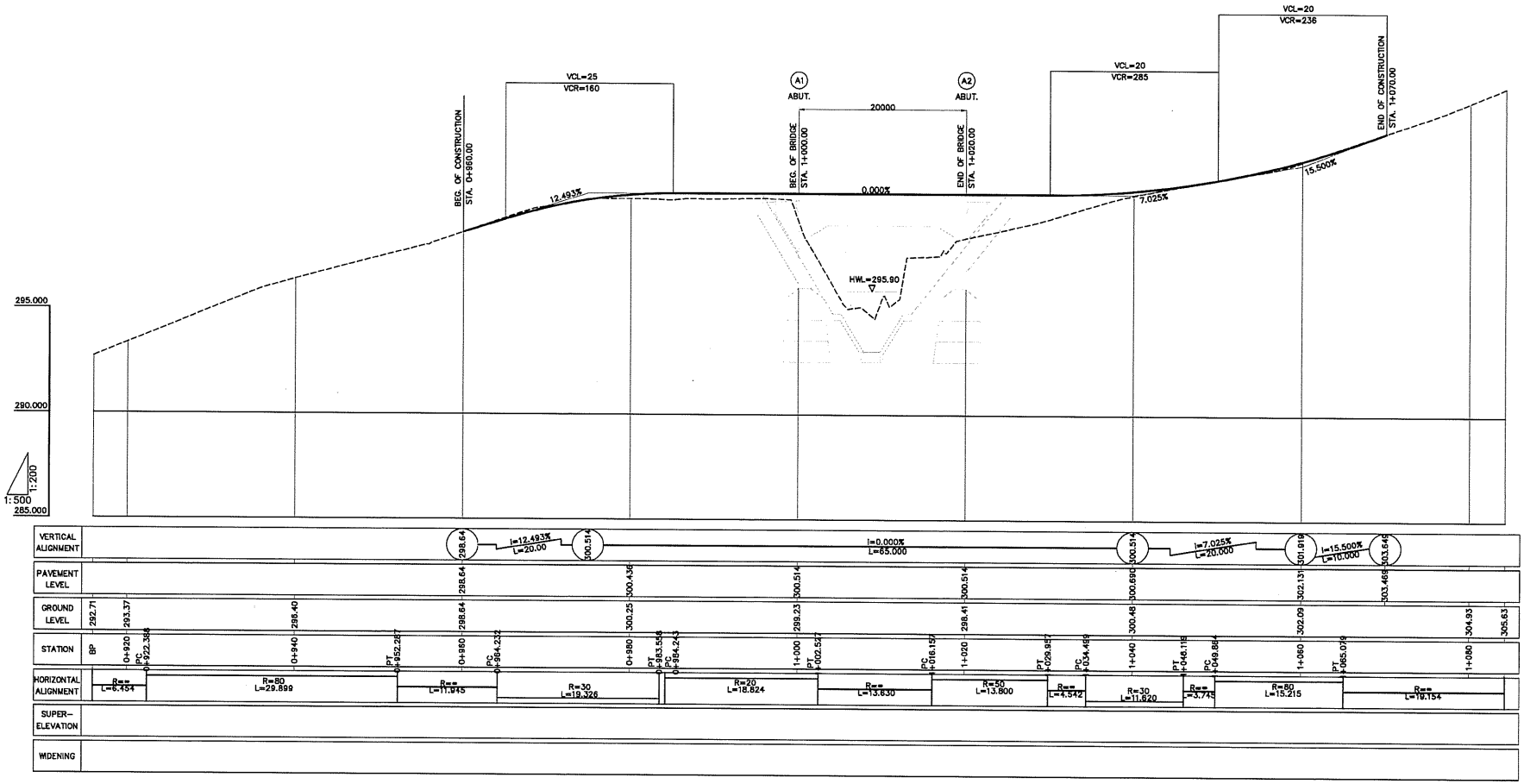
THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA

TITLE: BR-02 AIR KERUH II BRIDGE
SUBSTRUCTURE STRUCTURAL DIMENSION
(ABUT. A1 AND A2)

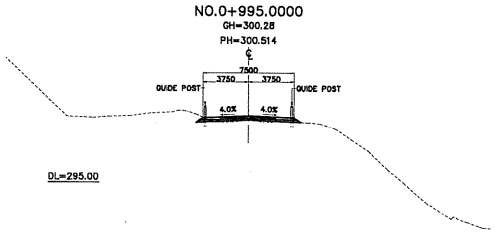
SCALE: AS SHOWN

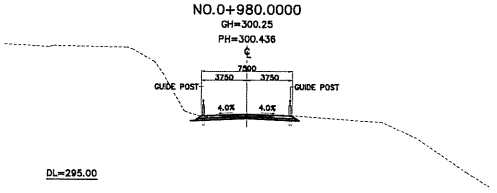
DRAWING No: 2-4

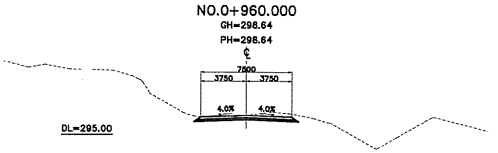
Rev.

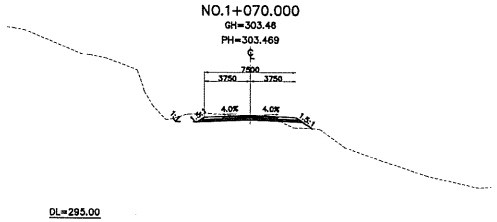


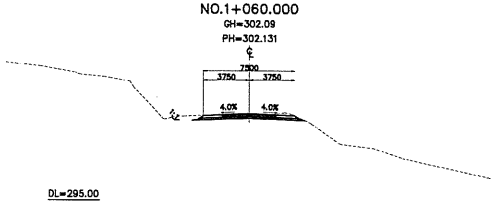
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-02 AIR KERUH II BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:500 V = 1:200	DRAWING No: 2-5 Rev.

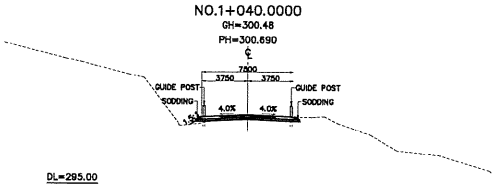


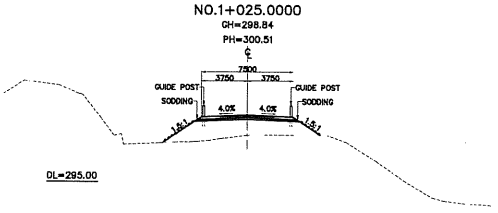










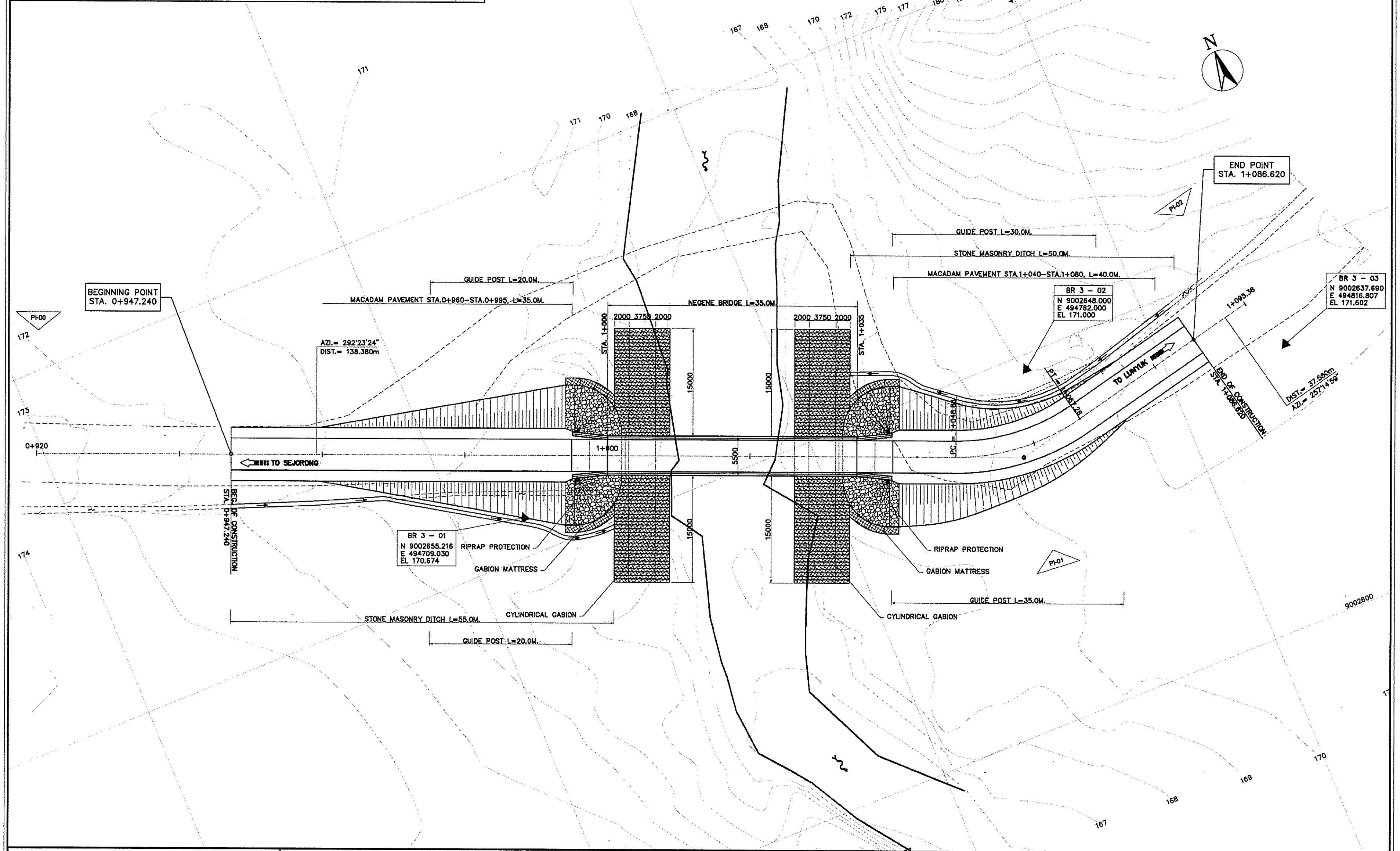


DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-02 AIR KERUH II BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 2-6

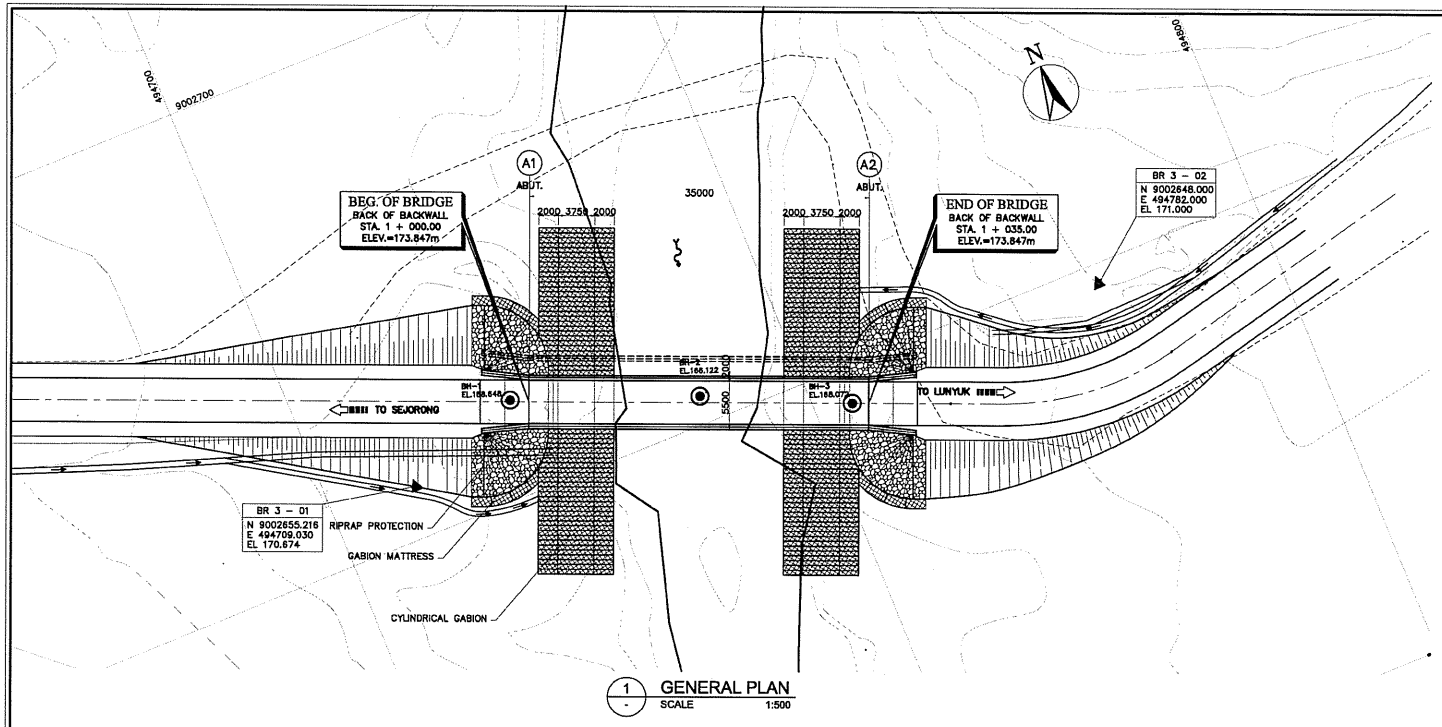
BR-03 NEGENE I BRIDGE

PI NO.	STATION	COORDINATES NORTHING	COORDINATES EASTING	Δ	R	T	Lc	E	e%	W	V(kph)
PI-00	0+920.000	9002689.395	494649.103	NO HORIZONTAL CURVE							–
PI-01	1+058.378	9002636.686	494777.049	35°08'25"	30.00	9.50	18.40	1.47	•	–	–
PI-02	1+095.357	9002644.979	494813.701	NO HORIZONTAL CURVE							–

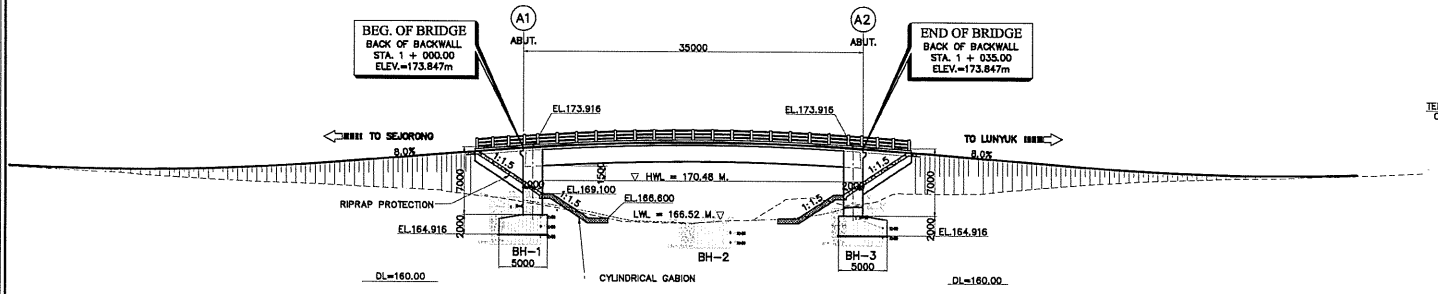
ELEMENTS OF CURVE



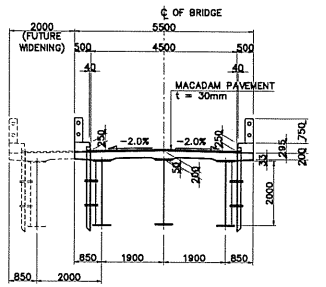
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-3 NEGENE BRIDGE GENERAL SITE PLAN	SCALE: 1 : 500	DRAWING No: 3-1	Rev.



