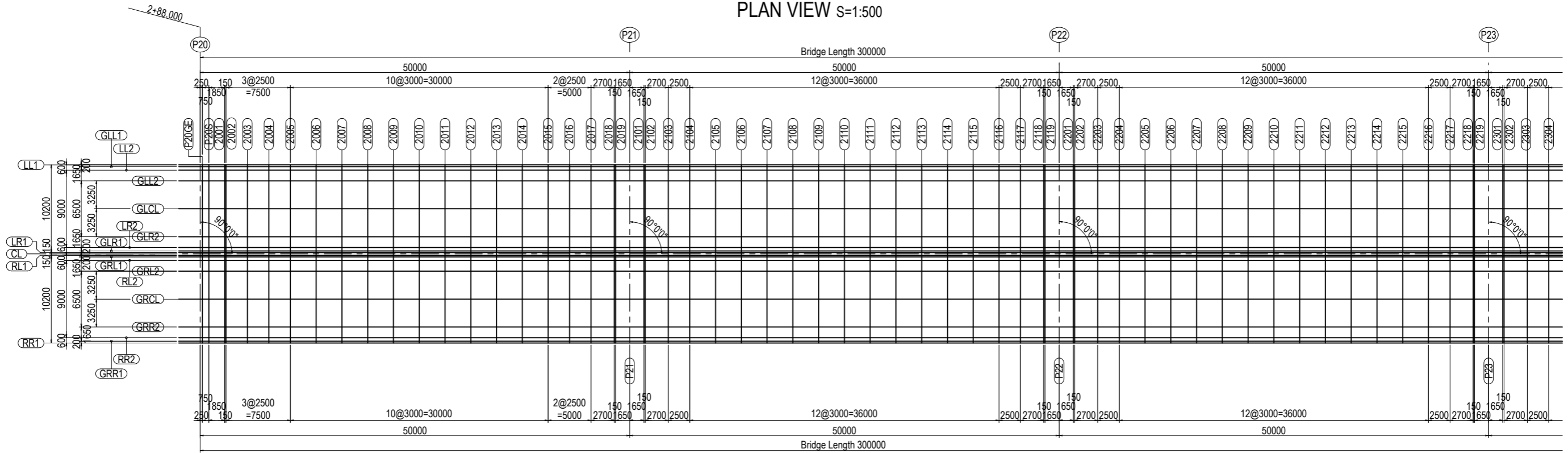


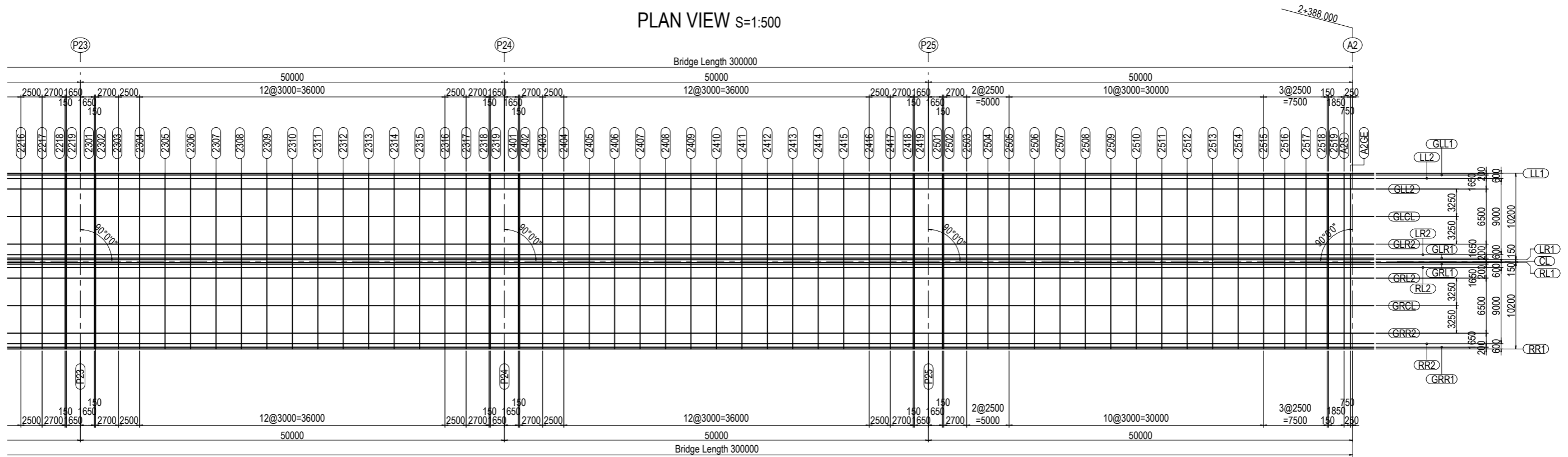
D. PC BOX GIRDER BRIDGE

COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (1)

PLAN VIEW S=1:500



PLAN VIEW S=1:500



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

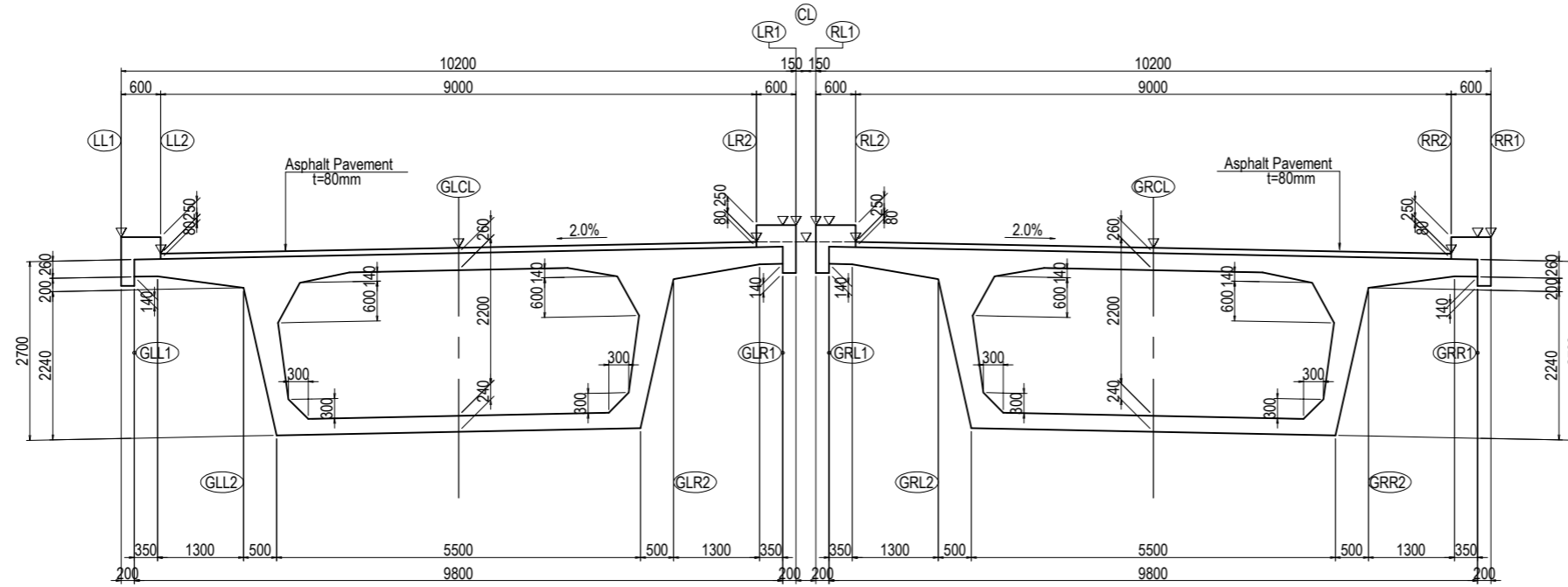
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
COORDINATES OF SUPERSTRUCTURE
P20-A2 <L,R> (1)

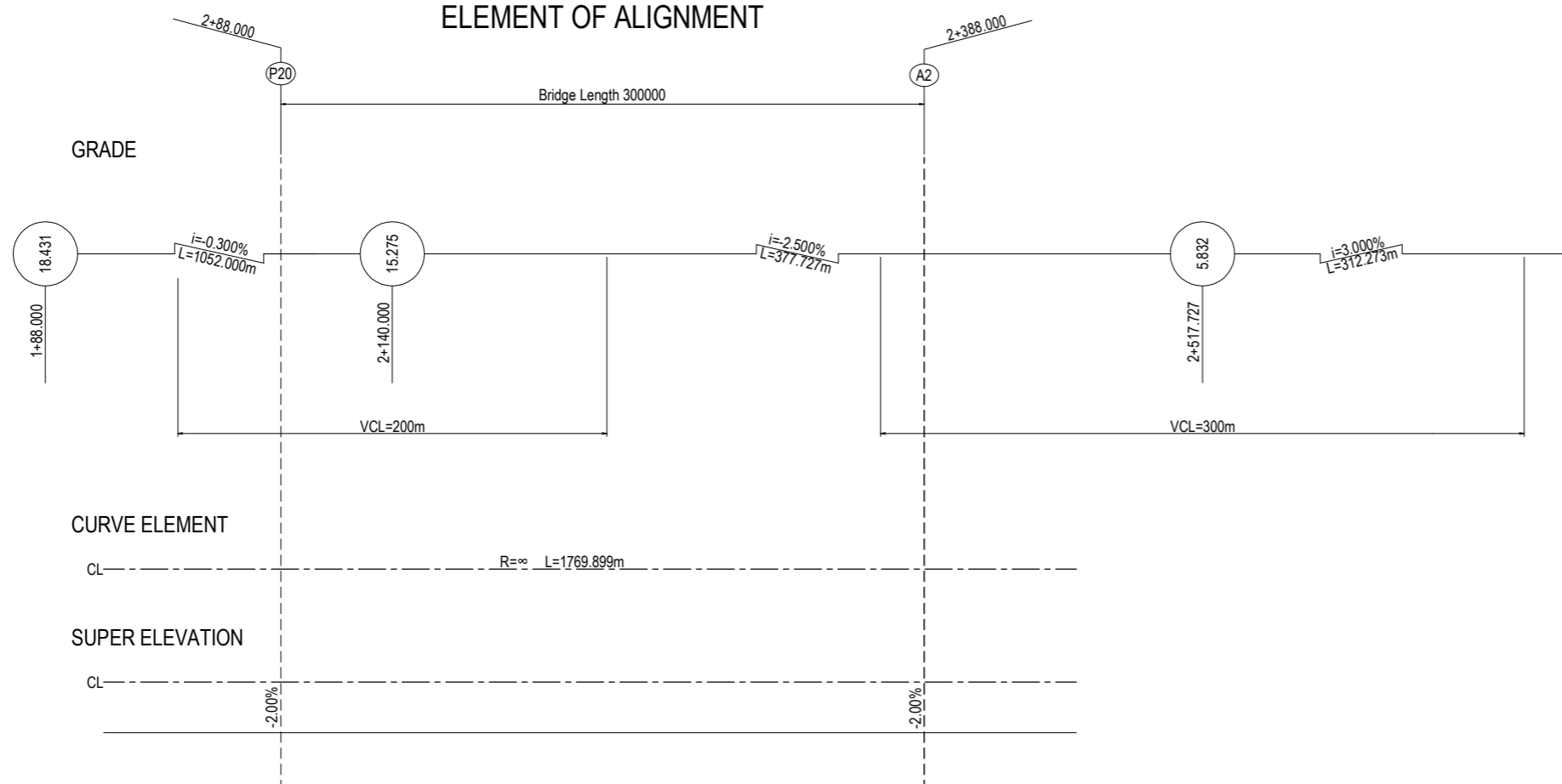
PACKAGE
2
DWG No.
P2-PB-0001

COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (2)

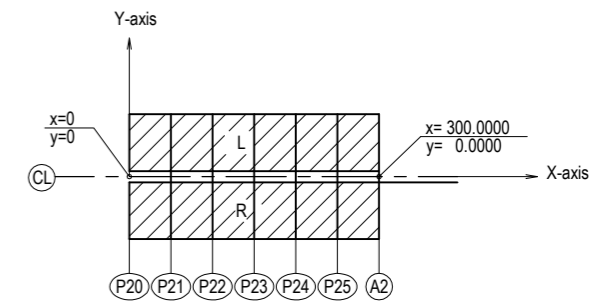
CROSS SECTION S=1:100



ELEMENT OF ALIGNMENT



COORDINATE SYSTEM



- A line connecting the intersection of road center line CL and P20 and A2 in X-axis.
- Intersection Point of P20 and X-axis(0.000,0.000).
- Y-axis is perpendicular to X-axis through(0.000,0.000).

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-0002

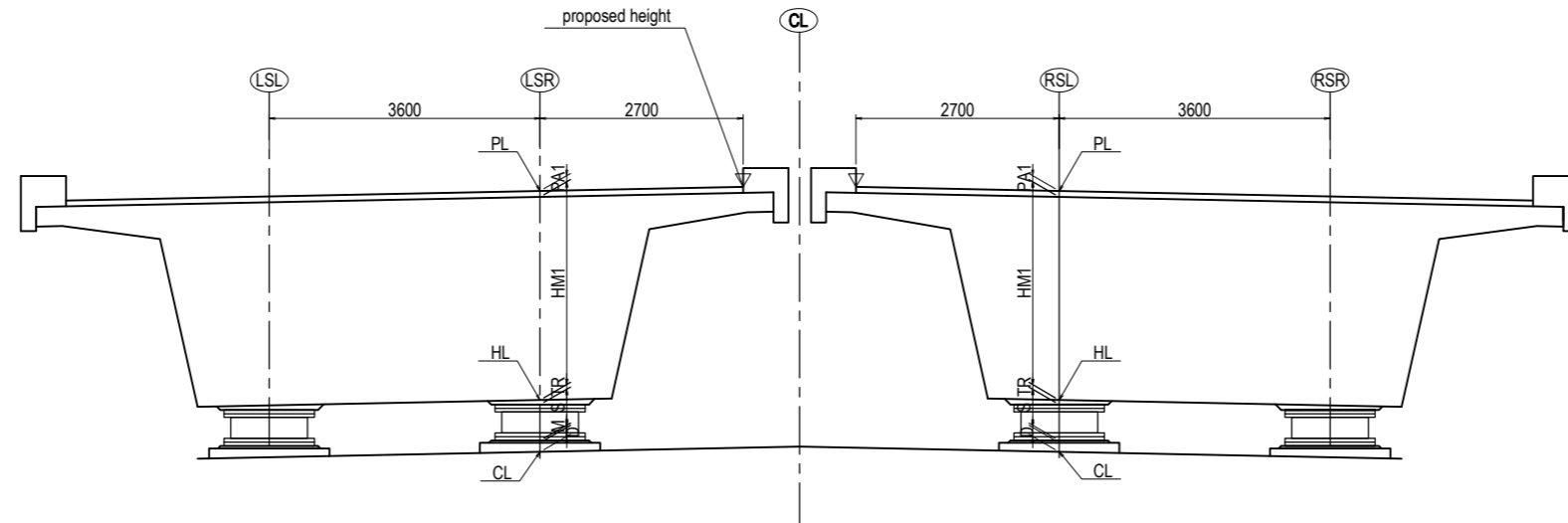
COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (7)

COORDINATES LIST (UNIT: m)

		2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	A2S	A2GE	A2
LL1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500	10.3500
	Z	9.9326	9.8576	9.7826	9.7076	9.6327	9.5589	9.4868	9.4164	9.3589	9.3026	9.2475	9.2442	9.2042	9.1881	9.1828
GLL1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500	10.1500
	Z	9.9326	9.8576	9.7826	9.7076	9.6327	9.5589	9.4868	9.4164	9.3589	9.3026	9.2475	9.2442	9.2042	9.1881	9.1828
LL2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500	9.7500
	Z	9.6826	9.6076	9.5326	9.4576	9.3827	9.3089	9.2368	9.1664	9.1089	9.0526	8.9975	8.9942	8.9542	8.9381	8.9328
GLL2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000	8.5000
	Z	9.7076	9.6326	9.5576	9.4826	9.4077	9.3339	9.2618	9.1914	9.1339	9.0776	9.0225	9.0192	8.9792	8.9631	8.9578
GLCL	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500	5.2500
	Z	9.7726	9.6976	9.6226	9.5476	9.4727	9.3989	9.3268	9.2564	9.1989	9.1426	9.0875	9.0842	9.0442	9.0281	9.0228
GLR2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
	Z	9.8376	9.7626	9.6876	9.6126	9.5377	9.4639	9.3918	9.3214	9.2639	9.2076	9.1525	9.1492	9.1092	9.0931	9.0878
LR2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
	Z	9.8626	9.7876	9.7126	9.6376	9.5627	9.4889	9.4168	9.3464	9.2889	9.2326	9.1775	9.1742	9.1342	9.1181	9.1128
GLR1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500	0.3500
	Z	10.1126	10.0376	9.9626	9.8876	9.8127	9.7389	9.6668	9.5964	9.5389	9.4826	9.4275	9.4242	9.3842	9.3681	9.3628
LR1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500
	Z	10.1126	10.0376	9.9626	9.8876	9.8127	9.7389	9.6668	9.5964	9.5389	9.4826	9.4275	9.4242	9.3842	9.3681	9.3628
CL	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-0.0000	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	0.0000
	Z	9.8626	9.7876	9.7126	9.6376	9.5627	9.4889	9.4168	9.3464	9.2889	9.2326	9.1775	9.1742	9.1342	9.1181	9.1128
RL1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500	-0.1500
	Z	10.1126	10.0376	9.9626	9.8876	9.8127	9.7389	9.6668	9.5964	9.5389	9.4826	9.4275	9.4242	9.3842	9.3681	9.3628
GRL1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500	-0.3500
	Z	10.1126	10.0376	9.9626	9.8876	9.8127	9.7389	9.6668	9.5964	9.5389	9.4826	9.4275	9.4242	9.3842	9.3681	9.3628
RL2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500	-0.7500
	Z	9.8626	9.7876	9.7126	9.6376	9.5627	9.4889	9.4168	9.3464	9.2889	9.2326	9.1775	9.1742	9.1342	9.1181	9.1128
GRL2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000	-2.0000
	Z	9.8376	9.7626	9.6876	9.6126	9.5377	9.4639	9.3918	9.3214	9.2639	9.2076	9.1525	9.1492	9.1092	9.0931	9.0878
GRCL	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500	-5.2500
	Z	9.7726	9.6976	9.6226	9.5476	9.4727	9.3989	9.3268	9.2564	9.1989	9.1426	9.0875	9.0842	9.0442	9.0281	9.0228
GRR2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000	-8.5000
	Z	9.7076	9.6326	9.5576	9.4826	9.4077	9.3339	9.2618	9.1914	9.1339	9.0776	9.0225	9.0192	8.9792	8.9631	8.9578
RR2	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500	-9.7500
	Z	9.6826	9.6076	9.5326	9.4576	9.3827	9.3089	9.2368	9.1664	9.1089	9.0526	8.9975	8.9942	8.9542	8.9381	8.9328
GRR1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500	-10.1500
	Z	9.9326	9.8576	9.7826	9.7076	9.6327	9.5589	9.4868	9.4164	9.3589	9.3026	9.2475	9.2442	9.2042	9.1881	9.1828
RR1	X	268.5000	271.5000	274.5000	277.5000	280.5000	283.5000	286.5000	289.5000	292.0000	294.5000	297.0000	297.1500	299.0000	299.7500	300.0000
	Y	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500	-10.3500
	Z	9.9326	9.8576	9.7826	9.7076	9.6327	9.5589	9.4868	9.4164	9.3589	9.3026	9.2475	9.2442	9.2042	9.1881	9.1828

PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		PREPARED BY CHECKED BY APPROVED BY	M. OHYAMA T. HAYAKAWA Y. SANO	 	15 Jun.2017 20 Jun.2017 21 Jun.2017	COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (7)	2 DWG No. P2-PB-0007

COORDINATES OF SUPERSTRUCTURE P20-A2 <L,R> (8)

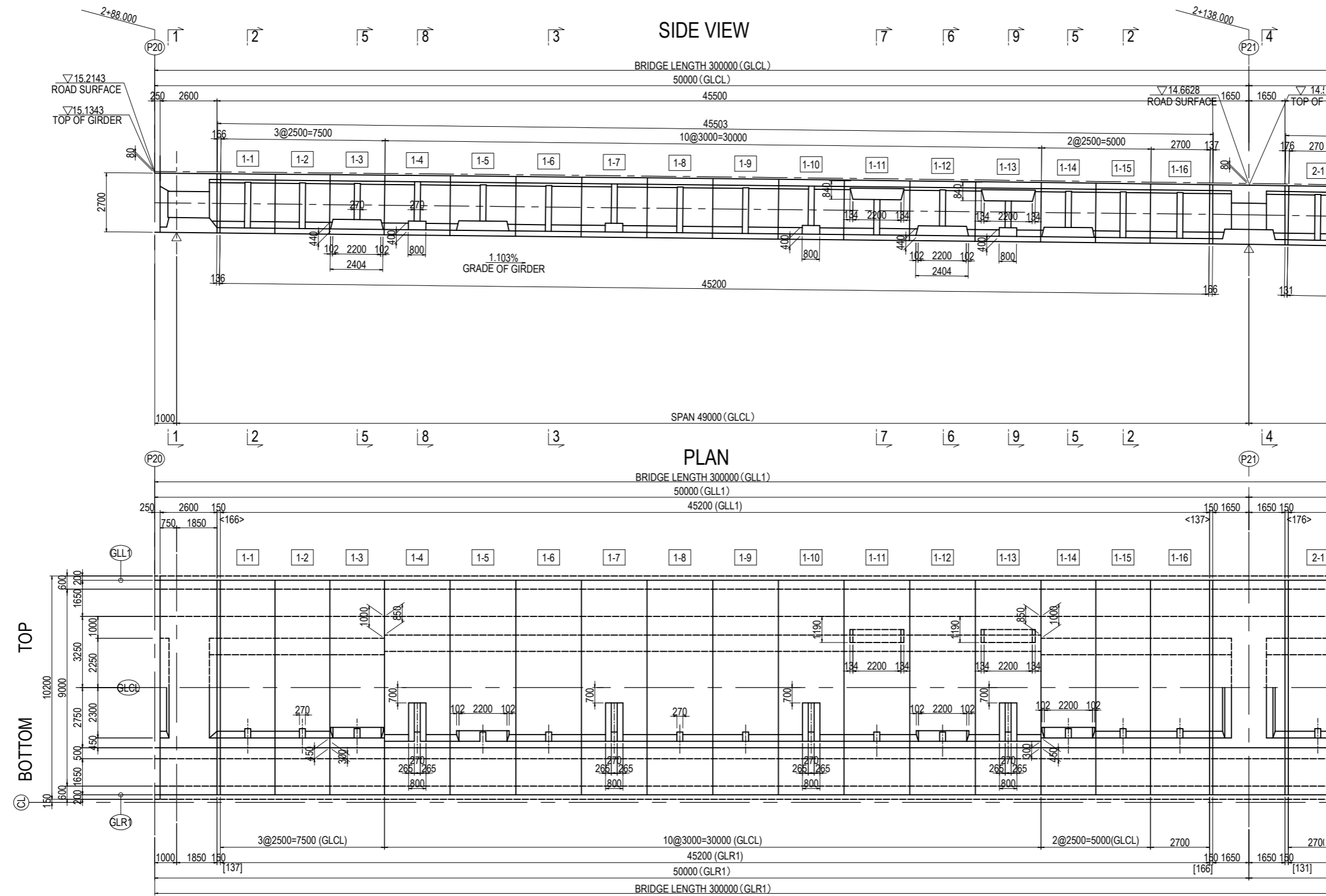


LIST OF STRUCTURE HEIGHT (UNIT : m)

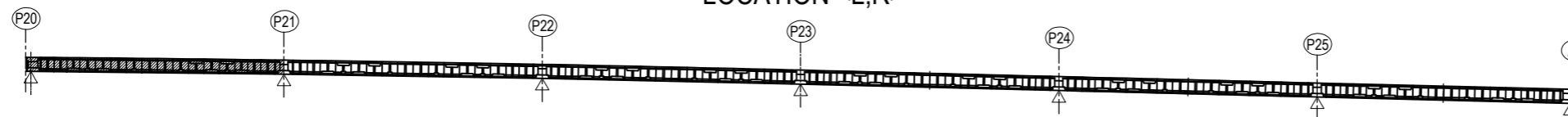
		P20					P21					P22					P23					P24				
		LSL	LSR	Plan Height	RSL	RSR	LSL	LSR	Plan Height	RSL	RSR	LSL	LSR	Plan Height	RSL	RSR	LSL	LSR		RSL	RSR	LSL	LSR	Plan Height	RSL	RSR
distance from proposed height	ΔL	6.300	2.700		2.700	6.300	6.300	2.700		2.700	6.300	6.300	2.700		2.700	6.300	6.300	2.700		2.700	6.300	6.300	2.700		2.700	6.300
super elevation	i	0.020	0.020		0.020	0.020	0.020	0.020		0.020	0.020	0.020	0.020		0.020	0.020	0.020	0.020		0.020	0.020	0.020	0.020		0.020	0.020
proposed height	P.L	15.1699	15.2419	15.2959	15.2419	15.1699	14.6268	14.6988	14.7528	14.6988	14.6268	13.8003	13.8723	13.9263	13.8723	13.8003	12.6988	12.7708	12.8248	12.7708	12.6988	11.4491	11.5211	11.5751	11.5211	11.4491
pavement	PA1	0.080	0.080		0.080	0.080	0.080	0.080		0.080	0.080	0.080	0.080		0.080	0.080	0.080	0.080		0.080	0.080	0.080	0.080		0.080	0.080
girder height	HM1	2.700	2.700		2.700	2.700	2.700	2.700		2.700	2.700	2.700	2.700		2.700	2.700	2.700	2.700		2.700	2.700	2.700	2.700		2.700	2.700
elevation of girder bottom	HL	12.390	12.462		12.462	12.390	11.847	11.919		11.919	11.847	11.020	11.092		11.092	11.020	9.919	9.991		9.991	9.919	8.669	8.741		8.741	8.669
adjustment layer	TR	0.050	0.050		0.050	0.050	0.060	0.060		0.060	0.060	0.070	0.070		0.070	0.070	0.070	0.070		0.070	0.070	0.070	0.070		0.070	0.070
bearing thickness	S	0.493	0.493		0.493	0.493	0.523	0.523		0.523	0.523	0.523	0.523		0.523	0.523	0.488	0.488		0.488	0.488	0.523	0.523		0.523	0.523
leveling thickness	M	0.030	0.030		0.030	0.030	0.040	0.040		0.040	0.040	0.040	0.040		0.040	0.040	0.040	0.040		0.040	0.040	0.040	0.040		0.040	0.040
base height	D	0.090	0.090		0.090	0.090	0.120	0.120		0.120	0.120	0.120	0.120		0.120	0.120	0.120	0.120		0.120	0.120	0.120	0.120		0.120	0.120
top elevation of substructure	CL	11.727	11.799		11.799	11.727	11.104	11.176		11.176	11.104	10.267	10.339		10.339	10.267	9.201	9.273		9.273	9.201	7.916	7.988		7.988	7.916

		P25					A2				
		LSL	LSR	Plan Height	RSL	RSR	LSL	LSR	Plan Height	RSL	RSR
distance from proposed height	ΔL	6.300	2.700		2.700	6.300	6.300	2.700		2.700	6.300
super elevation	i	0.020	0.020		0.020	0.020	0.020	0.020		0.020	0.020
proposed height	P.L	10.1991	10.2711	10.3251	10.2711	10.1991	9.0082	9.0802	9.1342	9.0802	9.0082
pavement	PA1	0.080	0.080		0.080	0.080	0.114	0.114		0.114	0.114
girder height	HM1	2.700	2.700		2.700	2.700	2.700	2.700		2.700	2.700
elevation of girder bottom	HL	7.419	7.491		7.491	7.419	6.194	6.266		6.266	6.194
adjustment layer	TR	0.070	0.070		0.070	0.070	0.060	0.060		0.060	0.060
bearing thickness	S	0.557	0.557		0.557	0.557	0.507	0.507		0.507	0.507
leveling thickness	M	0.040	0.040		0.040	0.040	0.030	0.030		0.030	0.030
base height	D	0.120	0.120		0.120	0.120	0.090	0.090		0.090	0.090
top elevation of substructure	CL	6.632	6.704		6.704	6.632	5.507	5.579		5.579	5.507

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (1) S=1:200



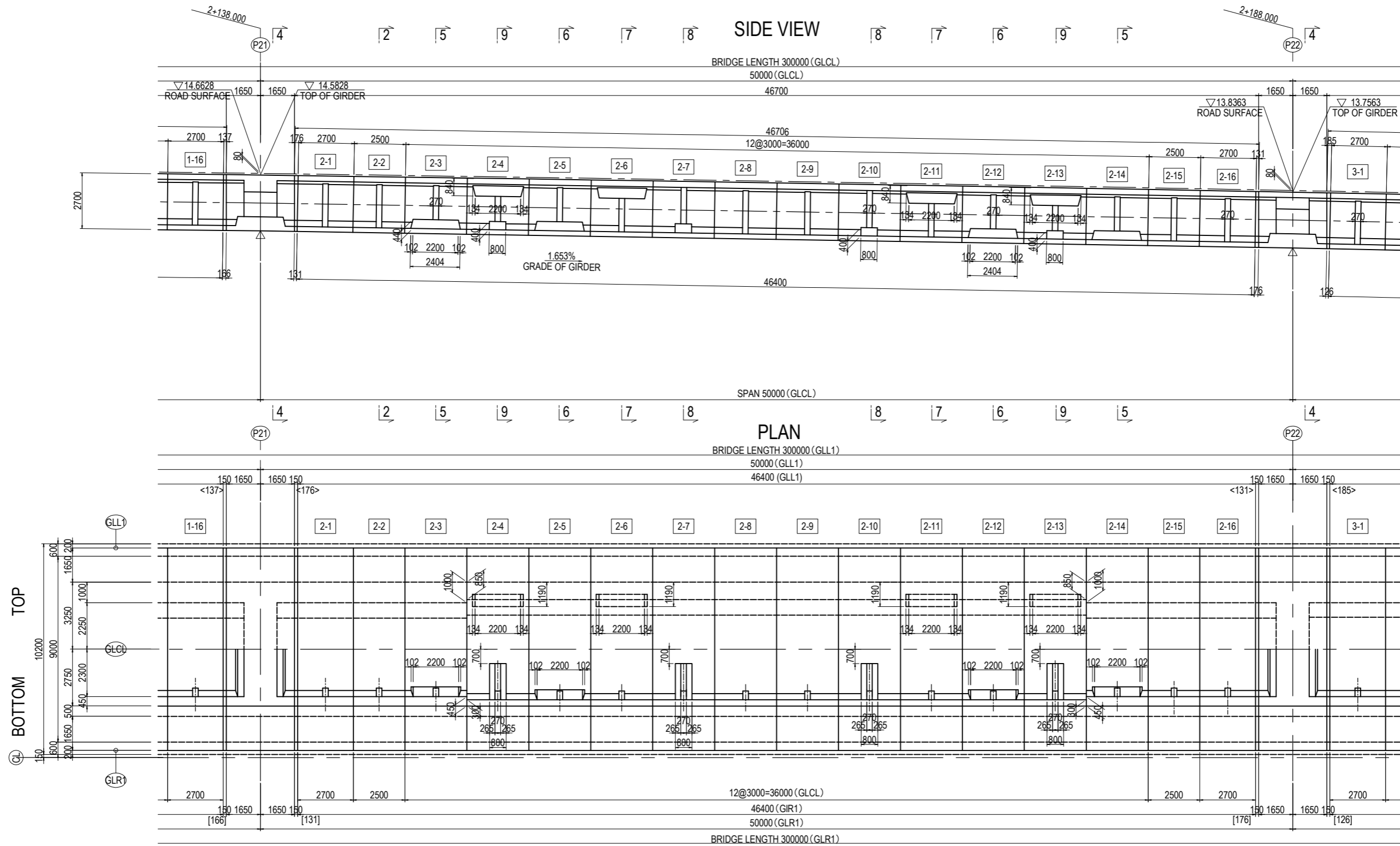
LOCATION <L,R>



- Notes
- Values in <> / [] are at the top/bottom of the girder accordingly.
 - This drawing shows only bridge on left side of CL line.
 - Bridge on right side of CL line is symmetric with respect to CL line and omitted.

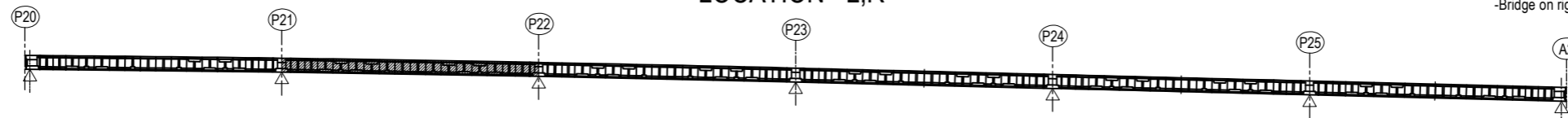
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	15 Jun.2017	CHECKED BY	T. HAYAKAWA	20 Jun.2017	APPROVED BY	Y. SANO	21 Jun.2017	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (1)	PACKAGE 2 DWG No. P2-PB-1001
NAME	SIGNATURE	DATE																
PREPARED BY	M. OHYAMA	15 Jun.2017																
CHECKED BY	T. HAYAKAWA	20 Jun.2017																
APPROVED BY	Y. SANO	21 Jun.2017																

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (2) S=1:200



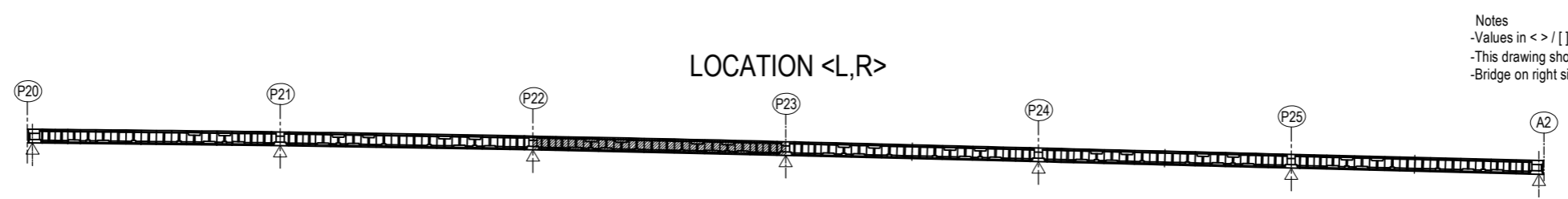
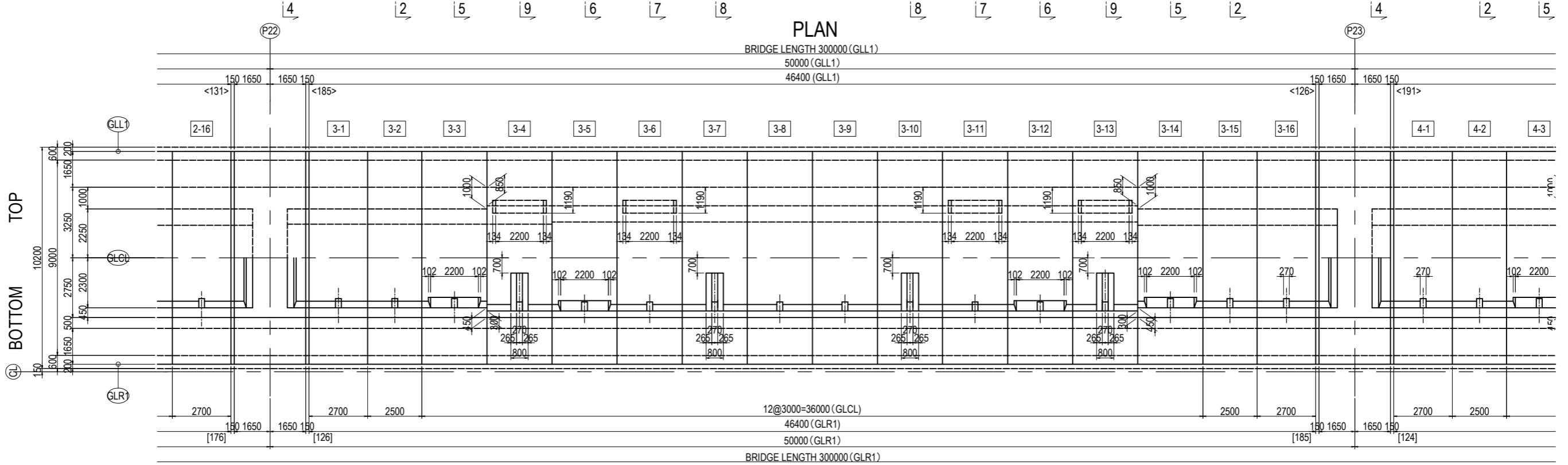
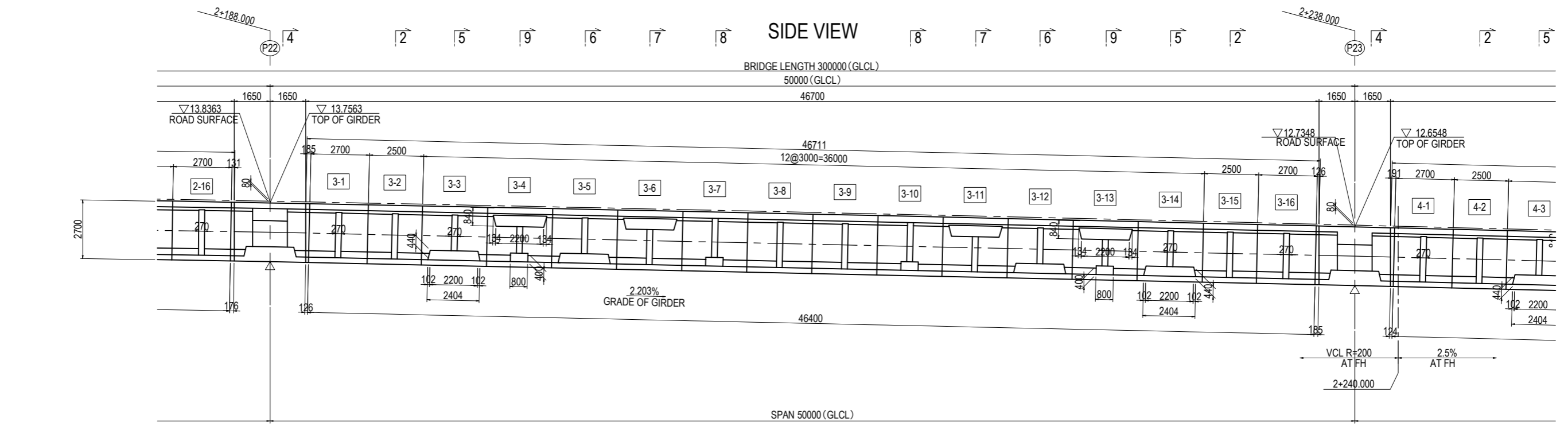
Notes
 -Values in <> / [] are at the top/bottom of the girder accordingly.
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	15 Jun.2017	CHECKED BY	T. HAYAKAWA	20 Jun.2017	APPROVED BY	Y. SANO	21 Jun.2017	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (2)	PACKAGE 2 DWG No. P2-PB-1002
NAME	SIGNATURE	DATE																
PREPARED BY	M. OHYAMA	15 Jun.2017																
CHECKED BY	T. HAYAKAWA	20 Jun.2017																
APPROVED BY	Y. SANO	21 Jun.2017																

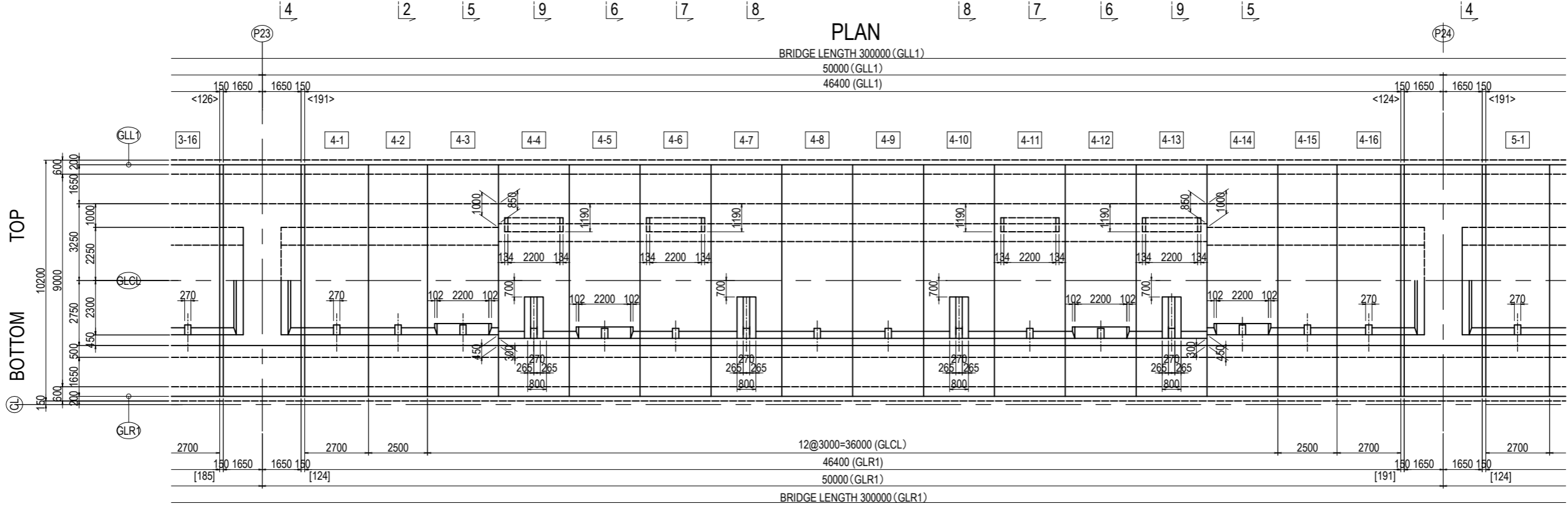
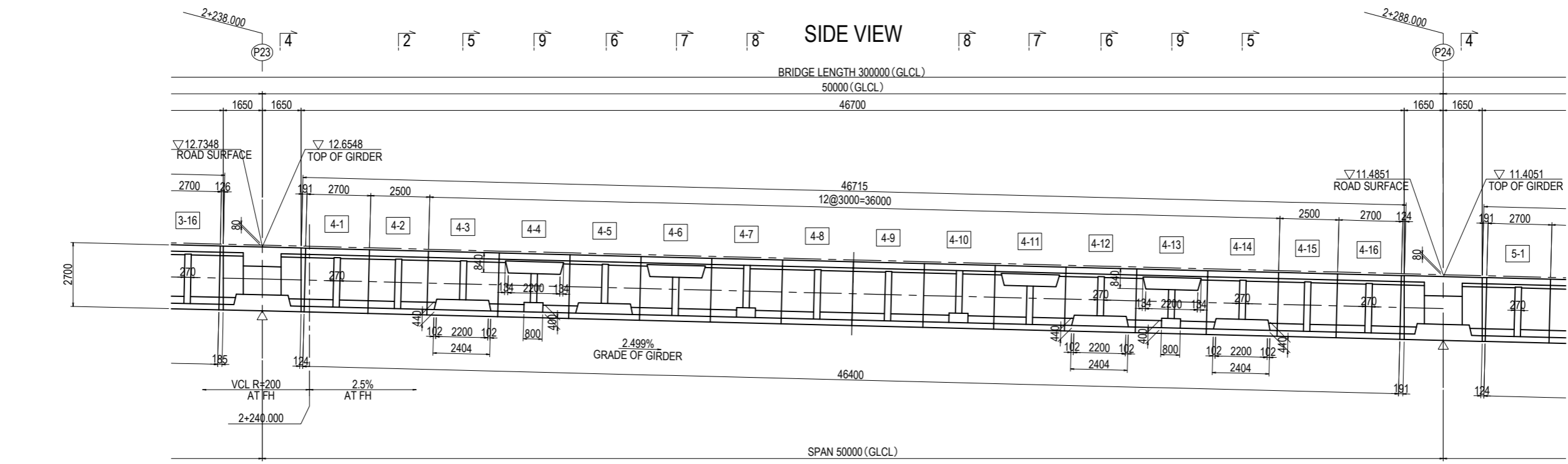
GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (3) S=1:200



Notes
 -Values in < > / [] are at the top/bottom of the girder accordingly.
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

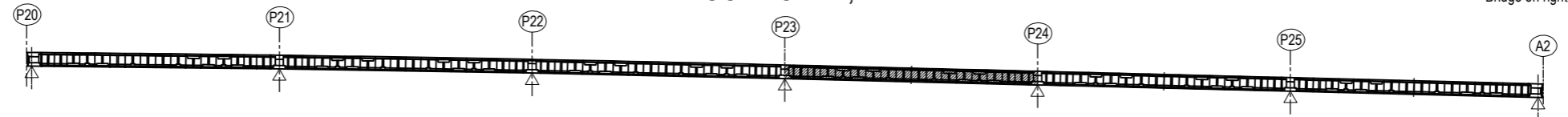
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (3)	PACKAGE 2 DWG No. P2-PB-1003
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (4) S=1:200



TOP
BOTTOM

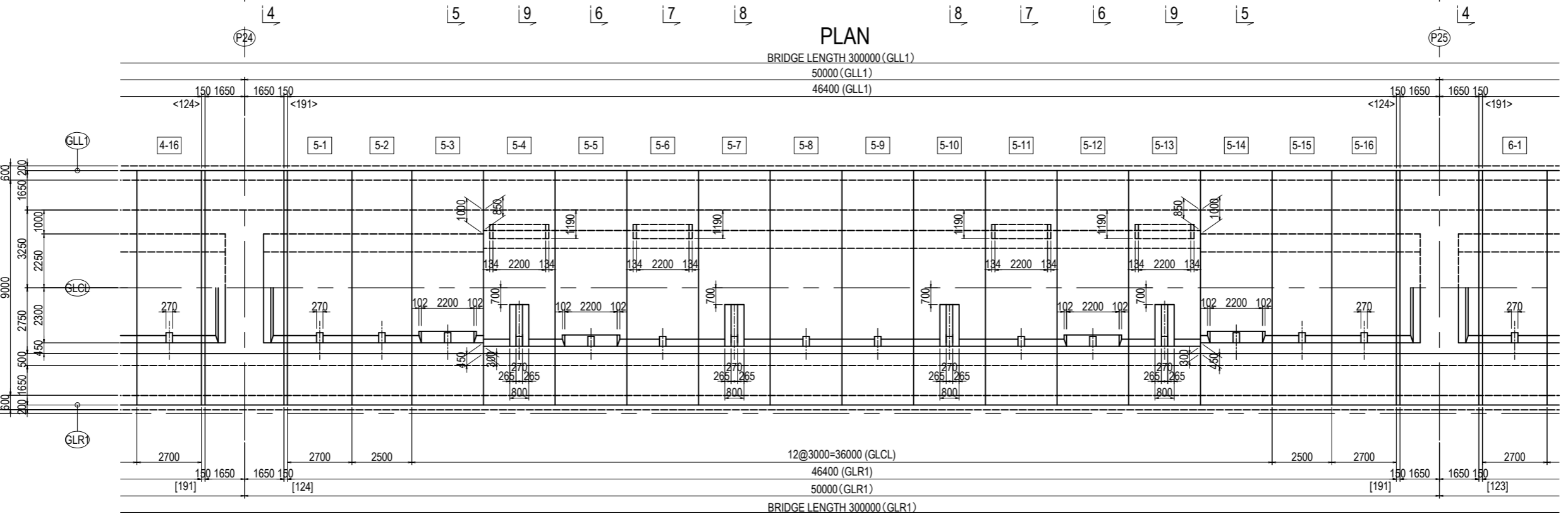
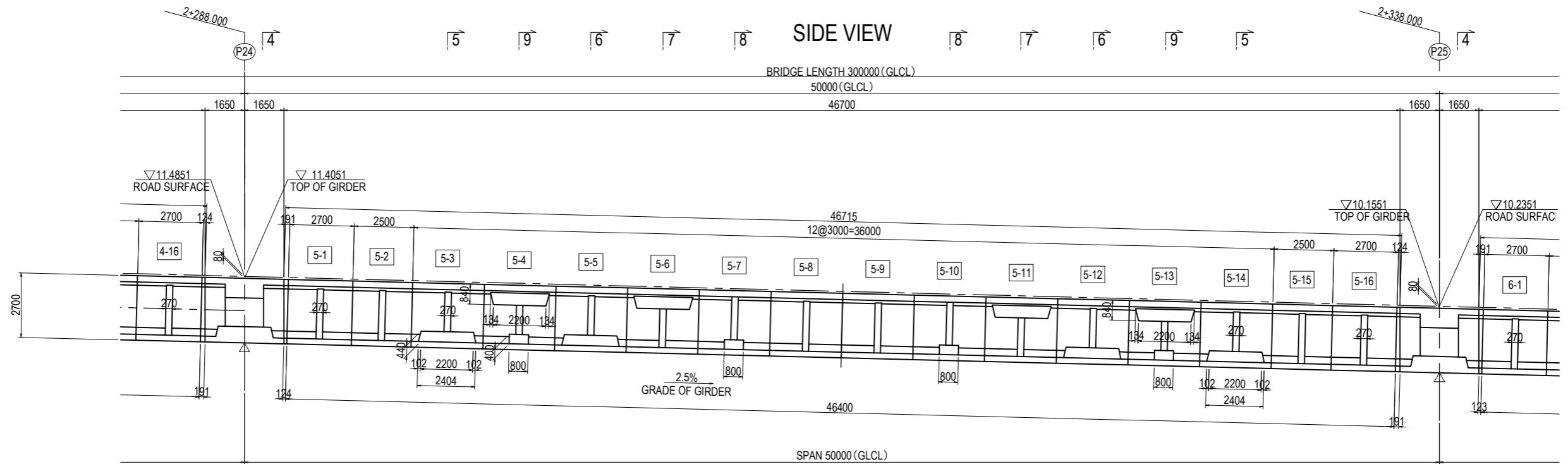
LOCATION <L,R>



Notes
 -Values in < > / [] are at the top/bottom of the girder accordingly.
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

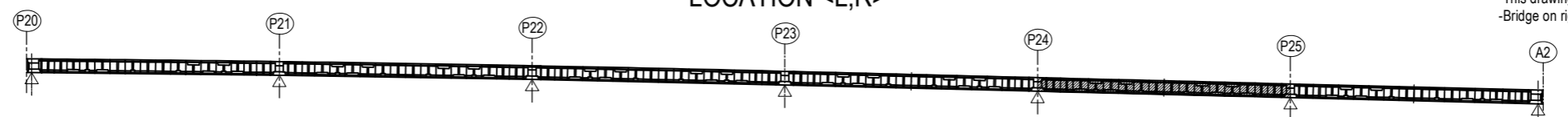
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (4)	PACKAGE 2 DWG No. P2-PB-1004
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (5) S=1:200



TOP
BOTTOM

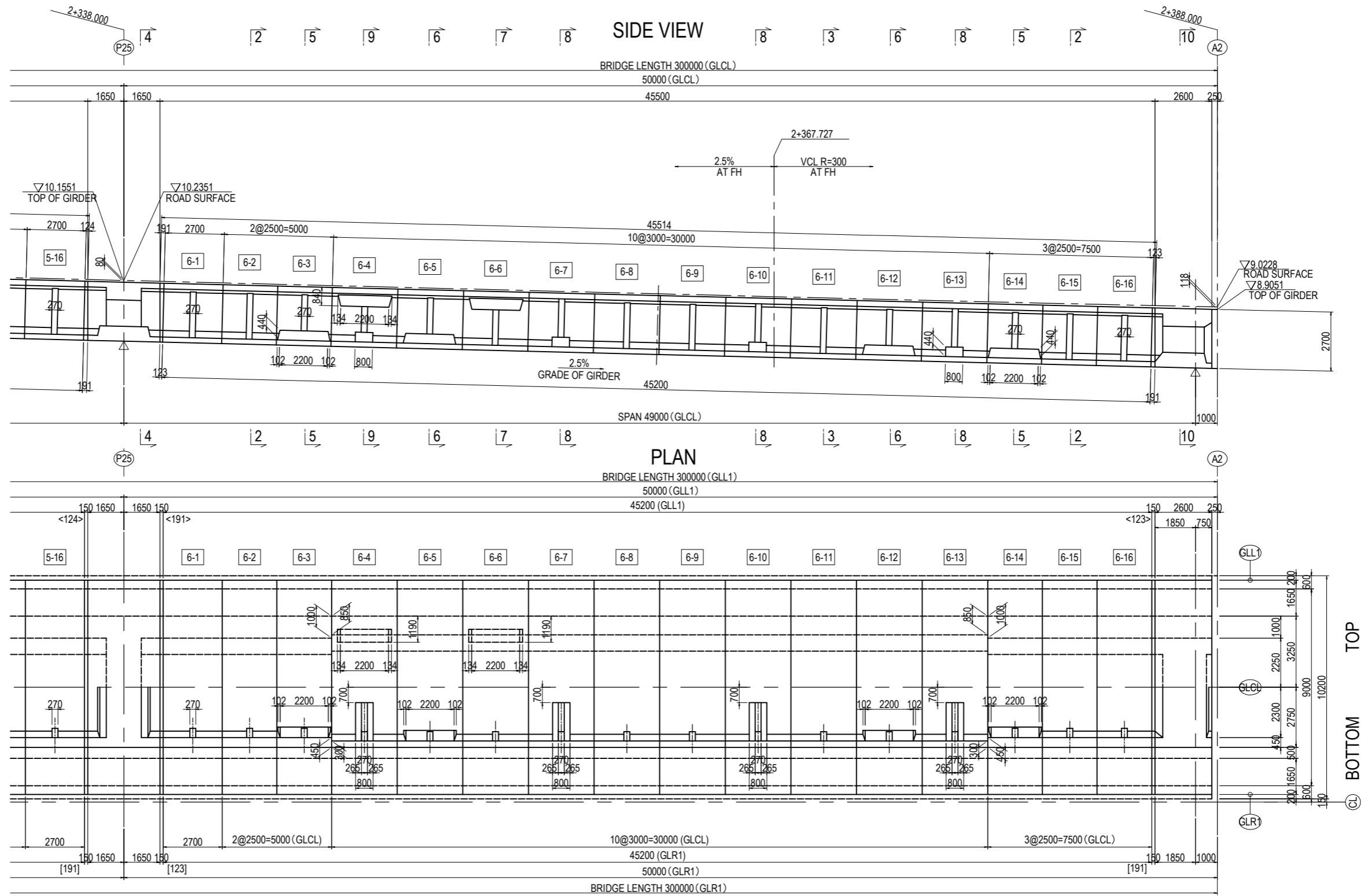
LOCATION <L,R>



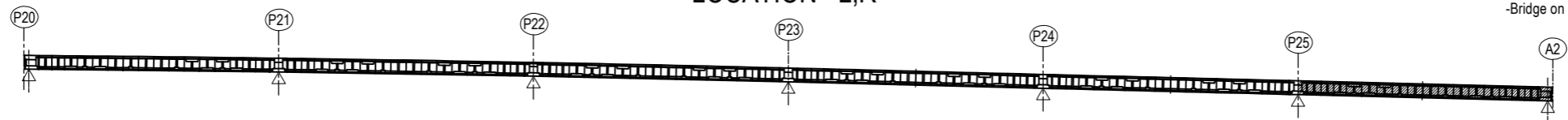
Notes
 -Values in <> / [] are at the top/bottom of the girder accordingly.
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (5)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1005

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (6) S=1:200



LOCATION <L,R>

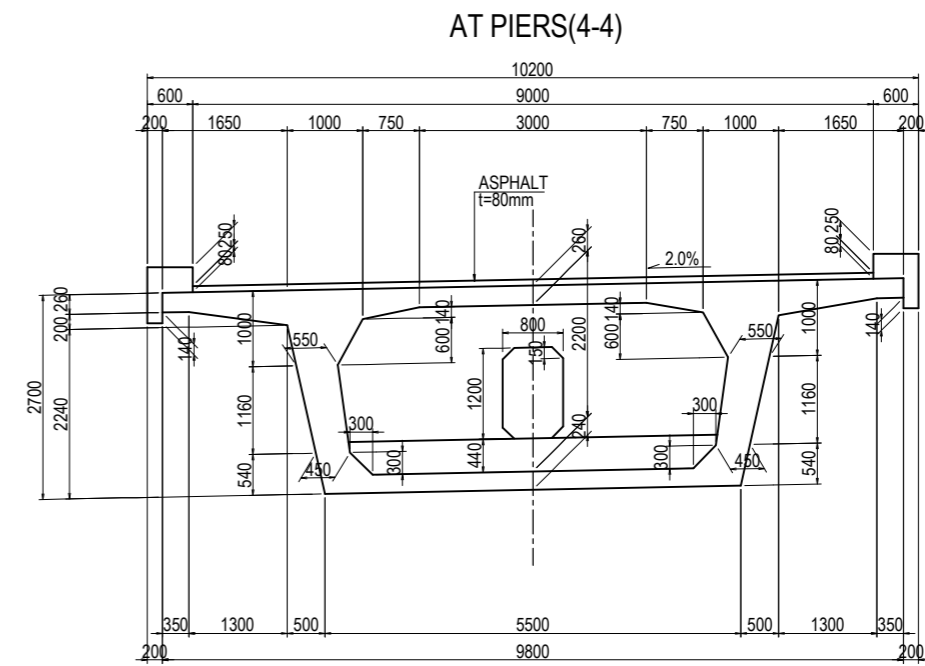
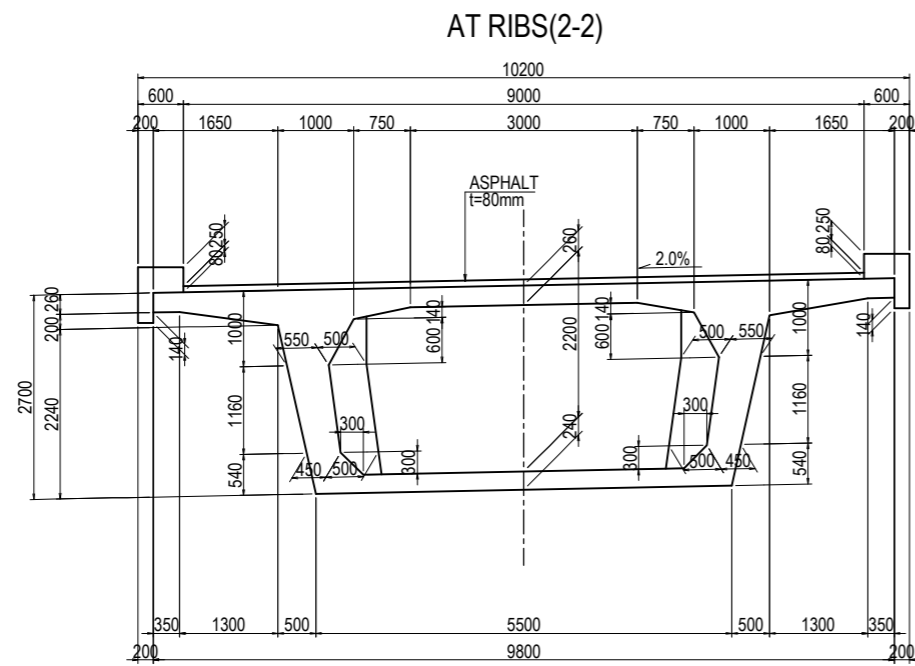
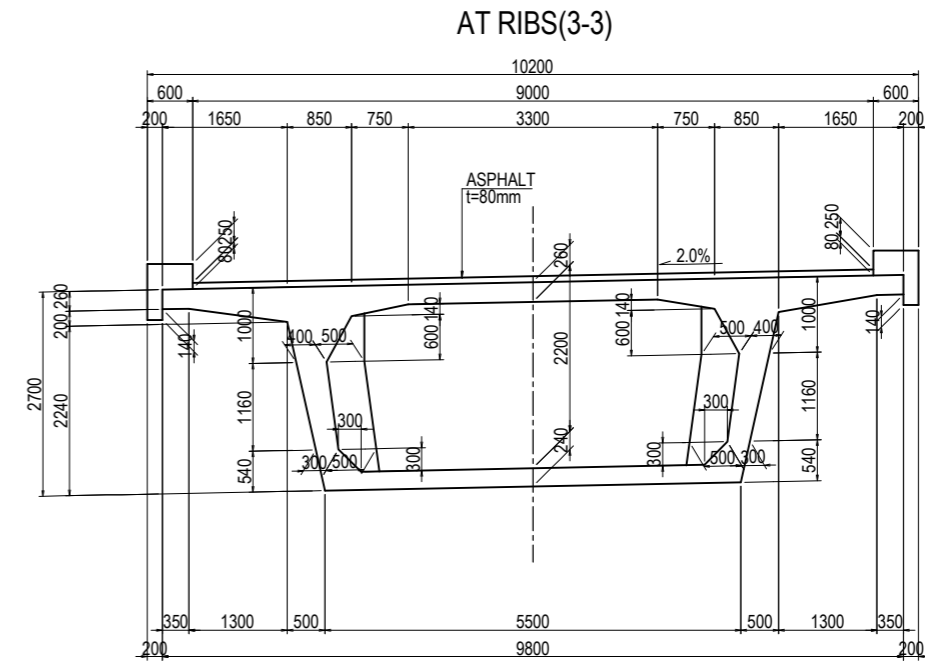
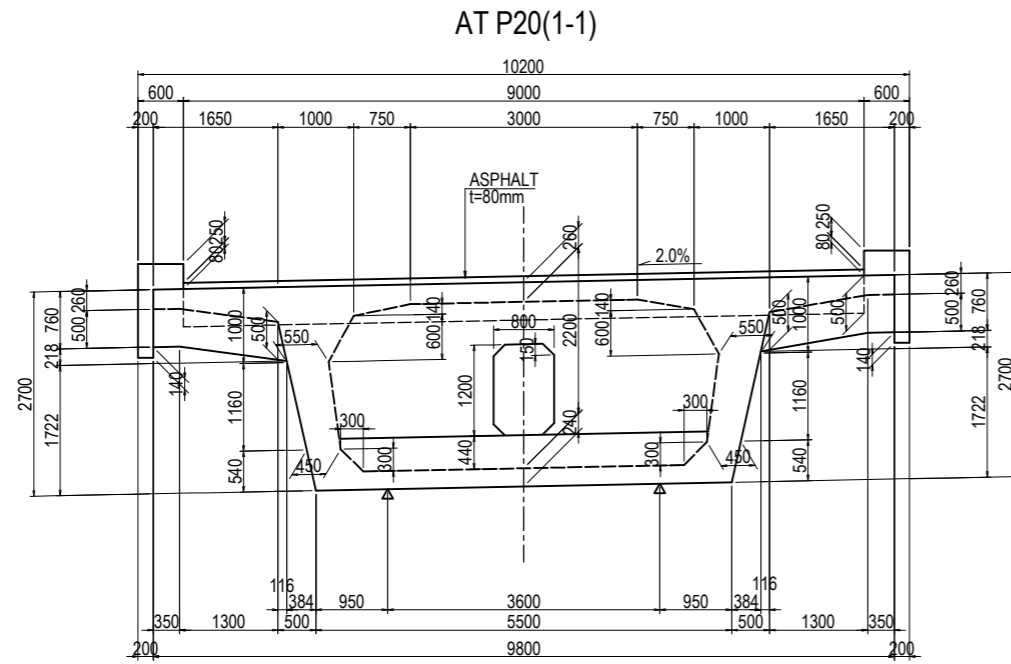


