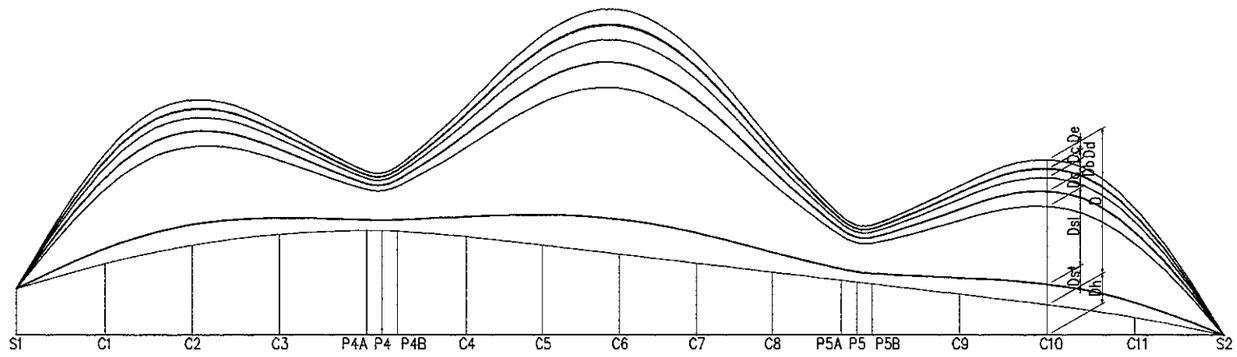
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY: Name S. MATSUI; Sign; Date CHECKED BY: Name T. OKUMURA; Sign; Date SUBMITTED BY: Name M. KIUCHI; Sign; Date	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS APPROVED BY: Ir. HERRY VAZA M,Eng.Sc; NIP. : 110038400; Sign; Date	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : NOT TO SCALE FULL SIZE A3	DRAWING TITLE : DEAD LOAD CAMBER DIAGRAM	DRAWING NO : BST-21 SHEET NO : 21 / 31



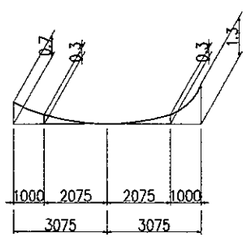
		S1	C1	C2	C3	P4A	P4	P4B	C4	C5	C6	C7	C8	P5A	P5	P5B	C9	C10	C11	S2
GIRDER G1, G2	Dh	0.0	68.9	116.6	144.2	151.9	151.2	149.8	136.2	112.7	89.1	65.5	42.0	20.7	16.0	11.3	−15.6	−42.5	−72.5	−122.7
	Dst	0.0	2.3	3.0	2.1	1.3	1.3	1.4	2.6	4.1	4.8	4.1	2.6	1.4	1.3	1.3	2.1	3.0	2.3	0.0
	Dsl	0.0	9.3	11.4	7.5	3.7	3.8	4.1	8.8	15.2	18.0	15.2	8.8	4.1	3.8	3.7	7.5	11.4	9.3	0.0
	Da	0.0	1.8	2.2	1.5	0.7	0.7	0.8	1.7	3.0	3.5	3.0	1.7	0.8	0.7	0.7	1.5	2.2	1.8	0.0
	Db	0.0	1.6	2.0	1.3	0.6	0.7	0.7	1.5	2.6	3.1	2.6	1.5	0.7	0.7	0.6	1.3	2.0	1.6	0.0
	Dc	0.0	1.0	1.2	0.8	0.4	0.4	0.4	0.9	1.6	1.9	1.6	0.9	0.4	0.4	0.4	0.8	1.2	1.0	0.0
	Dd	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0
	De	0.0	1.1	1.3	0.9	0.4	0.4	0.5	1.0	1.8	2.1	1.8	1.0	0.5	0.4	0.4	0.9	1.3	1.1	0.0
	D	0.0	17.2	21.2	14.1	7.2	7.4	8.1	16.6	28.5	33.6	28.5	16.6	8.0	7.4	7.2	14.1	21.2	17.2	0.0

DEAD LOAD CAMBER DIAGRAM OF GIRDER

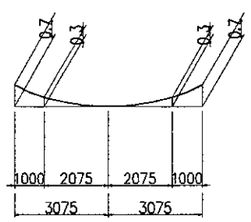
NOT TO SCALE

Dh : DEFLECTION DUE TO VERTICAL ALIGNEMENT
Dst : DEFLECTION DUE TO STEEL WEIGTH
Dsl : DEFLECTION DUE TO DECK SLAB
Da : DEFLECTION DUE TO RAILLING AND MEDIAN
Db : DEFLECTION DUE TO PAVEMENT
Dc : DEFLECTION DUE TO OUTER GUTTER AND MEDIAN
Dd : DEFLECTION DUE TO FALLING FENCE FOR RAILLING
De : DEFLECTION DUE TO FUTURE OVERLAY
D : TOTAL DEFLECTION

NOTES :
ALL UNIT IN MILLIMETERS

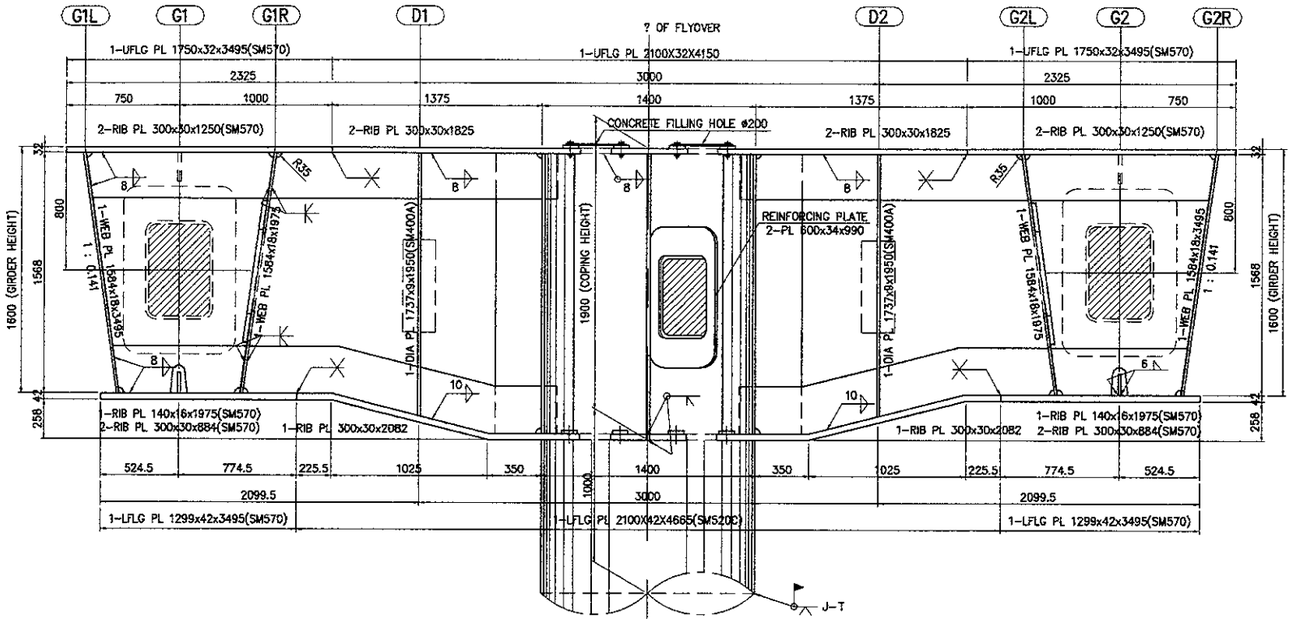


DEAD LOAD CAMBER DIAGRAM OF GIRDER P4
NOT TO SCALE

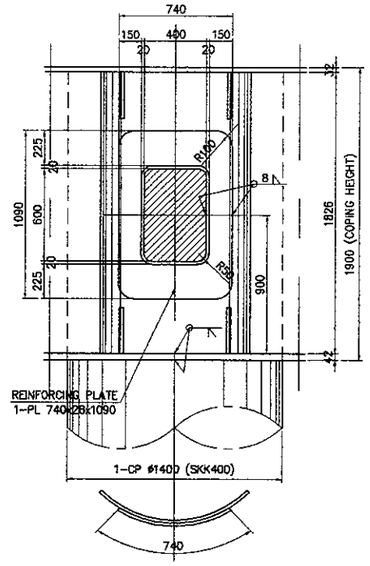


DEAD LOAD CAMBER DIAGRAM OF GIRDER P5
NOT TO SCALE

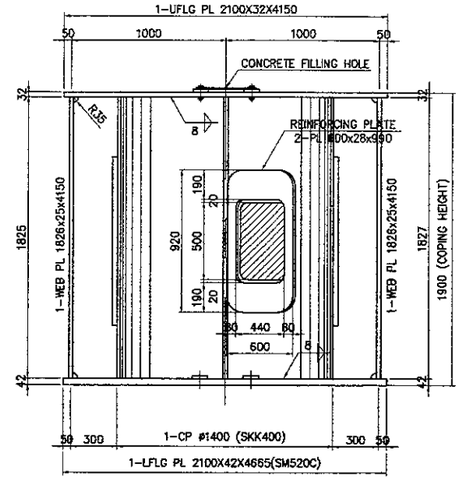
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1:30, 1:40 1:1000 FULL SIZE A3	DRAWING TITLE : DETAIL OF GIRDER P4 (1 OF 2)	DRAWING NO : BST-022 SHEET NO : 22 / 31
	Name	S. MATSUI	Name	T. OKUMURA	Name	M. KIUCHI				
	Sign		Sign		Sign					
	Date		Date		Date		APPROVED BY : Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400	Sign / Date		



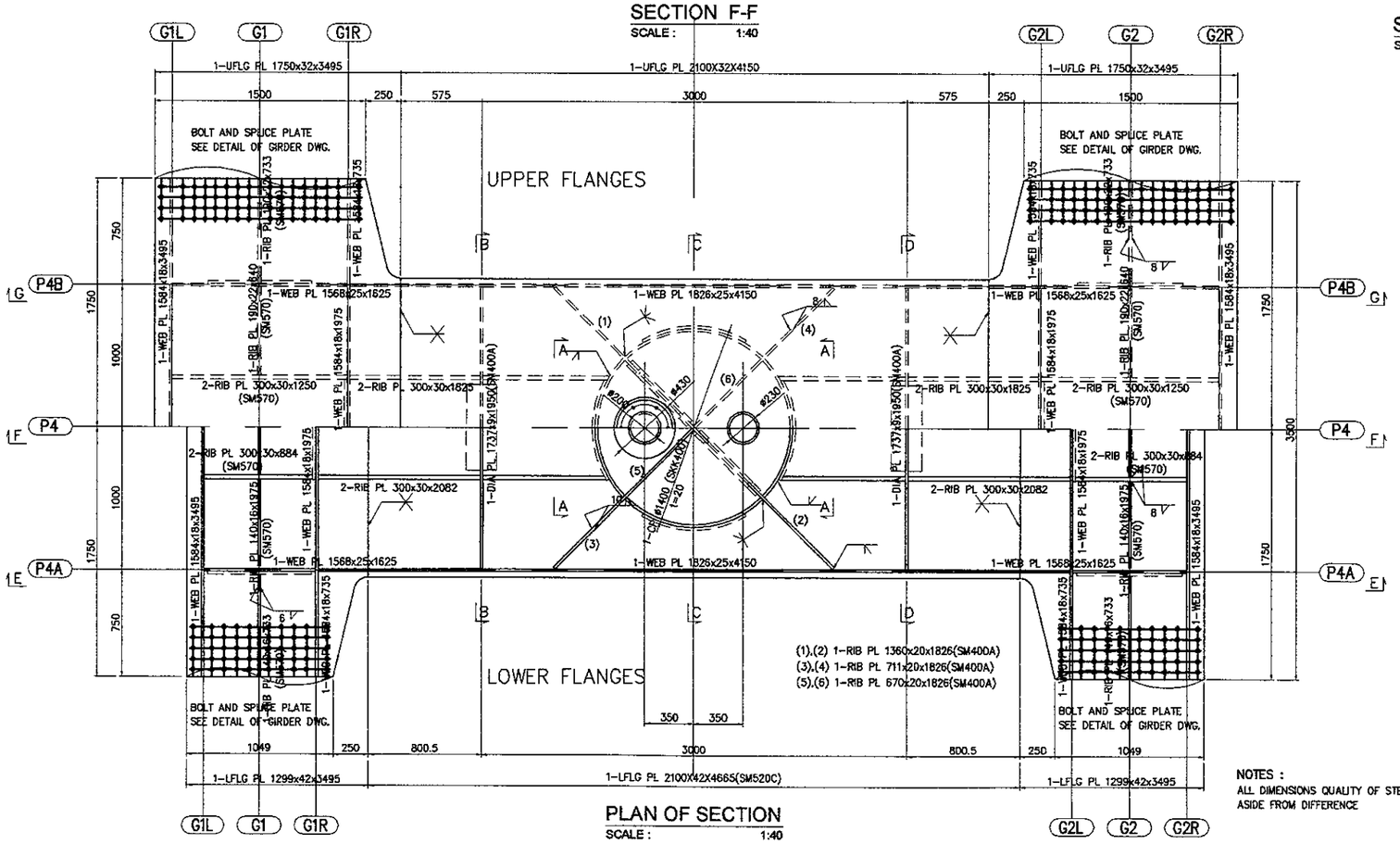
SECTION F-F
SCALE : 1:40



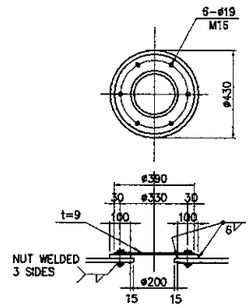
SECTION A-A
SCALE : 1:40



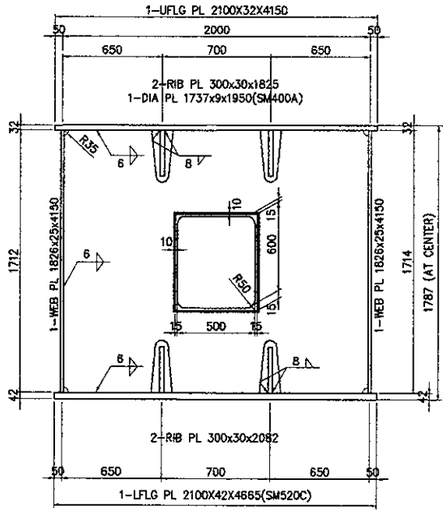
SECTION C-C
SCALE : 1:40



PLAN OF SECTION
SCALE : 1:40

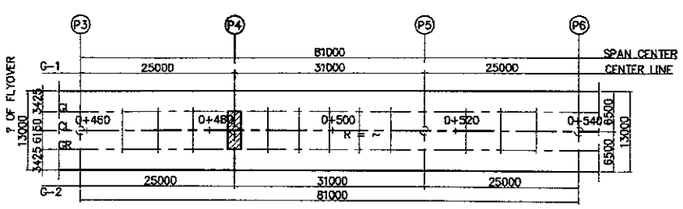


CONCRETE FILLING HOLE OF COLUMN
SCALE : 1:30



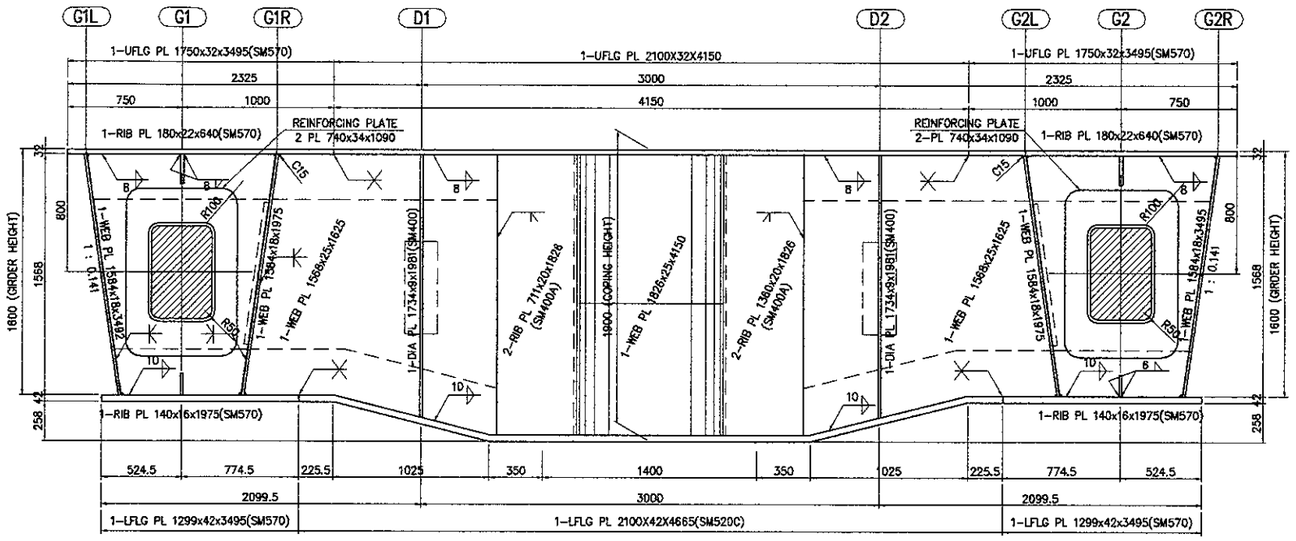
SECTION B-B (D-D)
SCALE : 1:40

NOTES :
ALL DIMENSIONS QUALITY OF STEEL REQUIRE OF SM490Y ASIDE FROM DIFFERENCE

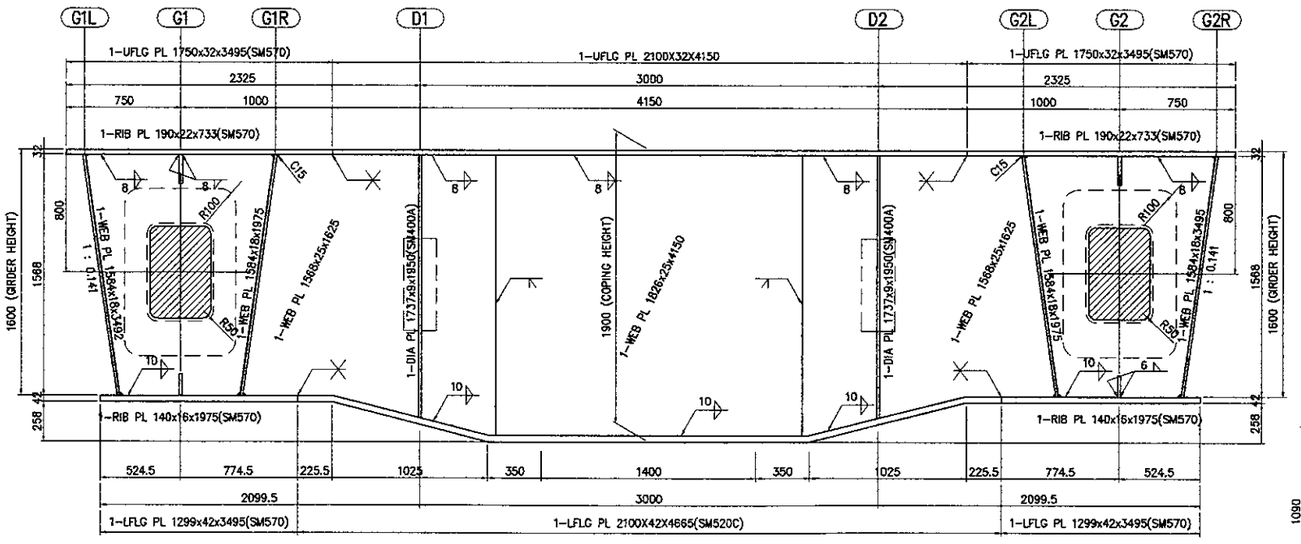


KEY PLAN
SCALE : 1:1000

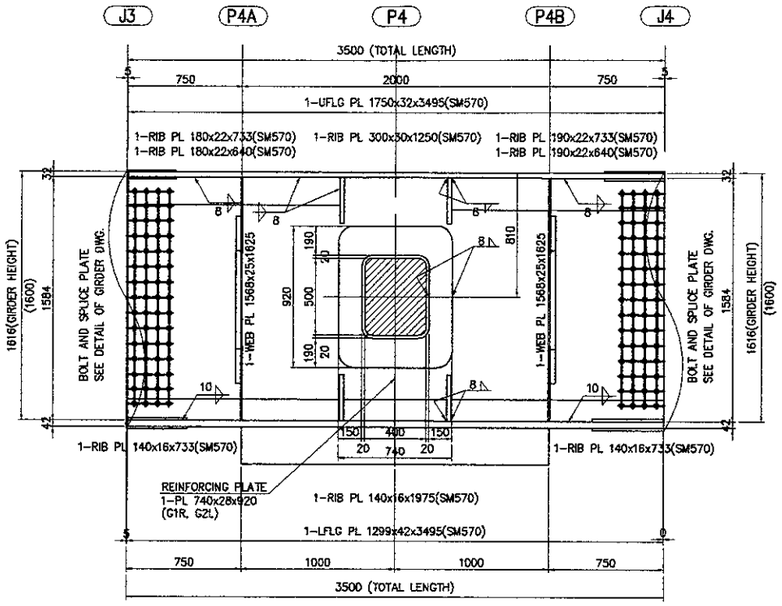
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS		PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name	S. MATSUI	Name	T. OKUMURA	Name	M. KIUCHI			DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1 : 40 FULL SIZE A3	DETAIL OF GIRDER P4 (2 OF 2)	BST-023 SHEET NO : 23 / 31
	Sign		Sign		Sign		APPROVED BY	Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400				
	Date		Date		Date			Sign / Date				



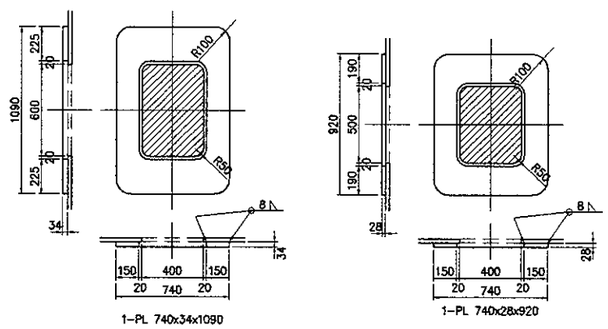
SECTION E-E
SCALE : 1:40



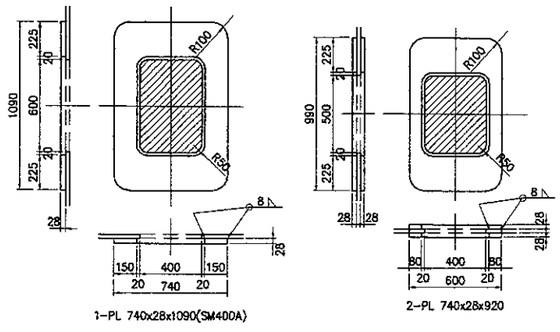
SECTION G-G
SCALE : 1:40



SECTION G1 (G2)
SCALE : 1:40



MAN HOLE OF GIRDER
SCALE : 1:40



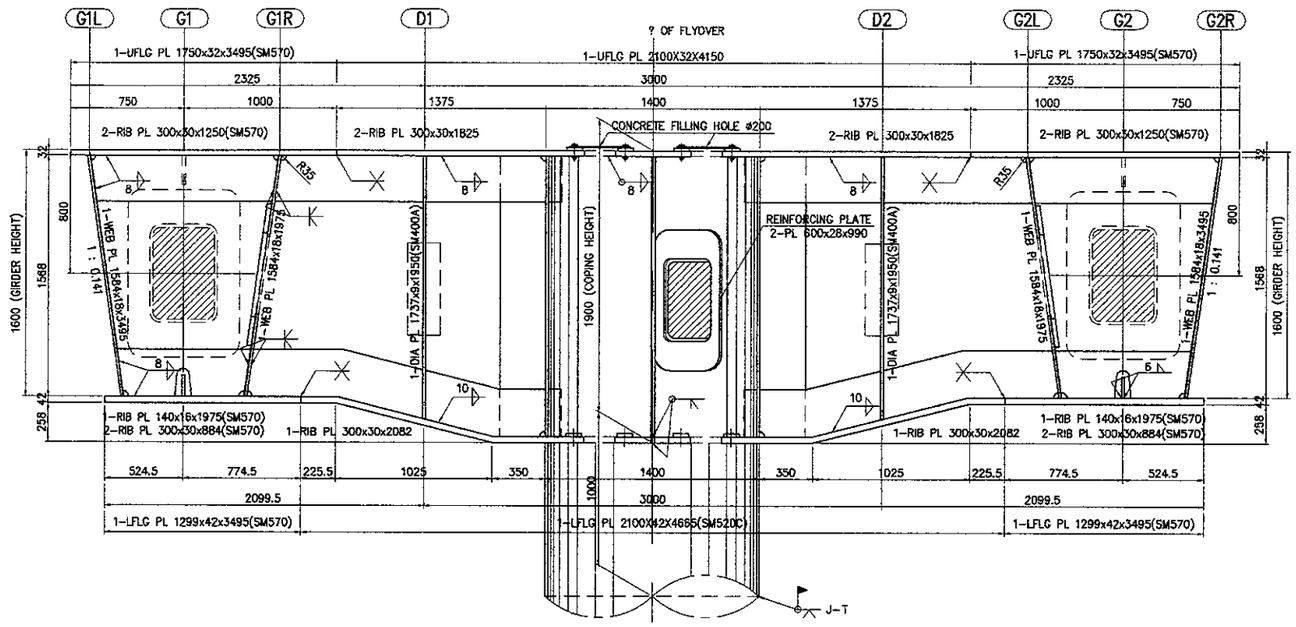
MAN HOLE OF PIER
SCALE : 1:40

NOTES :
ALL DIMENSIONS QUALITY OF STEEL REQUIRE OF SM490Y
ASIDE FROM DIFFERENCE

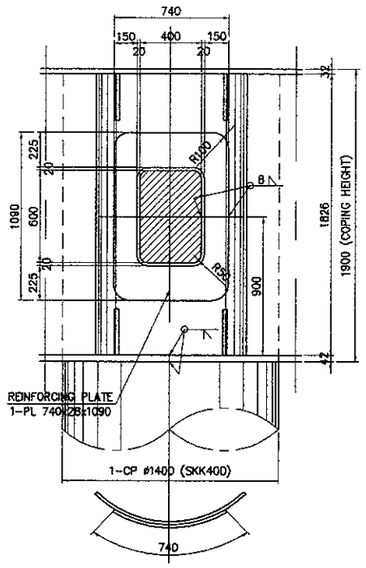
CORDINATES AND ELEVATIONS

		P4A	P4	P4B
G1L	X	9315355.6471	9315356.3309	9315357.0147
	Y	661762.2454	661762.9751	661763.7048
	Z	27.7678	27.7671	27.7657
G1	X	9315355.1874	9315355.8713	9315356.5551
	Y	661762.6762	661763.4059	661764.1356
	Z	27.7678	27.7671	27.7657
G1R	X	9315354.7278	9315355.4116	9315356.0954
	Y	661763.1070	661763.8367	661764.5664
	Z	27.7678	27.7671	27.7657
CL	X	9315352.9437	9315353.6275	9315354.3114
	Y	661764.7789	661765.5086	661766.2383
	Z	27.7678	27.7671	27.7657
G2L	X	9315351.1597	9315351.8435	9315352.5273
	Y	661766.4509	661767.1805	661767.9102
	Z	27.7678	27.7671	27.7657
G2	X	9315350.7000	9315351.3838	9315352.0676
	Y	661766.8817	661767.6113	661768.3410
	Z	27.7878	27.7671	27.7657
G2R	X	9315350.2403	9315350.9241	9315351.6080
	Y	661767.3125	661768.0421	661768.7718
	Z	27.7678	27.7671	27.7657