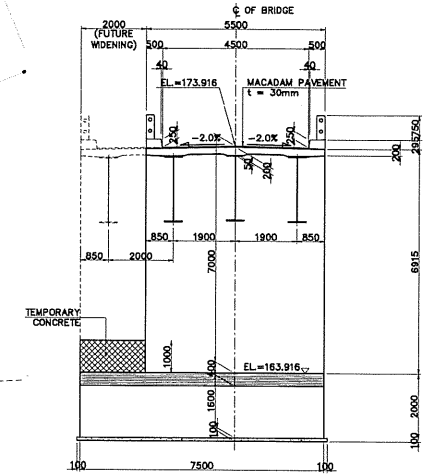
1 - GENERAL PLAN
SCALE 1:500



2 - GENERAL ELEVATION
SCALE 1:500

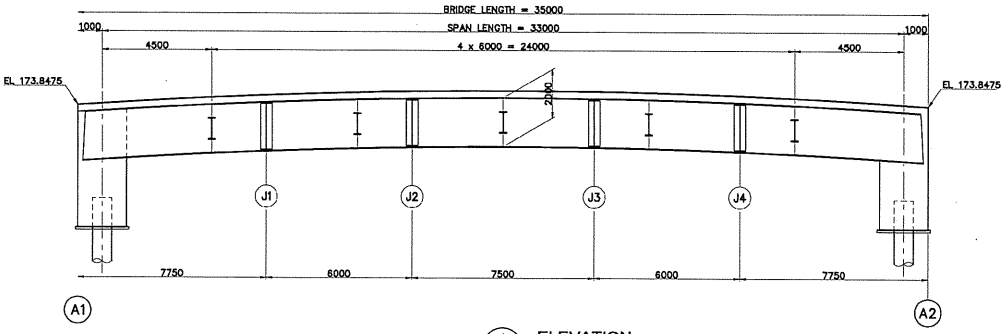


3 - SECTION @ MIDSPAN
SCALE 1:50

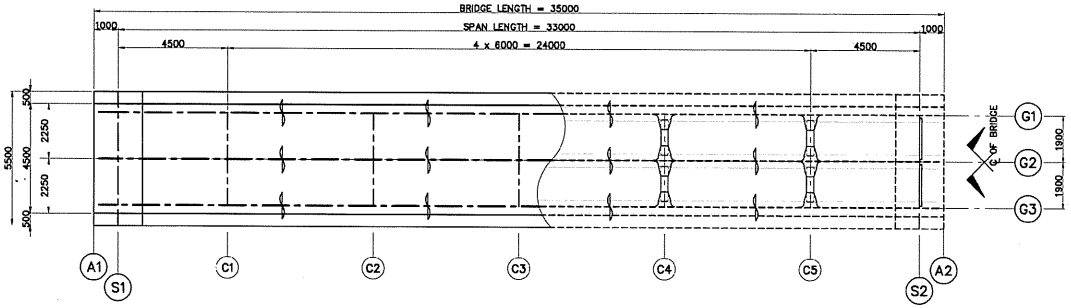


4 - SECTION @ MIDSPAN
SCALE 1:50

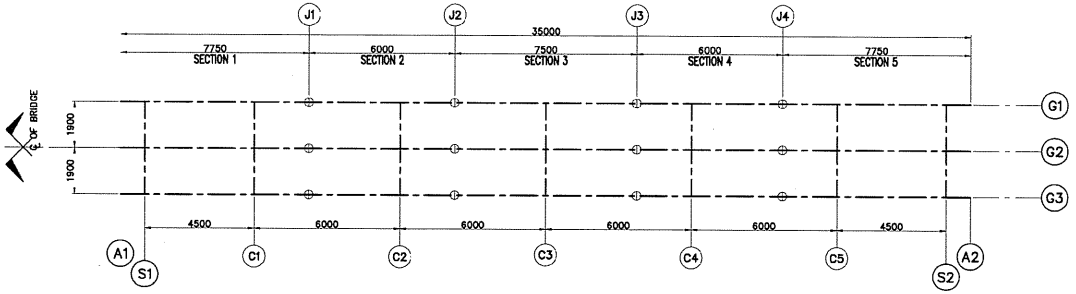
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-3 NEGENE BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 3-2



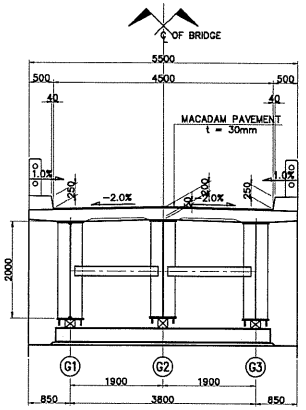
1 - ELEVATION
SCALE 1:100



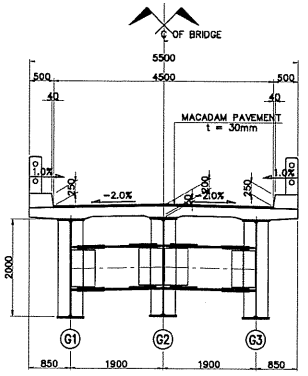
2 - PLAN
SCALE 1:100



3 - KEY PLAN
SCALE 1:100

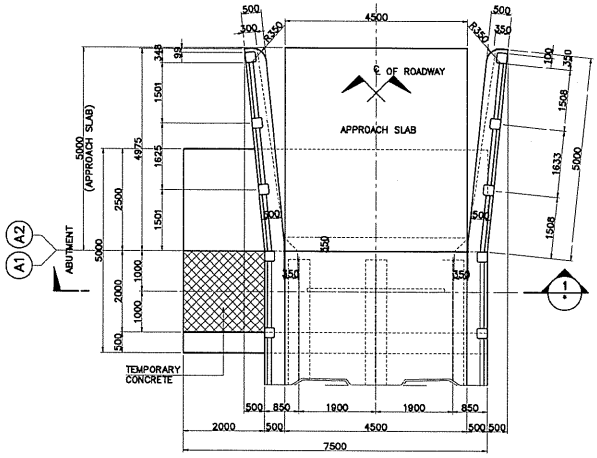


4 - SECTION @ S1 & S2
SCALE 1:50

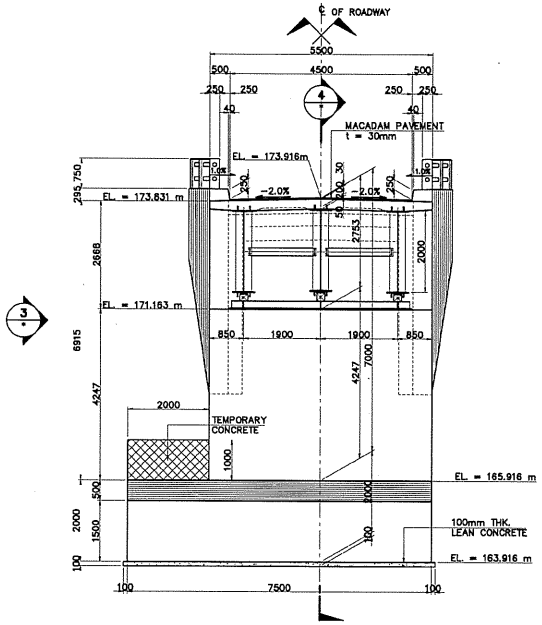


5 - SECTION @ C1~C5
SCALE 1:50

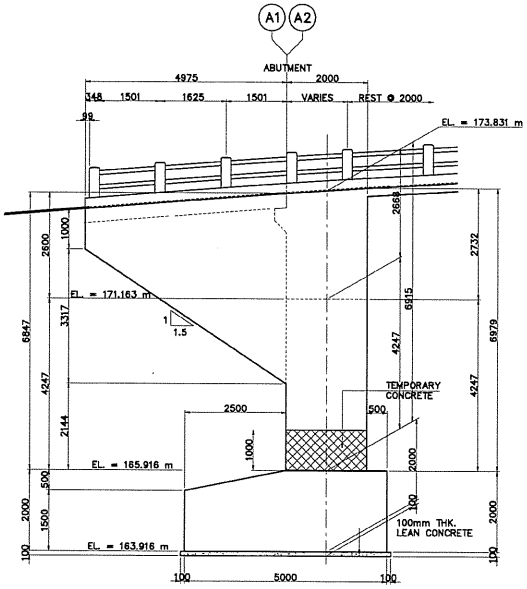
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-3 NEGENE BRIDGE GEN. DIM. OF SUPERSTRUCTURE	SCALE: AS SHOWN	DRAWING No: 3-3



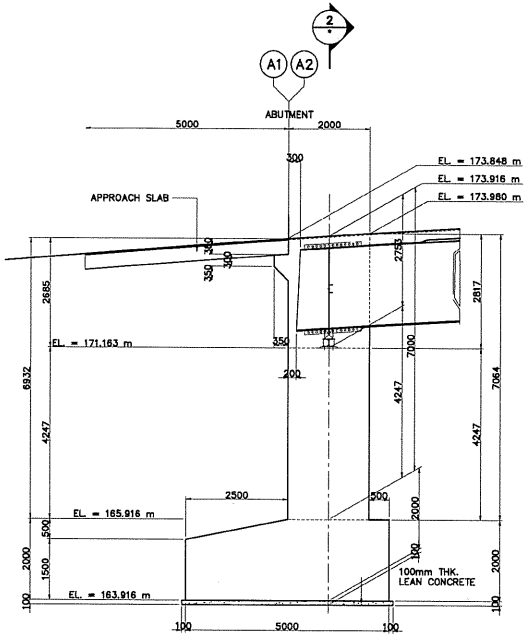
2 PLAN
SCALE 1:60



1 ELEVATION
SCALE 1:60

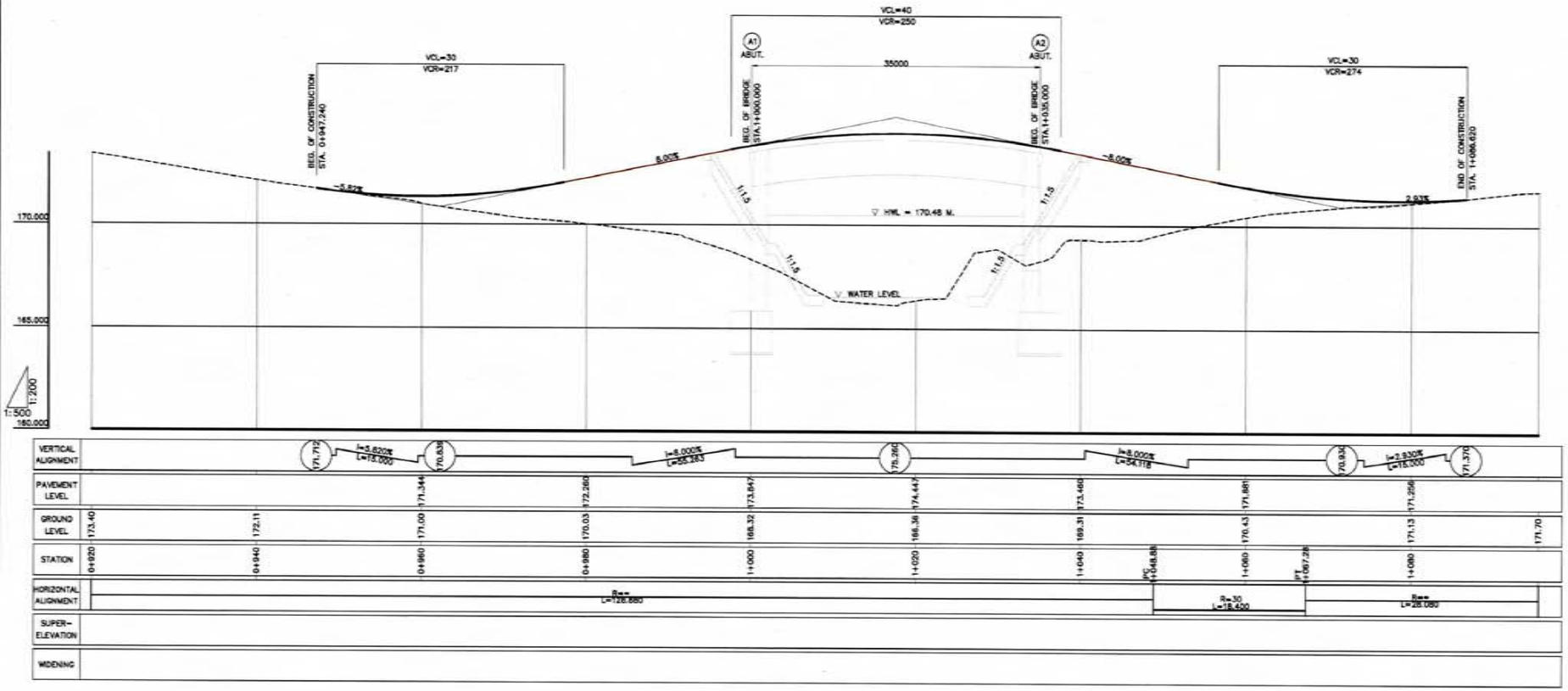


3 ELEVATION
SCALE 1:60



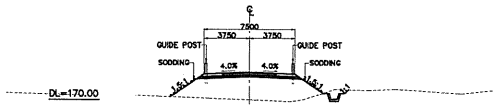
4 ELEVATION
SCALE 1:60

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR - 03 NEGENE BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUT. A1 AND A2)	SCALE: AS SHOWN	DRAWING No: 3-4

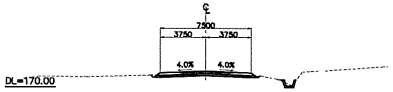


DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-03 NEGENE I BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:500 V = 1:200	DRAWING No: 3-5

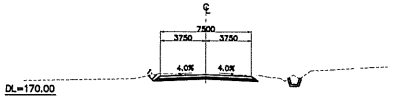
NO.0+980.0000
GH=170.03
PH=172.26



NO.0+960.0000
GH=171.00
PH=171.34



NO.0+947.2400
GH=171.71
PH=171.71



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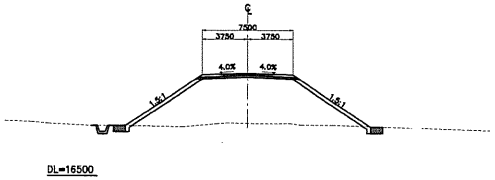
GH=169.31
PH=173.46



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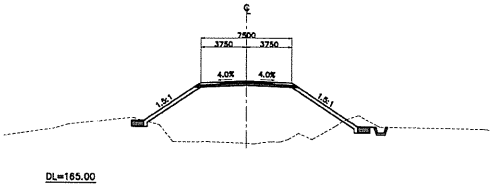
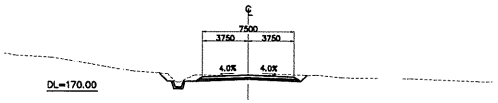
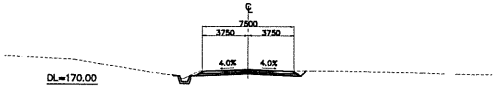
GH=168.32
PH=173.48



NO.1+086.6200
GH=171.37
PH=171.37



NO.1+080.0000
GH=171.13
PH=171.25



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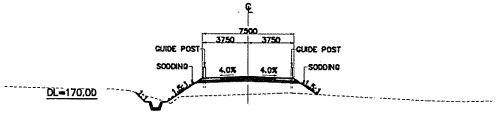
GH=170.43
PH=171.88