Notes
 -Values in <>/[] are at the top/bottom of the girder accordingly.
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

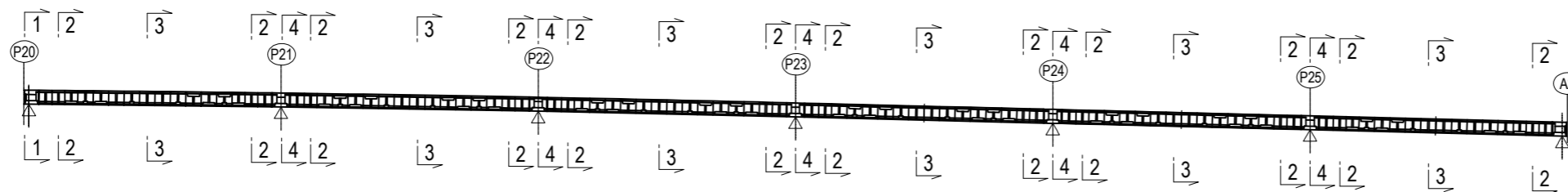
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (6)	PACKAGE 2 DWG No. P2-PB-1006
---	--	---	--	---	-----------------------	---	---	---------------------------------------

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (7)

CROSS SECTIONS S=1:100



LOCATION <L,R>



Notes
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

PROJECT NAME
 DETAILED DESIGN ON
 BAGO RIVER BRIDGE
 CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
 COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
 MINISTRY OF CONSTRUCTION
 DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO. LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

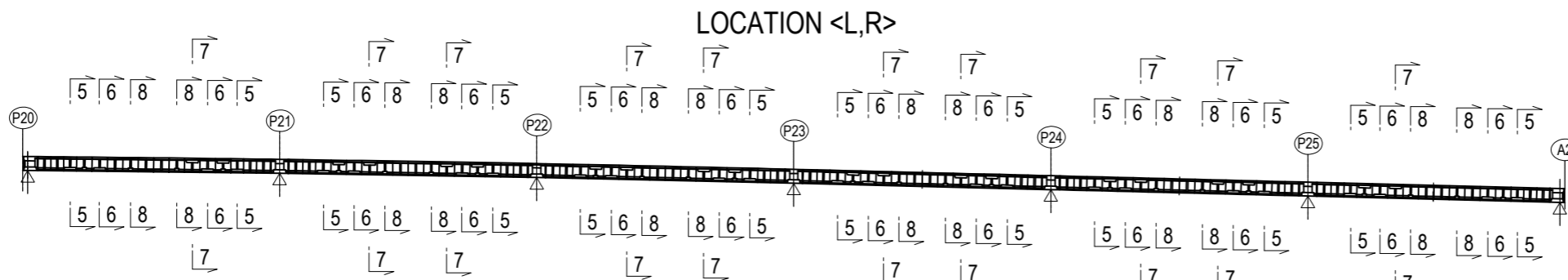
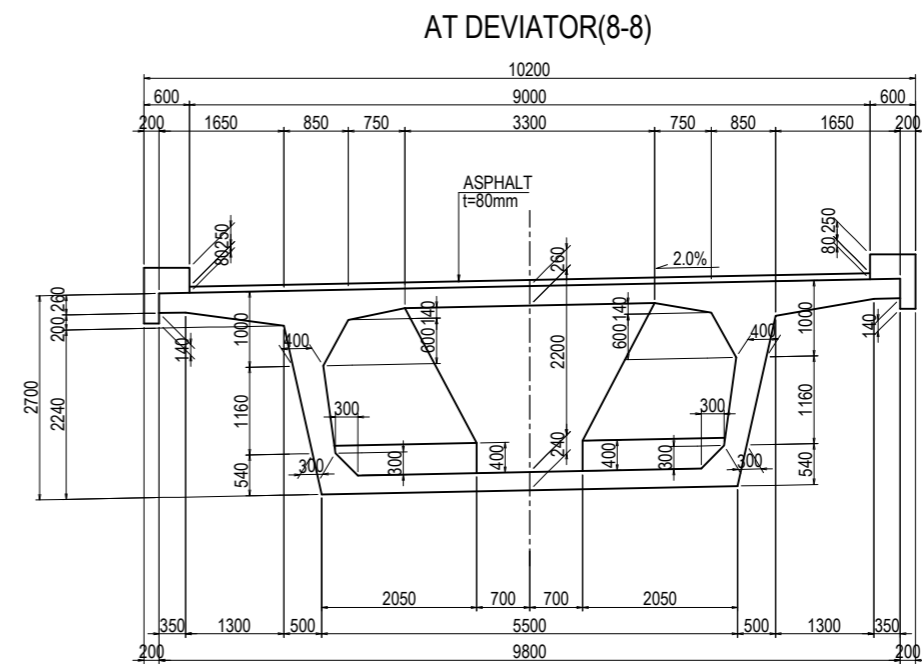
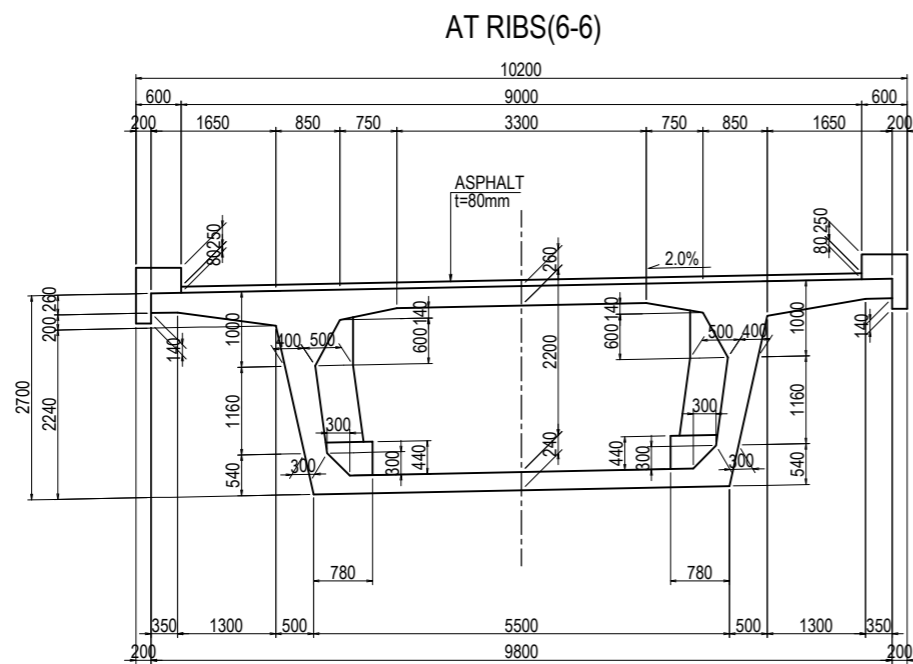
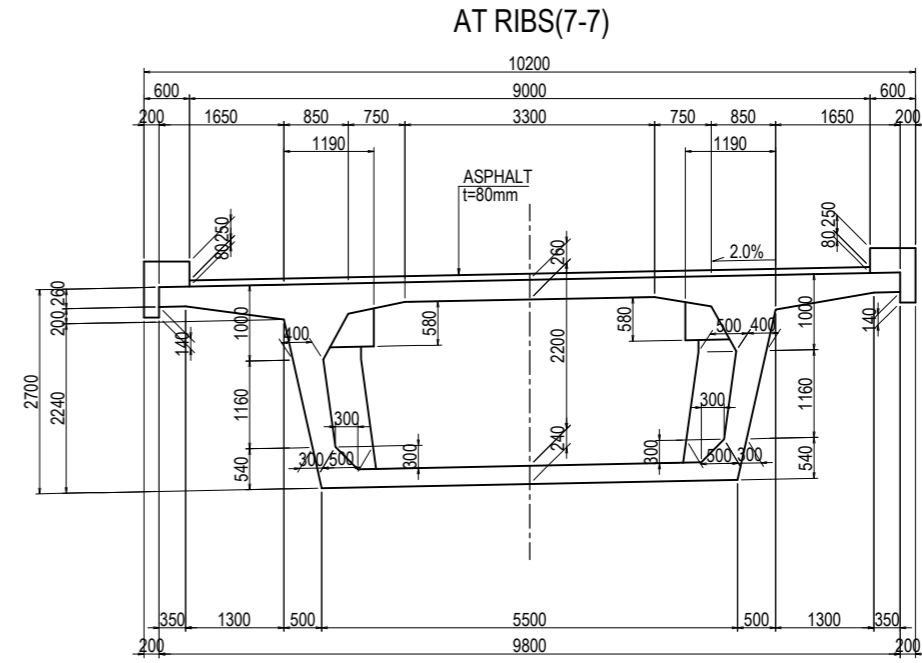
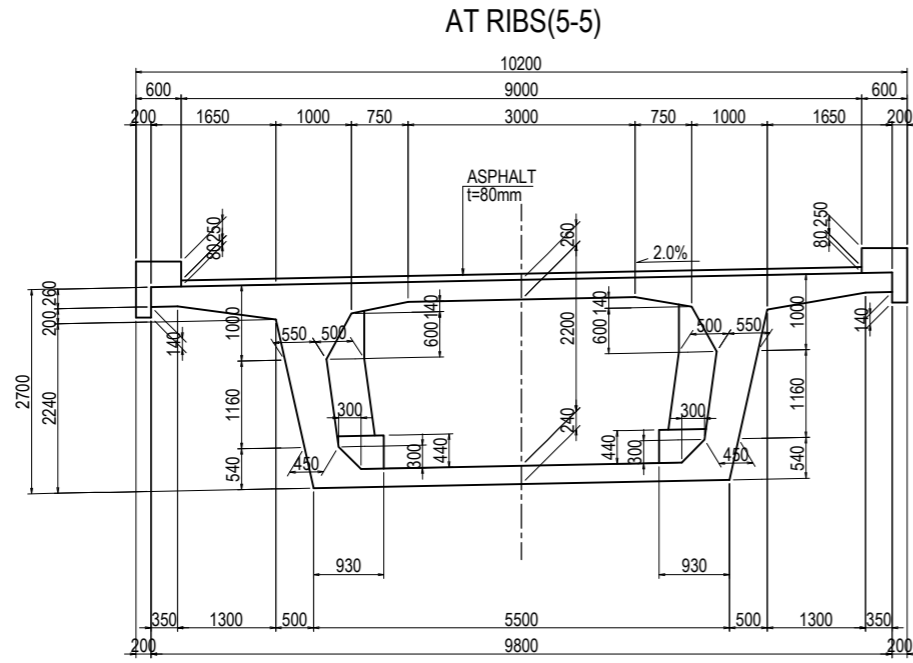
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
 GENERAL VIEW OF SUPERSTRUCTURE
 P20-A2 <L,R> (7)

PACKAGE
 2
 DWG No.
 P2-PB-1007

GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (8)

CROSS SECTIONS S=1:100



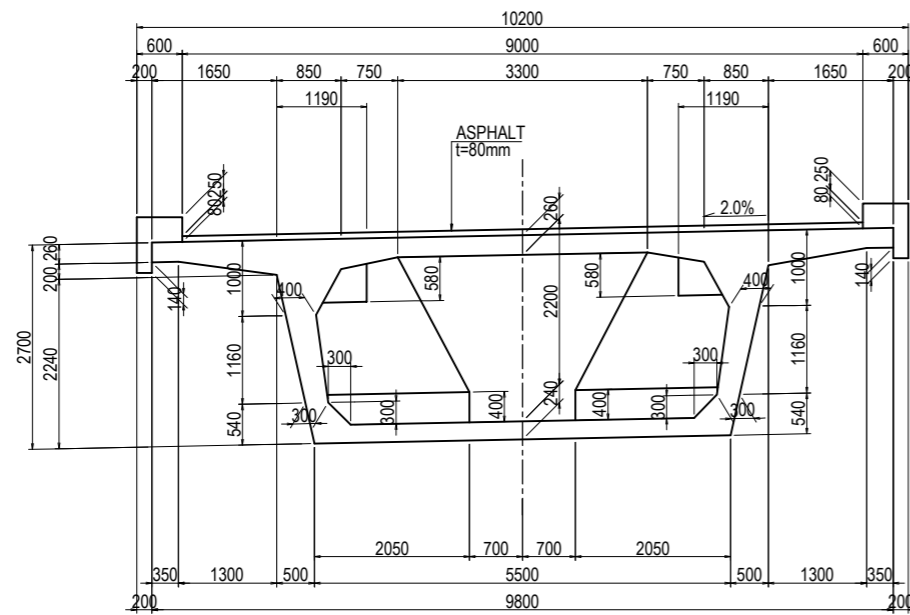
Notes
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (8)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1008

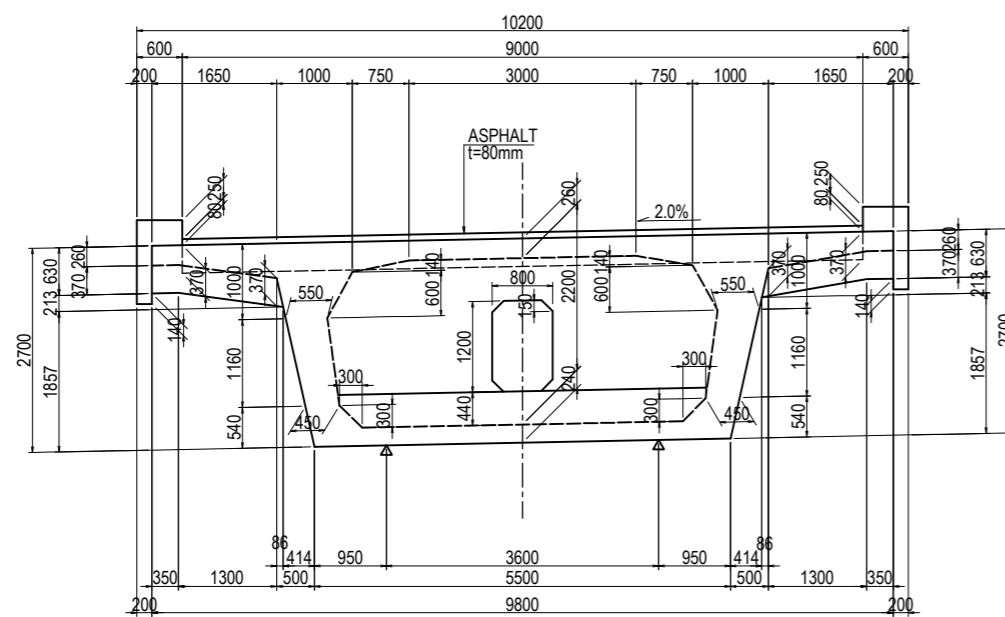
GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (9)

CROSS SECTIONS S=1:100

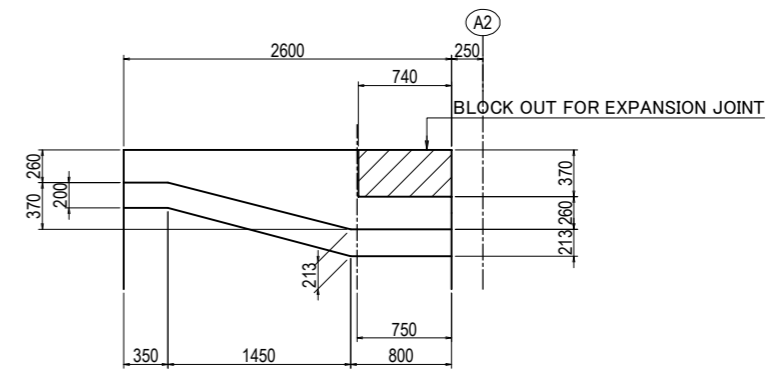
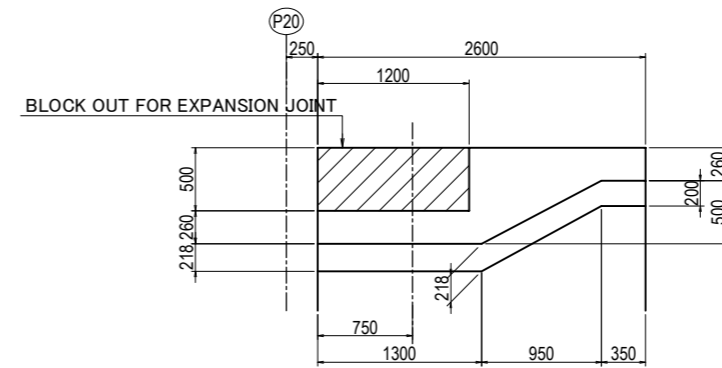
AT DEVIATOR(9-9)



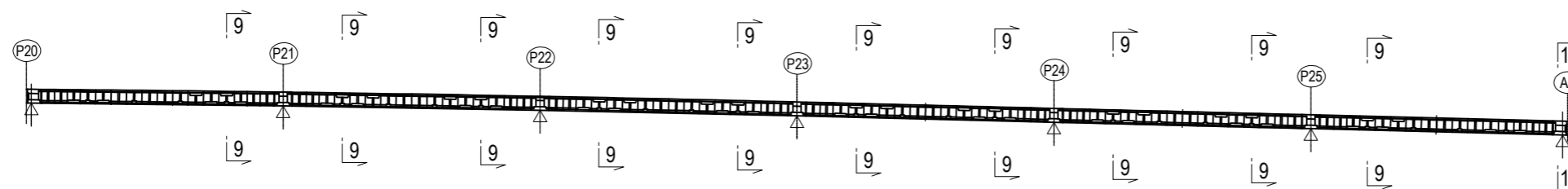
AT A2(10-10)



DETAIL OF CANTILEVER SLAB (GIRDER END) S=1:30



LOCATION <L,R>



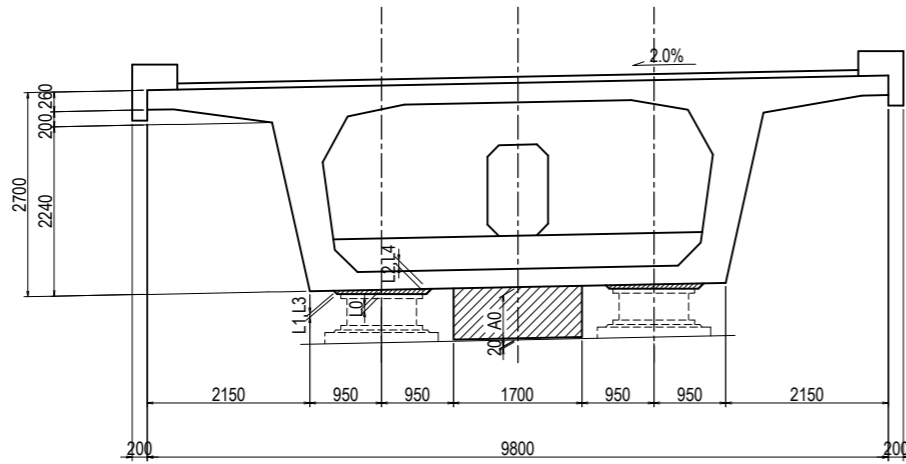
Notes
 -This drawing shows only bridge on left side of CL line.
 -Bridge on right side of CL line is symmetric with respect to CL line and omitted.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (9)	PACKAGE 2 DWG No. P2-PB-1009	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知邦			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017

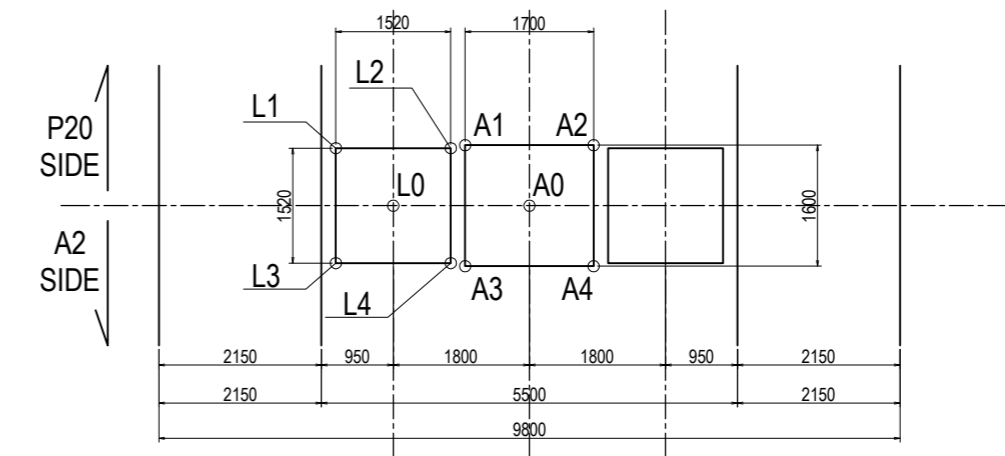
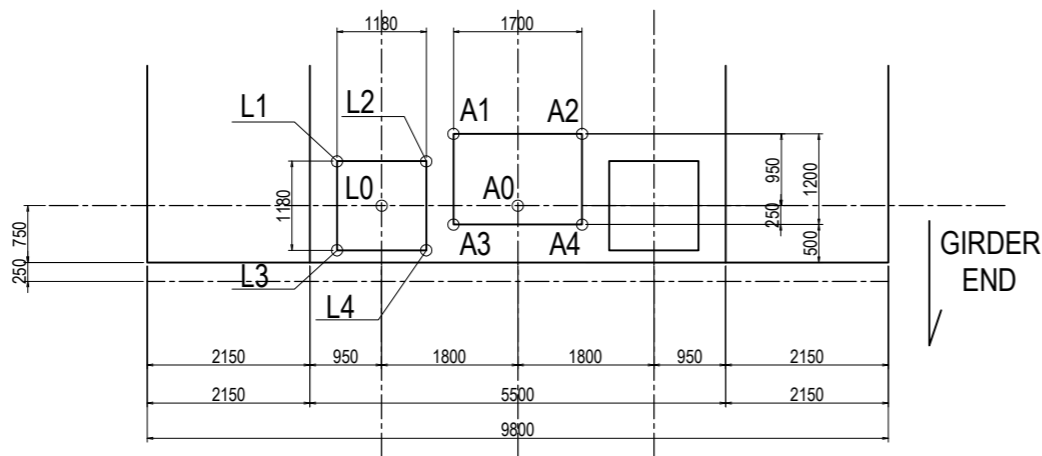
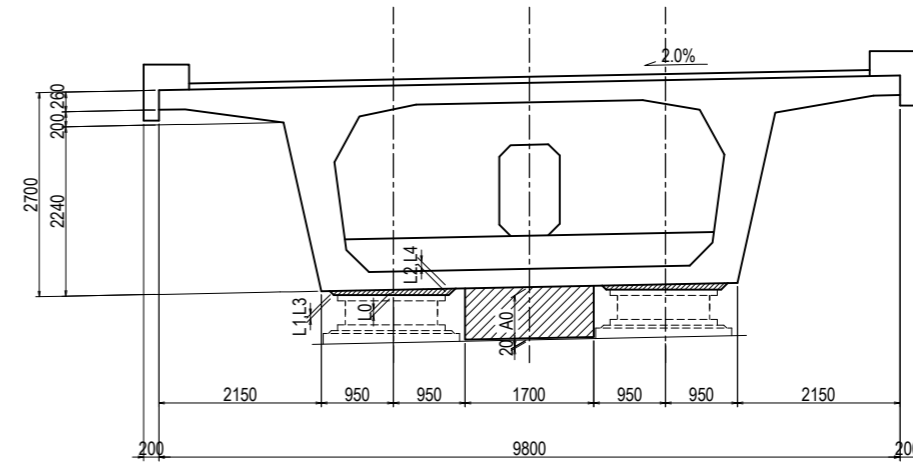
GENERAL VIEW OF SUPERSTRUCTURE P20-A2 <L,R> (10)

CROSS SECTIONS S=1:100

AT END SUPPORT



AT INTERMEDIATE SUPPORT



HEIGHT (mm)

	L0	L1	L2	L3	L4	A0	A1	A2	A3	A4
P20	50	32	55	45	68	643	633	633	646	646
A2	60	63	87	33	57	667	691	691	661	661

HEIGHT (mm)

	L0	L1	L2	L3	L4	A0	A1	A2	A3	A4
P21	60	53	84	32	63	723	732	732	710	710
P22	70	67	98	38	68	733	746	746	715	715
P23	70	72	102	36	66	698	716	716	678	678
P24	70	74	104	36	66	733	753	753	713	713
P25	70	74	104	36	66	767	787	787	747	747

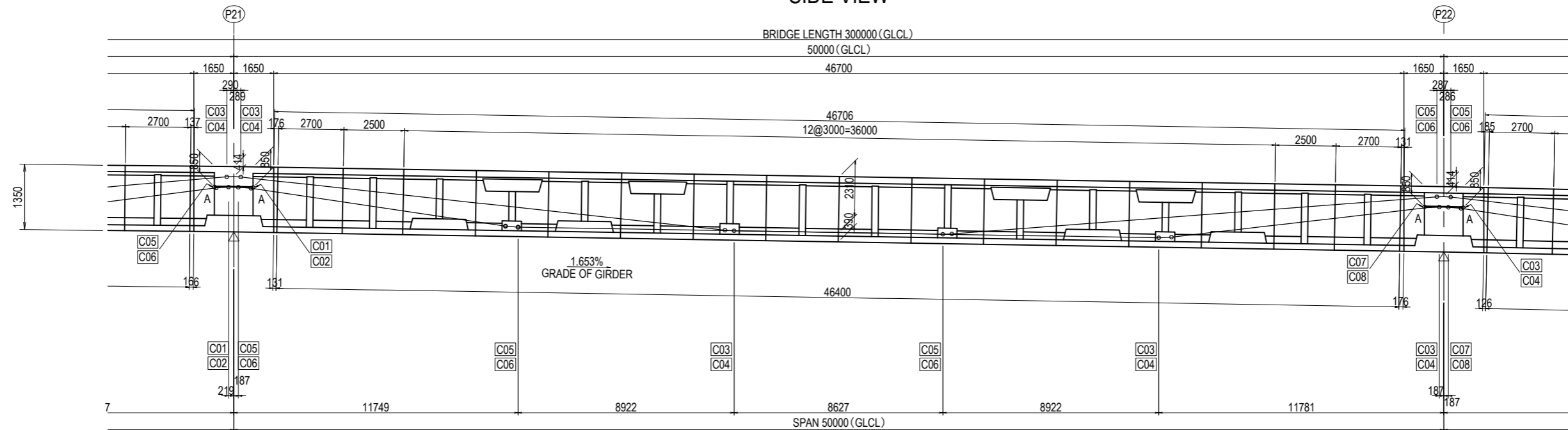
NOTES:

- 1) This drawing shows left side bridge.
- 2) Right side bridge is symmetric with left side about CL.

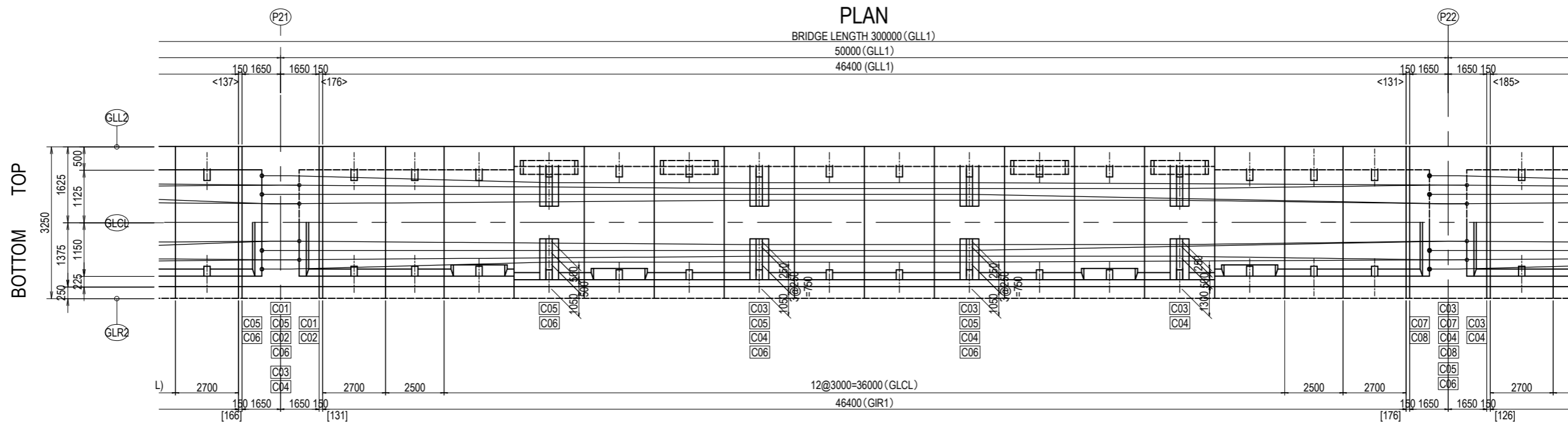
DETAIL OF PRESTERSSING P20-A2 <L,R> (2) [EXTERNAL TENDON]

S=1:200

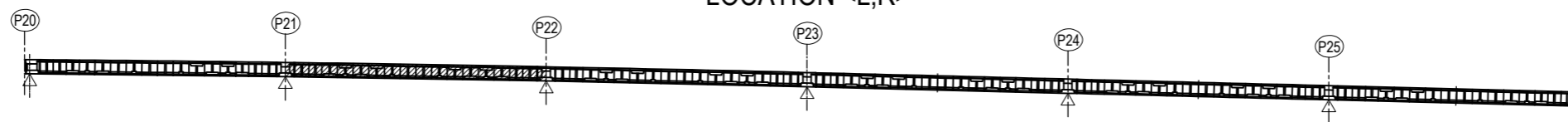
SIDE VIEW



PLAN



LOCATION <L,R>



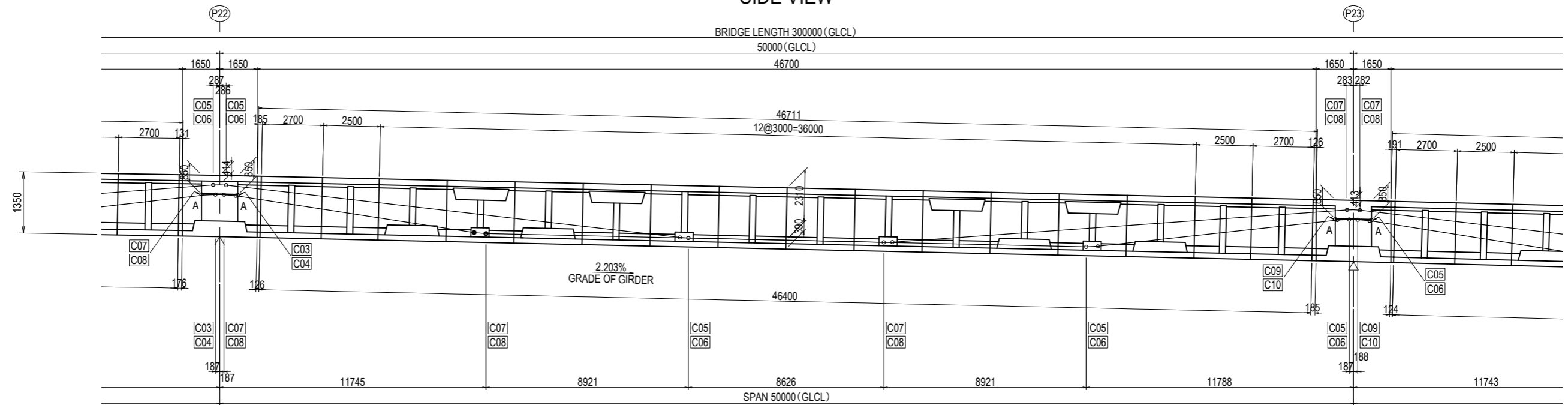
- Notes
- Values in <> / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1250 N/mm²
 - A:Tension
 - B:Fixed

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTERSSING P20-A2 <L,R> (2) [EXTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1102	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

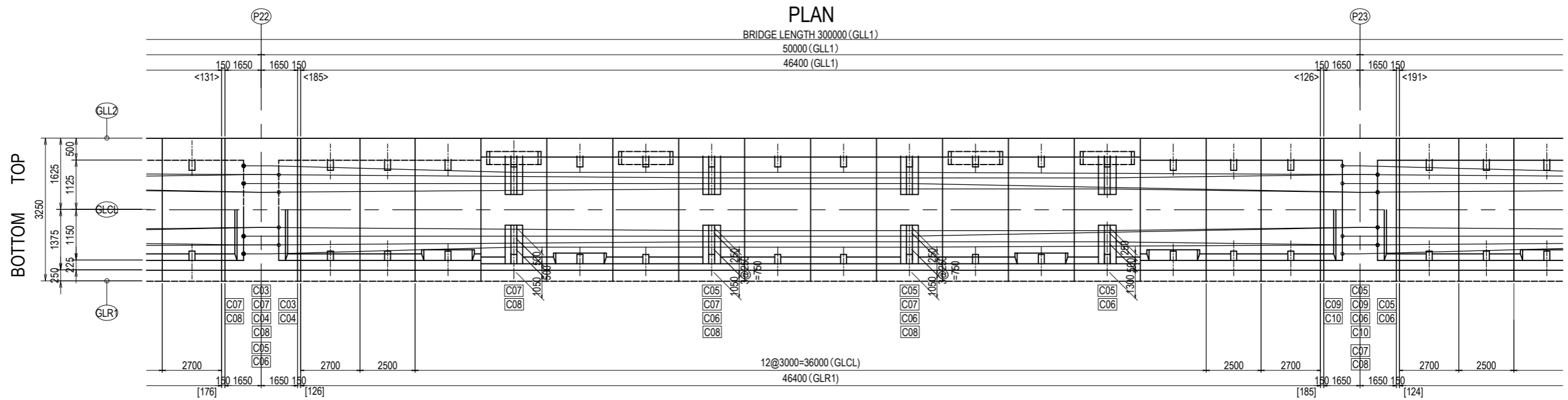
DETAIL OF PRESTERSSING P20-A2 <L,R> (3) [EXTERNAL TENDON]

S=1:200

SIDE VIEW

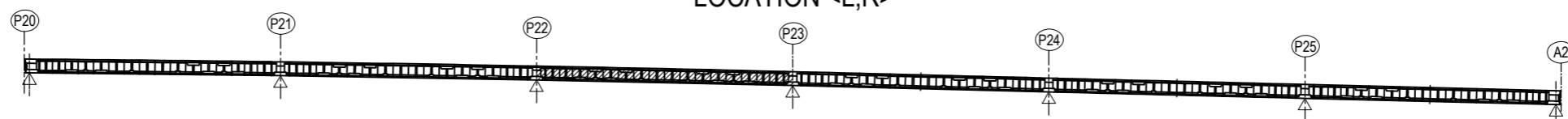


PLAN



- Notes
- Values in < > [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1250 N/mm²
 - A:Tension
 - B:Fixed

LOCATION <L,R>

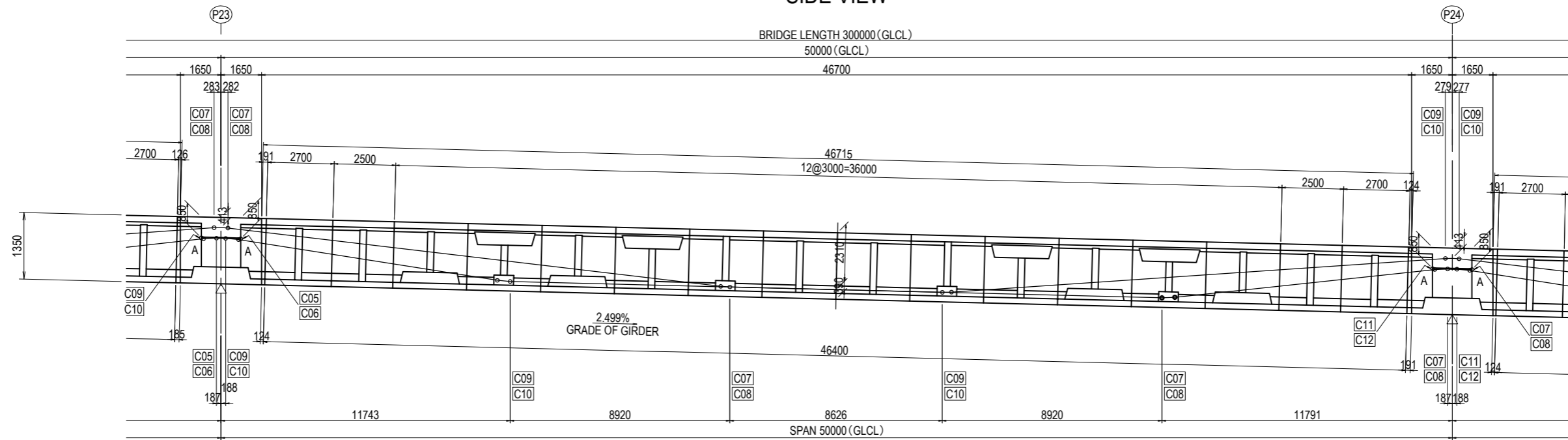


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO.,LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTERSSING P20-A2 <L,R> (3) [EXTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1103	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

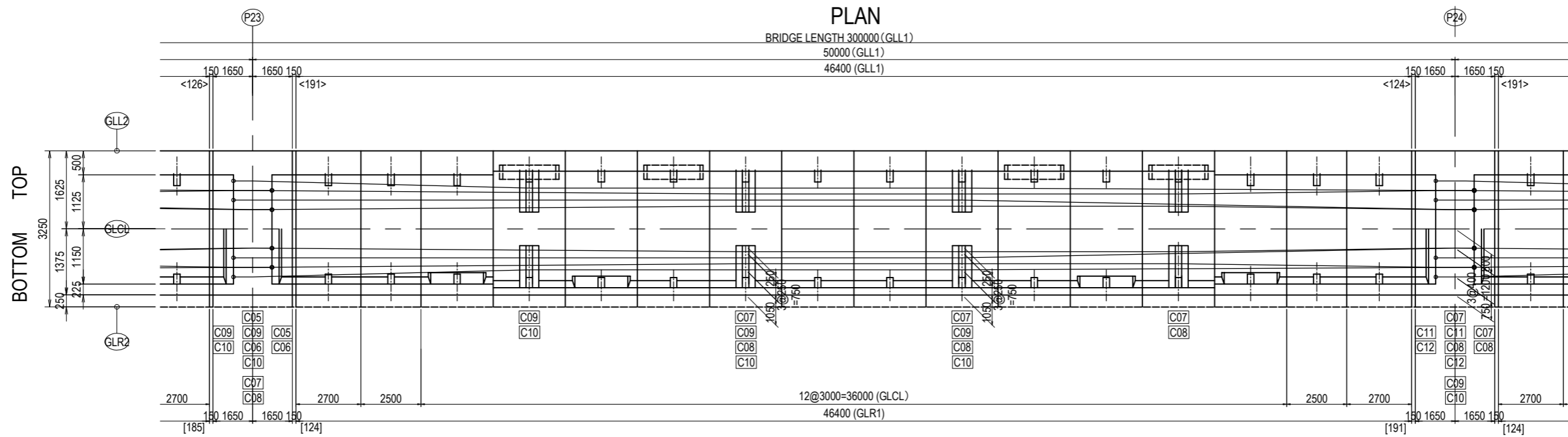
DETAIL OF PRESTERSSING P20-A2 <L,R> (4) [EXTERNAL TENDON]

S=1:200

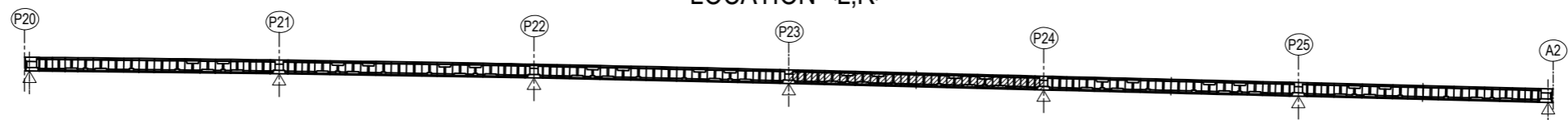
SIDE VIEW



PLAN



LOCATION <L,R>



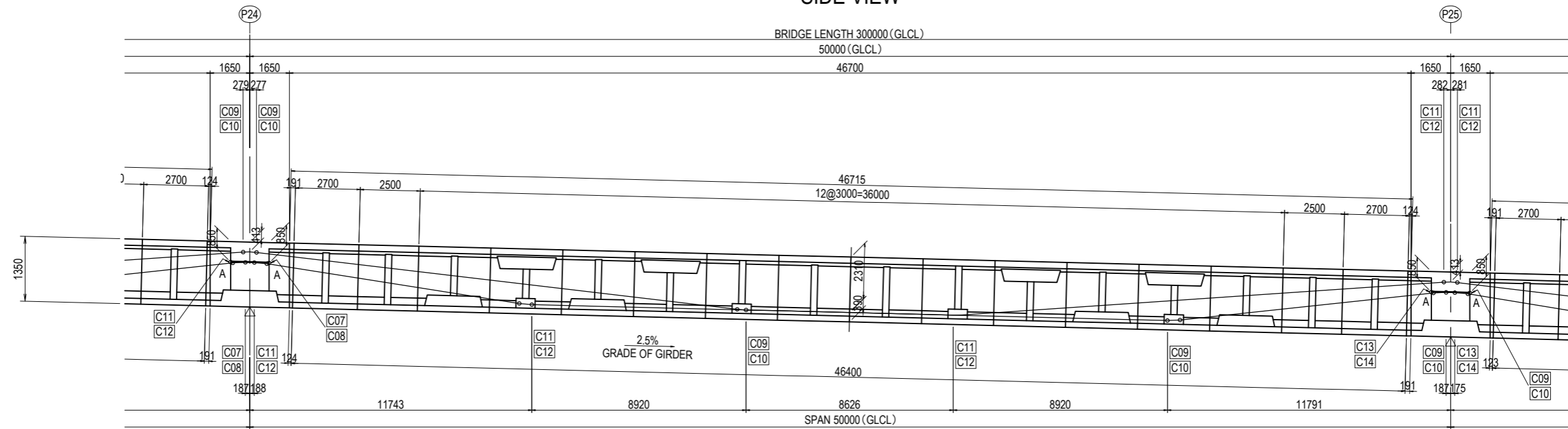
Notes
 -Values in <> / [] are at the top/bottom of the girder accordingly.
 -Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 -Jacking force = 1250 N/mm²
 -A:Tension
 -B:Fixed

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTERSSING P20-A2 <L> (4) [EXTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1104	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

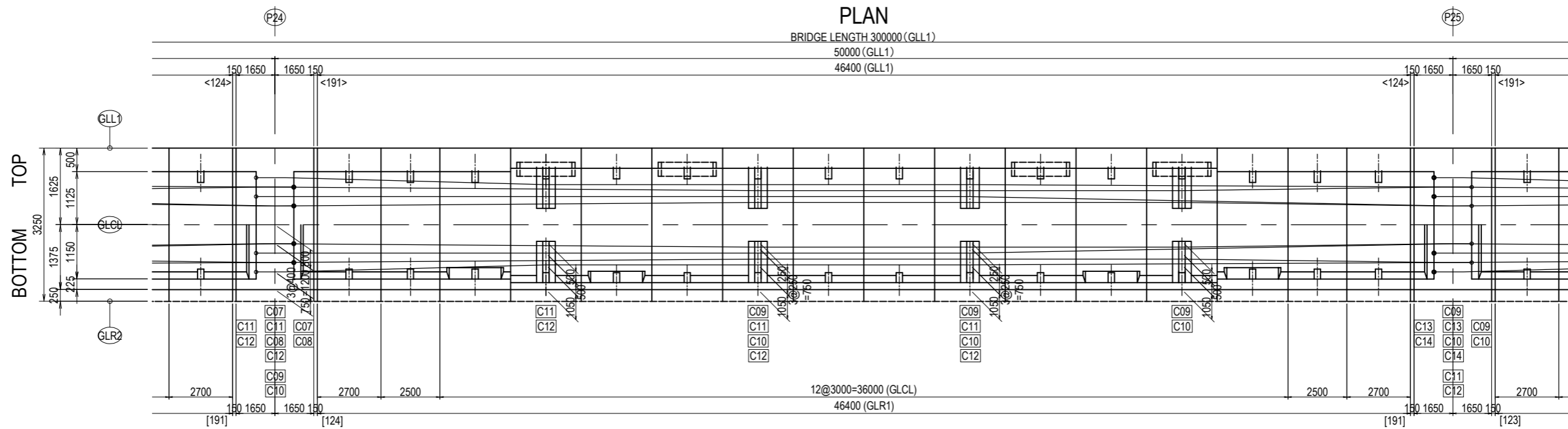
DETAIL OF PRESTERSSING P20-A2 <L,R> (5) [EXTERNAL TENDON]

S=1:200

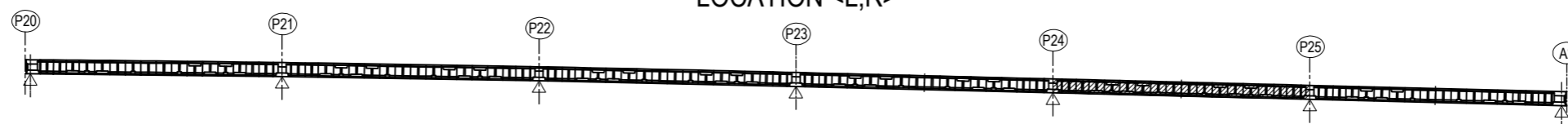
SIDE VIEW



PLAN



LOCATION <L,R>



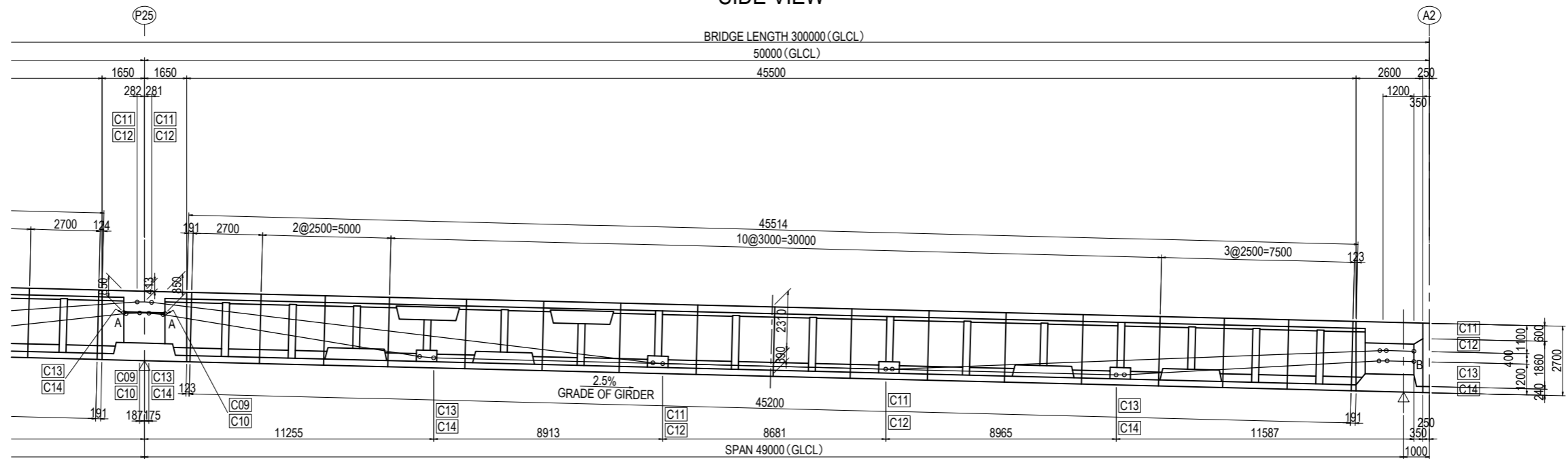
- Notes
- Values in <> / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1250 N/mm²
 - A:Tension
 - B:Fixed

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTERSSING P20-A2 <L,R> (5) [EXTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1105	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

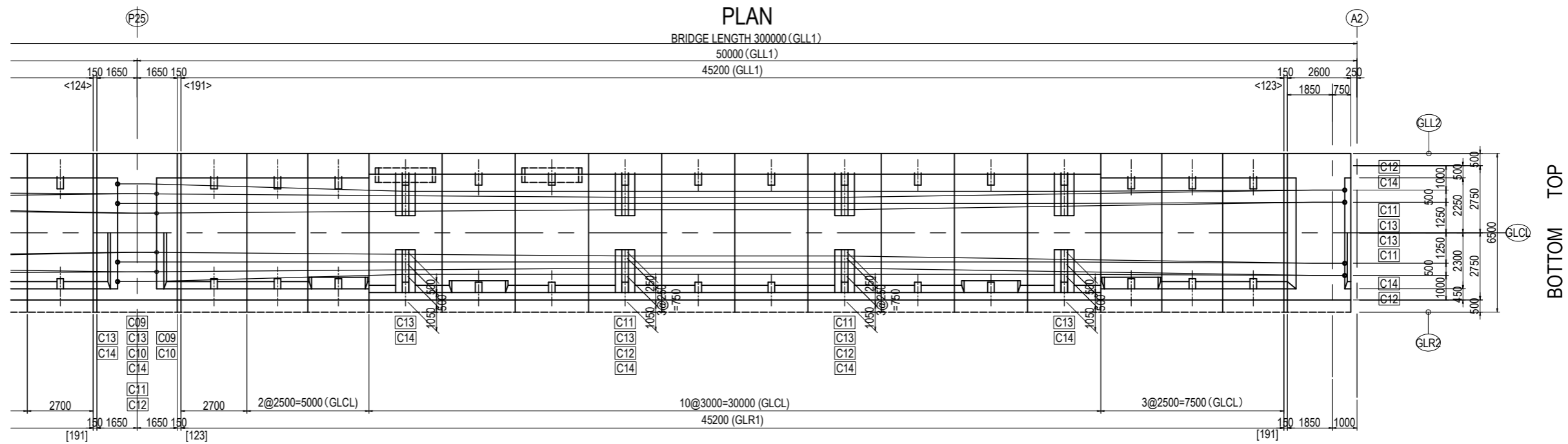
DETAIL OF PRESTERSSING P20-A2 <L,R> (6) [EXTERNAL TENDON]

S=1:200

SIDE VIEW

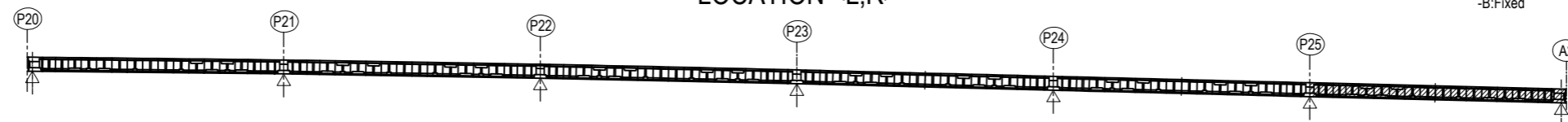


PLAN



BOTTOM TOP

LOCATION <L,R>

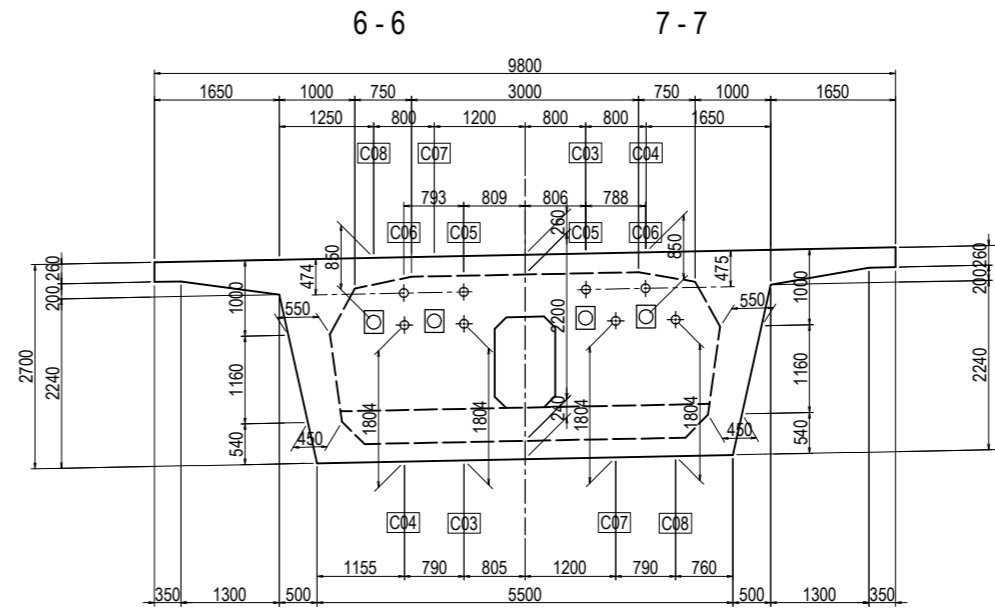
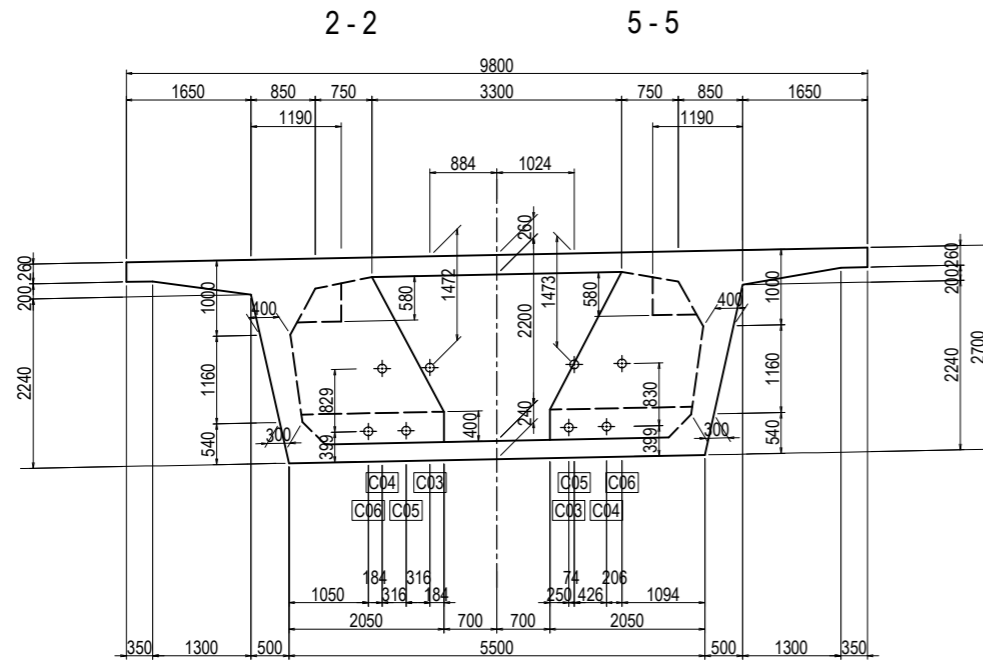
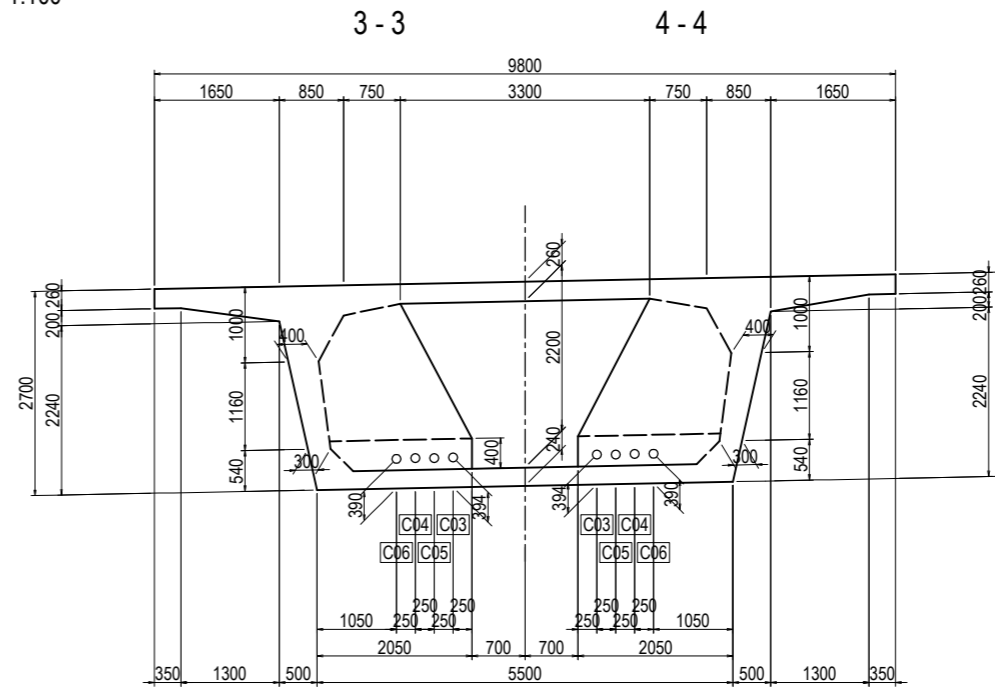
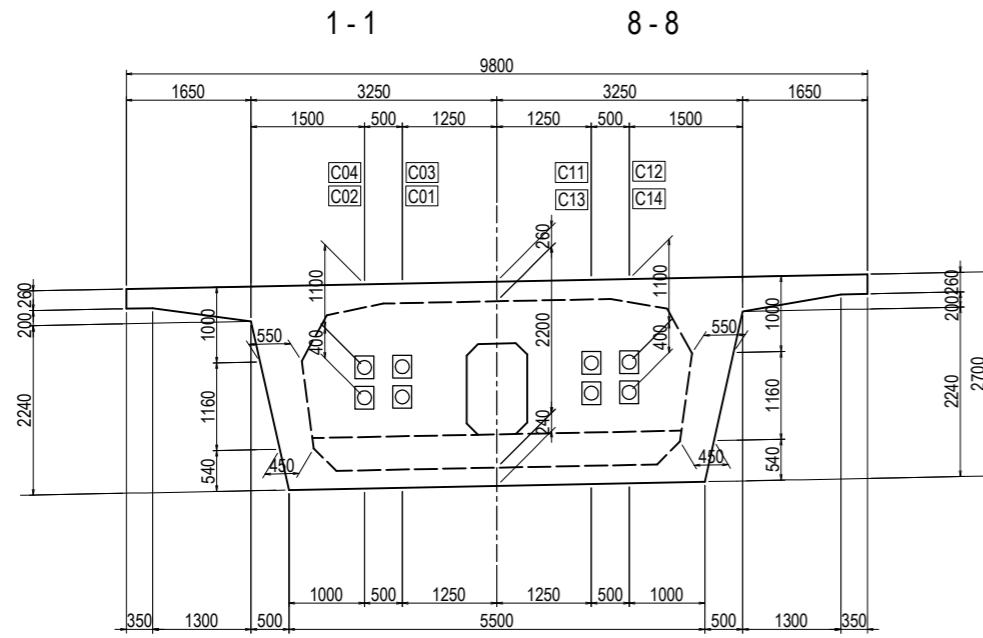


- Notes
- Values in < > / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1250 N/mm²
 - A:Tension
 - B:Fixed

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTERSSING P20-A2 <L,R> (6) [EXTERNAL TENDON]	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO		21 Jun.2017	P2-PB-1106	

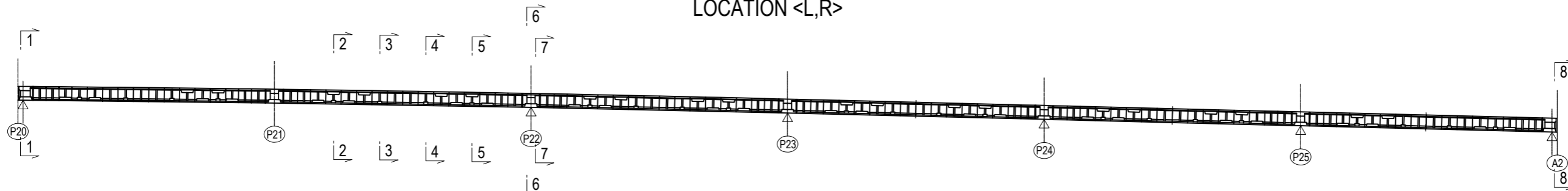
DETAIL OF PRESTRESSING P20-A2 <L,R> (7) [EXTERNAL TENDON]

CROSS SECTIONS S=1:100



NOTES: In case of the deviator interferes the cable, a hole or notch for cable passing is should be arranged in the deviator, and the hole and notch should be reinforced properly.