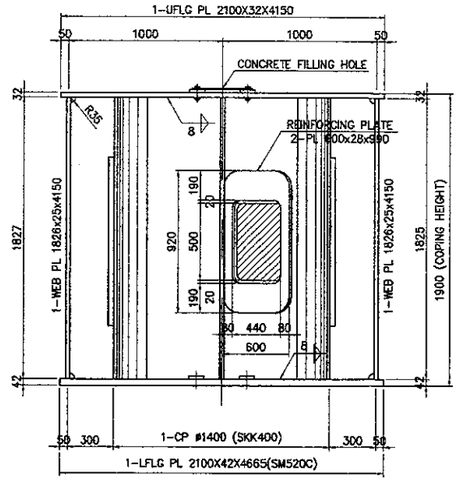
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name	S. MATSUI	Name	T.OKUMURA	Name	M. KIUCHI		DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1:30, 1:40 1:1000 FULL SIZE A3	DETAIL OF GIRDER P5 (1 OF 2)	BST-024
	Sign		Sign		Sign						SHEET NO :
	Date		Date		Date		APPROVED BY : Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				24 / 31



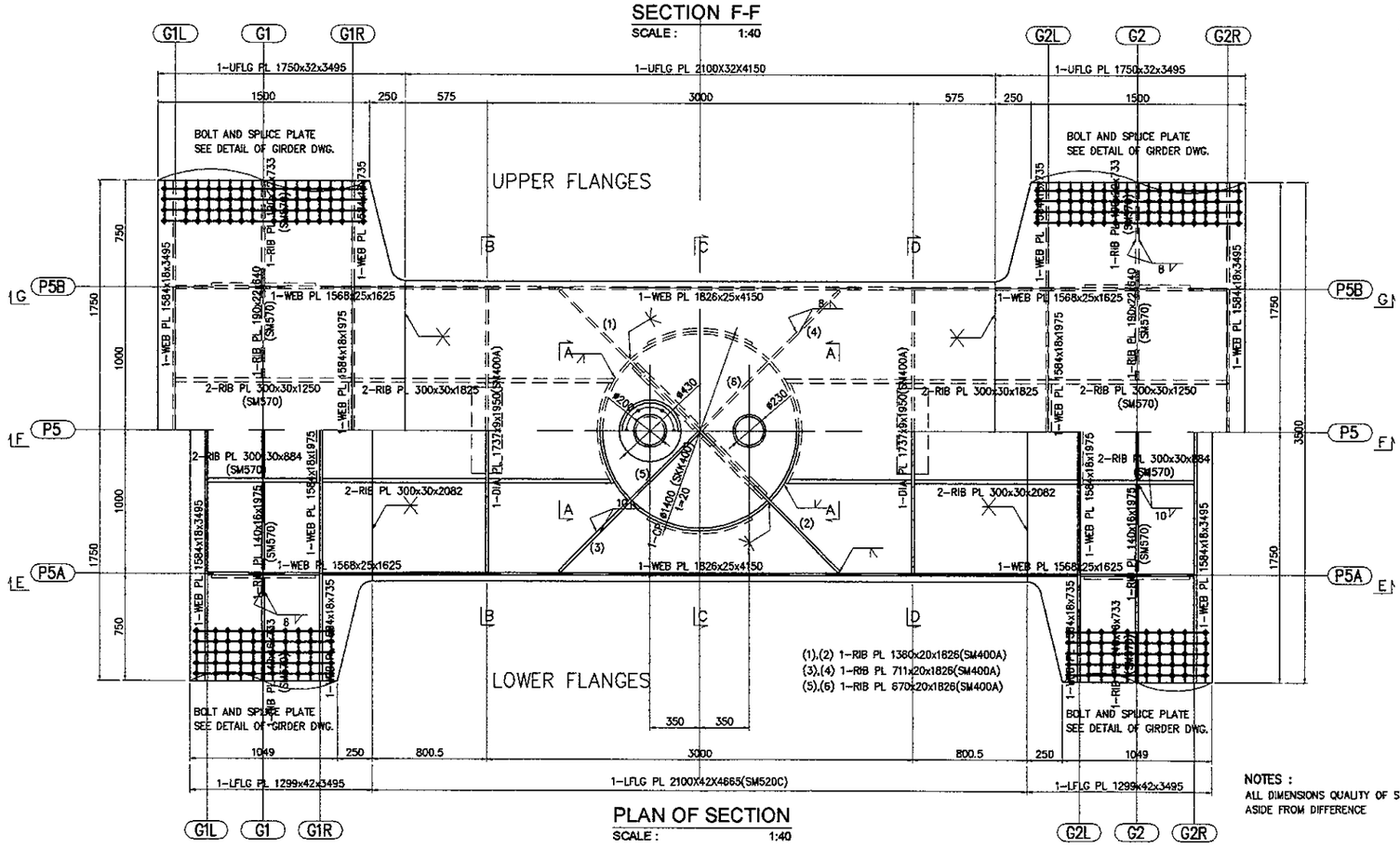
SECTION F-F
SCALE : 1:40



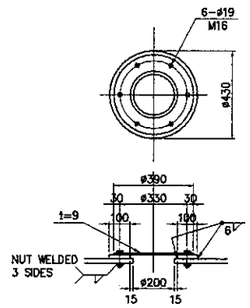
SECTION A-A
SCALE : 1:40



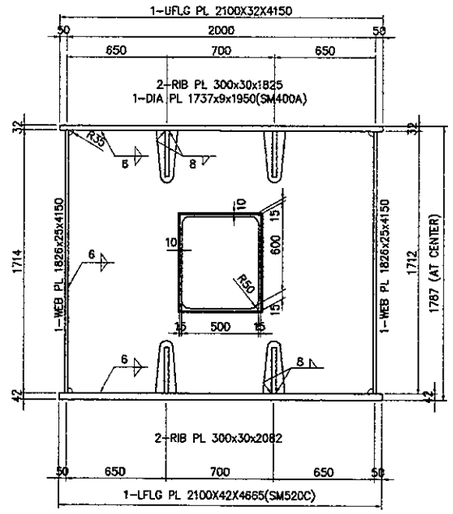
SECTION C-C
SCALE : 1:40



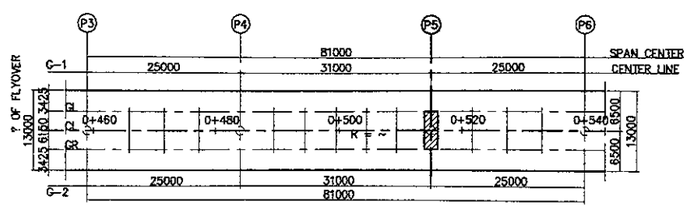
PLAN OF SECTION
SCALE : 1:40



CONCRETE FILLING
HOLE OF COLUMN
SCALE : 1:30



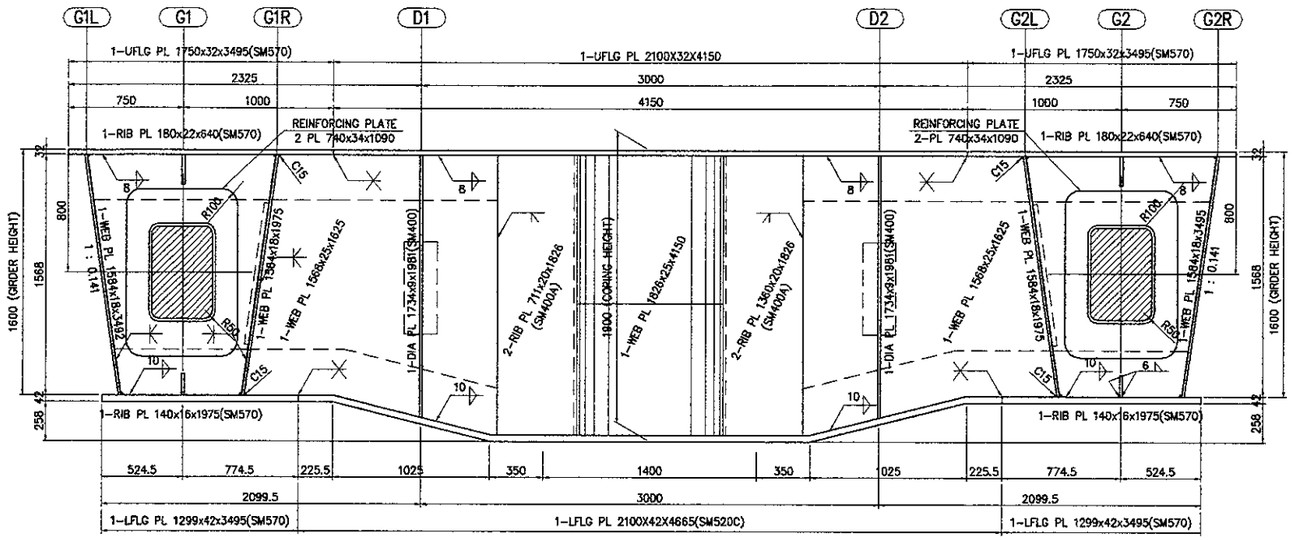
SECTION B-B (D-D)
SCALE : 1:40



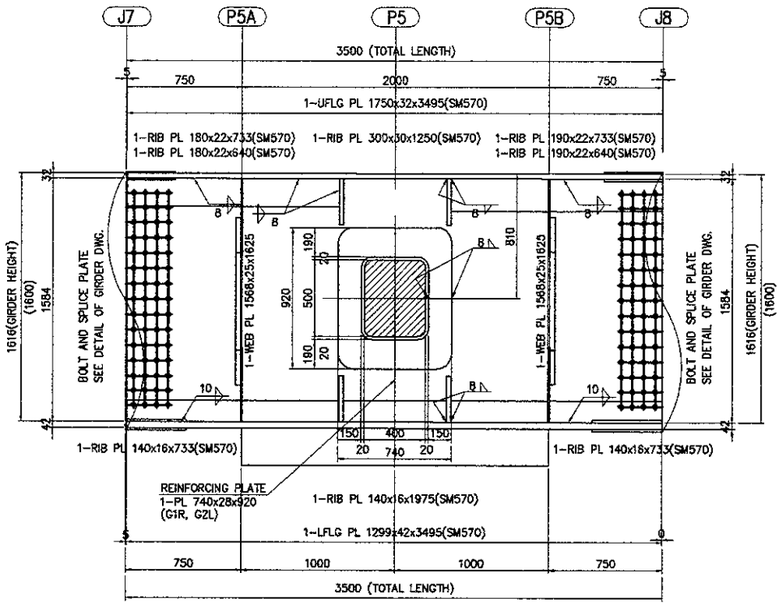
KEY PLAN
SCALE : 1:1000

NOTES :
ALL DIMENSIONS QUALITY OF STEEL REQUIRE OF SM490Y
ASIDE FROM DIFFERENCE

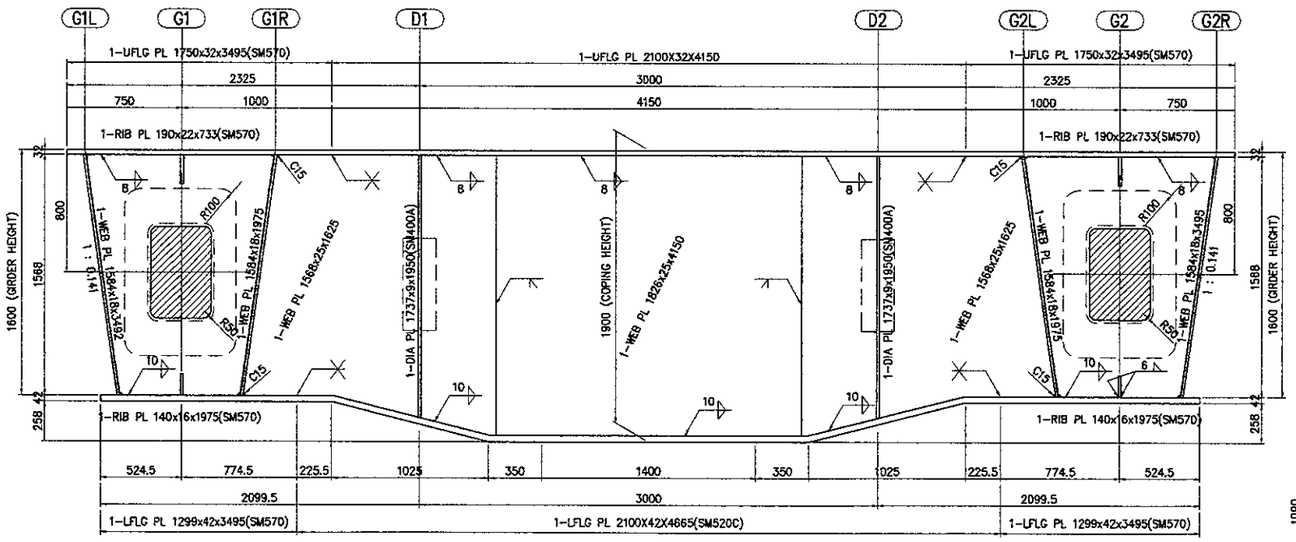
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 40 FULL SIZE A3	DRAWING TITLE : DETAIL OF GIRDER P5 (2 OF 2)	DRAWING NO : BST-025 SHEET NO : 25 / 31
	Name	S. MATSUI	Name	T.OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				



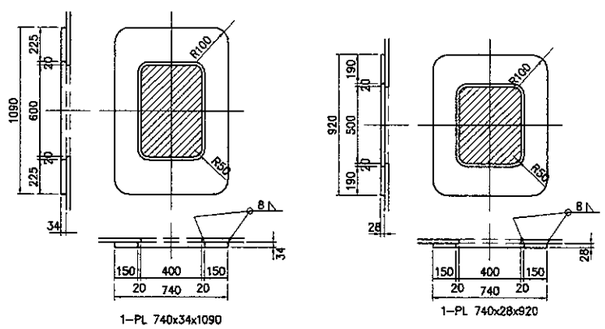
SECTION E-E
SCALE : 1:40



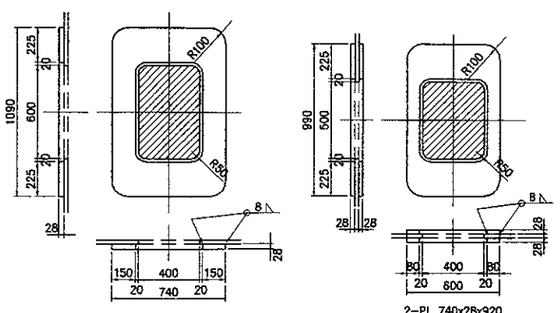
SECTION G1 (G2)
SCALE : 1:40



SECTION G-G
SCALE : 1:40



MAN HOLE OF GIRDER
SCALE : 1:40



MAN HOLE OF PIER
SCALE : 1:40

NOTES :
ALL DIMENSIONS QUALITY OF STEEL REQUIRE OF SM490Y
ASIDE FROM DIFFERENCE

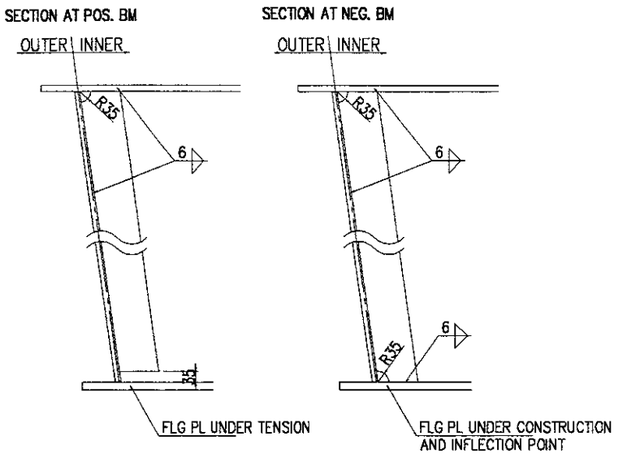
CORDINATES AND ELEVATIONS

		P5A	P5	P5B
G1L	X	9315376.8452	9315377.5290	9315378.2128
	Y	661784.8650	661785.5946	661786.3243
	Z	27.6366	27.6319	27.6272
G1	X	9315376.3855	9315377.0693	9315377.7531
	Y	661785.2958	661786.0254	661786.7551
	Z	27.6366	27.6319	27.6272
G1R	X	9315375.9258	9315376.6096	9315377.2934
	Y	661785.7266	661786.4562	661787.1859
	Z	27.6366	27.6319	27.6272
CL	X	9315374.1418	9315374.8256	9315375.5094
	Y	661787.3985	661788.1281	661788.8578
	Z	27.6366	27.6319	27.6272
G2L	X	9315372.3578	9315373.0416	9315373.7254
	Y	661789.0704	661789.8000	661790.5297
	Z	27.6366	27.6319	27.6272
G2	X	9315371.8981	9315372.5819	9315373.2657
	Y	661789.5012	661790.2308	661790.9605
	Z	27.6366	27.6319	27.6272
G2R	X	9315371.4384	9315372.1222	9315372.8060
	Y	661789.9320	661790.6616	661791.3913
	Z	27.6366	27.6319	27.6272

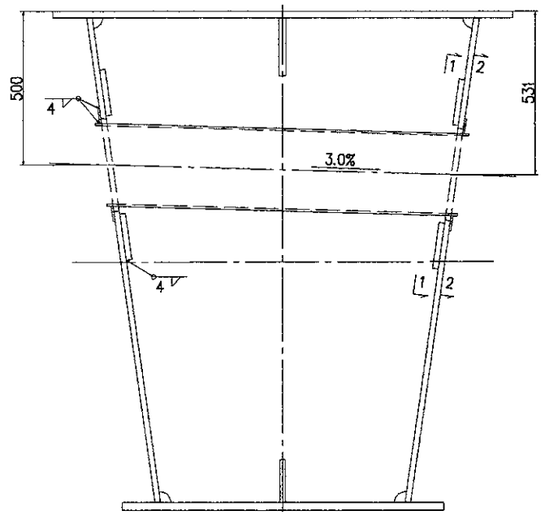
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY: Name S. MATSUI, Sign, Date	CHECKED BY: Name T. OKUMURA, Sign, Date	SUBMITTED BY: Name M. KIUCHI, Sign, Date	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS APPROVED BY: Ir. HERRY VAZA M,Eng.Sc, NIP. : 110038400, Sign, Date	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE

SCALE :	DRAWING TITLE :	DRAWING NO :
1:10, 1:20 1:400 FULL SIZE A3	DETAIL OF GIRDER ACCESSORIES	BST-26 SHEET NO : 26 / 31

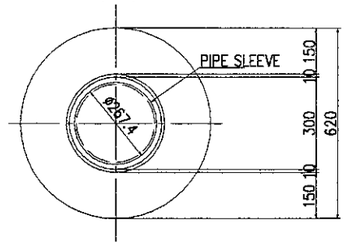
DETAIL OF VERTICAL WEB STIFFENER



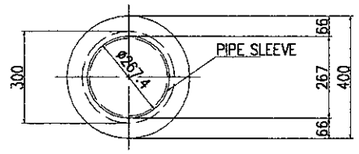
DETAIL OF WEB HOLE FOR DRAIN PIPE



1 - 1

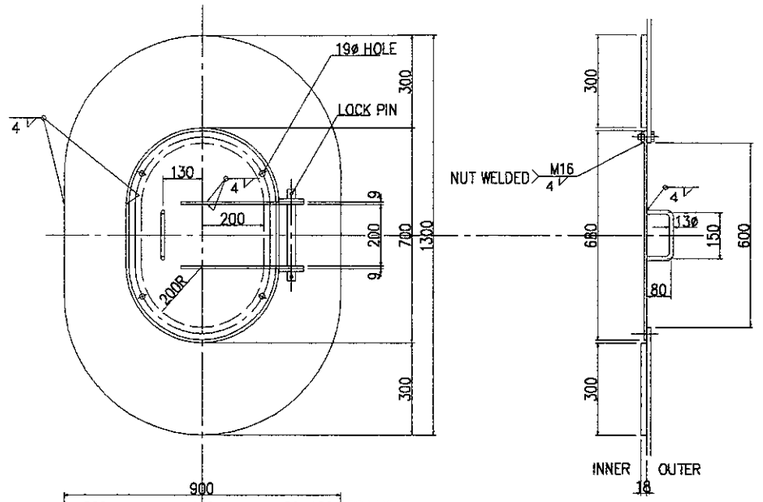


2 - 2

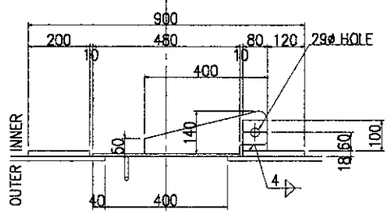


2–PL 620x18x620(SM490YB)
2–PL 400x6x400(SMA400AW)
1–PIPE ø267.4x6.6x1225(STK400)

DETAIL OF MAN HOLE

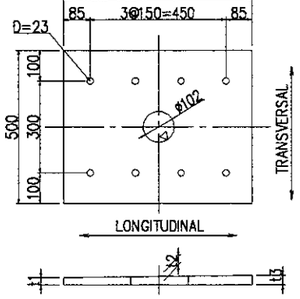


1–PL 1300x18x900(SM490YB)
1–PL 480x9x680(SMA400AW)
2–PL 140x9x400(SMA400AW)
2–PL 80x9x100(SMA400AW)
1–RB 13øx310(SR235)
4–BN M16x45(SS400)
1–PIPE 20Ax280(SGP)
(2–ROCK PIN)



DETAIL OF SOLE PLATE

SOLE PLATE BEARING

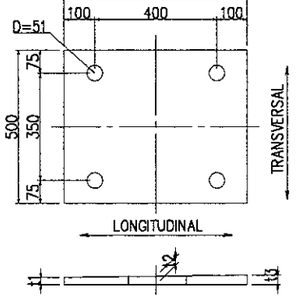


1–SOLE PL 500xtwx620

BEARING SOLE PLATE THICKNESS

	S1(P3)		S2(P6)	
	G1	G2	G1	G2
t1	22.3	22.3	28.7	28.7
t2	26	26	26	26
t3	29.7	29.7	23.3	23.3
tw	32	32	31	31

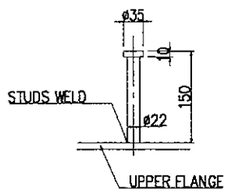
SOLE PLATE STOPPER



1–SOLE PL 500xtwx600

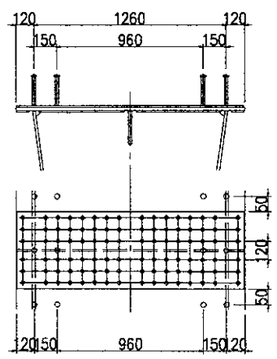
STOPPER SOLE PLATE THICKNESS

	S1(P3)		S2(P6)	
	G1	G2	G1	G2
t1	22.4	22.4	28.6	28.6
t2	26	26	26	26
t3	29.6	29.6	23.4	23.4
tw	32	32	31	31



DETAIL OF STUDS
(CONNECTION TO U-FLG)
SCALE : 1:10

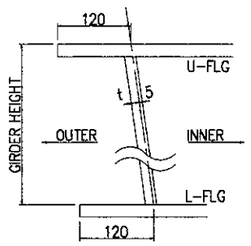
STUDS SHALL BE WELDED TO UPPER SPLICE PLATE



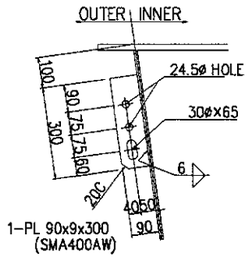
DETAIL OF DRAIN PIPE CROSSING

SCALE : 1:20

DIMENSION OF GIRDER

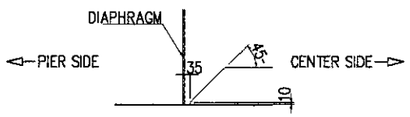


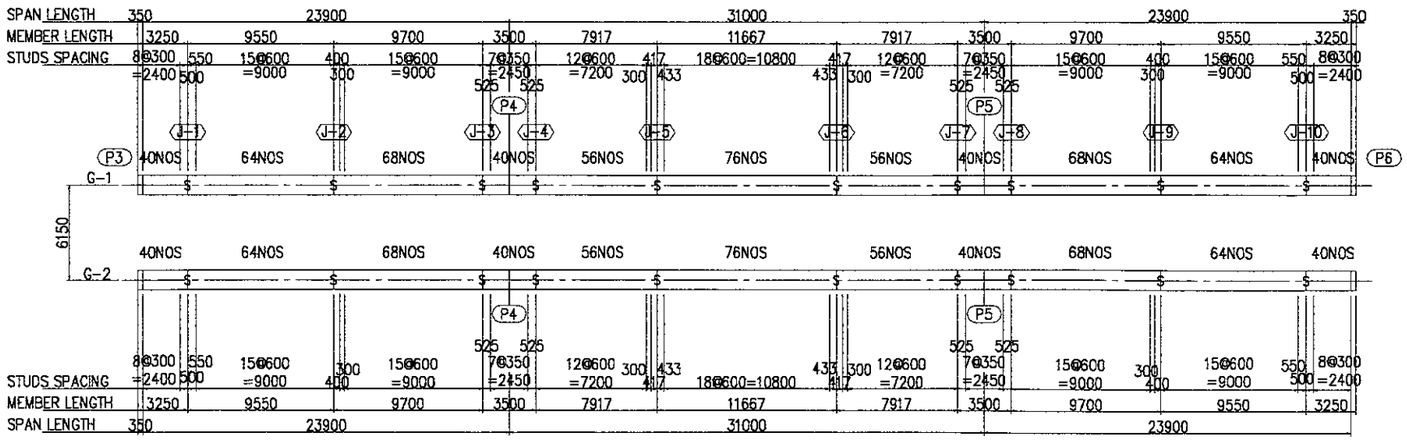
DETAIL OF HANGER



1–PL 90x9x300
(SMA400AW)