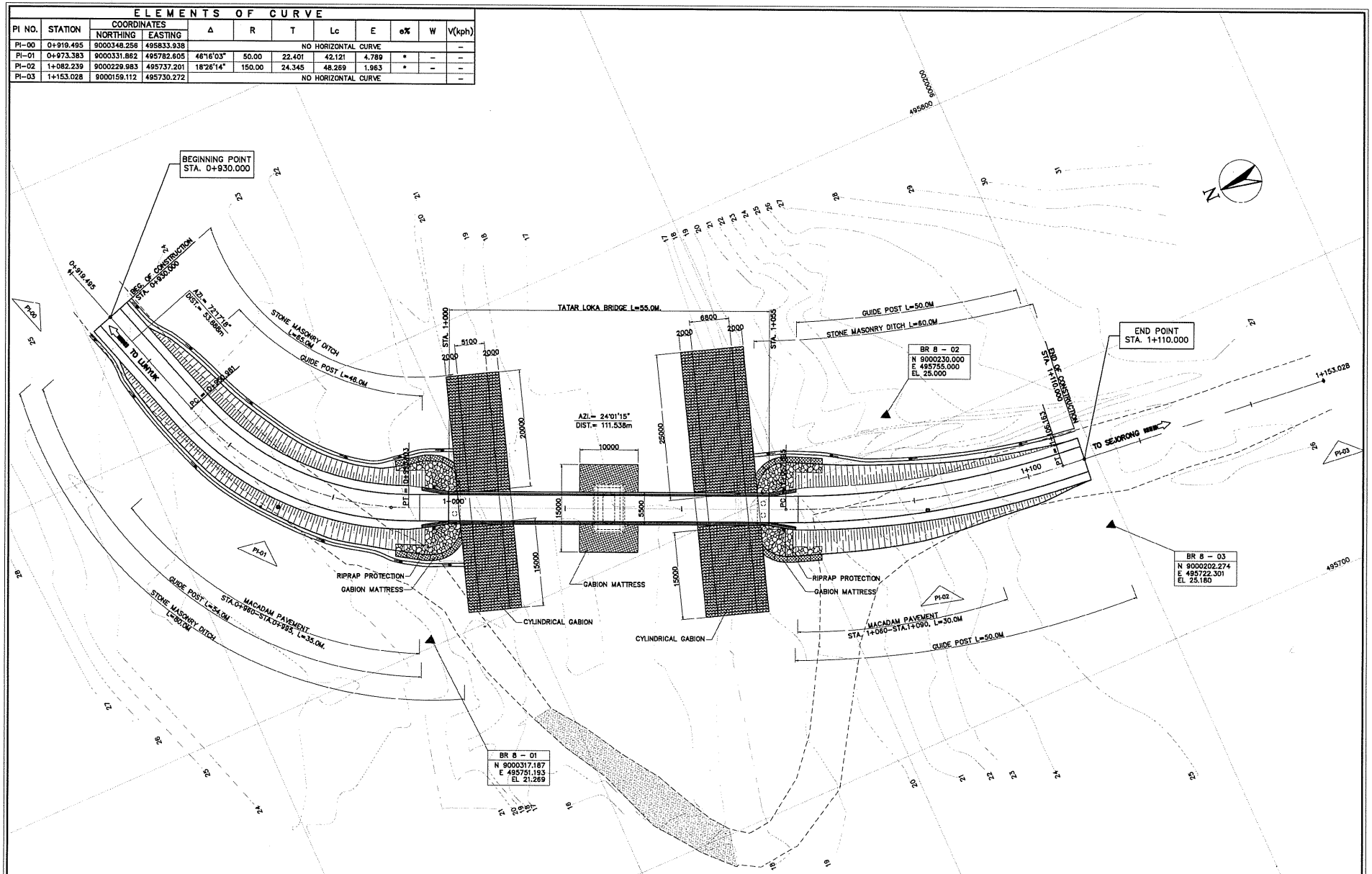


DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-01 NEGENE I BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 3-6

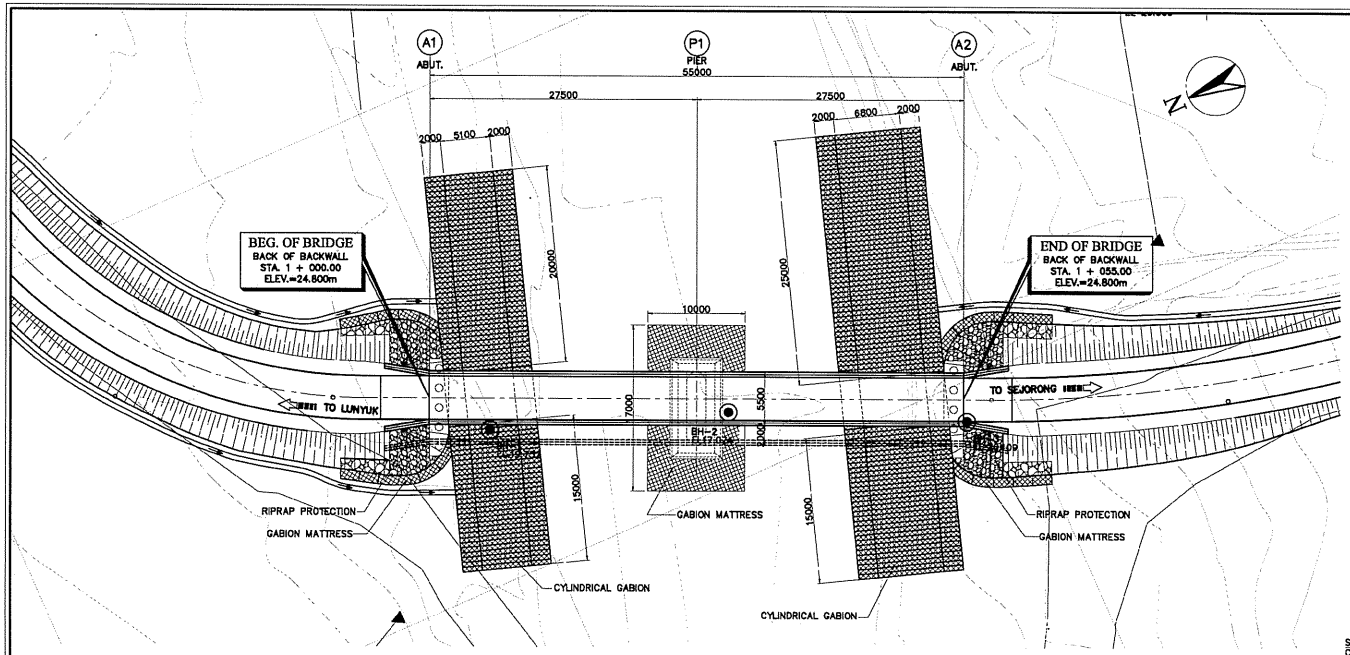
BR-08 TATAR LOKA BRIDGE

ELEMENTS OF CURVE

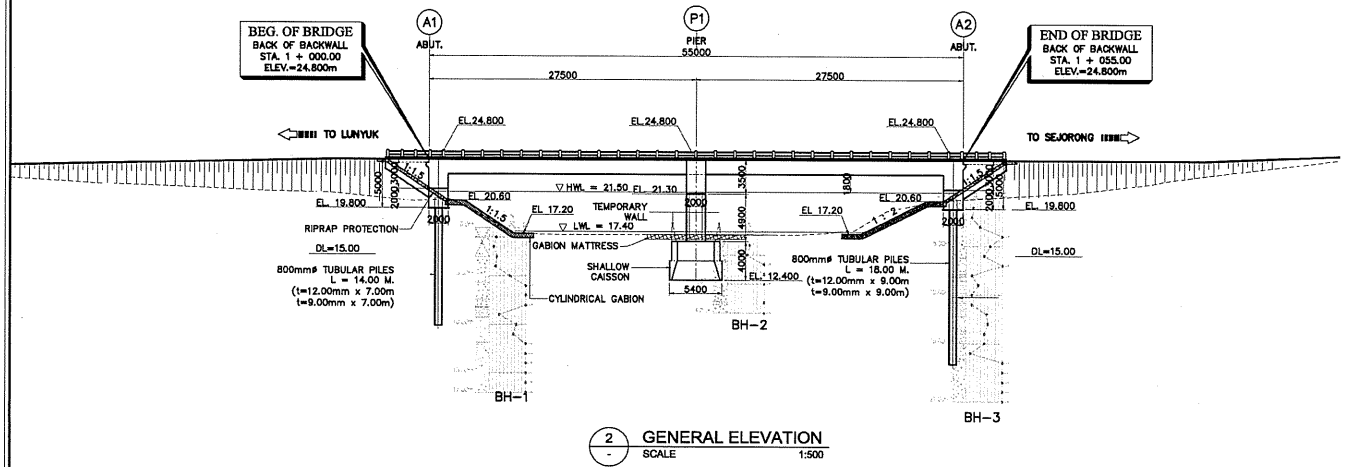
PI NO.	STATION	COORDINATES NORTHING	COORDINATES EASTING	Δ	R	T	Lc	E	e%	W	V(kph)
PI-00	0+919.495	9000348.256	495833.938	NO HORIZONTAL CURVE							–
PI-01	0+973.383	9000331.862	495782.605	46°16'03"	50.00	22.401	42.121	4.789	*	–	–
PI-02	1+082.239	9000229.983	495737.201	18°26'14"	150.00	24.345	48.269	1.963	*	–	–
PI-03	1+153.028	9000159.112	495730.272	NO HORIZONTAL CURVE							–



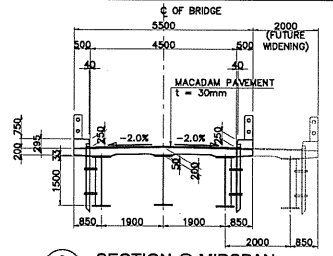
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-4 TATAR LOKA BRIDGE GENERAL SITE PLAN	SCALE: 1 : 600	DRAWING No: 4-1 Rev.



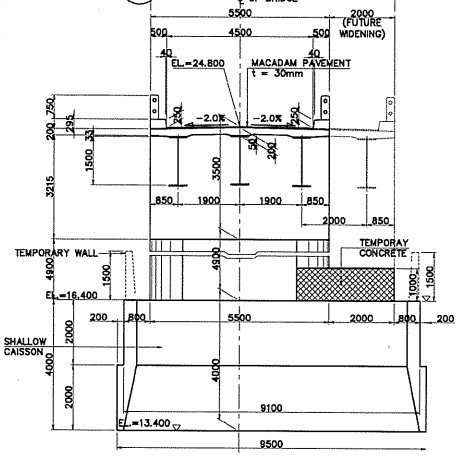
1 - GENERAL PLAN
SCALE 1:500



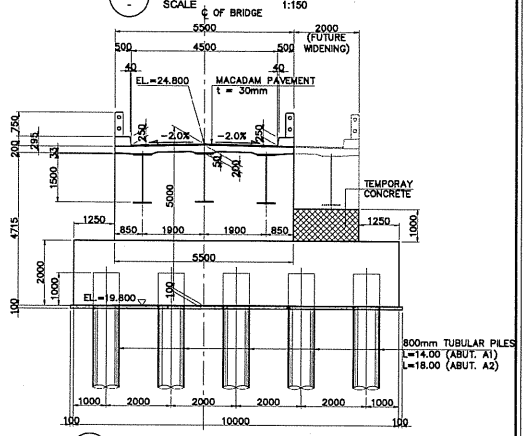
2 - GENERAL ELEVATION
SCALE 1:500



3 - SECTION @ MIDSPAN
SCALE 1:150

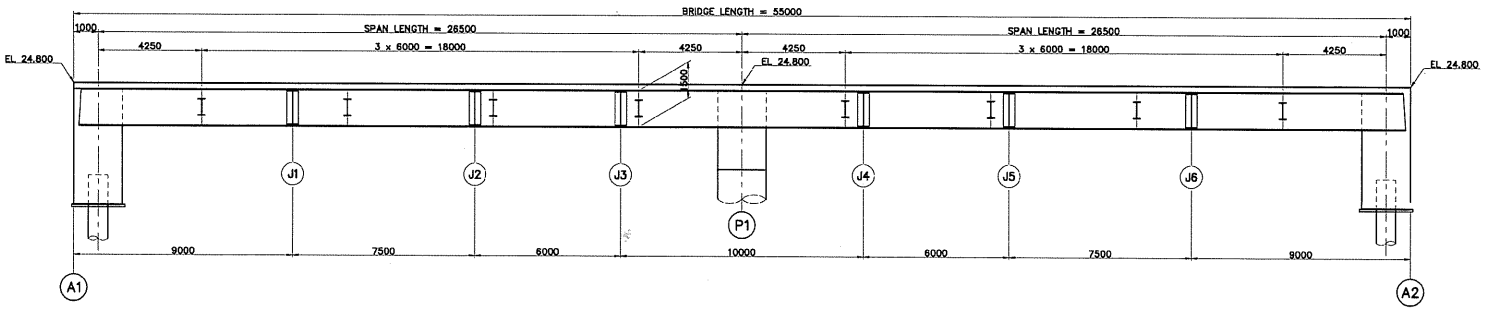


4 - SECTION @ PIER
SCALE 1:150

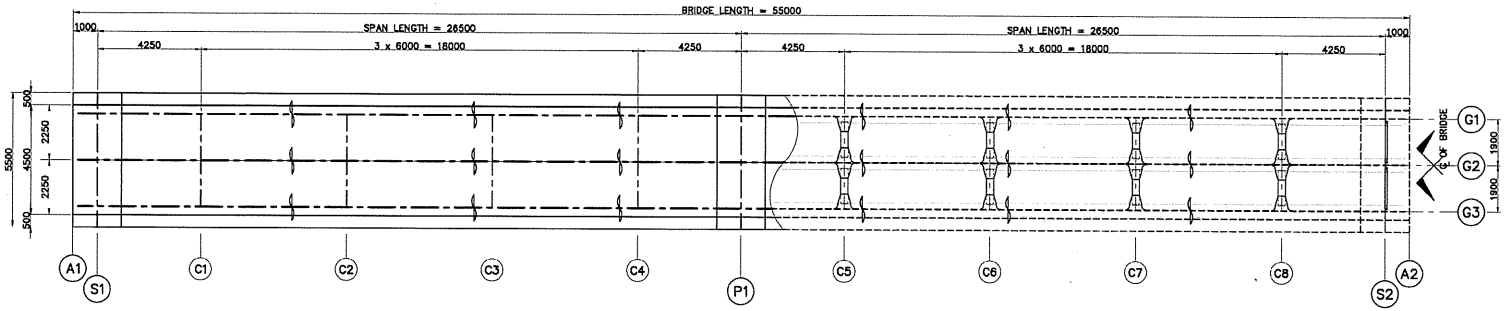


5 - SECTION @ ABUTMENT
SCALE 1:150

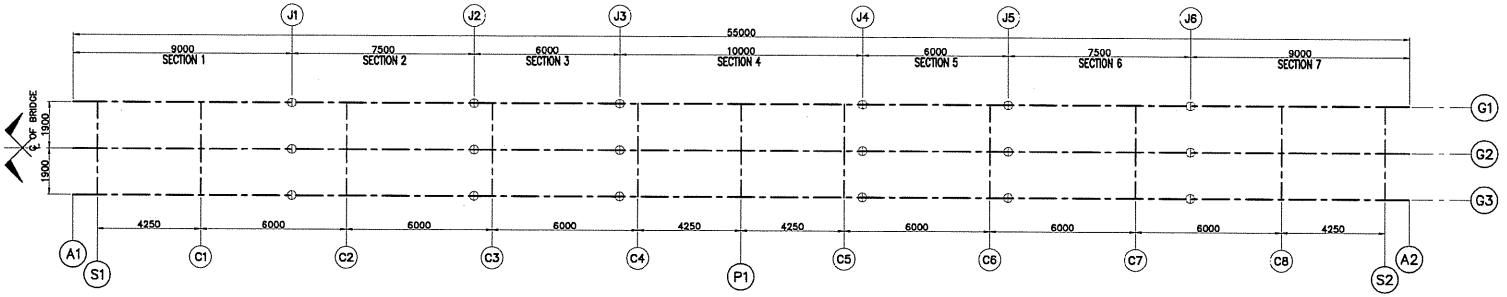
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-08 TATAR LOKA BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 4-2 Rev.