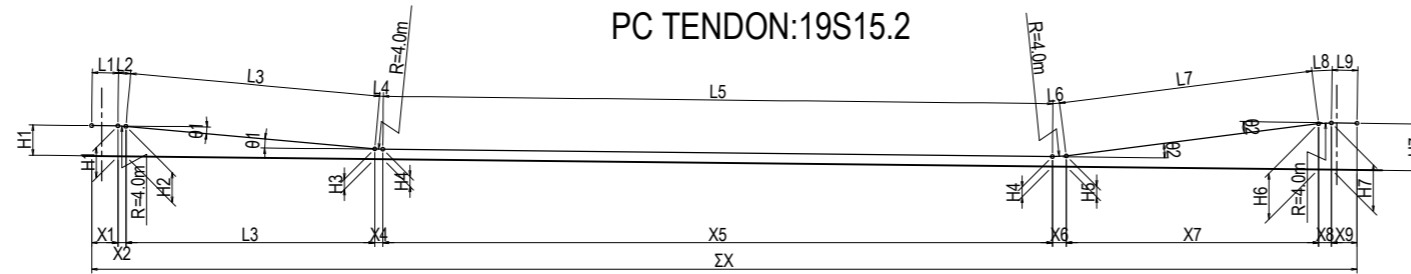
LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (7) [EXTERNAL TENDON]	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
	APPROVED BY	Y. SANO		21 Jun.2017			P2-PB-1107		

DETAIL OF PRESTRESSING P20-A2 <L,R> (8) [EXTERNAL TENDON]

S=1:300

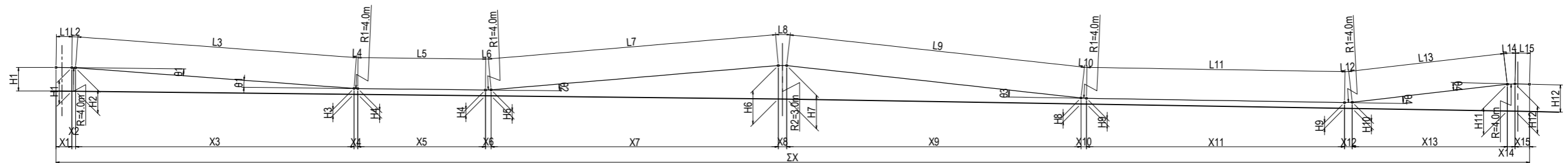


PC TENDON:19S15.2

CABLE NUMBER	H1	H2	H3	H4	H5	H6	H7	X1	X2	X3	X4	X5	X6	X7	X8	X9	ΣX
C01	1200	1187	403	390	428	1812	1850	1042	316	9874	316	26564	549	10015	549	975	50200
C02	1200	1187	403	390	428	1812	1850	1042	316	9874	316	26564	549	10015	549	975	50200
C13	1850	1812	428	390	430	1187	1200	1042	316	9912	316	26559	546	9988	546	975	50200
C14	1850	1812	428	390	430	1187	1200	1042	316	9912	316	26559	546	9988	546	975	50200

CABLE NUMBER	θ1	θ2	R	L1	L2	L3	L4	L5	L6	L7	L8	L9	TOTAL LENGTH	NUMBER
C03	4.54028°	7.88167°	4000	1042	317	9915	317	26566	550	10095	550	975	50327	2
C04	4.54028°	7.88167°	4000	1042	317	9915	317	26566	550	10095	550	975	50327	2
C05	4.53417°	7.86194°	4000	1042	317	9927	317	26567	549	10121	549	976	50365	2
C06	4.53417°	7.86194°	4000	1042	317	9927	317	26567	549	10121	549	976	50365	2

PC TENDON:19S15.2



PC TENDON:19S15.2

CABLE NUMBER	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	ΣX
C03	1600	1592	398	390	408	2272	2265	406	390	424	1816	1850	1074	251	18938	251	8683	380	19531	580	20019	362	17549	525	10545	525	987	100200
C04	1600	1592	398	390	408	2272	2265	406	390	424	1816	1850	1074	251	18938	251	8683	380	19531	580	20019	362	17549	525	10545	525	987	100200
C05	1850	1816	424	390	407	2273	2273	407	390	424	1816	1850	987	523	10516	523	17549	371	20044	572	20010	370	17547	525	10551	525	987	101600
C06	1850	1816	424	390	407	2273	2273	407	390	424	1816	1850	987	523	10516	523	17549	371	20044	572	20010	370	17547	525	10551	525	987	101600
C07	1850	1816	424	390	407	2274	2274	407	390	424	1816	1850	987	522	10513	522	17547	371	20054	565	20011	370	17546	525	10555	525	987	101600
C08	1850	1816	424	390	407	2274	2274	407	390	424	1816	1850	987	522	10513	522	17547	371	20054	565	20011	370	17546	525	10555	525	987	101600
C09	1850	1816	424	390	407	2274	2274	407	390	424	1816	1850	987	522	10511	522	17546	371	20061	556	20016	370	17546	525	10555	525	987	101600
C10	1850	1816	424	390	407	2274	2274	407	390	424	1816	1850	987	522	10511	522	17546	371	20061	556	20016	370	17546	525	10555	525	987	101600
C11	1850	1816	424	390	407	2274	2273	408	390	398	1592	1600	988	522	10512	522	17546	371	20058	563	19508	379	8681	251	18974	251	1074	100200
C12	1850	1816	424	390	407	2274	2273	408	390	398	1592	1600	988	522	10512	522	17546	371	20058	563	19508	379	8681	251	18974	251	1074	100200

CABLE NUMBER	θ1	θ2	θ3	θ4	R1	R2	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	TOTAL LENGTH	NUMBER
C03	3.615°	5.45722°	5.31722°	7.52889°	4000	3000	1074	252	18991	252	8683	381	19600	581	20131	371	17551	526	10615	526	987	100521	2
C04	3.615°	5.45722°	5.31722°	7.52889°	4000	3000	1074	252	18991	252	8683	381	19600	581	20131	371	17551	526	10615	526	987	100521	2
C05	7.51778°	5.32528°	5.31472°	7.52833°	4000	3000	987	525	10632	525	17551	372	20103	574	20142	371	17551	526	10615	526	987	101987	2
C06	7.51778°	5.32528°	5.31472°	7.52833°	4000	3000	987	525	10632	525	17551	372	20103	574	20142	371	17551	526	10615	526	987	101987	2
C07	7.51361°	5.32556°	5.31306°	7.5275°	4000	3000	988	525	10638	525	17551	372	20104	566	20151	371	17551	526	10615	526	987	101996	2
C08	7.51361°	5.32556°	5.31306°	7.5275°	4000	3000	988	525	10638	525	17551	372	20104	566	20151	371	17551	526	10615	526	987	101996	2
C09	7.51083°	5.32528°	5.31306°	7.5275°	4000	3000	988	524	10641	524	17551	372	20108	557	20155	371	17551	526	10615	525	987	101995	2
C10	7.51083°	5.32528°	5.31306°	7.5275°	4000	3000	988	524	10641	524	17551	372	20108	557	20155	371	17551	526	10615	525	987	101995	2
C11	7.51083°	5.32528°	5.445°	3.60472°	4000	3000	988	524	10641	524	17551	372	20104	564	19649	380	8684	252	18988	252	1075	100548	2
C12	7.51083°	5.32528°	5.445°	3.60472°	4000	3000	988	524	10641	524	17551	372	20104	564	19649	380	8684	252	18988	252	1075	100548	2

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

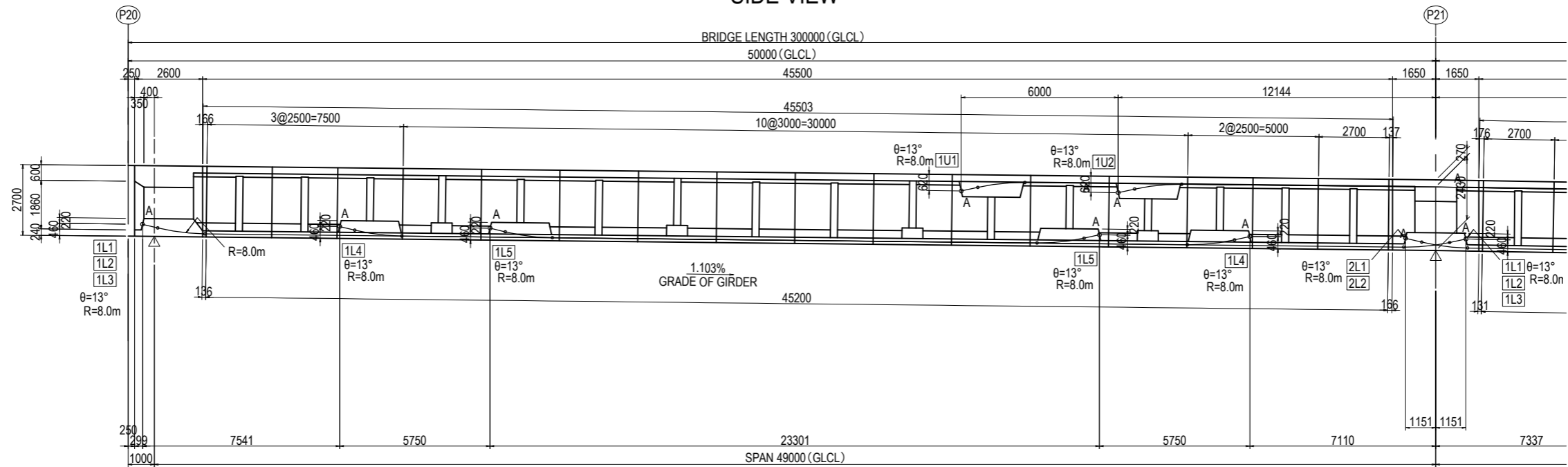
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐藤 祐一	21 Jun.2017

DRAWING TITLE
DETAIL OF PRESTRESSING P20-A2 <L,R> (8)
[EXTERNAL TENDON]

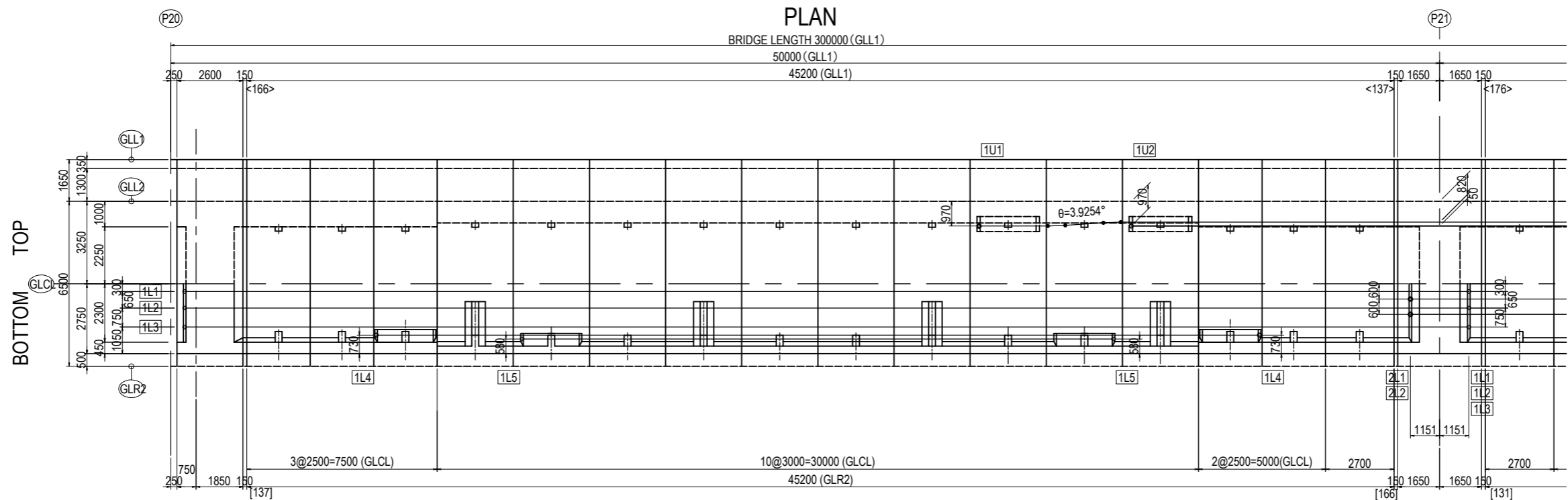
PACKAGE
2
DWG No.
P2-PB-1108

DETAIL OF PRESTRESSING P20-A2 <L,R> (9) [INTERNAL TENDON] S=1:200

SIDE VIEW

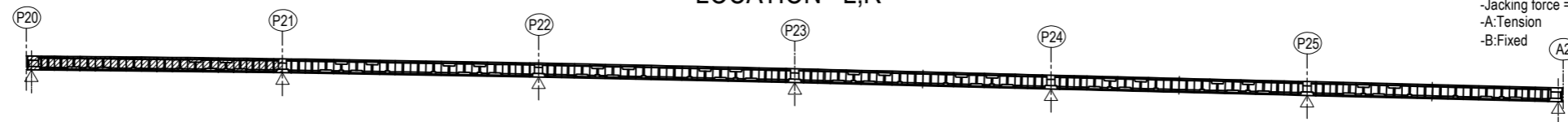


PLAN



BOTTOM TOP

LOCATION <L,R>

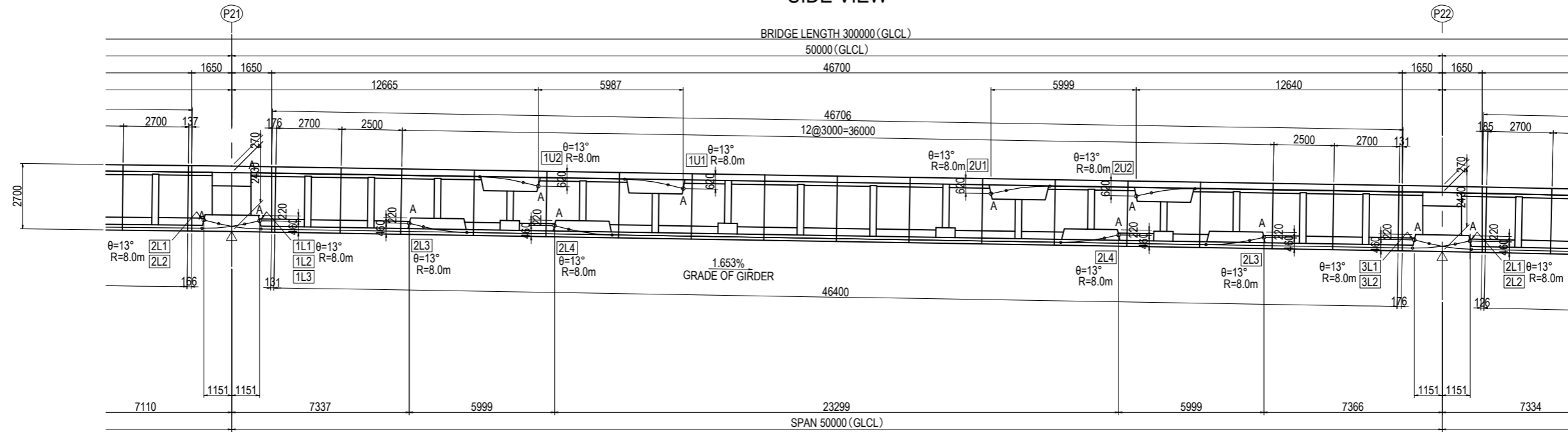


- Notes
- Values in < > / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A:Tension
 - B:Fixed

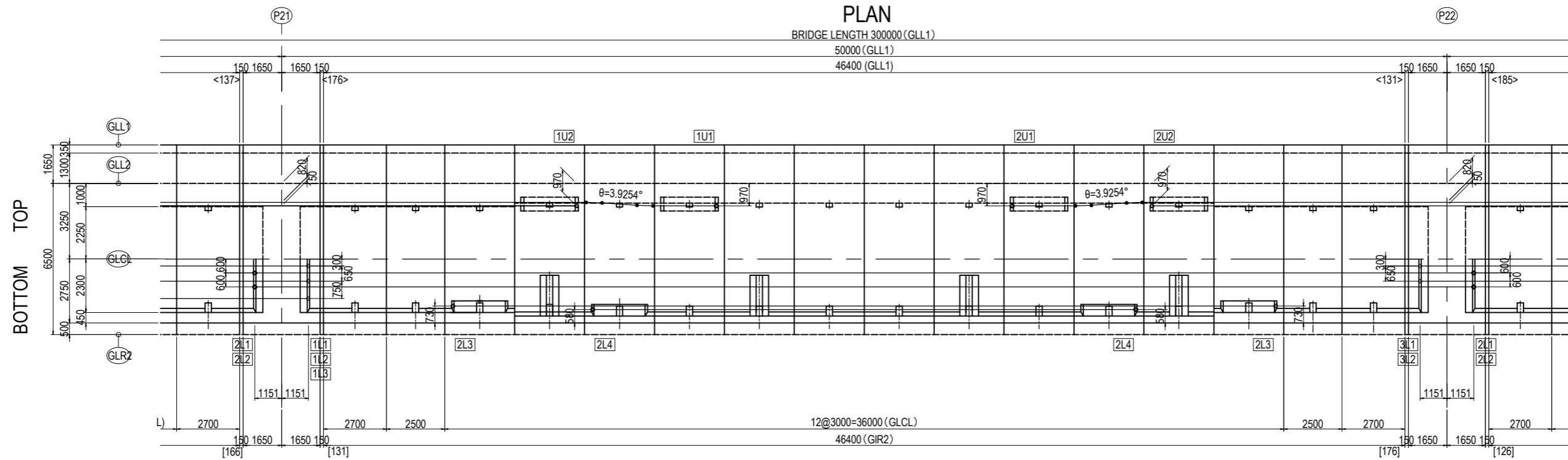
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (9) [INTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1109
---	--	---	---	---	-----------------------	---	---	---------------------------------------

DETAIL OF PRESTRESSING P20-A2 <L,R> (10) [INTERNAL TENDON] S=1:200

SIDE VIEW

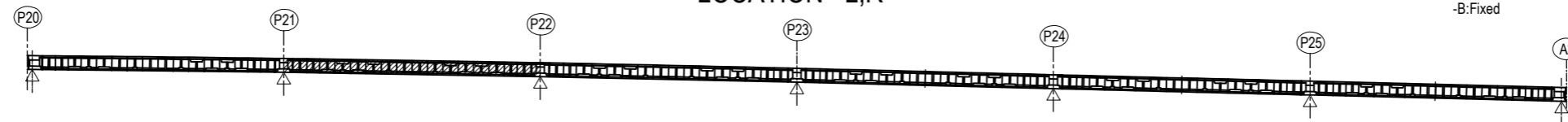


PLAN



BOTTOM TOP

LOCATION <L,R>

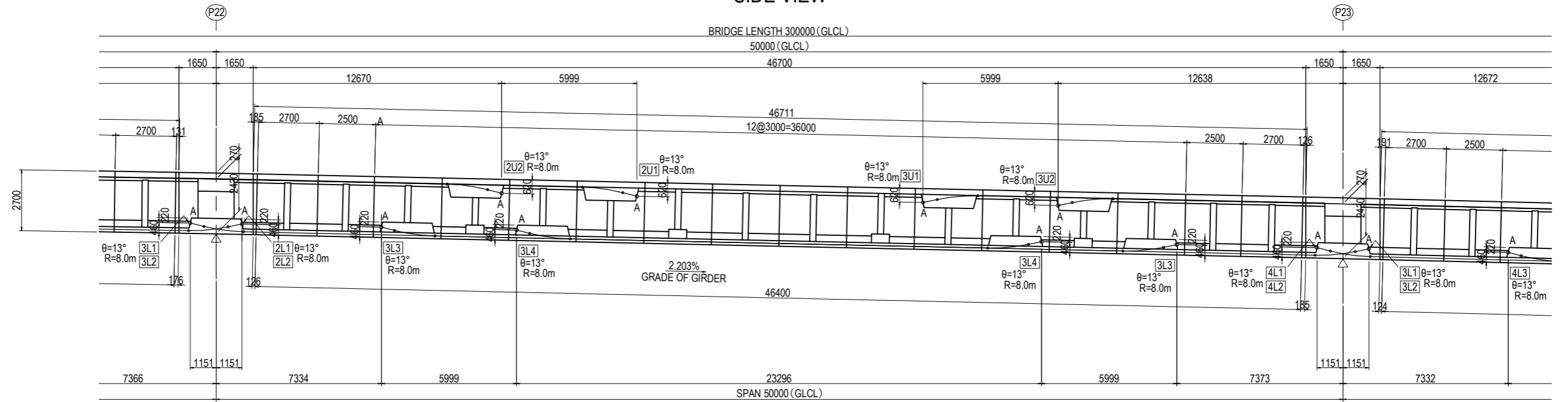


- Notes
- Values in < > / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A: Tension
 - B: Fixed

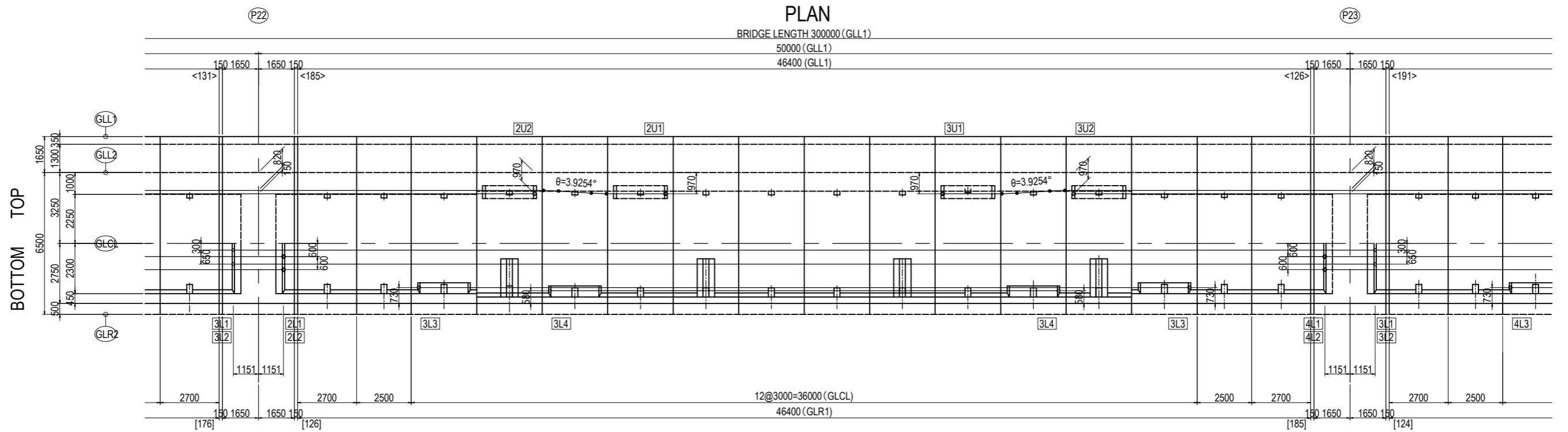
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (10) [INTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1110
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

DETAIL OF PRESTRESSING P20-A2 <L,R> (11) [INTERNAL TENDON] S=1:200

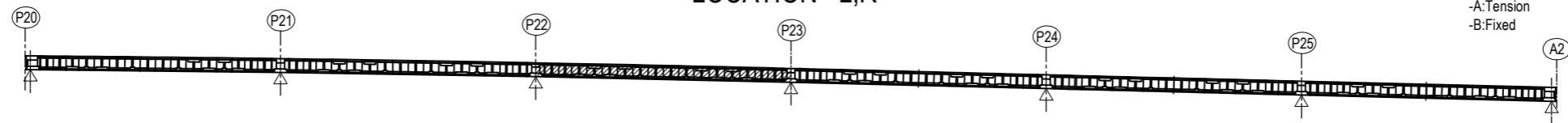
SIDE VIEW



PLAN



LOCATION <L,R>



- Notes
- Values in < > / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A:Tension
 - B:Fixed

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

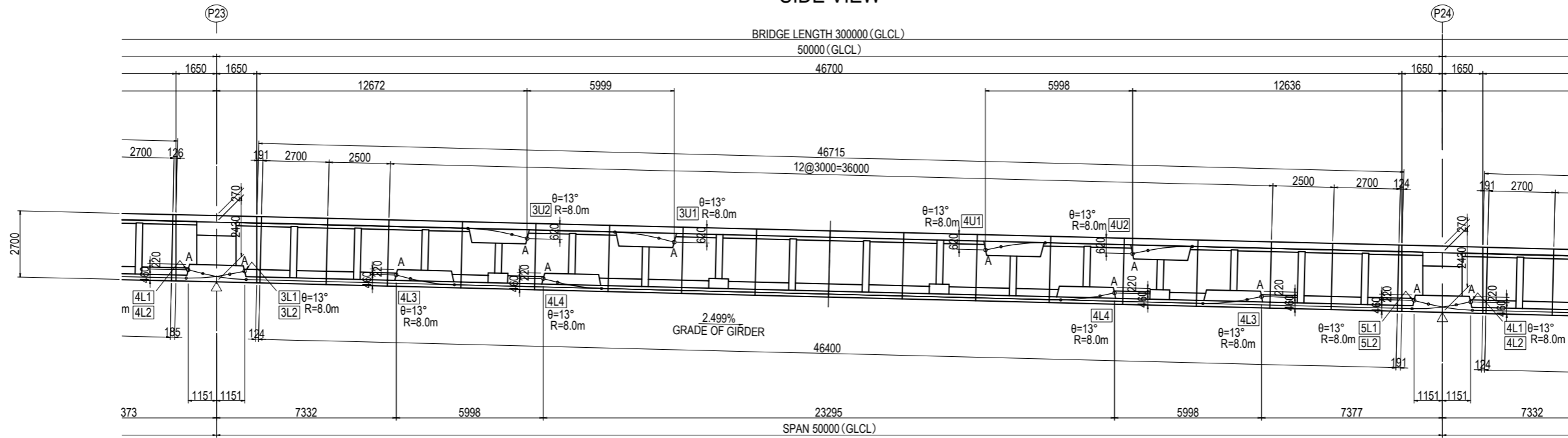
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知邦	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
DETAIL OF PRESTRESSING P20-A2 <L,R> (11)
[INTERNAL TENDON]

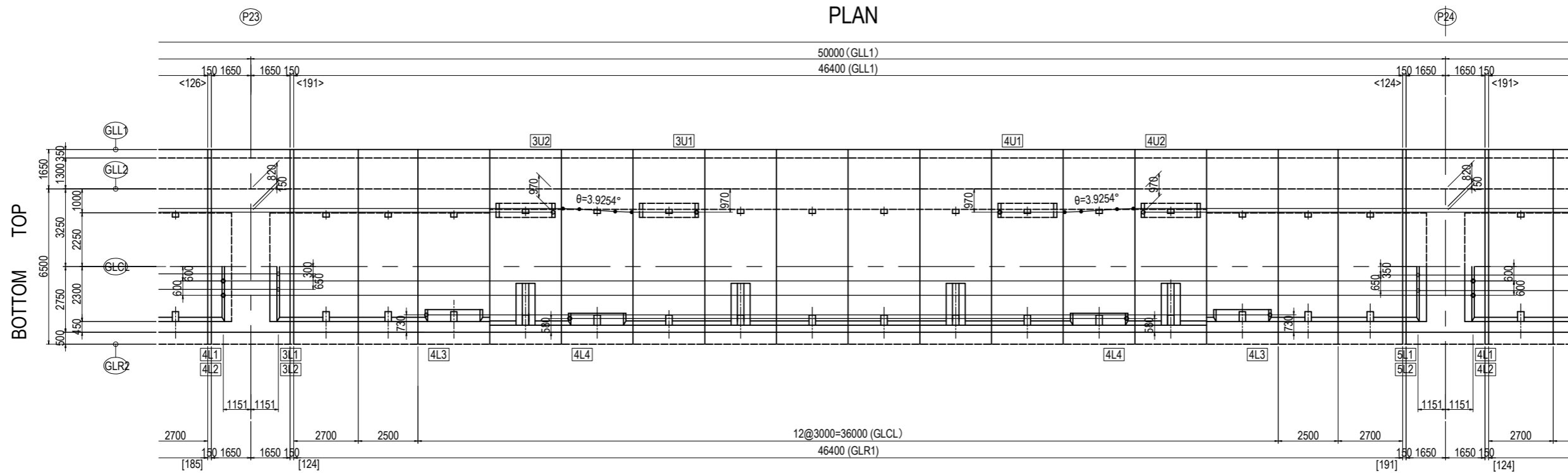
PACKAGE
2
DWG No.
P2-PB-1111

DETAIL OF PRESTRESSING P20-A2 <L,R> (12) [INTERNAL TENDON] S=1:200

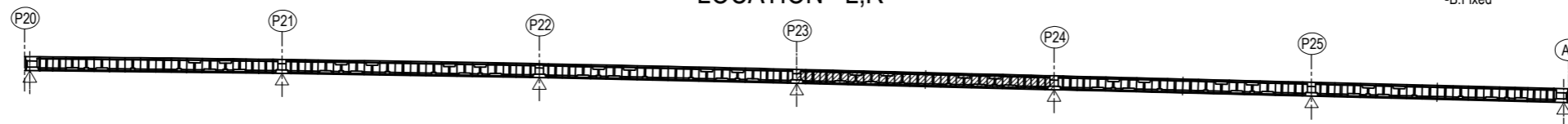
SIDE VIEW



PLAN



LOCATION <L,R>

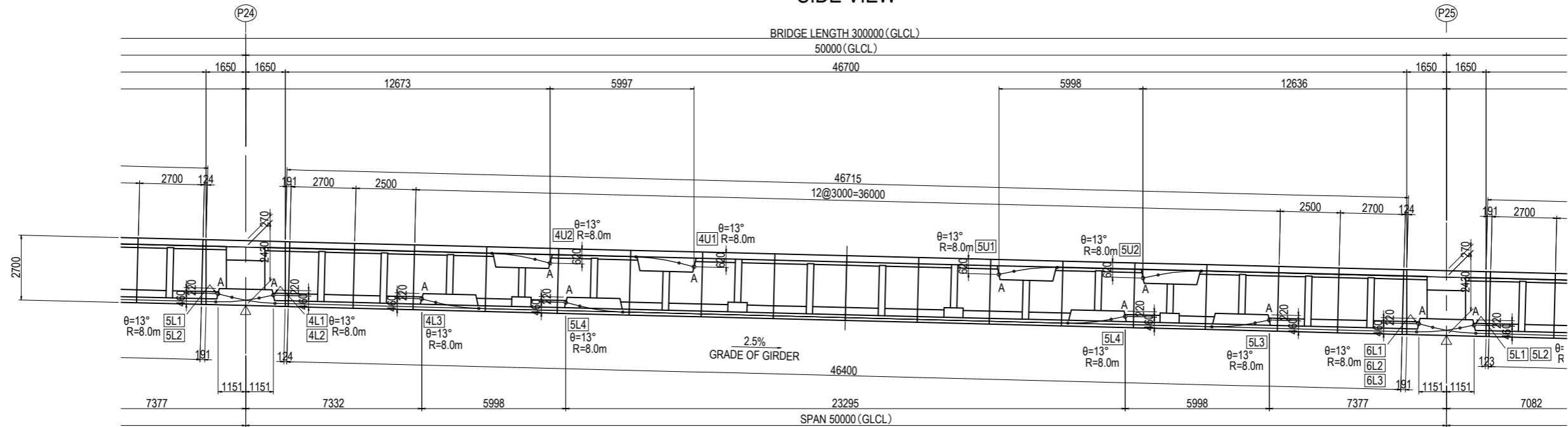


- Notes
- Values in < > / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A:Tension
 - B:Fixed

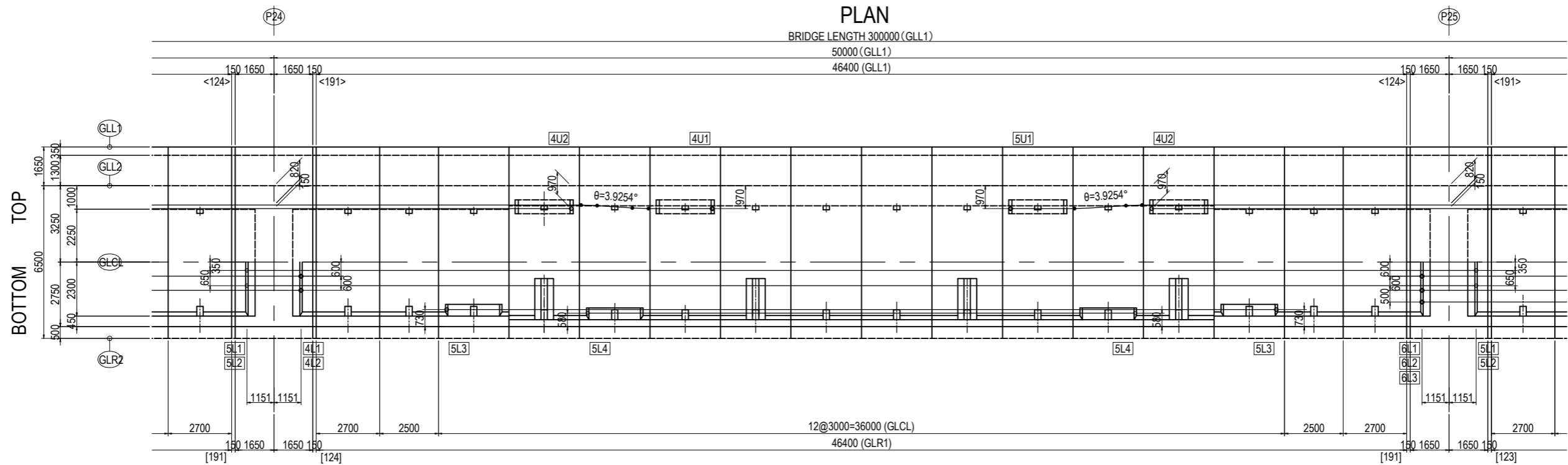
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (12) [INTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1112	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
			APPROVED BY	Y. SANO		21 Jun.2017			

DETAIL OF PRESTRESSING P20-A2 <L,R> (13) [INTERNAL TENDON] S=1:200

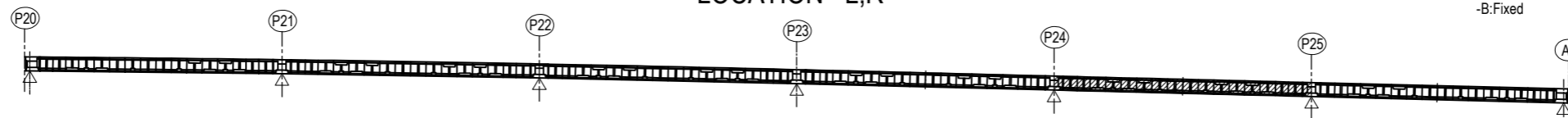
SIDE VIEW



PLAN



LOCATION <L,R>

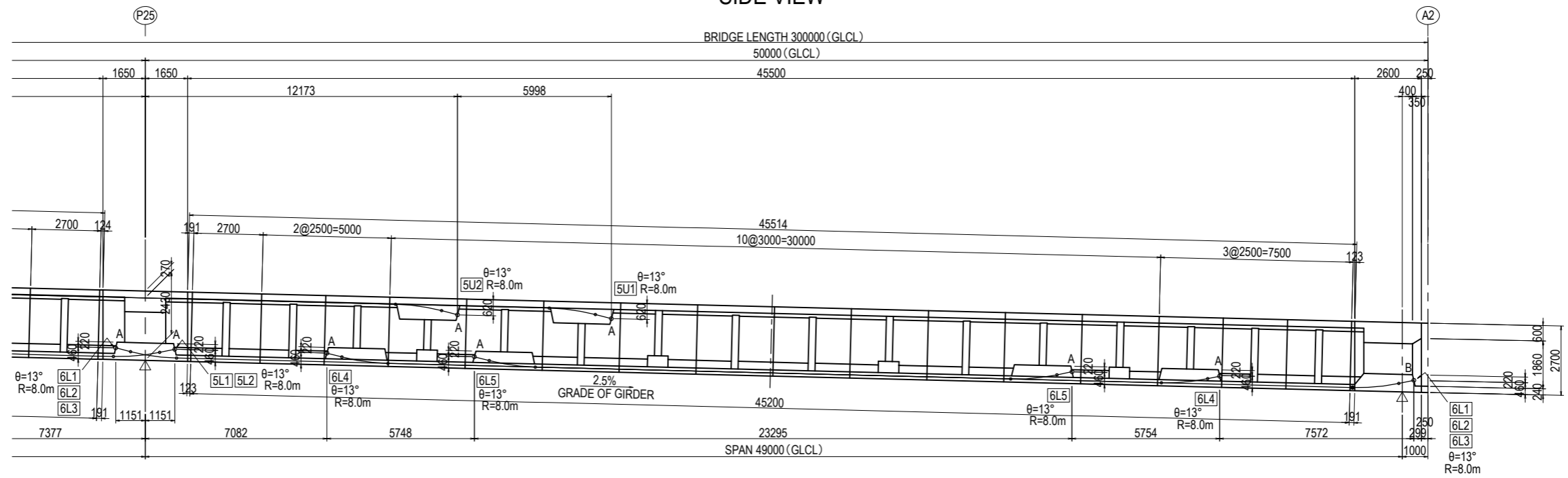


- Notes
- Values in <> / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A: Tension
 - B: Fixed

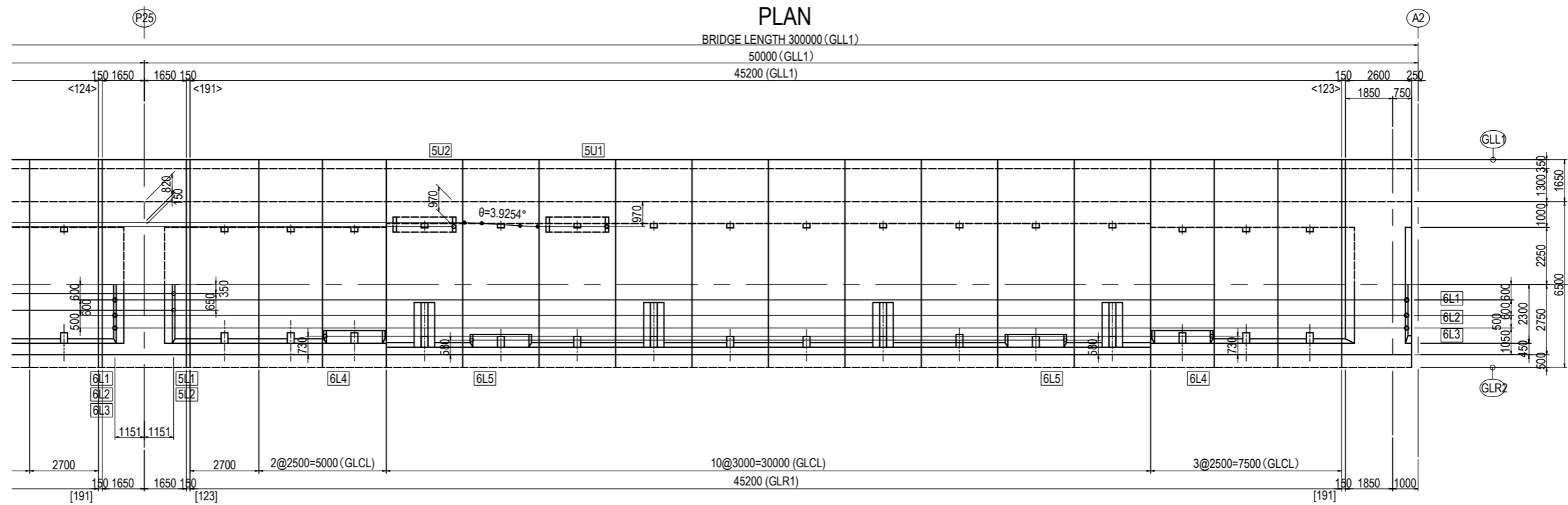
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (13) [INTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1113
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

DETAIL OF PRESTRESSING P20-A2 <L,R> (14) [INTERNAL TENDON] S=1:200

SIDE VIEW

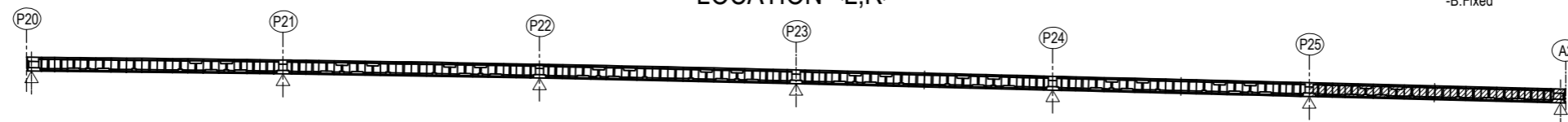


PLAN



BOTTOM TOP

LOCATION <L,R>

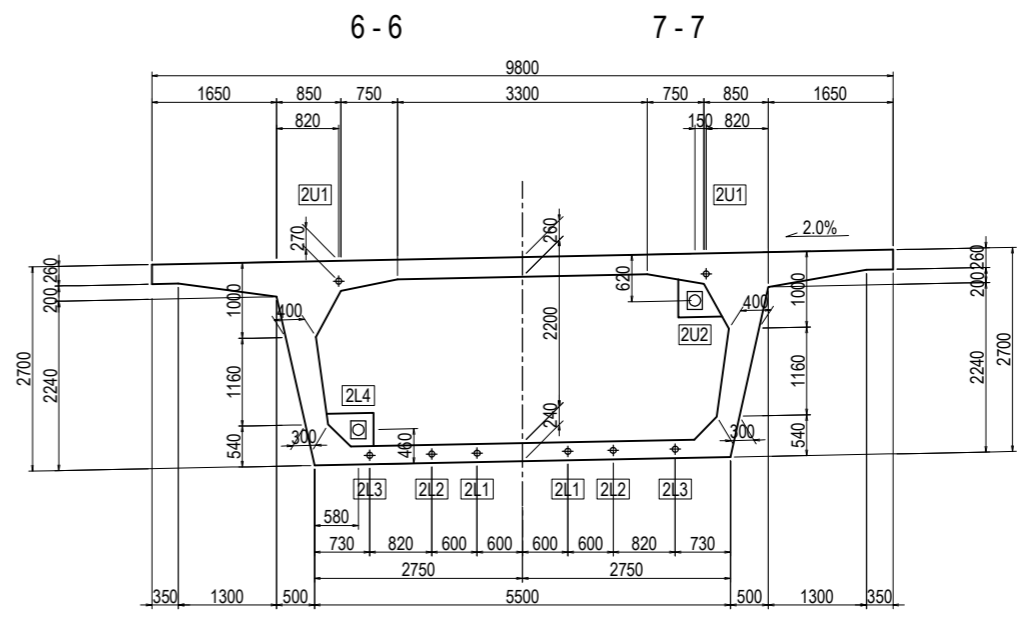
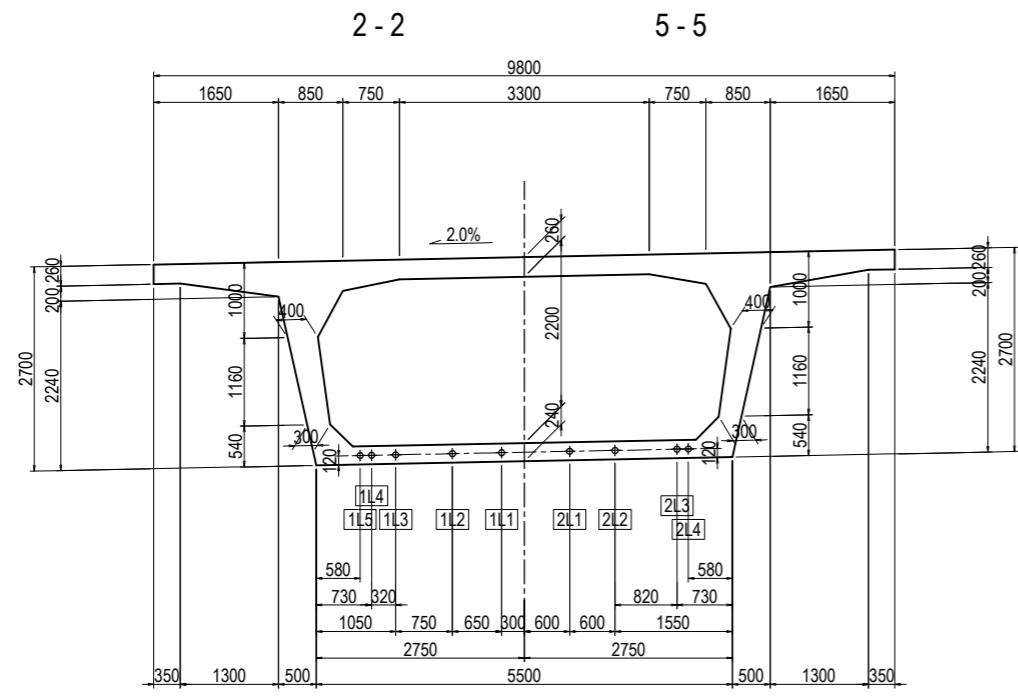
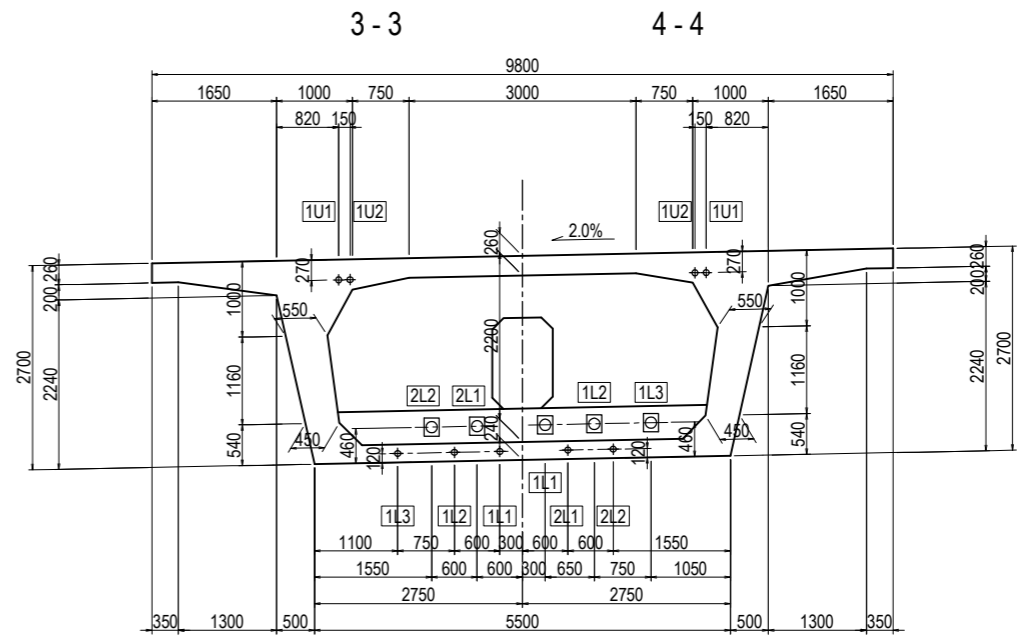
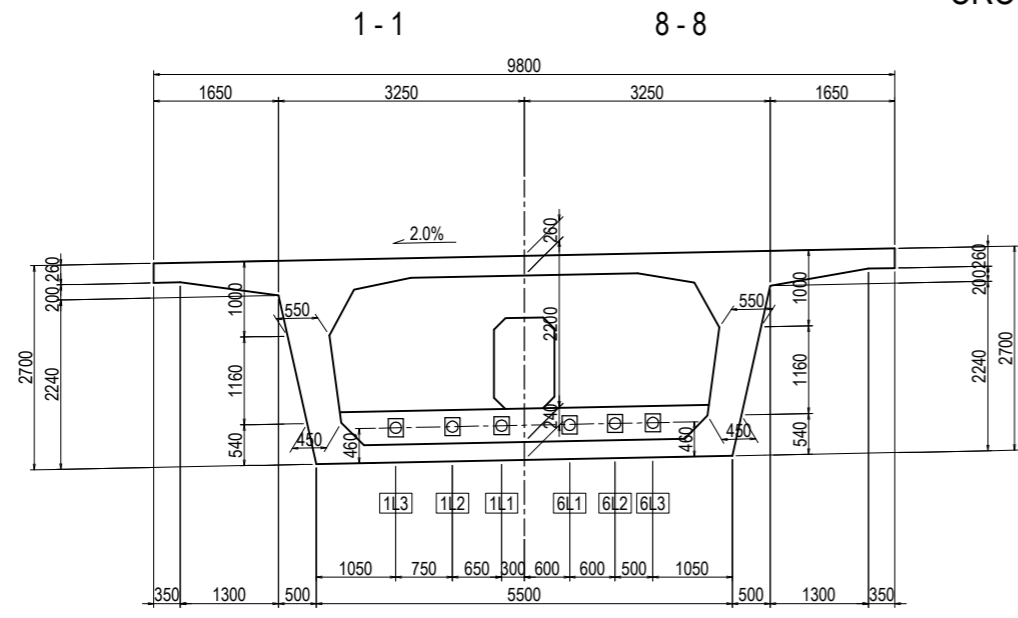


- Notes
- Values in <> / [] are at the top/bottom of the girder accordingly.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Bending radii of PC tendon in Plan is 10m.
 - Jacking force = 1350 N/mm²
 - A: Tension
 - B: Fixed

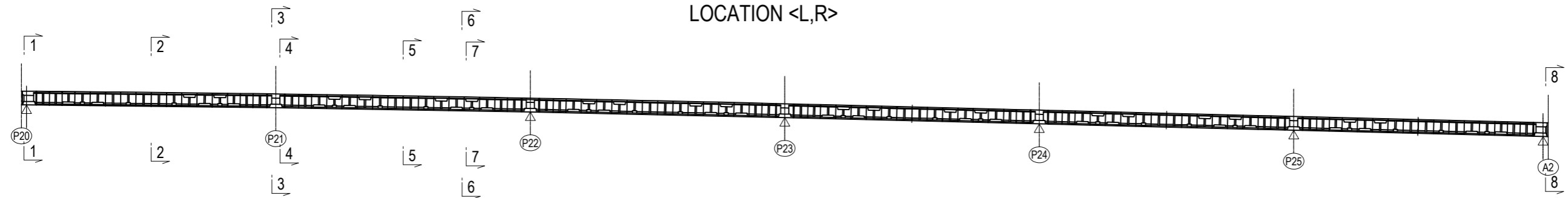
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (14) [INTERNAL TENDON]	PACKAGE 2 DWG No. P2-PB-1114
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

DETAIL OF PRESTRESSING P20-A2 <L,R> (15) [INTERNAL TENDON]

CROSS SECTIONS S=1:100



LOCATION <L,R>

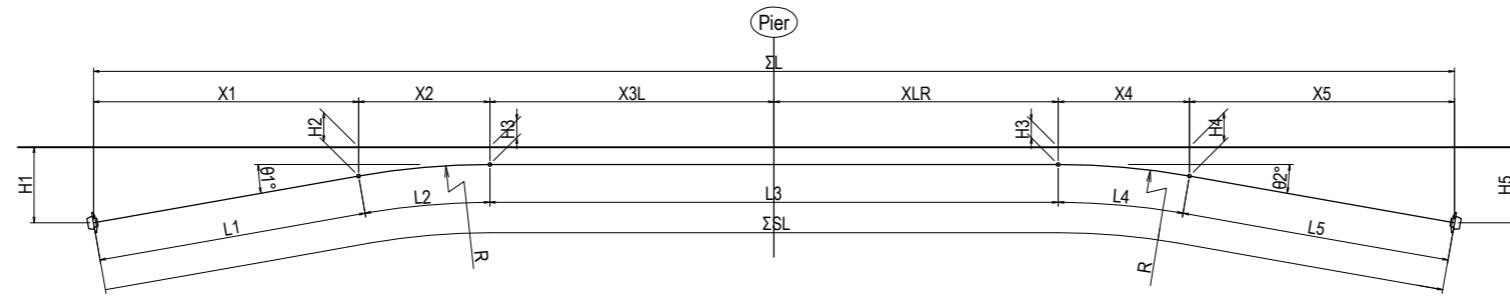


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (15) [INTERNAL TENDON]	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO		21 Jun.2017	P2-PB-1115	

DETAIL OF PRESTRESSING P20-A2 <L,R> (16) [INTERNAL TENDON]

S=1:100

UPPER SLAB CABLE PC TENDON:12S15.2

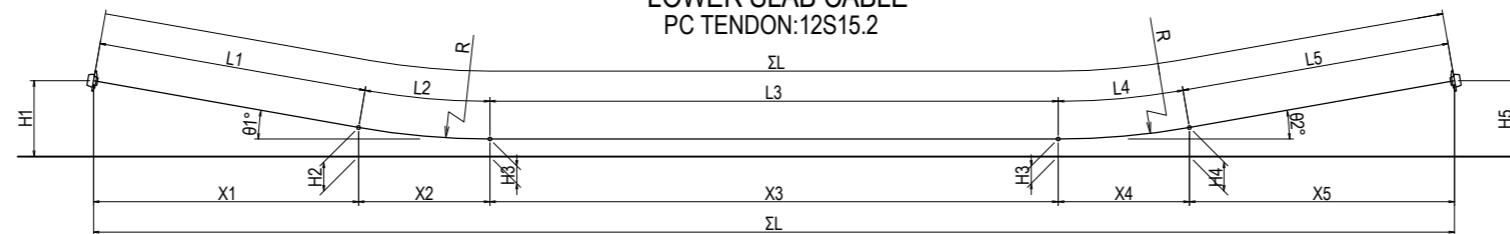


PC TENDON:12S15.2

(mm)

CABLE NUMBER	NUMBER	θ1	θ2	R	H1	H2	H3	H4	H5	X1	X2	X3L	X3R	X4	X5	ΣX	L1	L2	L3	L4	L5	TOTAL LENGTH
1U1	2	13°	13°	8000	620	475	270	475	620	629	1802	15712	16230	1796	625	36794	644	1815	31946	1815	644	36864
1U2	2	13°	13°	8000	620	475	270	475	620	629	1802	9712	10243	1796	625	24807	644	1815	19958	1815	644	24876
2U1	2	13°	13°	8000	620	475	270	475	620	630	1803	16207	16250	1795	624	37309	644	1815	32463	1815	644	37381
2U2	2	13°	13°	8000	620	475	270	475	620	630	1803	10208	10251	1795	624	25311	644	1815	20463	1815	644	25381
3U1	2	13°	13°	8000	620	475	270	475	620	631	1804	16202	16254	1794	624	37309	644	1815	32465	1815	644	37383
3U2	2	13°	13°	8000	620	475	270	475	620	631	1804	10203	10255	1794	624	25311	644	1815	20464	1815	644	25382
4U1	2	13°	13°	8000	620	475	270	475	620	631	1804	16200	16253	1794	624	37306	644	1815	32463	1815	644	37381
4U2	2	13°	13°	8000	620	475	270	475	620	631	1804	10201	10255	1794	624	25309	644	1815	20463	1815	644	25381
5U1	2	13°	13°	8000	620	475	270	475	620	631	1804	16200	15753	1794	624	36806	644	1815	31963	1815	644	36881
5U2	2	13°	13°	8000	620	475	270	475	620	631	1804	10201	9775	1794	624	24829	644	1815	19963	1815	644	24881

LOWER SLAB CABLE PC TENDON:12S15.2



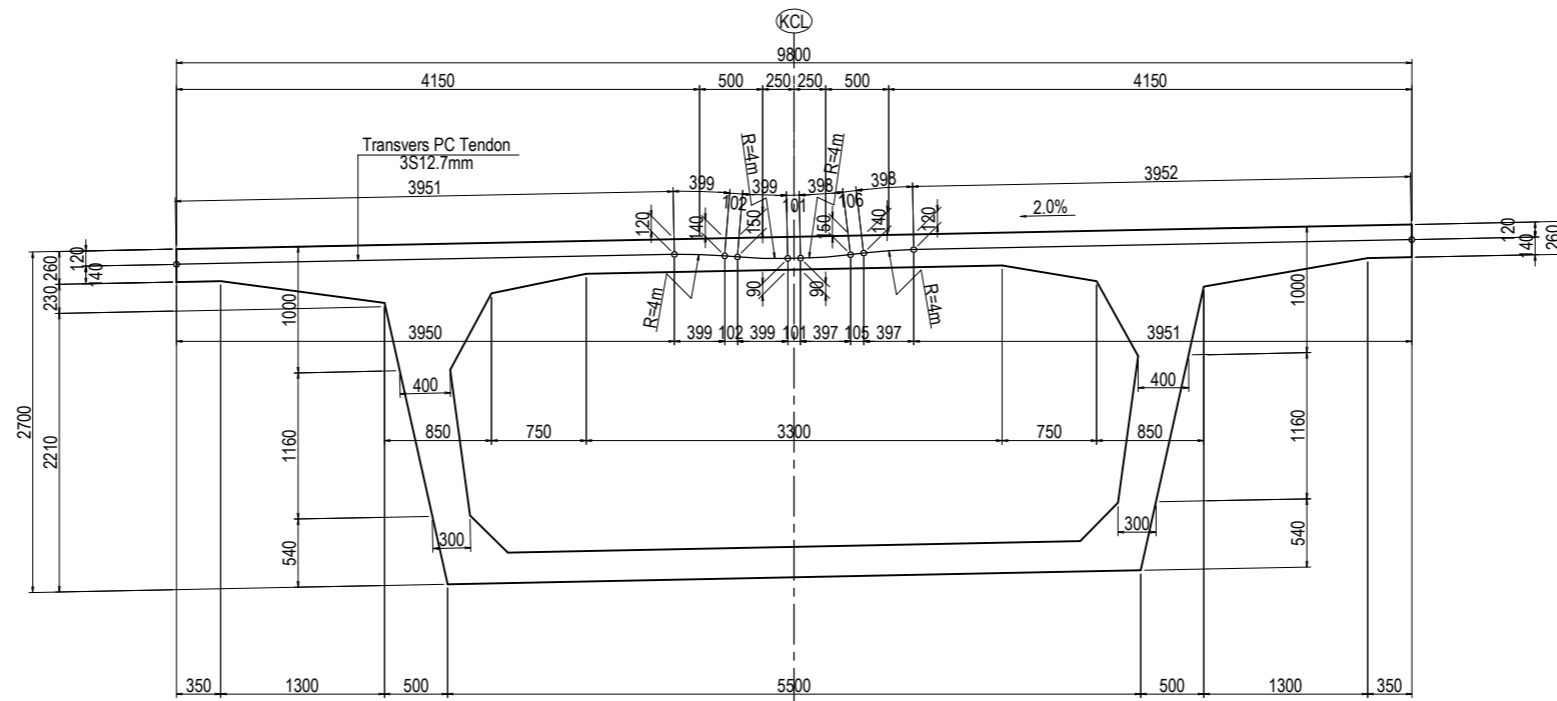
PC TENDON:12S15.2

(mm)

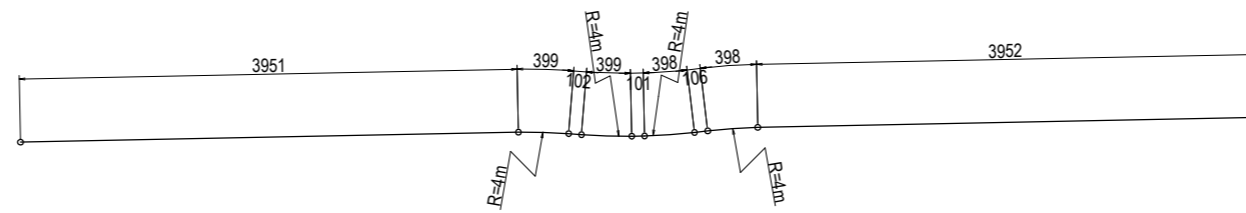
CABLE NUMBER	NUMBER	θ1	θ2	R	H1	H2	H3	H4	H5	X1	X2	X3	X4	X5	ΣX	L1	L2	L3	L4	L5	TOTAL LENGTH
1L1	2	13°	13°	8000	460	325	120	318	460	583	1797	45845	1759	618	50602	600	1815	45848	1771	632	50666
1L2	2	13°	13°	8000	460	325	120	318	460	583	1797	45845	1759	618	50602	600	1815	45848	1771	632	50666
1L3	2	13°	13°	8000	460	325	120	318	460	583	1797	45845	1759	618	50602	600	1815	45848	1771	632	50666
1L4	2	13°	13°	8000	460	325	120	318	460	583	1797	30032	1802	586	34800	600	1815	30034	1815	600	34864
1L5	2	13°	13°	8000	460	325	120	318	460	583	1797	18533	1802	586	23301	600	1815	18534	1815	600	23364
2L1	2	13°	13°	8000	460	318	120	318	460	612	1753	47560	1760	617	52302	630	1771	47566	1771	630	52368
2L2	2	13°	13°	8000	460	318	120	318	460	612	1753	47560	1760	617	52302	630	1771	47566	1771	630	52368
2L3	2	13°	13°	8000	460	325	120	325	460	582	1796	30530	1803	587	35298	600	1815	30534	1815	600	35364
2L4	2	13°	13°	8000	460	325	120	325	460	582	1796	18531	1803	587	23299	600	1815	18534	1815	600	23364
3L1	2	13°	13°	8000	460	325	120	325	460	611	1752	47555	1781	603	52302	630	1771	47566	1791	616	52374
3L2	2	13°	13°	8000	460	325	120	325	460	611	1752	47555	1781	603	52302	630	1771	47566	1791	616	52374
3L3	2	13°	13°	8000	460	325	120	325	460	581	1795	30527	1803	587	35293	600	1815	30534	1815	600	35364
3L4	2	13°	13°	8000	460	325	120	325	460	581	1795	18530	1803	587	23296	600	1815	18534	1815	600	23364
4L1	2	13°	13°	8000	460	325	120	325	460	597	1771	47543	1803	588	52302	616	1791	47558	1815	600	52380
4L2	2	13°	13°	8000	460	325	120	325	460	597	1771	47543	1803	588	52302	616	1791	47558	1815	600	52380
4L3	2	13°	13°	8000	460	325	120	325	460	581	1794	30525	1804	587	35291	600	1815	30534	1815	599	35363
4L4	2	13°	13°	8000	460	325	120	325	460	581	1794	18529	1804	587	23295	599	1815	18535	1815	599	23363
5L1	2	13°	13°	8000	460	325	120	325	460	581	1794	47536	1804	587	52302	601	1815	47551	1815	600	52382
5L2	2	13°	13°	8000	460	325	120	325	460	581	1794	47536	1804	587	52302	601	1815	47551	1815	600	52382
5L3	2	13°	13°	8000	460	325	120	325	460	581	1794	30525	1804	587	35291	599	1815	30535	1815	599	35363
5L4	2	13°	13°	8000	460	325	120	325	460	581	1794	18529	1804	587	23295	599	1815	18535	1815	599	23363
6L1	2	13°	13°	8000	460	325	120	325	460	581	1794	45836	1804	587	50602	600	1815	45850	1815	599	50679
6L2	2	13°	13°	8000	460	325	120	325	460	581	1794	45836	1804	587	50602	600	1815	45850	1815	599	50679
6L3	2	13°	13°	8000	460	325	120	325	460	581	1794	45836	1804	587	50602	600	1815	45850	1815	599	50679
6L4	2	13°	13°	8000	460	325	120	325	460	581	1796	30023	1804	587	34791	599	1815	30035	1815	599	34863
6L5	2	13°	13°	8000	460	325	120	325	460	581	1794	18529	1804	587	23295	599	1815	18535	1815	599	23363