DETAIL OF LOG RIB

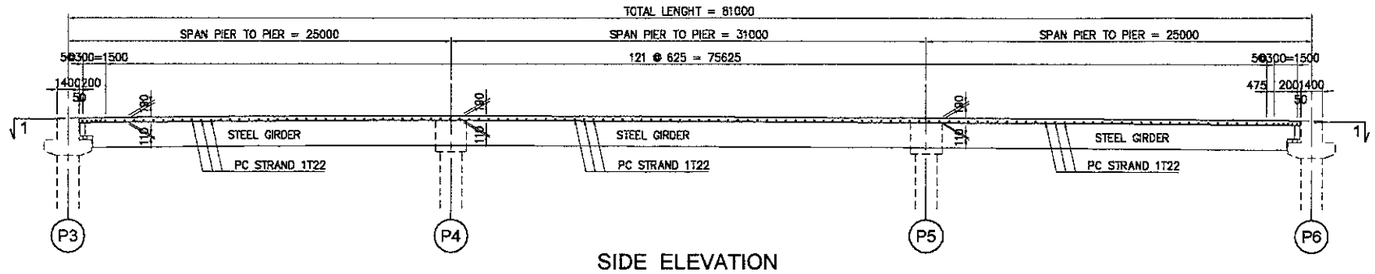




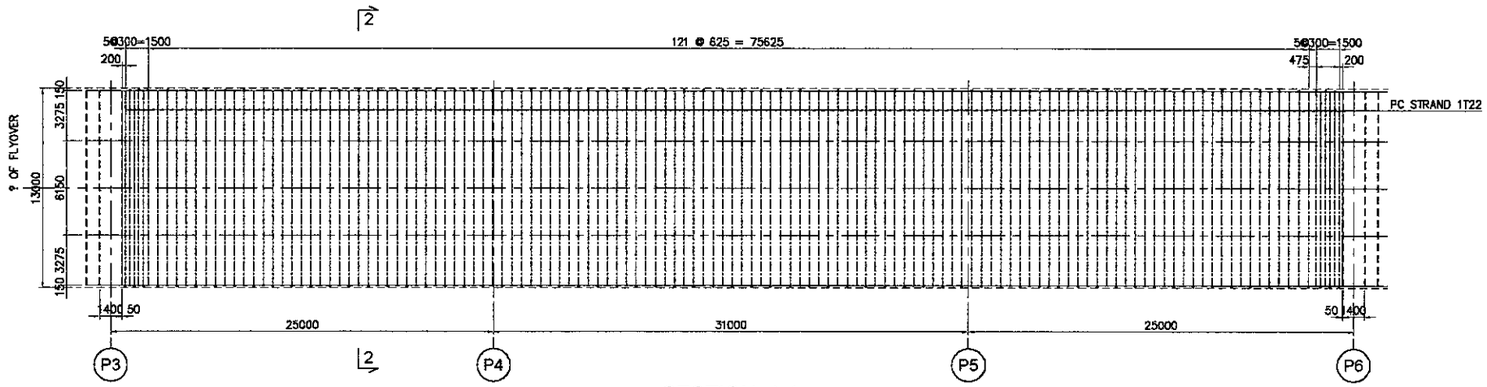
STUDS SPACING

SCALE : 1:400

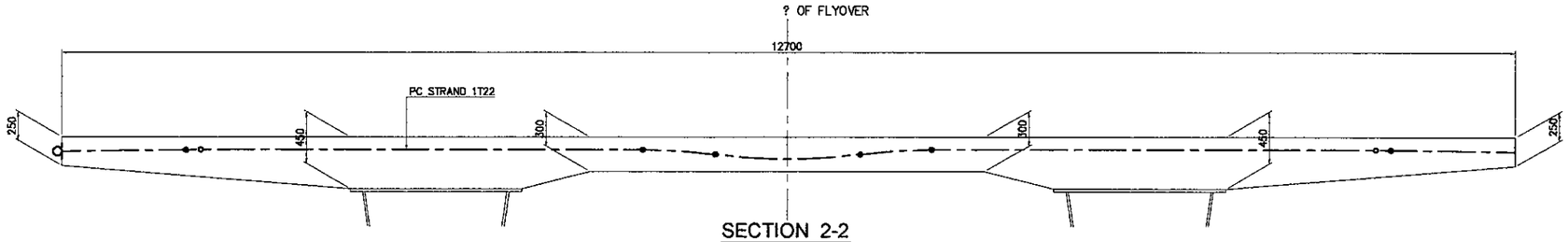
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS		PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name	S. MATSUI	Name	T. OKUMURA	Name	M. KIUCHI			DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1 : 000 FULL SIZE A3	DECK SLAB ARRANGEMENT OF PC CABLES P3 - P6	BST-27 SHEET NO : 27 / 31
	Sign		Sign		Sign		APPROVED BY	Ir. HERRY VAZA M.Eng.Sc NIP. : 110038400	Sign / Date			
	Date		Date		Date							



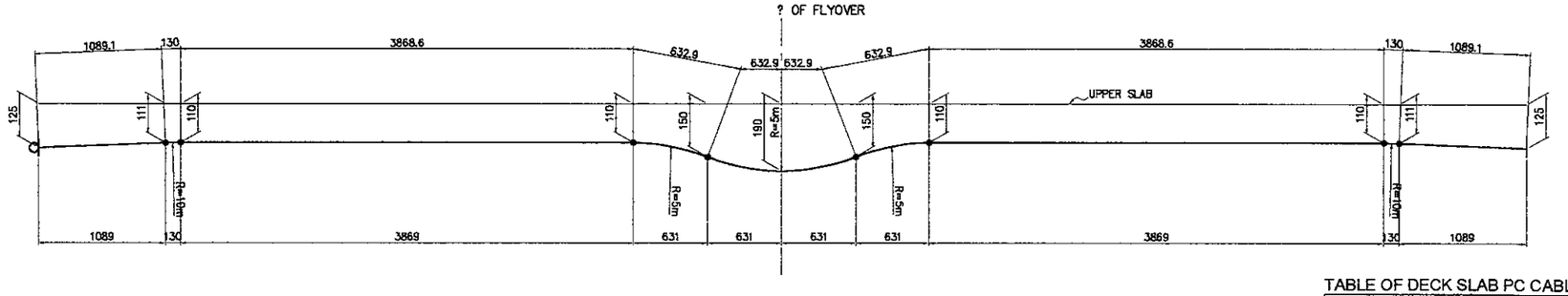
SIDE ELEVATION
SCALE : 1:400



SECTION 1-1
SCALE : 1:400



SECTION 2-2
SCALE : 1:50

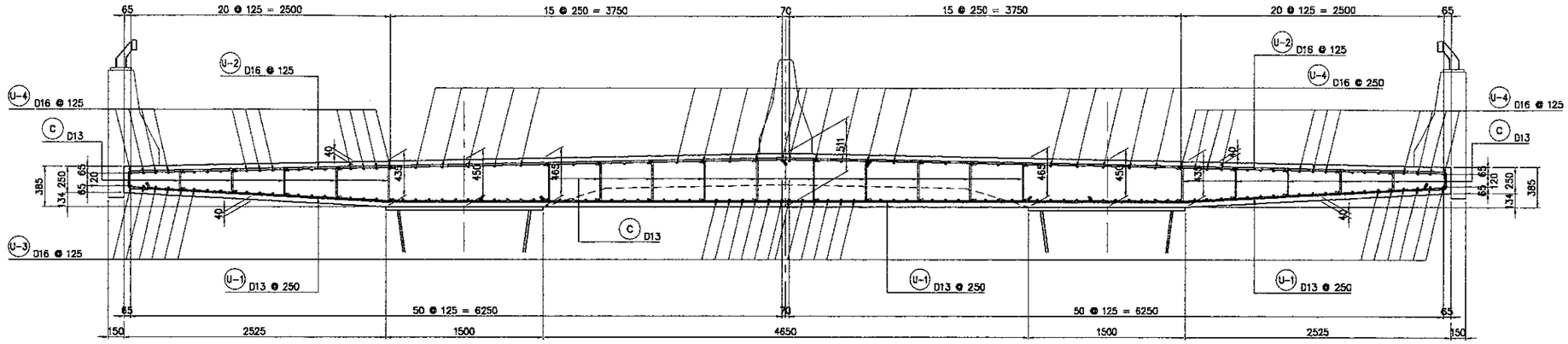


PC CABLE PROFILE
SCALE : 1:50

TABLE OF DECK SLAB PC CABLES 1T22 (Ø21.8 mm)

Length (m)	NOS	Unit Weight (kg / m)	Weight / 1 nos (kg)	Weight (kg)	Remarks
12.710	132	2.482	31.55	4,164.10	STRESSING ANCHORAGE ONE SIDE STAGERED
TOTAL LENGTH (L) = 1,677.72 m TOTAL WEIGHT (W) = 4,164.10 kg					

JICA JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name	S. MATSUI	Name	T. OKUMURA	Name	M. KIUCHI		DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1 : 50 FULL SIZE A3	DECK SLAB REINFORCEMENT ARRANGEMENT P3 - P6 (1 OF 2)	BST-28 SHEET NO : 28 / 31
	Sign		Sign		Sign		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				
	Date		Date		Date						



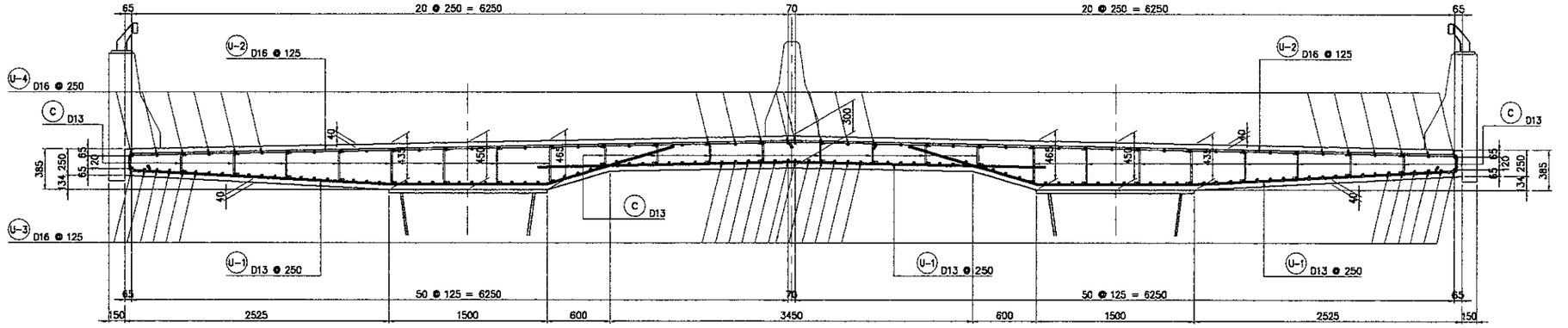
TYPICAL CROSS SECTION REINFORCEMENT AT EXP. JOINT

SCALE : 1:50

TRANVERSAL REBAR,	LOWER	: U-1
	UPPER	: U-2
LONGITUDINAL REBAR,	LOWER	: U-3
	UPPER	: U-4
ERECTION REBAR		: C
REBAR CLEAR COVER		: 40 mm, ALL

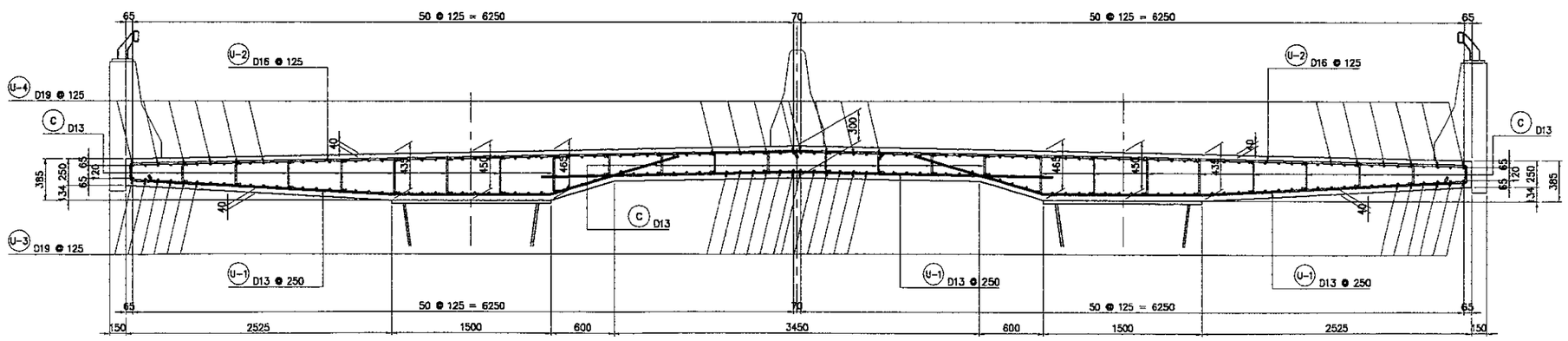
NOTES :

1. ALL DIMENSION ARE IN MILLIMETER UNLESS NOTED OTHERWISE
2. CONCRETE , fc' = 35 MPa
3. REBARS, BJTD 40, fy = 400 MPa
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO CARRY OUT THE FOLLOWING BEFORE CONSTRUCTION :
   - VERIFICATION OF ALL ELEVATIONS AND DIMENSIONS, USING ACTUAL FIELD SURVEY
   - PREPARATION AND SUBMISSION OF SHOP DRAWINGS FOR ALL BRIDGE COMPONENTS FOR THE ENGINEERS APPROVAL



TYPICAL CROSS SECTION REINFORCEMENT AT MIDSPAN

SCALE : 1:50

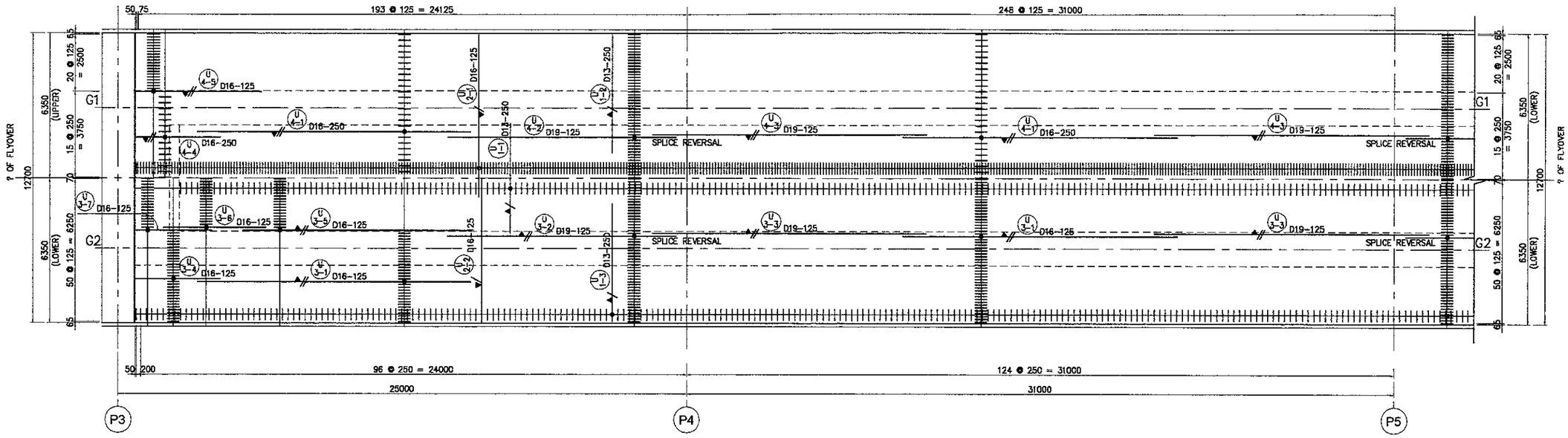


TYPICAL CROSS SECTION REINFORCEMENT AT PIER

SCALE : 1:50

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS
	Name	S. MATSUI	Name	T. OKUMURA	Name	M. KIUCHI	
	Sign		Sign		Sign		APPROVED BY: Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date
	Date		Date		Date		

PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1 : 50 1 : 200 FULL SIZE A3	DECK SLAB REINFORCEMENT ARRANGEMENT P3 - P6 (2 OF 2)	BST-29 SHEET NO : 29 / 31



DECK SLAB REINFORCEMENT ARRANGEMENT P3 - P5

SCALE : 1:200

DECK POURING SEQUENCE :

TO CONTROL THE EFFECTS OF CONCRETE SHRINKAGE THE DECK IS TO BE POURED IN SECTIONS NOT EXCEEDING 30 METRES IN LENGTH WITH A MINIMUM SEVEN (7) DAY DELAY BETWEEN ADJOINING POURS. A STAGGERED SEQUENCE OF POURS MAY BE USED.

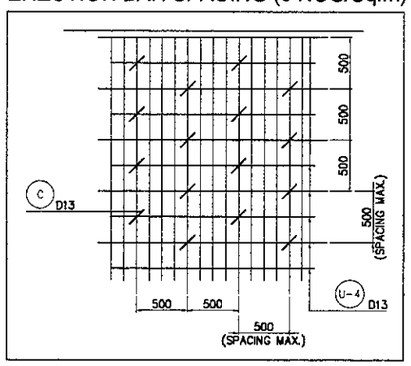
REBARS NOTATION :

- DENOTES TOP REBARS 1st LAYER
- DENOTES TOP REBARS 2nd LAYER
- DENOTES BOTTOM REBARS 1st LAYER
- DENOTES BOTTOM REBARS 2nd LAYER

CLEAR COVERS :

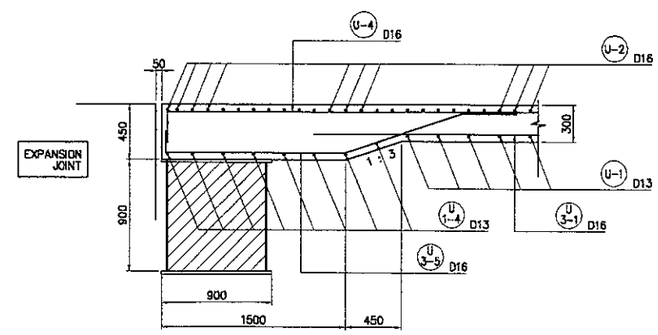
TOP : 40 MM
BOTTOM : 40 MM
SIDE : 40 MM

ERECTION BAR SPACING (3 NOS/Sq.m)



DECK SLAB REINFORCEMENT ARRANGEMENT P5 - P6

SCALE : 1:200



SECTION AT END SLAB THICKNESS

SCALE : 1:50

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY
	Name: S. MATSUI	Name: T. OKUMURA	Name: M. KIUCHI
	Sign:	Sign:	Sign:
	Date:	Date:	Date:

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

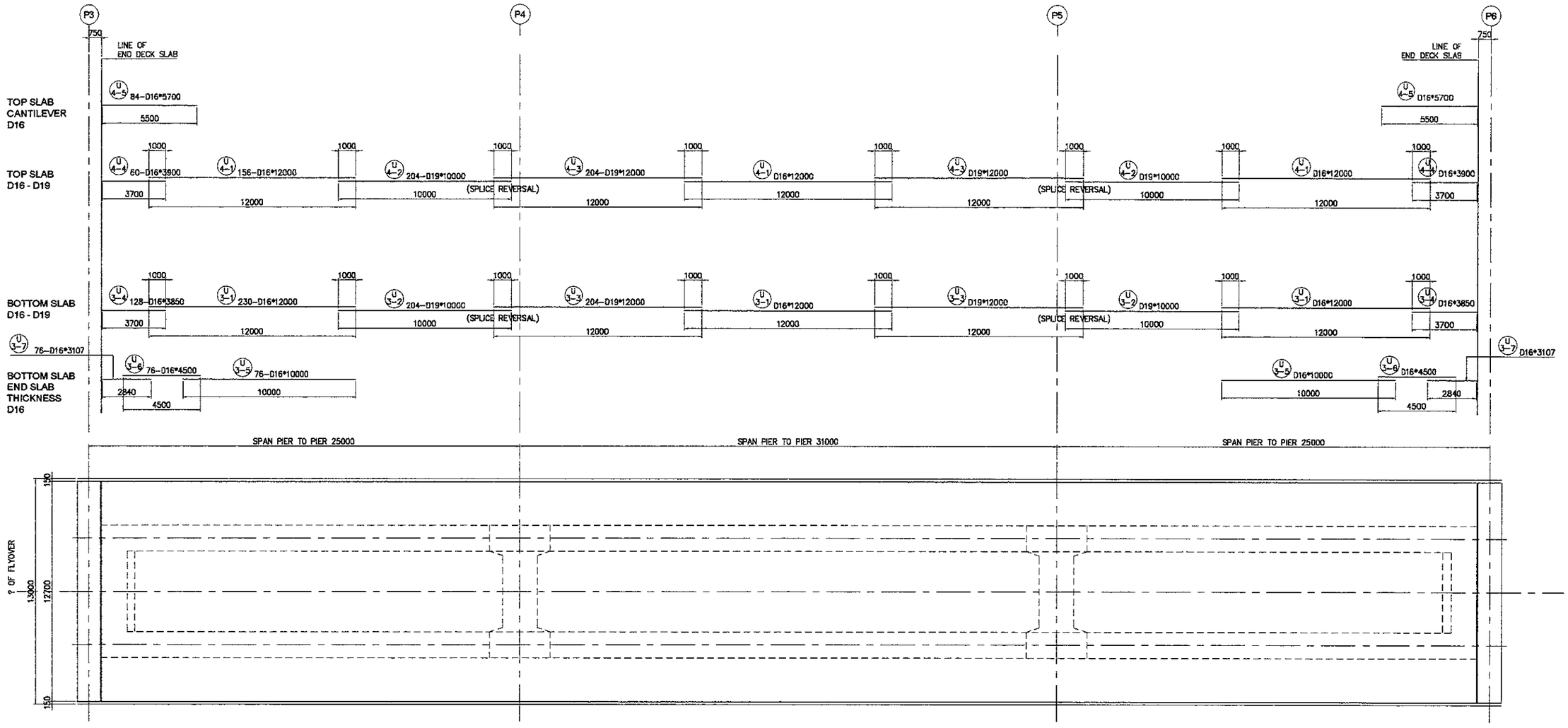
APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) — Sign: — Date:

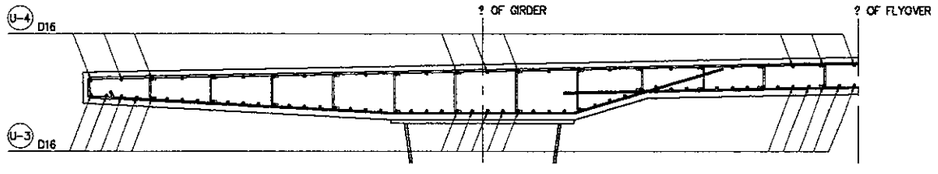
PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

SCALE : NOT TO SCALE — FULL SIZE A3

DRAWING TITLE :
DECK SLAB REINFORCEMENT SCHEDULE P3 - P6 (1 OF 2)

DRAWING NO : BST-30
SHEET NO : 30 / 31

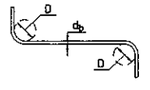
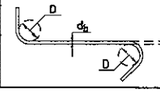




SPLICE LENGTH

TRANVERSAL	D13	600
	D16	800
LONGITUDINAL	D16 to D19	1000

STANDARD HOOKS

BENDING ANGLE OF REBARS	FIGURE	DIAMETER OF REBARS	DIAMETER OF BEND OF REBARS OUT TO OUT	STRAIGHT EXTENSION LENGTH
90°		D10 TO 16 GENERAL	6 db	6 db
		D10 TO 16 STIRRUP AND TIES	4 db	6 db
		D32	6 db	12 db
135°		D10 to D25	8 db	6 db

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY
	Name: S. MATSUI	Name: T. OKUMURA	Name: M. KIUCHI
	Sign:	Sign:	Sign:
	Date:	Date:	Date:

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) — Sign: — Date:

PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

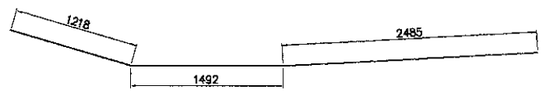
SCALE : NOT TO SCALE (FULL SIZE A3)

DRAWING TITLE :
DECK SLAB REINFORCEMENT
SCHEDULE P3 - P6 (2 OF 2)

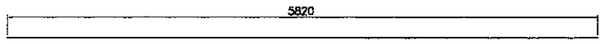
DRAWING NO : BST-31
SHEET NO : 31 / 31

U1-1 304-D13*4650

U1-2 304-D13*5195



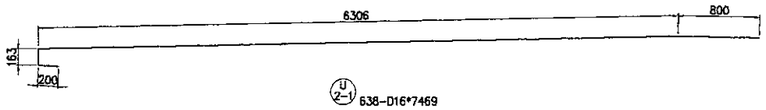
U1-3 304-D13*5195



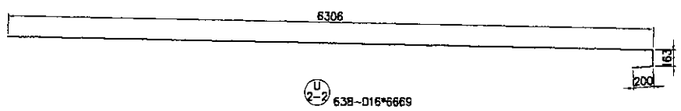
U1-4 16-D13*5820

U1-5 16-D13*3930

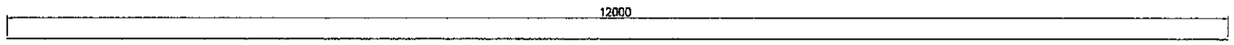
U1-6 16-D13*3930



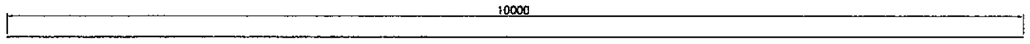
U2-1 638-D16*7469



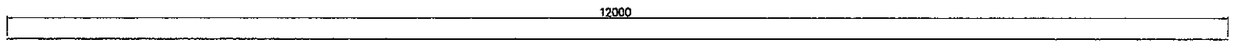
U2-2 638-D16*6669



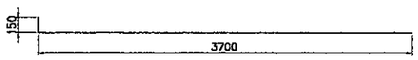
U3-1 230-D16*12000



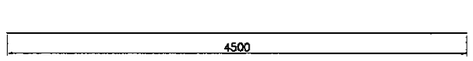
U3-2 204-D19*10000



U3-3 204-D19*12000

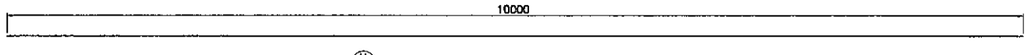


U3-4 128-D16*3850

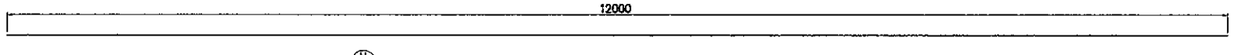


U3-6 76-D16*4500

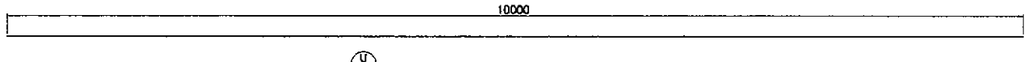
U3-7 76-D16*3107



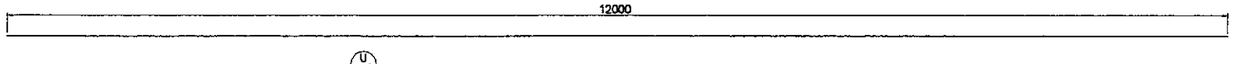
U3-5 76-D16*10000



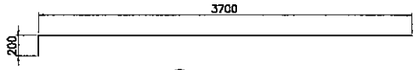
U4-1 156-D16*12000



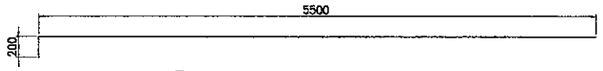
U4-2 204-D19*10000



U4-3 204-D19*12000



U4-4 60-D16*3900



U4-5 84-D16*5700

C 3101-D13*420

BAR BENDING SCHEDULE

REBAR NAME	DIA. (mm)	LENGTH (mm)	NOS.	UNIT WEIGHT (kg/m')	WEIGHT (kg)	TOTAL WEIGHT (kg)	DIAGRAM	REMARKS
U1-1	D13	4650	303	1.040	4.836	1465.31		
U1-2	D13	5195	303	1.040	5.403	1637.05		
U1-3	D13	5195	303	1.040	5.403	1637.05		
U1-4	D13	5820	16	1.040	6.053	96.84		
U1-5	D13	3930	16	1.040	4.087	65.40		
U1-6	D13	3930	16	1.040	4.087	65.40		
U2-1	D16	7469	637	1.580	11.801	7517.25		
U2-2	D16	6669	637	1.580	10.537	6712.08		
U3-1	D16	12000	230	1.580	18.960	4360.80		
U3-2	D19	10000	204	2.230	22.300	4549.20		
U3-3	D19	12000	204	2.230	26.760	5459.04		
U3-4	D16	3850	128	1.580	6.083	778.62		
U3-5	D16	10000	76	1.580	15.800	1200.80		
U3-6	D16	4500	76	1.580	7.110	540.36		
U3-7	D16	3107	76	1.580	4.909	373.09		
U4-1	D16	12000	156	1.580	18.960	2957.76		
U4-2	D19	10000	204	2.230	22.300	4549.20		
U4-3	D19	12000	204	2.230	26.760	5459.04		
U4-4	D16	3900	60	1.580	6.162	369.72		
U4-5	D16	5700	84	1.580	9.006	756.50		
C	D13	420	3101	1.040	0.437	1354.52		AVERAGE LENGTH
TOTAL STEEL WEIGHT AT SLAB P3 - P6						51905.03		