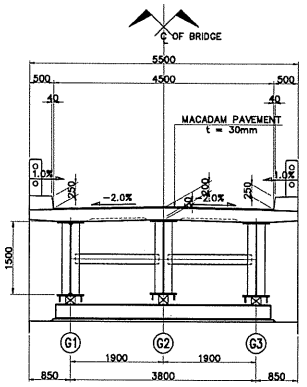
1 - ELEVATION
SCALE 1:100



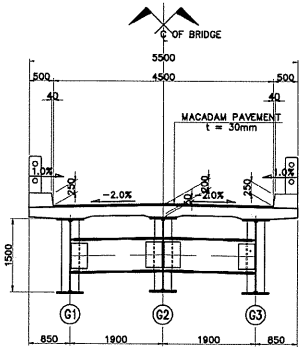
2 - PLAN
SCALE 1:100



3 - KEY PLAN
SCALE 1:100

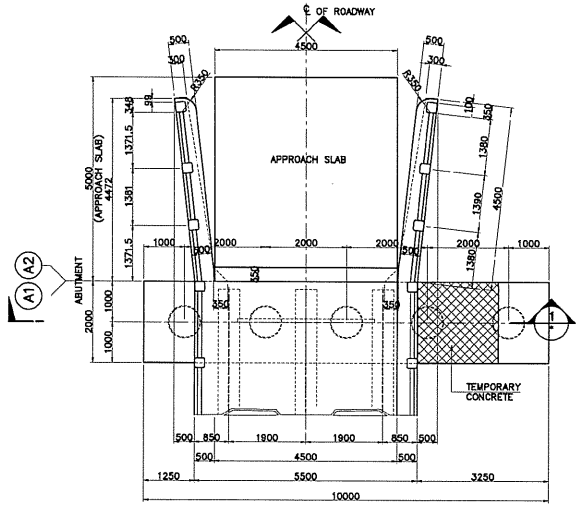


4 - SECTION @ S1, P1 & S2
SCALE 1:50

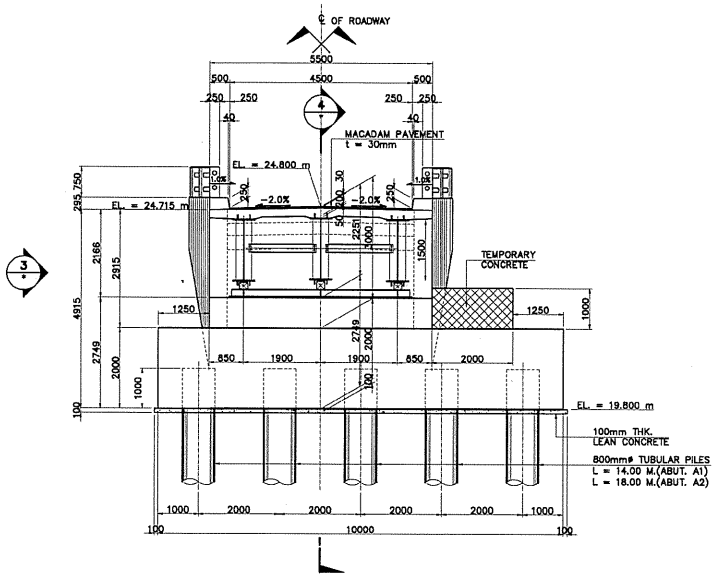


5 - SECTION @ C1~C8
SCALE 1:50

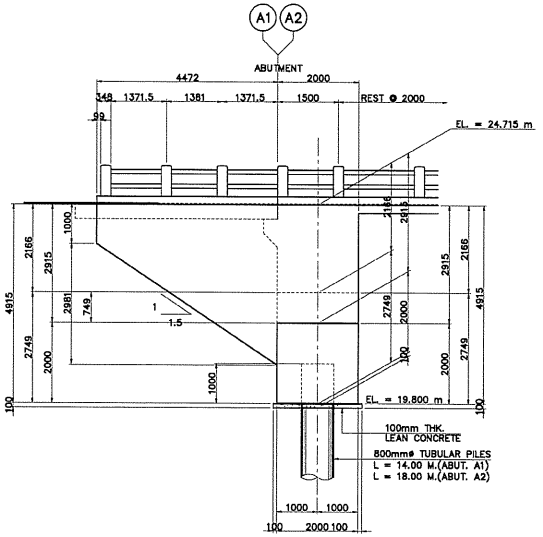
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-08 TATAR LOKA BRIDGE GEN. DIM. OF SUPERSTRUCTURE	SCALE: AS SHOWN	DRAWING No: 4-3 Rev.



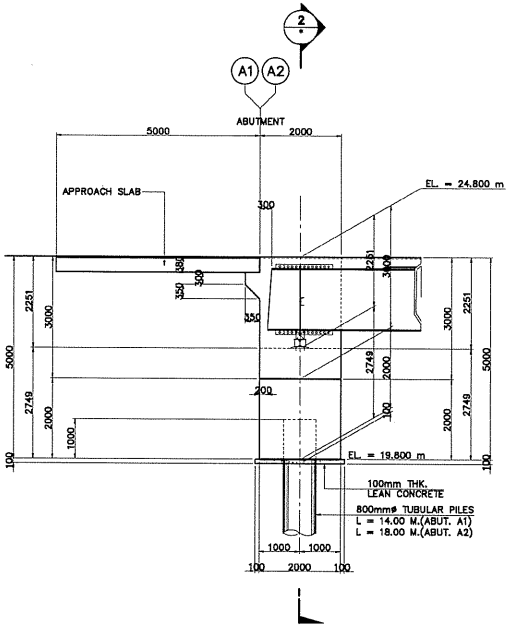
1 - PLAN
SCALE 1:60



1 - ELEVATION
SCALE 1:60

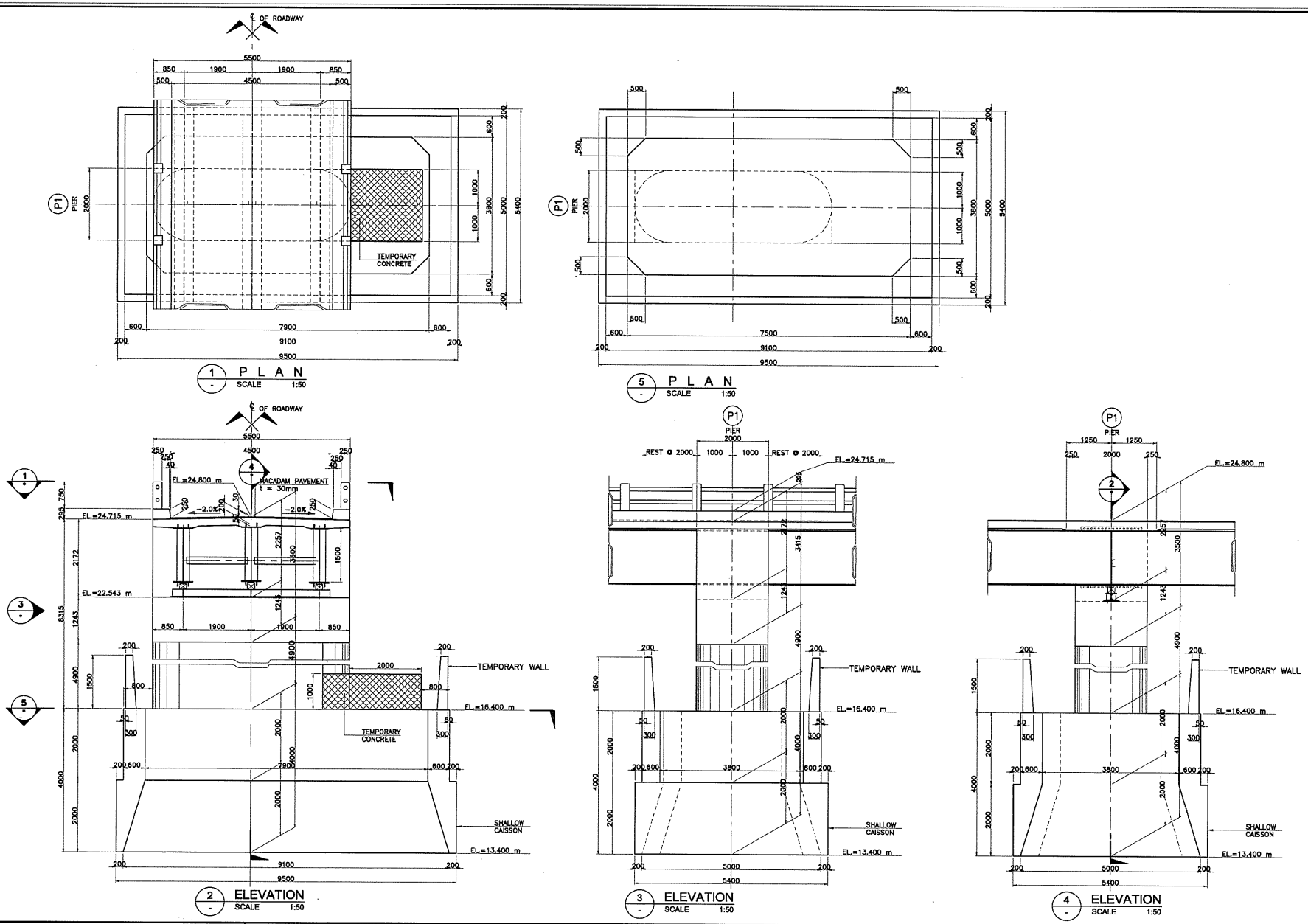


3 - ELEVATION
SCALE 1:60

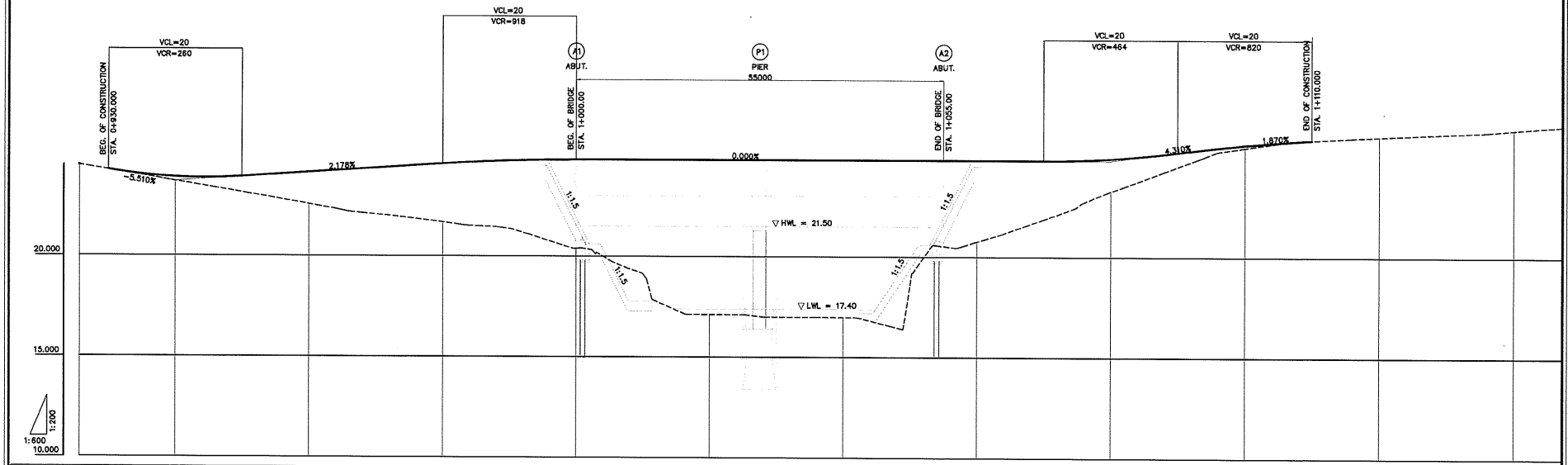


4 - ELEVATION
SCALE 1:60

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR - 08 TATAR LOKA BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUT. A1 AND A2)	SCALE: AS SHOWN	DRAWING No: 4-4



DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-08 TATAR LOKA BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (PIER P1)	SCALE: AS SHOWN	DRAWING No: 4-5 Rev.



DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-08 TATAR LOKA BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:600 V = 1:200	DRAWING No: 4-6	Rev.

NO.0+960.0000
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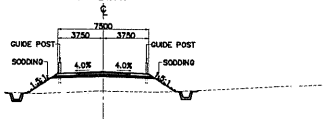
PH=24.147



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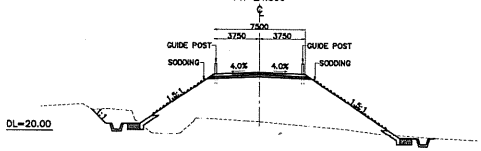
NO.1+060.0000
GH=20.77
PH=24.800



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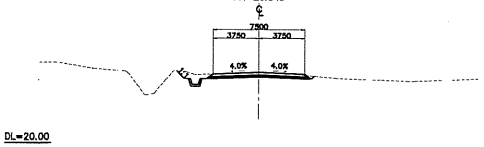
GH=25.85
PH=25.849



DL=20.00

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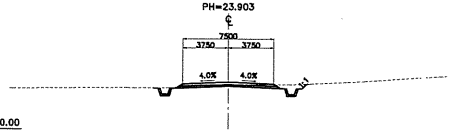
GH=23.71
PH=23.903



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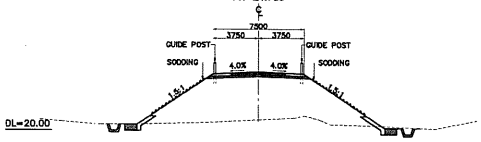
GH=20.86
PH=24.786



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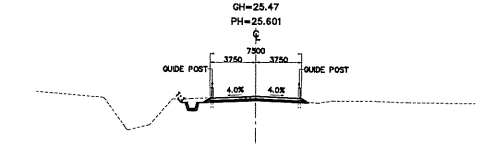
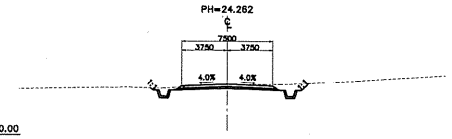
GH=25.47
PH=25.601



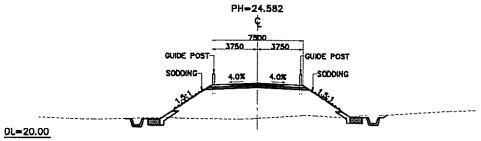
DL=20.00

NO.0+930.0000
GH=24.26
PH=24.262



DL=20.00

NO.0+980.0000
GH=21.68
PH=24.582



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NO.1+080.0000
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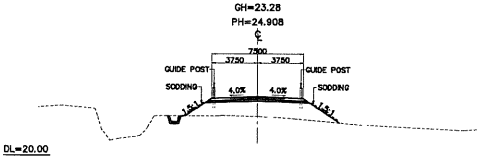
PH=24.908