DETAIL OF PRESTRESSING P20-A2 <L,R> (17) [SLAB]

CROSS SECTIONS S=1:60



TRANSVERSAL CABLE

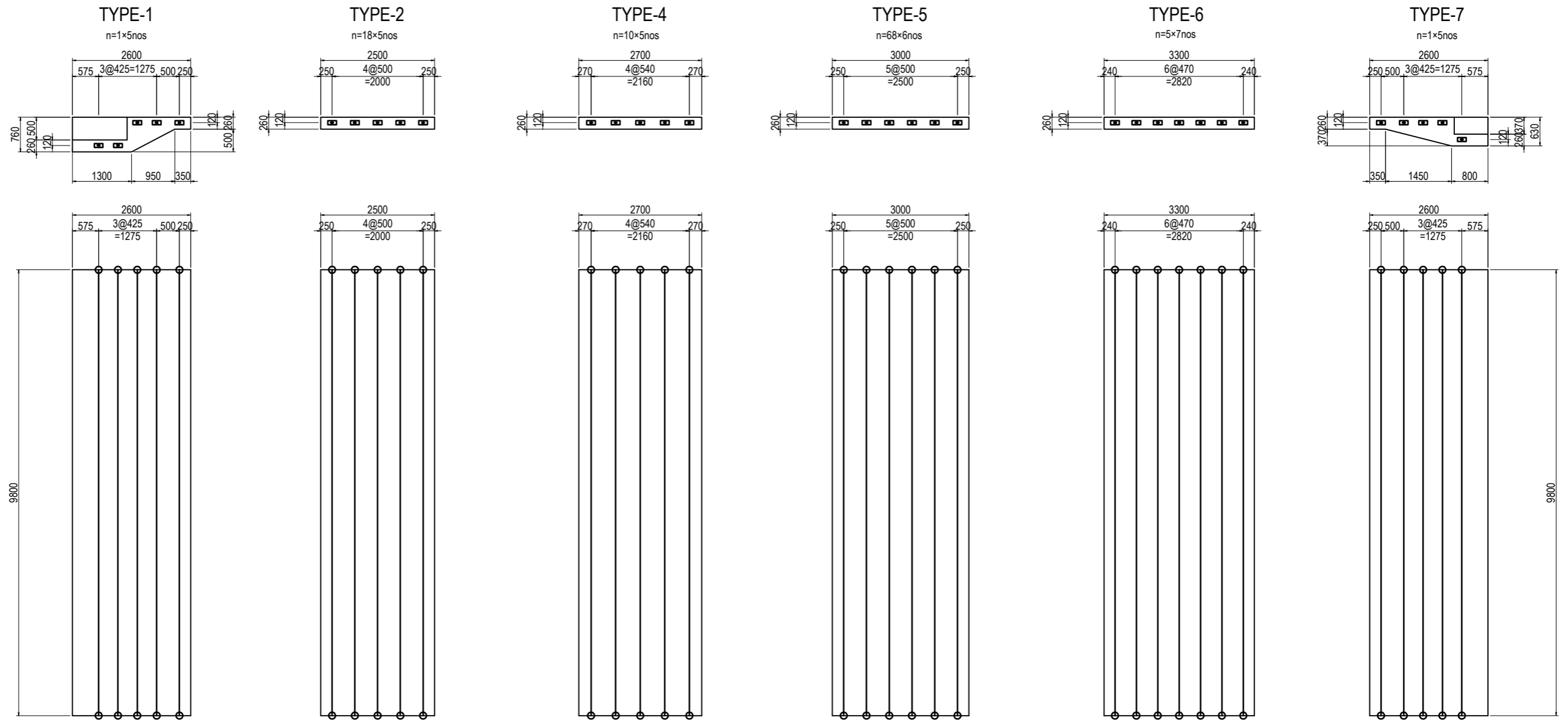


(S1) 3S12.7 L=9806mm
n=593 nos

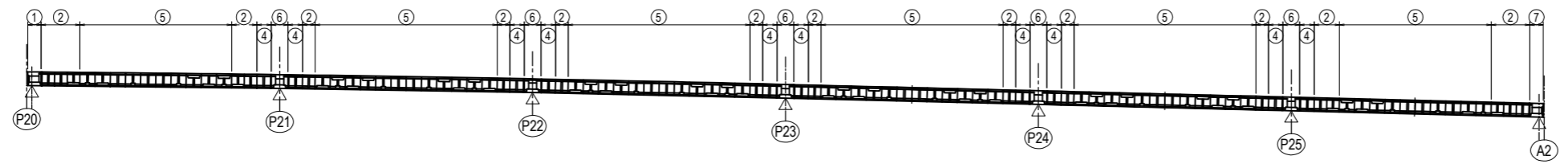
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (17) [SLAB]	PACKAGE 2 DWG No. P2-PB-1117	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

DETAIL OF PRESTRESSING P20-A2 <L,R> (18) [SLAB]

PLAN



LOCATION <L,R>



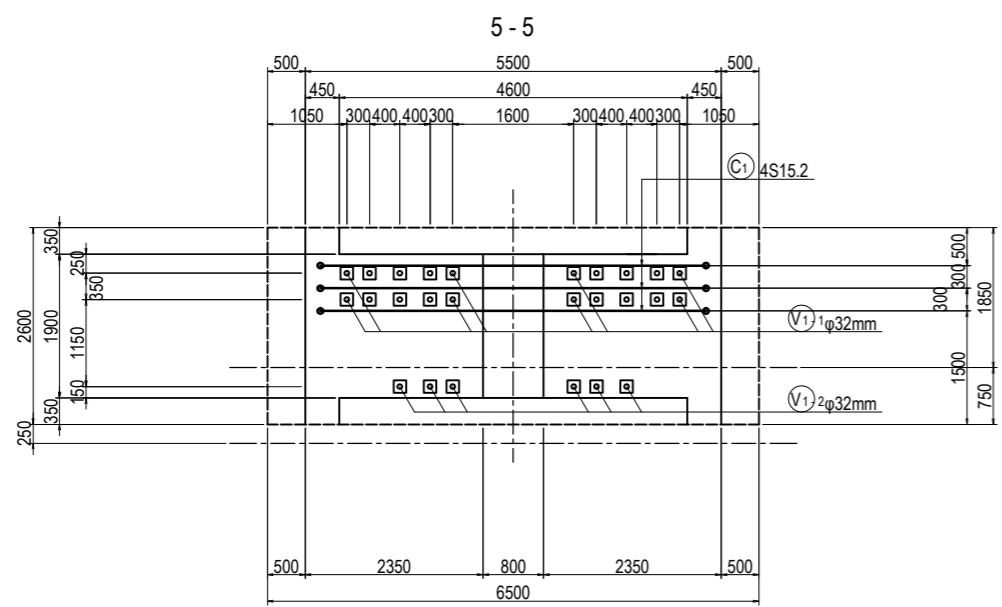
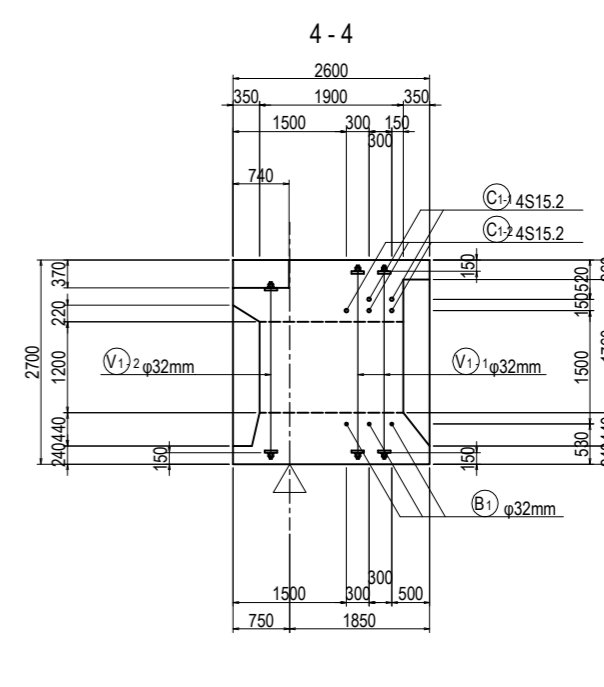
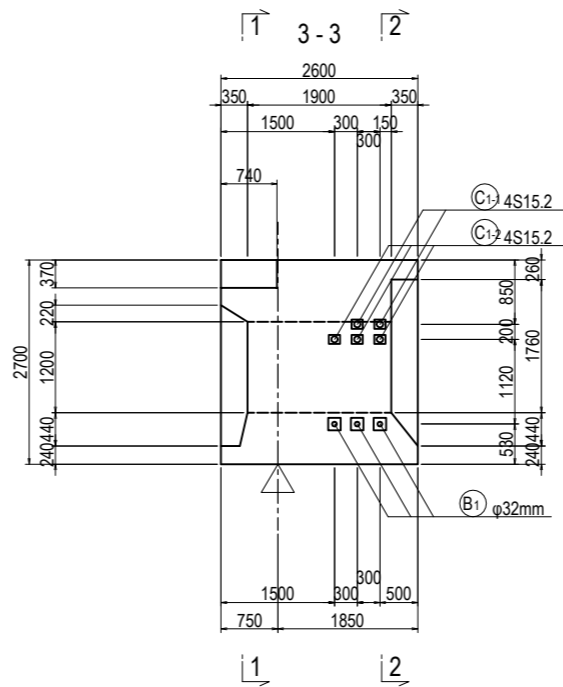
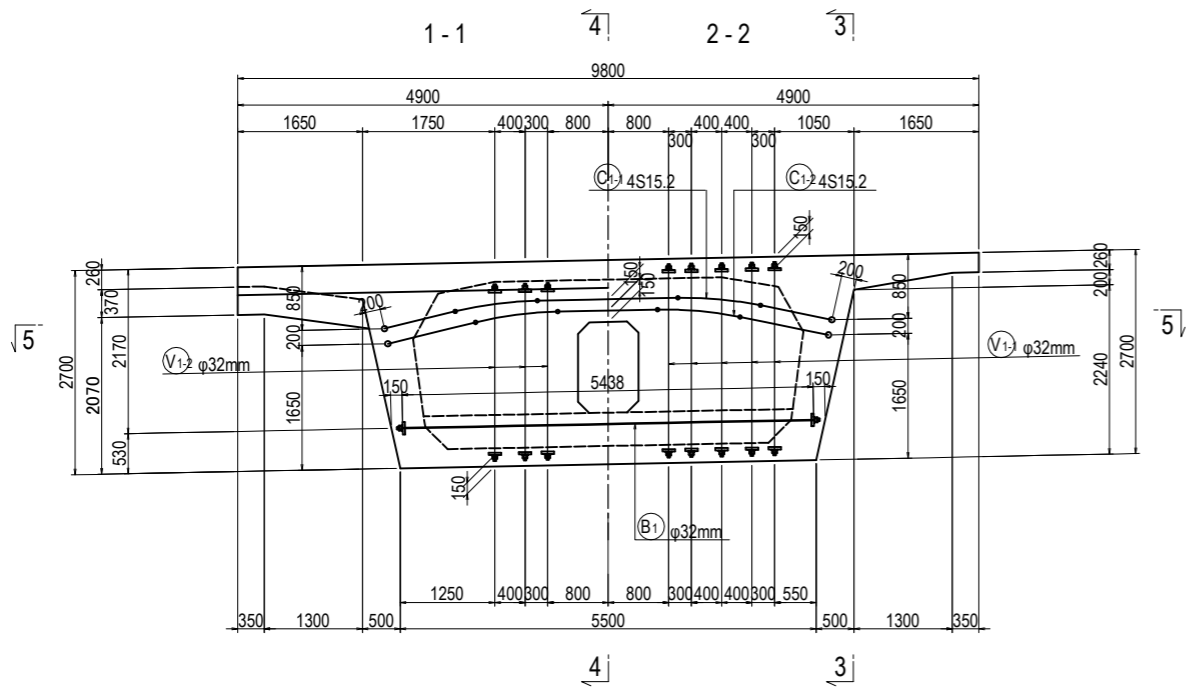
- Notes
- Alternating tension from one side.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1300N/mm²

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (18) [SLAB]	PACKAGE 2 DWG No. P2-PB-1118	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

DETAIL OF PRESTRESSING P20-A2 <L,R> (19) [END CROSSBEAM]

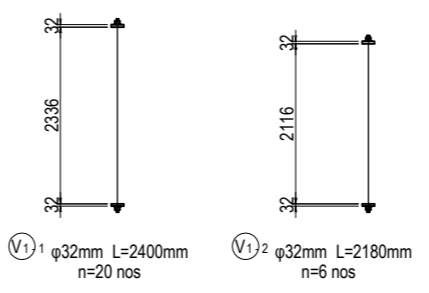
S=1:100

CROSS SECTIONS

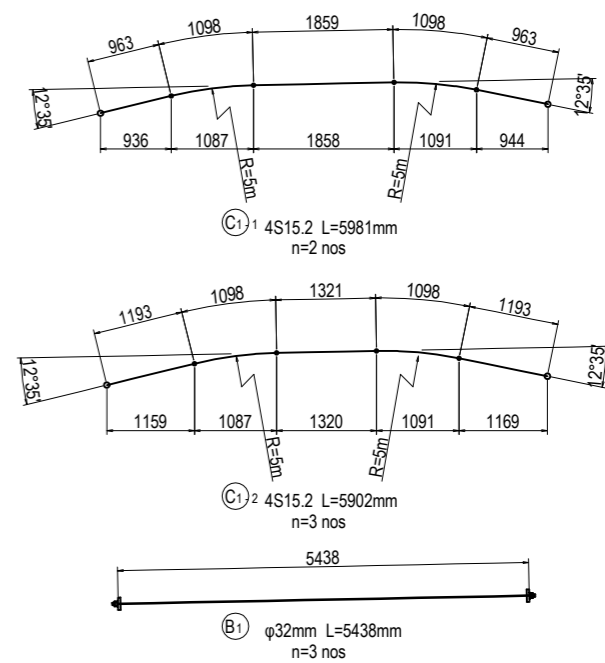


DETAIL DIMENSION OF TENDON

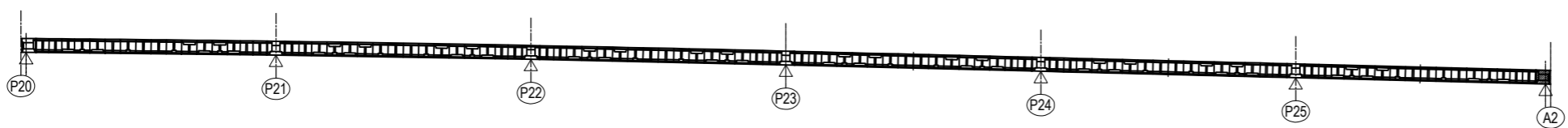
VERTICAL CABLE



TRANSVERSAL CABLE



LOCATION <L,R>



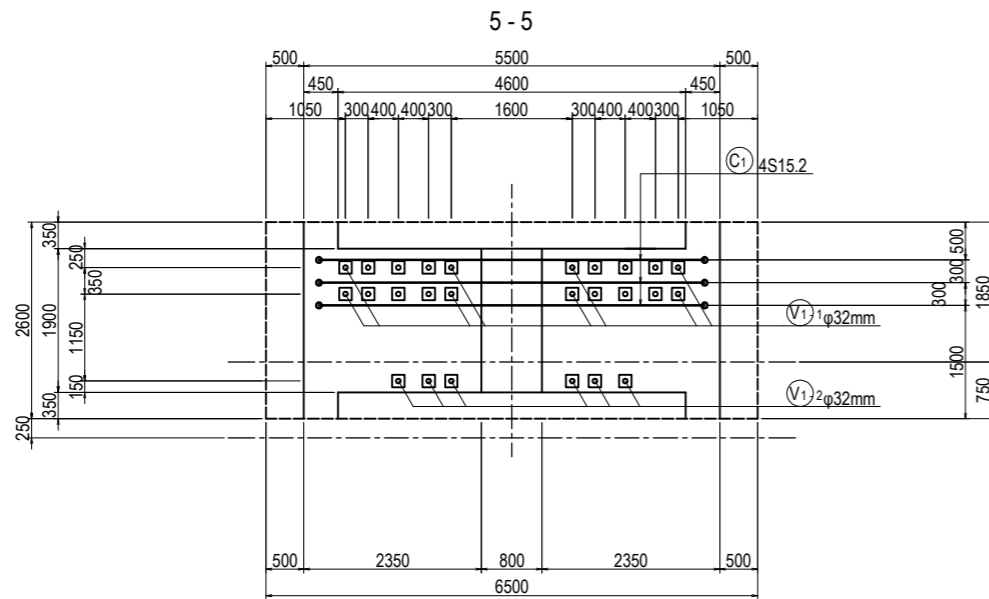
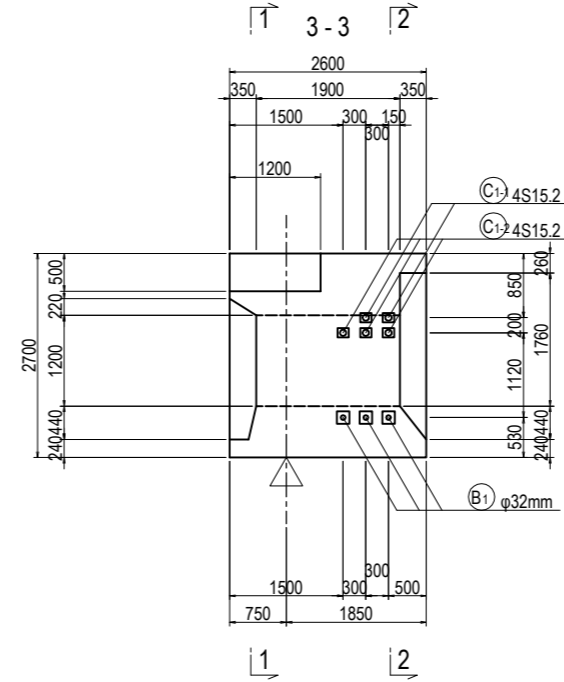
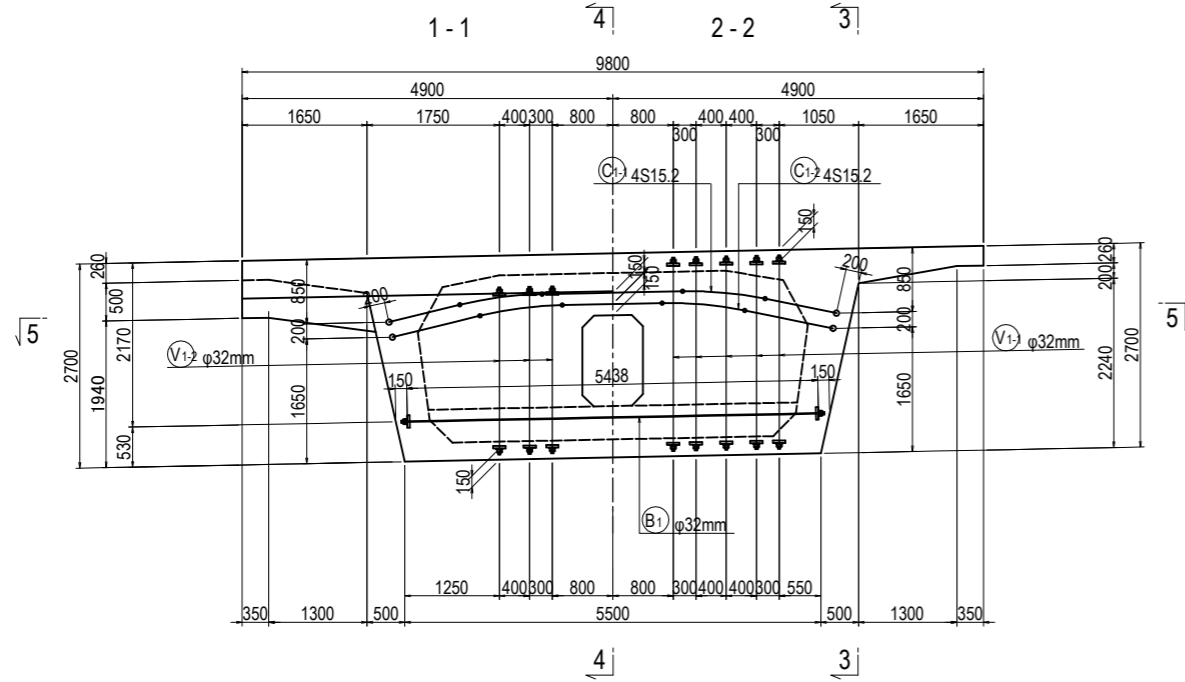
- Notes
- Transverse tendon shall be tensioned from one side alternately.
 - Vertical tendon shall be tensioned at top.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1300N/mm²(4S15.2)
 - Jacking force = 800N/mm²(PT bar)

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (19) [END CROSSBEAM]	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1119

DETAIL OF PRESTRESSING P20-A2 <L,R> (20) [END CROSSBEAM]

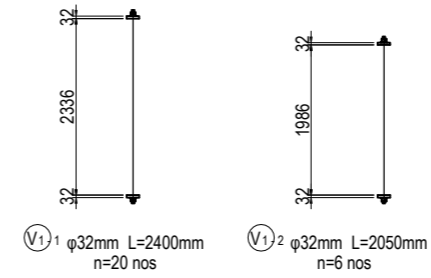
S=1:100

CROSS SECTIONS

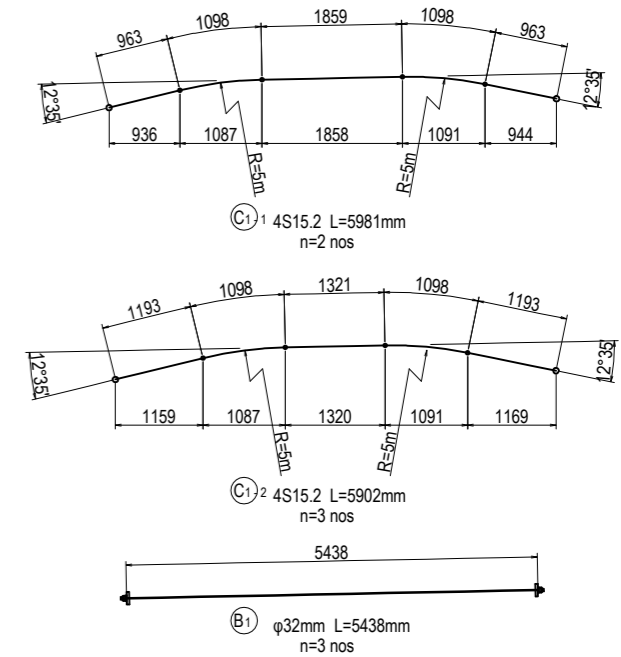


DETAIL DIMENSION OF TENDON

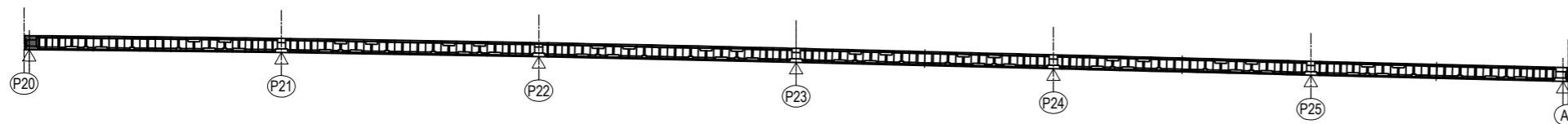
VERTICAL CABLE



TRANSVERSAL CABLE



LOCATION <L,R>

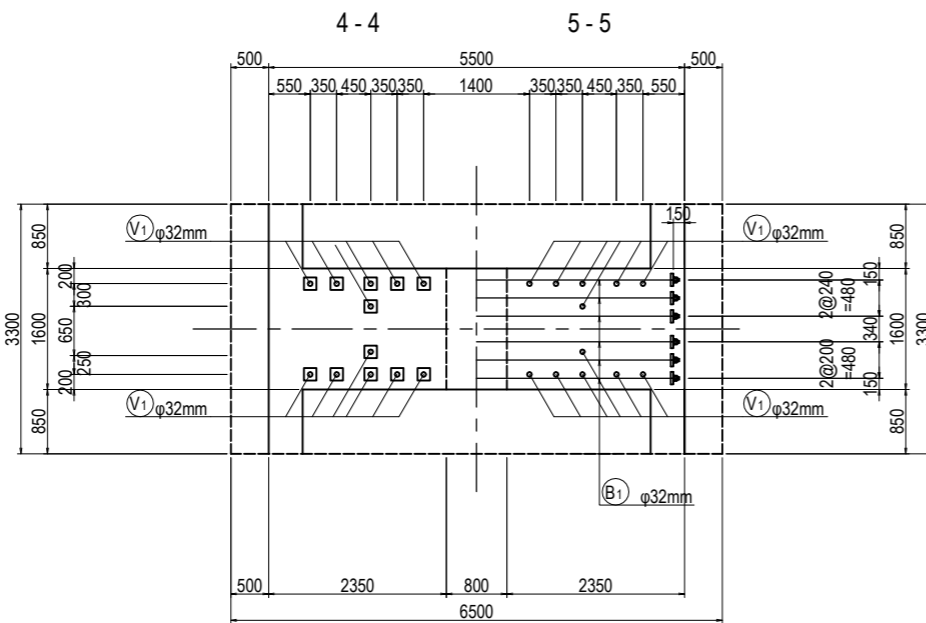
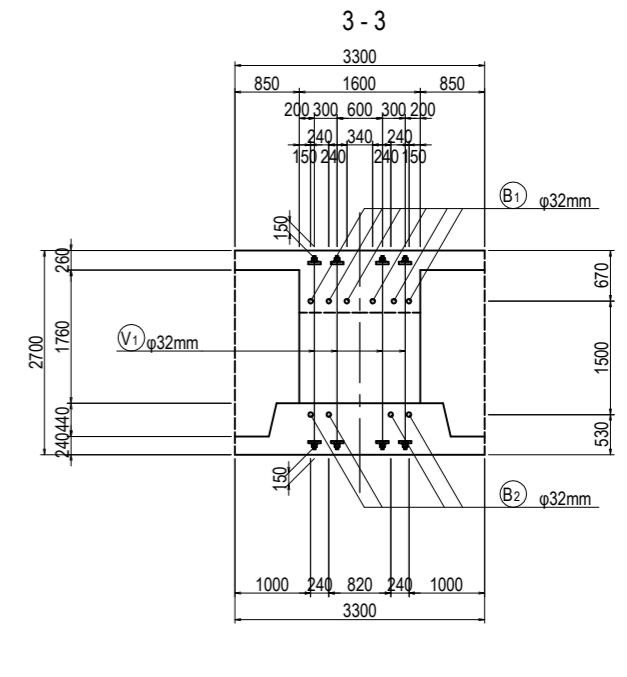
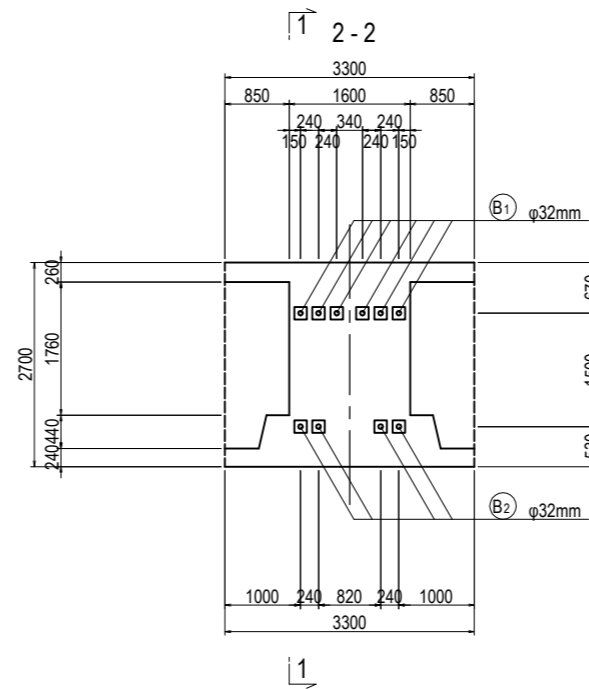
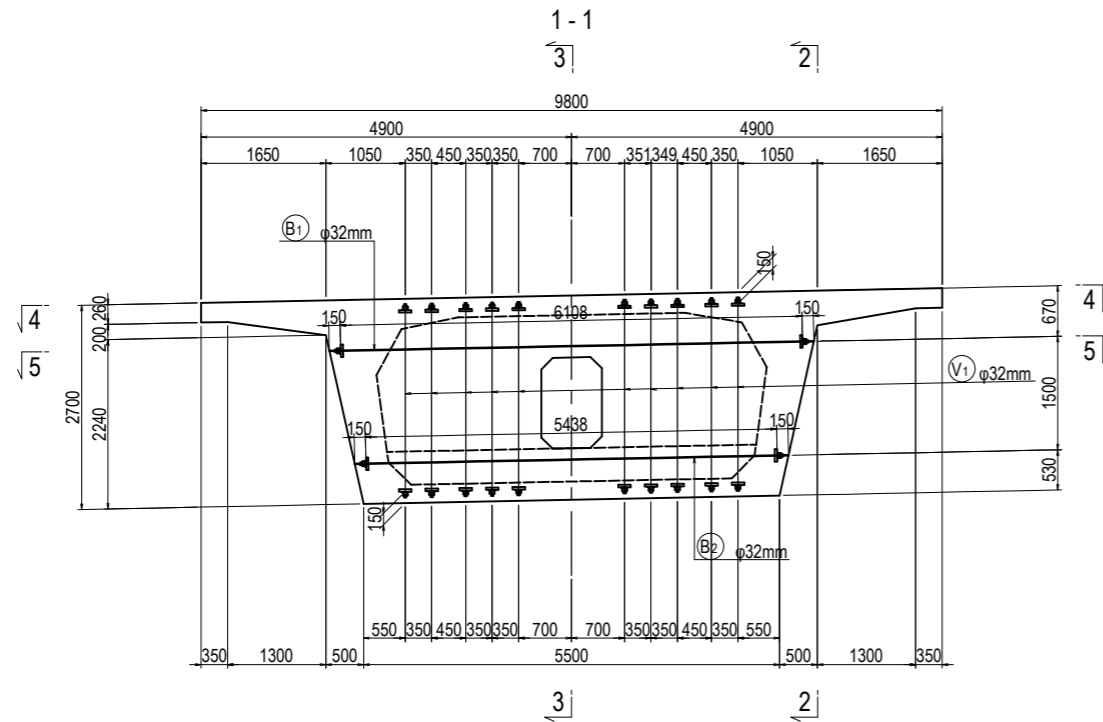


- Notes
- Transverse tendon shall be tensioned from one side alternately.
 - Vertical tendon shall be tensioned at top.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 1300N/mm²(4S15.2)
 - Jacking force = 800N/mm²(PT bar)

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (20) [END CROSSBEAM]	PACKAGE 2 DWG No. P2-PB-1120	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	早川 知那			20 Jun.2017
				APPROVED BY	Y. SANO	酒野 裕一			21 Jun.2017

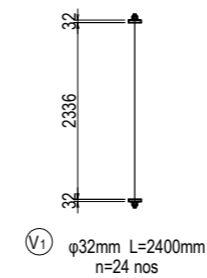
DETAIL OF PRESTRESSING P20-A2 <L,R> (21) [INTERMEDIATE CROSSBEAM]

S=1:100

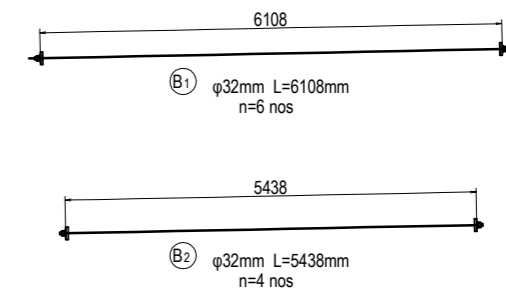


DETAIL DIMENSION OF TENDON

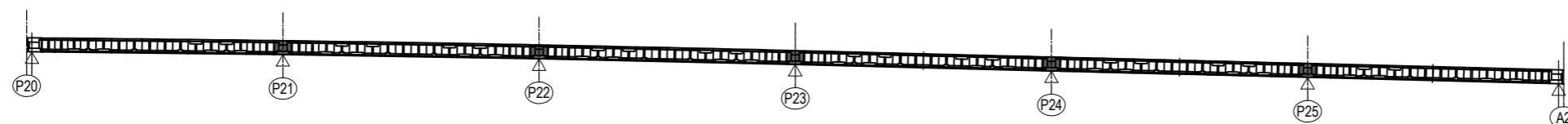
VERTICAL CABLE



TRANSVERSAL CABLE



LOCATION <L,R>



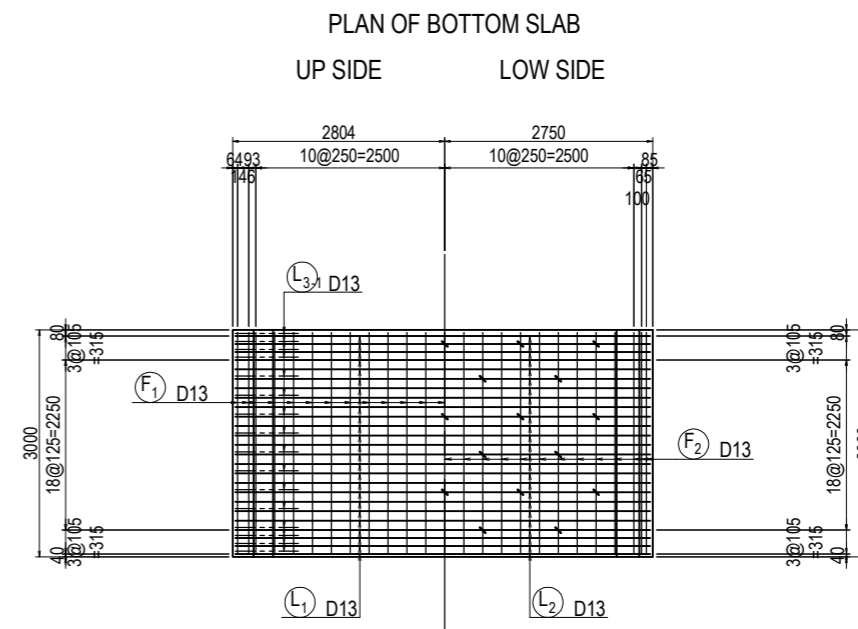
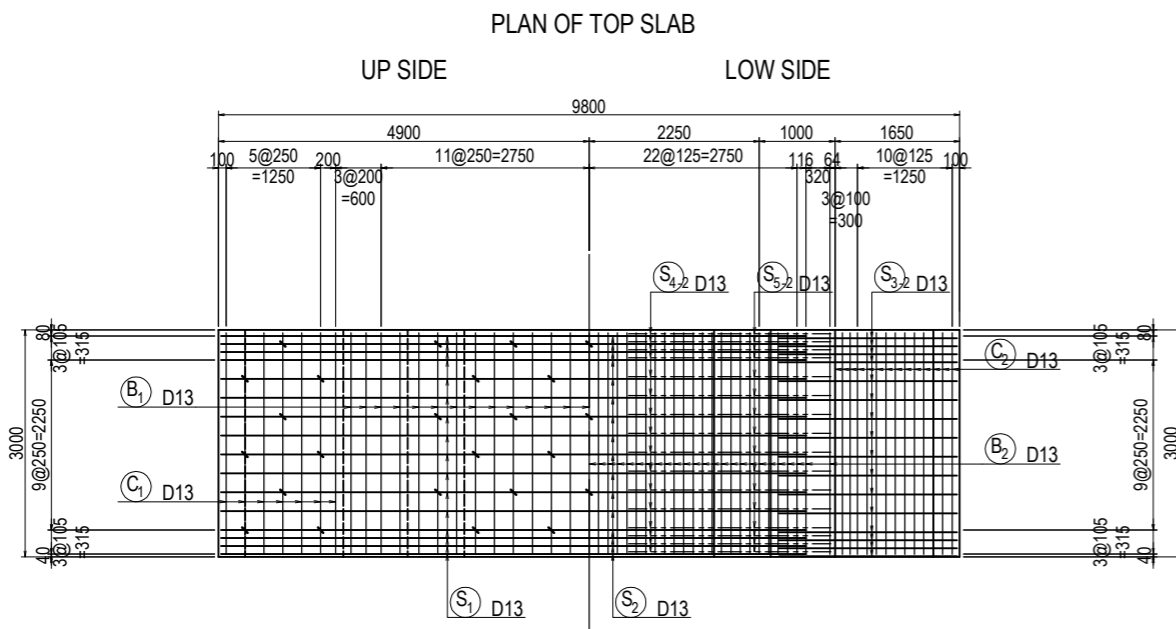
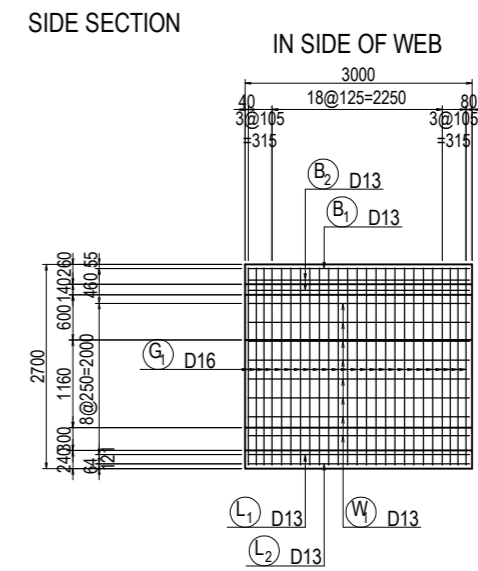
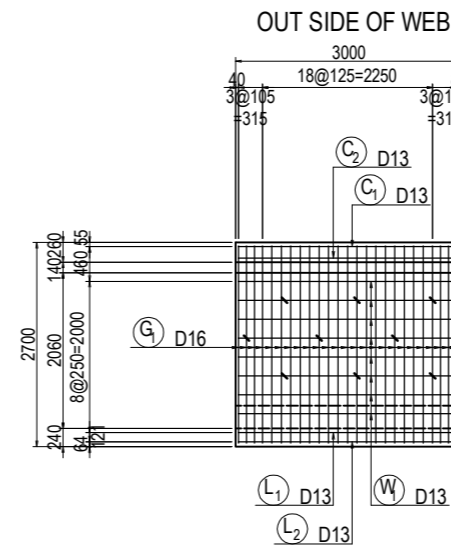
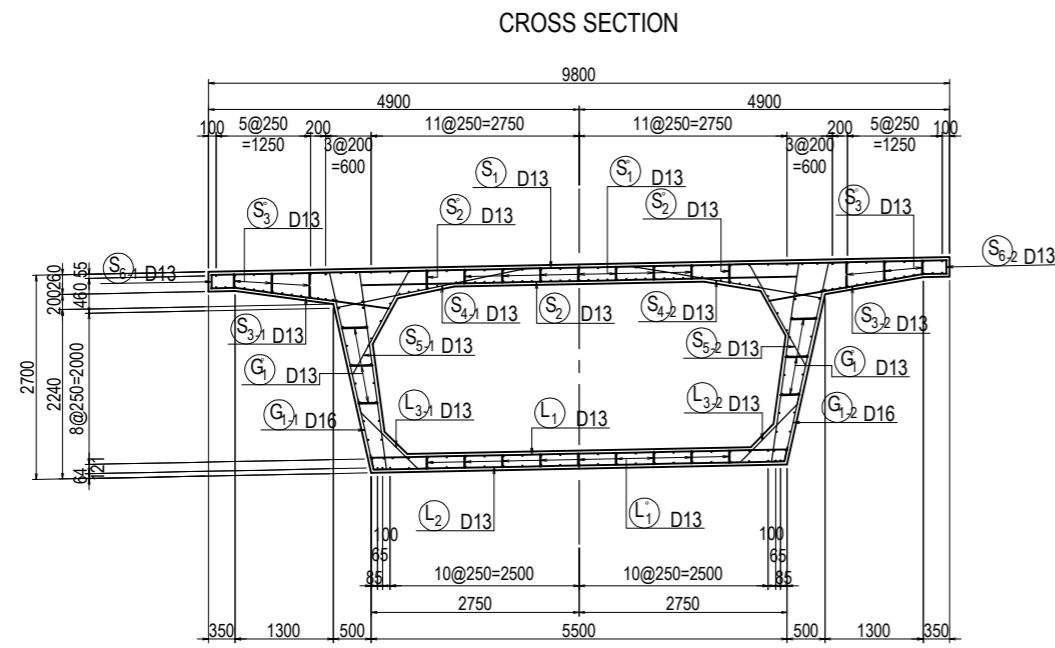
- Notes
- Transverse tendon shall be tensioned from one side alternately.
 - Vertical tendon shall be tensioned at top.
 - Reinforcement for tendon anchorage such as grid rebar shall be arranged sufficiently.
 - Jacking force = 800N/mm²(PT bar)

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF PRESTRESSING P20-A2 <L,R> (21) [INTERMEDIATE CROSSBEAM]	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1121

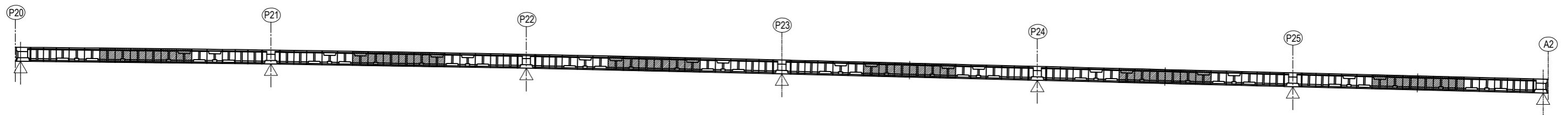
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (1)

S=1:100

TYPE 1 (BL=3.0m)



LOCATION <L,R>

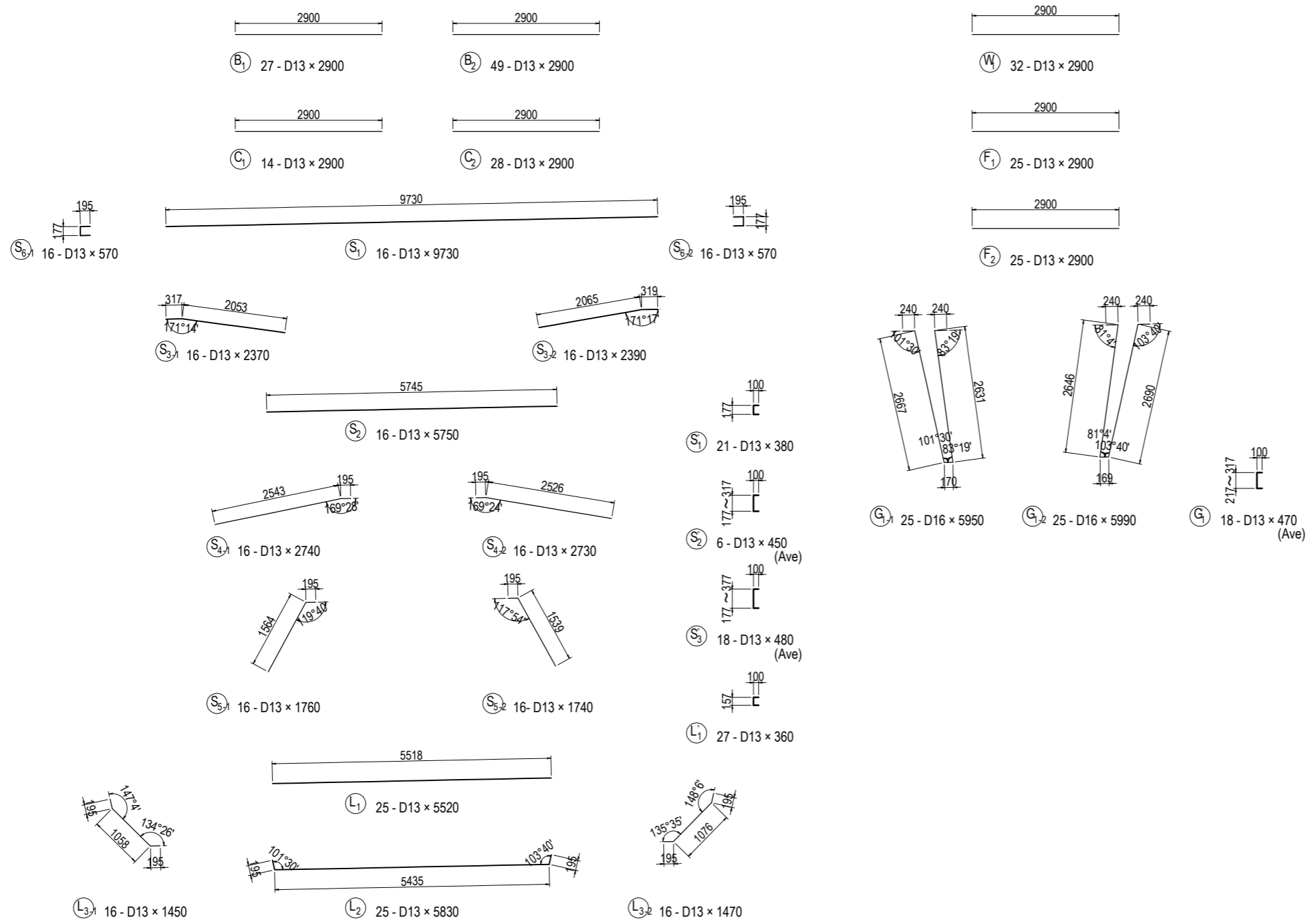


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1301

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (2)

S=1:100

TYPE 1 (BL=3.0m)

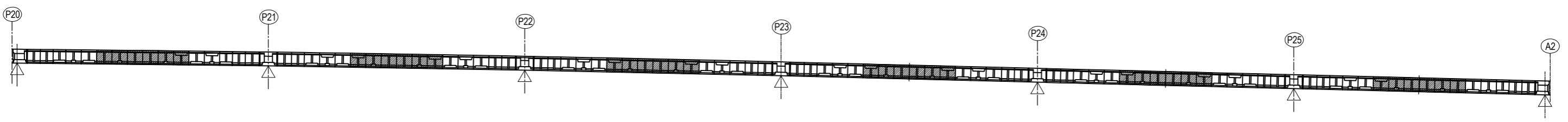


BAR STATISTICS TABLE

(For 1 Block)

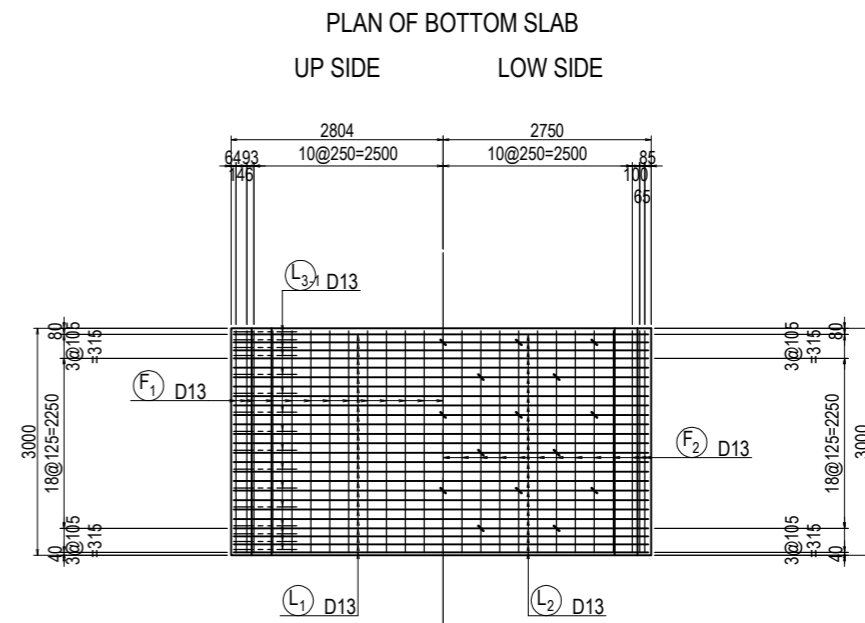
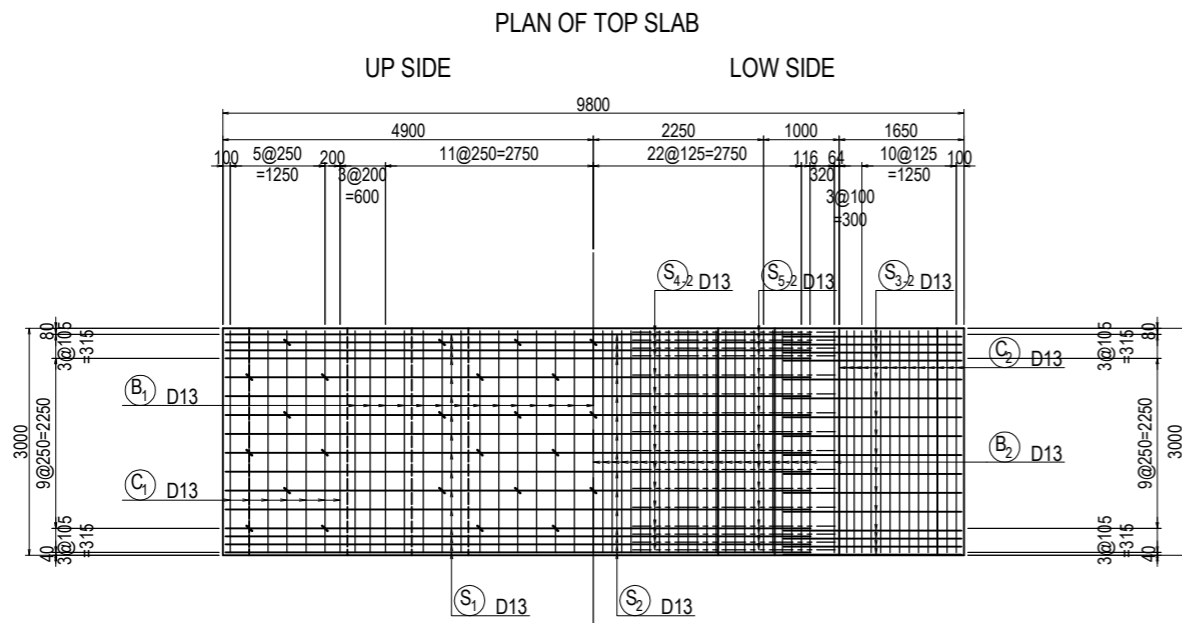
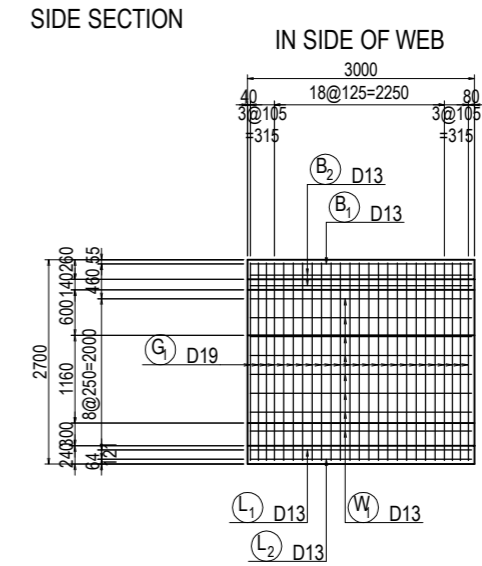
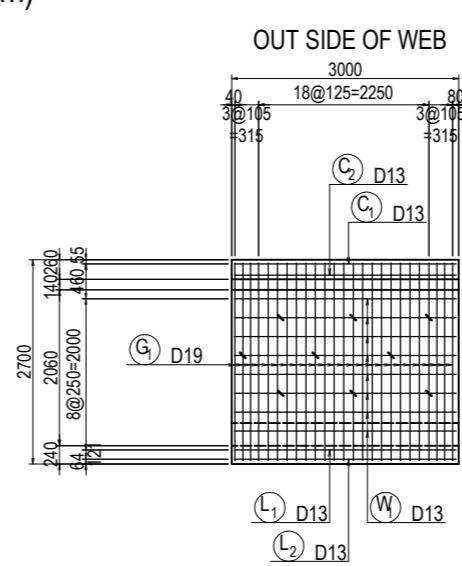
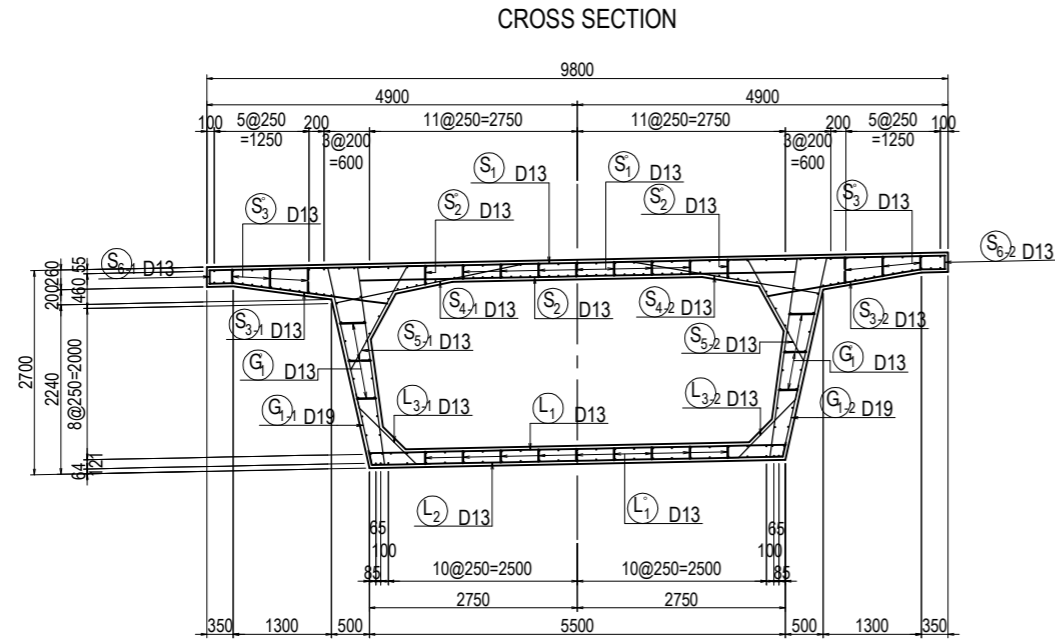
Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B	1 D13	2900	27	0.995	2.89	78	—
	2 D13	2900	49	0.995	2.89	142	—
C	1 D13	2900	14	0.995	2.89	40	—
	2 D13	2900	28	0.995	2.89	81	—
S	1 D13	9730	16	0.995	9.68	155	—
	2 D13	5750	16	0.995	5.72	92	—
	3-1 D13	2370	16	0.995	2.36	38	↘
	3-2 D13	2390	16	0.995	2.38	38	↘
	4-1 D13	2740	16	0.995	2.73	44	↘
	4-2 D13	2730	16	0.995	2.72	44	↘
S'	1 D13	380	21	0.995	0.38	8	⊥
	2 D13	450	6	0.995	0.45	3	⊥ (Ave)
	3 D13	480	18	0.995	0.48	9	⊥ (Ave)
L	1 D13	5520	25	0.995	5.49	137	—
	2 D13	5830	25	0.995	5.80	145	↘
	3-1 D13	1450	16	0.995	1.44	23	↘
	3-2 D13	1470	16	0.995	1.46	23	↘
L'	1 D13	360	27	0.995	0.36	10	⊥
W	1 D13	2900	32	0.995	2.89	93	—
F	1 D13	2900	25	0.995	2.89	72	—
	2 D13	2900	25	0.995	2.89	72	—
G1-1	D16	5950	25	1.56	9.28	232	↘
	D16	5990	25	1.56	9.34	234	↘
G	1 D13	470	18	0.995	0.47	8	⊥ (Ave)
				D13	1429 kg		
				D16	466 kg		
				Total Weight	1895 kg		

LOCATION <L,R>

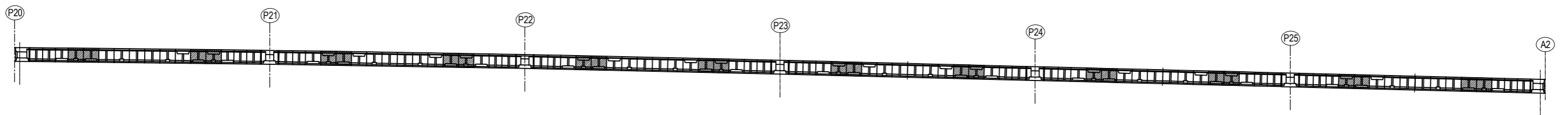


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (3) S=1:100

TYPE 2 (BL=3.0m)



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (3)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1303

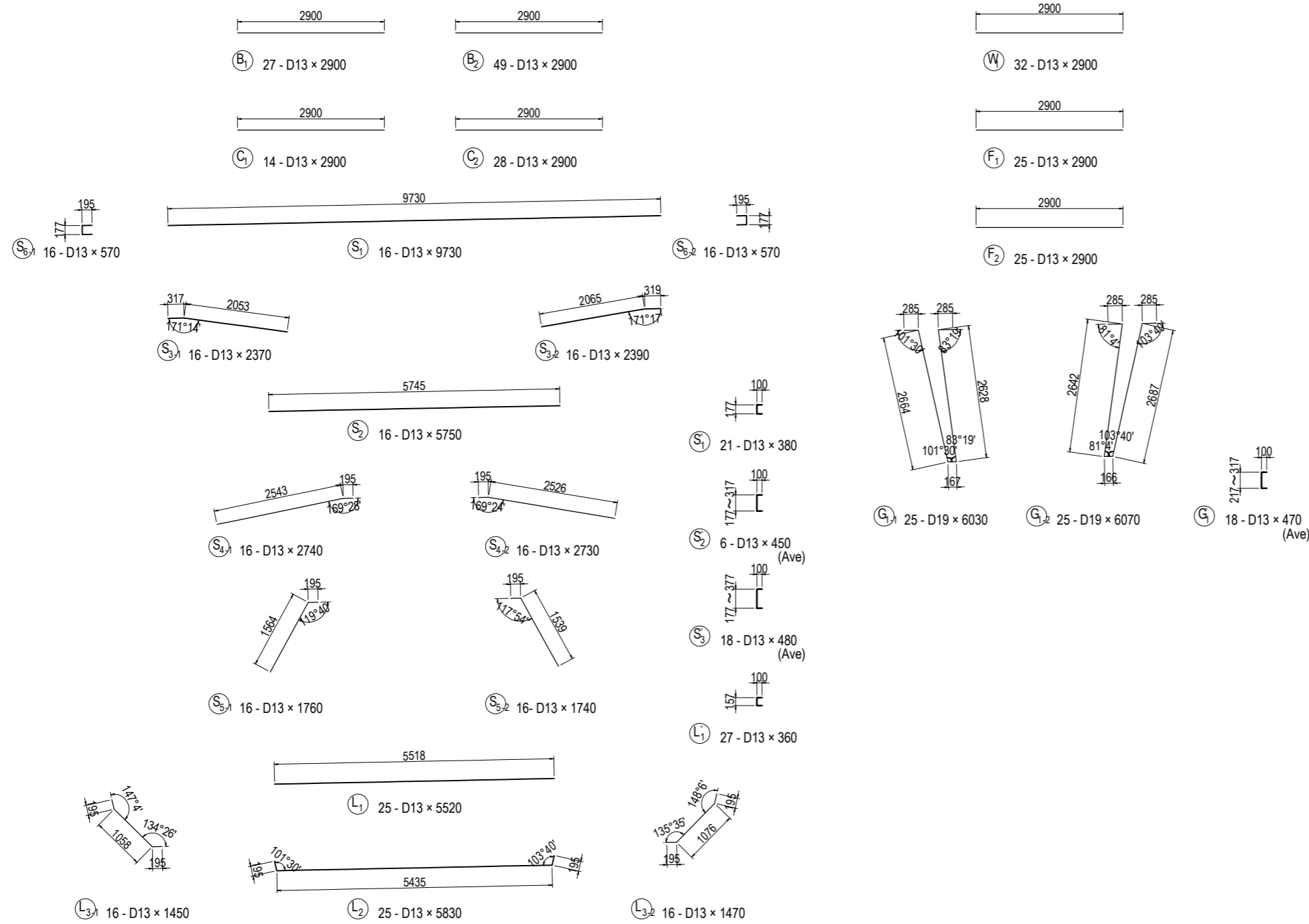
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (4) S=1:100