JAPAN INTERNATIONAL
COOPERATION AGENCY

DIRECTORATE GENERAL OF HIGHWAY
MINISTRY OF PUBLIC WORKS
REPUBLIC OF INDONESIA

CONCRETE SUPERSTRUCTURE

KATAHIRA & ENGINEERS INTERNATIONAL

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY
	Name: H. HONDA	Name: T. OKUMURA	Name: M. KIUCHI
	Sign:	Sign:	Sign:
	Date:	Date:	Date:

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

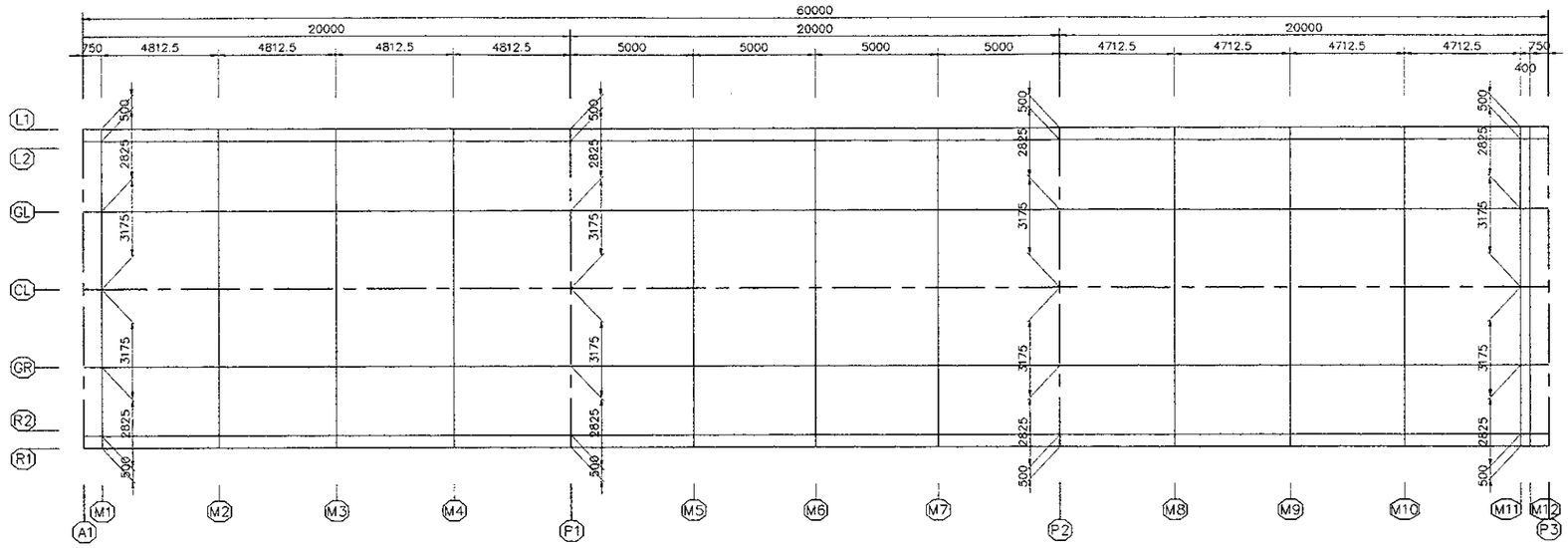
APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) — Sign: — Date:

PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

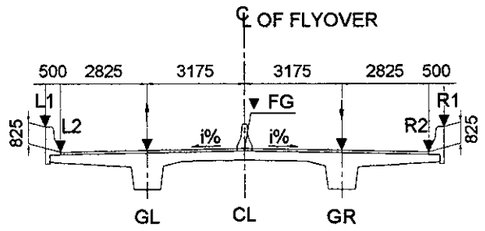
SCALE : 1 : 250 / 1 : 200 — FULL SIZE A3

DRAWING TITLE :
COORDINATES AND ELEVATION FOR PC GIRDER

DRAWING NO : BCL-001
SHEET NO : 01 / 20



PLAN VIEW
SCALE 1:250



SECTION VIEW
SCALE 1:200

LIST OF COORDINATES

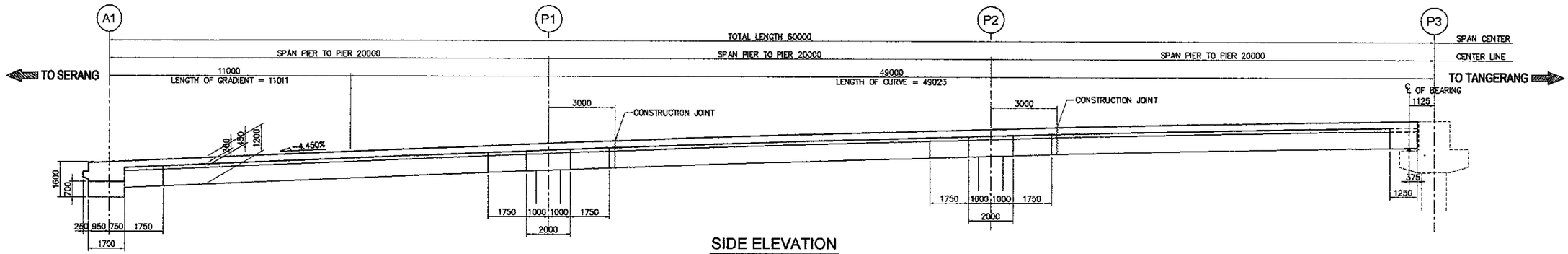
STA / LABEL		A1	M1	M2	M3	M4	P1	M5	M6	M7	P2	M8	M9	M10	M11	M12	P3
		0+398.0000	0+398.7500	0+404.5625	0+408.3750	0+414.1875	0+418.0000	0+424.0000	0+428.0000	0+434.0000	0+438.0000	0+443.7125	0+448.4250	0+453.1375	0+457.8500	0+458.2500	0+458.0000
L1	E	661699.0423	661699.5896	661703.1011	661706.6126	661710.1241	661713.6356	661717.2839	661720.9322	661724.5805	661728.2288	661731.6674	661735.1059	661738.5444	661741.983	661742.2748	661742.8221
	N	9315300.2485	9315300.7593	9315304.0501	9315307.341	9315310.6318	9315313.9226	9315317.3417	9315320.7607	9315324.1797	9315327.5988	9315330.8212	9315334.0437	9315337.2661	9315340.4886	9315340.7621	9315341.2749
	Z	26.9605	26.9939	27.208	27.4222	27.6309	27.8256	28.0127	28.1845	28.3408	28.4818	28.6006	28.7057	28.7972	28.875	28.881	28.8919
L2	E	661699.3842	661699.9315	661703.443	661706.9545	661710.466	661713.9775	661717.6258	661721.2741	661724.9224	661728.5707	661732.0093	661735.4478	661738.8863	661742.3249	661742.6167	661743.164
	N	9315299.8816	9315300.3945	9315303.6853	9315306.9761	9315310.267	9315313.5578	9315316.9768	9315320.3959	9315323.8149	9315327.2339	9315330.4564	9315333.6788	9315336.9013	9315340.1237	9315340.3972	9315340.9101
	Z	26.1355	26.1689	26.383	26.5972	26.8059	27.0006	27.1877	27.3595	27.5158	27.6568	27.7756	27.8807	27.9722	28.05	28.056	28.0669
GL	E	661701.316	661701.8633	661705.3748	661708.8863	661712.3977	661715.9092	661719.5576	661723.2059	661726.8542	661730.5025	661733.941	661737.3796	661740.8181	661744.2566	661744.5485	661745.0957
	N	9315297.8203	9315298.3332	9315301.624	9315304.9148	9315308.2057	9315311.4965	9315314.9155	9315318.3346	9315321.7536	9315325.1727	9315328.3951	9315331.6175	9315334.84	9315338.0624	9315338.336	9315338.8488
	Z	26.192	26.2254	26.4395	26.6537	26.8624	27.0571	27.2442	27.416	27.5723	27.7133	27.8321	27.9372	28.0287	28.1065	28.1125	28.1234
CL	E	661703.4871	661704.0343	661707.5458	661711.0573	661714.5688	661718.0803	661721.7286	661725.377	661729.0253	661732.6736	661736.1121	661739.5506	661742.9892	661746.4277	661746.7196	661747.2668
	N	9315295.5037	9315296.0165	9315299.3073	9315302.5982	9315305.889	9315309.1798	9315312.5989	9315316.0179	9315319.4369	9315322.856	9315326.0784	9315329.3009	9315332.5233	9315335.7458	9315336.0193	9315336.5321
	Z	26.2555	26.2889	26.503	26.7172	26.9259	27.1206	27.3077	27.4795	27.6358	27.7768	27.8956	28.0007	28.0922	28.17	28.176	28.1869
GR	E	661705.6582	661706.2054	661709.7169	661713.2284	661716.7399	661720.2514	661723.8997	661727.548	661731.1964	661734.8447	661738.2832	661741.7217	661745.1603	661748.5988	661748.8907	661749.4379
	N	9315293.187	9315293.6998	9315296.9907	9315300.2815	9315303.5723	9315306.8631	9315310.2822	9315313.7012	9315317.1203	9315320.5393	9315323.7617	9315326.9842	9315330.2066	9315333.4291	9315333.7026	9315334.2155
	Z	26.192	26.2254	26.4395	26.6537	26.8624	27.0571	27.2442	27.416	27.5723	27.7133	27.8321	27.9372	28.0287	28.1065	28.1125	28.1234
R2	E	661707.5899	661708.1372	661711.6487	661715.1602	661718.6717	661722.1832	661725.8315	661729.4798	661733.1281	661736.7764	661740.215	661743.6535	661747.092	661750.5306	661750.8224	661751.3697
	N	9315291.1257	9315291.6385	9315294.9294	9315298.2202	9315301.511	9315304.8018	9315308.2209	9315311.6399	9315315.059	9315318.478	9315321.7004	9315324.9229	9315328.1453	9315331.3678	9315331.6413	9315332.1542
	Z	26.1355	26.1689	26.383	26.5972	26.8059	27.0006	27.1877	27.3595	27.5158	27.6568	27.7756	27.8807	27.9722	28.05	28.056	28.0669
R1	E	661707.9318	661708.4791	661711.9906	661715.5021	661719.0136	661722.5251	661726.1734	661729.8217	661733.47	661737.1183	661740.5569	661743.9954	661747.4339	661750.8725	661751.1643	661751.7116
	N	9315290.7609	9315291.2737	9315294.5645	9315297.8554	9315301.1462	9315304.437	9315307.8561	9315311.2751	9315314.6941	9315318.1132	9315321.3356	9315324.5581	9315327.7805	9315331.0029	9315331.2765	9315331.7893
	Z	26.9605	26.9939	27.208	27.4222	27.6309	27.8256	28.0127	28.1845	28.3408	28.4818	28.6006	28.7057	28.7972	28.875	28.881	28.8919

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name H. HONDA	Name T. OKUMURA	Name M. KIUCHI		DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	NOT TO SCALE FULL SIZE A3	QUANTITIES SUMMARY FOR PC SUPERSTRUCTURE A1~P3, P6~A2	BCL-002 SHEET NO : 02 / 20
	Sign	Sign	Sign	APPROVED BY Ir. HERRY VAZA M,Eng.Sc Sign				
	Date	Date	Date	NIP. : 110038400 Date				

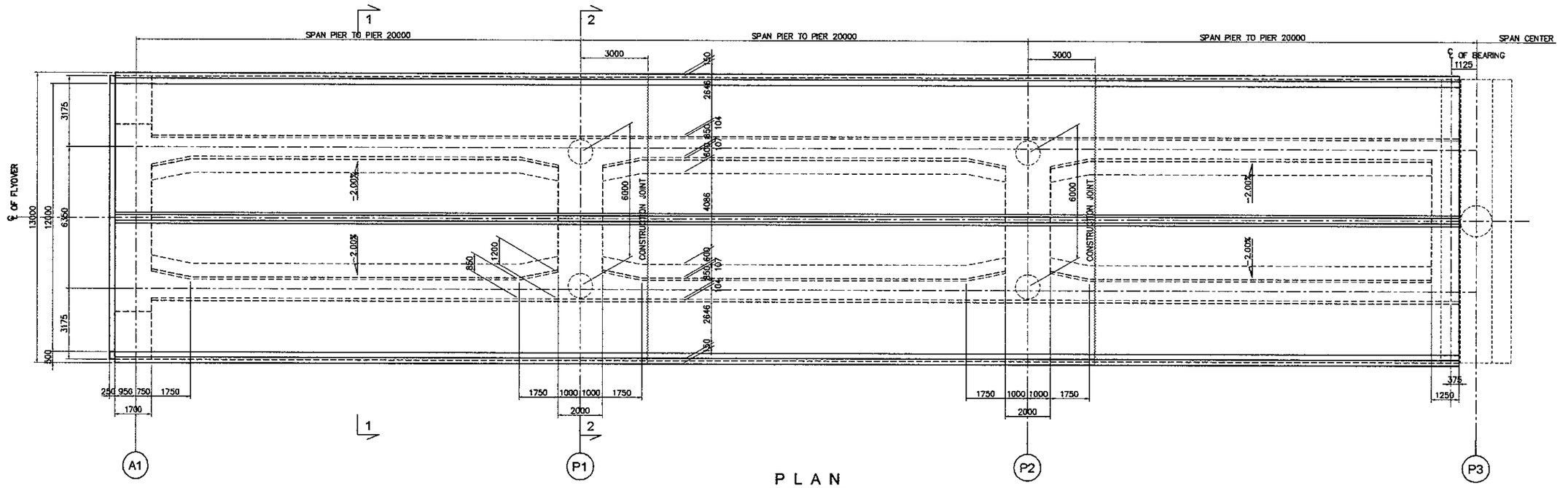
QUANTITY SUMMARY FOR PC SUPERSTRUCTURE

NO.	I T E M	UNIT	QUANTITY	NOTES
1	CONCRETE f'c = 35 MPa	m^3	940.11	
2	PC CABLE DECK SLAB	kg	6,877.08	
3	DEAD END ANCHORAGE PC DECK SLAB	pcs	218	
4	STRESSING ANCHORAGE PC DECK SLAB	pcs	218	
5	PC CABLE PPC GIRDER	kg	20,838.91	
6	DEAD END ANCHORAGE PPC GIRDER	pcs	32	
7	STRESSING ANCHORAGE PPC GIRDER	pcs	32	
8	COUPLER	pcs	40	
9	REBAR	ton	95.88	
10	WATERPROOFING	m^2		
11	PAVEMENT	m^2	--	HIGHWAY PORTION

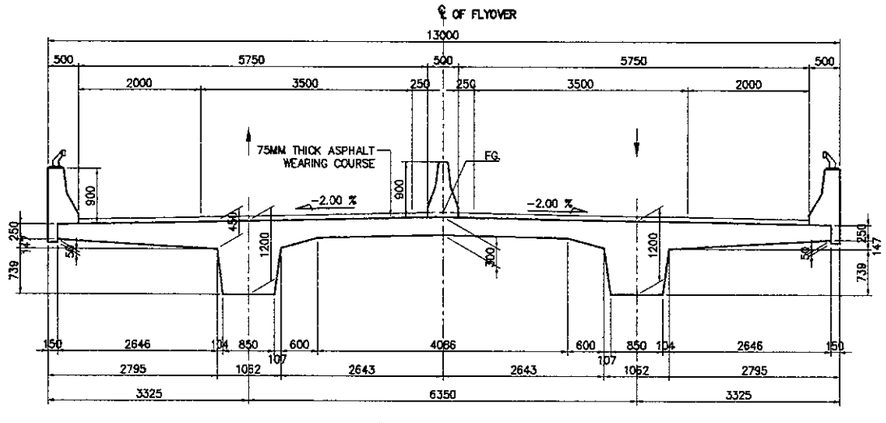
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 200 1 : 100 FULL SIZE A3	DRAWING TITLE : DIMENSION PLAN OF PC SUPERSTRUCTURE A1 - P3 (1 OF 2)	DRAWING NO : BCL-003 SHEET NO : 03 / 20
	Name	H. HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign		APPROVED BY	Ir. HERRY VAZA M,Eng.Sc	Sign		
	Date		Date		Date			NIP. : 110038400	Date		



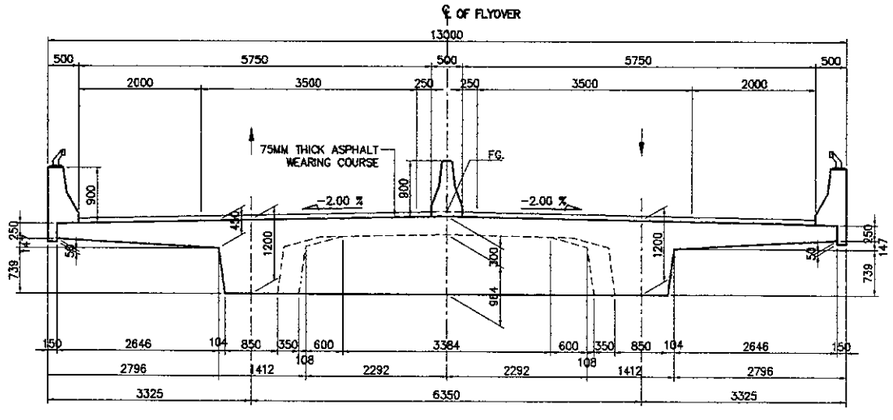
SIDE ELEVATION
SCALE 1 : 200



P L A N
SCALE 1 : 200

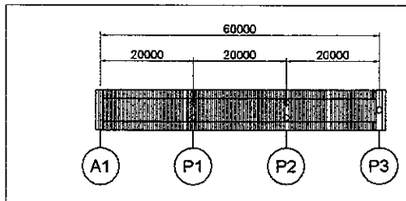


SECTION 1-1
SCALE 1 : 100



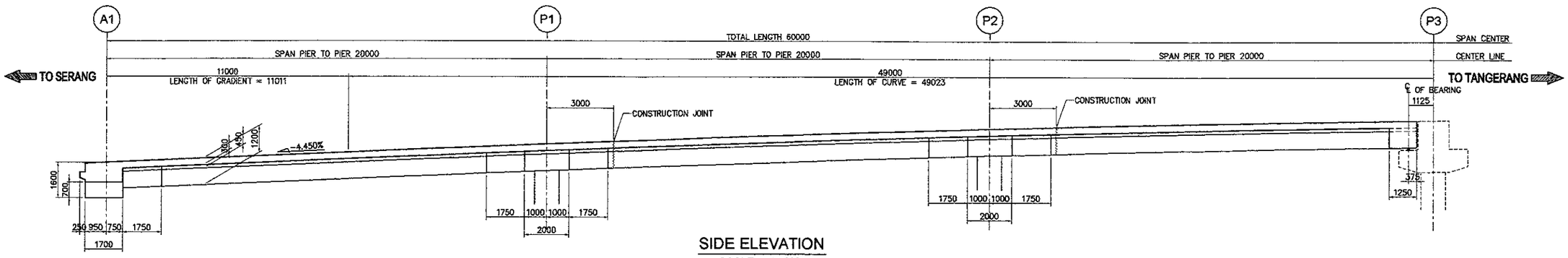
SECTION 2-2
SCALE 1 : 100

NOTES :
1. All dimension are in mm unless noted otherwise.
2. Concrete Girder and Slab fc'= 35 MPa.
3. All Reinforcing steel shall be BJTD 40 or ASTM A615 Grade 60 deformed bars.
4. The Contractor shall be responsible to carry out the following before Construction :
   a) Verification of all elevations and dimensions, using actual field survey.
   b) Preparation and submission of shop drawings for all bridge components for the Engineer's approval.

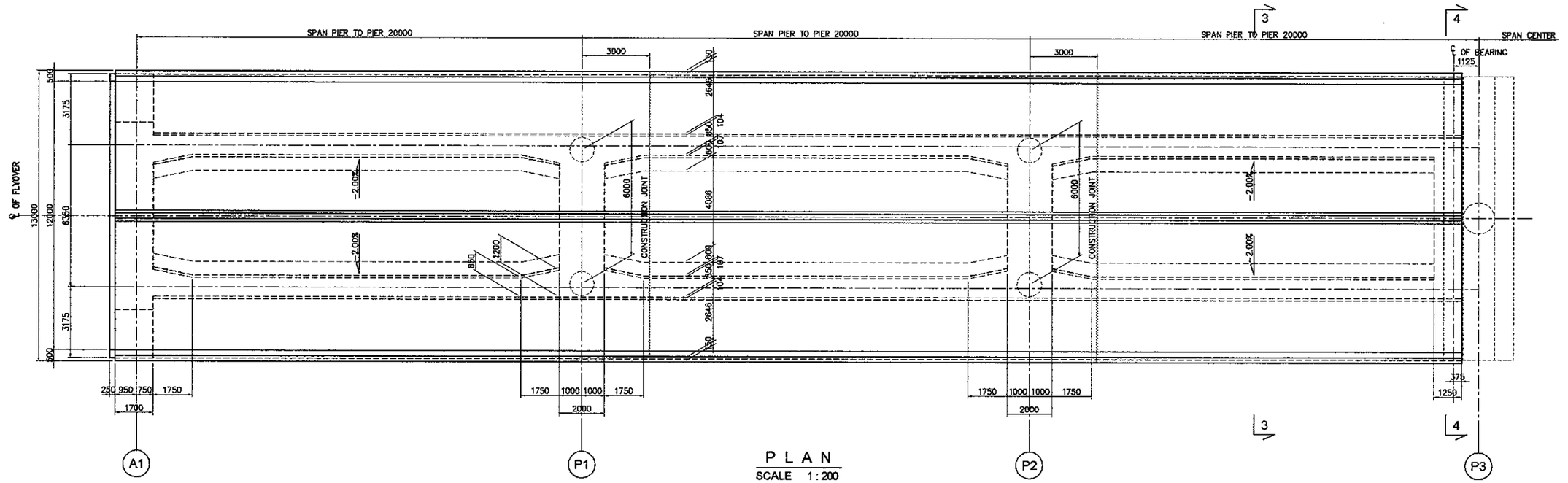


KEY PLAN

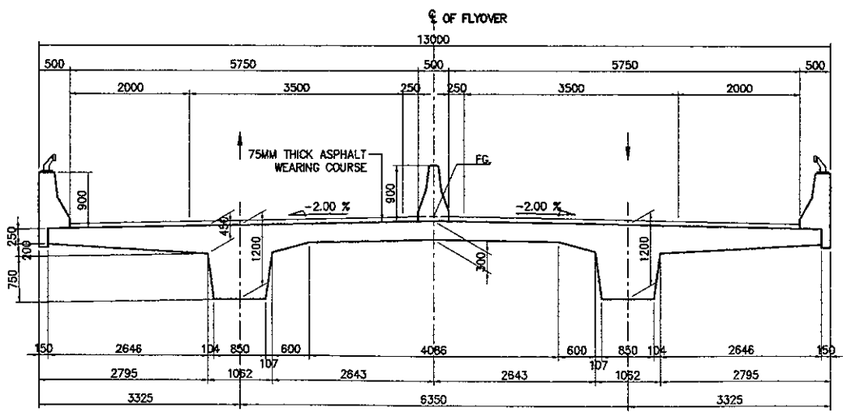
JICA JAPAN INTERNATIONAL COOPERATION AGENCY KEI KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 200 1 : 100 FULL SIZE A3	DRAWING TITLE : DIMENSION PLAN OF PC SUPERSTRUCTURE A1 - P3 (2 OF 2)	DRAWING NO : BCL-004 SHEET NO : 04 / 20
	Name	H. HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				



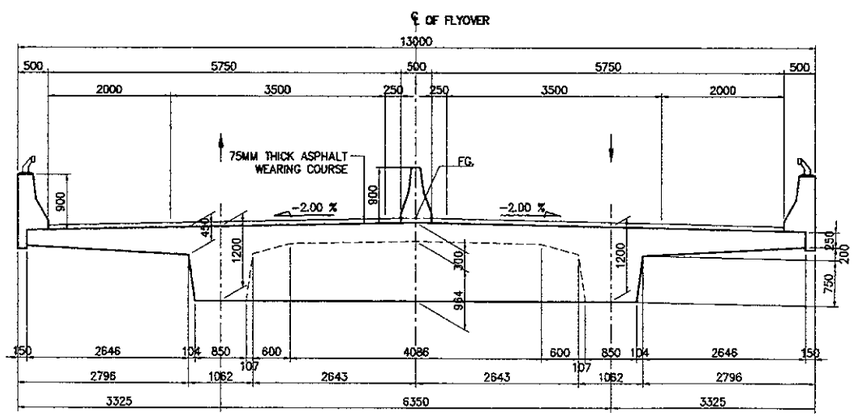
SIDE ELEVATION
SCALE 1 : 200



PLAN
SCALE 1 : 200

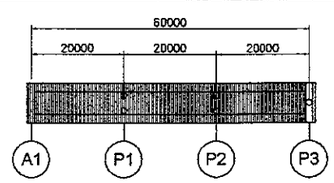


SECTION 3-3
SCALE 1 : 100



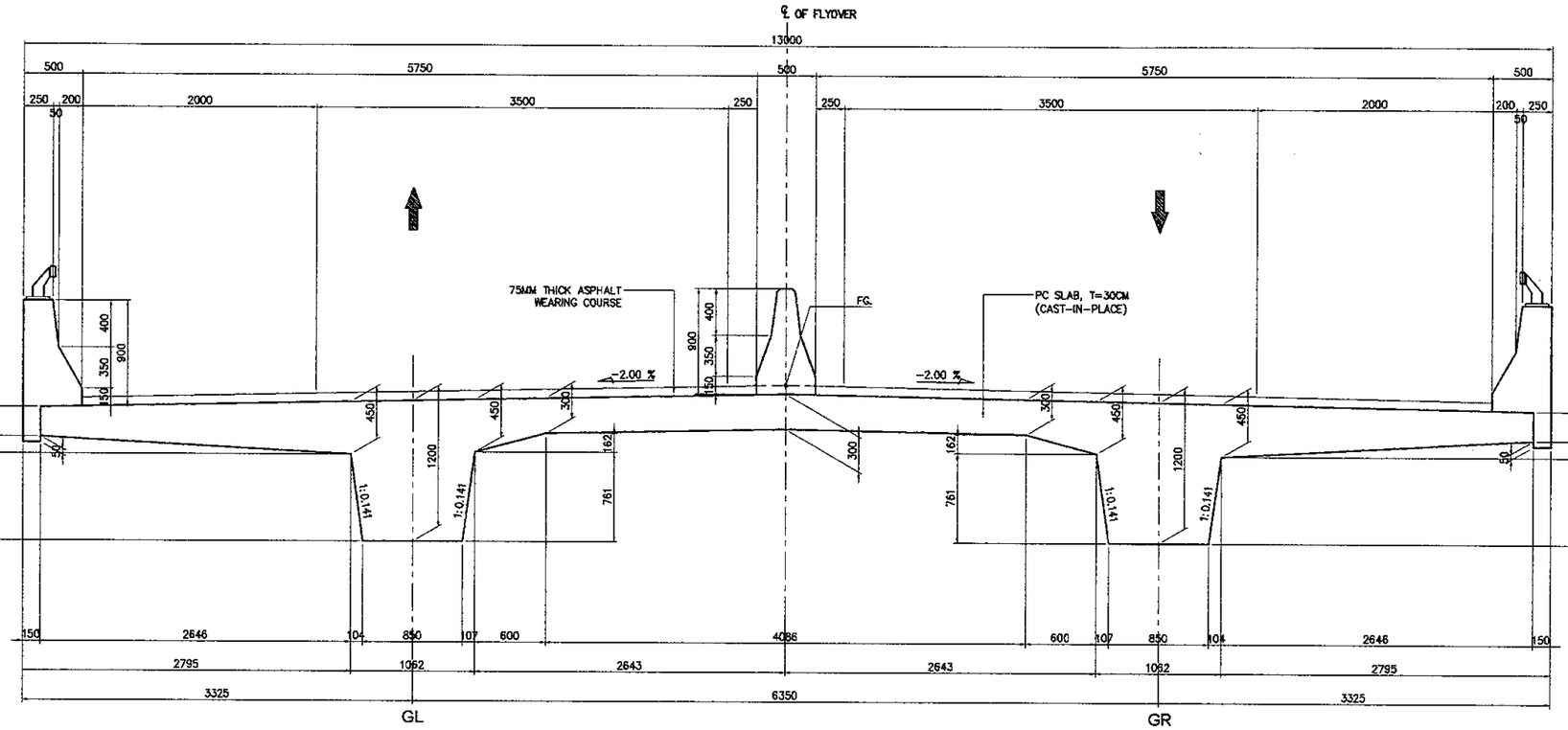
SECTION 4-4
SCALE 1 : 100

NOTES :
1. All dimension are in mm unless noted otherwise.
2. Concrete Girder and Slab fc'= 35 MPa.
3. All Reinforcing steel shall be BJTD 40 or ASTM A615 Grade 60 deformed bars.
4. The Contractor shall be responsible to carry out the following before Construction :
   a) Verification of all elevations and dimensions, using actual field survey.
   b) Preparation and submission of shop drawings for all bridge components for the Engineer's approval.