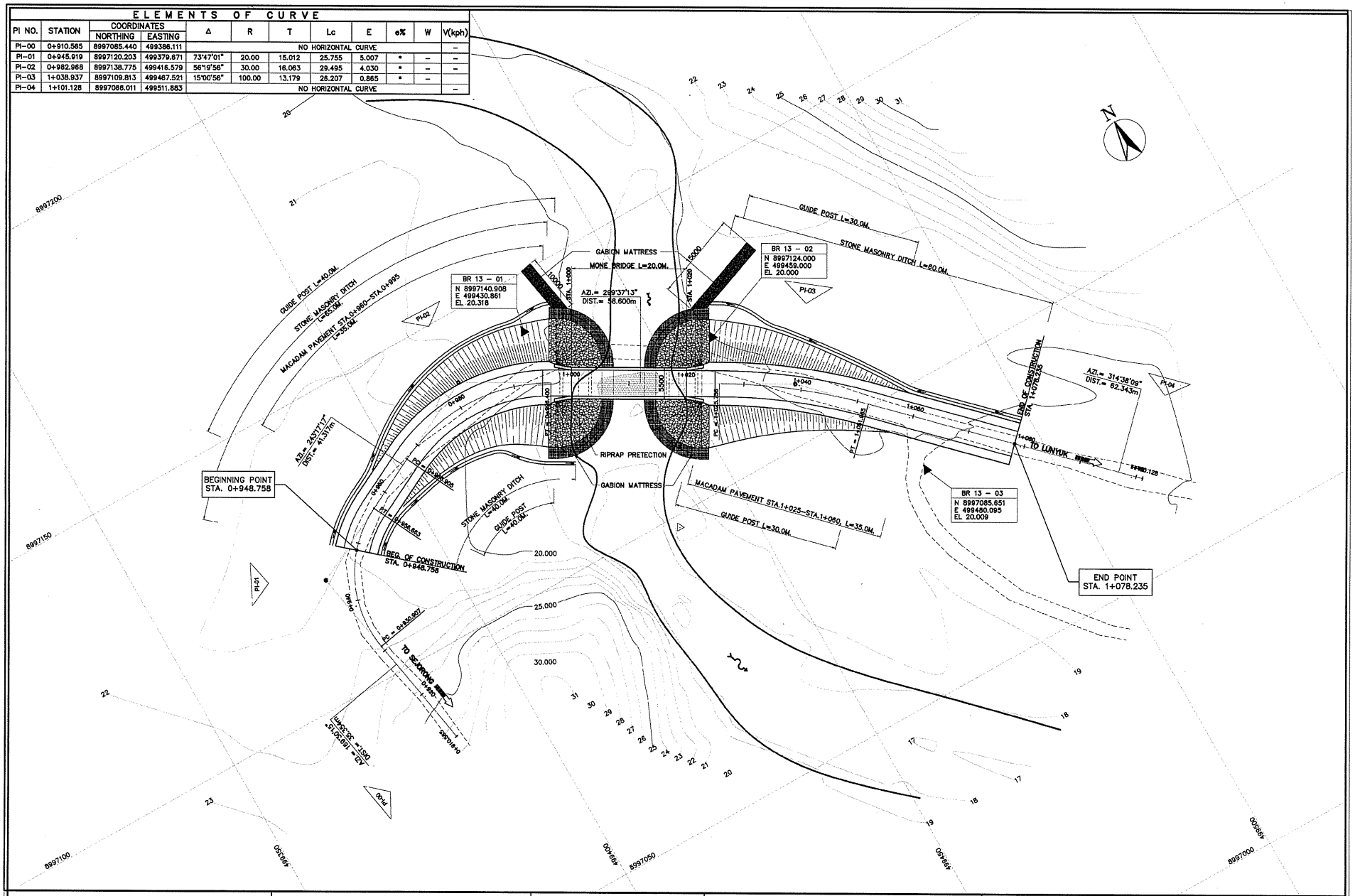
DL=20.00

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-08 TATAR LOKA BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 4-7

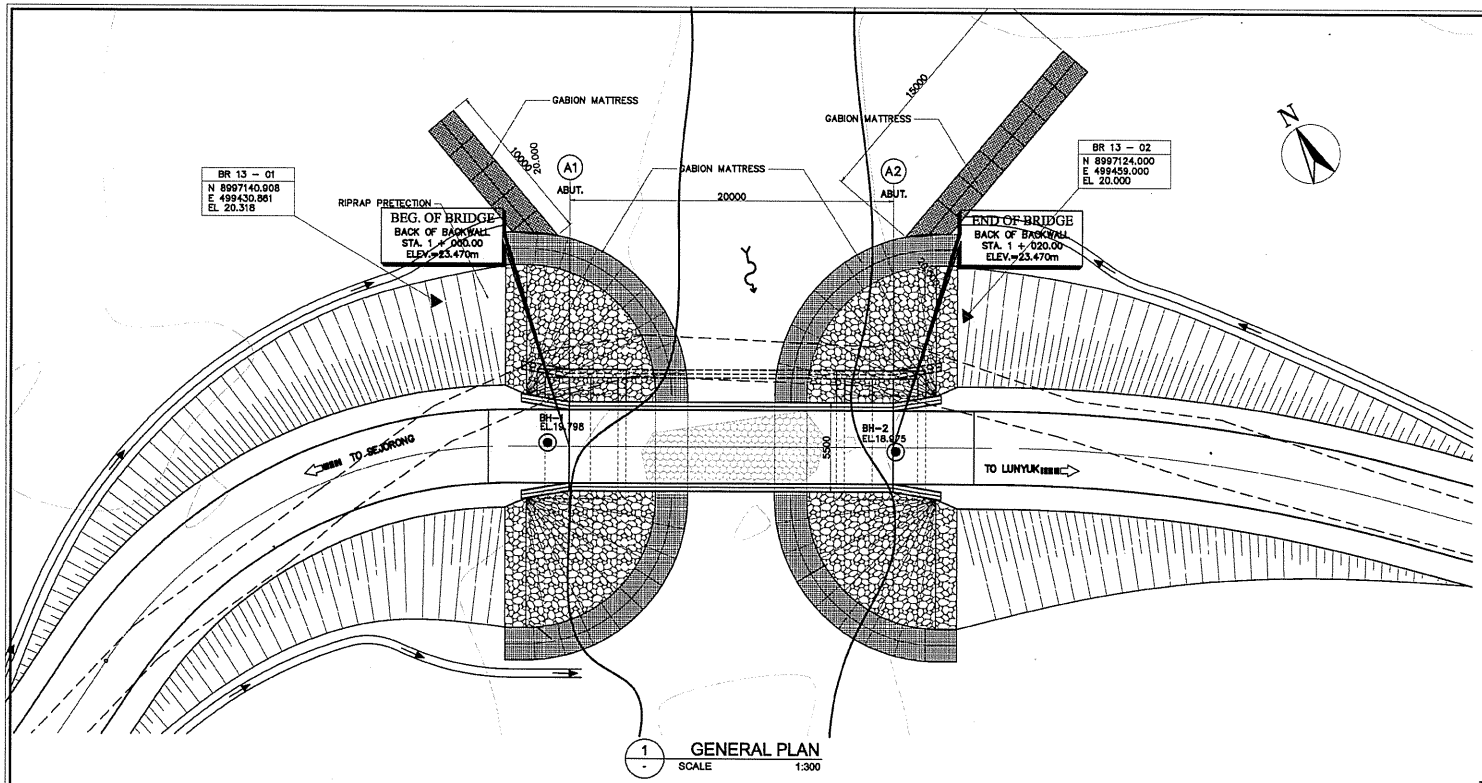
BR-13 MONE I BRIDGE

ELEMENTS OF CURVE

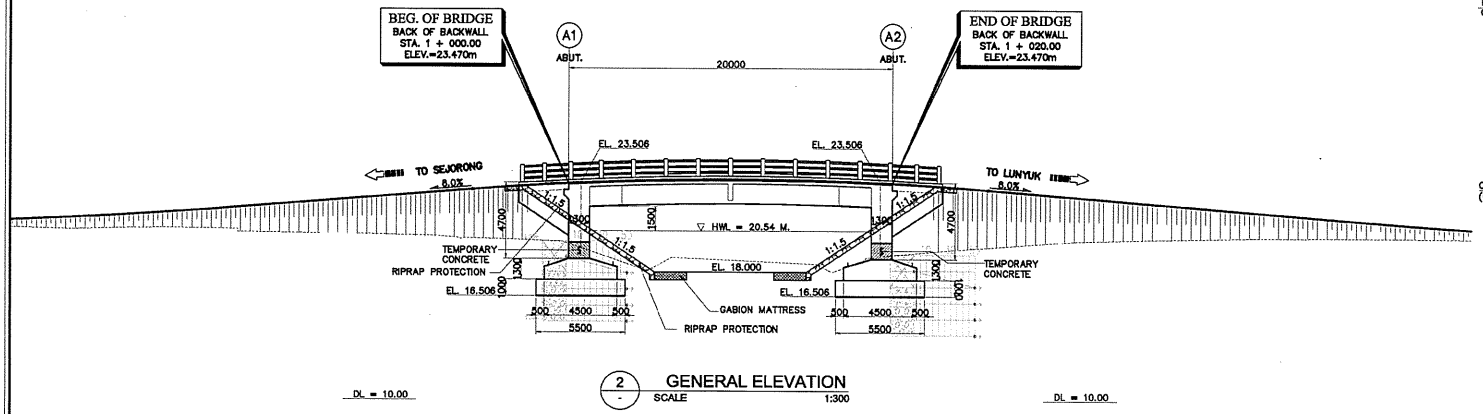
PI NO.	STATION	COORDINATES NORTHING	COORDINATES EASTING	Δ	R	T	Lc	E	e%	W	V(kph)
PI-00	0+910.565	8997085.440	499386.111	NO HORIZONTAL CURVE							–
PI-01	0+945.919	8997120.203	499379.671	73°47'01"	20.00	15.012	25.755	5.007	*	–	–
PI-02	0+982.968	8997138.775	499416.579	56°19'56"	30.00	16.063	29.495	4.030	*	–	–
PI-03	1+038.937	8997109.813	499467.521	15°00'56"	100.00	13.179	26.207	0.865	*	–	
PI-04	1+101.128	8997066.011	499511.883	NO HORIZONTAL CURVE							–



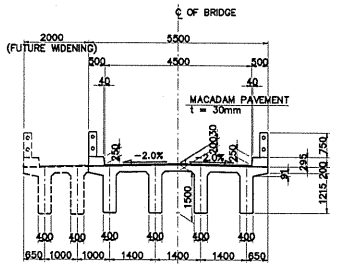
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-13 MONE I BRIDGE GENERAL SITE PLAN	SCALE: 1 : 600	DRAWING No: 5-1 Rev.



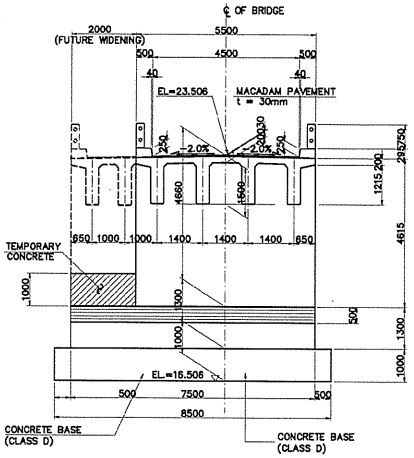
1 GENERAL PLAN
SCALE 1:300



2 GENERAL ELEVATION
SCALE 1:300



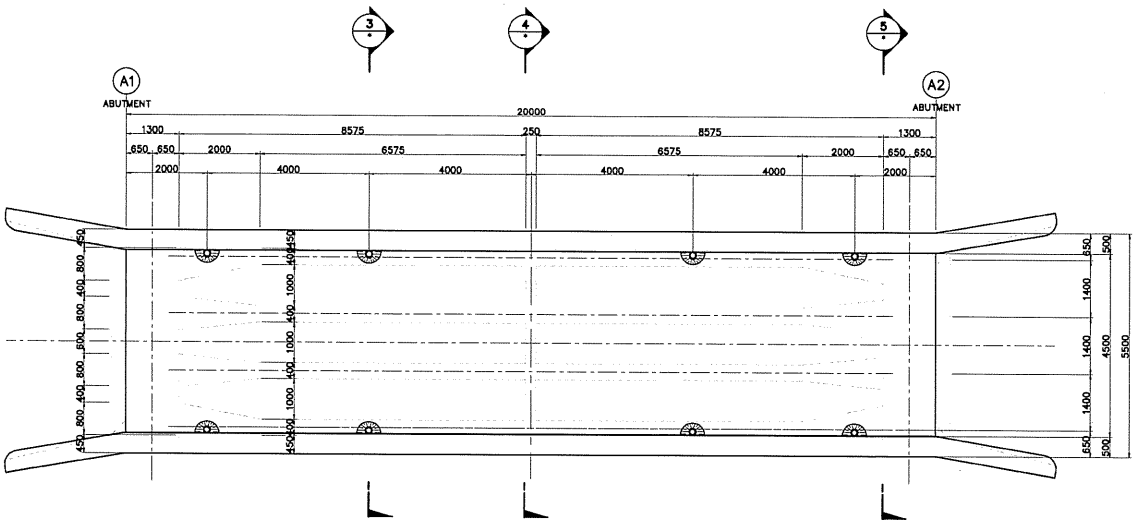
3 SECTION @ MIDSPAN
SCALE 1:150



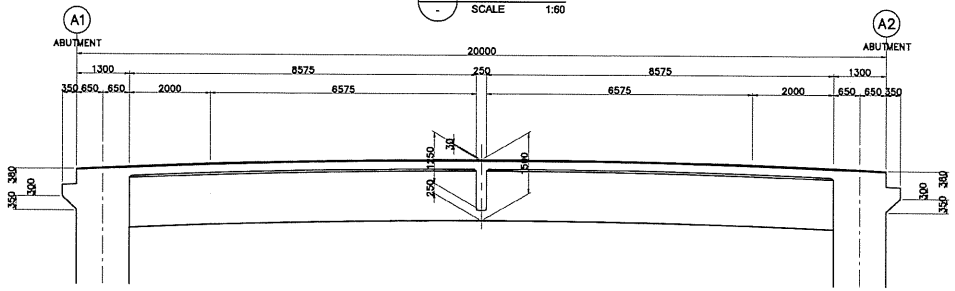
4 SECTION @ ABUTMENT
SCALE 1:150

NOTE:
The concrete base thickness shall be adjusted with the actual depth of the hard soil when excavated.

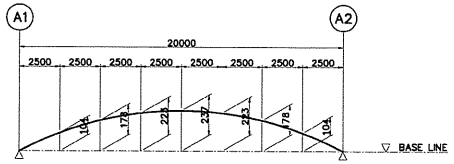
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-13 MONE I BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 5-2 Rev.



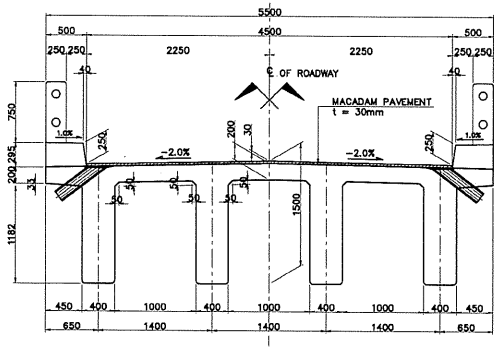
1 - PLAN
SCALE 1:60



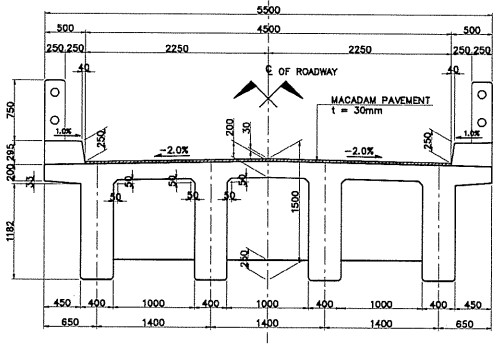
2 - ELEVATION
SCALE 1:60



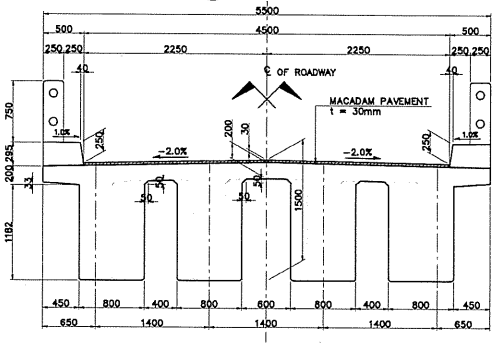
6 - CAMBER DIAGRAM
NOT TO SCALE



3 - SECTION
SCALE 1:30

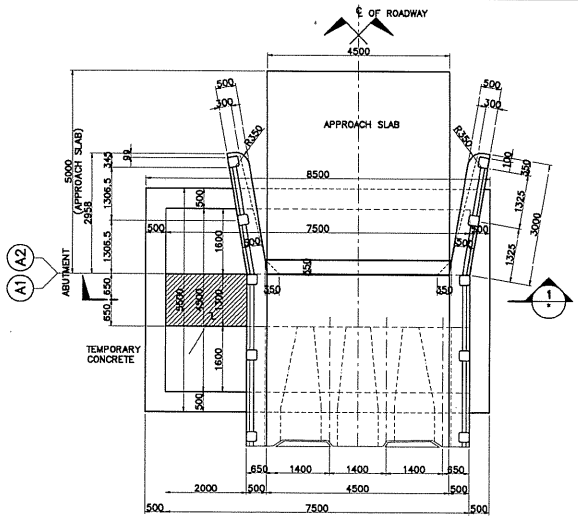


4 - SECTION
SCALE 1:30

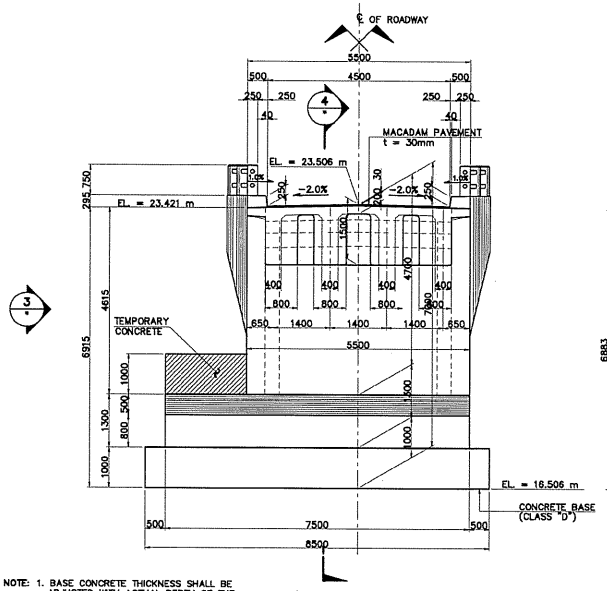


5 - SECTION
SCALE 1:30

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-13 MONE BRIDGE SUPERSTRUCTURE STRUCTURAL DIMENSION	SCALE: AS SHOWN	DRAWING No: 5-3 Rev.