TYPE 2 (BL=3.0m)

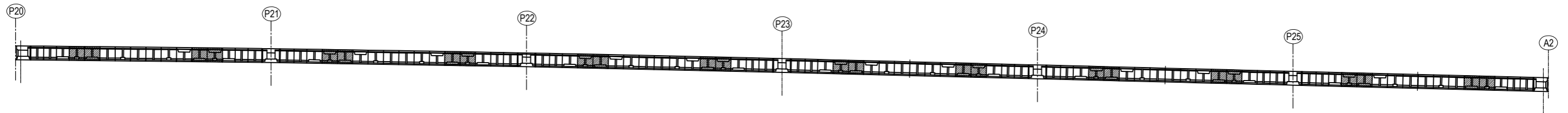
BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape	
B	1	D13	27	0.995	2.89	78	—	
	2	D13	49	0.995	2.89	142	—	
C	1	D13	14	0.995	2.89	40	—	
	2	D13	28	0.995	2.89	81	—	
S	1	D13	9730	16	0.995	9.68	155	—
	2	D13	5750	16	0.995	5.72	92	—
	3-1	D13	2370	16	0.995	2.36	38	↘
	3-2	D13	2390	16	0.995	2.38	38	↘
	4-1	D13	2740	16	0.995	2.73	44	↘
	4-2	D13	2730	16	0.995	2.72	44	↘
S'	1	D13	380	21	0.995	0.38	8	⊠
	2	D13	450	6	0.995	0.45	3	⊠ (Ave)
L	1	D13	5520	25	0.995	5.49	137	—
	2	D13	5830	25	0.995	5.80	145	↘
L'	1	D13	360	27	0.995	0.36	10	⊠
	2	D13	470	18	0.995	0.48	9	⊠ (Ave)
W	1	D13	2900	32	0.995	2.89	93	—
	2	D13	2900	25	0.995	2.89	72	—
G	1-1	D19	6030	25	2.25	14.18	355	↘
	1-2	D19	6070	25	2.25	15.08	377	↘
G	1	D13	470	18	0.995	0.47	8	⊠ (Ave)
			D13	1429				
		D19	732					
		Total Weight	2161					

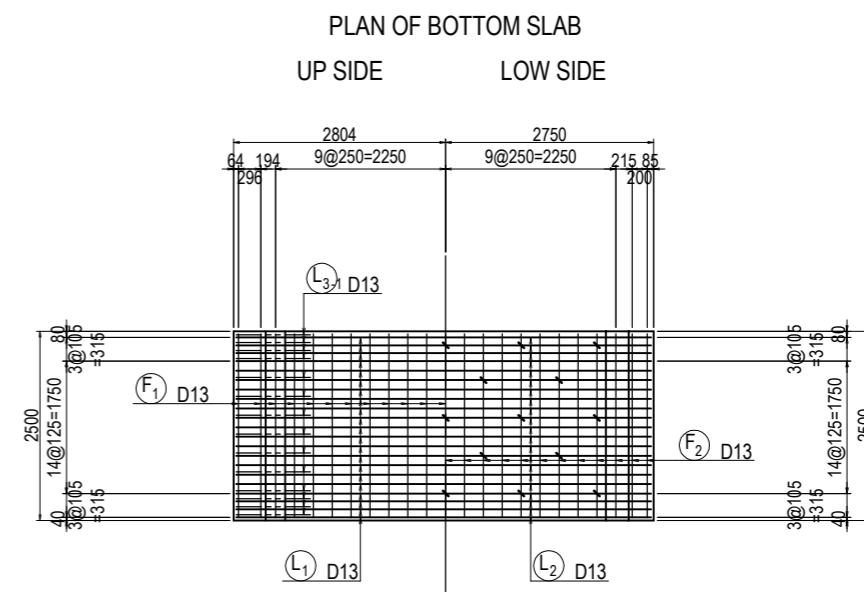
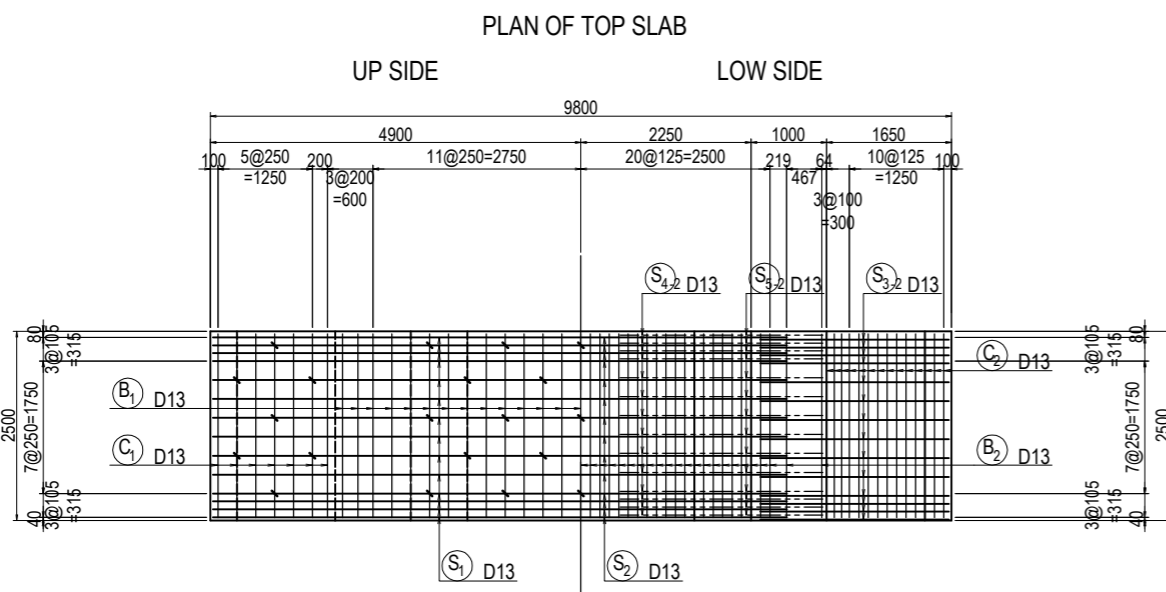
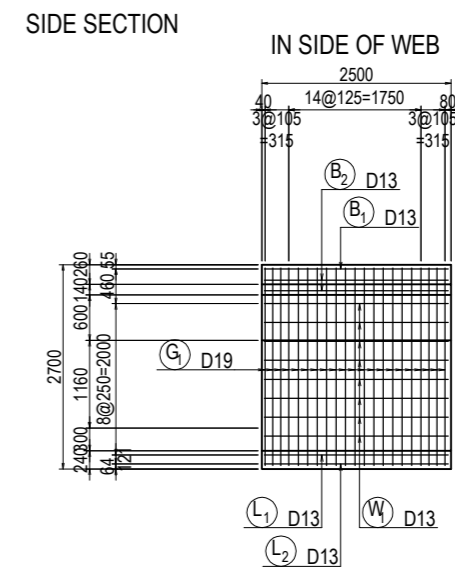
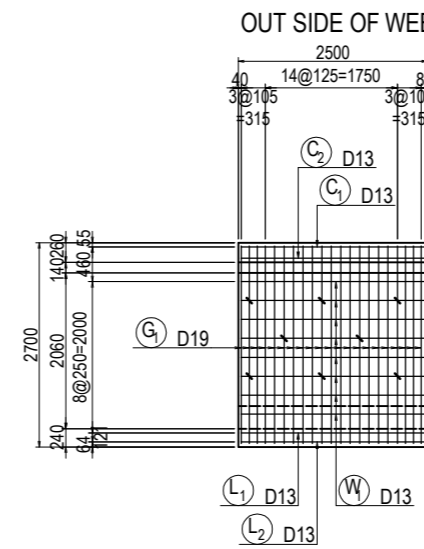
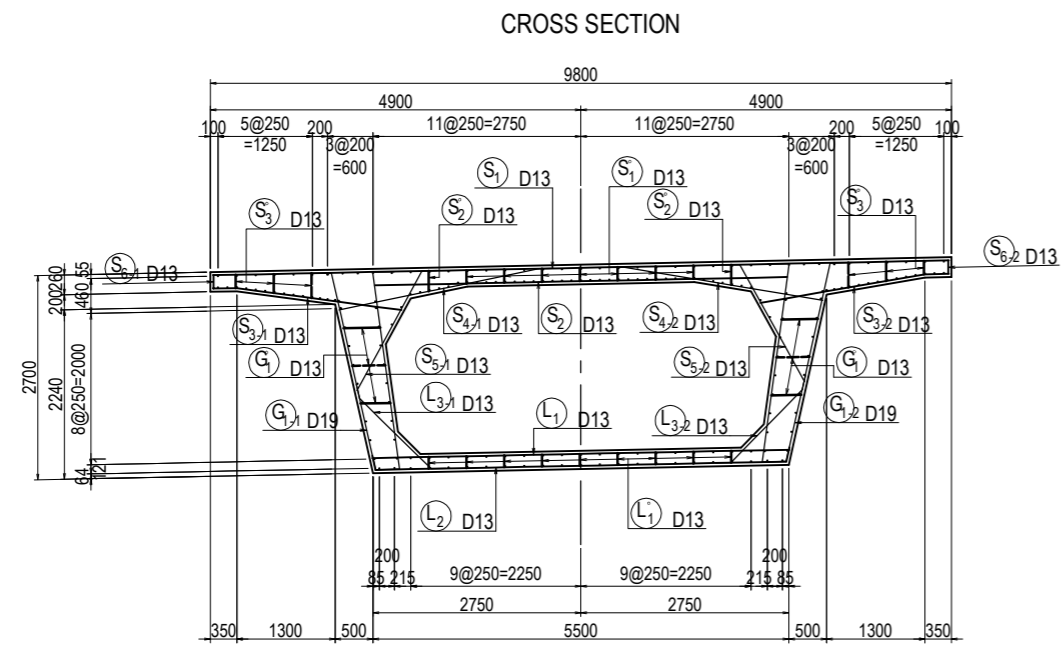


LOCATION <L,R>

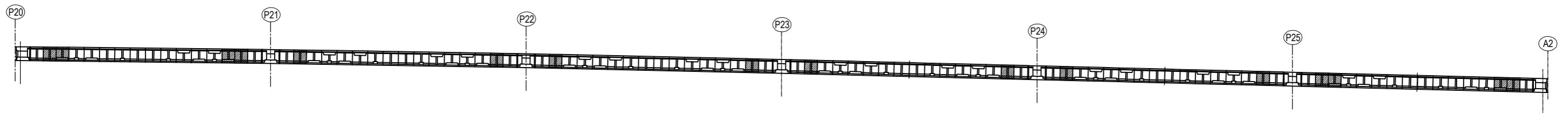


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (5) S=1:100

TYPE 3 (BL=2.5m)



LOCATION <L,R>

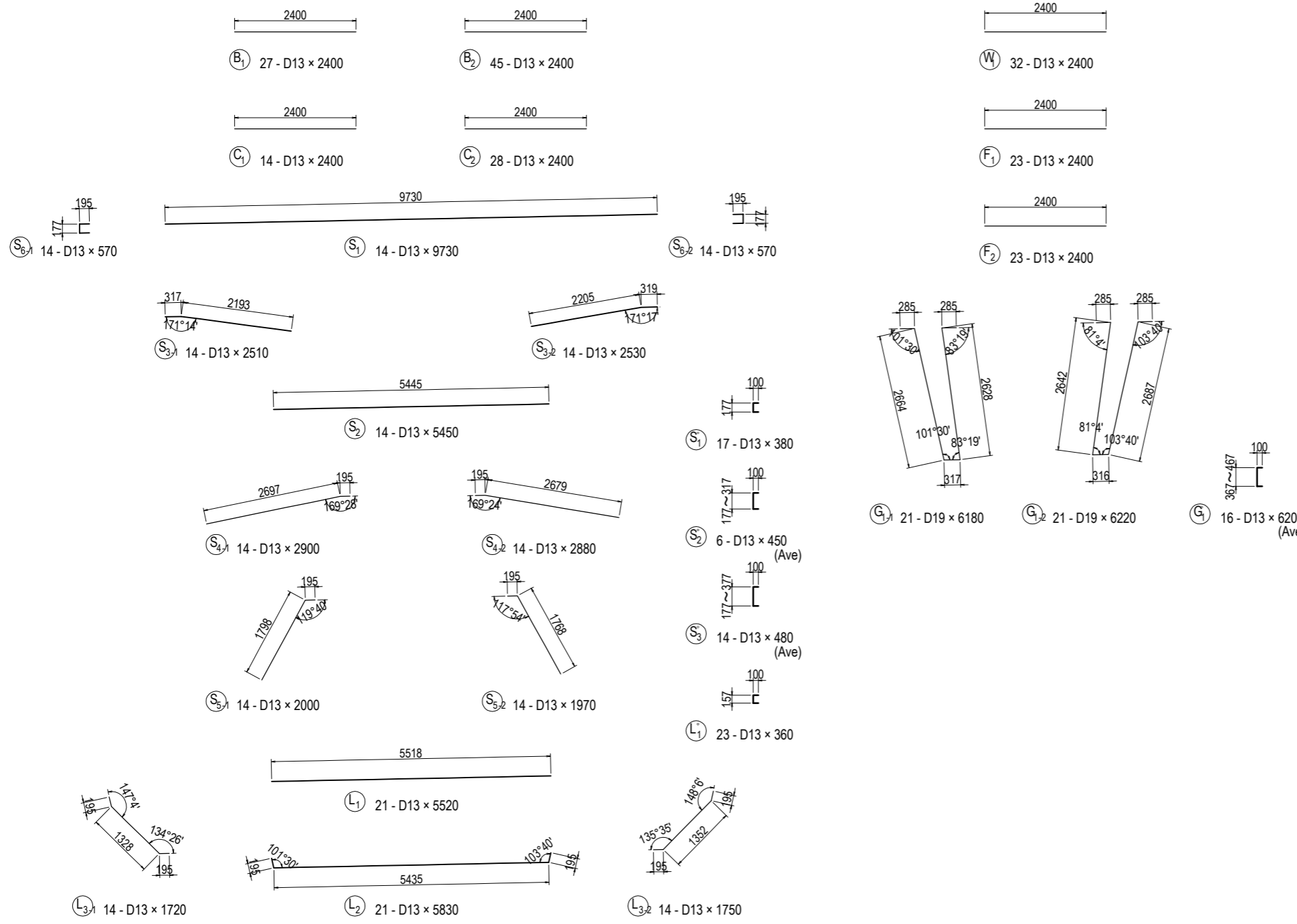


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (5)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1305

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (6)

S=1:100

TYPE 3 (BL=2.5m)

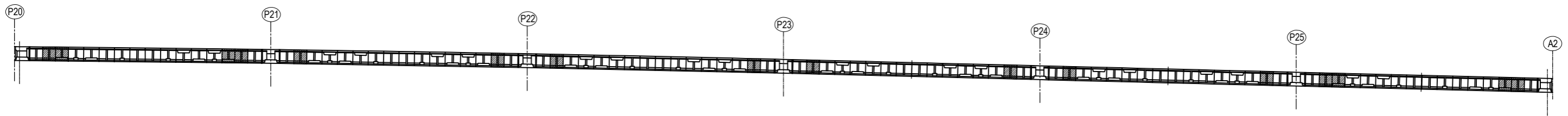


BAR STATISTICS TABLE

(For 1 Block)

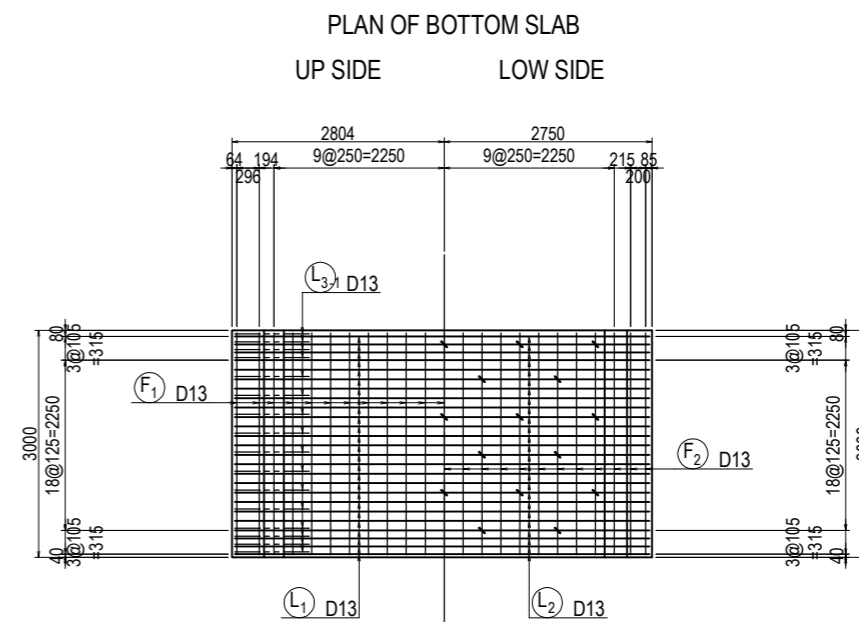
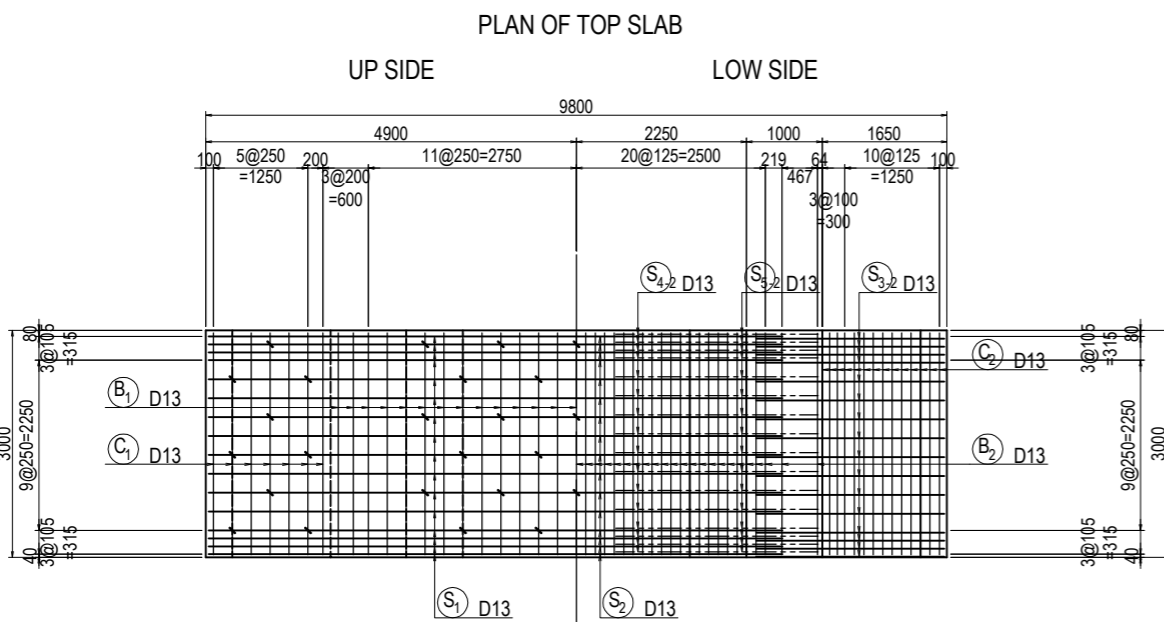
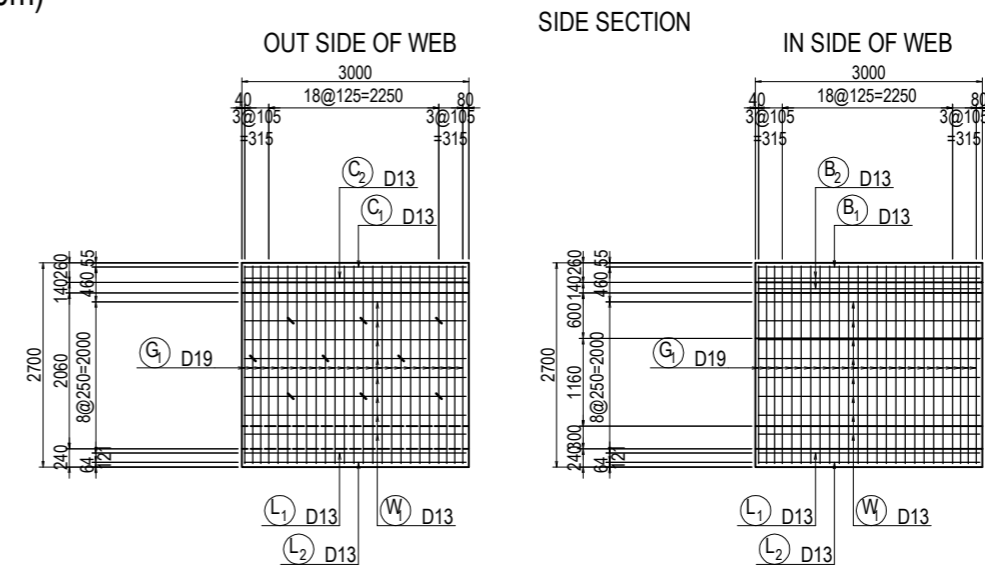
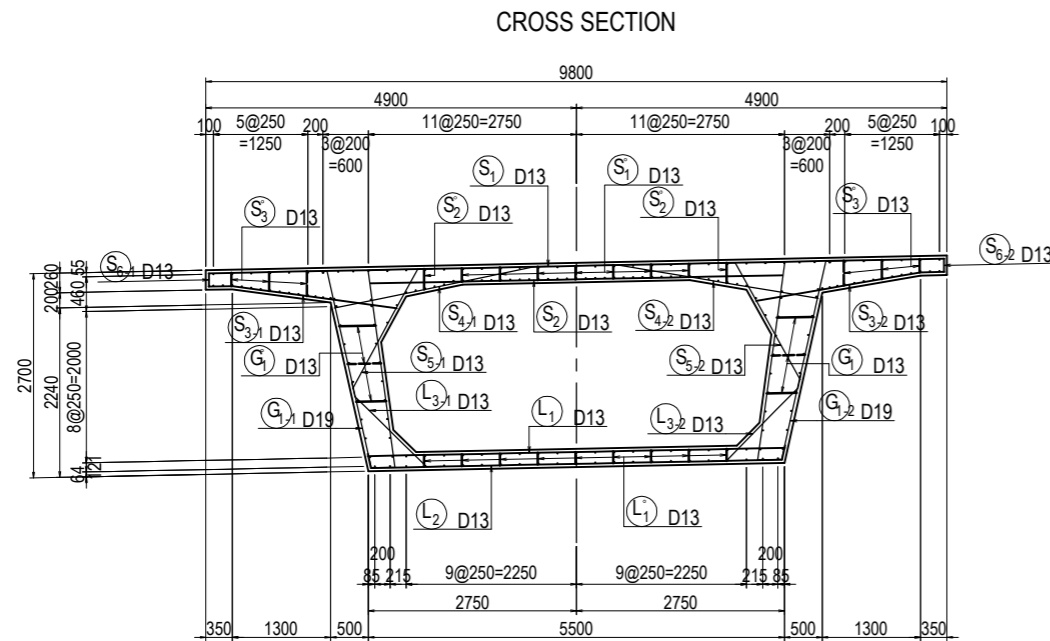
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape	
B	1	D13	27	0.995	2.39	65	—	
	2	D13	45	0.995	2.39	108	—	
C	1	D13	14	0.995	2.39	33	—	
	2	D13	28	0.995	2.39	67	—	
S	1	D13	9730	14	0.995	9.68	136	—
	2	D13	5450	14	0.995	5.42	76	—
	3-1	D13	2510	14	0.995	2.50	35	↘
	3-2	D13	2530	14	0.995	2.52	35	↘
	4-1	D13	2900	14	0.995	2.89	40	↘
	4-2	D13	2880	14	0.995	2.87	40	↘
	5-1	D13	2000	14	0.995	1.99	28	↘
	5-2	D13	1970	14	0.995	1.96	27	↘
S'	1	D13	380	17	0.995	0.38	6	⊥
	2	D13	450	6	0.995	0.45	3	⊥ (Ave)
	3	D13	480	14	0.995	0.48	7	⊥ (Ave)
L	1	D13	5520	21	0.995	5.49	115	—
	2	D13	5830	21	0.995	5.80	122	↘
	3-1	D13	1720	14	0.995	1.71	24	↘
3-2	D13	1750	14	0.995	1.74	24	↘	
L'	1	D13	360	23	0.995	0.36	8	⊥
W	1	D13	2400	32	0.995	2.39	76	—
F	1	D13	2400	23	0.995	2.39	55	—
	2	D13	2400	23	0.995	2.39	55	—
G1-1	D19	6180	21	2.25	13.91	292	↘	
	D19	6220	21	2.25	14.00	294	↘	
G	1	D13	620	16	0.995	0.62	10	⊥ (Ave)
				D13	1211	kg		
				D19	586	kg		
				Total Weight	1797	kg		

LOCATION <L,R>

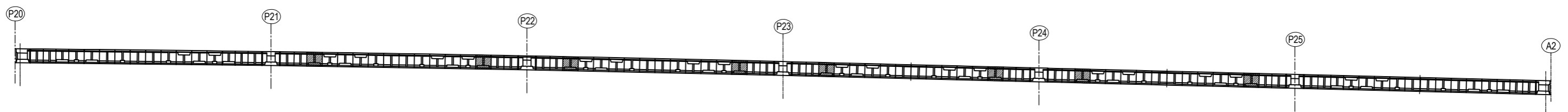


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (7) S=1:100

TYPE 3 (BL=3.0m)



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (7)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1307

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (8)

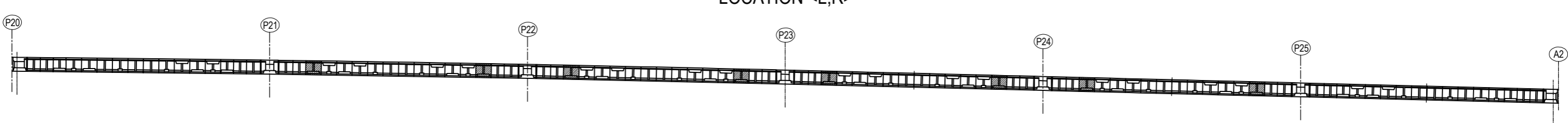
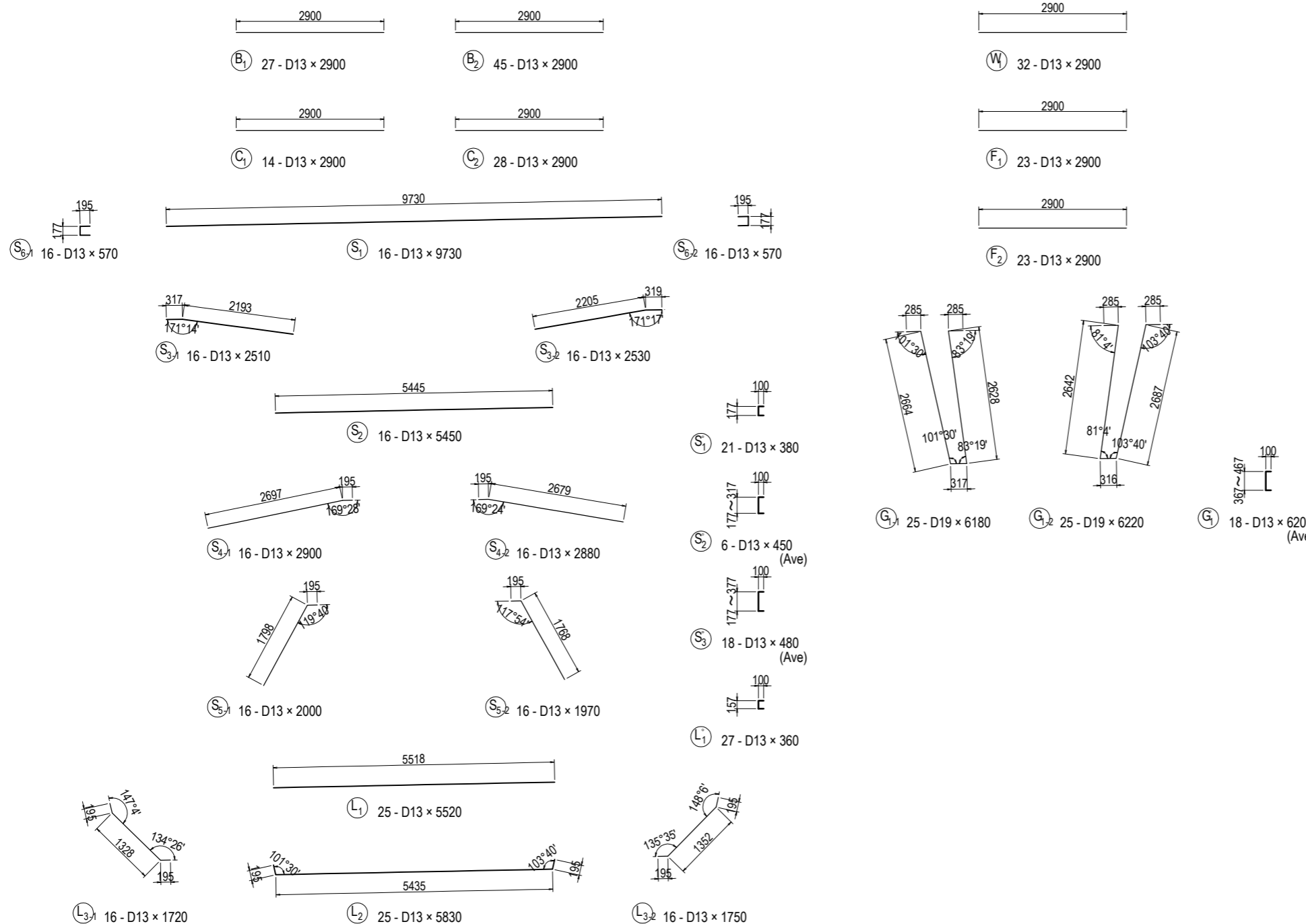
S=1:100

TYPE 3 (BL=3.0m)

BAR STATISTICS TABLE

(For 1 Block)

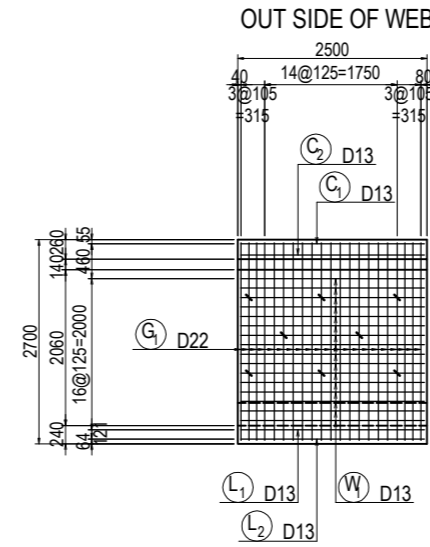
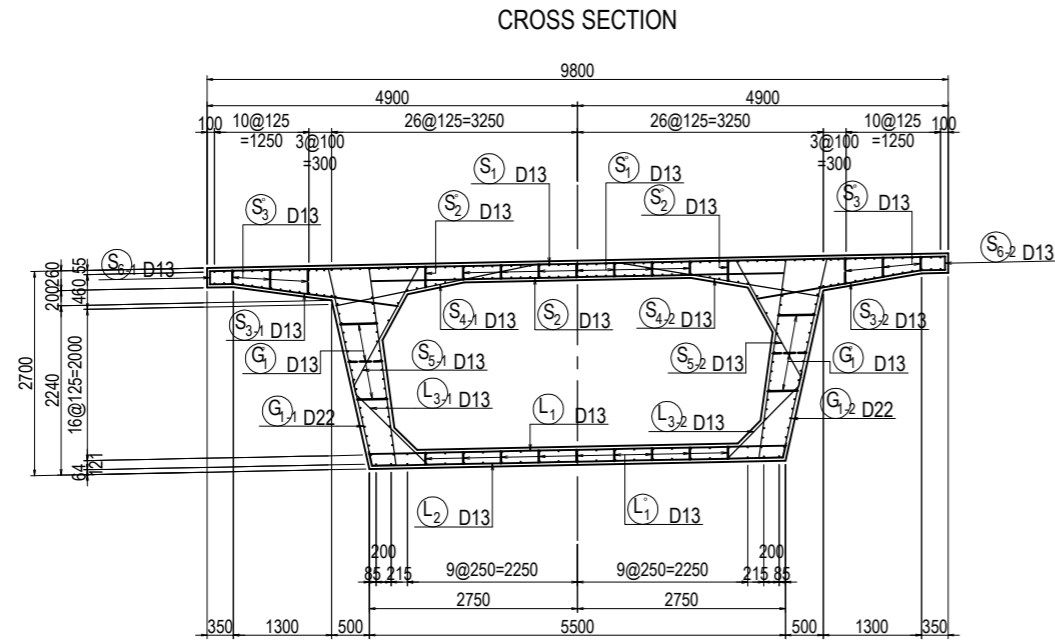
Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B	1 D13	2900	27	0.995	2.89	78	—
	2 D13	2900	45	0.995	2.89	130	—
C	1 D13	2900	14	0.995	2.89	40	—
	2 D13	2900	28	0.995	2.89	81	—
S	1 D13	9730	16	0.995	9.68	155	—
	2 D13	5450	16	0.995	5.42	87	—
	3-1 D13	2510	16	0.995	2.50	40	↘
	3-2 D13	2530	16	0.995	2.52	35	↘
	4-1 D13	2900	16	0.995	2.89	46	↘
	4-2 D13	2880	16	0.995	2.87	46	↘
	5-1 D13	2000	16	0.995	1.99	32	↘
	5-2 D13	1970	16	0.995	1.96	31	↘
6-1 D13	570	16	0.995	0.57	9	⊥	
	570	16	0.995	0.57	9	⊥	
S'	1 D13	380	21	0.995	0.37	8	⊥
	2 D13	450	6	0.995	0.45	3	⊥ (Ave)
	3 D13	480	18	0.995	0.48	9	⊥ (Ave)
L	1 D13	5520	25	0.995	5.49	137	—
	2 D13	5830	25	0.995	5.80	145	↘
	3-1 D13	1720	16	0.995	1.71	27	↘
3-2 D13	1750	16	0.995	1.74	28	↘	
L'	1 D13	360	27	0.995	0.36	10	⊥
W	1 D13	2900	32	0.995	2.89	92	—
F	1 D13	2900	23	0.995	2.89	66	—
	2 D13	2900	23	0.995	2.89	66	—
G1-1 D19	6180	25	2.25	13.91	348	↘	
	6220	25	2.25	14.00	350	↘	
G	1 D13	620	18	0.995	0.62	11	⊥ (Ave)
		D13	1421 kg				
		D19	698 kg				
		Total Weight	2119 kg				



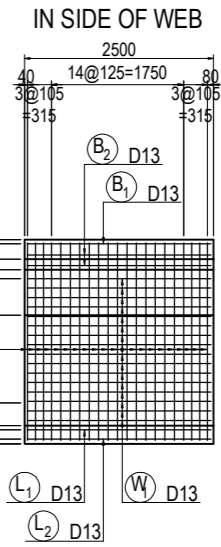
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (9)

S=1:100

TYPE 4 (BL=2.5m)



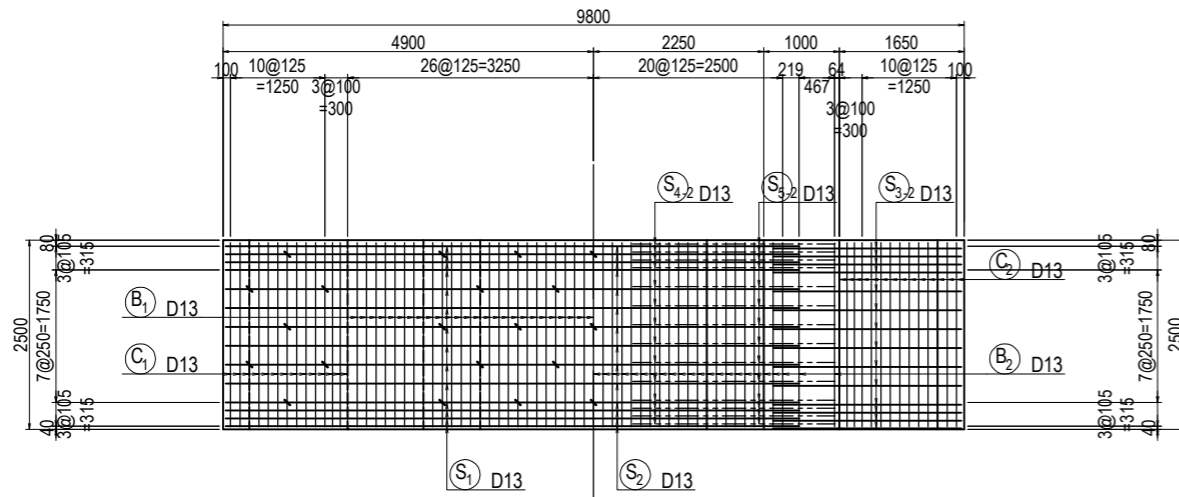
SIDE SECTION



PLAN OF TOP SLAB

UP SIDE

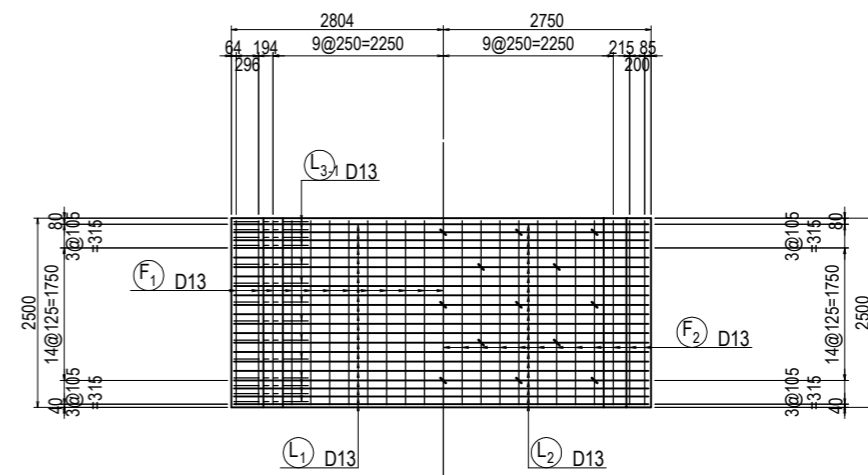
LOW SIDE



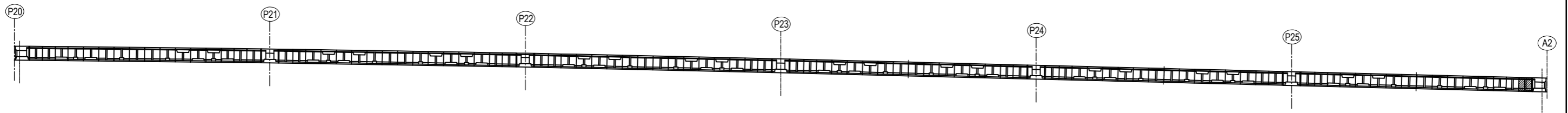
PLAN OF BOTTOM SLAB

UP SIDE

LOW SIDE



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (9)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1309

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (10)

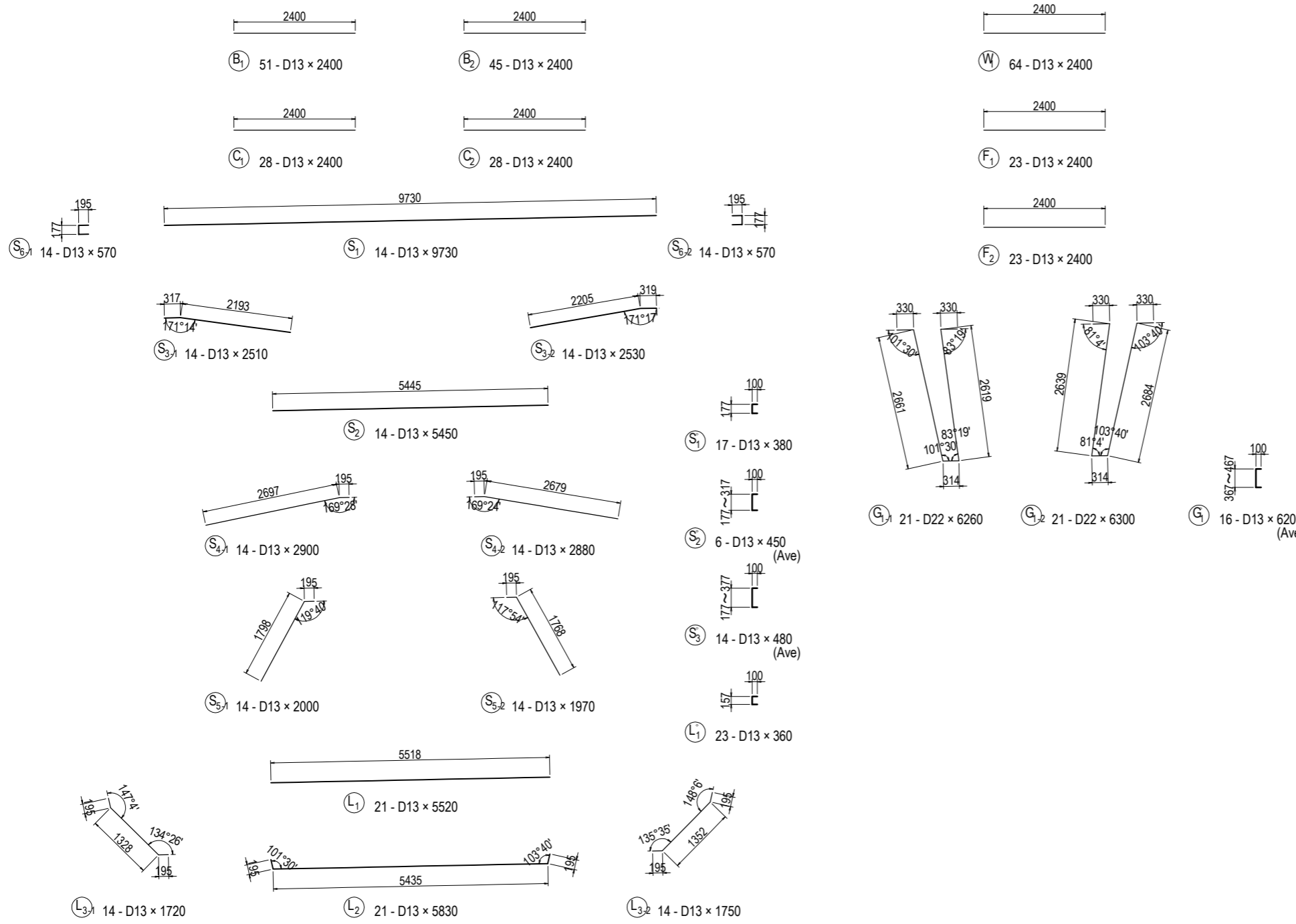
S=1:100

TYPE 4 (BL=2.5m)

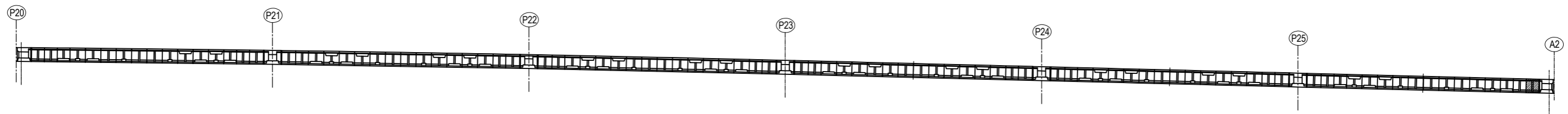
BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape	
B	1	D13	2400	51	0.995	2.39	122	—
	2	D13	2400	45	0.995	2.39	108	—
C	1	D13	2400	28	0.995	2.39	67	—
	2	D13	2400	28	0.995	2.39	67	—
S	1	D13	9730	14	0.995	9.68	136	—
	2	D13	5450	14	0.995	5.42	76	—
	3-1	D13	2510	14	0.995	2.50	35	↘
	3-2	D13	2530	14	0.995	2.52	35	↘
	4-1	D13	2900	14	0.995	2.89	40	↘
	4-2	D13	2880	14	0.995	2.87	40	↘
5	1	D13	2000	14	0.995	1.99	28	↘
	2	D13	1970	14	0.995	1.96	27	↘
6	1	D13	570	14	0.995	0.57	8	⊥
	2	D13	570	14	0.995	0.57	8	⊥
S'	1	D13	380	17	0.995	0.38	6	⊥
	2	D13	450	6	0.995	0.45	3	⊥ (Ave)
	3	D13	480	14	0.995	0.48	7	⊥ (Ave)
L	1	D13	5520	21	0.995	5.49	115	—
	2	D13	5830	21	0.995	5.80	122	↘
	3-2	D13	1750	14	0.995	1.74	24	↘
L'	1	D13	360	23	0.995	0.36	8	⊥
	2	D13	467	16	0.995	0.467	7	⊥ (Ave)
W	1	D13	2400	64	0.995	2.39	153	—
F	1	D13	2400	23	0.995	2.39	55	—
	2	D13	2400	23	0.995	2.39	55	—
G	1-1	D22	6260	21	3.04	19.03	400	↘
	1-2	D22	6300	21	3.04	19.15	402	↘
G	1	D13	620	16	0.995	0.62	10	⊥ (Ave)
				D13	1379	kg		
				D22	802	kg		
				Total Weight	2181	kg		



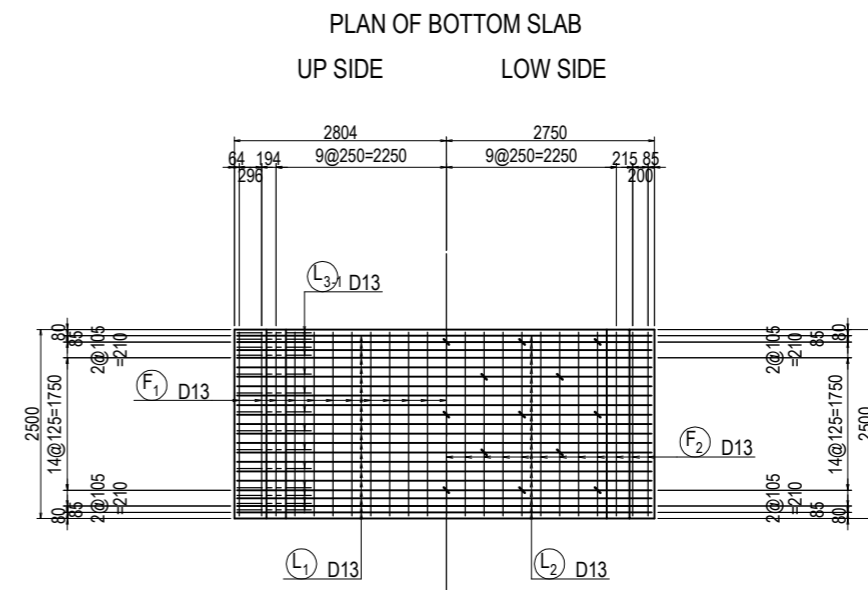
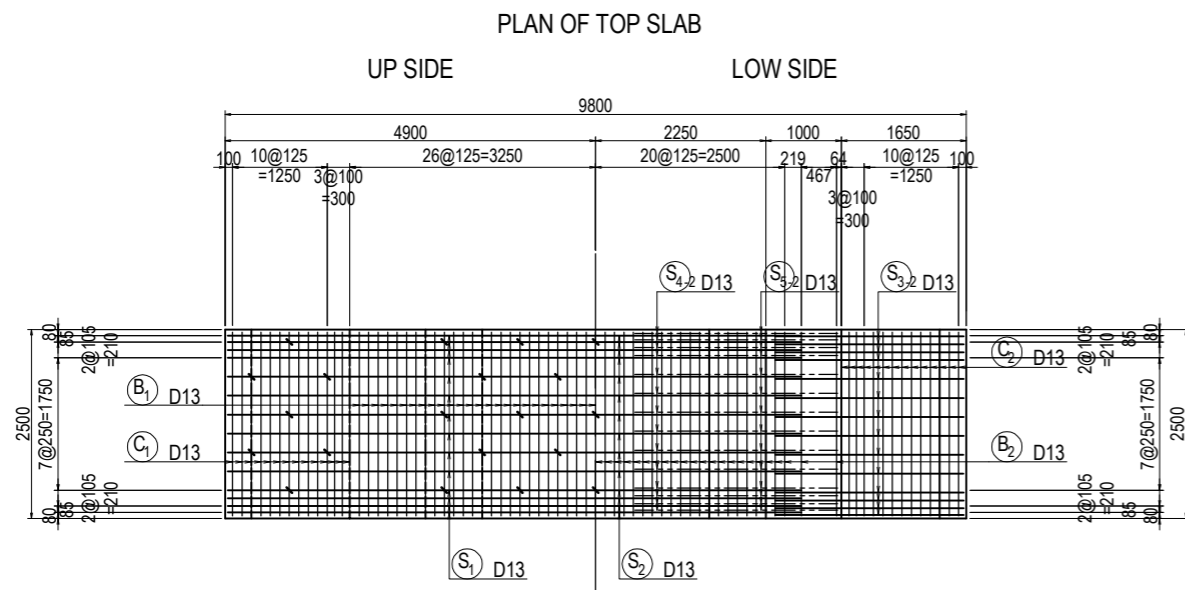
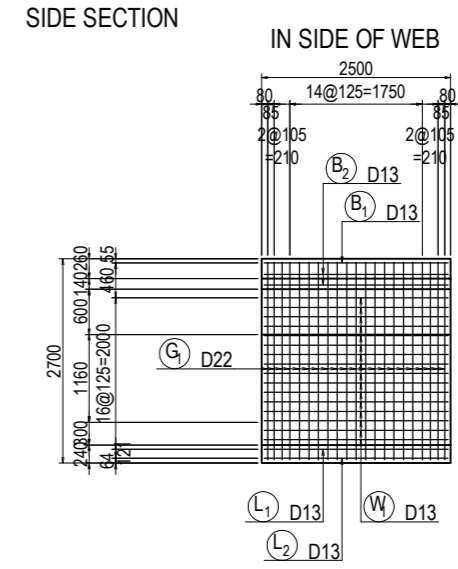
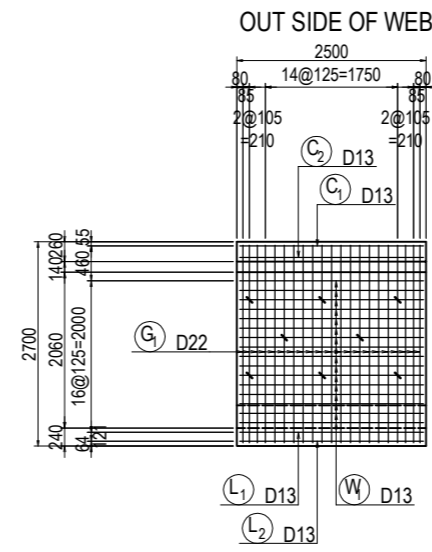
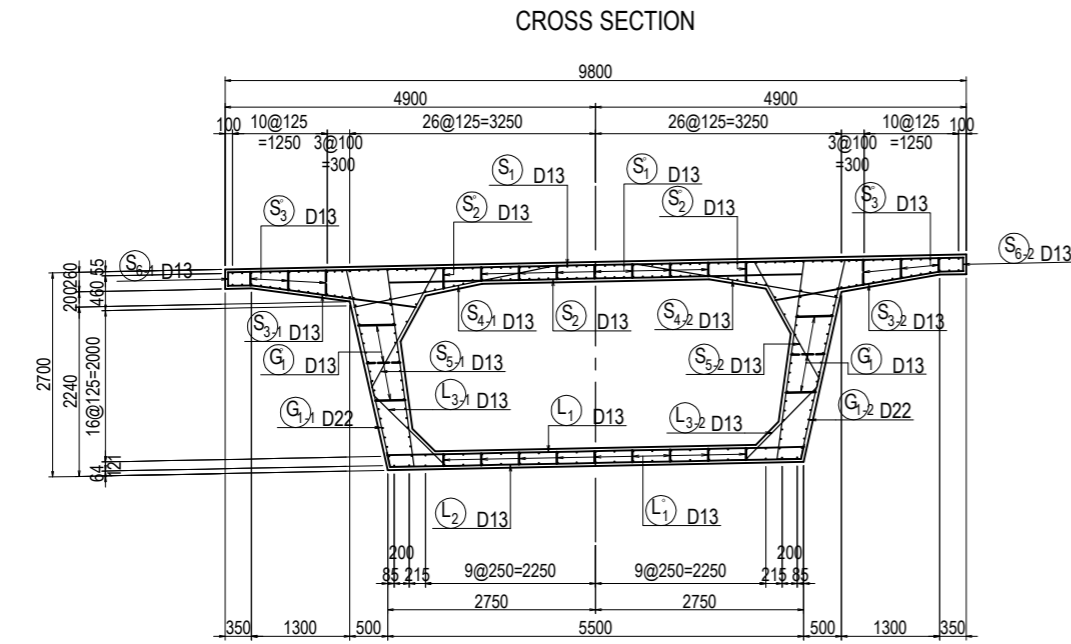
LOCATION <L,R>



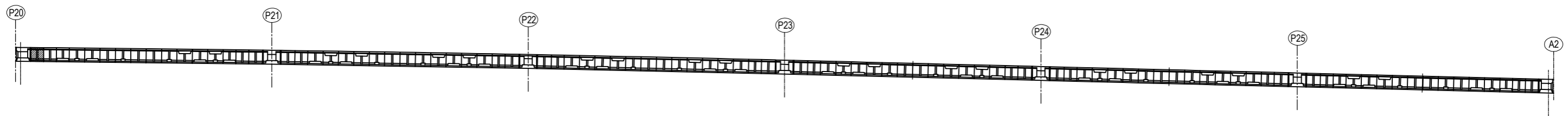
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (10)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO		21 Jun.2017	P2-PB-1310	

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (11) S=1:100

TYPE 4 (BL=2.5m)



LOCATION <L,R>



<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (11)	<small>PACKAGE</small> 2 DWG No. P2-PB-1311
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (12)

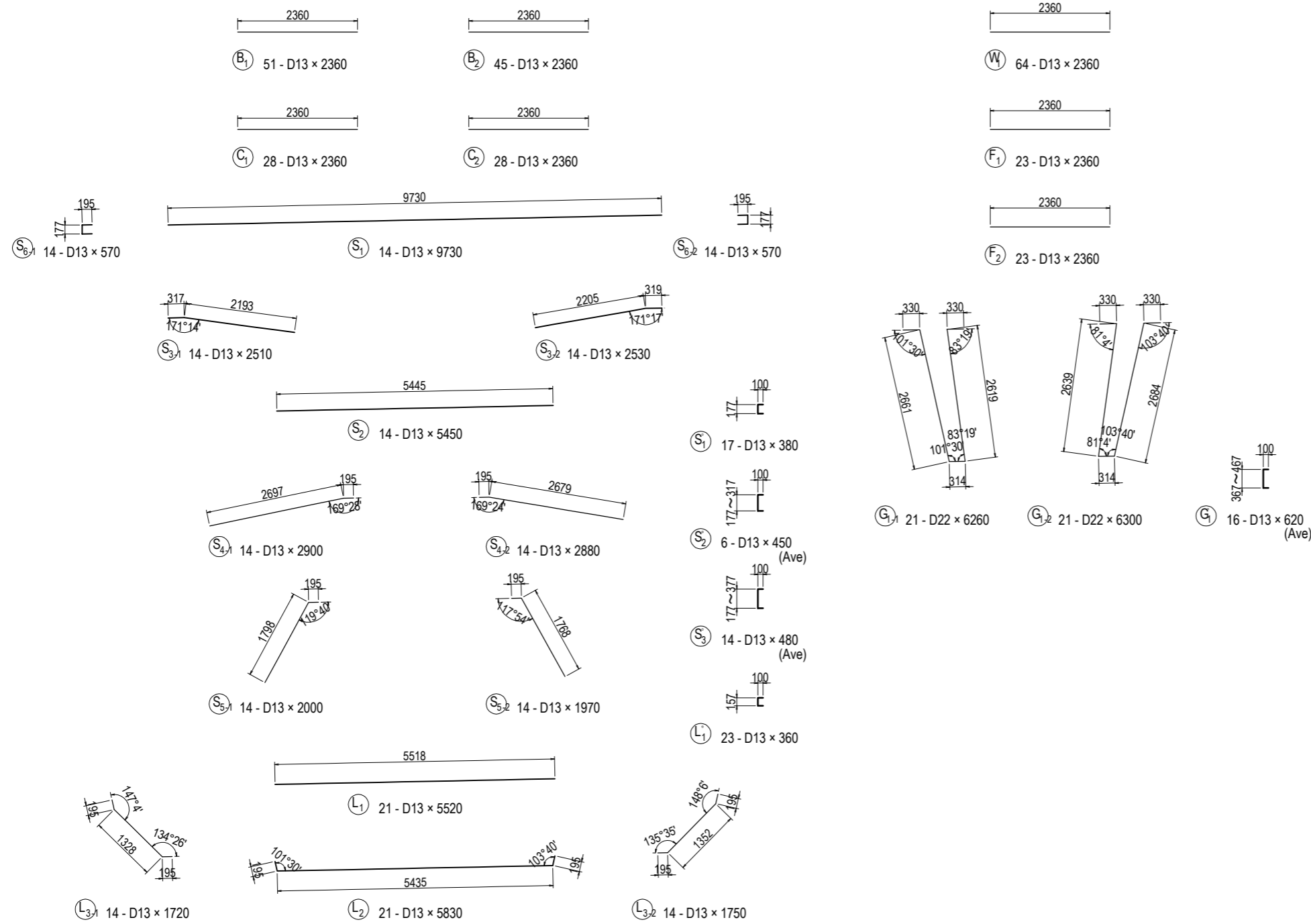
S=1:100

TYPE 4 (BL=2.5m)

BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B	1 D13	2360	51	0.995	2.35	120	—
	2 D13	2360	45	0.995	2.35	106	—
C	1 D13	2360	28	0.995	2.35	66	—
	2 D13	2360	28	0.995	2.35	66	—
S	1 D13	9730	14	0.995	9.68	136	—
	2 D13	5450	14	0.995	5.42	76	—
	3-1 D13	2510	14	0.995	2.50	35	↖
	3-2 D13	2530	14	0.995	2.52	35	↖
	4-1 D13	2900	14	0.995	2.89	40	↖
	4-2 D13	2880	14	0.995	2.87	40	↖
	5-1 D13	2000	14	0.995	1.99	28	↖
	5-2 D13	1970	14	0.995	1.96	27	↖
S'	1 D13	380	17	0.995	0.38	6	□
	2 D13	450	6	0.995	0.45	3	□ (Ave)
	3 D13	480	14	0.995	0.48	7	□ (Ave)
L	1 D13	5520	21	0.995	5.49	115	—
	2 D13	5830	21	0.995	5.80	122	↖
	3-1 D13	1720	14	0.995	1.71	24	↖
L'	1 D13	360	23	0.995	0.36	8	□
	2 D13	2360	64	0.995	2.35	150	—
F	1 D13	2360	23	0.995	2.35	54	—
	2 D13	2360	23	0.995	2.35	54	—
G1-1	D22	6260	21	3.04	19.03	400	↖
	1-2 D22	6300	21	3.04	19.15	402	↖
G	1 D13	620	16	0.995	0.62	10	□ (Ave)
				D13	1368 kg		
				D22	802 kg		
				Total Weight	2170 kg		