KEY PLAN

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	Name: H. HONDA	CHECKED BY	Name: T. OKUMURA	SUBMITTED BY	Name: M. KIUCHI	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1:50 FULL SIZE A3	DRAWING TITLE : TYPICAL CROSS SECTION A1 - P3	DRAWING NO : BCL-005 SHEET NO : 05 / 20
		Sign		Sign		Sign				
		Date		Date		Date	APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) Sign Date			



INFORMATION OF PC SUPERSTUCTURE

	A1	P1	P2	P3'
FG.	26.256	27.121	27.777	28.170
Super Elev. GL	−2.000%	−2.000%	−2.000%	−2.000%
Super Elev. GR	−2.000%	−2.000%	−2.000%	−2.000%
Top Slab Girder GL	26.117	26.982	27.638	28.032
Top Slab Girder GR	26.117	26.982	27.638	28.032
Bottom GL	24.442	25.707	26.363	26.757
Bottom GR	24.442	25.707	26.363	26.757
Station	0+399.000	0+419.000	0+439.000	0+457.875

TYPICAL CROSS SECTION
(Span Length = 20 M)

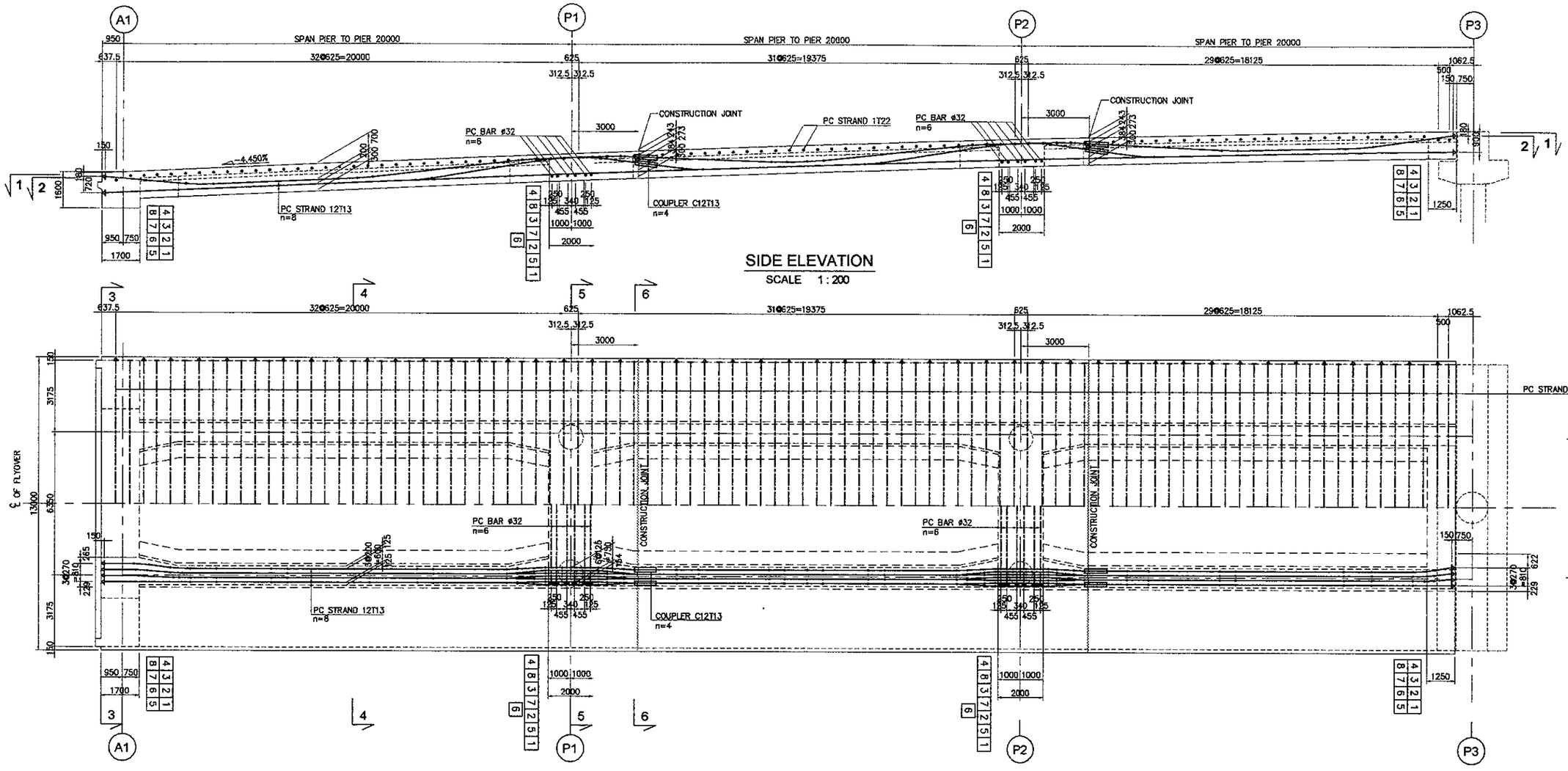
SCALE 1 : 50

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		
	Name	H. HONDA	Name	T. OKUMURA	Name	M. KIUCHI	
	Sign		Sign		Sign		
	Date		Date		Date		

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

APPROVED BY	Ir. HERRY VAZA M,Eng.Sc	Sign	
	NIP. : 110038400	Date	

PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	1:200 1:100 FULL SIZE A3	ARRANGEMENT OF PC CABLES A1 - P3 (1 OF 2)	BCL-006 SHEET NO : 06 / 20

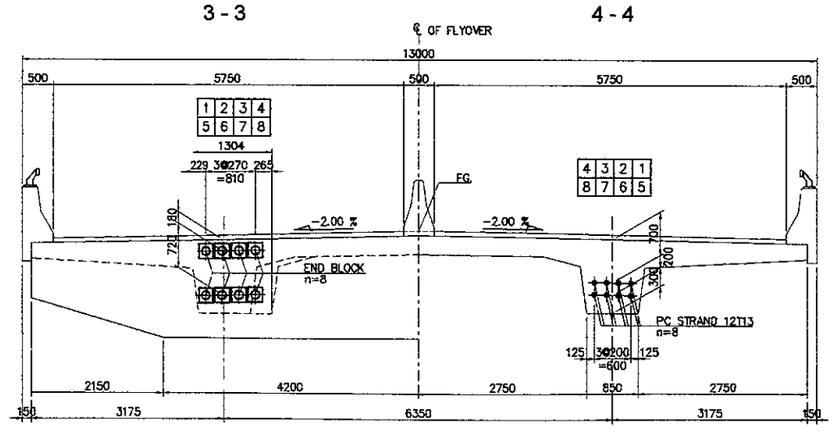


SIDE ELEVATION
SCALE 1 : 200

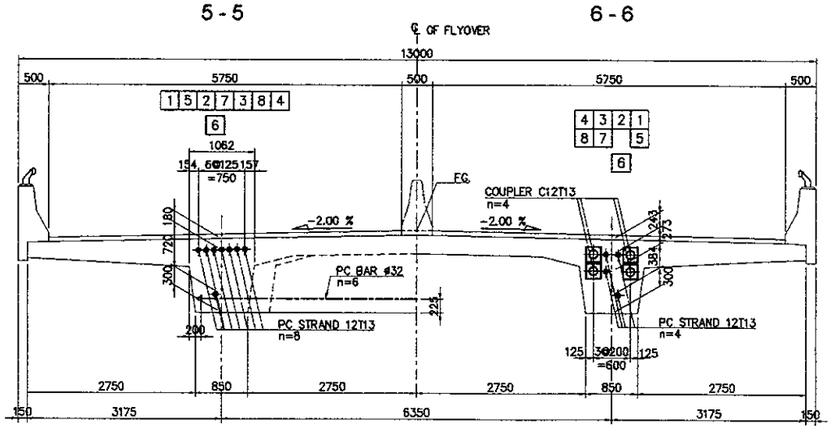
SECTION 1-1
SCALE 1 : 200

SECTION 2-2
SCALE 1 : 200

3 - 3 4 - 4



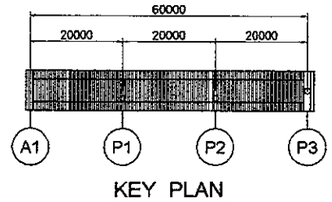
5 - 5 6 - 6



CROSS SECTION
SCALE 1 : 100

NOTES :
1. All dimension are in mm unless noted otherwise.
2. Prestressing Tendon Shall be 12T13 (7 WIRE STRAND). Nominal Diameter 12.7mm.
3. Shows Bending Point Of Prestressing Cable.

Stressing Anchorage
Dead End Anchorage



KEY PLAN

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY
	Name: H. HONDA	Name: T. OKUMURA	Name: M. KIUCHI
	Sign:	Sign:	Sign:
	Date:	Date:	Date:

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) — Sign: — Date:

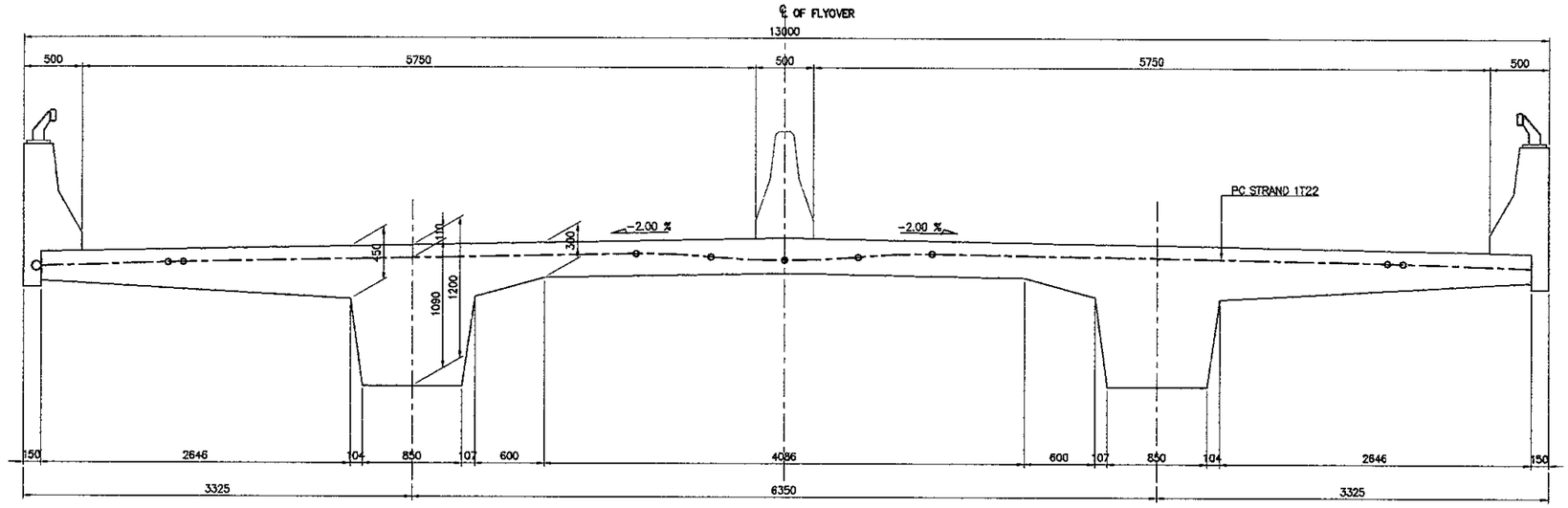
PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

SCALE : 1:50, 1:300 — FULL SIZE A3

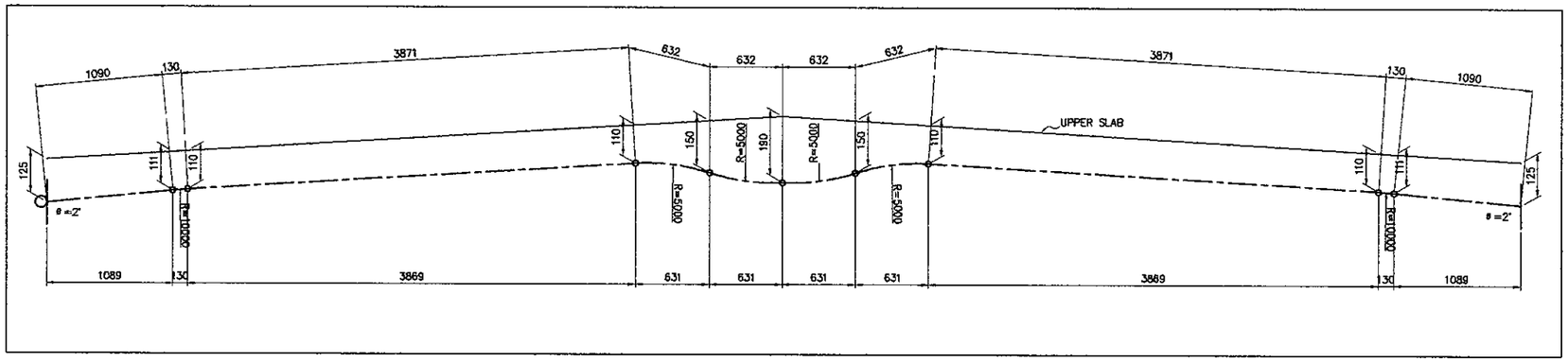
DRAWING TITLE :
ARRANGEMENT OF PC CABLES A1 - P3 (2 OF 2)

DRAWING NO : BCL-007

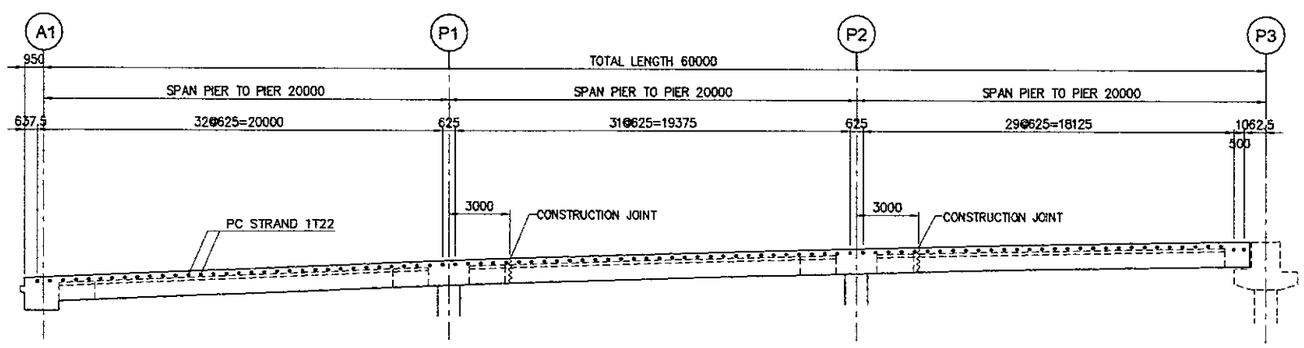
SHEET NO : 07 / 20



TRANVERSAL PC CABLE
SCALE 1 : 50



PC CABLE PROFILE



LONGITUDINAL PC CABLE ARRANGEMENT
SCALE 1 : 300

TABEL OF PC CABLES

Length (m)	Nos.	Unit Weight (kg/m)	Weight / 1 nos (kg)	Weight (kg)	Remarks
12.710	96	2.482	31.55	3,028.44	Stressing Anchorage One Side Staggered
TOTAL LENGTH (L) =			1,220.16	m	
TOTAL WEIGHT (W) =			3,028.44	kg	

NOTES :
1. All dimension are in mm unless noted otherwise.
2. ⌒ Shows Bending Point Of Prestressing Cable.

⊣ Stressing Anchorage
⊢ Dead End Anchorage

JAPAN INTERNATIONAL COOPERATION AGENCY

KATAHIRA & ENGINEERS INTERNATIONAL

DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	H. HONDA	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

APPROVED BY	Ir. HERRY VAZA M,Eng.Sc	Sign	
	NIP. : 110038400	Date	

PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

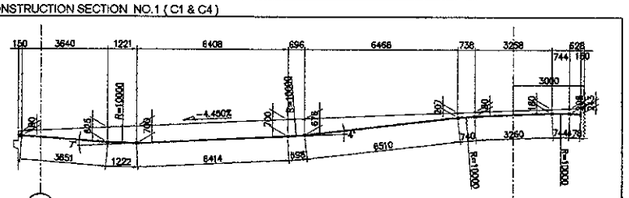
SCALE : 1:200 FULL SIZE A3

DRAWING TITLE : PC CABLES SCHEDULE A1 - P3

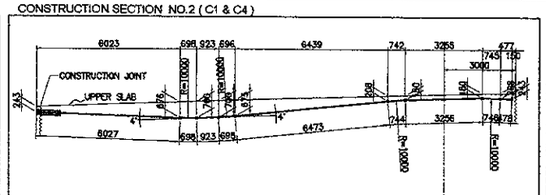
DRAWING NO : BCL-008

SHEET NO : 08 / 20

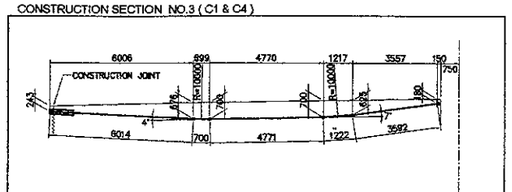
CONSTRUCTION SECTION NO.1 (C1 & C4)



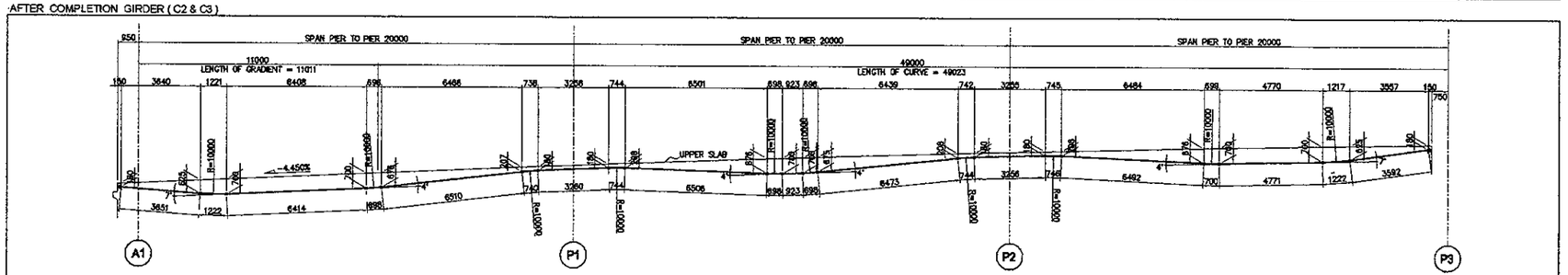
CONSTRUCTION SECTION NO.2 (C1 & C4)



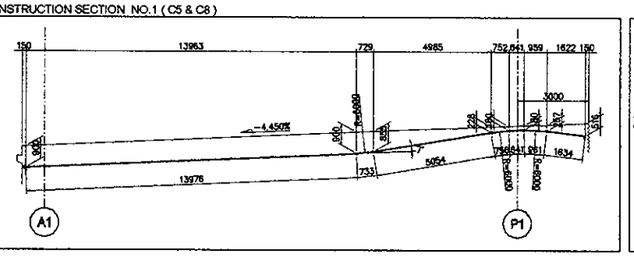
CONSTRUCTION SECTION NO.3 (C1 & C4)



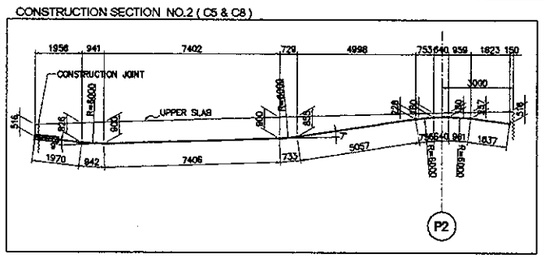
AFTER COMPLETION GIRDER (C2 & C3)



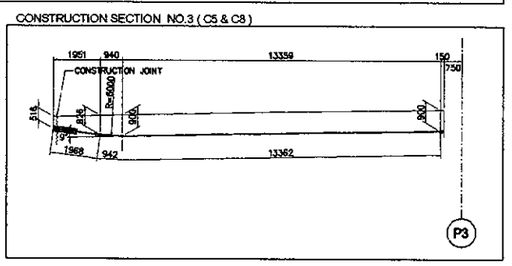
CONSTRUCTION SECTION NO.1 (C5 & C8)



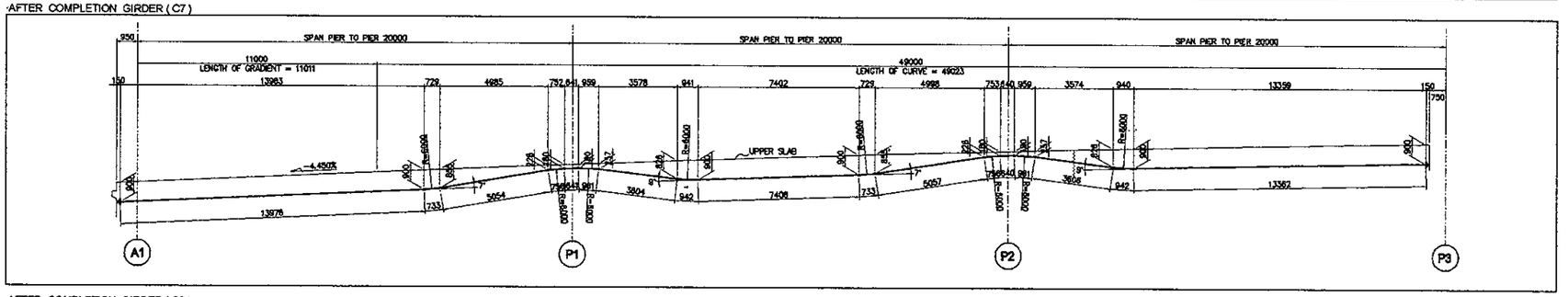
CONSTRUCTION SECTION NO.2 (C5 & C8)



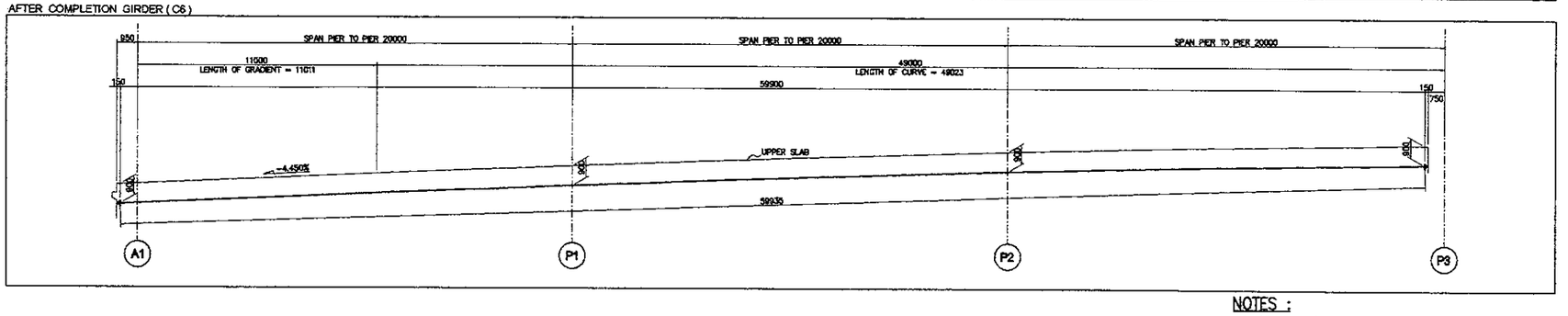
CONSTRUCTION SECTION NO.3 (C5 & C8)