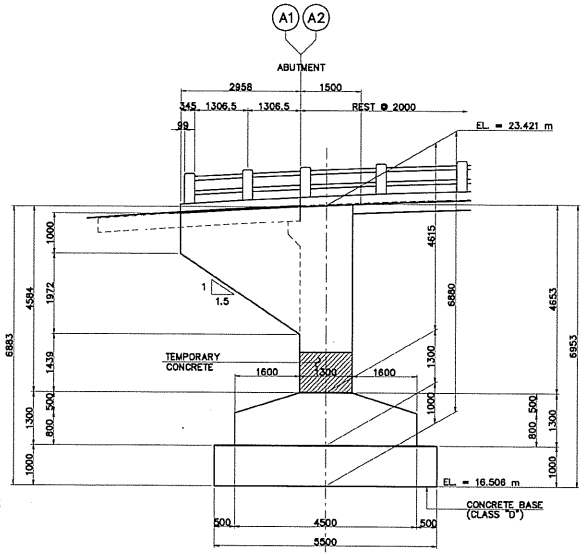


2 PLAN
SCALE 1:60

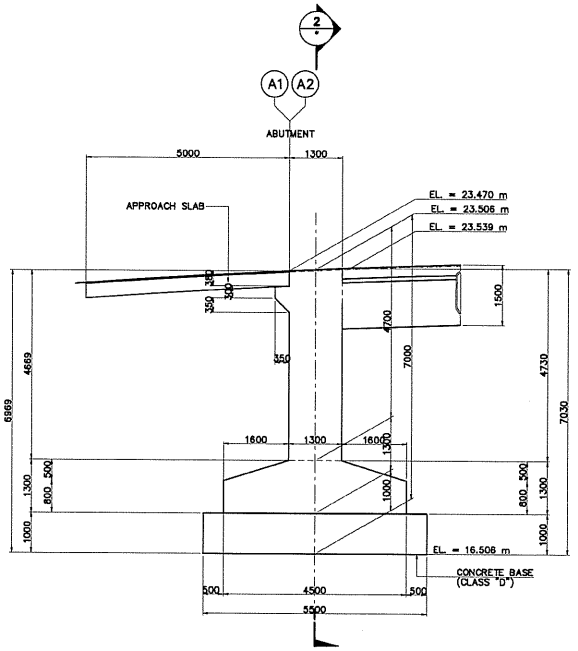


NOTE: 1. BASE CONCRETE THICKNESS SHALL BE ADJUSTED WITH ACTUAL DEPTH OF THE HARD SOIL WHEN EXCAVATED.
2. TOP OF BASE CONCRETE SHALL BE ROUGHENED WITH SHEAR KEYS.

1 ELEVATION
SCALE 1:60

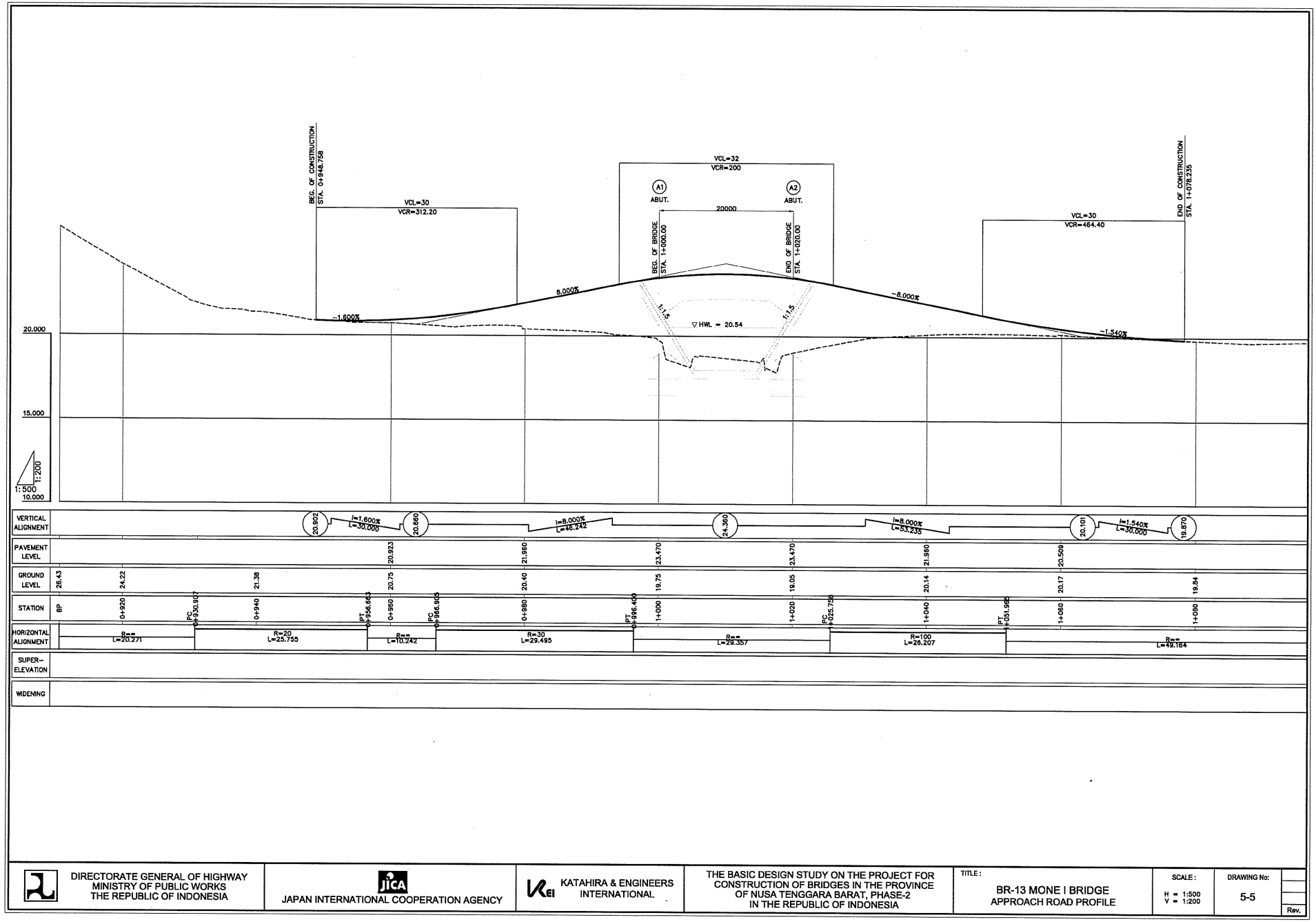


3 ELEVATION
SCALE 1:60



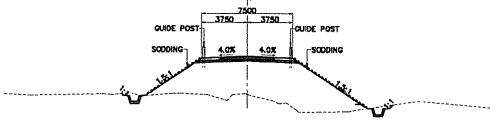
4 ELEVATION
SCALE 1:60

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR - 13 MONE BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUT. A1 AND A2)	SCALE: AS SHOWN	DRAWING No: 5-4 Rev.



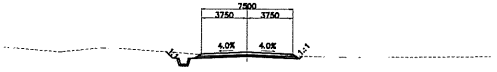
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-13 MONE I BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:500 V = 1:200	DRAWING No: 5-5 Rev.