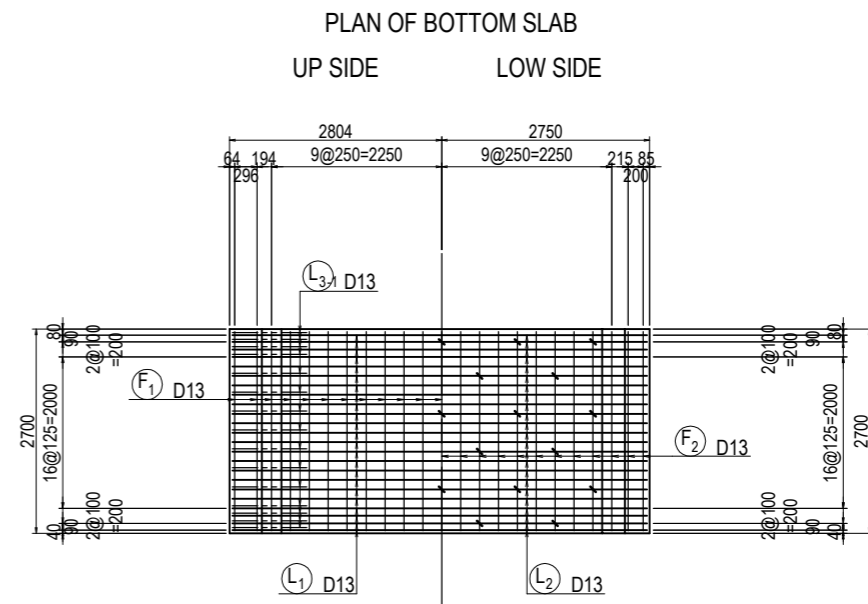
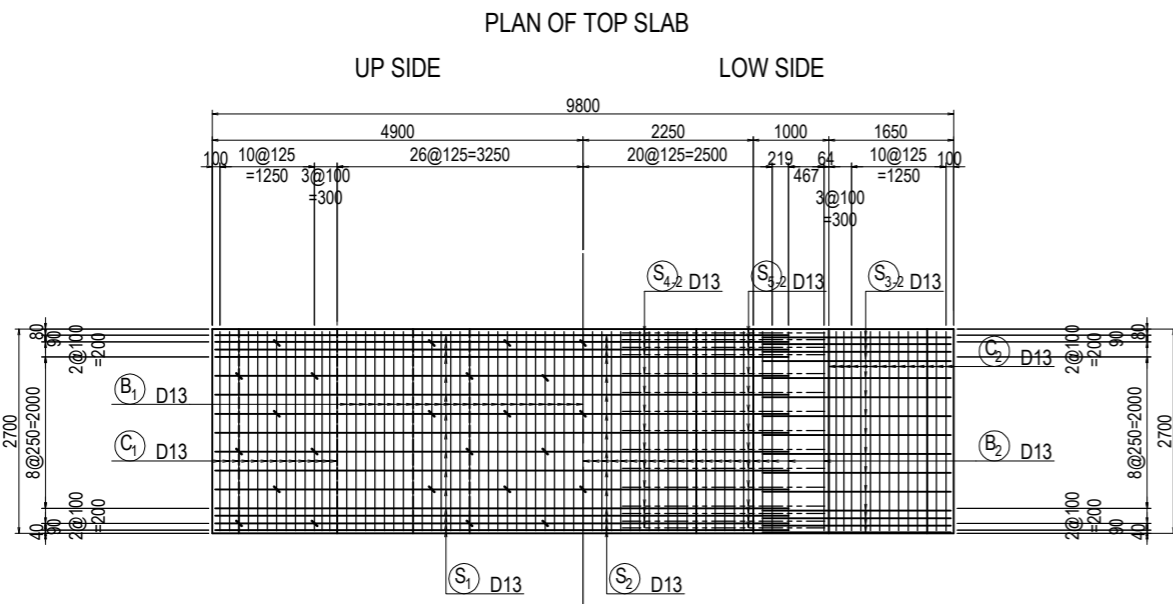
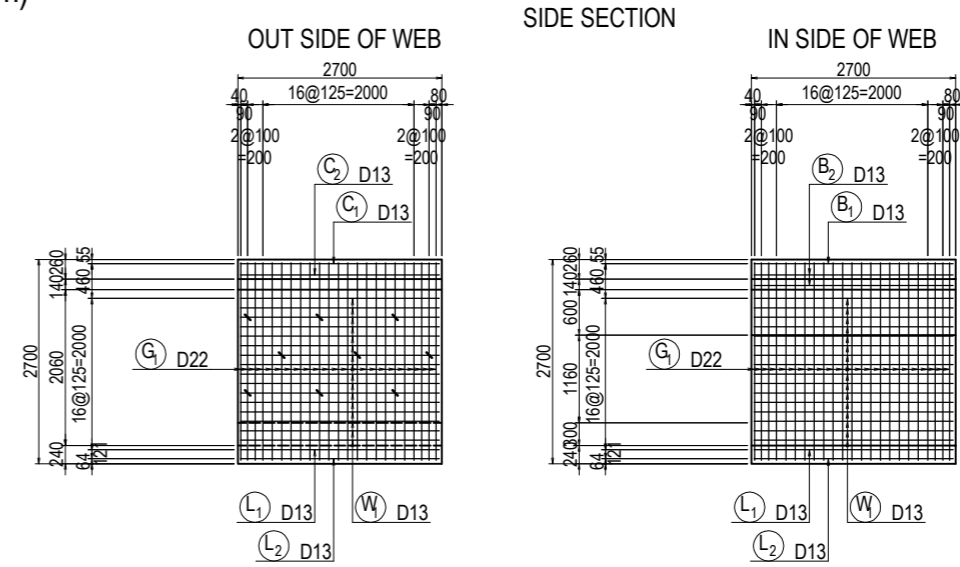
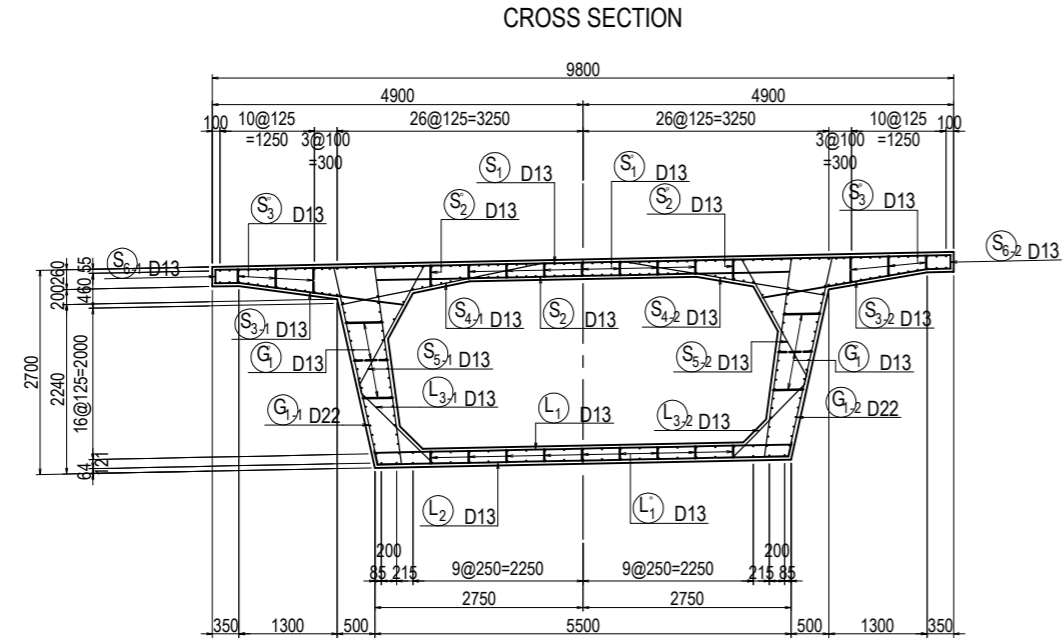


LOCATION <L,R>

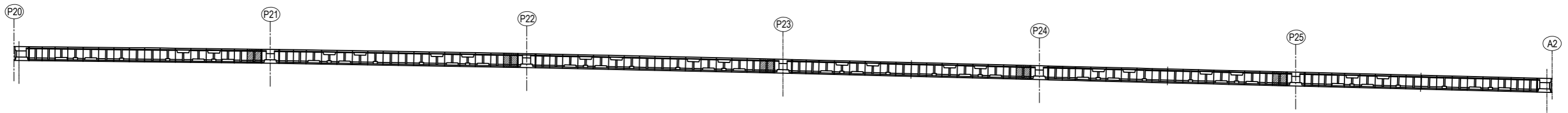
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (12)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐藤 祐一	21 Jun.2017	P2-PB-1312	

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (13) S=1:100

TYPE 4 (BL=2.7m)



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (13)	PACKAGE 2 DWG No. P2-PB-1313
---	--	---	--	---	-----------------------	---	--	---------------------------------------

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (14)

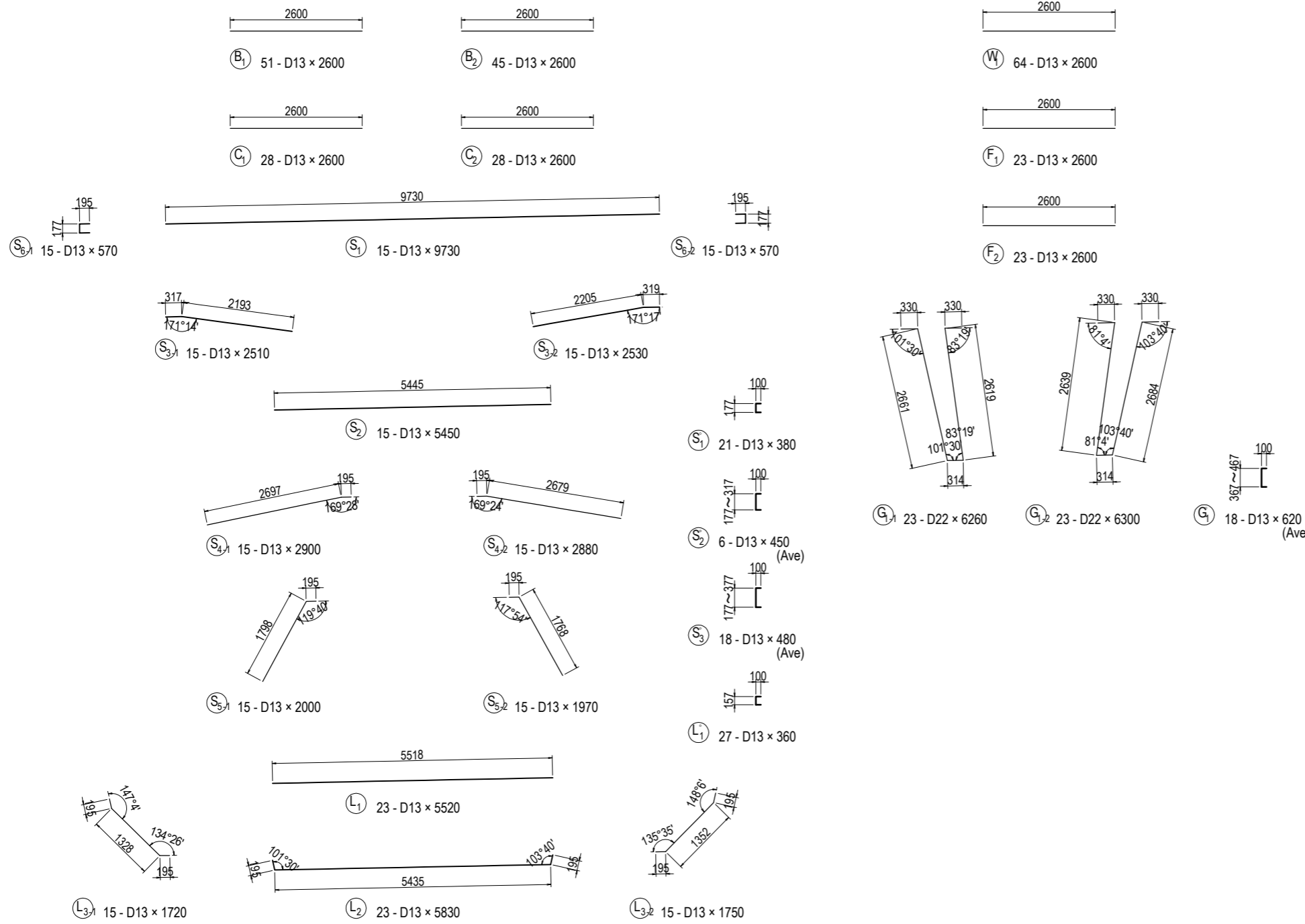
S=1:100

TYPE 4 (BL=2.7m)

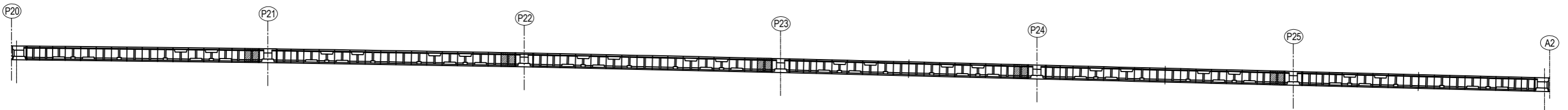
BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1	D13	2600	51	0.995	2.59	132	—
2	D13	2600	45	0.995	2.59	117	—
C 1	D13	2600	28	0.995	2.59	73	—
2	D13	2600	28	0.995	2.59	73	—
S 1	D13	9730	15	0.995	9.68	145	—
2	D13	5450	15	0.995	5.42	81	—
3-1	D13	2510	15	0.995	2.50	38	↘
3-2	D13	2530	15	0.995	2.52	38	↘
4-1	D13	2900	15	0.995	2.89	43	↘
4-2	D13	2880	15	0.995	2.87	43	↘
5-1	D13	2000	15	0.995	1.99	30	↘
5-2	D13	1970	15	0.995	1.96	29	↘
6-1	D13	570	15	0.995	0.57	9	⊥
6-2	D13	570	15	0.995	0.57	9	⊥
S' 1	D13	380	21	0.995	0.38	8	⊥
2	D13	450	6	0.995	0.45	3	⊥ (Ave)
3	D13	480	18	0.995	0.48	9	⊥ (Ave)
L 1	D13	5520	23	0.995	5.49	126	—
2	D13	5830	23	0.995	5.80	133	↘
3-1	D13	1720	15	0.995	1.71	26	↘
3-2	D13	1750	15	0.995	1.74	26	↘
L' 1	D13	360	27	0.995	0.36	10	⊥
W 1	D13	2600	64	0.995	2.59	166	—
F 1	D13	2600	23	0.995	2.59	60	—
2	D13	2600	23	0.995	2.59	60	—
G1-1	D22	6260	23	3.04	19.03	438	↘
1-2	D22	6300	23	3.04	19.15	440	↘
G 1	D13	620	18	0.995	0.62	11	⊥ (Ave)
				D13	1498 kg		
				D22	878 kg		
				Total Weight	2376 kg		



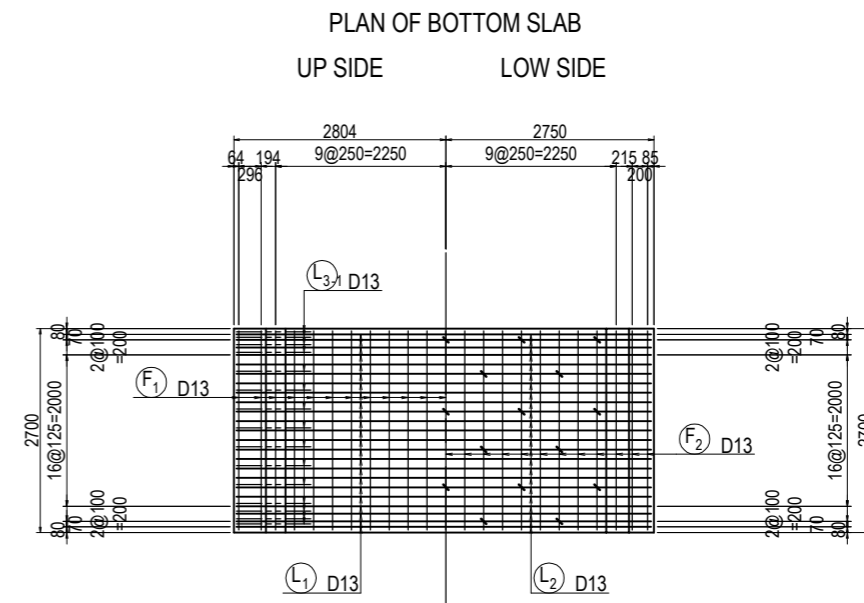
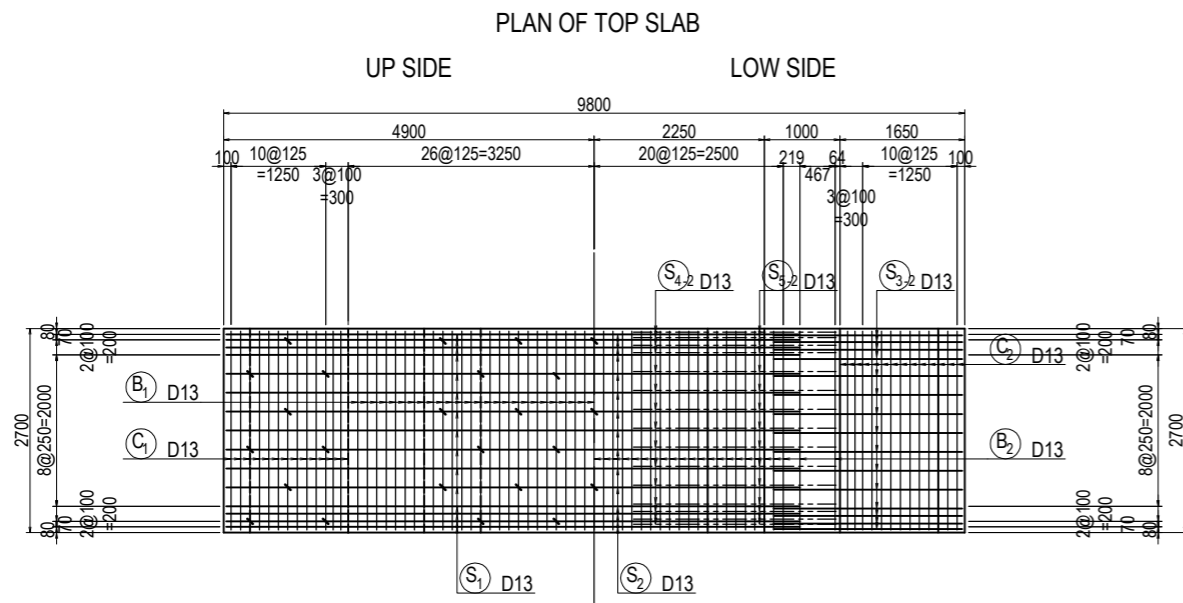
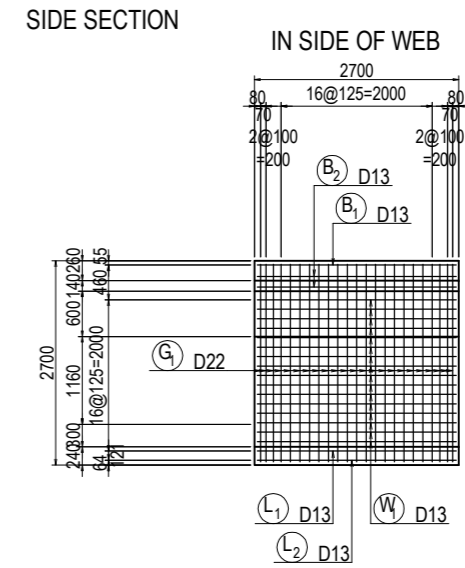
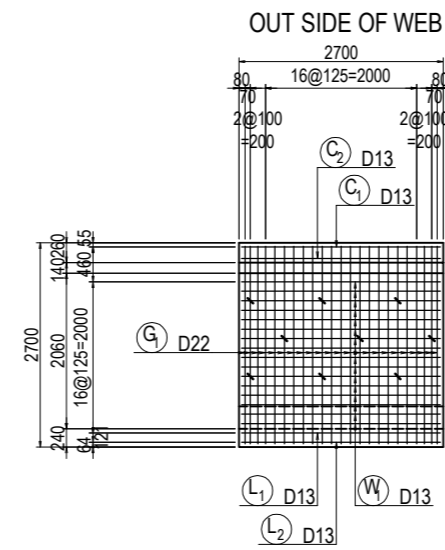
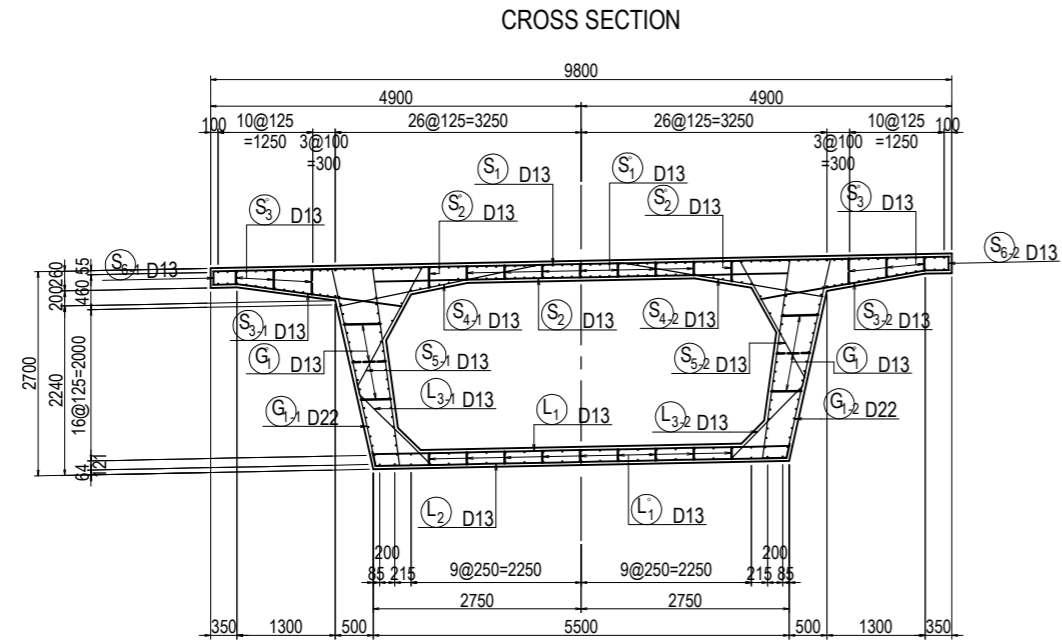
LOCATION <L,R>



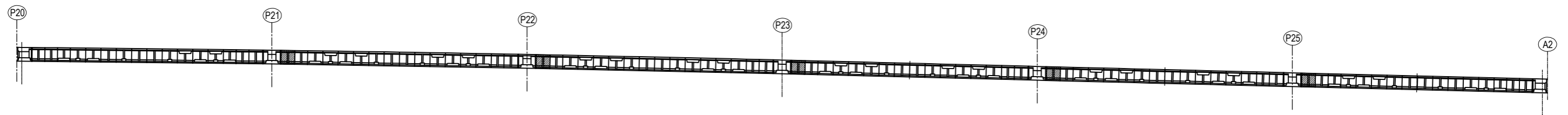
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (14)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
	APPROVED BY	Y. SANO	佐藤 祐一	21 Jun.2017			P2-PB-1314		

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (15) S=1:100

TYPE 4 (BL=2.7m)



LOCATION <L,R>

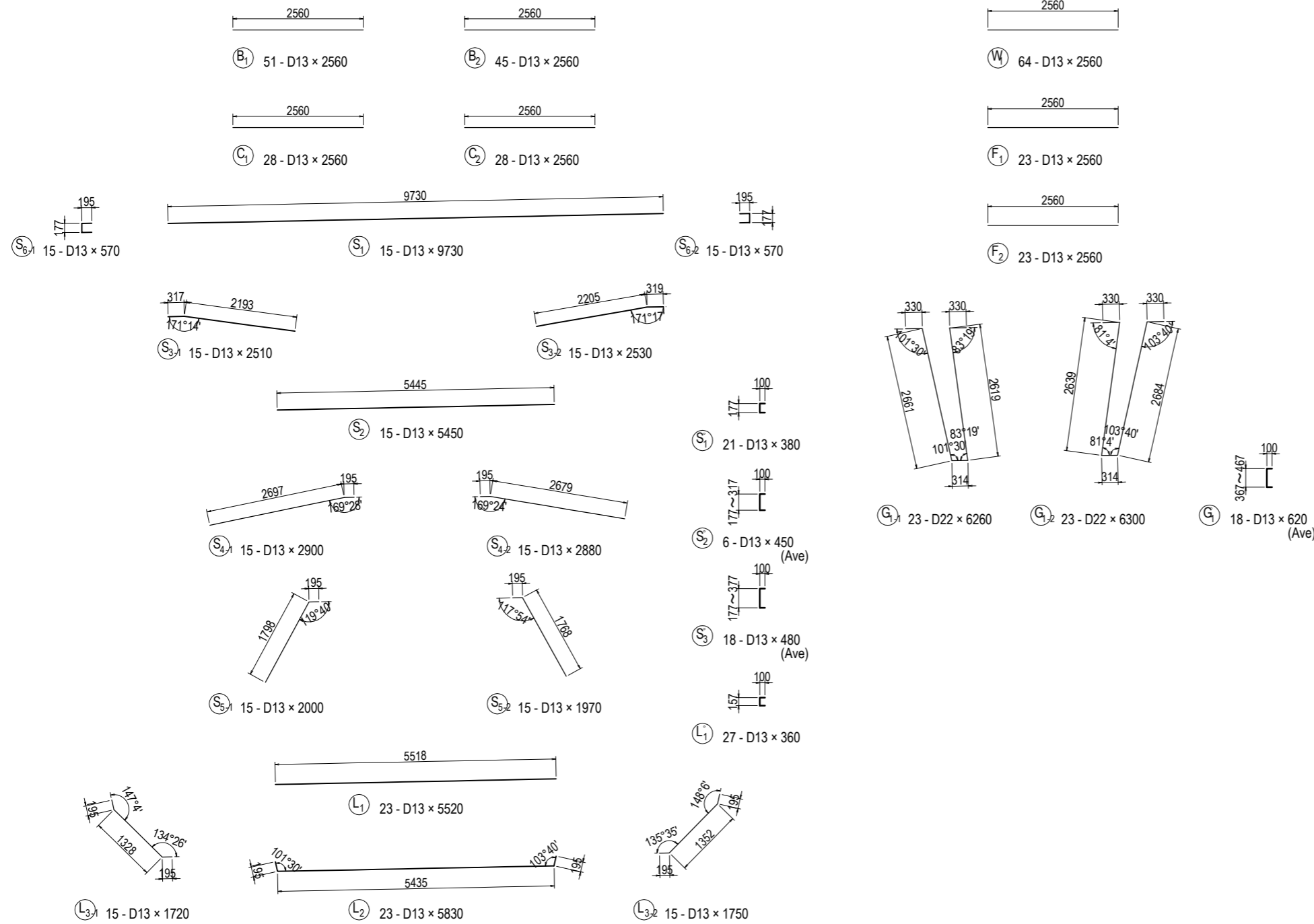


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (15)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1315

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (16)

S=1:100

TYPE 4 (BL=2.7m)

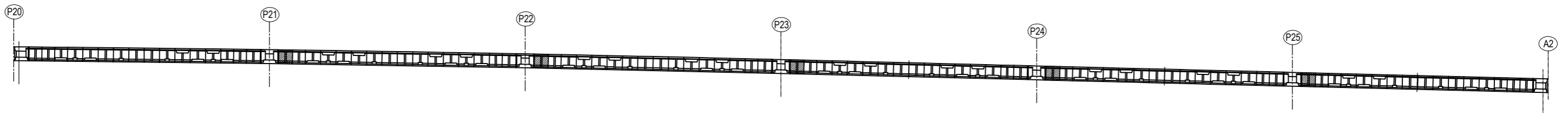


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1	D13	2560	51	0.995	2.55	130	—
2	D13	2560	45	0.995	2.55	115	—
C 1	D13	2560	28	0.995	2.55	71	—
2	D13	2560	28	0.995	2.55	71	—
S 1	D13	9730	15	0.995	9.68	145	—
2	D13	5450	15	0.995	5.42	81	—
3-1	D13	2510	15	0.995	2.50	38	↖
3-2	D13	2530	15	0.995	2.52	38	↗
4-1	D13	2900	15	0.995	2.89	43	↖
4-2	D13	2880	15	0.995	2.87	43	↗
5-1	D13	2000	15	0.995	1.99	30	↖
5-2	D13	1970	15	0.995	1.96	29	↗
6-1	D13	570	15	0.995	0.57	9	⊥
6-2	D13	570	15	0.995	0.57	9	⊥
S' 1	D13	380	21	0.995	0.38	8	⊥
2	D13	450	6	0.995	0.45	3	⊥ (Ave)
3	D13	480	18	0.995	0.48	9	⊥ (Ave)
L 1	D13	5520	23	0.995	5.49	126	—
2	D13	5830	23	0.995	5.80	133	↖
3-1	D13	1720	15	0.995	1.71	26	↖
3-2	D13	1750	15	0.995	1.74	26	↗
L' 1	D13	360	27	0.995	0.36	10	⊥
W 1	D13	2560	64	0.995	2.55	163	—
F 1	D13	2560	23	0.995	2.55	59	—
2	D13	2560	23	0.995	2.55	59	—
G1-1	D22	6260	23	3.04	19.03	438	↖
1-2	D22	6300	23	3.04	19.15	440	↗
G 1	D13	620	18	0.995	0.62	11	⊥ (Ave)
				D13	1485 kg		
				D22	878 kg		
				Total Weight	2363 kg		

LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (16)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐藤 善一		21 Jun.2017	P2-PB-1316

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (17)

S=1:100

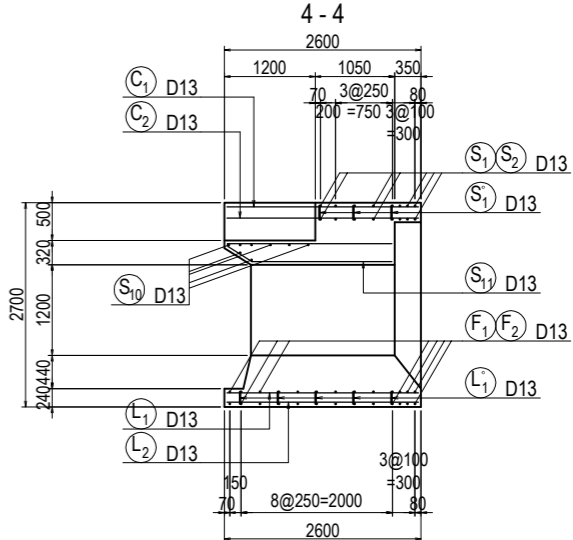
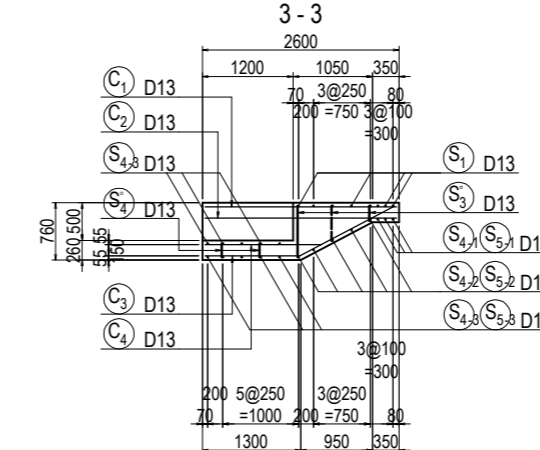
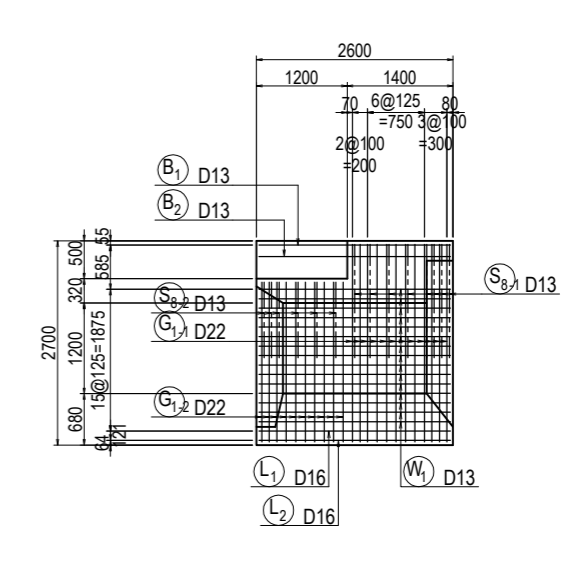
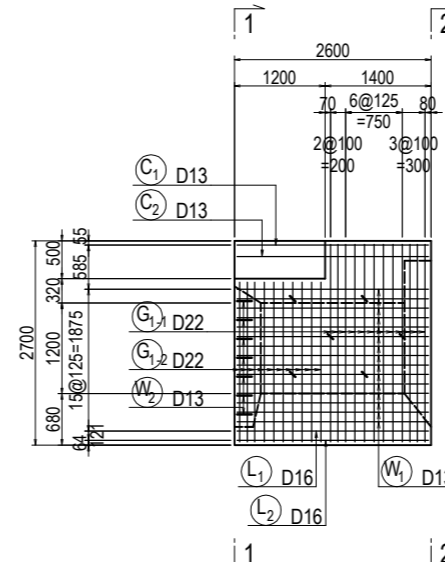
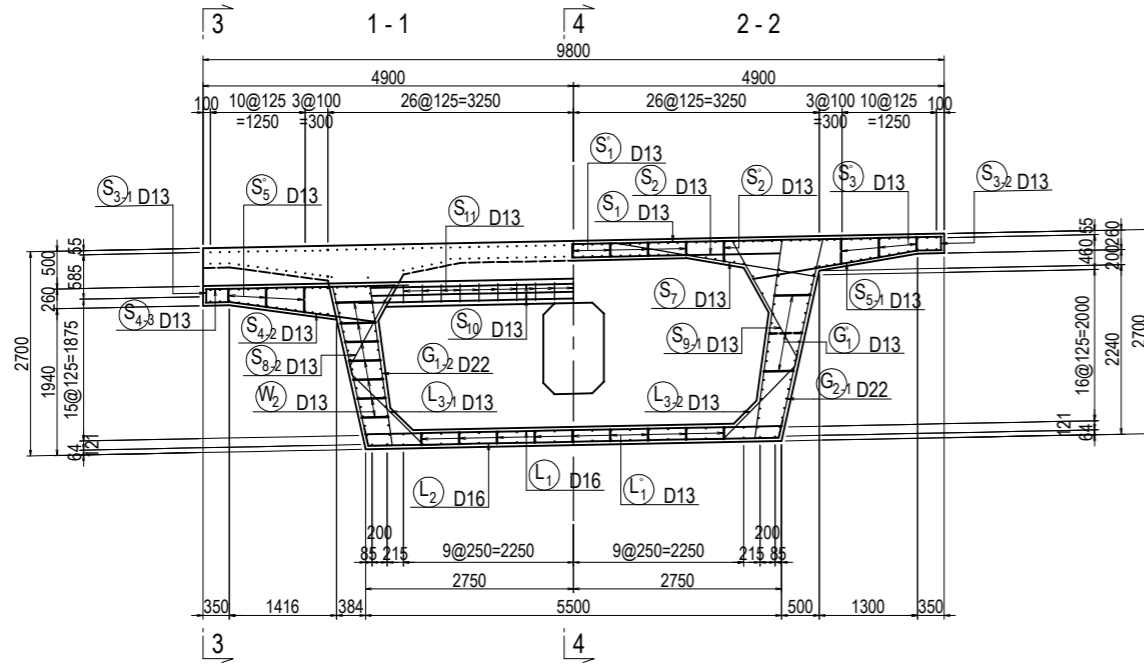
CROSS SECTION

TYPE 5 (BL=2.6m)

OUT SIDE OF WEB

SIDE SECTION

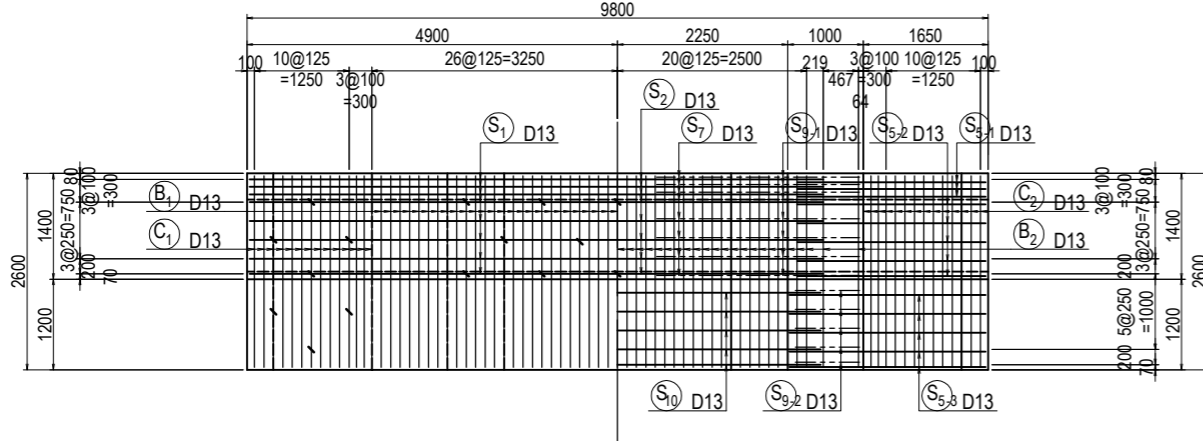
IN SIDE OF WEB



PLAN OF TOP SLAB

UP SIDE

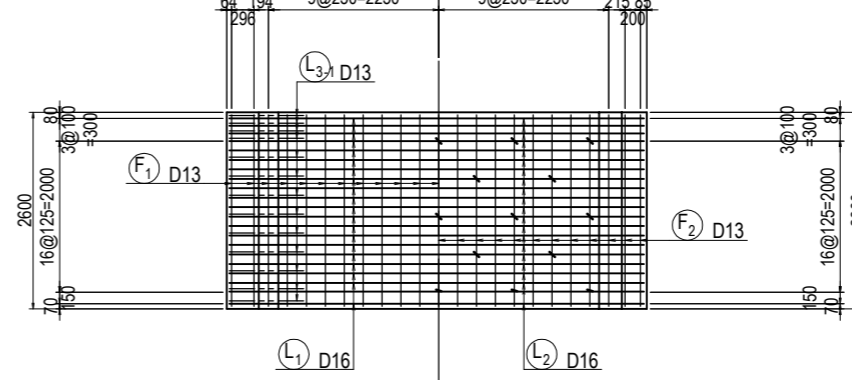
LOW SIDE



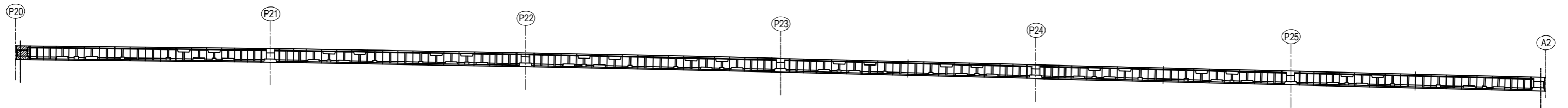
PLAN OF BOTTOM SLAB

UP SIDE

LOW SIDE



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (17)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
APPROVED BY	Y. SANO		21 Jun.2017		P2-PB-1317				

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (18)

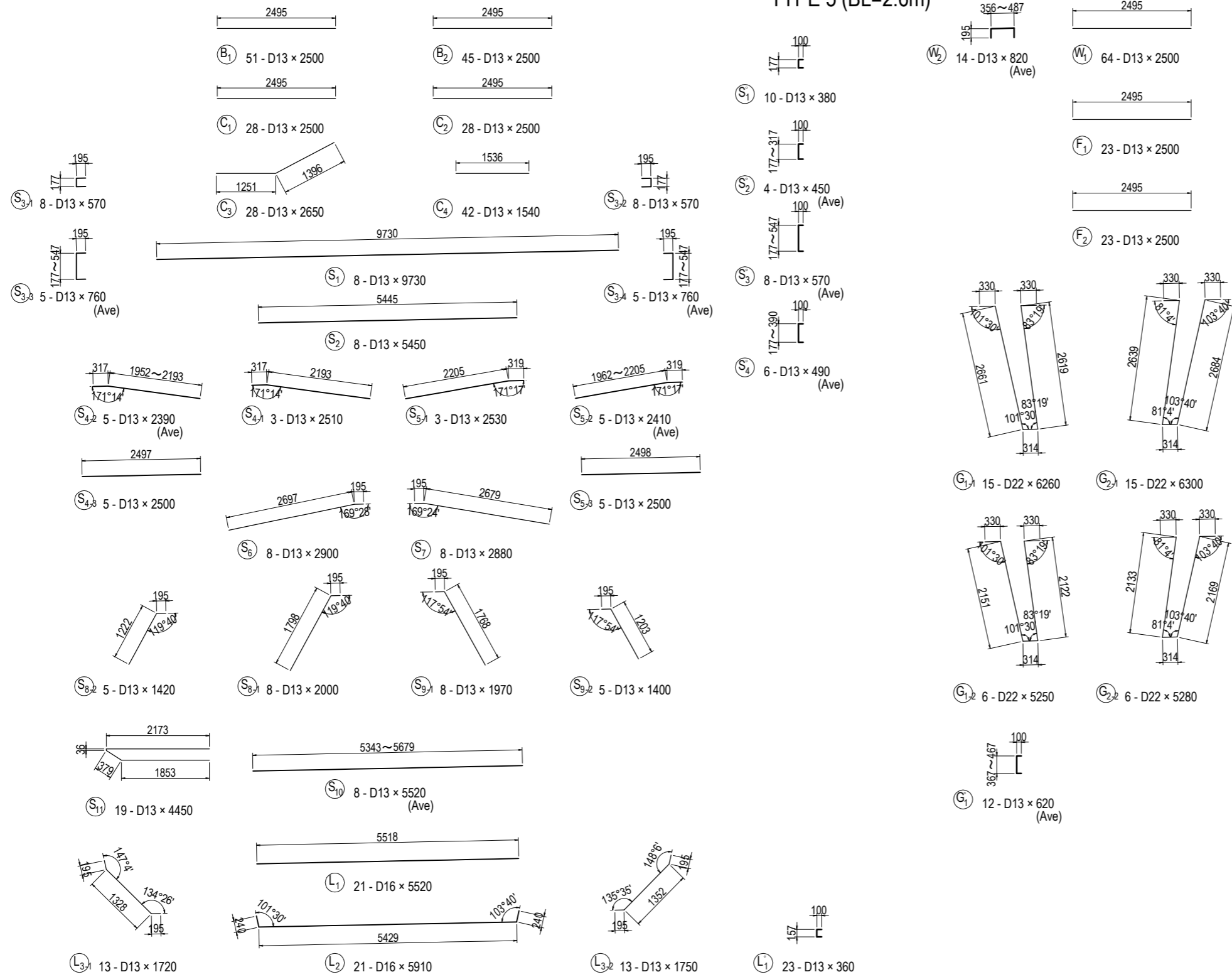
S=1:100

TYPE 5 (BL=2.6m)

BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B 1	D13	2500	51	0.995	2.49	127	—
2	D13	2500	45	0.995	2.49	112	—
C 1	D13	2500	28	0.995	2.49	67	—
2	D13	2500	28	0.995	2.49	67	—
3	D13	2650	28	0.995	2.64	74	↘
4	D13	1540	42	0.995	1.53	64	—
S 1	D13	9730	8	0.995	9.68	77	—
2	D13	5450	8	0.995	5.42	43	—
3-1	D13	570	8	0.995	0.57	5	□
3-2	D13	570	8	0.995	0.57	5	□ (Ave)
3-3	D13	760	5	0.995	0.76	4	□
3-4	D13	760	5	0.995	0.76	4	□ (Ave)
4-1	D13	2510	3	0.995	2.50	8	↘
4-2	D13	2390	5	0.995	2.38	12	↘ (Ave)
4-3	D13	2500	5	0.995	2.49	12	—
5-1	D13	2530	3	0.995	2.52	8	—
5-2	D13	2410	5	0.995	2.40	12	↘ (Ave)
5-3	D13	2500	5	0.995	2.49	12	—
6	D13	2900	8	0.995	2.89	23	—
7	D13	2880	8	0.995	2.87	23	—
8-1	D13	2000	8	0.995	1.99	16	↘
8-2	D13	1420	5	0.995	1.41	7	↘
9-1	D13	1970	8	0.995	1.96	16	↘
9-2	D13	1400	5	0.995	1.39	7	↘
10	D13	5520	8	0.995	5.49	44	— (Ave)
11	D13	4450	19	0.995	4.43	84	□
S* 1	D13	380	10	0.995	0.38	4	□
2	D13	450	4	0.995	0.45	2	□ (Ave)
3	D13	570	8	0.995	0.57	5	□ (Ave)
4	D13	490	6	0.995	0.49	3	□ (Ave)
L 1	D16	5520	21	1.56	8.61	180	—
2	D16	5910	21	1.56	9.22	194	↘
3-1	D13	1720	13	0.995	1.71	22	↘
3-2	D13	1750	13	0.995	1.74	23	↘
L* 1	D13	360	23	0.995	0.36	8	□
W 1	D13	2500	64	0.995	2.49	159	—
2	D13	820	14	0.995	0.82	11	□ (Ave)
F 1	D13	2500	23	0.995	2.49	57	—
2	D13	2500	23	0.995	2.49	57	—
G 1-1	D22	6260	15	3.04	19.03	285	↘
1-2	D22	5250	6	3.04	15.96	96	↘
2-1	D22	6300	15	3.04	19.15	287	↘
2-2	D22	5280	6	3.04	16.05	96	↘
G* 1	D13	620	12	0.995	0.62	7	□ (Ave)
				D13	1291 kg		
				D16	374 kg		
				D22	764 kg		
				Total Weight	2429 kg		



BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (19)

S=1:100

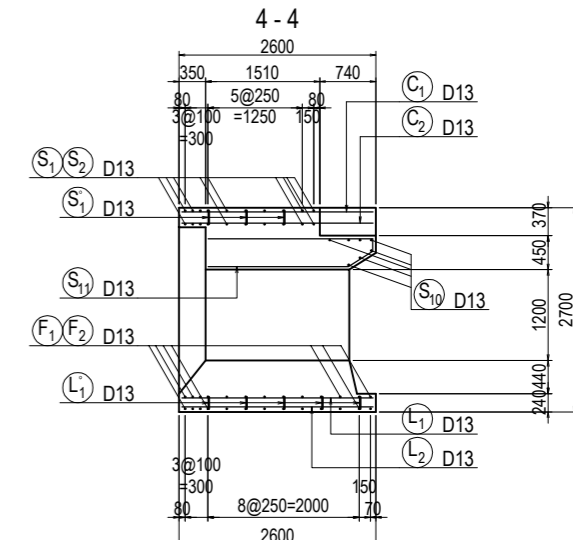
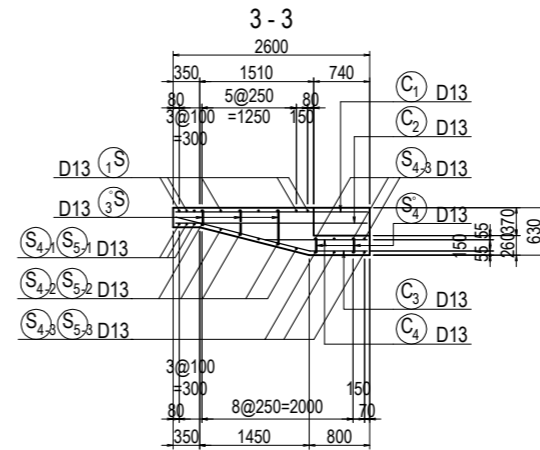
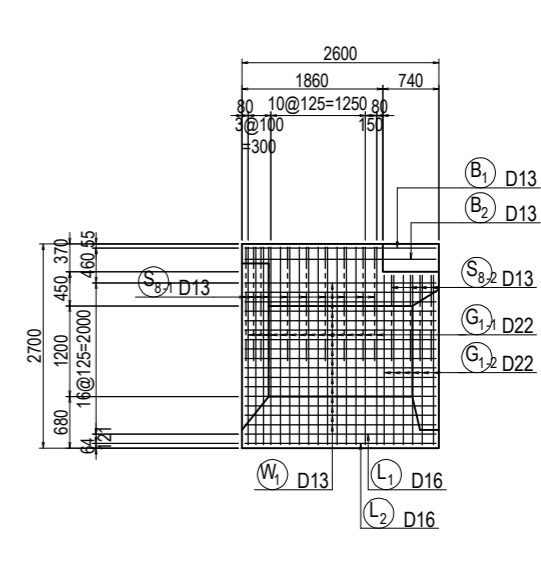
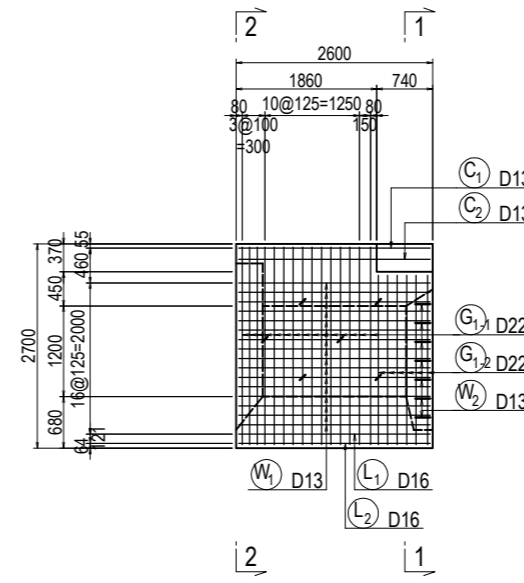
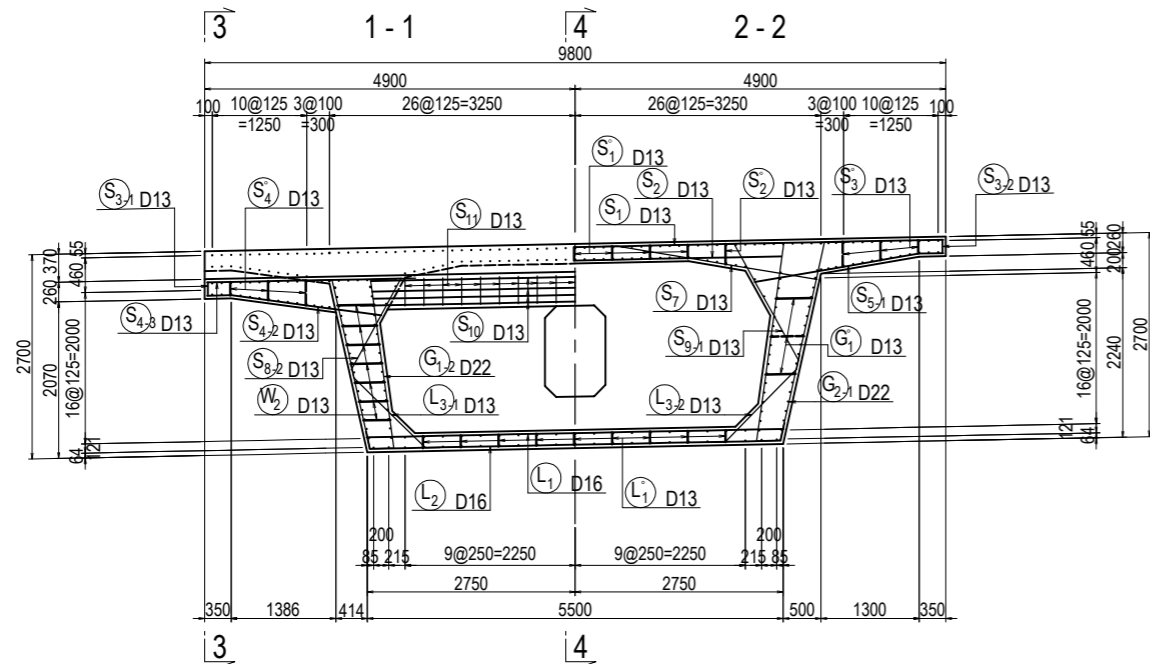
CROSS SECTION

TYPE 5 (BL=2.6m)

OUT SIDE OF WEB

SIDE SECTION

IN SIDE OF WEB



PLAN OF TOP SLAB

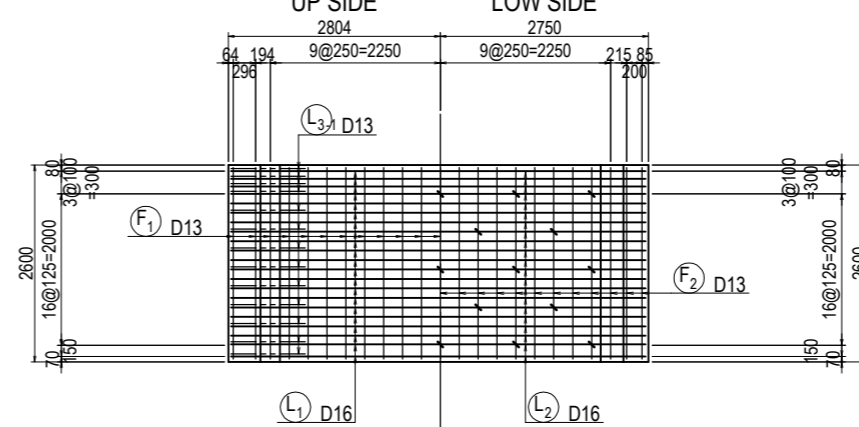
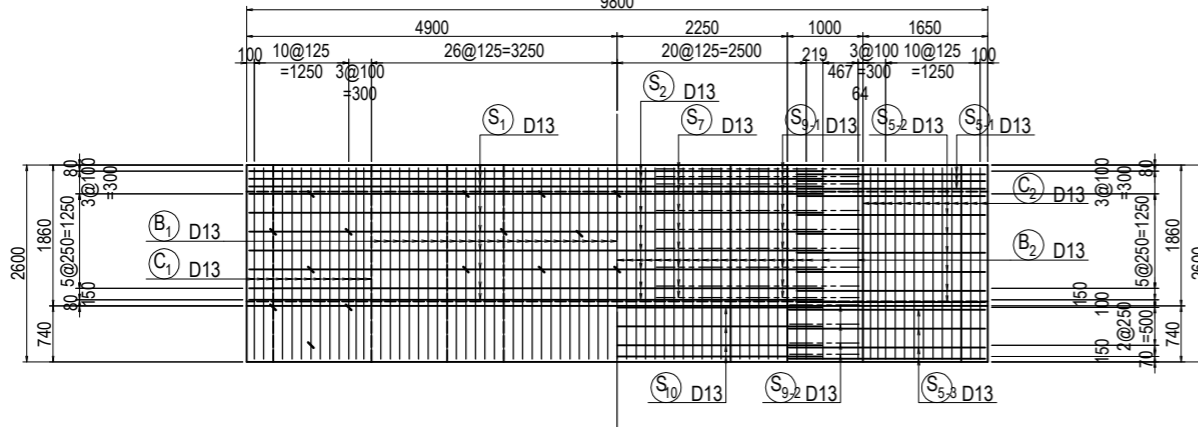
UP SIDE

LOW SIDE

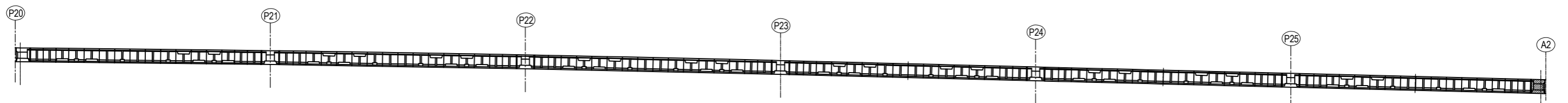
PLAN OF BOTTOM SLAB

UP SIDE

LOW SIDE



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (19)	PACKAGE
				PREPARED BY M. OHYAMA	<i>大山 満弘</i>	15 Jun.2017		2
				CHECKED BY T. HAYAKAWA	<i>平川 知邦</i>	20 Jun.2017		DWG No.
				APPROVED BY Y. SANO	<i>佐野 祐一</i>	21 Jun.2017		P2-PB-1319

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (20)

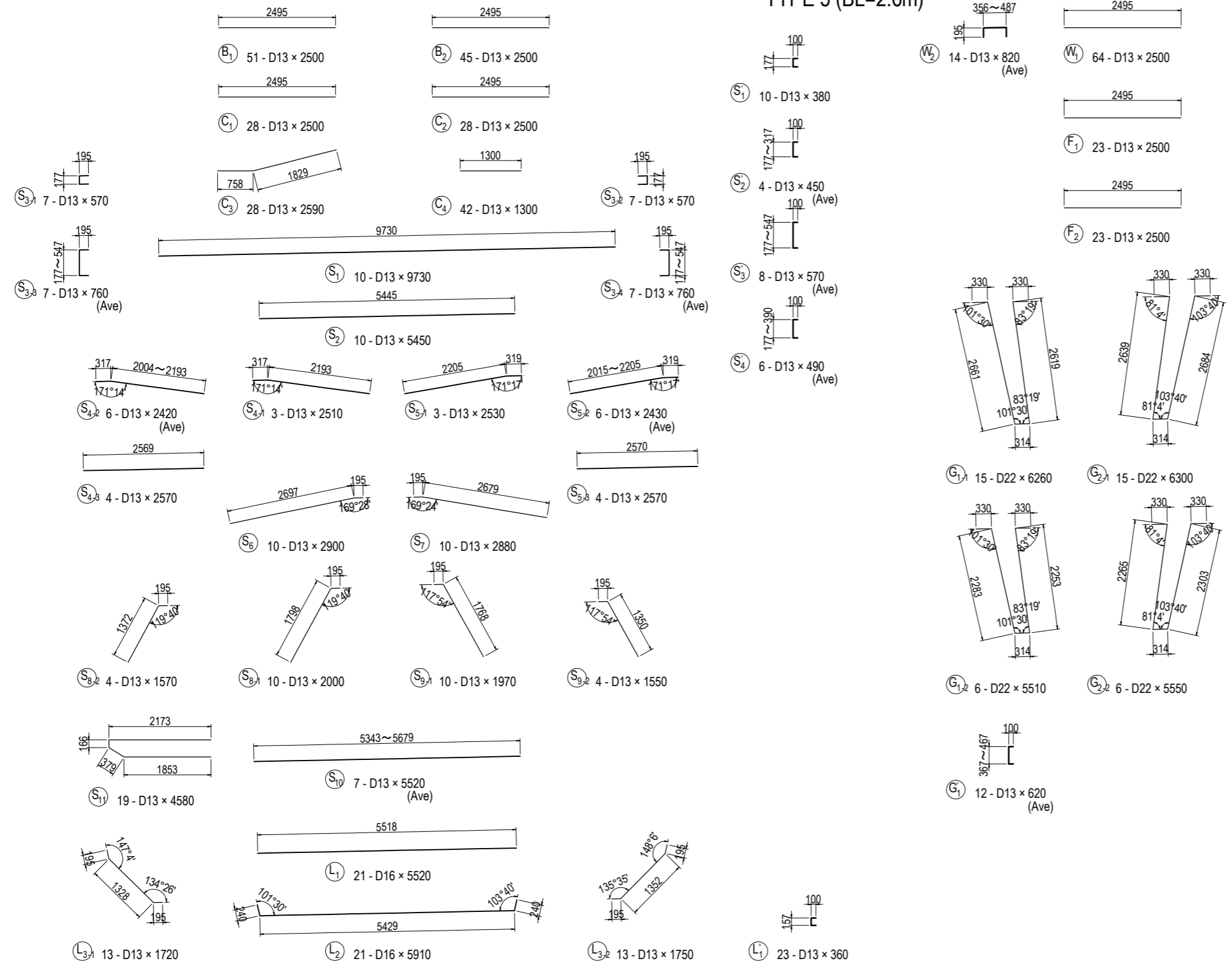
TYPE 5 (BL=2.6m)

S=1:100

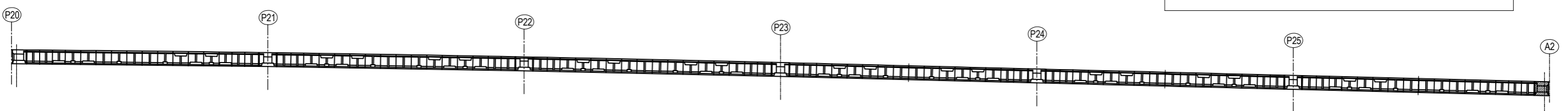
BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
B	1 D13	2500	51	0.995	2.49	127	—
	2 D13	2500	45	0.995	2.49	112	—
C	1 D13	2500	28	0.995	2.49	67	—
	2 D13	2500	28	0.995	2.49	67	—
	3 D13	2590	28	0.995	2.58	72	↘
	4 D13	1300	42	0.995	1.29	54	—
S	1 D13	9730	10	0.995	9.68	97	—
	2 D13	5450	10	0.995	5.42	54	—
	3-1 D13	570	7	0.995	0.57	4	┘
	3-2 D13	570	7	0.995	0.57	4	(Ave)
	3-3 D13	760	7	0.995	0.76	5	┘
	3-4 D13	760	7	0.995	0.76	5	(Ave)
	4-1 D13	2510	3	0.995	2.50	8	↘
	4-2 D13	2420	6	0.995	2.41	14	(Ave)
	4-3 D13	2570	4	0.995	2.56	10	—
	5-1 D13	2530	3	0.995	2.52	8	—
	5-2 D13	2430	6	0.995	2.42	15	(Ave)
5-3 D13	2570	4	0.995	2.56	10	—	
6 D13	2900	10	0.995	2.89	29	↘	
7 D13	2880	10	0.995	2.87	29	↘	
8-1 D13	2000	10	0.995	1.99	20	↘	
8-2 D13	1570	4	0.995	1.56	6	↘	
9-1 D13	1970	10	0.995	1.96	20	↘	
9-2 D13	1550	4	0.995	1.54	6	↘	
10 D13	5520	7	0.995	5.49	38	(Ave)	
11 D13	4580	19	0.995	4.56	87	┘	
S'	1 D13	380	10	0.995	0.38	4	┘
	2 D13	450	4	0.995	0.45	2	(Ave)
	3 D13	570	8	0.995	0.57	5	(Ave)
	4 D13	490	6	0.995	0.49	3	(Ave)
L	1 D16	5520	21	1.56	8.61	180	—
	2 D16	5910	21	1.56	9.22	194	┘
	3-1 D13	1720	13	0.995	1.71	22	↘
3-2 D13	1750	13	0.995	1.74	23	↘	
L'	1 D13	360	23	0.995	0.36	8	┘
W	1 D13	2500	64	0.995	2.49	159	—
	2 D13	820	14	0.995	0.82	11	(Ave)
F	1 D13	2500	23	0.995	2.49	57	—
	2 D13	2500	23	0.995	2.49	57	—
G	1-1 D22	6260	15	3.04	19.03	285	┘
	1-2 D22	5510	6	3.04	18.73	112	┘
	2-1 D22	6300	15	3.04	19.15	287	┘
	2-2 D22	5550	6	3.04	16.87	101	┘
G'	1 D13	620	12	0.995	0.62	7	(Ave)
				D13	1326 kg		
				D16	374 kg		
				D22	785 kg		
				Total Weight	2485 kg		