AFTER COMPLETION GIRDER (C7)



AFTER COMPLETION GIRDER (C6)



PC CABLES SCHEDULE A1 - P3

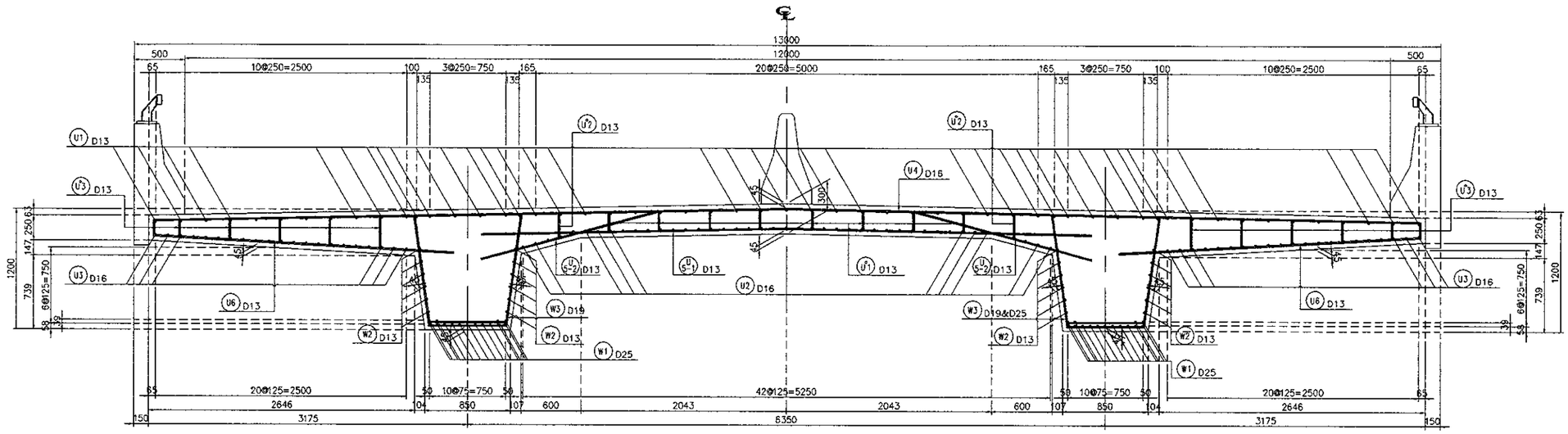
SCALE : NON

NOTES :

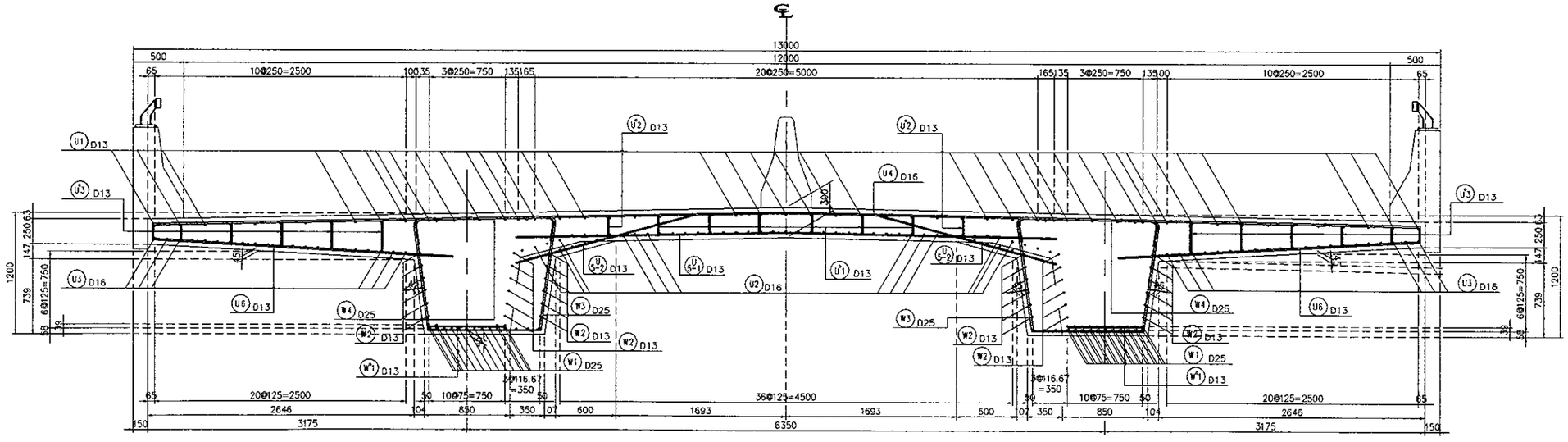
1. All dimension are in mm unless noted otherwise
2. Prestressing Tendon Shall be 12T13 (7 WIRE STRAND)
   . Nominal Diameter 12.7mm
3. Shows Bending Point Of Prestressing Cable

Stressing Anchorage
Dead End Anchorage

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 50 FULL SIZE A3	DRAWING TITLE : TYPICAL DETAIL OF CROSS SECTION REINFORCEMENT A1 - P3	DRAWING NO : BCL-009 SHEET NO : 09 / 20
	Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI				
	Sign		Sign		Sign					
	Date		Date		Date		APPROVED BY : Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date			

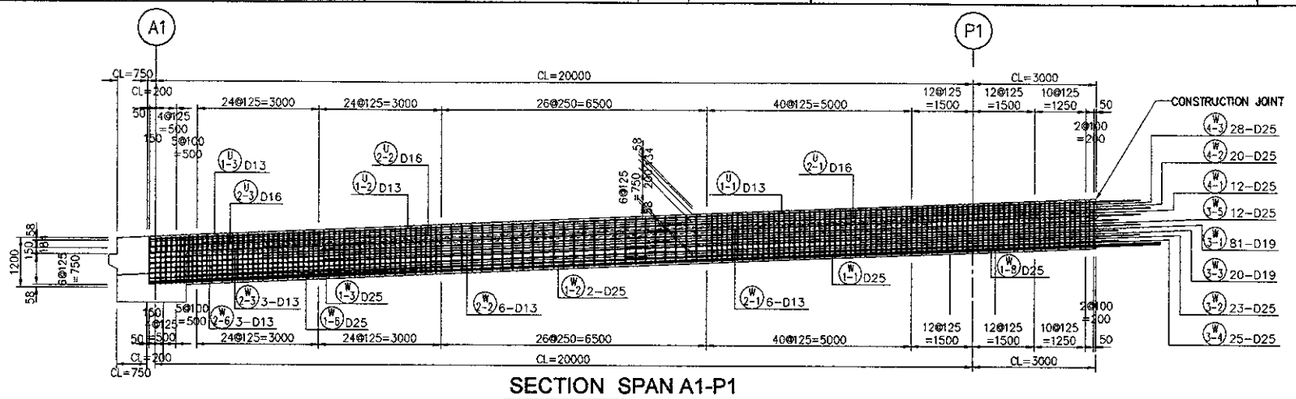


SECTION AT MID SPAN
SCALE 1:50

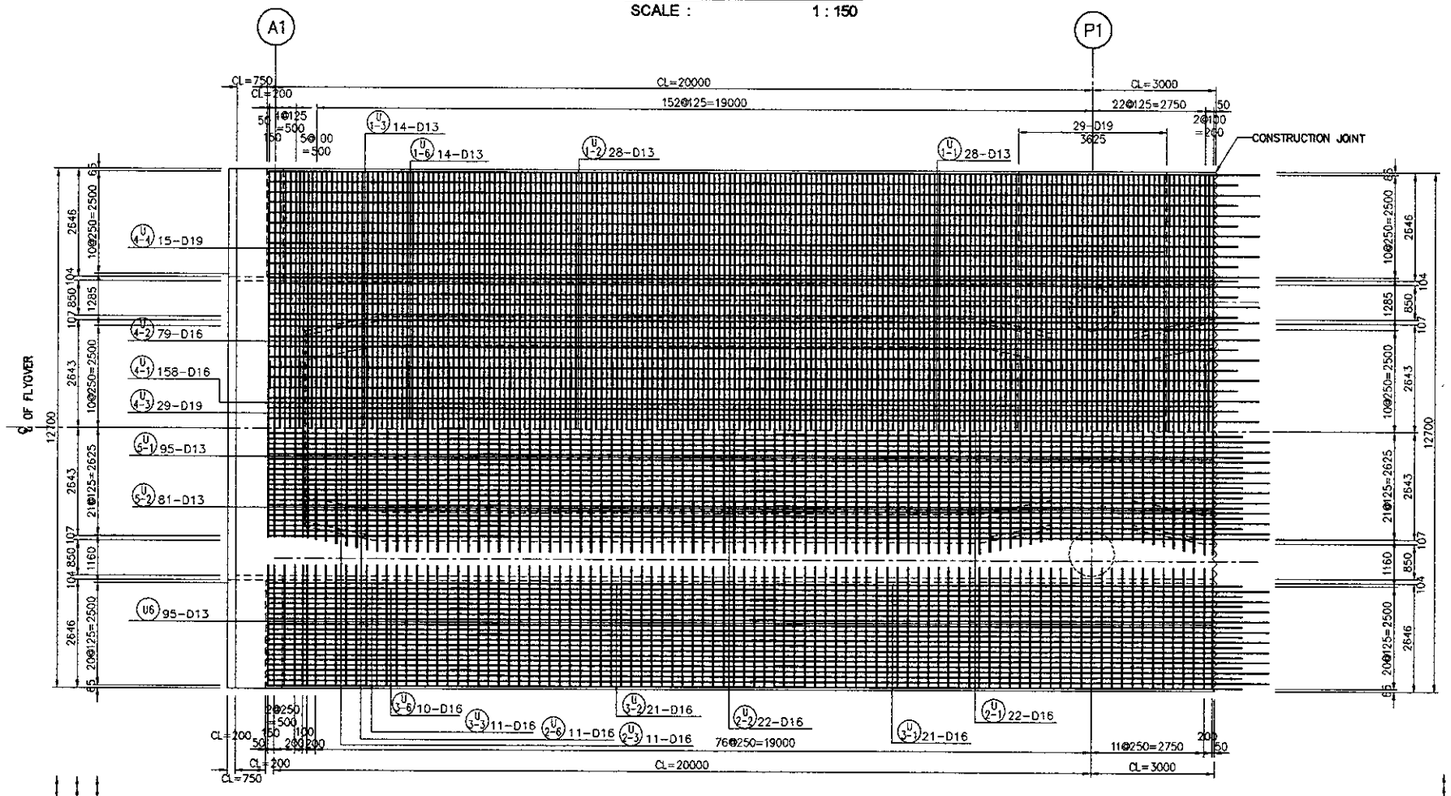


SECTION AT PIER
SCALE 1:50

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 150 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR PC GIRDER A1 - P1	DRAWING NO : BCL-010 SHEET NO : 10 / 20
	Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc Sign NIP. : 110038400 Date				

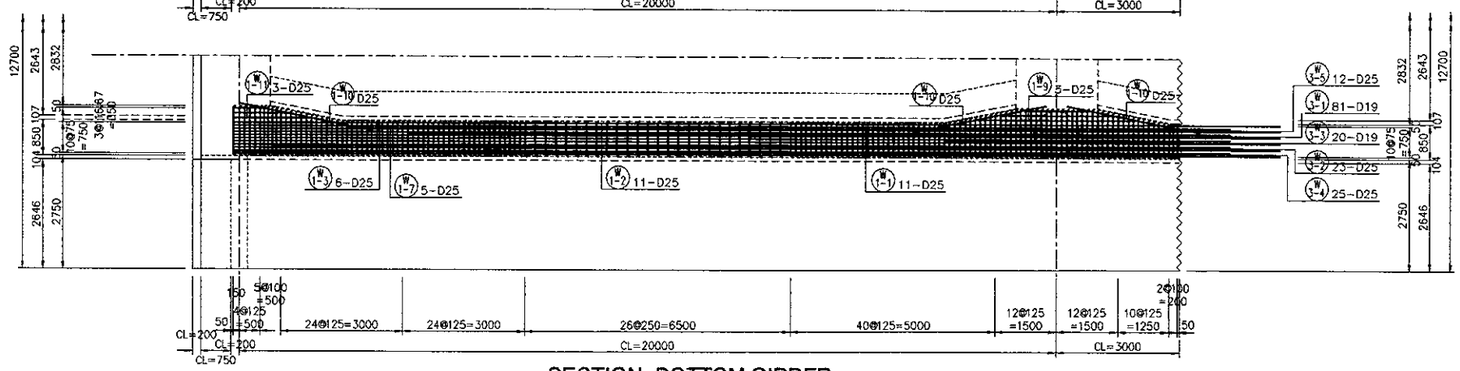


SECTION SPAN A1-P1
SCALE : 1 : 150



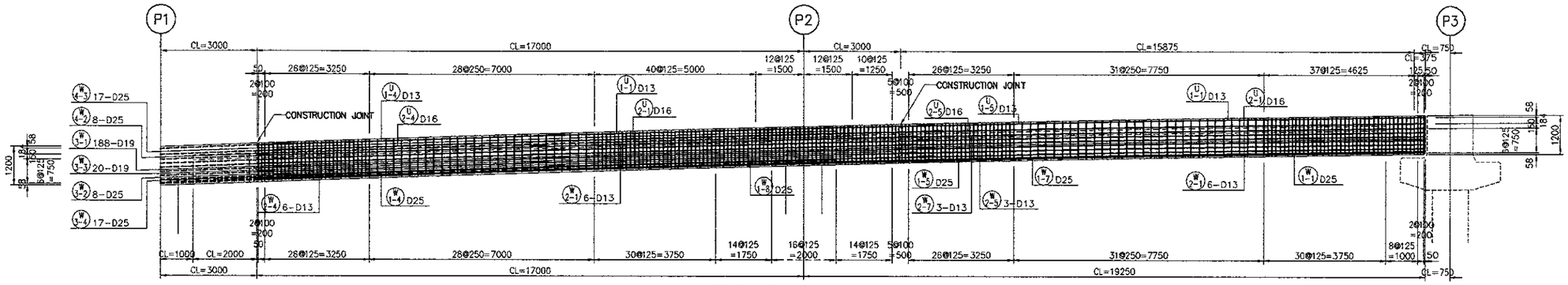
SECTION TOP SLAB
SCALE : 1 : 150

SECTION BOTTOM SLAB
SCALE : 1 : 150



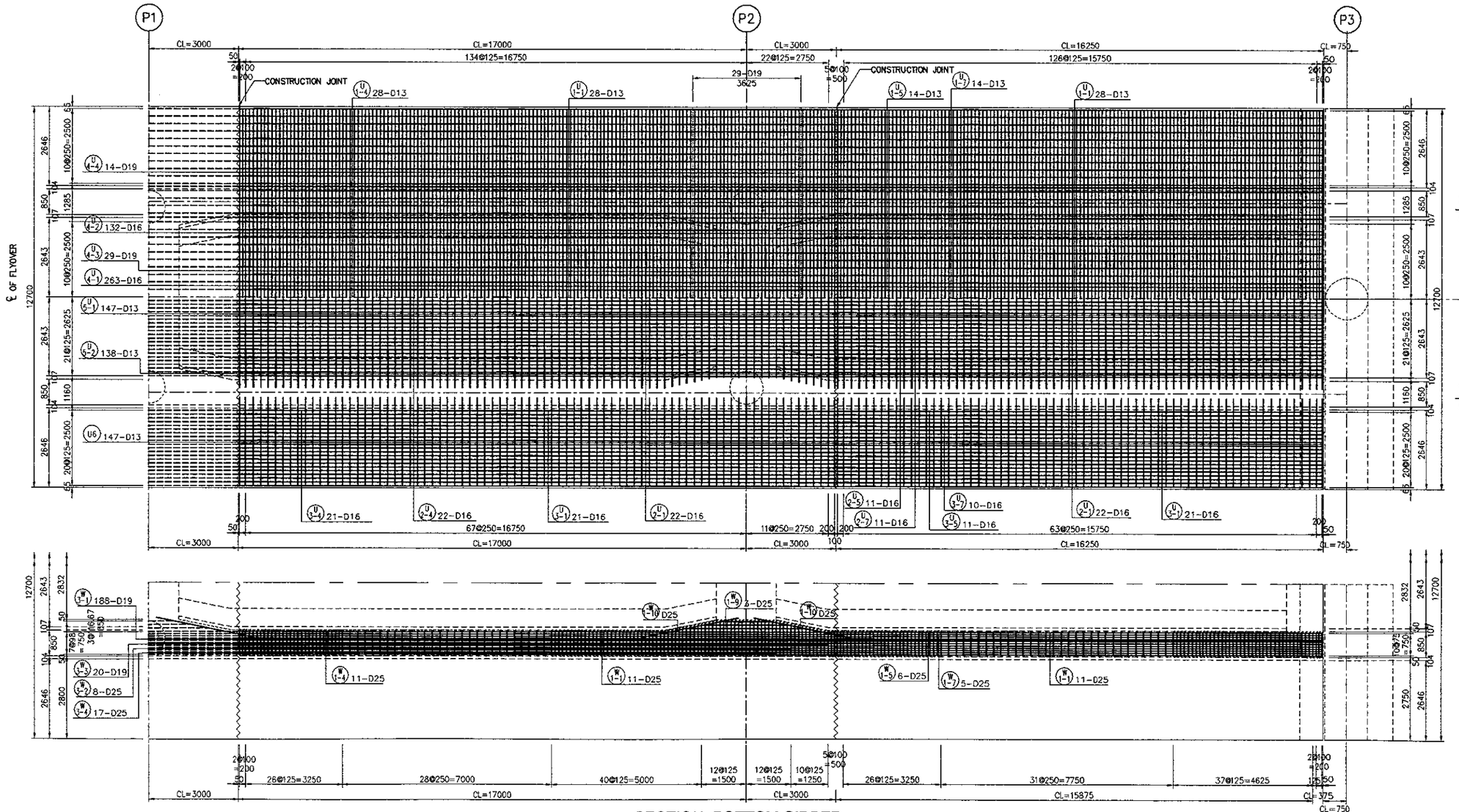
SECTION BOTTOM GIRDER
SCALE : 1 : 150

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 150 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR PC GIRDER P1 - P3	DRAWING NO : BCL-011 SHEET NO : 11 / 20
	Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				



SECTION SPAN P1-P3

SCALE : 1 : 150



SECTION TOP SLAB

SCALE : 1 : 150

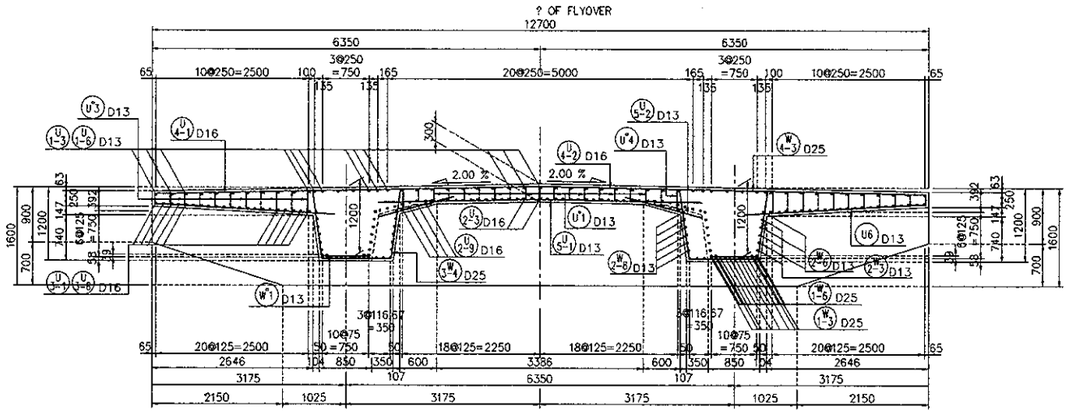
SECTION BOTTOM SLAB

SCALE : 1 : 150

SECTION BOTTOM GIRDER

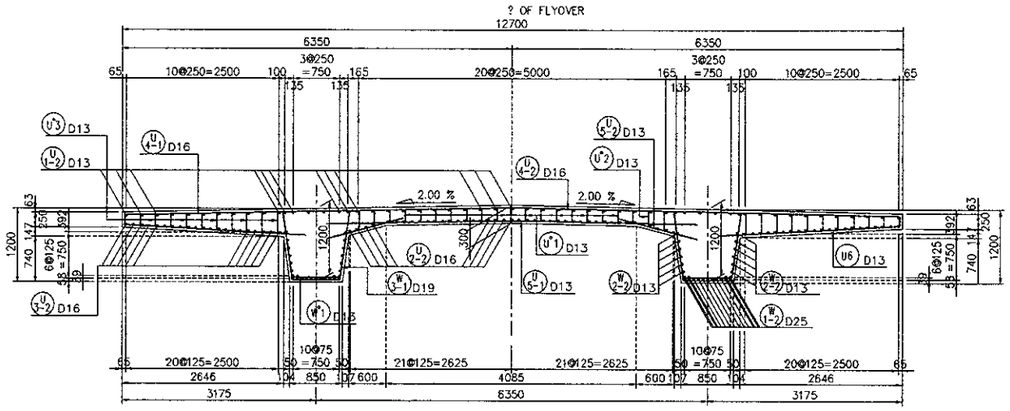
SCALE : 1 : 150

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 100 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR PC GIRDER A1-P3 (1 OF 2)	DRAWING NO : BCL-012 SHEET NO : 12 / 20
	Name	H.HONDA	Name	T. OKUNURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				



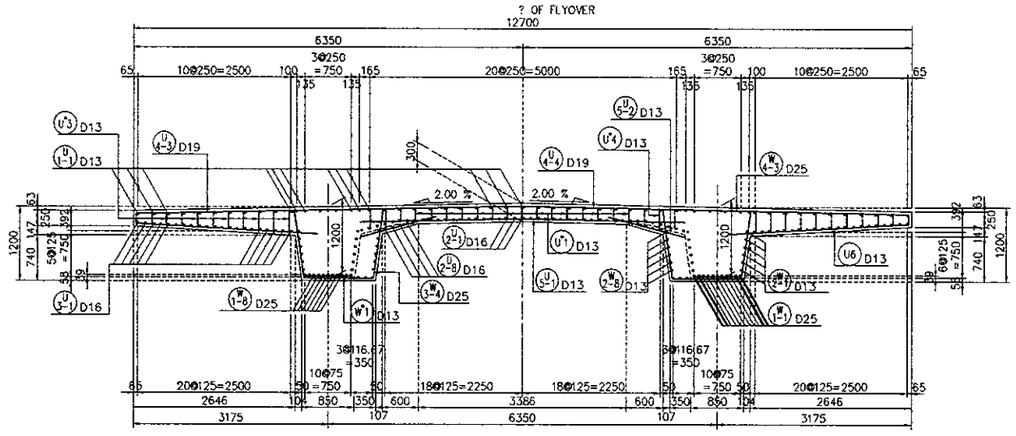
SECTION AT A1

SCALE : 1 : 100



SECTION MID SPAN A1~P1

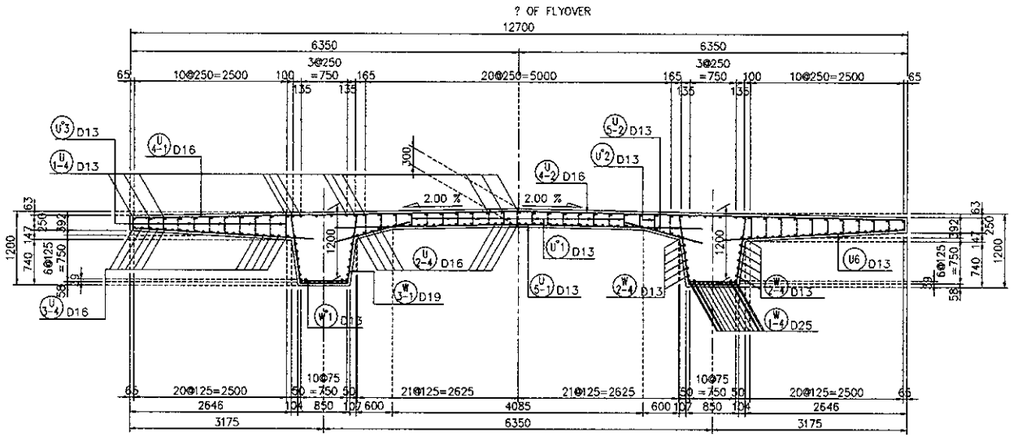
SCALE : 1 : 100



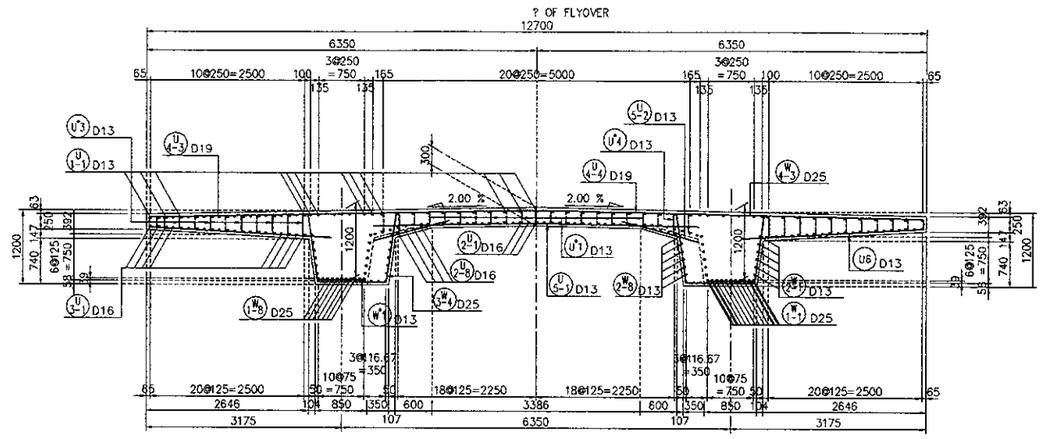
SECTION AT P1

SCALE : 1 : 100

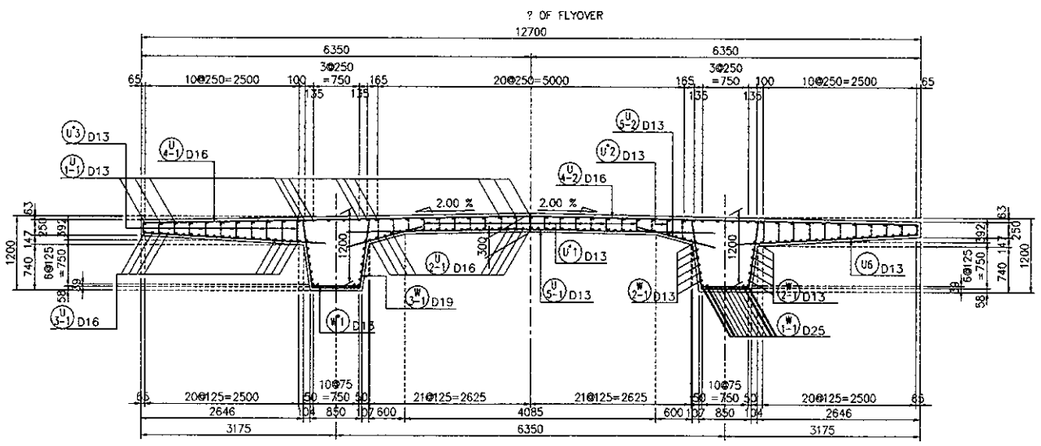
JICA JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS		PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 100 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR PC GIRDER A1-P3 (2 OF 2)	DRAWING NO : BCL-013 SHEET NO : 13 / 20
	Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign		APPROVED BY	Ir. HERRY VAZA M,Eng.Sc			
	Date		Date		Date			NIP. : 110038400			