NO.0+995.0000
GH=20.05
PH=23.16



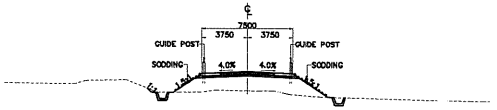
DL=15.00

NO.1+078.2350
GH=19.87
PH=19.87



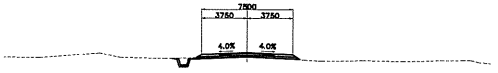
DL=15.00

NO.0+980.0000
GH=20.40
PH=21.96



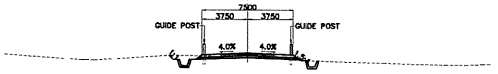
DL=15.00

NO.1+060.0000
GH=20.17
PH=20.51



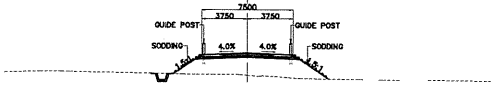
DL=15.00

NO.0+960.0000
GH=20.75
PH=20.92



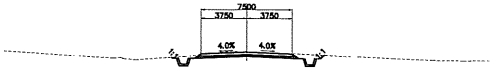
DL=15.00

NO.1+040.0000
GH=20.14
PH=21.96



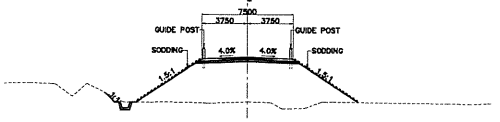
DL=15.00

NO.0+948.7580
GH=20.90
PH=20.90



DL=15.00

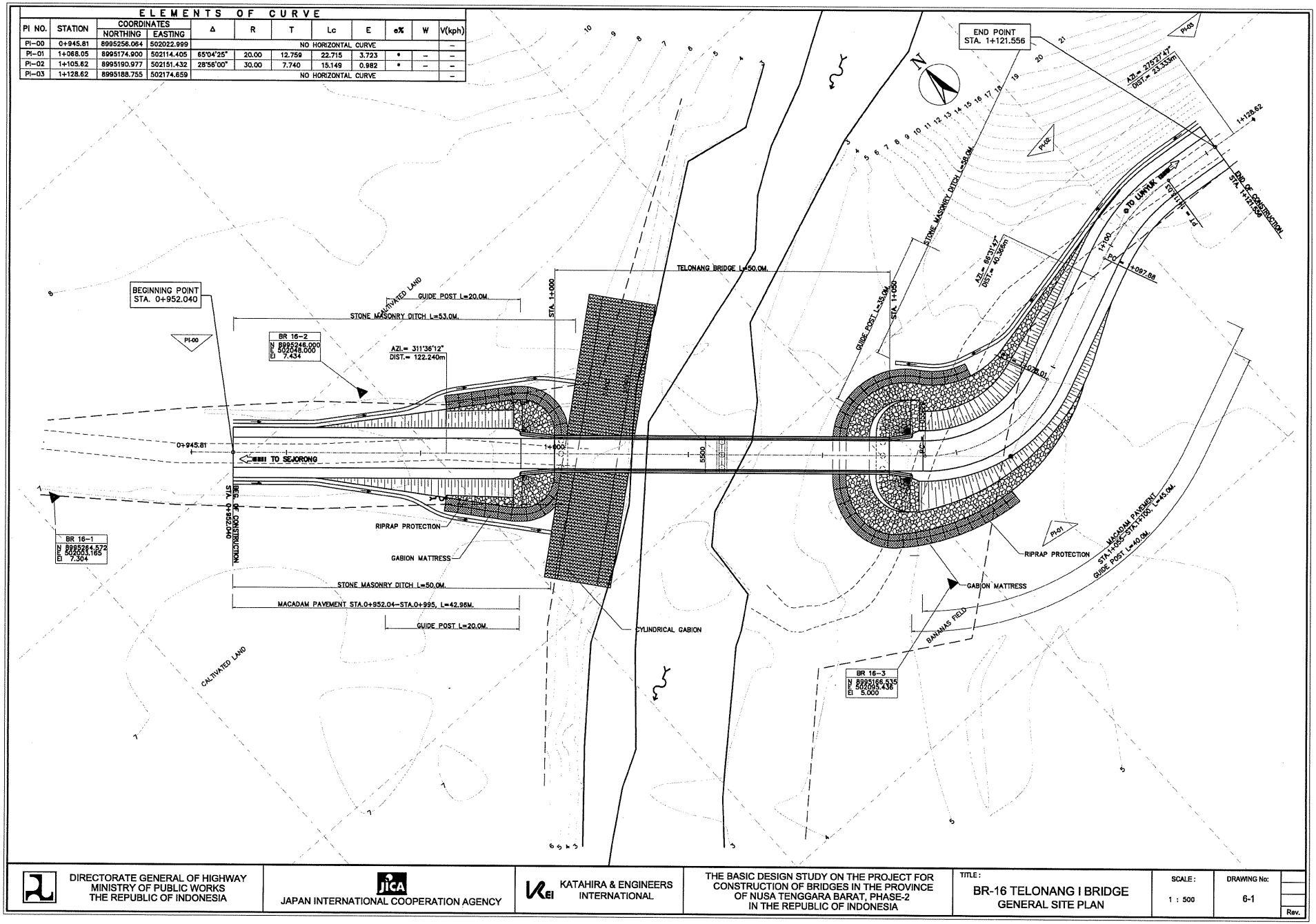
NO.1+025.0000
GH=19.47
PH=23.16

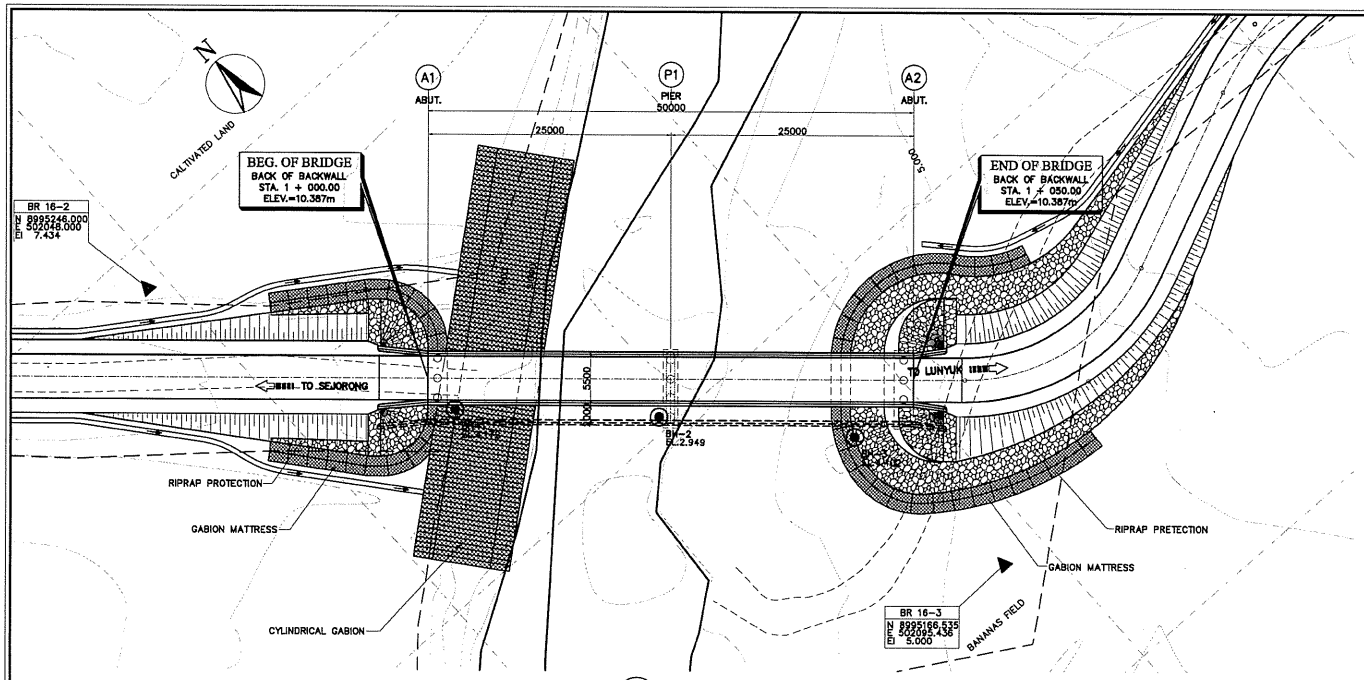


DL=15.00

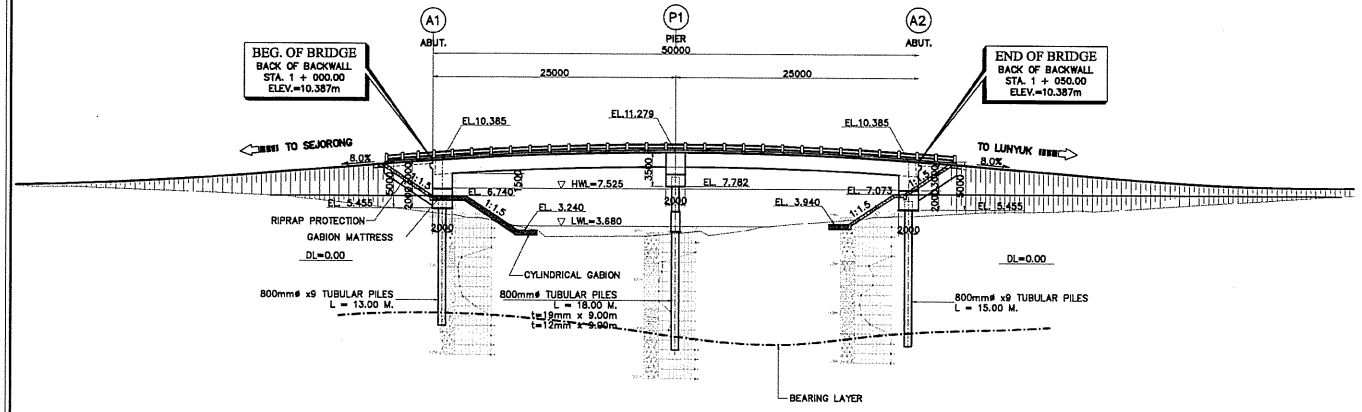
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-13 MONE I BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 5-6

BR-16 TELONANG I BRIDGE

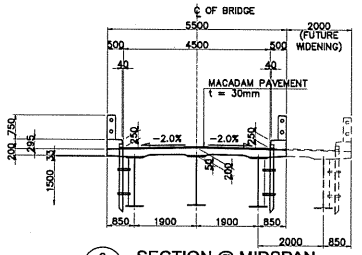

ELEMENTS OF CURVE
PI NO. | STATION | COORDINATES NORTHING | EASTING | Δ | R | T | Lc | E | e% | W | V(kph)
PI-00 | 0+945.81 | 8995256.064 | 502022.999 | NO HORIZONTAL CURVE | –
PI-01 | 1+068.05 | 8995174.900 | 502114.405 | 65°04'25" | 20.00 | 12.759 | 22.715 | 3.723 | * | – | –
PI-02 | 1+105.62 | 8995190.977 | 502151.432 | 28°56'00" | 30.00 | 7.740 | 15.149 | 0.982 | * | – | –
PI-03 | 1+128.62 | 8995188.755 | 502174.859 | NO HORIZONTAL CURVE | –
BEGINNING POINT STA. 0+952.040
END POINT STA. 1+121.556
TELONANG BRIDGE L=50.0M.
GUIDE POST L=20.0M.
STONE MASONRY DITCH L=53.0M.
BR 16-2 N 8995248.000 E 502048.000 EL 7.434
AZI.= 311°36'12" DIST.= 122.240m
AZI.= 275°27'47" DIST.= 53.333m
AZI.= 86°31'47" DIST.= 40.356m
STONE MASONRY DITCH L=58.0M.
GUIDE POST L=35.0M.
STA. 1+000
STA. 1+050
0+945.81
1+000
1+097.88
1+128.62
TO SEJORONG
TO LUNTUK
BR 16-1 N 8995264.572 E 502001.165 EL 7.304
BR 16-3 N 8995166.535 E 502095.436 EL 5.000
RIPRAP PROTECTION
GABION MATTRESS
STONE MASONRY DITCH L=50.0M.
MACADAM PAVEMENT STA.0+952.04–STA.0+995, L=42.96M.
GUIDE POST L=20.0M.
CYLINDRICAL GABION
MACADAM PAVEMENT STA.1+055–STA.1+100, L=45.0M.
GUIDE POST L=40.0M.
BANANAS FIELD
CALTIVATED LAND
PI-00
PI-01
PI-02
PI-03
DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY
KATAHIRA & ENGINEERS INTERNATIONAL
THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA
TITLE:
BR-16 TELONANG I BRIDGE
GENERAL SITE PLAN
SCALE: 1 : 500
DRAWING No: 6-1
Rev.



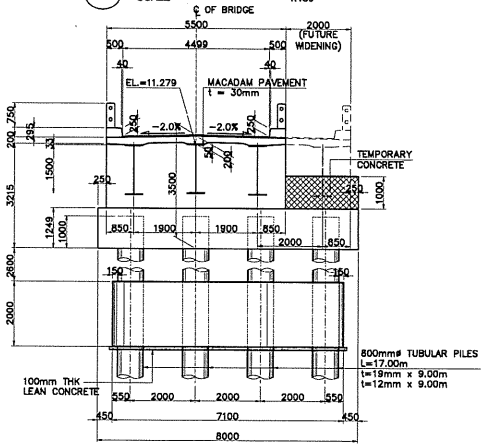
1 - GENERAL PLAN
SCALE 1:500



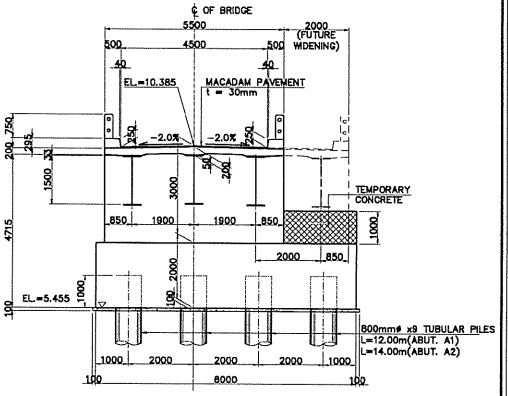
2 - GENERAL ELEVATION
SCALE 1:500



3 - SECTION @ MIDSPAN
SCALE 1:150

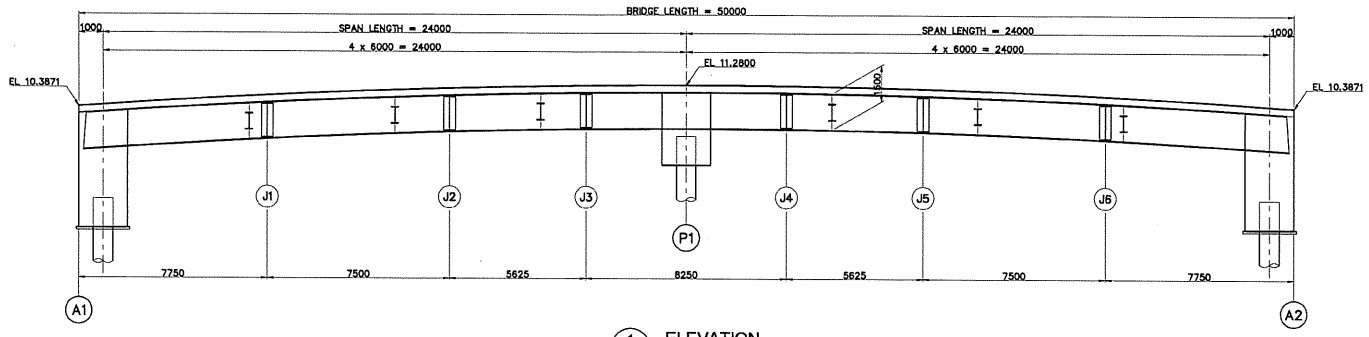


4 - SECTION @ PIER
SCALE 1:150

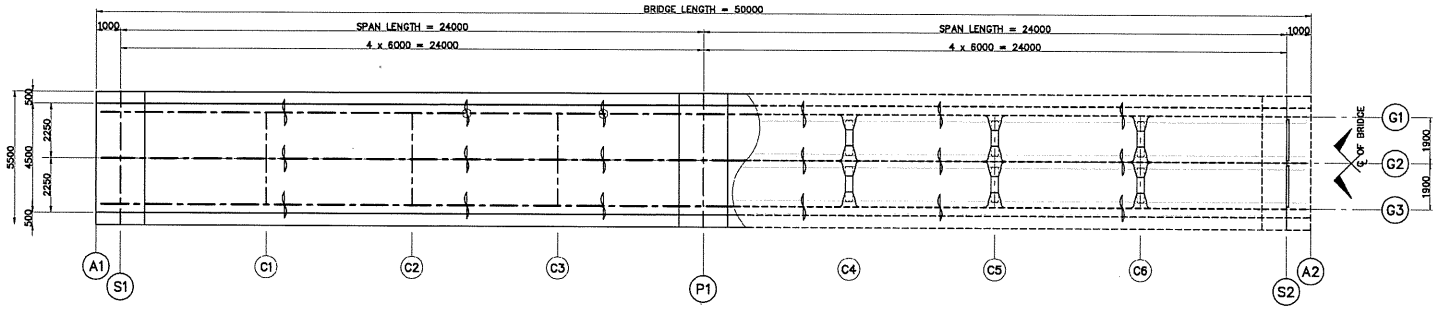


5 - SECTION @ ABUTMENT
SCALE 1:150

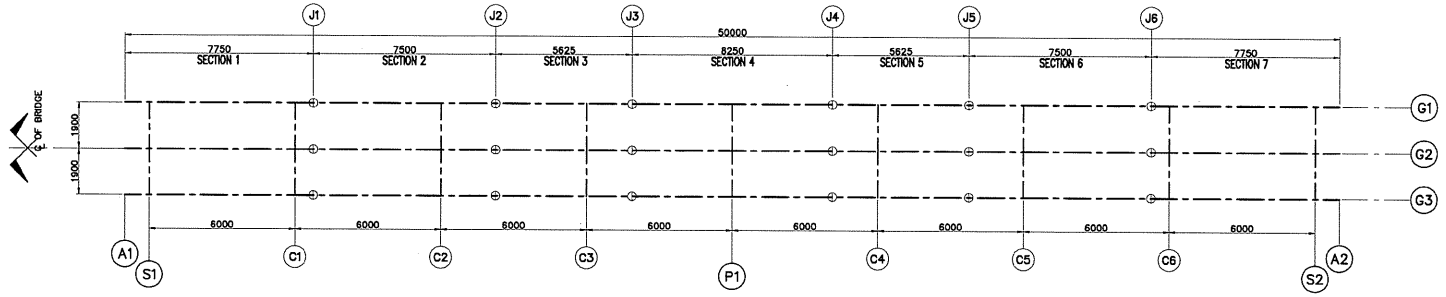
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG I BRIDGE GEN. PLAN, ELEVATION & SECTIONS	SCALE: AS SHOWN	DRAWING No: 6-2 Rev.



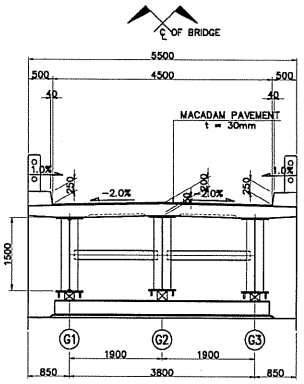
1 - ELEVATION
SCALE 1:100



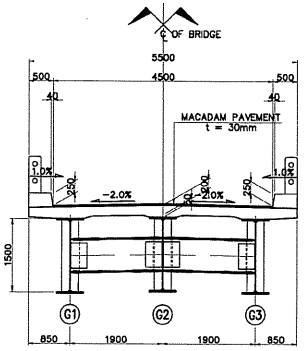
2 - PLAN
SCALE 1:100



3 - KEY PLAN
SCALE 1:100

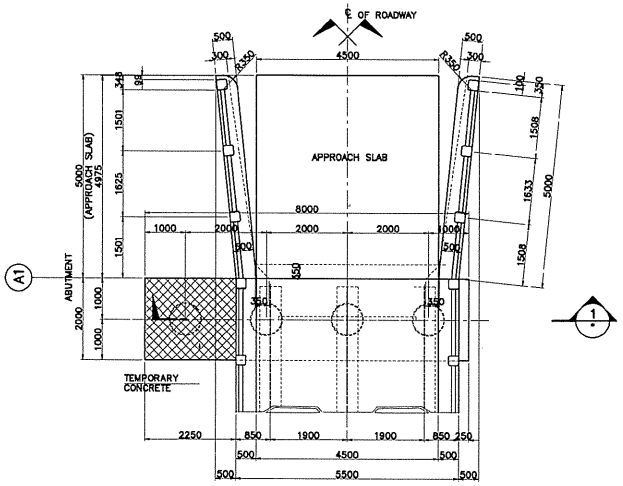


4 - SECTION @ S1, P1 & S2
SCALE 1:50

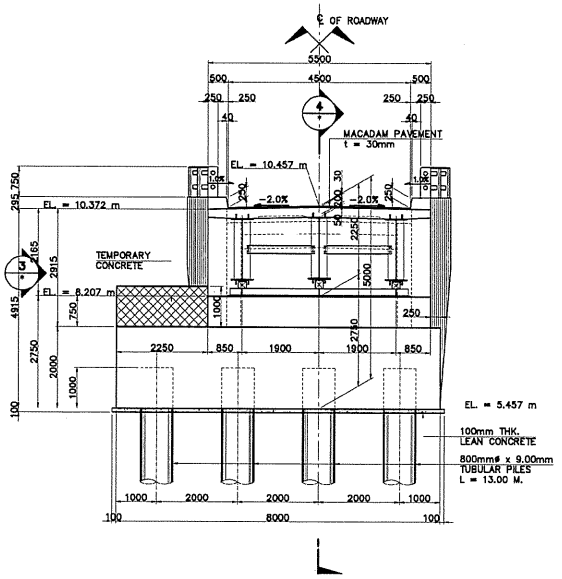


5 - SECTION @ C1~C6
SCALE 1:50

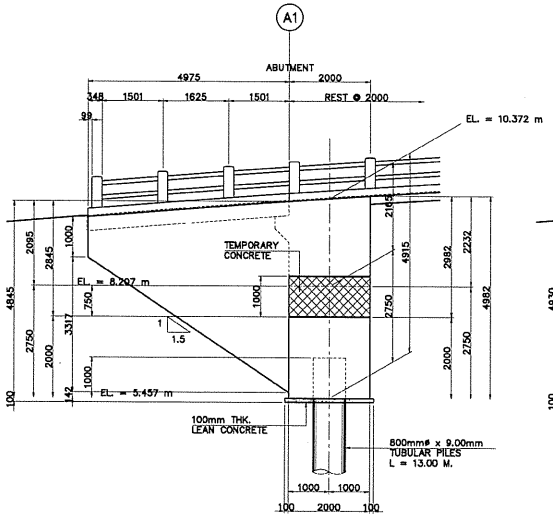
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG BRIDGE GEN. DIM. OF SUPERSTRUCTURE	SCALE: AS SHOWN	DRAWING No: 6-3 Rev.