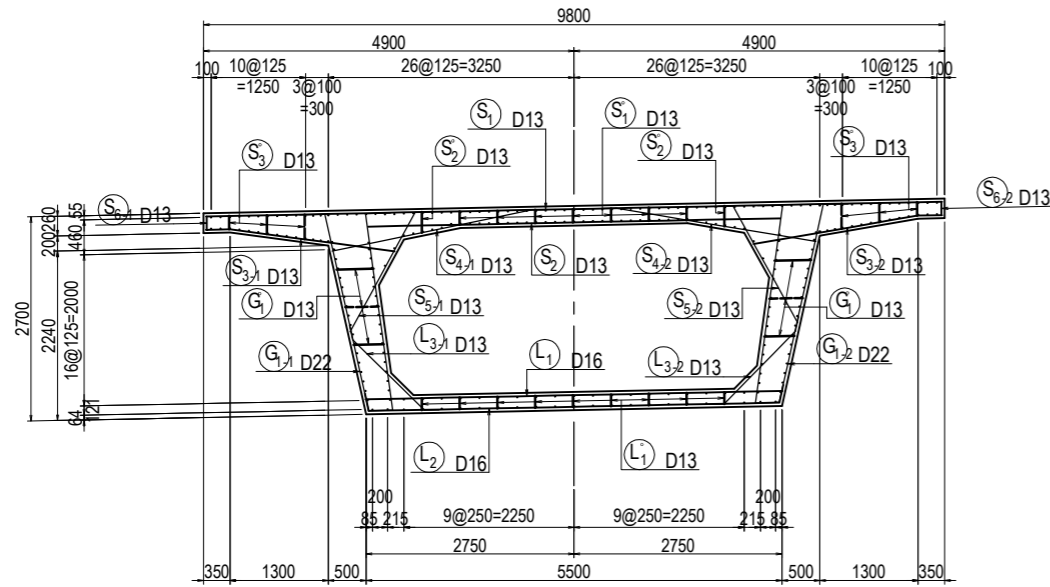
LOCATION <L,R>



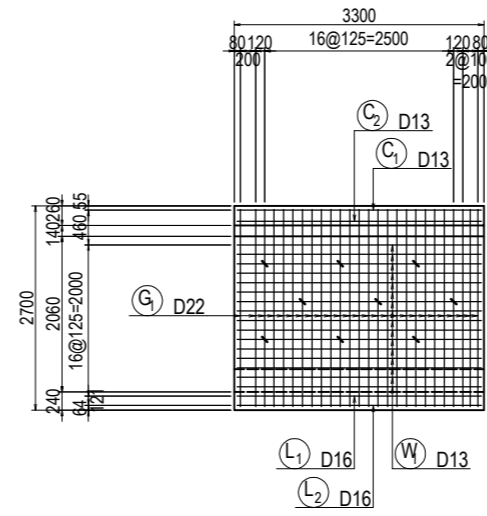
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (21) S=1:100

TYPE 5 (BL=3.3m)

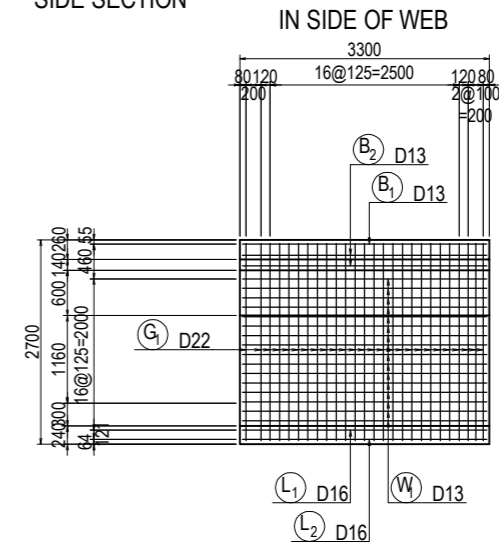
CROSS SECTION



OUT SIDE OF WEB

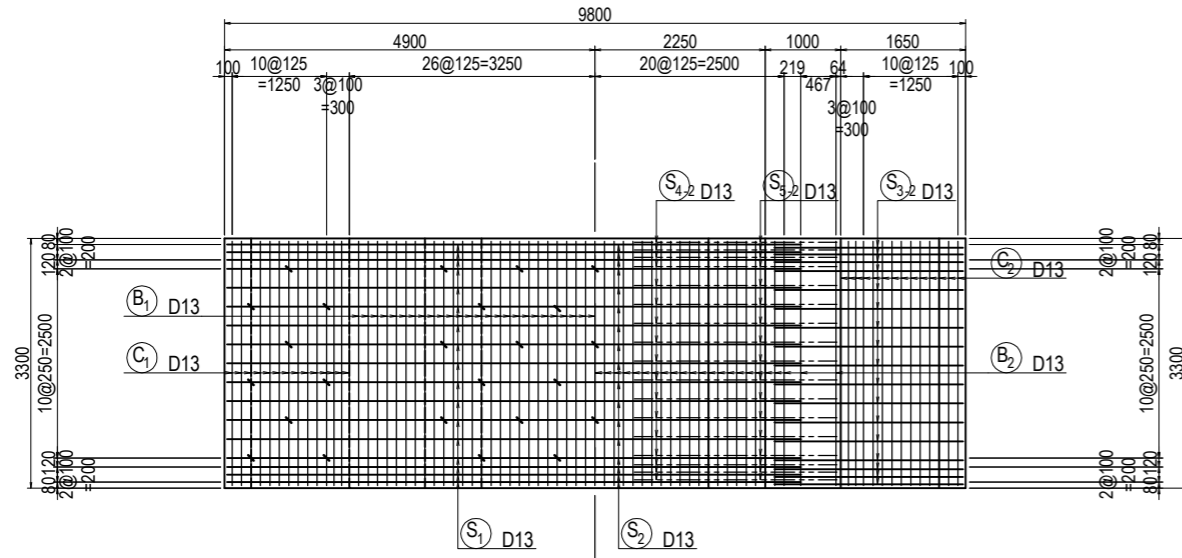


SIDE SECTION



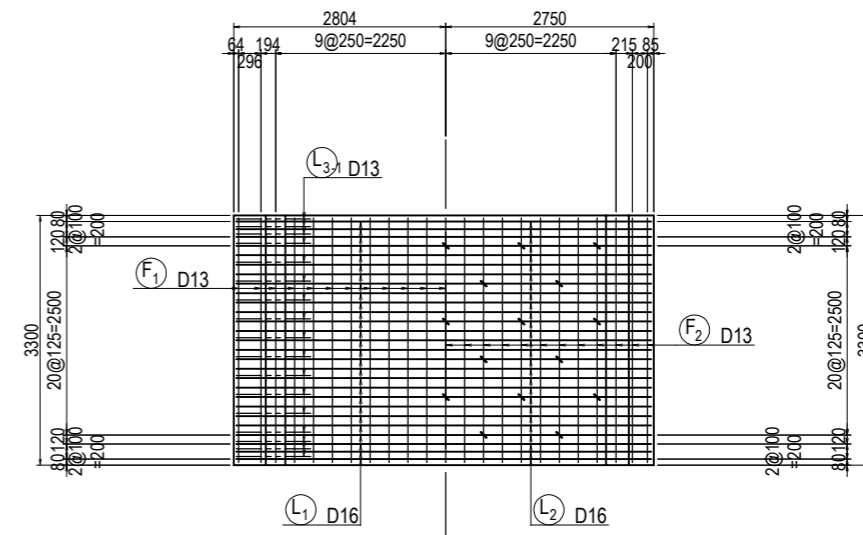
PLAN OF TOP SLAB

UP SIDE LOW SIDE

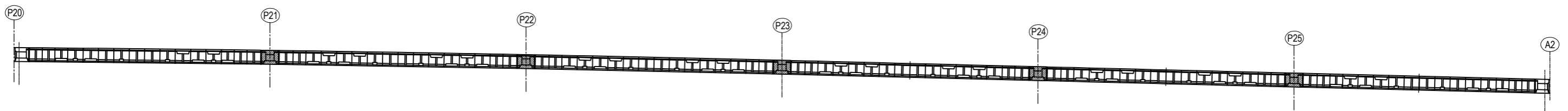


PLAN OF BOTTOM SLAB

UP SIDE LOW SIDE



LOCATION <L,R>

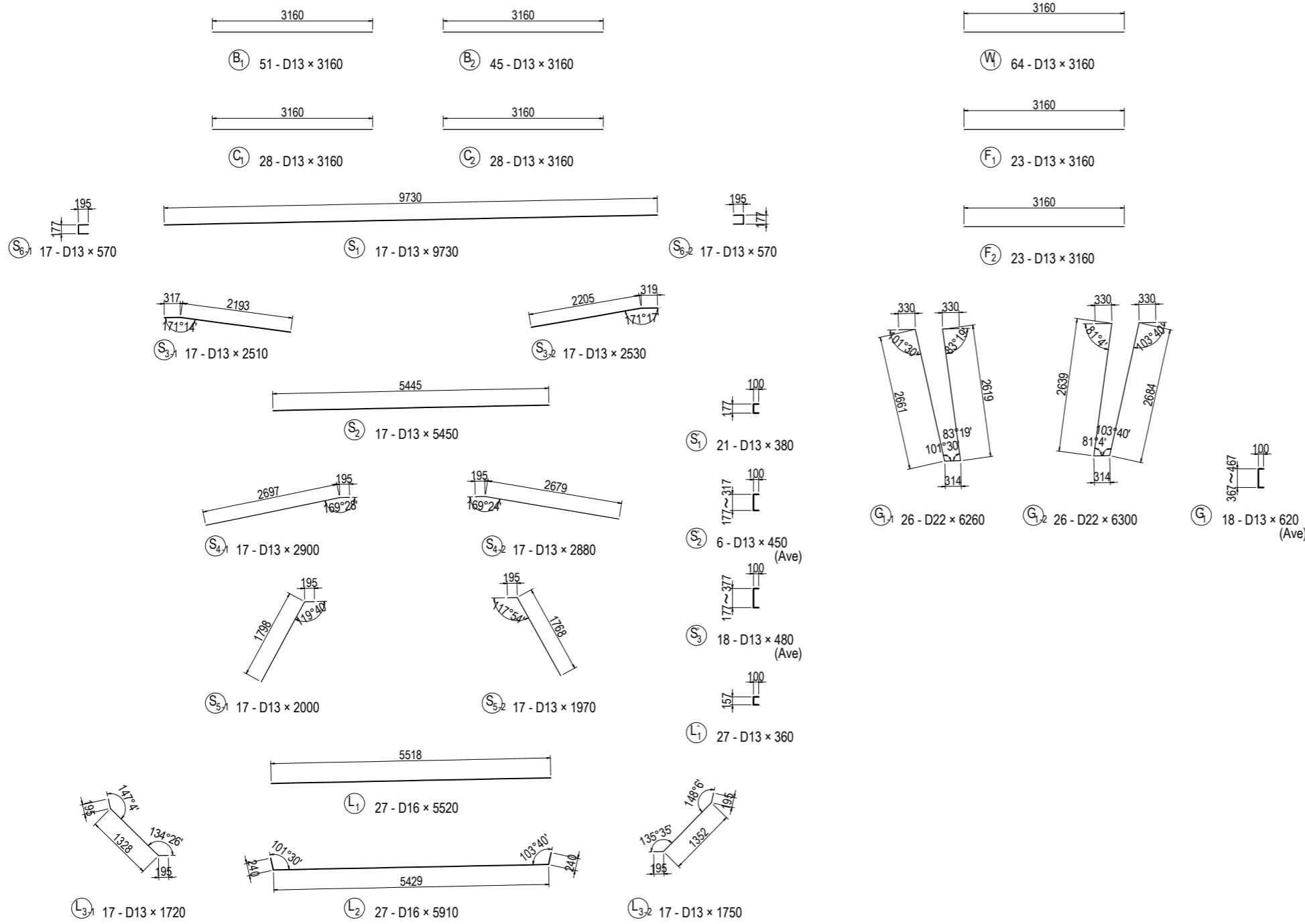


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (21)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-1321

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (22)

S=1:100

TYPE 5 (BL=3.3m)

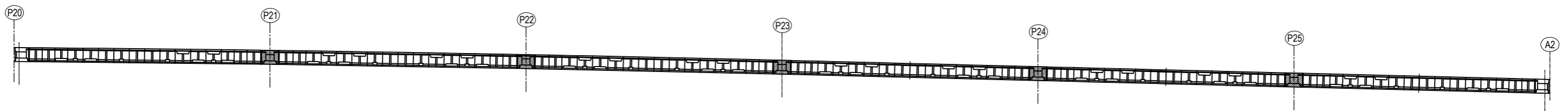


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape		
B	1	D13	3160	51	0.995	3.14	160	—	
	2	D13	3160	45	0.995	3.14	141	—	
C	1	D13	3160	28	0.995	3.14	88	—	
	2	D13	3160	28	0.995	3.14	88	—	
S	1	D13	9730	17	0.995	9.68	165	—	
	2	D13	5450	17	0.995	5.42	92	—	
	3-1	D13	2510	17	0.995	2.50	43	↘	
	3-2	D13	2530	17	0.995	2.52	43	↘	
	4-1	D13	2900	17	0.995	2.89	49	↘	
	4-2	D13	2880	17	0.995	2.87	49	↘	
S'	1	D13	380	21	0.995	0.38	8	⊔	
	2	D13	450	6	0.995	0.45	3	⊔ (Ave)	
	3	D13	480	18	0.995	0.48	9	⊔ (Ave)	
	L	1	D16	5520	27	1.56	8.61	232	—
		2	D16	5910	27	1.56	9.22	249	↘
		3-1	D13	1720	17	0.995	1.71	29	↘
3-2	D13	1750	17	0.995	1.74	30	↘		
L'	1	D13	360	27	0.995	0.36	10	⊔	
W	1	D13	3160	64	0.995	3.14	201	—	
	2	D13	3160	23	0.995	3.14	72	—	
F	1	D13	3160	23	0.995	3.14	72	—	
	2	D13	3160	23	0.995	3.14	72	—	
G1-1	1	D22	6260	26	3.04	19.03	495	↘	
	1-2	D22	6300	26	3.04	19.15	498	↘	
G	1	D13	620	18	0.995	0.62	11	⊔ (Ave)	
				D13	1450	kg			
				D16	481	kg			
				D22	993	kg			
				Total Weight	2924	kg			

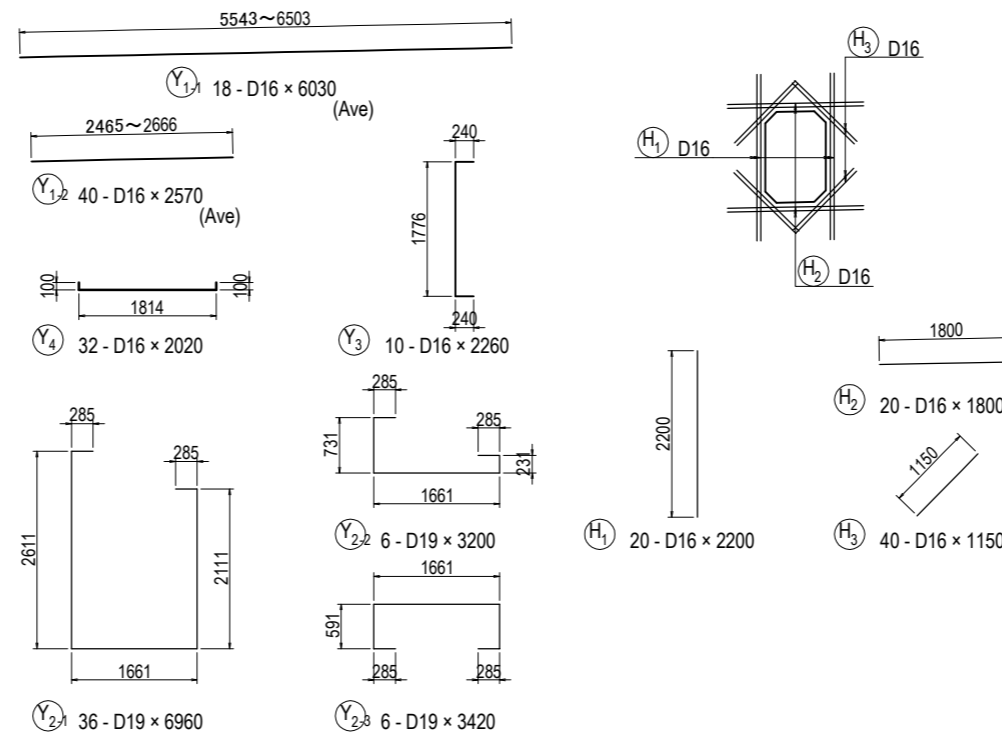
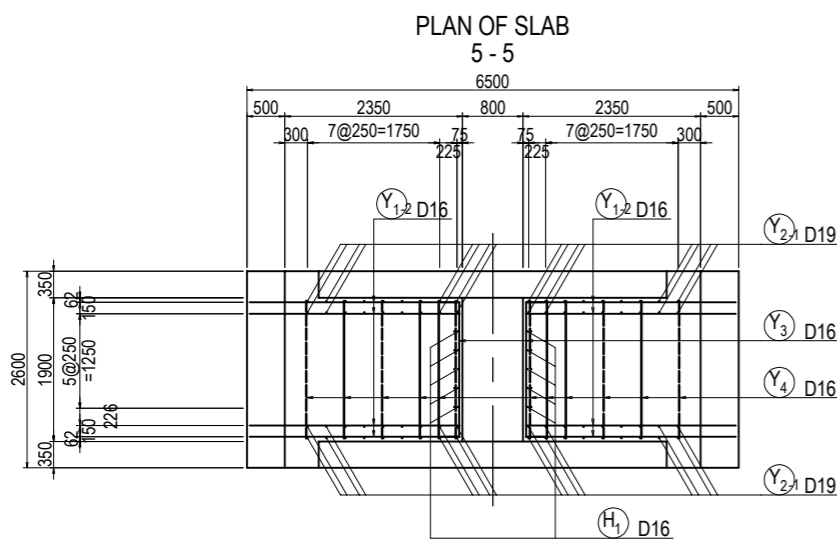
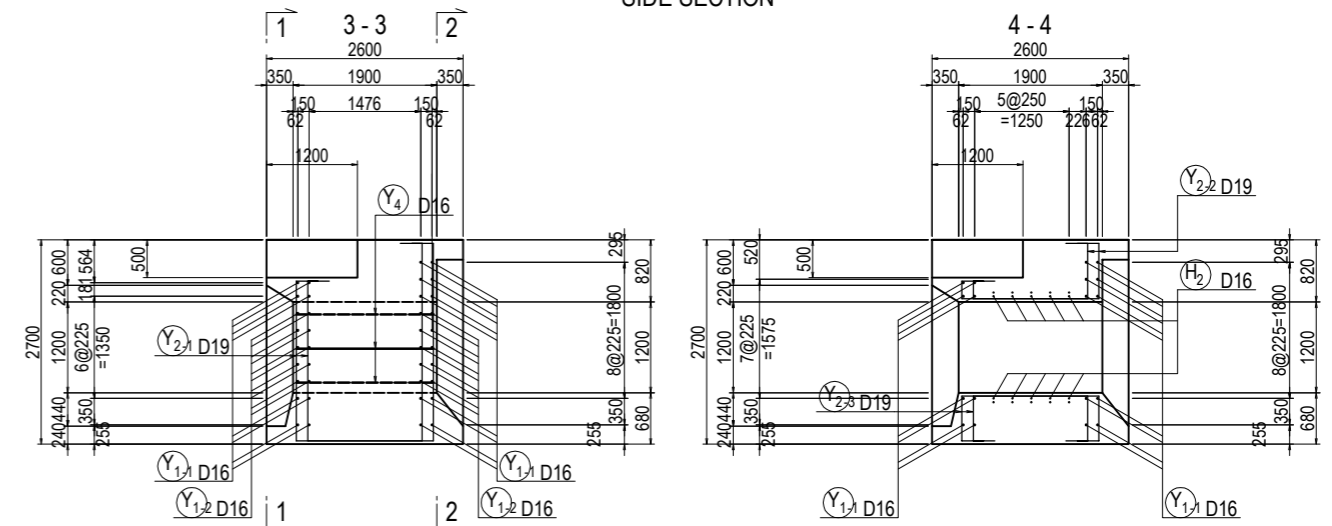
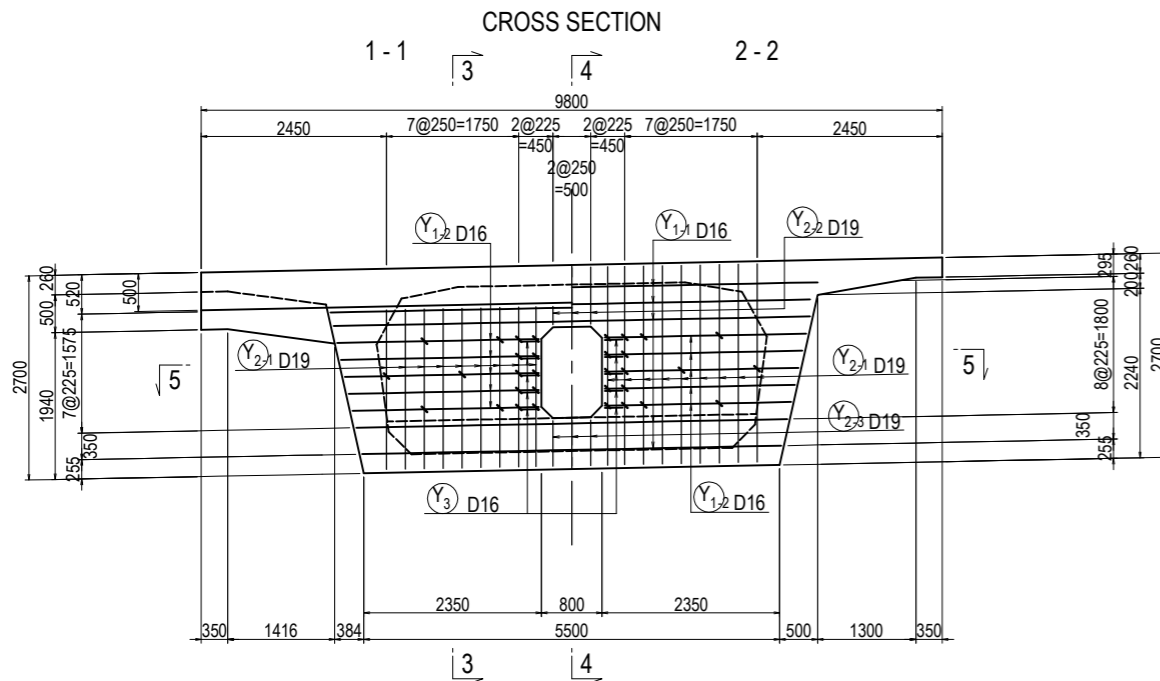
LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (22)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知邦		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐藤 祐一		21 Jun.2017	P2-PB-1322

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (23) [END CROSSBEAM]

S=1:100

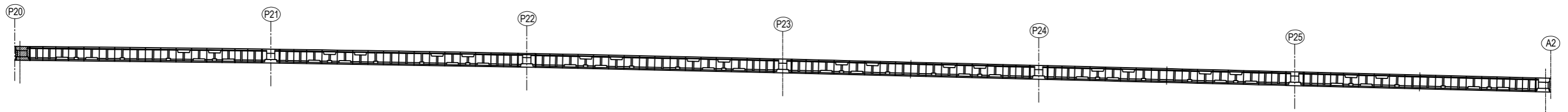


BAR STATISTICS TABLE

(For 1 Block)

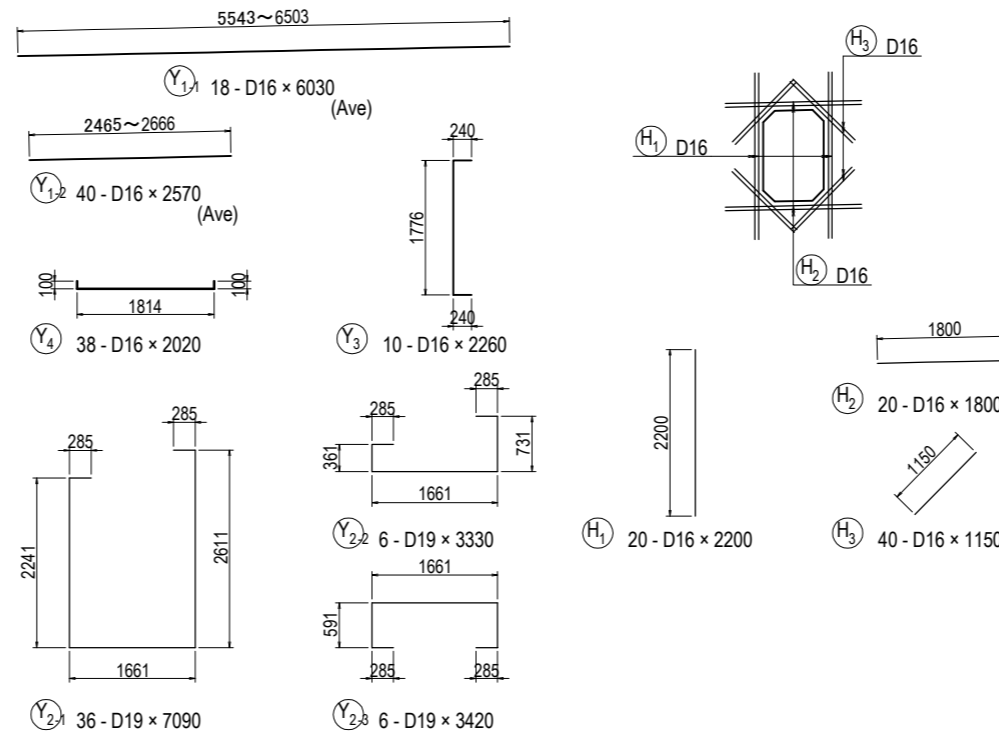
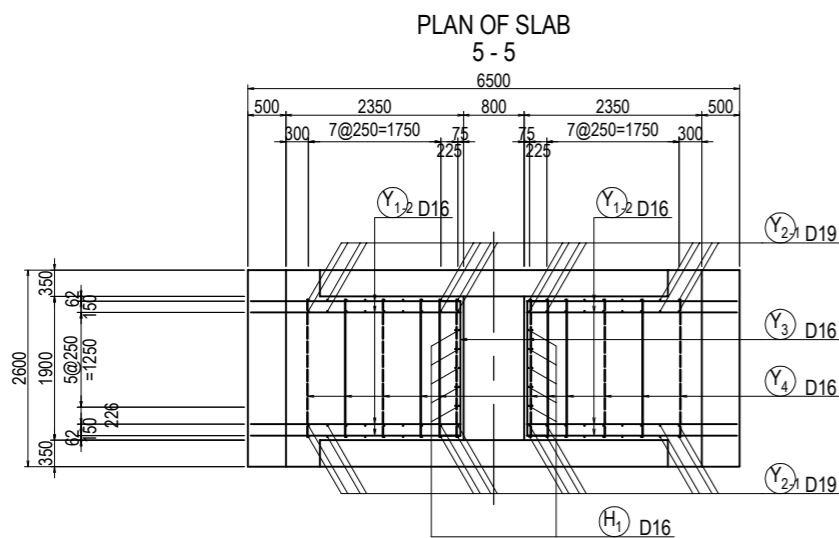
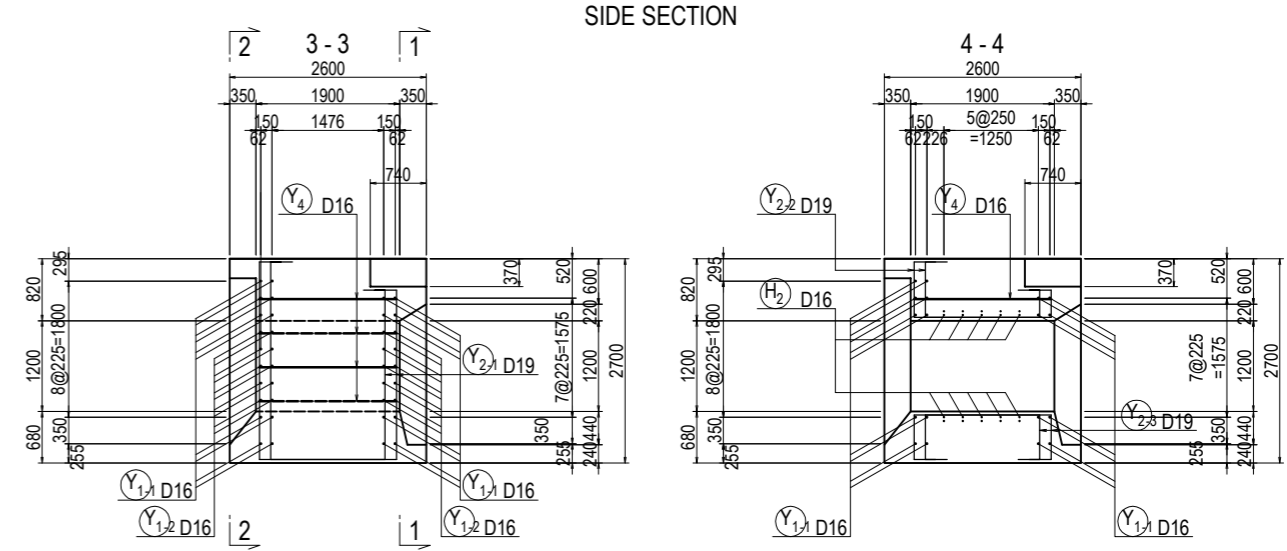
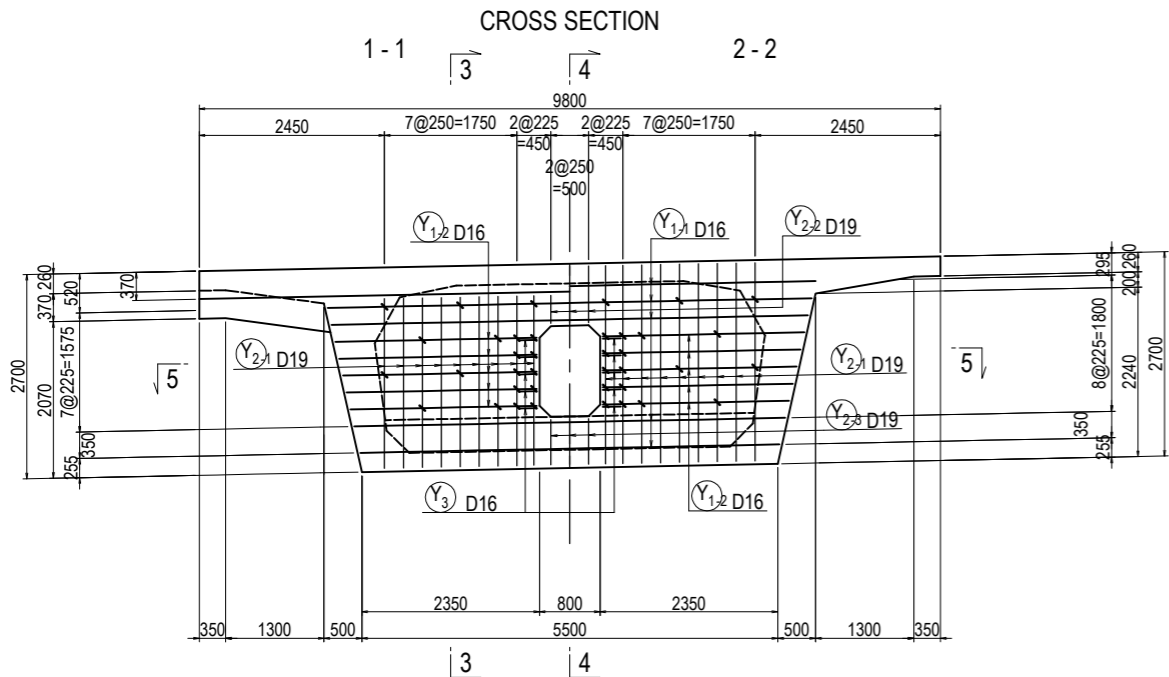
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
Y 1-1	D16	6030	18	1.56	9.41	169	— (Ave)
1-2	D16	2570	40	1.56	4.01	160	— (Ave)
2-1	D19	6960	36	2.25	15.66	564	□
2-2	D19	3200	6	2.25	7.20	43	□
2-3	D19	3420	6	2.25	7.70	46	□
3	D16	2260	10	1.56	3.53	35	□
4	D16	2020	32	1.56	3.15	101	┘
H 1	D16	2200	20	1.56	3.43	69	—
2	D16	1800	20	1.56	2.81	56	—
3	D16	1150	40	1.56	1.79	72	┘
		D16	662 kg				
		D19	653 kg				
		Total Weight	1315 kg				

LOCATION <L,R>



BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (24) [END CROSSBEAM]

S=1:100

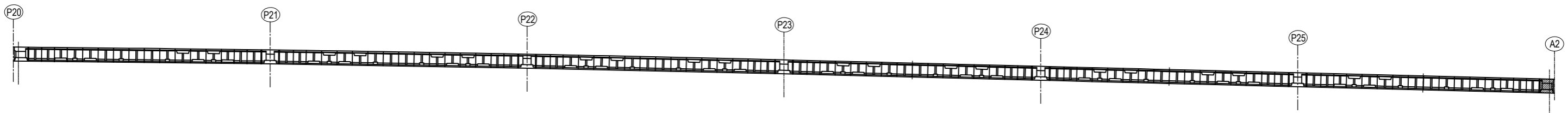


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
Y 1-1	D16	6030	18	1.56	9.41	169	— (Ave)
1-2	D16	2570	40	1.56	4.01	160	— (Ave)
2-1	D19	7090	36	2.25	15.95	574	□
2-2	D19	3330	6	2.25	7.49	45	□
2-3	D19	3420	6	2.25	7.70	46	□
3	D16	2260	10	1.56	3.53	35	┌
4	D16	2020	38	1.56	3.15	120	└
H 1	D16	2200	20	1.56	3.43	69	—
2	D16	1800	20	1.56	2.81	56	—
3	D16	1150	40	1.56	1.79	72	/
				D16	681 kg		
				D19	665 kg		
				Total Weight	1346 kg		

LOCATION <L,R>



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun. 2017
CHECKED BY	T. HAYAKAWA		20 Jun. 2017
APPROVED BY	Y. SANO		21 Jun. 2017

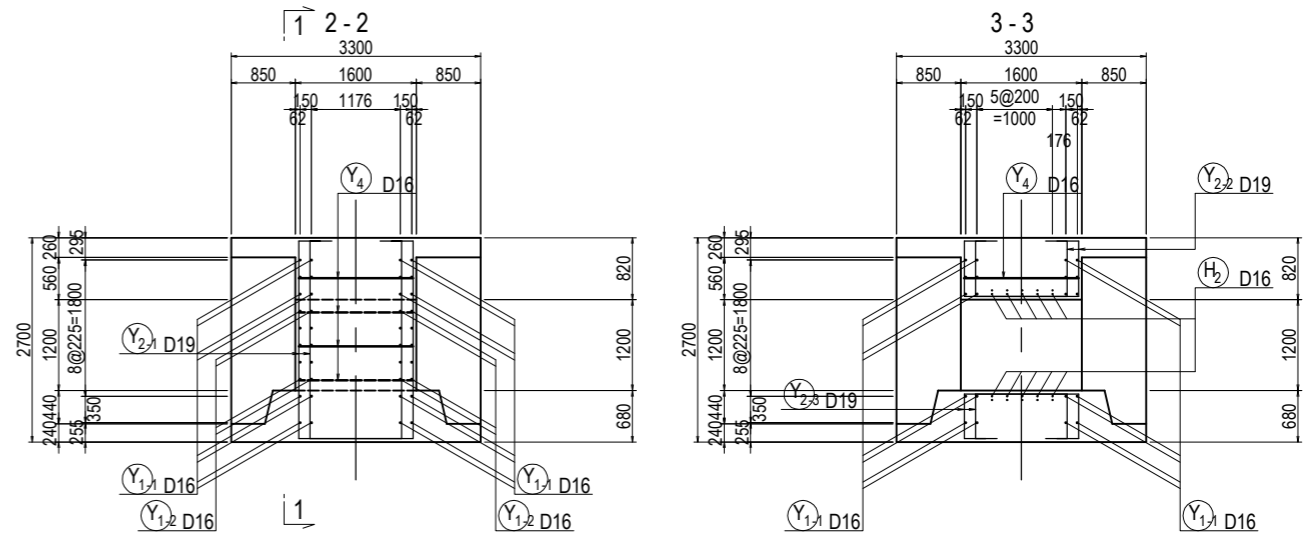
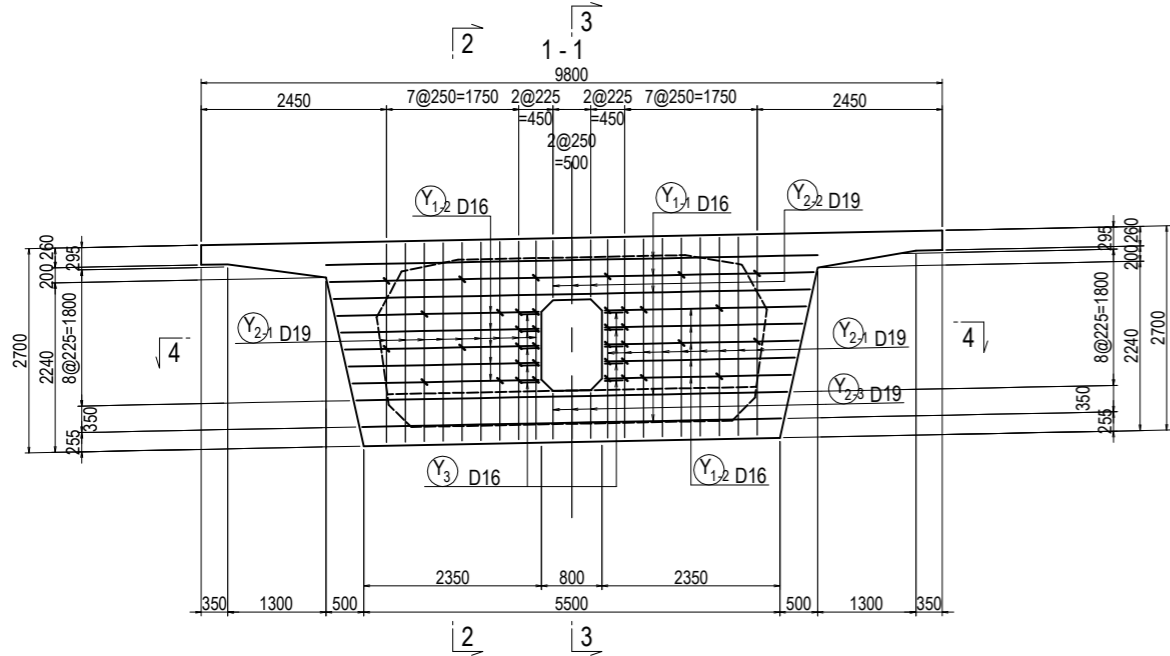
DRAWING TITLE
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (24)
[END CROSSBEAM]

PACKAGE
2
DWG No.
P2-PB-1324

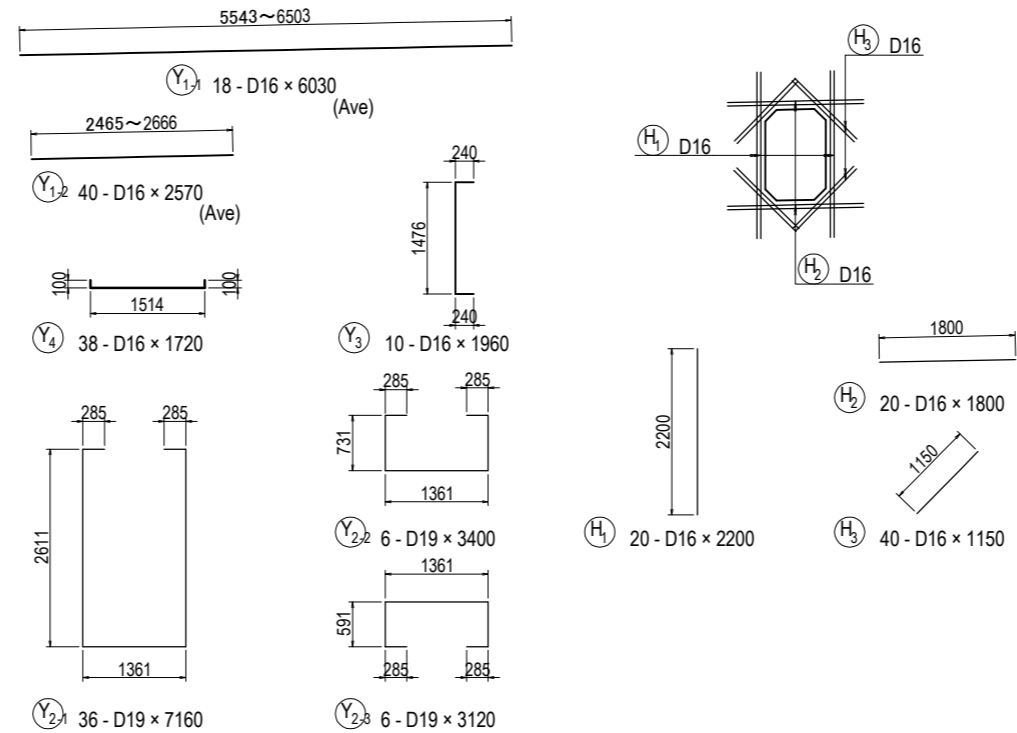
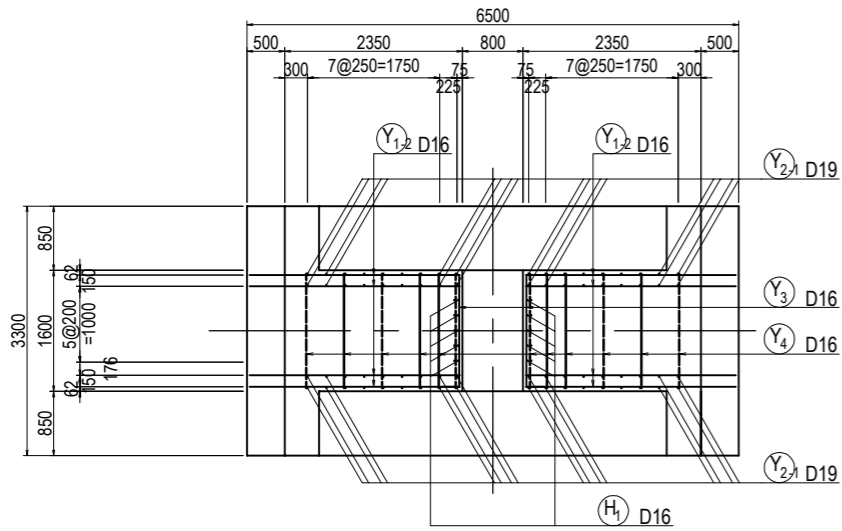
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (25) [INTERMEDIATE CROSSBEAM]

S=1:100

CROSS SECTION



PLAN OF SLAB
4 - 4

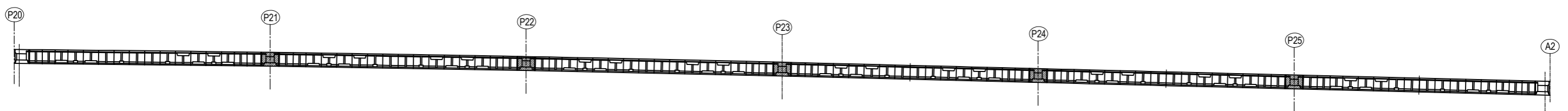


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
Y 1-1	D16	6030	18	1.56	9.41	169	— (Ave)
1-2	D16	2570	40	1.56	4.01	160	— (Ave)
2-1	D19	7160	36	2.25	16.11	580	□
2-2	D19	3400	6	2.25	7.65	46	□
2-3	D19	3120	6	2.25	7.02	42	□
3	D16	1960	10	1.56	3.06	31	┌
4	D16	1720	38	1.56	2.68	102	└
H 1	D16	2200	20	1.56	3.43	69	—
2	D16	1800	20	1.56	2.81	56	—
3	D16	1150	40	1.56	1.79	72	┌
				D16	659 kg		
				D19	668 kg		
				Total Weight	1327 kg		

LOCATION <L,R>



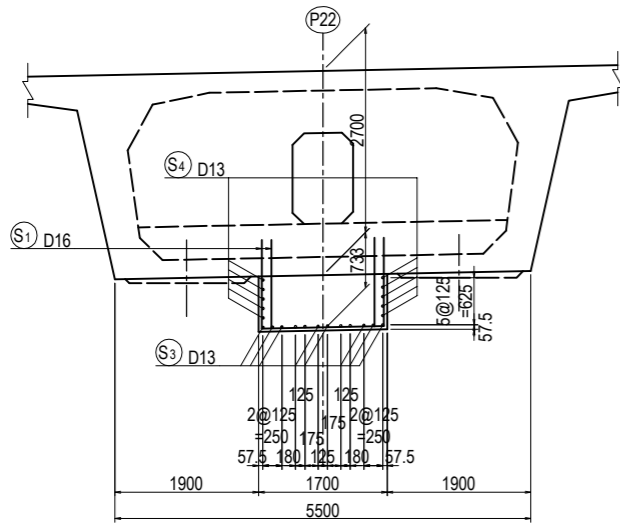
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (26) S=1:100

P22 (P21,P23,P24,P25)

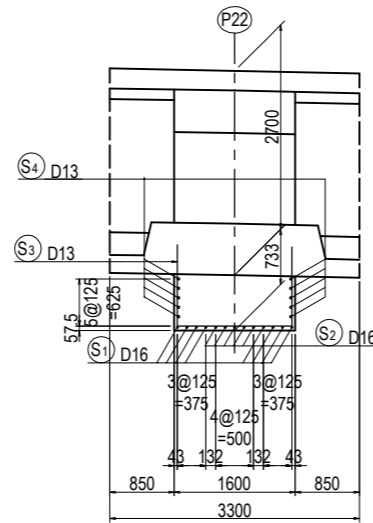
A2 (P20)

CROSS SECTIONS

1-1

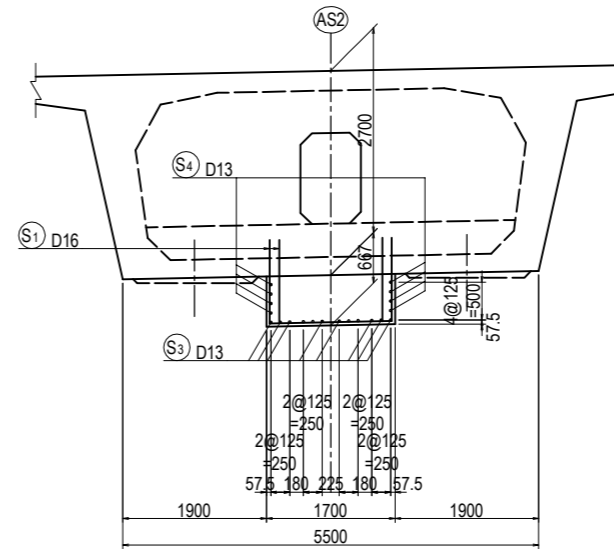


SIDE VIEW

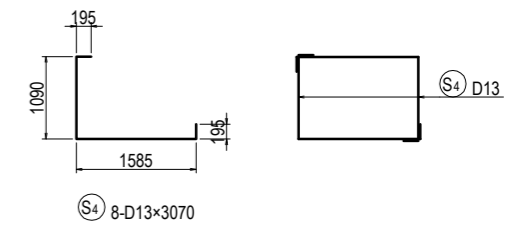
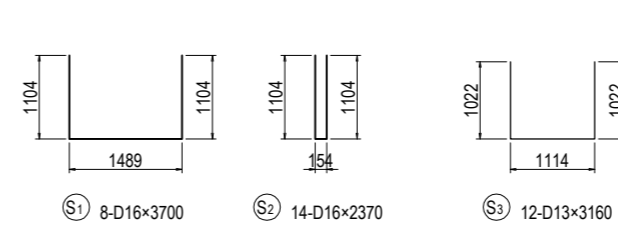
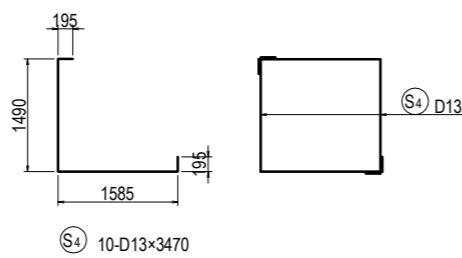
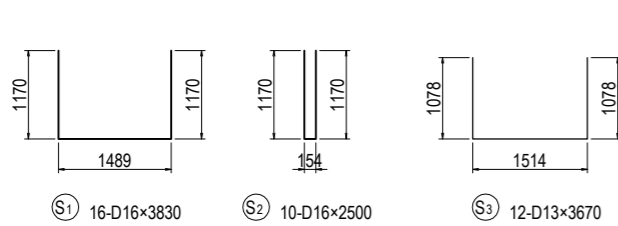
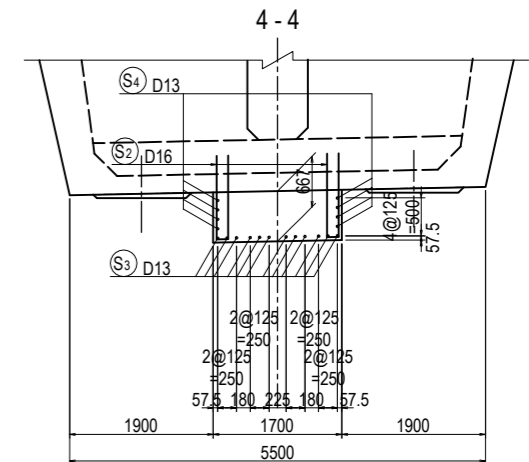
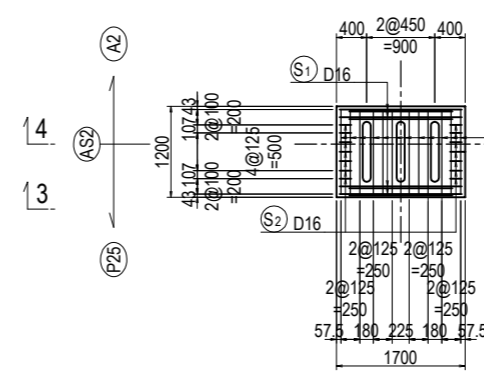
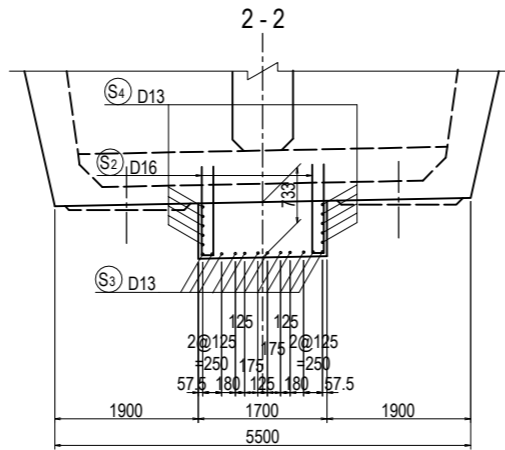
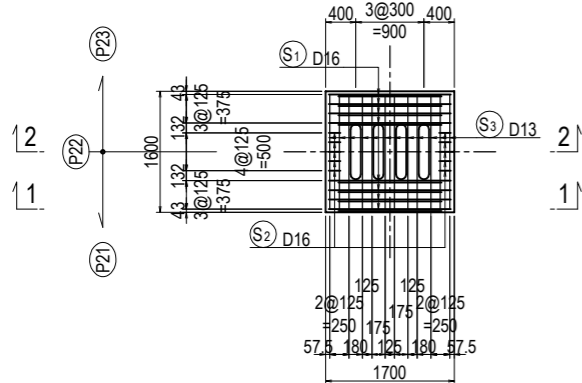
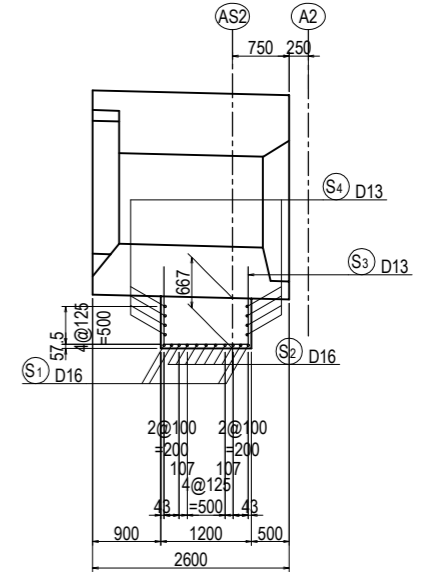


CROSS SECTIONS

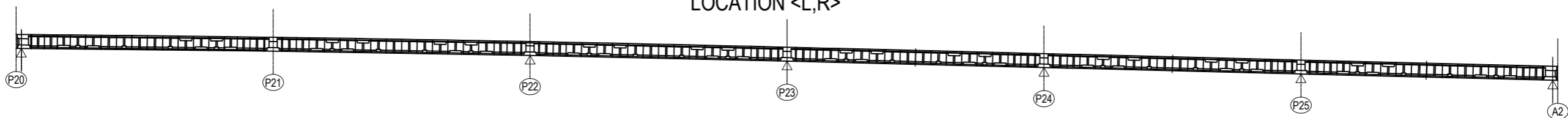
3-3



SIDE VIEW



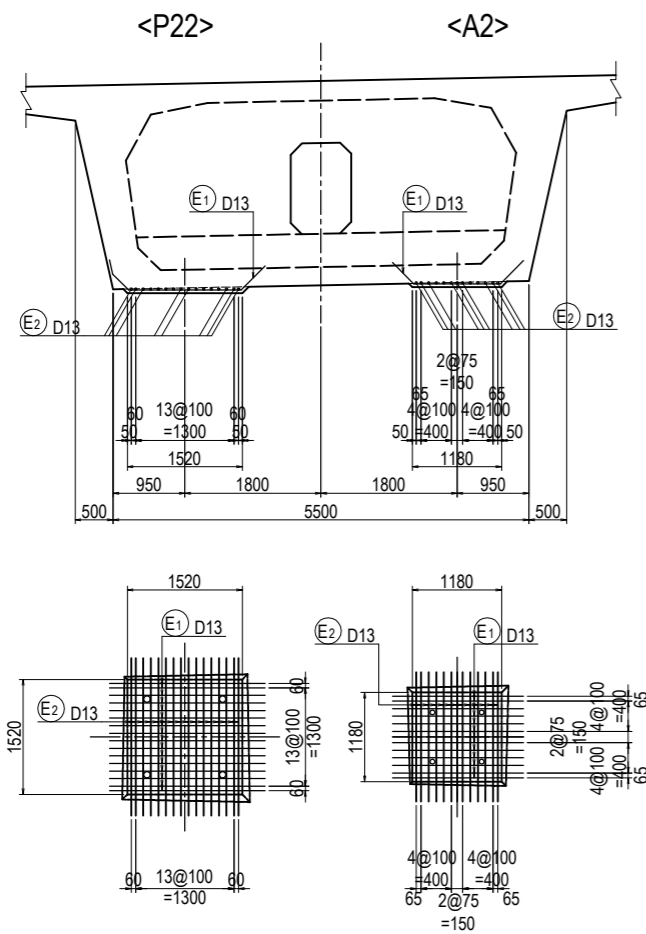
LOCATION <L,R>



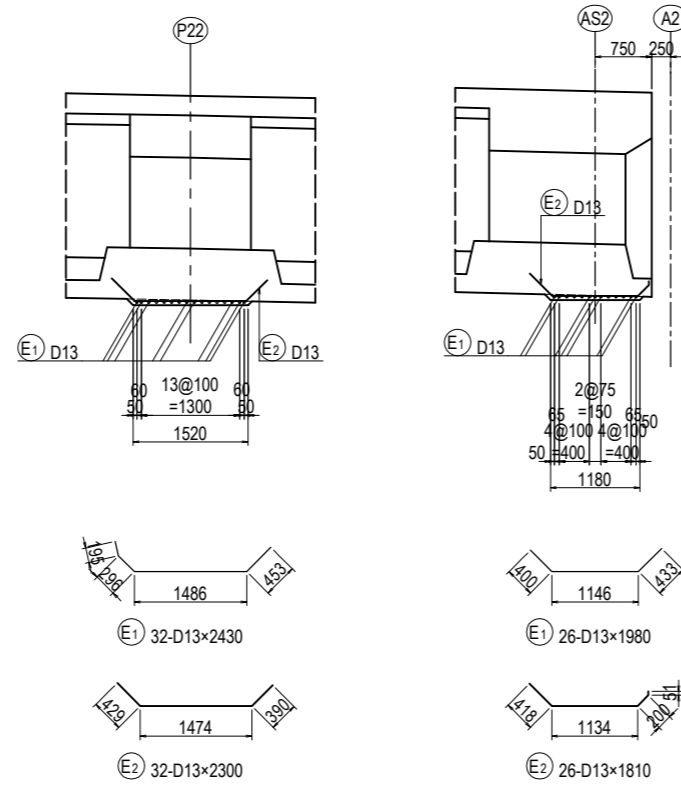
PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY CHECKED BY APPROVED BY	M. OHYAMA T. HAYAKAWA Y. SANO	15 Jun.2017 20 Jun.2017 21 Jun.2017	BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (26)	2 DWG No. P2-PB-1326

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (27) S=1:100

CROSS SECTIONS



SIDE VIEW

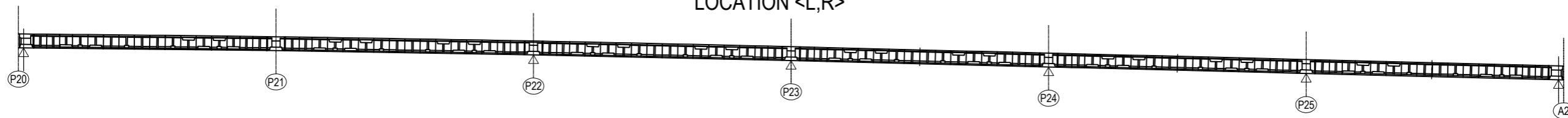


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
P22 (P21,P23,P24,P25)							
S 1	D16	3830	16	1.56	5.97	96	└┘
2	D16	2500	10	1.56	3.90	39	└┘
3	D13	3670	12	0.995	3.65	44	└┘
4	D13	3470	10	0.995	3.45	35	└┘
E 1	D13	2430	32	0.995	2.42	77	└┘
2	D13	2300	32	0.995	2.29	73	└┘
				D13	229 kg ×5=	1145 kg / Bridge	
				D16	135 kg ×5=	675 kg / Bridge	
				Total Weight		364 kg ×5= 1820 kg / Bridge	
A2 (P20)							
S 1	D16	3700	8	1.56	5.77	46	└┘
2	D16	2370	14	1.56	3.70	52	└┘
3	D13	3160	12	0.995	3.14	38	└┘
4	D13	3070	8	0.995	3.05	24	└┘
E 1	D13	1980	26	0.995	1.97	51	└┘
2	D13	1810	26	0.995	1.80	47	└┘
				D13	160 kg ×2=	320 kg / Bridge	
				D16	98 kg ×2=	196 kg / Bridge	
				Total Weight		259 kg ×2= 516 kg / Bridge	

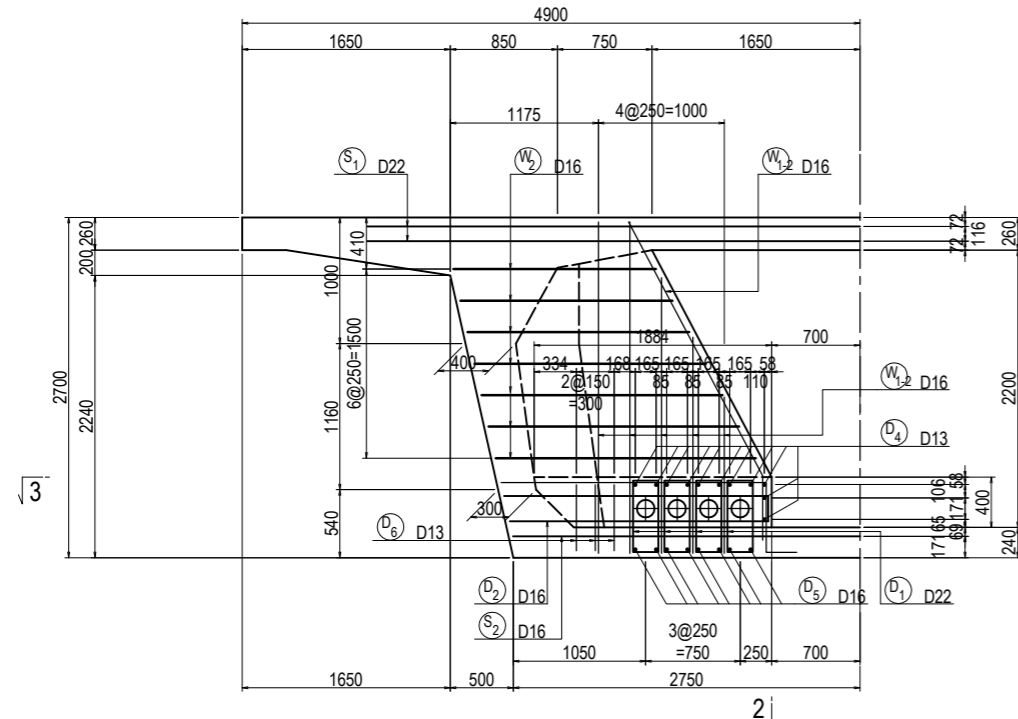
LOCATION <L,R>



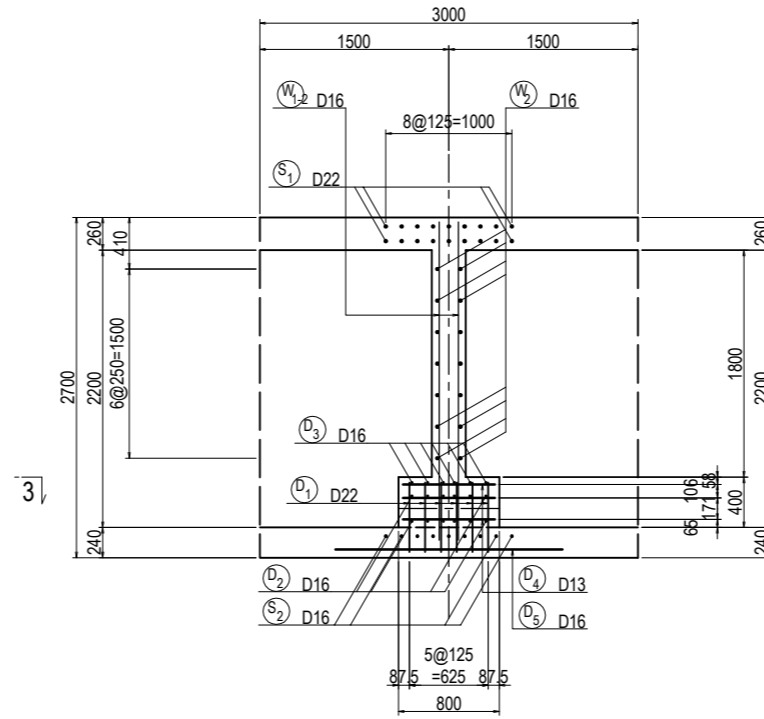
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME PREPARED BY M. OHYAMA CHECKED BY T. HAYAKAWA APPROVED BY Y. SANO	SIGNATURE DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (27)	PACKAGE 2 DWG No. P2-PB-1327
---	--	---	---	--	--	---	---------------------------------------