SECTION MID SPAN P1~P2
SCALE : 1 : 100

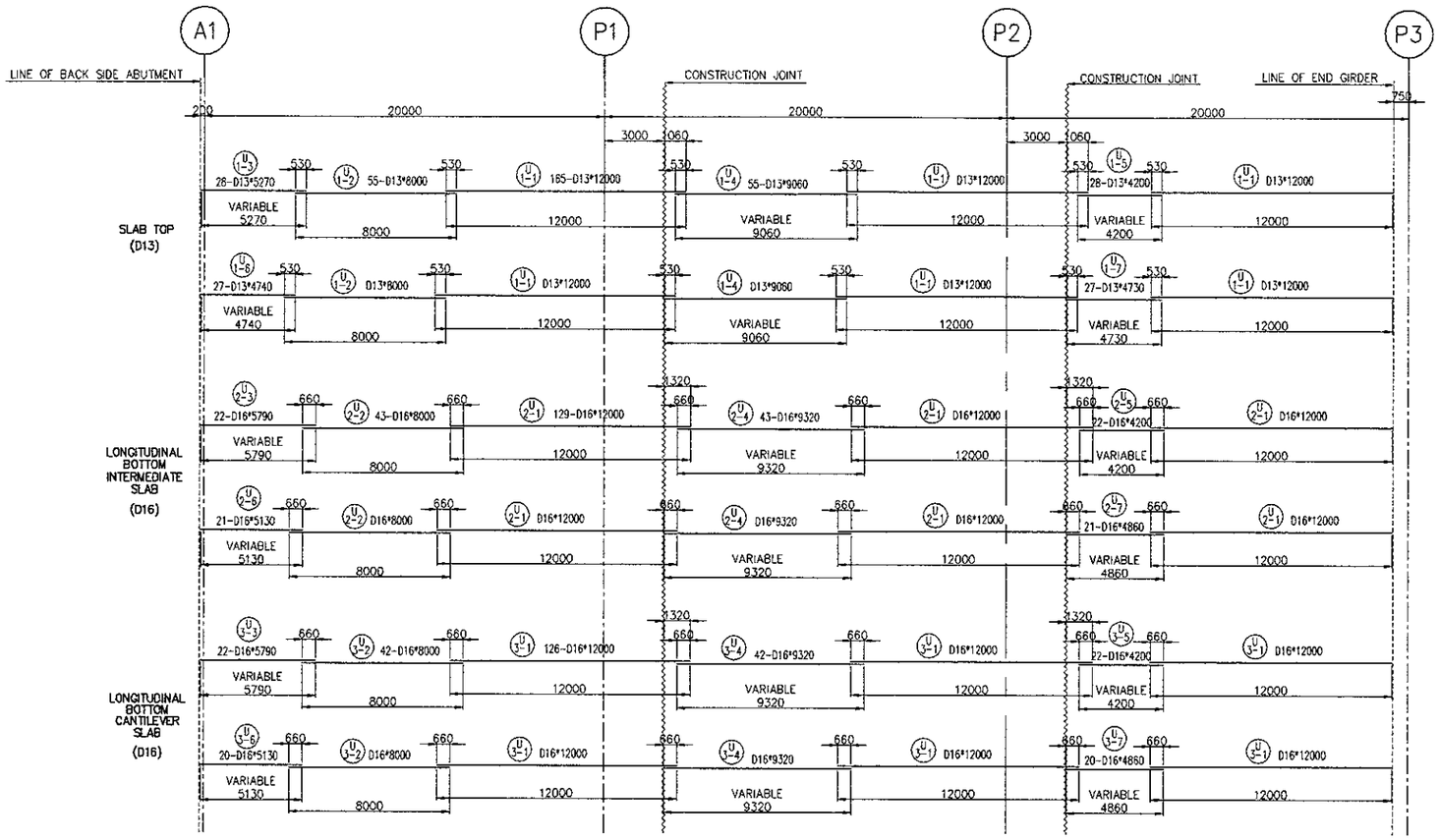


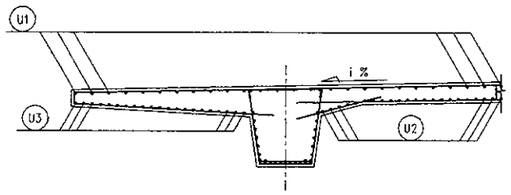
SECTION AT P2
SCALE : 1 : 100

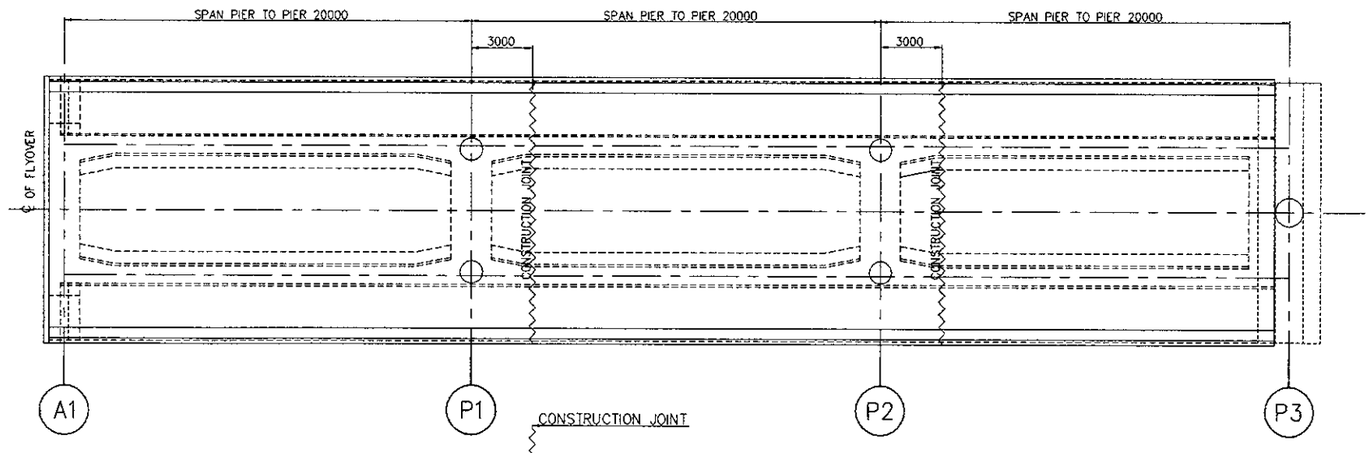


SECTION MID SPAN P2~P3
SCALE : 1 : 100

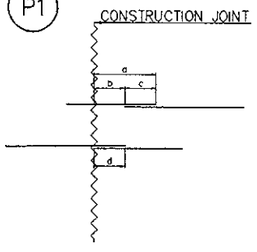
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY		CHECKED BY		SUBMITTED BY		REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 300 FULL SIZE A3	DRAWING TITLE : REINFORCEMENT SCHEDULE FOR PC GIRDER A1 - P3 (1 OF 3)	DRAWING NO : BCL-014 SHEET NO : 14 / 20
	Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI					
	Sign		Sign		Sign						
	Date		Date		Date		APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				





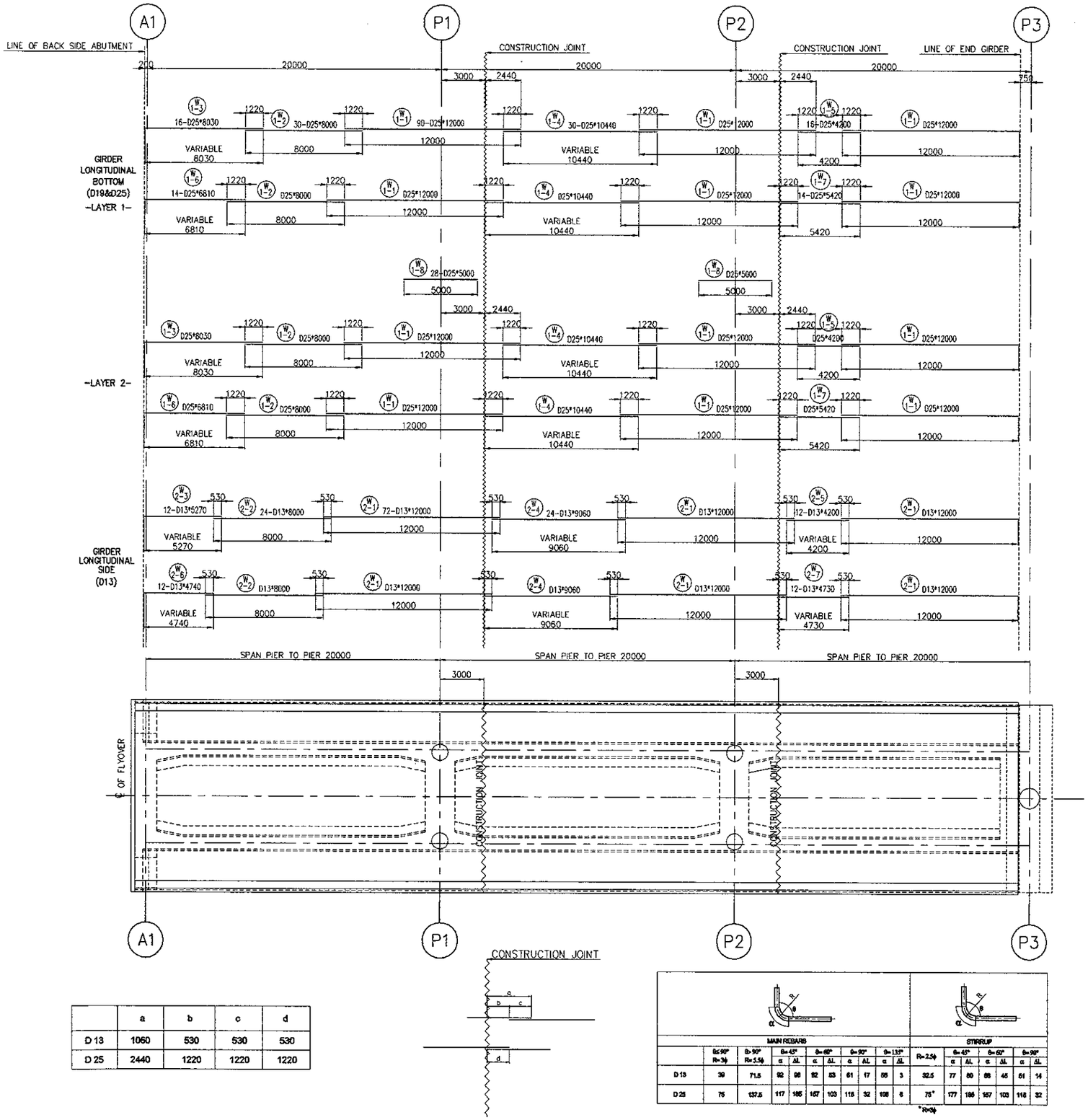


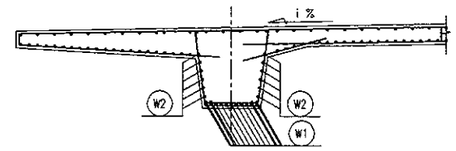
	a	b	c	d
D 13	1060	530	530	530
D 16	1320	660	660	660



	MAIN REBARS										STIRRUP							
	θ≤90° R=3d	θ>90° R=5.5d	θ=45°		θ=60°		θ=90°		θ=135°		R=2.5d	θ=45°		θ=60°		θ=90°		
			α	AL	α	AL	α	AL	α	AL		α	AL	α	AL	α	AL	
D 13	39	71.5	92	98	82	83	61	17	58	3	32.5	77	80	66	45	61	14	
D 16	48	88	113	119	100	85	75	21	69	4	40	94	98	84	55	63	17	

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 300 FULL SIZE A3	DRAWING TITLE : REINFORCEMENT SCHEDULE FOR PC GIRDER A1 - P3 (2 OF 3)	DRAWING NO : BCL-015 SHEET NO : 15 / 20
	Name H.HONDA	Name T. OKUMURA	Name M. KIUCHI				
	Sign	Sign	Sign	APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date			
	Date	Date	Date				



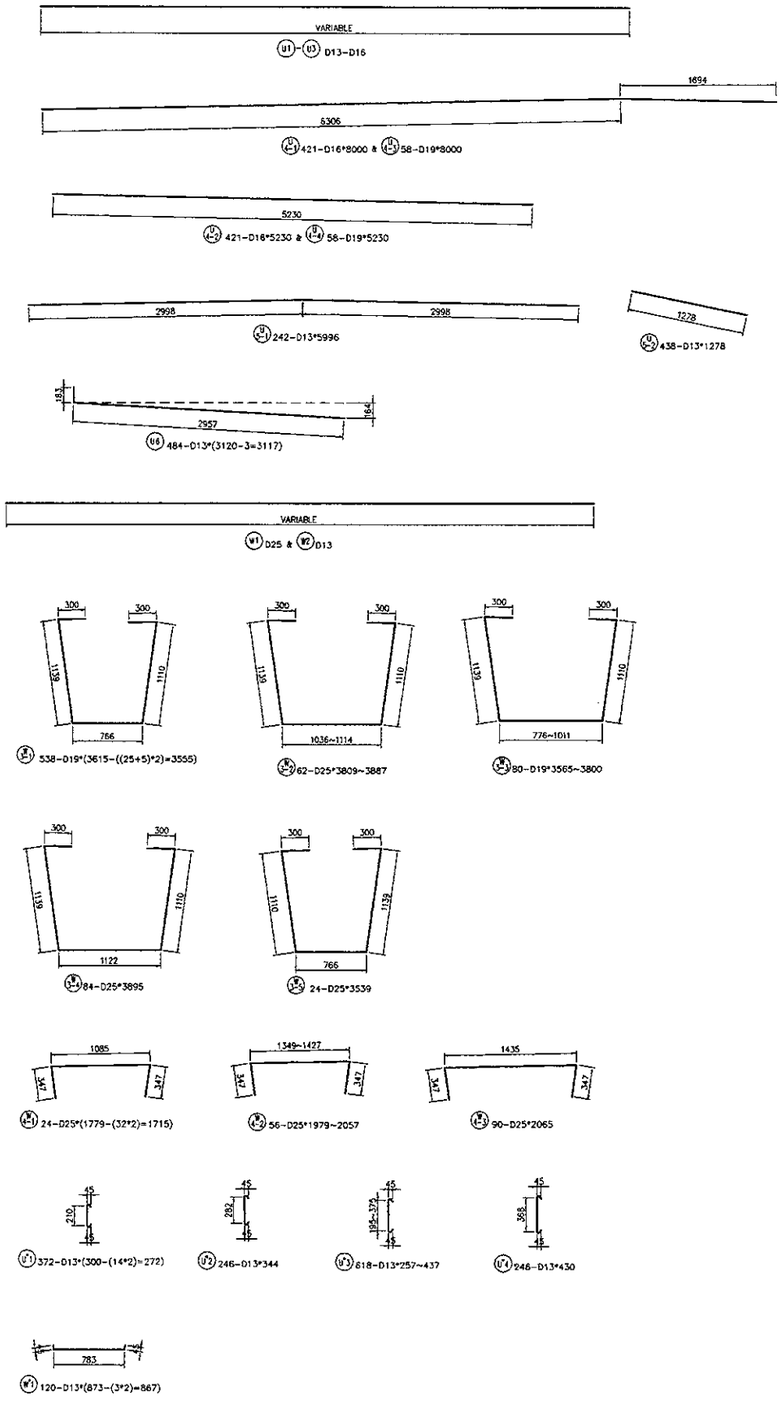


	a	b	c	d
D 13	1060	530	530	530
D 25	2440	1220	1220	1220

	MAIN REBARS										STIRRUP						
	θ≤90° R=3φ	θ>90° R=5.5φ	θ=45°		θ=60°		θ=90°		θ=135°		R=2.5φ	θ=45°		θ=60°		θ=90°	
			α	ΔL	α	ΔL	α	ΔL	α	ΔL		α	ΔL	α	ΔL	α	ΔL
D 13	39	71.5	92	98	92	83	61	17	66	3	32.5	77	80	88	45	61	14
D 25	75	137.5	117	185	157	103	118	32	108	8	75*	177	186	157	103	118	32

*R=3φ

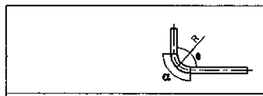
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS	PROJECT AND LOCATION :	SCALE :	DRAWING TITLE :	DRAWING NO :
	Name H.HONDA	Name T. OKUNURA	Name M. KIUCHI		DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	NTS FULL SIZE A3	REINFORCEMENT SCHEDULE FOR PC GIRDER A1-P3 (3 OF 3)	BCL-016 SHEET NO : 16 / 20
	Sign	Sign	Sign	APPROVED BY Ir. HERRY VAZA M,Eng.Sc NIP. : 110038400 Sign Date				
	Date	Date	Date					



BAR BENDING SCHEDULE

REBAR NAME	DIA. (mm)	LENGTH (mm)	NOS.	UNIT WEIGHT (kg/m')	WEIGHT (kg)	TOTAL WEIGHT (kg)	DIAGRAM	REMARKS
U 1 - 1	13	12000	185	1.04	12.48	2059		
U 1 - 2	13	8000	55	1.04	8.32	458		
U 1 - 3	13	5270	28	1.04	5.48	153		varies length
U 1 - 4	13	9060	55	1.04	9.42	518		varies length
U 1 - 5	13	4200	28	1.04	4.37	122		varies length
U 1 - 6	13	4740	27	1.04	4.93	133		varies length
U 1 - 7	13	4730	27	1.04	4.92	133		varies length
U 2 - 1	16	12000	129	1.58	18.96	2446		
U 2 - 2	16	8000	43	1.58	12.64	544		
U 2 - 3	16	5790	22	1.58	9.15	201		varies length
U 2 - 4	16	9320	43	1.58	14.73	633		varies length
U 2 - 5	16	4200	22	1.58	6.64	146		varies length
U 2 - 6	16	5130	21	1.58	8.11	170		varies length
U 2 - 7	16	4860	21	1.58	7.68	161		varies length
U 2 - 8	16	3164	18	1.58	5.00	90		varies length
U 2 - 9	16	1582	8	1.58	2.50	20		varies length
U 3 - 1	16	12000	126	1.58	18.96	2389		
U 3 - 2	16	8000	42	1.58	12.64	531		
U 3 - 3	16	5790	22	1.58	9.15	201		varies length
U 3 - 4	16	9320	42	1.58	14.73	618		varies length
U 3 - 5	16	4200	22	1.58	6.64	146		varies length
U 3 - 6	16	5130	20	1.58	8.11	162		varies length
U 3 - 7	16	4860	20	1.58	7.68	154		varies length
U 4 - 1	16	8000	421	1.58	12.64	5321		
U 4 - 2	16	5230	421	1.58	8.26	3479		
U 4 - 3	19	8000	58	2.23	17.84	1035		
U 4 - 4	19	5230	58	2.23	11.66	676		
U 5 - 1	13	5996	242	1.04	6.24	1509		
U 5 - 2	13	1278	438	1.04	1.33	582		
U 6	13	3117	484	1.04	3.24	1569		
U' 1	13	272	372	1.04	0.28	105		
U' 2	13	344	246	1.04	0.36	88		varies length
U' 3	13	347	618	1.04	0.36	223		varies length
U' 4	13	430	246	1.04	0.45	110		varies length
SUB TOTAL - 1						25877		

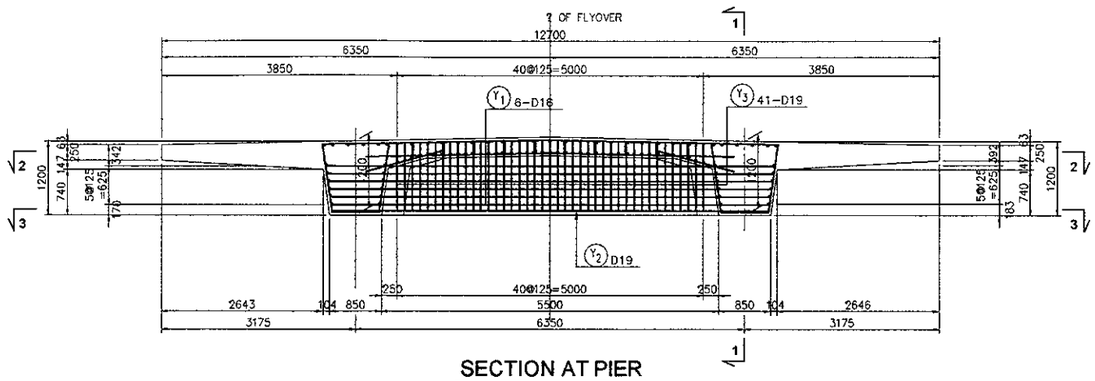
REBAR NAME	DIA. (mm)	LENGTH (mm)	NOS.	UNIT WEIGHT (kg/m')	WEIGHT (kg)	TOTAL WEIGHT (kg)	DIAGRAM	REMARKS
W 1 - 1	25	12000	90	3.85	46.20	4158		
W 1 - 2	25	8000	30	3.85	30.80	924		
W 1 - 3	25	8030	16	3.85	30.92	495		varies length
W 1 - 4	25	10440	30	3.85	40.19	1206		varies length
W 1 - 5	25	4200	16	3.85	16.17	259		varies length
W 1 - 6	25	6870	14	3.85	26.22	367		varies length
W 1 - 7	25	5420	14	3.85	20.87	292		varies length
W 1 - 8	25	5000	28	3.85	19.25	539		
W 1 - 9	25	2830	12	3.85	10.90	131		varies length
W 1 - 10	25	3275	10	3.85	12.61	126		varies length
W 1 - 11	25	1315	6	3.85	5.06	30		varies length
W 2 - 1	13	12000	72	1.04	12.48	899		
W 2 - 2	13	8000	24	1.04	8.32	200		
W 2 - 3	13	5270	12	1.04	5.48	66		varies length
W 2 - 4	13	9060	24	1.04	9.42	226		varies length
W 2 - 5	13	4200	12	1.04	4.37	52		varies length
W 2 - 6	13	4740	12	1.04	4.93	59		varies length
W 2 - 7	13	4730	12	1.04	4.92	59		varies length
W 2 - 8	13	3185	20	1.04	3.31	66		varies length
W 2 - 9	13	1593	10	1.04	1.66	17		varies length
W 3 - 1	19	3655	538	2.23	7.93	4265		
W 3 - 2	25	3848	62	3.85	14.81	919		varies length
W 3 - 3	19	3713	80	2.23	8.28	662		varies length
W 3 - 4	25	3895	84	3.85	15.00	1260		
W 3 - 5	25	3539	24	3.85	13.63	327		
W 4 - 1	25	1715	24	3.85	6.60	158		
W 4 - 2	25	2018	56	3.85	7.77	435		varies length
W 4 - 3	25	2065	90	3.85	7.95	716		
W' 1	13	867	120	1.04	0.90	108		
SUB TOTAL - 2						19020		
TOTAL REBAR WEIGHT A1 - P3						45897		



	MAIN REBARS										STIRRUP						
	θ≤90° R=3d	θ>90° R=3.5d	θ= 45°		θ= 60°		θ= 90°		θ= 135°		R=2.5d	θ=45°		θ=60°		θ=90°	
			α	Δl	α	Δl	α	Δl	α	Δl		α	Δl	α	Δl	α	Δl
D 13	39	71.5	92	98	82	83	61	17	66	3	32.5	77	60	66	45	51	14
D 16	48	88	113	119	100	86	75	21	69	4	40	94	89	84	55	63	17
D 19	57	104.5	134	141	118	78	89	25	82	5	47.5	112	117	98	65	75	20
D 25	75	137.5	117	185	157	103	118	32	105	6	75*	177	185	157	103	118	32

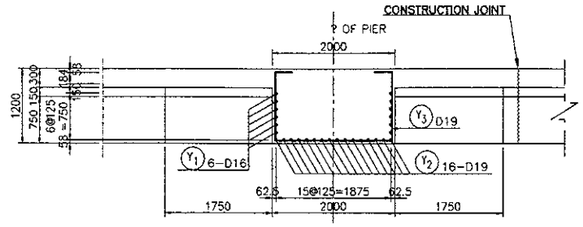
* R=3d

JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY: Name H.HONDA, Sign, Date	CHECKED BY: Name T. OKUMURA, Sign, Date	SUBMITTED BY: Name M. KIUCHI, Sign, Date	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS APPROVED BY: ir. HERRY VAZA M,Eng.Sc, NIP. : 110038400, Sign, Date	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 100 1 : 500 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR CROSS BEAMS P1, P2	DRAWING NO : BCL-017 SHEET NO : 17 / 20