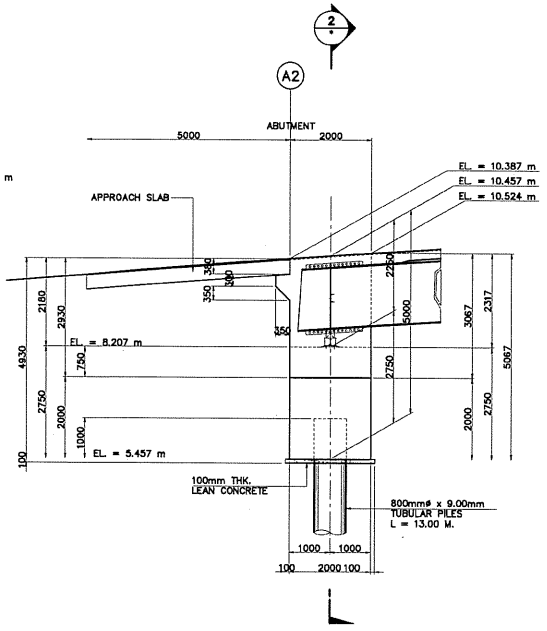
2 PLAN
SCALE 1:60



1 ELEVATION
SCALE 1:60

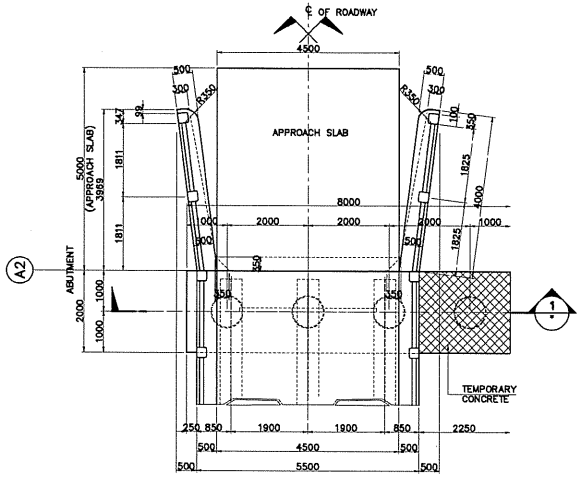


3 ELEVATION
SCALE 1:60

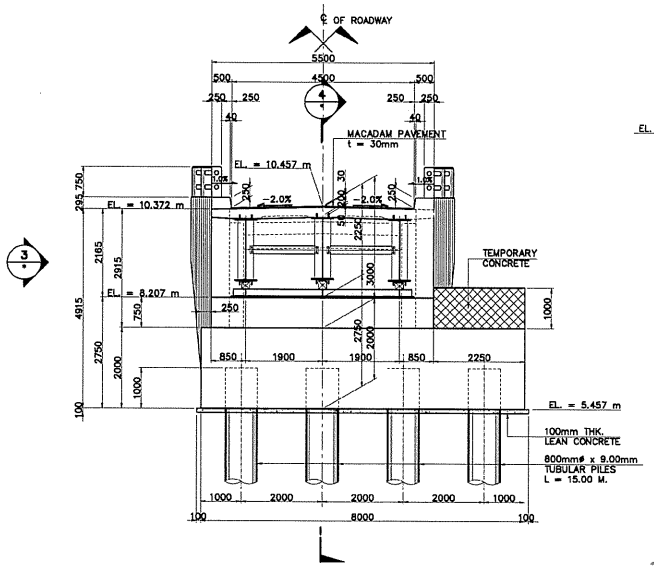


4 ELEVATION
SCALE 1:60

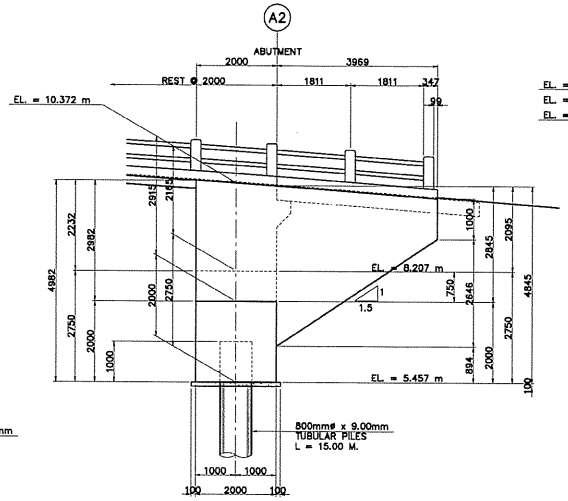
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG I BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUTMENT A1)	SCALE: AS SHOWN	DRAWING No: 6-4 Rev.



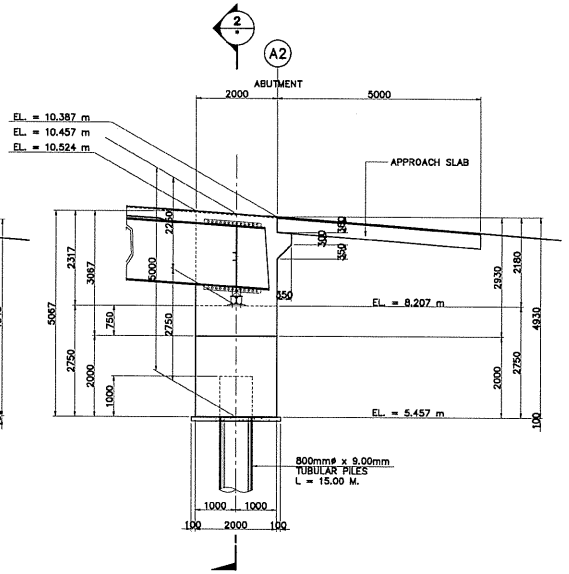
2 PLAN
SCALE 1:60



1 ELEVATION
SCALE 1:60

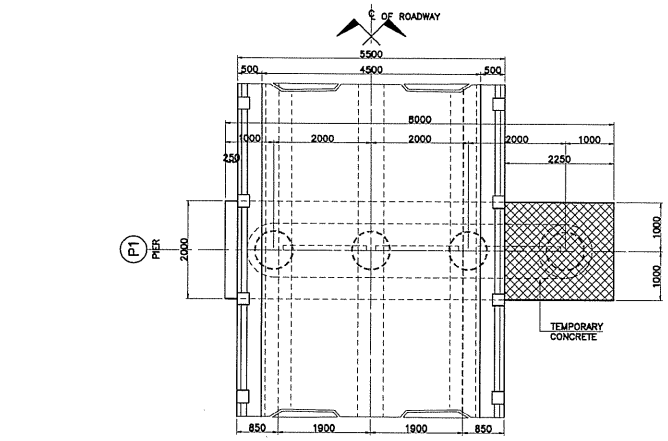


3 ELEVATION
SCALE 1:60

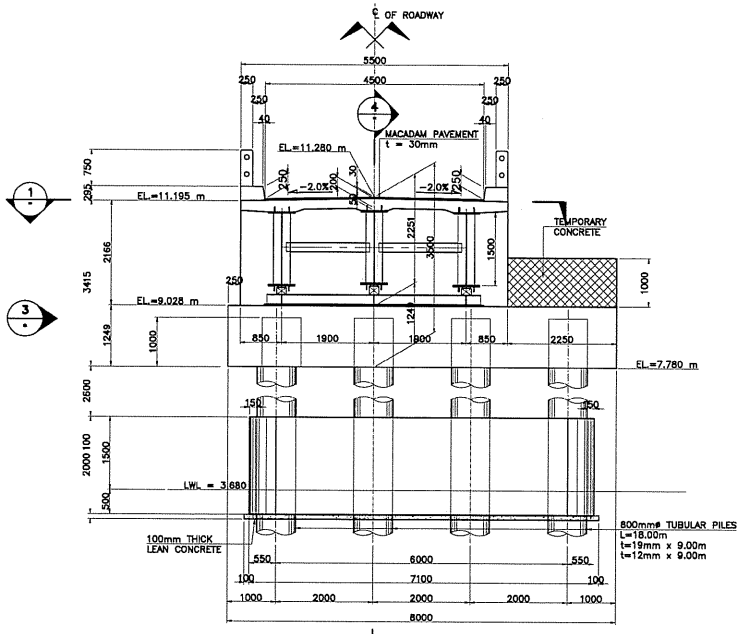


4 ELEVATION
SCALE 1:60

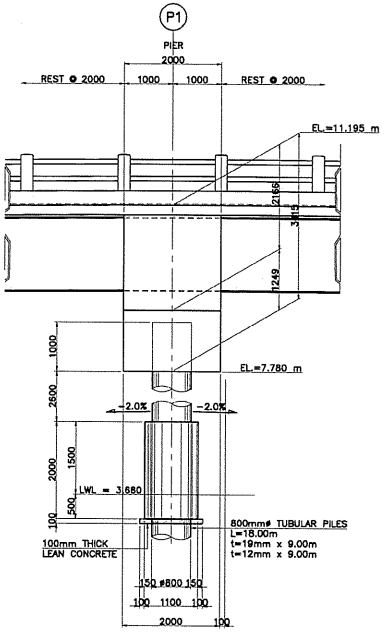
DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG I BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (ABUTMENT A2)	SCALE: AS SHOWN	DRAWING No: 6-5 Rev.



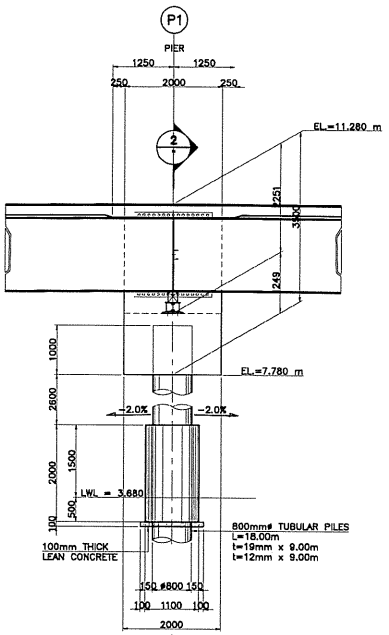
1 - PLAN
SCALE 1:50



2 - ELEVATION
SCALE 1:50

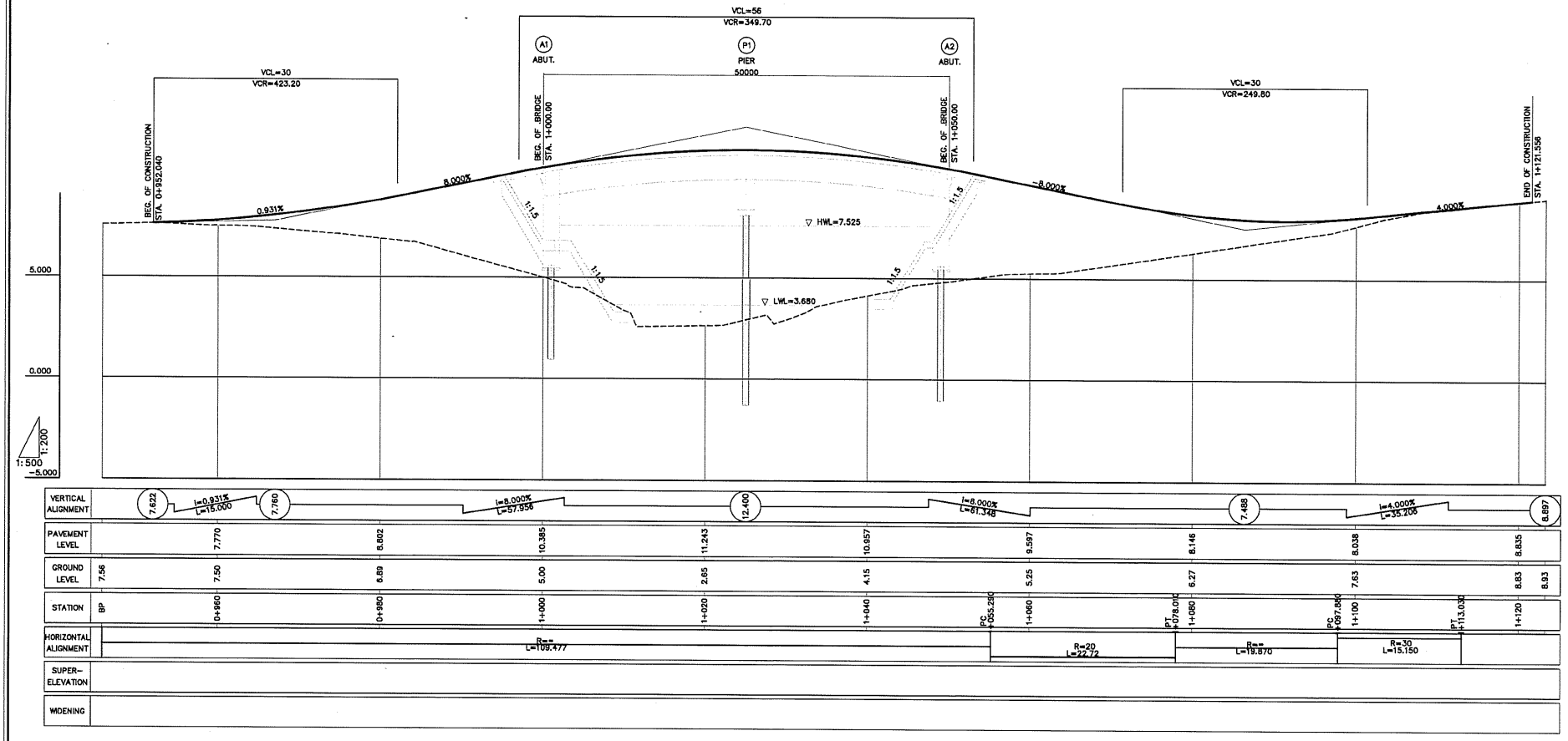


3 - ELEVATION
SCALE 1:50



4 - ELEVATION
SCALE 1:50

DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: 06 BR-16 TELONANG 1 BRIDGE SUBSTRUCTURE STRUCTURAL DIMENSION (PIER P1)	SCALE: AS SHOWN	DRAWING No: 6-6 Rev.



DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG I BRIDGE APPROACH ROAD PROFILE	SCALE: H = 1:500 V = 1:200	DRAWING No: 6-7	Rev.

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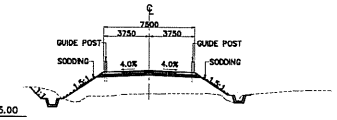

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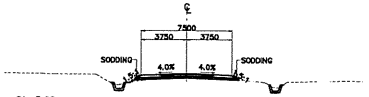

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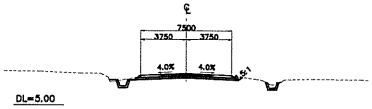

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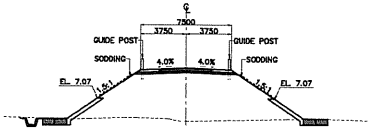

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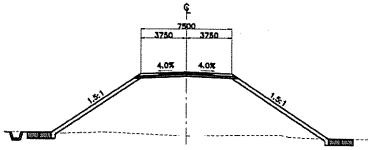

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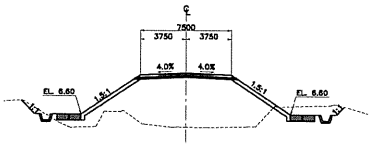

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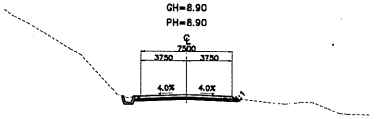

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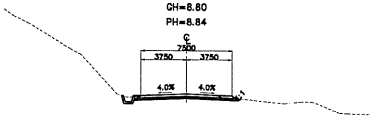

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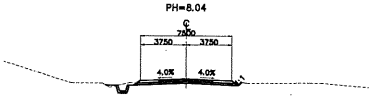

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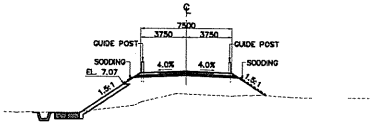

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DIRECTORATE GENERAL OF HIGHWAY MINISTRY OF PUBLIC WORKS THE REPUBLIC OF INDONESIA	JAPAN INTERNATIONAL COOPERATION AGENCY	KATAHIRA & ENGINEERS INTERNATIONAL	THE BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTION OF BRIDGES IN THE PROVINCE OF NUSA TENGGARA BARAT, PHASE-2 IN THE REPUBLIC OF INDONESIA	TITLE: BR-16 TELONANG I BRIDGE APPROACH ROAD CROSS SECTIONS	SCALE: 1:400	DRAWING No: 6-8