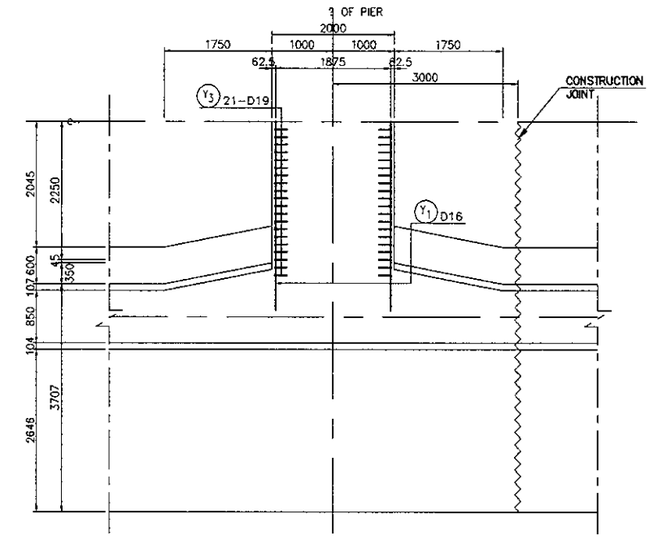
SECTION AT PIER

SCALE : 1 :100



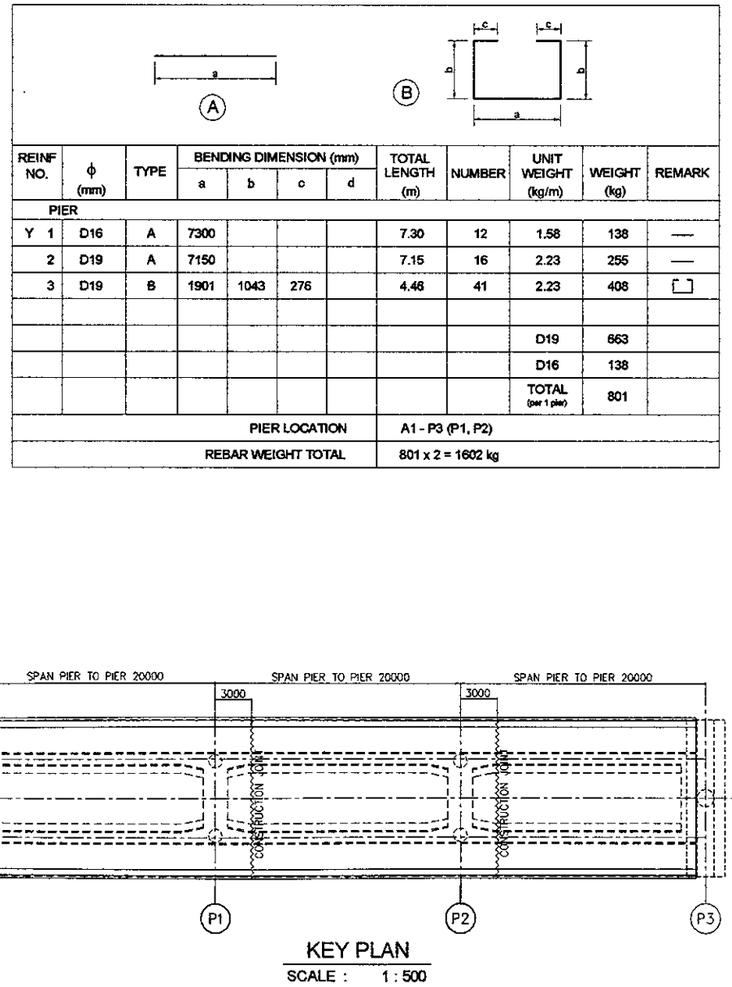
SECTION 1 - 1

SCALE : 1 : 100



SECTION 2 - 2

SCALE : 1 : 100



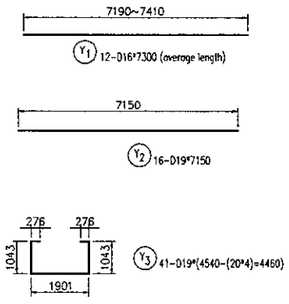
KEY PLAN

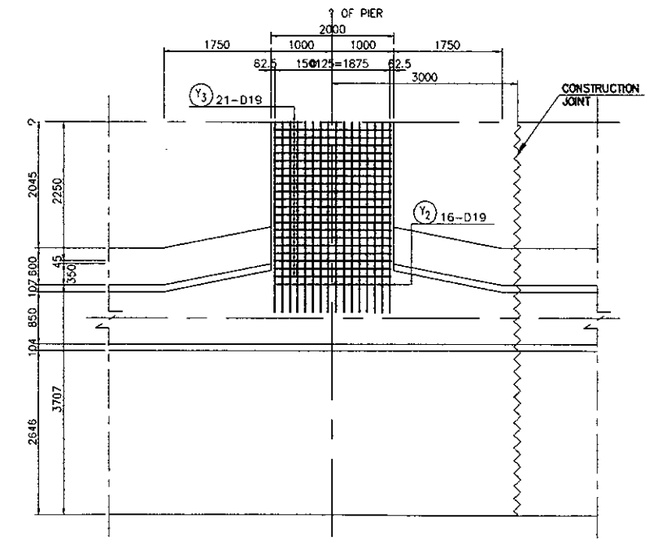
SCALE : 1 : 500

REINF NO.	ϕ (mm)	TYPE	BENDING DIMENSION (mm) a	b	c	d	TOTAL LENGTH (m)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARK
PIER											
Y 1	D16	A	7300				7.30	12	1.58	138	—
2	D19	A	7150				7.15	16	2.23	255	—
3	D19	B	1901	1043	276		4.46	41	2.23	408	⊓
									D19	663	
									D16	138	
									TOTAL (per 1 pier)	801	
PIER LOCATION			A1 - P3 (P1, P2)								
REBAR WEIGHT TOTAL			801 x 2 = 1602 kg								

STIRRUP

	R=2.5ϕ	θ=45° α	θ=45° ΔL	θ=60° α	θ=60° ΔL	θ=90° α	θ=90° ΔL
D16	40	94	99	84	55	63	17
D19	47.5	112	117	99	68	75	20





SECTION 3 - 3

SCALE : 1 : 100

JAPAN INTERNATIONAL COOPERATION AGENCY

KATAHIRA & ENGINEERS INTERNATIONAL

DESIGNED BY		CHECKED BY		SUBMITTED BY	
Name	H.HONDA	Name	T. OKUMURA	Name	M. KIUCHI
Sign		Sign		Sign	
Date		Date		Date	

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

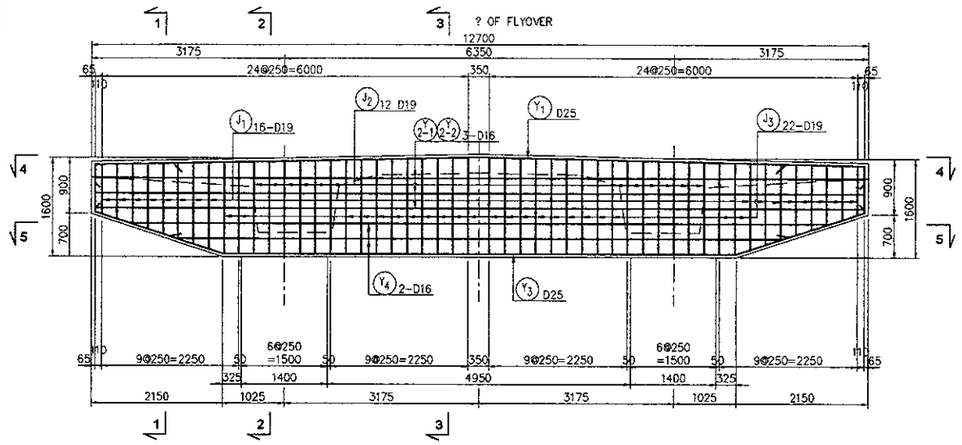
APPROVED BY | Ir. HERRY VAZA M,Eng.Sc | Sign
NIP. : 110038400 | Date

PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

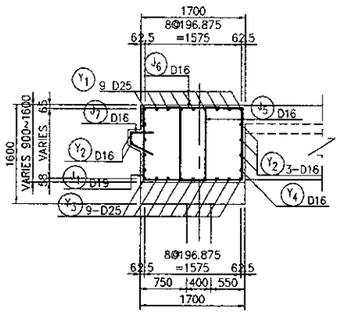
SCALE : 1 : 100, 1 : 500
FULL SIZE A3

DRAWING TITLE :
ARRANGEMENT OF REINFORCEMENT FOR CROSS BEAMS A1

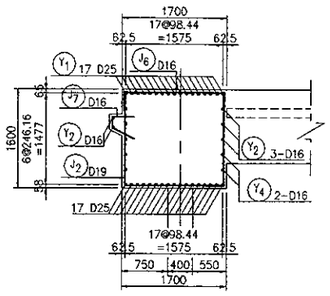
DRAWING NO : BCL-018
SHEET NO : 18 / 20



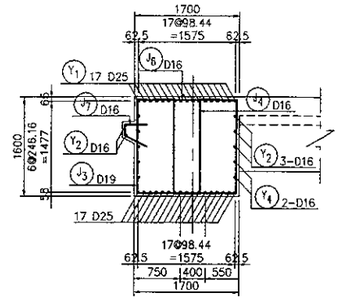
SECTION AT ABUTMENT
SCALE : 1 :100



SECTION 1 - 1
SCALE : 1 : 100

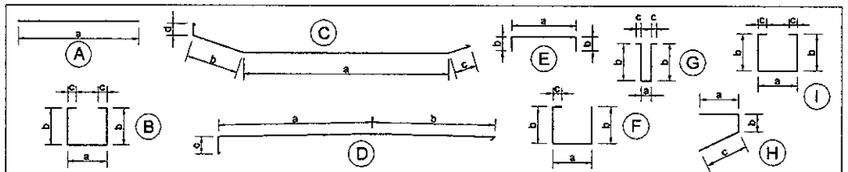


SECTION 2 - 2
SCALE : 1 : 100

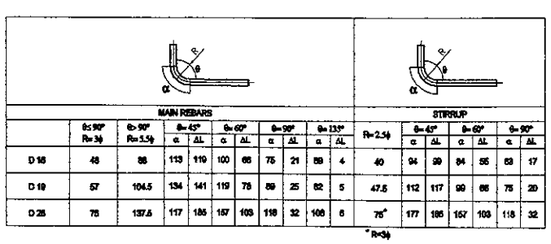


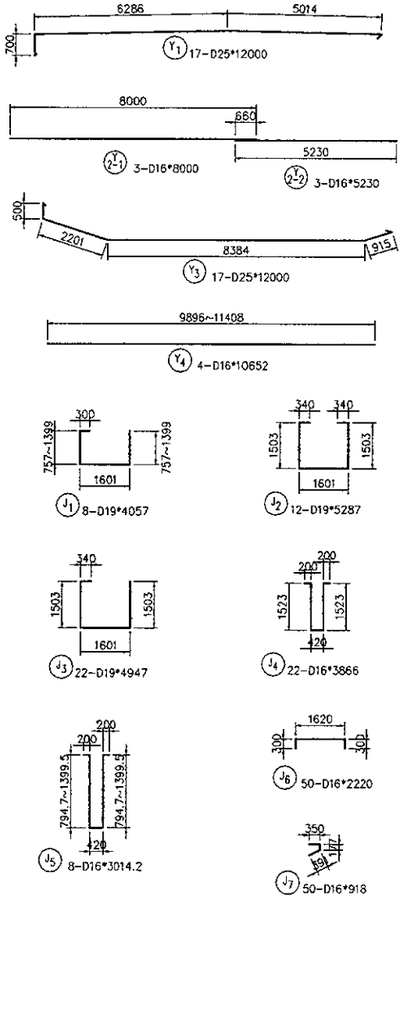
SECTION 3 - 3
SCALE : 1 : 100

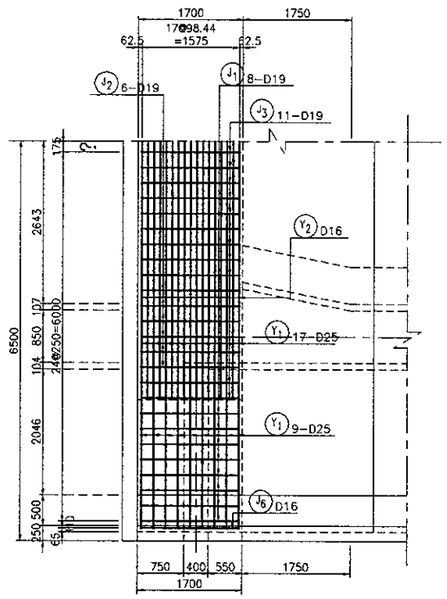
BAR BENDING ABUTMENT



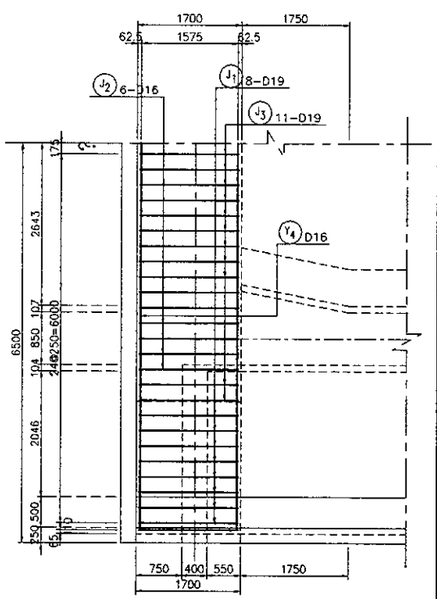
REINF NO.	φ (mm)	TYPE	BENDING DIMENSION (mm) a	b	c	d	e	TOTAL LENGTH (m)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARK
A 1												
J 1	D19	F	1601	1078	300			4.57	8	2.23	82	
2	D19	I	1601	1503	340			5.287	12	2.23	141	
3	D19	F	1601	1503	340			4.947	22	2.23	243	
4	D16	G	420	1523	200			3.866	22	1.58	134	
5	D16	G	420	1097.1	200			3.0142	8	1.58	38	
6	D16	E	1620	300				2.22	50	1.58	175	
7	D16	H	350	177	391			0.918	50	1.58	73	
Y 1	D25	D	6286	5014	700			12	17	3.85	785	
2-1	D16	A	8000					8	3	1.58	38	
2-2	D16	A	5230					5.23	3	1.58	25	
3	D25	C	8384	2201	915	500		12	17	3.85	785	
4	D16	A	10652					10.652	4	1.58	67	
										D25	1570	
										D19	466	
										D16	550	
										REBAR WEIGHT TOTAL	2586 kg	



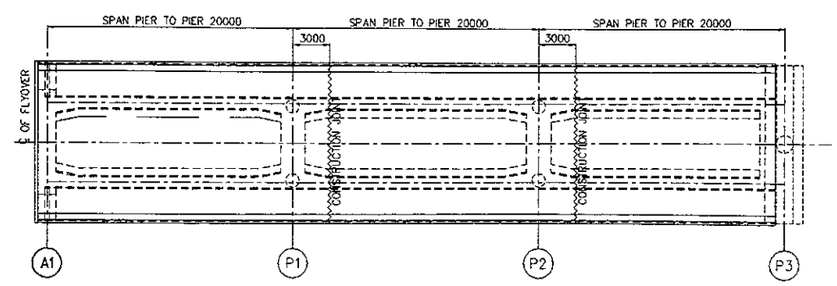




SECTION 4 - 4
SCALE : 1 : 100



SECTION 5 - 5
SCALE : 1 : 100



KEY PLAN
SCALE : 1 : 500

JAPAN INTERNATIONAL COOPERATION AGENCY / KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY	CHECKED BY	SUBMITTED BY
	Name: H.HONDA	Name: T. OKUMURA	Name: M. KIUCHI
	Sign:	Sign:	Sign:
	Date:	Date:	Date:

REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF HIGHWAYS

APPROVED BY: Ir. HERRY VAZA M,Eng.Sc (NIP. : 110038400) — Sign: — Date:

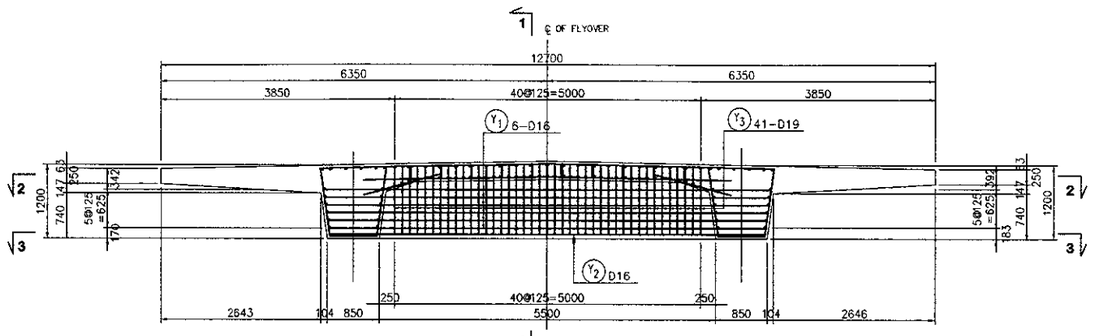
PROJECT AND LOCATION :
DETAILED DESIGN STUDY OF
NORTH JAVA CORRIDOR FLYOVER PROJECT
BALARAJA FLYOVER - CONTRACT PACKAGE 1
(MERAK - BALARAJA)
BANTEN PROVINCE

SCALE : 1 : 100 / 1 : 500 (FULL SIZE A3)

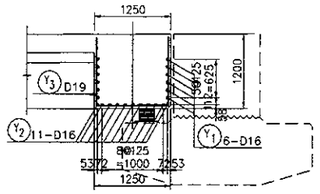
DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR CROSS BEAMS P3

DRAWING NO : BCL-019

SHEET NO : 19 / 20

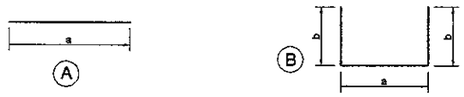


SECTION AT COPING PIER
SCALE : 1 :100

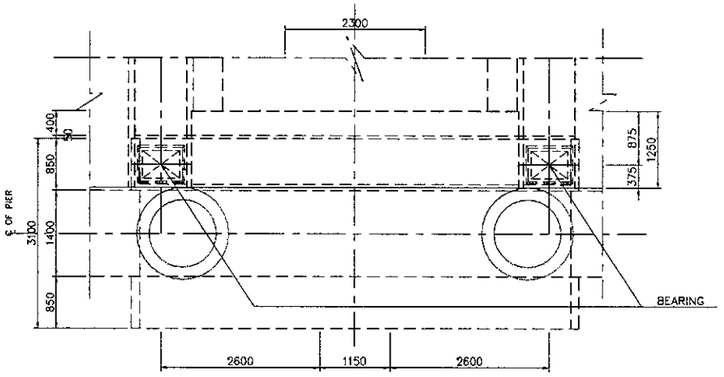


SECTION 1 - 1
SCALE : 1 : 100

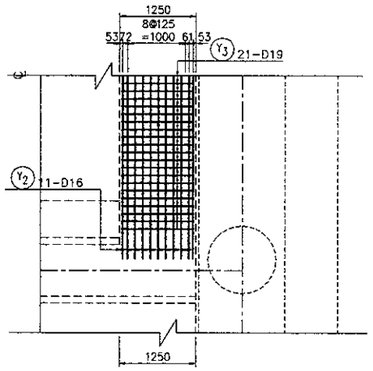
BAR BENDING



REINF NO.	ϕ (mm)	TYPE	BENDING DIMENSION (mm) a	b	c	d	TOTAL LENGTH (m)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARK
PIER											
Y 1	D16	A	7300				7.3	12	1.58	138	—
2	D16	A	7150				7.15	11	1.58	124	—
3	D19	B	1165	1110			3.345	41	2.23	306	⊔
									D19	306	
									D16	262	
									REBAR WEIGHT TOTAL	568 kg	

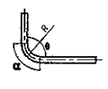


SECTION
SCALE : 1 :100

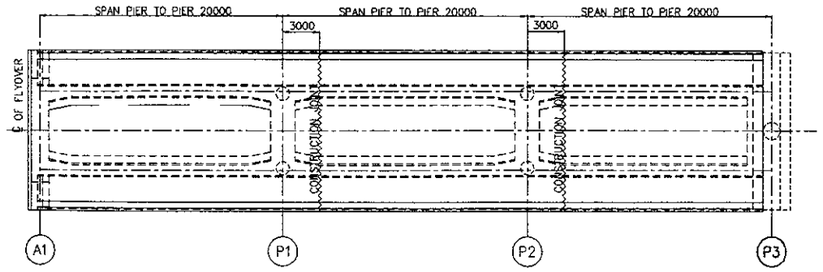


SECTION 2 - 2
SCALE : 1 : 100

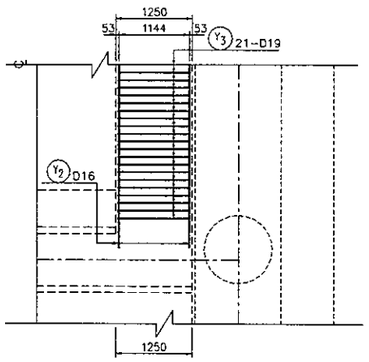
STIRRUP



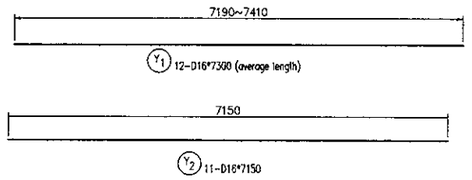
	R= 2.5ϕ	θ=45° α	θ=45° ΔL	θ=60° α	θ=60° ΔL	θ=90° α	θ=90° ΔL
D16	40	94	99	84	55	63	17
D19	47.5	112	117	99	66	75	20

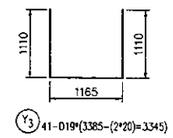


KEY PLAN
SCALE : 1 : 500

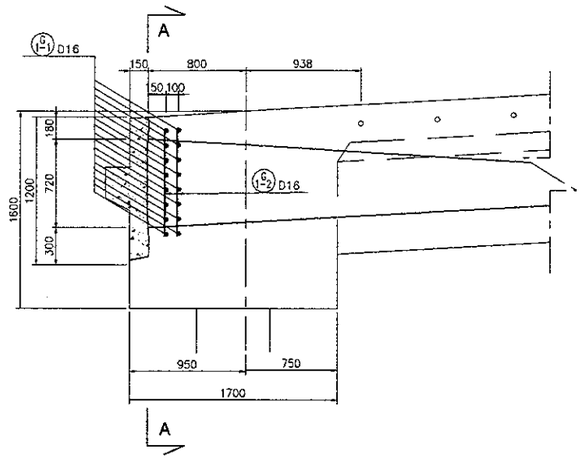


SECTION 3 - 3
SCALE : 1 : 100

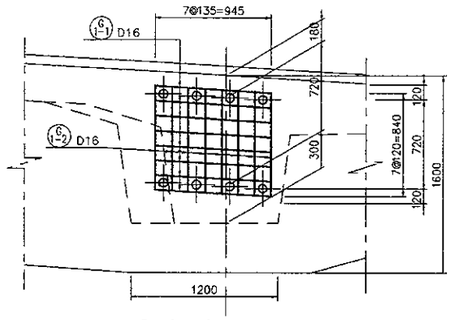




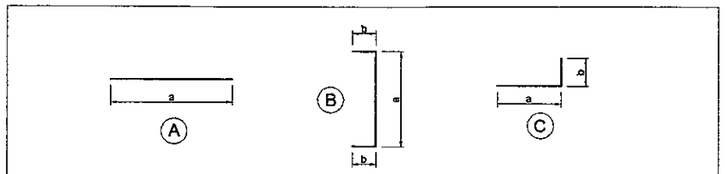
JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL	DESIGNED BY: Name H.HONDA; Sign; Date	CHECKED BY: Name T. OKUMURA; Sign; Date	SUBMITTED BY: Name M. KIUCHI; Sign; Date	REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF HIGHWAYS APPROVED BY: Ir. HERRY VAZA M,Eng.Sc; NIP. : 110038400; Sign; Date	PROJECT AND LOCATION : DETAILED DESIGN STUDY OF NORTH JAVA CORRIDOR FLYOVER PROJECT BALARAJA FLYOVER - CONTRACT PACKAGE 1 (MERAK - BALARAJA) BANTEN PROVINCE	SCALE : 1 : 50 1 : 500 FULL SIZE A3	DRAWING TITLE : ARRANGEMENT OF REINFORCEMENT FOR ANCHORAGE A1 - P3	DRAWING NO : BCL-020 SHEET NO : 20 / 20



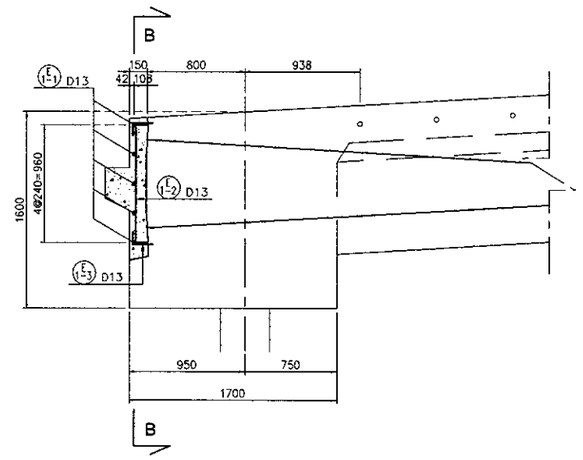
SECTION END ANCHORAGE
SCALE : 1 : 50



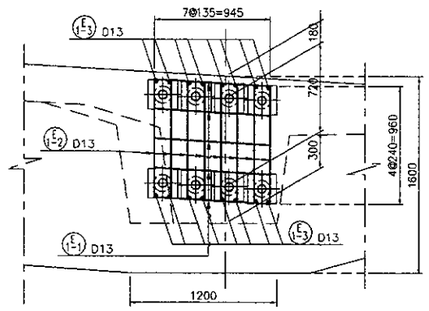
SECTION A - A
SCALE : 1 : 50



REINF NO.	ϕ (mm)	TYPE	BENDING DIMENSION (mm) a	b	c	d	TOTAL LENGTH (m)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT (kg)	REMARK
E 1-1	D13	A	945				0.945	16	1.04	16	—
E 1-2	D13	B	960	100			1.132	10	1.04	12	⌊⌋
E 1-3	D13	C	150	50			0.186	32	1.04	6	⌊
G 1-1	D16	A	945				0.945	32	1.58	48	—
G 1-2	D16	A	840				0.84	32	1.58	43	—
									D16	91	
									D13	34	
								REBAR WEIGHT TOTAL		125 kg	

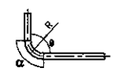


SECTION END ANCHORAGE
SCALE : 1 : 50

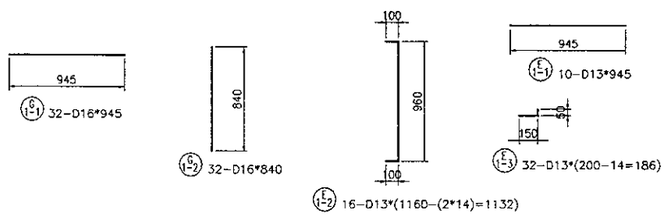


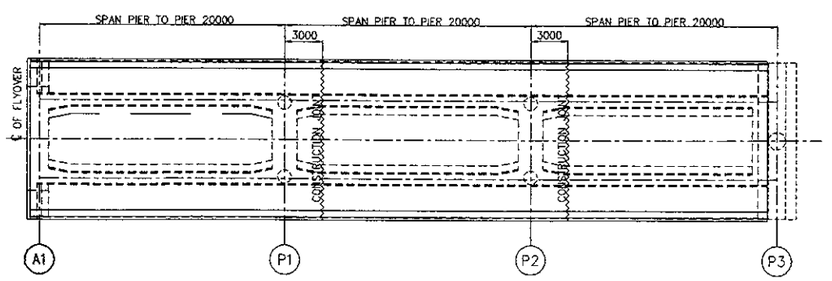
SECTION B - B
SCALE : 1 : 50

STIRRUP



	R= 2.5ϕ	θ= 45° α	θ= 45° Δℓ	θ= 60° α	θ= 60° Δℓ	θ= 90° α	θ= 90° Δℓ
D16	40	94	99	84	55	63	17
D19	47.5	112	117	99	66	75	20





KEY PLAN
SCALE : 1 : 500