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (28) [DEVIATOR] S=1:60

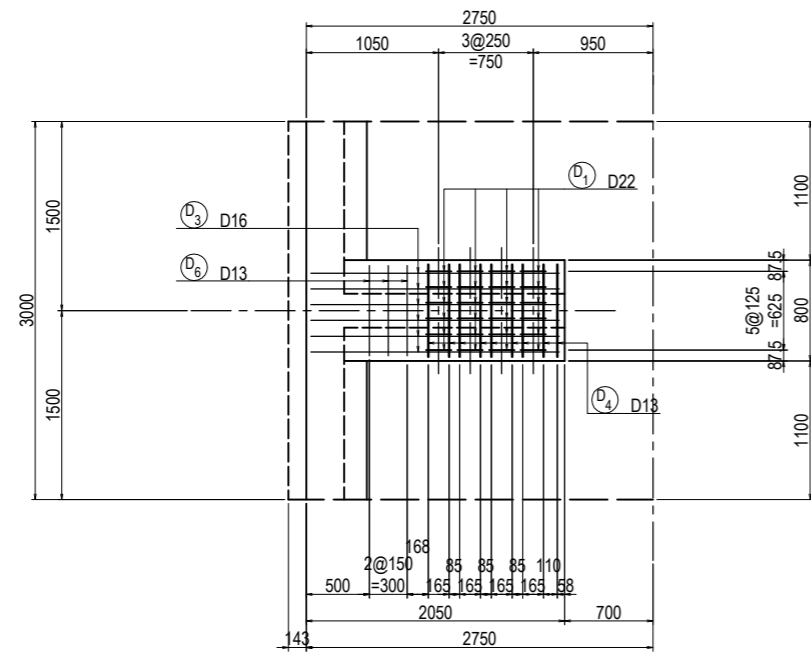
1 - 1 SECTIONS TYPE-A



2 - 2 SECTIONS

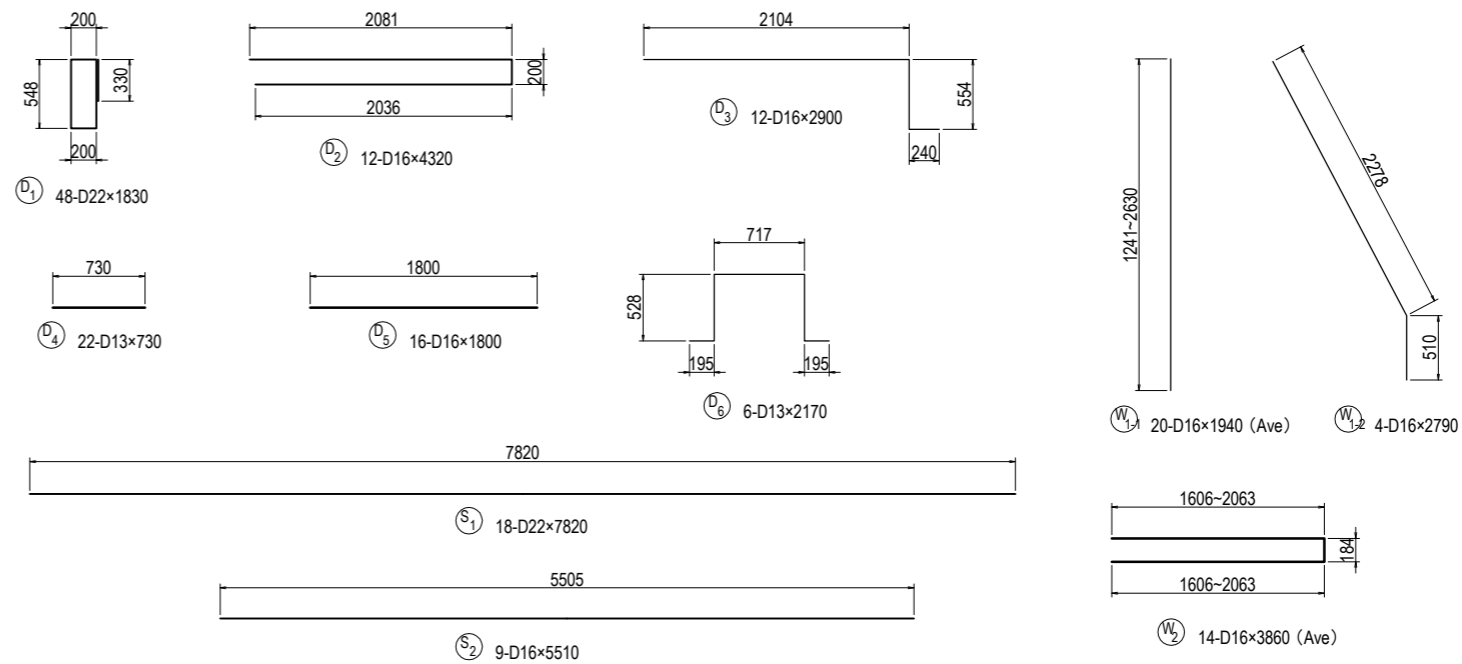


3 - 3 SECTIONS

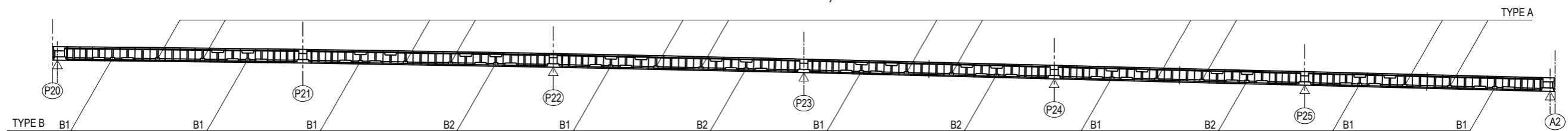


BAR STATISTICS TABLE

(For 1 Block)							
Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-A							
D 1	D22	1830	48	3.04	5.56	267	□
2	D16	4320	12	1.56	6.74	81	—
3	D16	2900	12	1.56	4.52	54	—
4	D13	730	22	0.995	0.73	16	—
5	D16	1800	16	1.56	2.81	45	—
6	D13	2170	6	0.995	2.16	13	—
W 1-1	D16	1940	20	1.56	3.03	61	(Ave)
1-2	D16	2790	4	1.56	4.35	17	—
2	D16	3860	14	1.56	6.02	84	— (Ave)
S 1	D22	7820	18	3.04	23.77	428	—
2	D16	5510	9	1.56	8.60	77	—
				D13	29 kg × 12 =	348 kg	
				D16	419 kg × 12 =	5028 kg	
				D22	695 kg × 12 =	8340 kg	
Total Weight				1143 kg × 12 =	13716 kg	/ 1 Brdge	

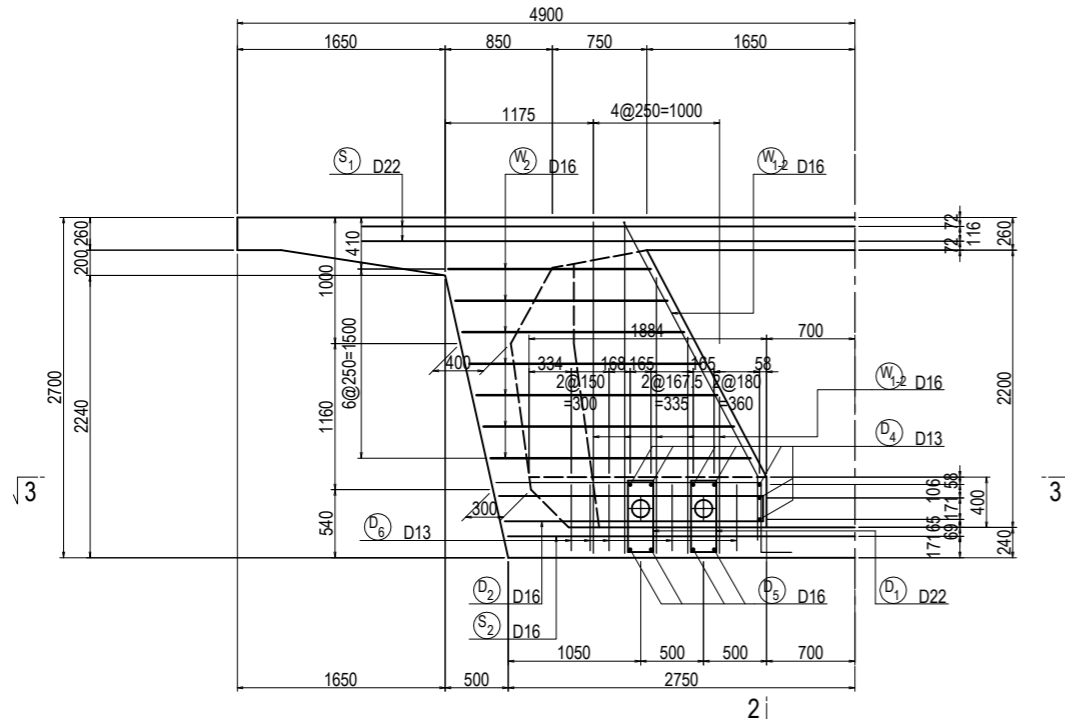


LOCATION <L,R>

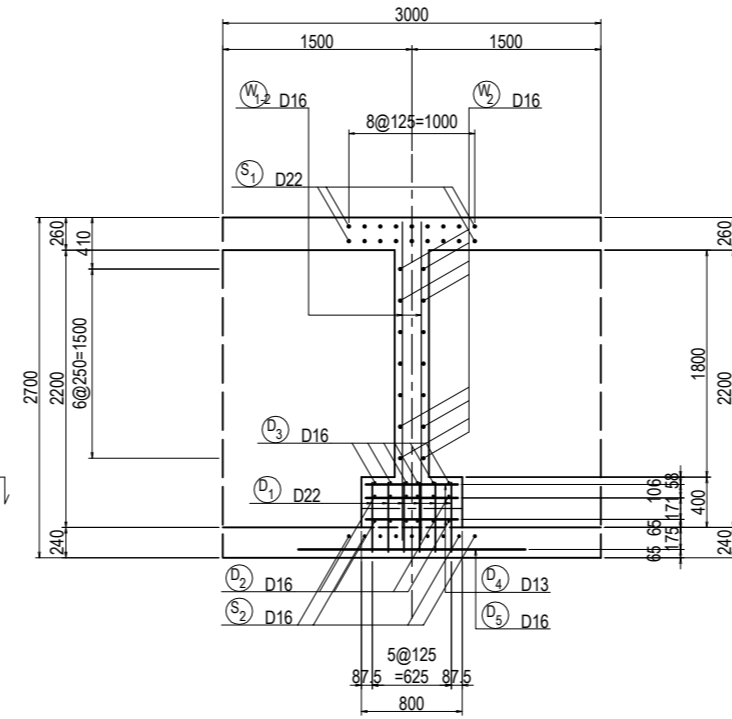


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (29) [DEVIATOR] S=1:60

1 - 1 SECTIONS TYPE-B1



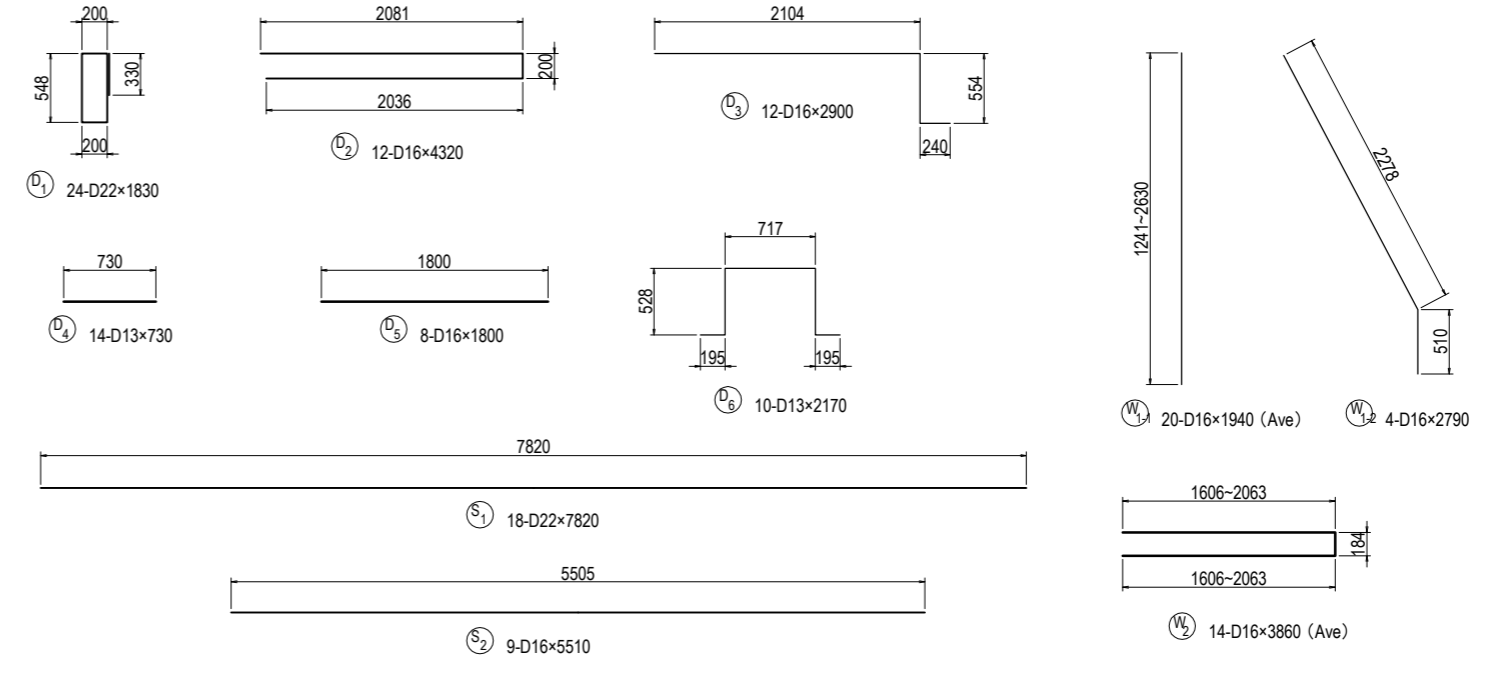
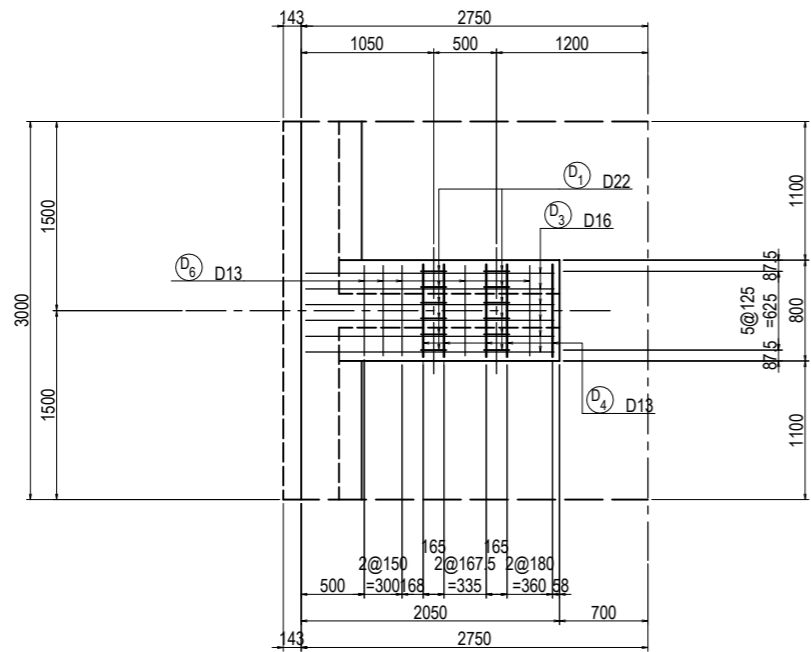
2 - 2 SECTIONS



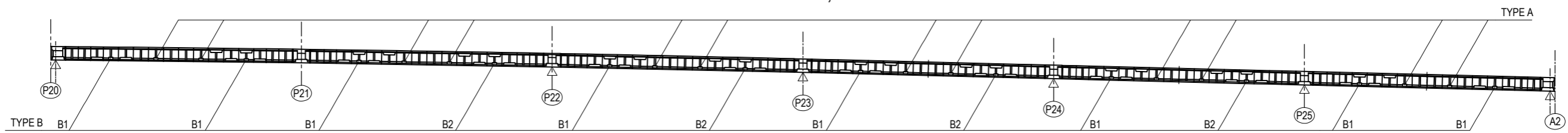
BAR STATISTICS TABLE

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-B1 (For 1 Block)							
D 1	D22	1830	24	3.04	5.56	133	□
2	D16	4320	12	1.56	6.74	81	▭
3	D16	2900	12	1.56	4.52	54	┌
4	D13	730	14	0.995	0.73	10	—
5	D16	1800	8	1.56	2.81	22	—
6	D13	2170	10	0.995	2.16	22	└
W 1-1	D16	1940	20	1.56	3.03	61	(Ave)
1-2	D16	2790	4	1.56	4.35	17	└
2	D16	3860	14	1.56	6.02	84	▭ (Ave)
S 1	D22	7820	18	3.04	23.77	428	—
2	D16	5510	9	1.56	8.60	77	—
				D13	32 kg ×8=	256 kg	
				D16	396 kg ×8=	3168 kg	
				D22	561 kg ×8=	4488 kg	
Total Weight				989 kg ×8=	7912 kg	/ 1 Bidge	

3 - 3 SECTIONS



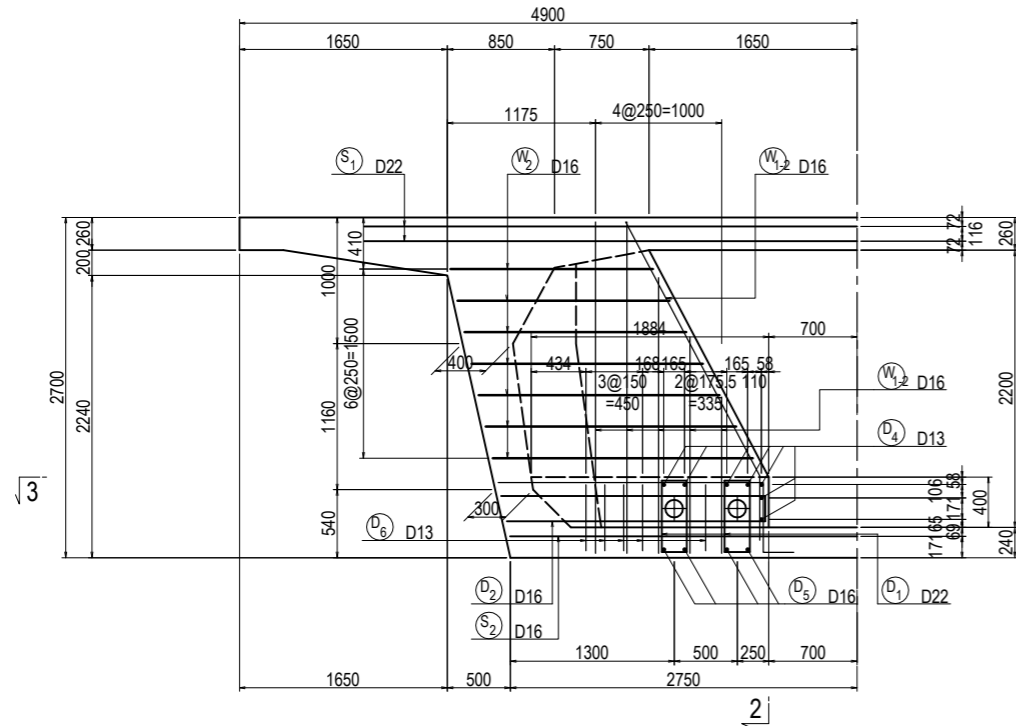
LOCATION <L,R>



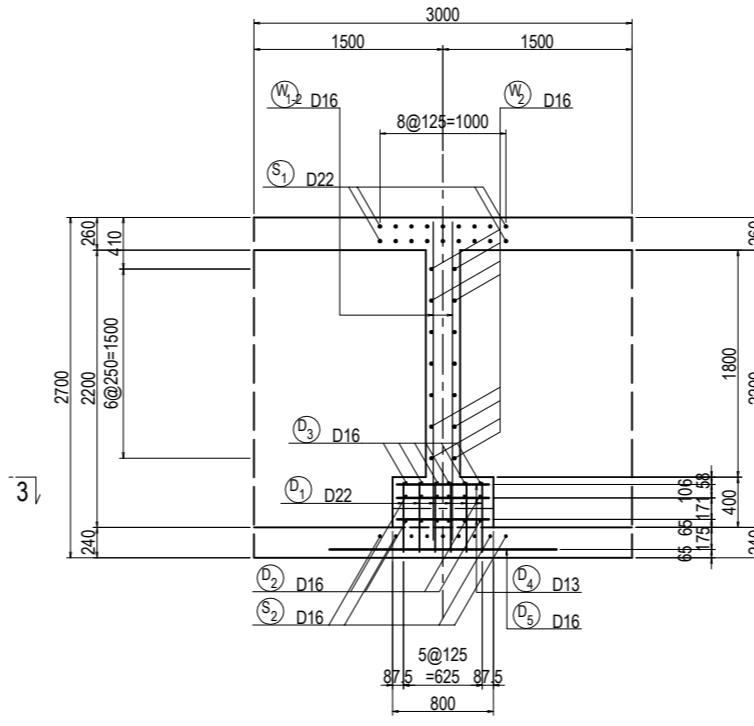
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (30) [DEVIATOR] S=1:60

TYPE-B2

1 - 1 SECTIONS



2 - 2 SECTIONS

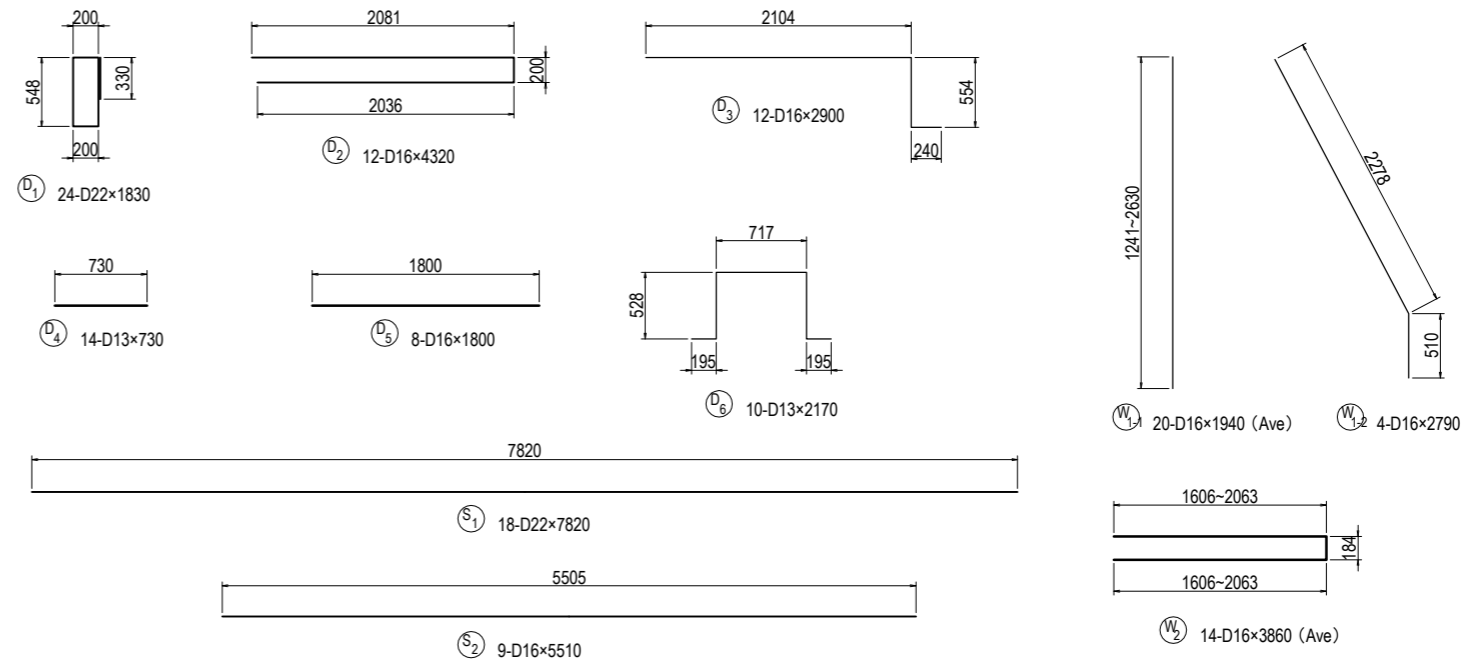
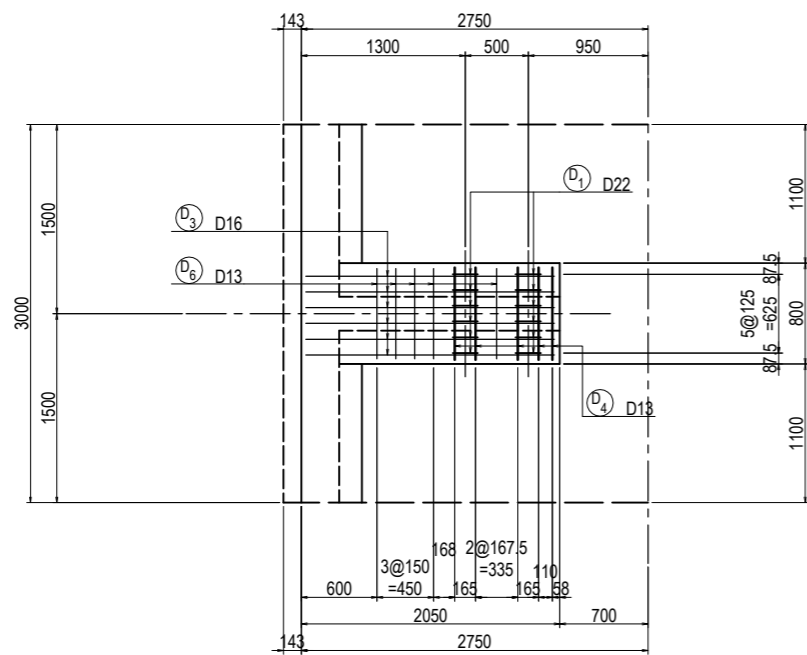


BAR STATISTICS TABLE

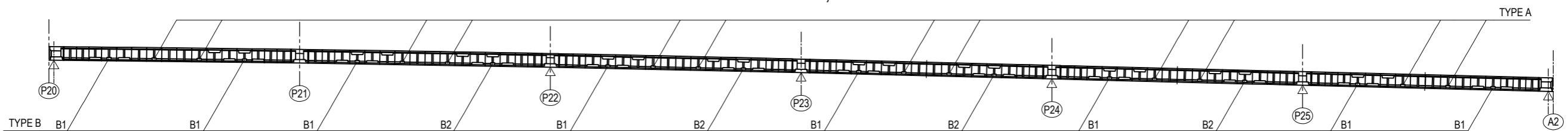
(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-B2							
D 1	D22	1830	24	3.04	5.56	133	□
2	D16	4320	12	1.56	6.74	81	□
3	D16	2900	12	1.56	4.52	54	□
4	D13	730	14	0.995	0.73	10	□
5	D16	1800	8	1.56	2.81	22	□
6	D13	2170	10	0.995	2.16	22	□
W 1-1	D16	1940	20	1.56	3.03	61	(Ave)
1-2	D16	2790	4	1.56	4.35	17	□
2	D16	3860	14	1.56	6.02	84	□ (Ave)
S 1	D22	7820	18	3.04	23.77	428	—
2	D16	5510	9	1.56	8.60	77	—
				D13	32 kg x4=	128 kg	
				D16	396 kg x4=	1584 kg	
				D22	561 kg x4=	2244 kg	
Total Weight				989 kg x4=	3956 kg	/ 1 Bridge	

3 - 3 SECTIONS



LOCATION <L,R>



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

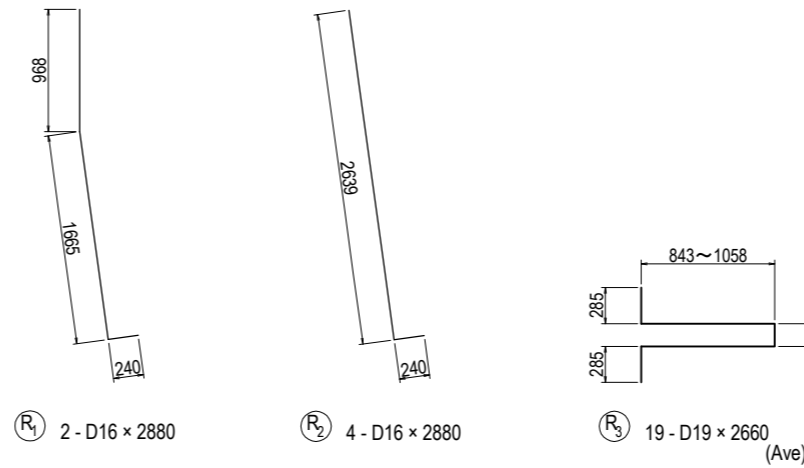
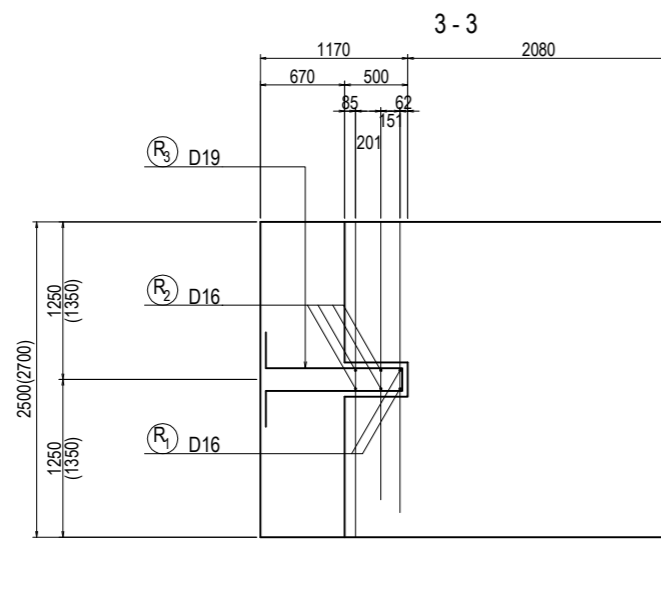
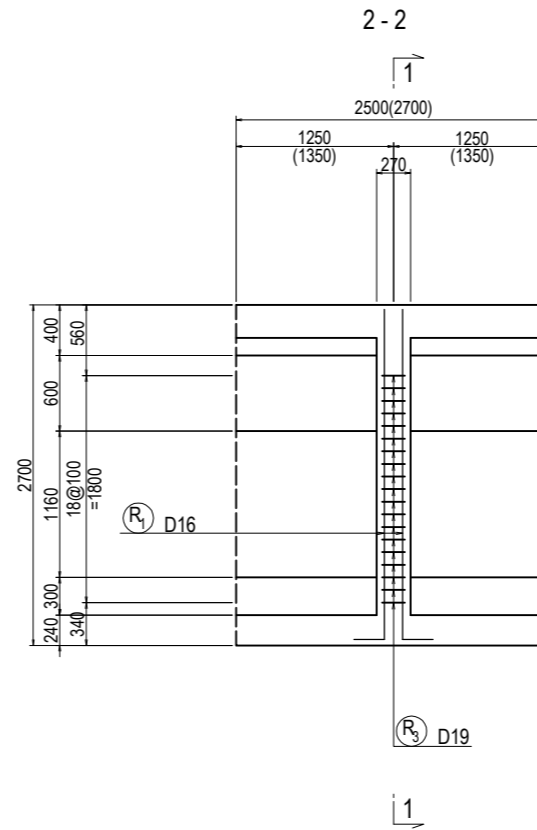
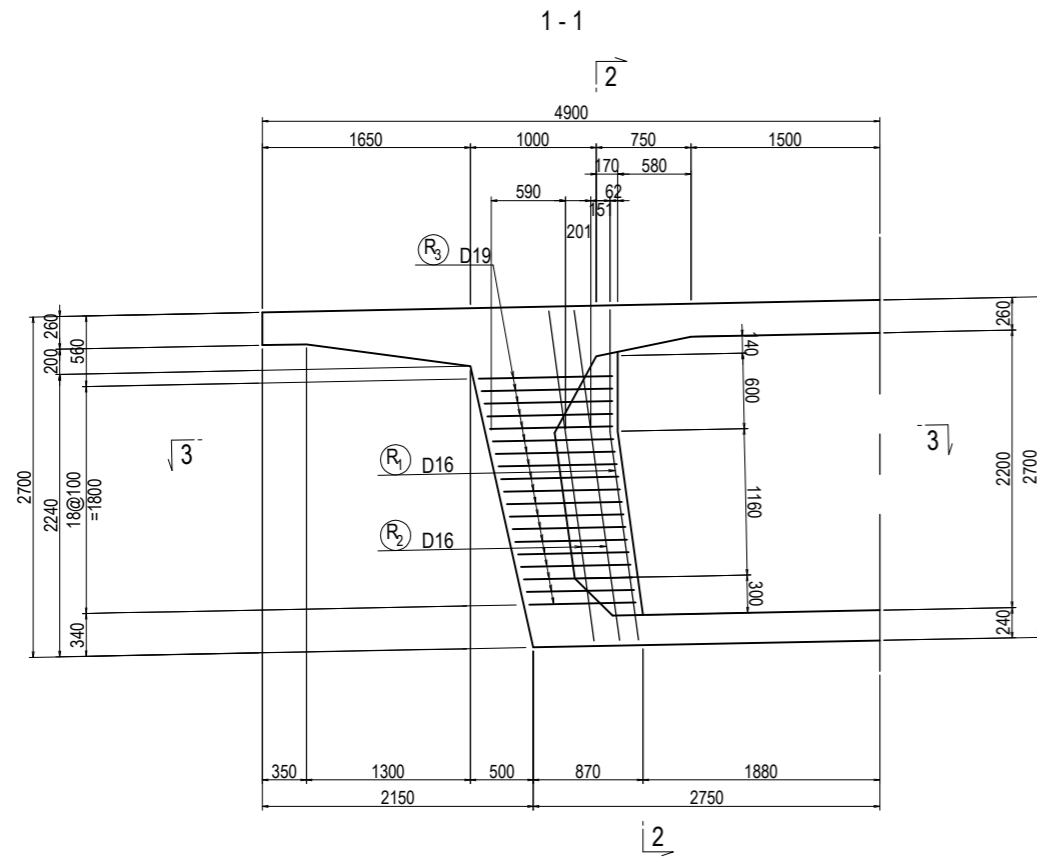
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知邦	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (30)
[DEVIATOR]

PACKAGE
2
DWG No.
P2-PB-1330

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (31) [RIB]

S=1:60

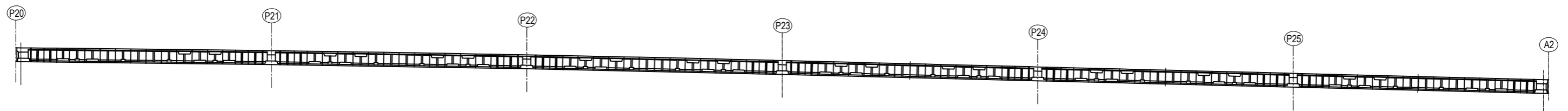


BAR STATISTICS TABLE

(For 1 Rib)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
R 1	D16	2880	2	1.56	4.49	9	└┘
R 2	D16	2880	4	1.56	4.49	18	└┘
R 3	D19	2660	19	2.25	5.99	114	└┘ (Ave)
				D16	27 kg		
				D19	114 kg		
				Total Weight	141 kg		

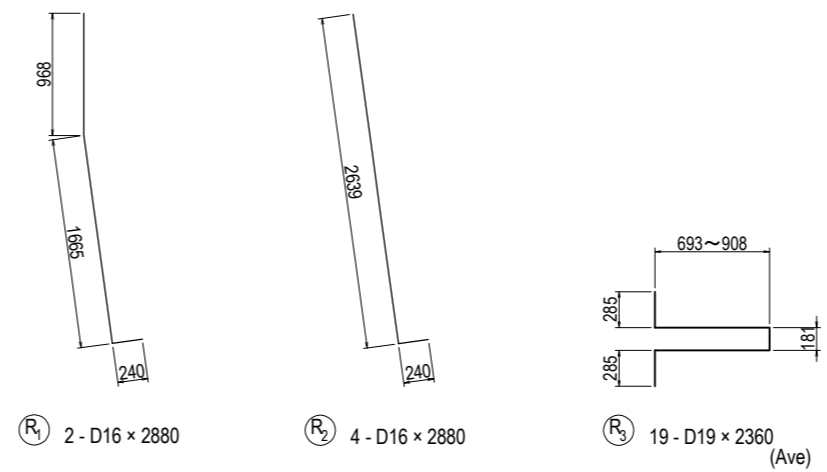
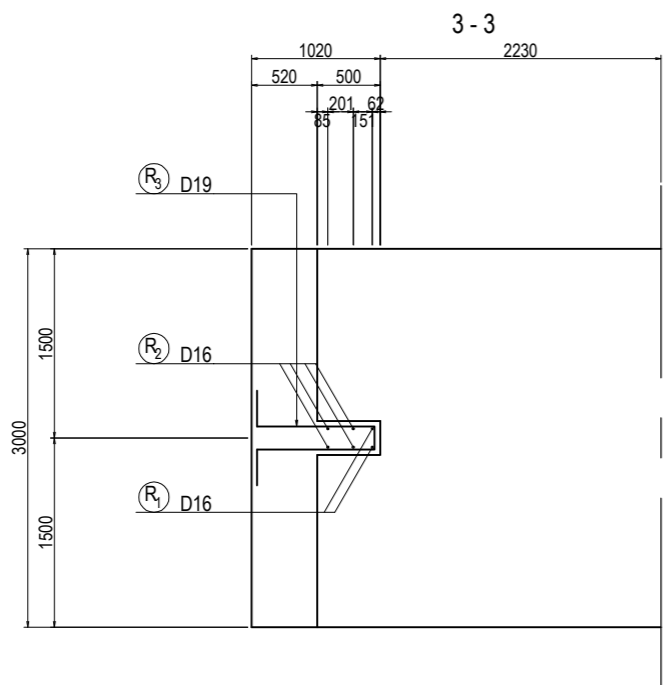
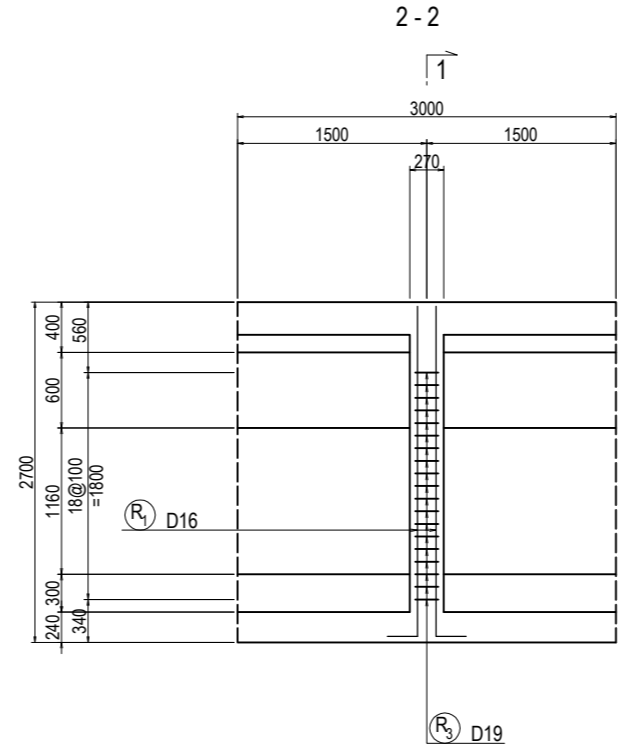
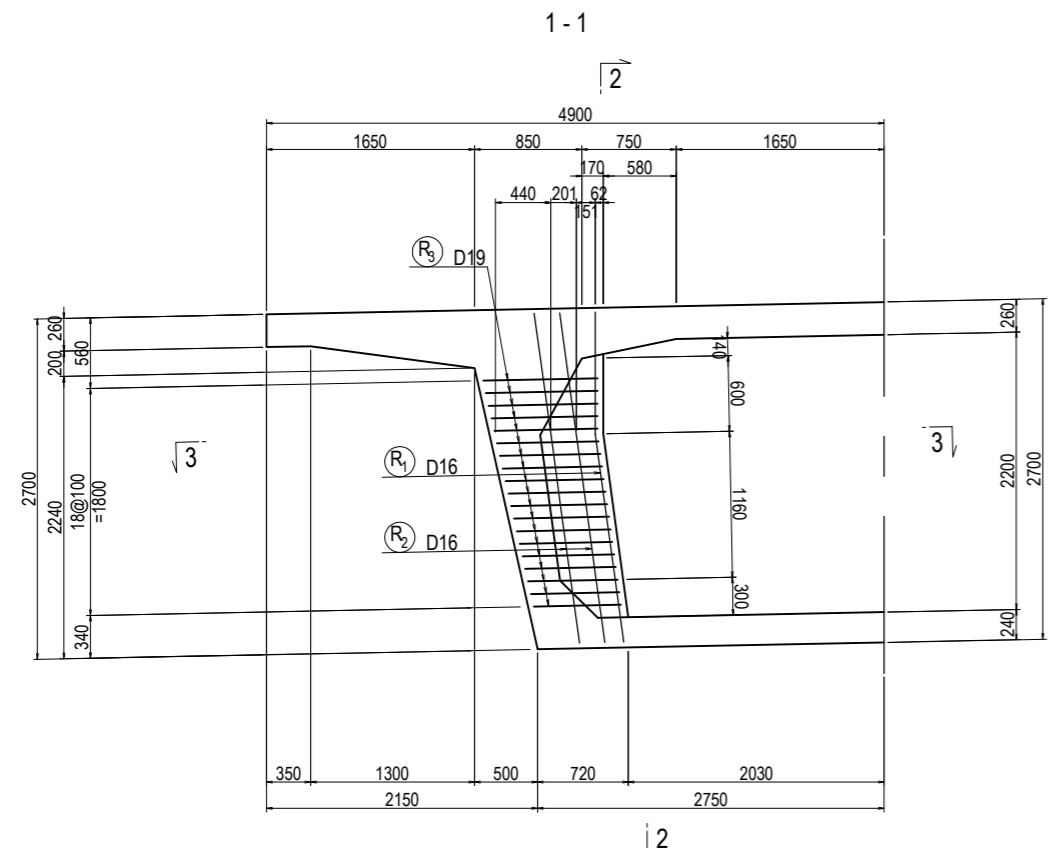
LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (31) [RIB]	PACKAGE 2 DWG No. P2-PB-1331	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (32) [RIB]

S=1:60

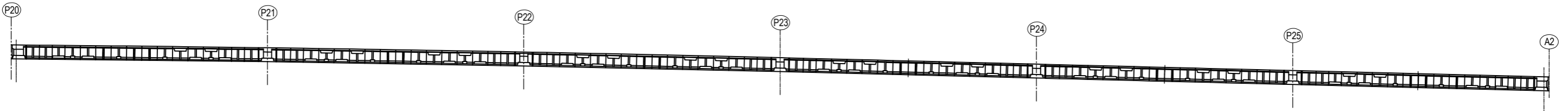


BAR STATISTICS TABLE

(For 1 Rib)

Bar Mark	Bar Size	Length (mm)	No.Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
R 1	D16	2880	2	1.56	4.49	9	┘
2	D16	2880	4	1.56	4.49	18	┘
3	D19	2360	19	2.25	5.31	101	≡ (Ave)
				D16	27 kg		
				D19	101 kg		
				Total Weight	128 kg		

LOCATION <L,R>

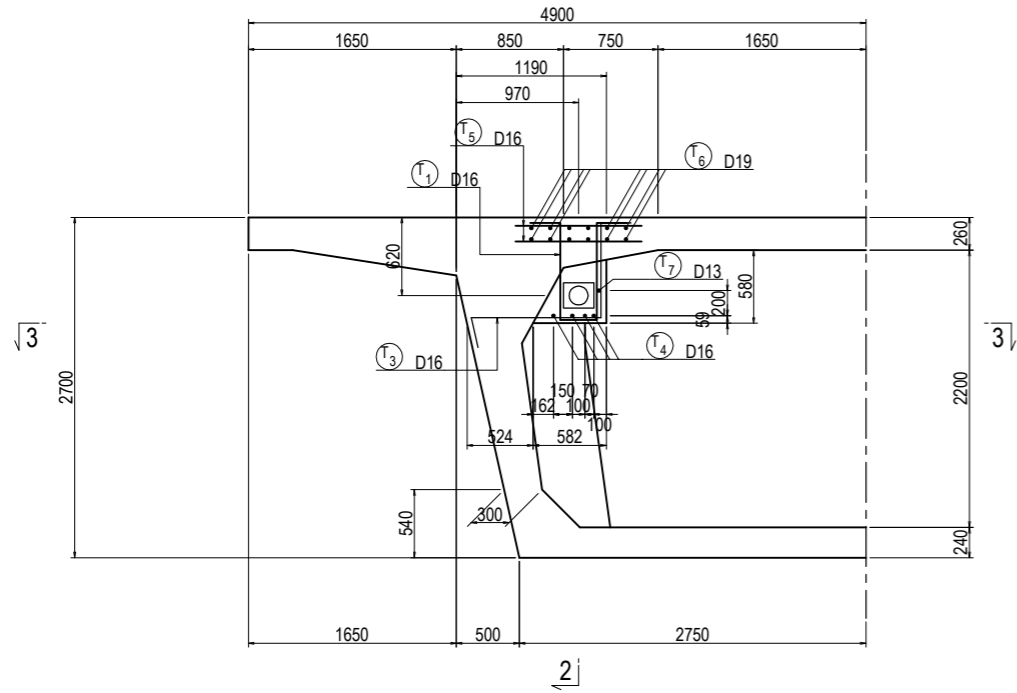


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (33) [BLISTER ANCHORAGE]

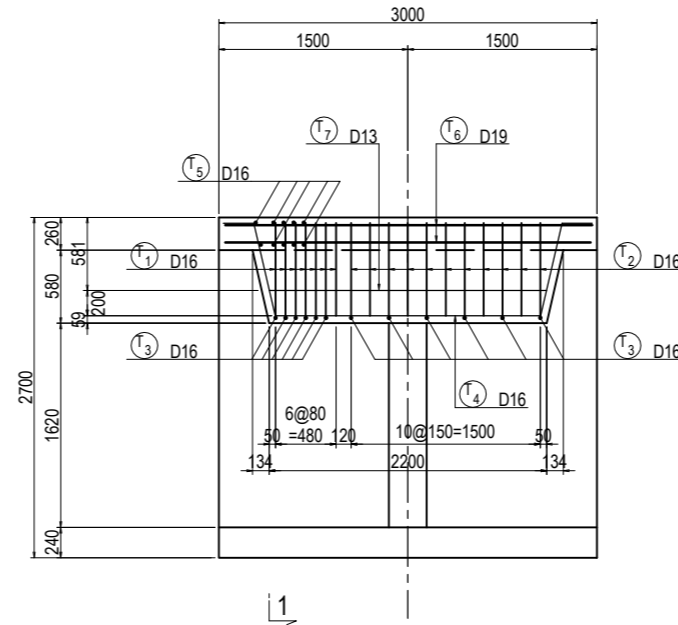
S=1:60

TYPE-A

1-1 SECTIONS



2-2 SECTIONS

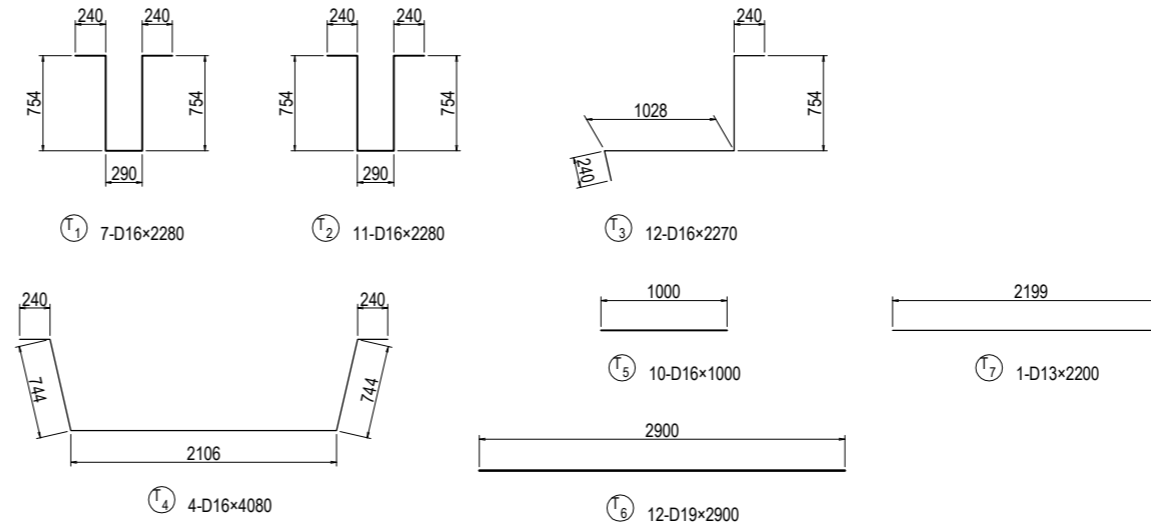
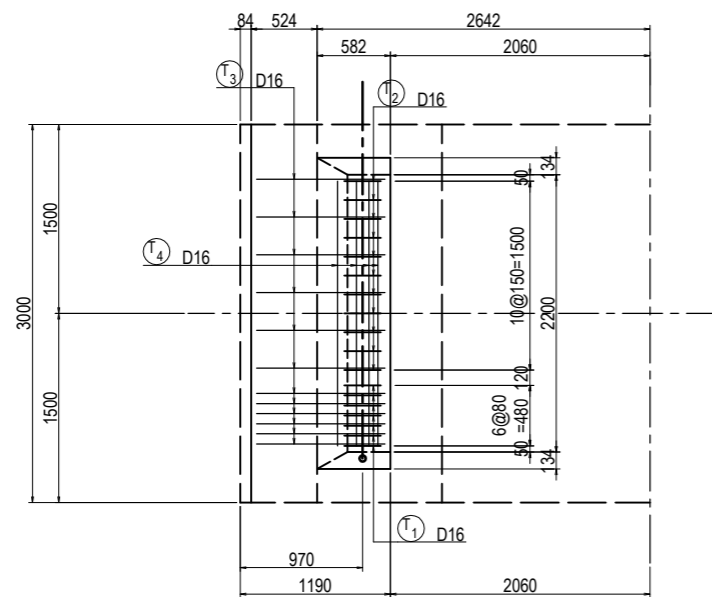


BAR STATISTICS TABLE

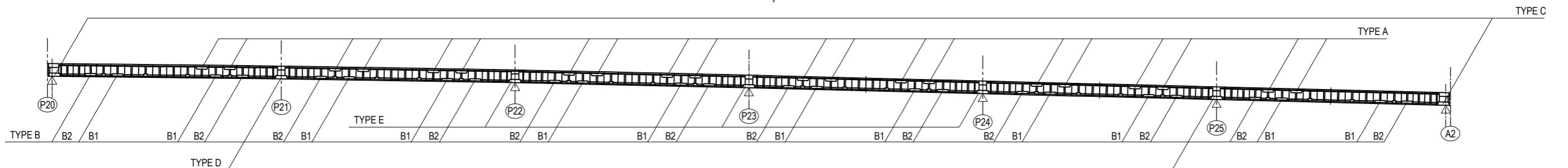
(For 1 Anchor)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-A							
T 1	D16	2280	7	1.56	3.56	25	┌┐
2	D16	2280	11	1.56	3.56	39	┌┐
3	D16	2270	12	1.56	3.55	43	┌┐
4	D16	4080	4	1.56	6.37	26	┌┐
5	D16	1000	10	1.56	1.56	16	—
6	D19	2900	12	2.25	6.53	78	—
7	D13	2200	1	0.995	2.19	2	—
				D13	2 kg ×40=	80 kg	
				D16	149 kg ×40=	5960 kg	
				D19	78 kg ×40=	3120 kg	
				Total Weight	229 kg ×40=	9160 kg	

3-3 SECTIONS



LOCATION <L,R>



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (33) [BLISTER ANCHORAGE]	PACKAGE 2 DWG No. P2-PB-1333	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (34) [BLISTER ANCHORAGE]

S=1:60

TYPE-B1

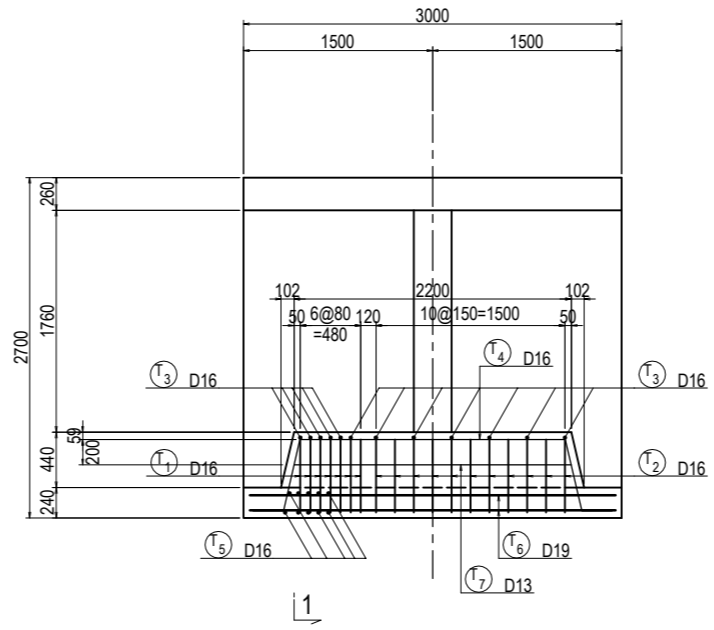
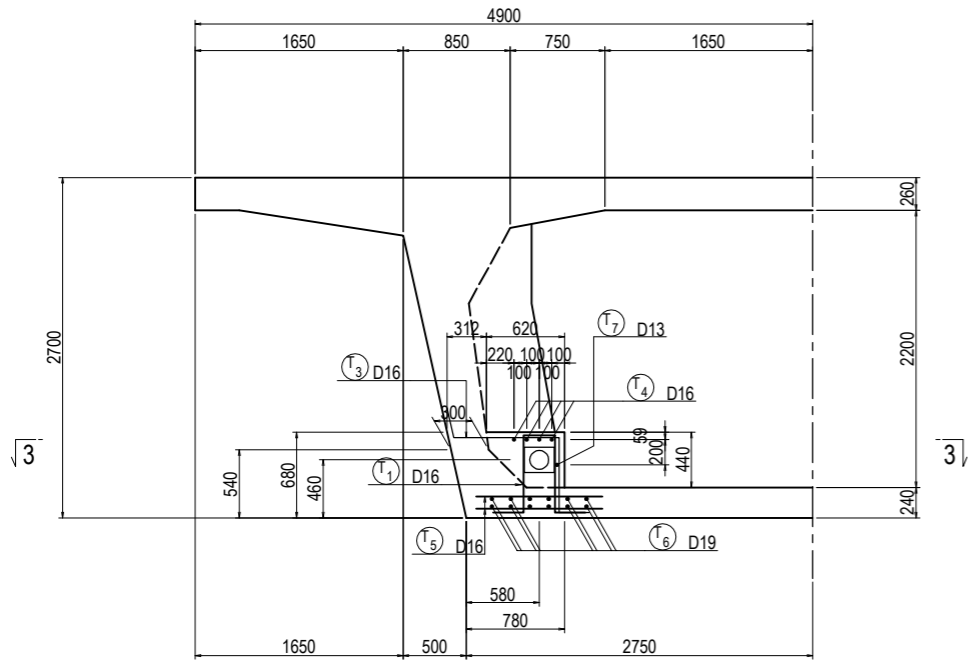
1-1 SECTIONS

2-2 SECTIONS

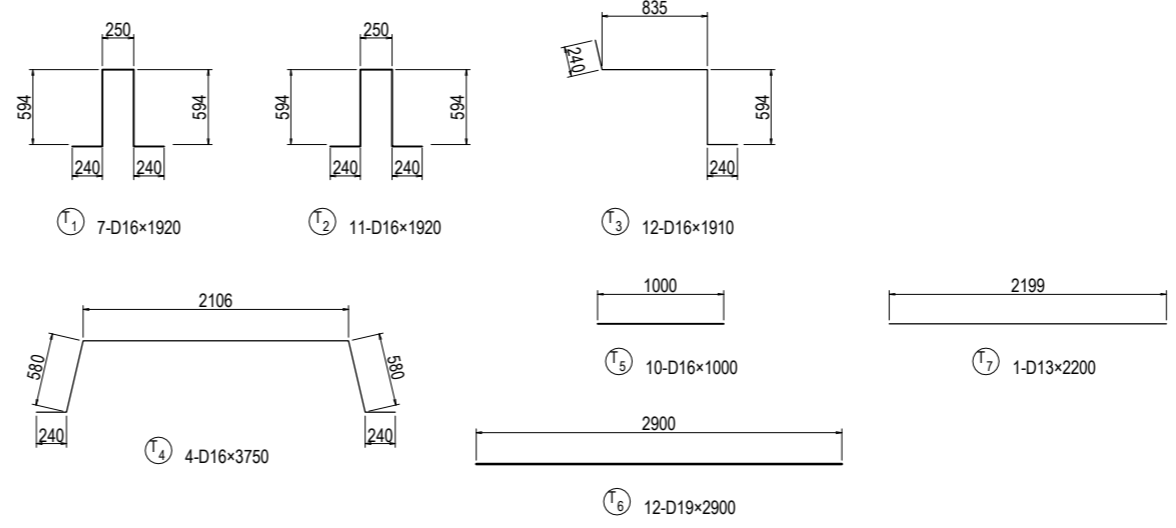
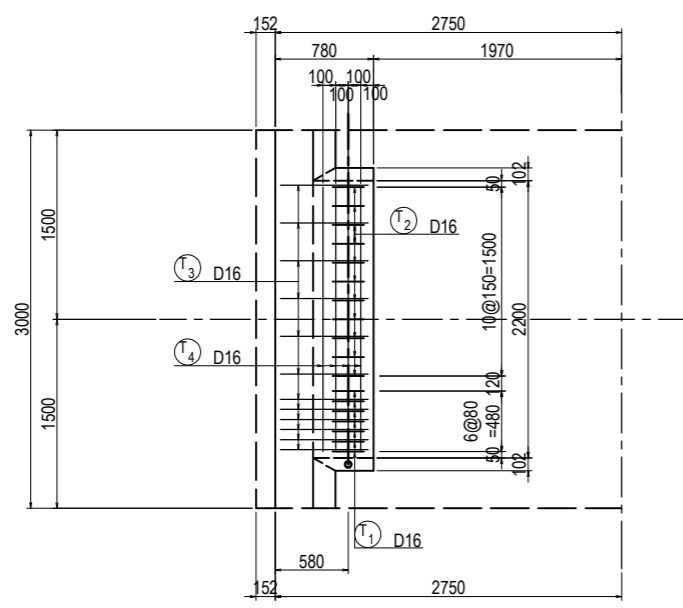
BAR STATISTICS TABLE

(For 1 Anchor)

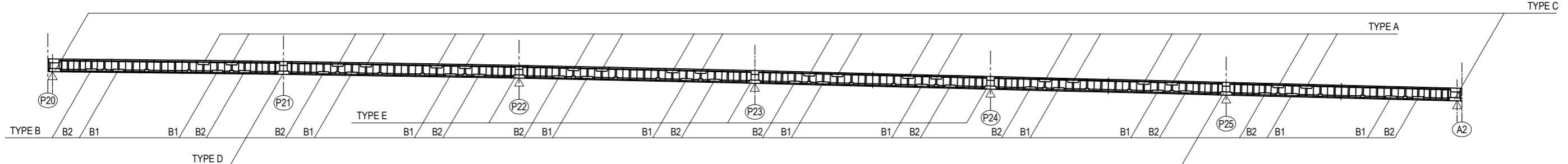
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
Type-B1							
T 1	D16	1920	7	1.56	3.00	21	┌┐
2	D16	1920	11	1.56	3.00	33	┌┐
3	D16	1910	12	1.56	2.98	36	┌┐
4	D16	3750	4	1.56	5.85	23	┌┐
5	D16	1000	10	1.56	1.56	16	—
6	D19	2900	12	2.25	6.53	78	—
7	D13	2200	1	0.995	2.19	2	—
				D13	2 kg	×24=	48 kg
				D16	129 kg	×24=	3096 kg
				D19	78 kg	×24=	1872 kg
				Total Weight	209 kg	×24=	5016 kg



3-3 SECTIONS



LOCATION <L,R>

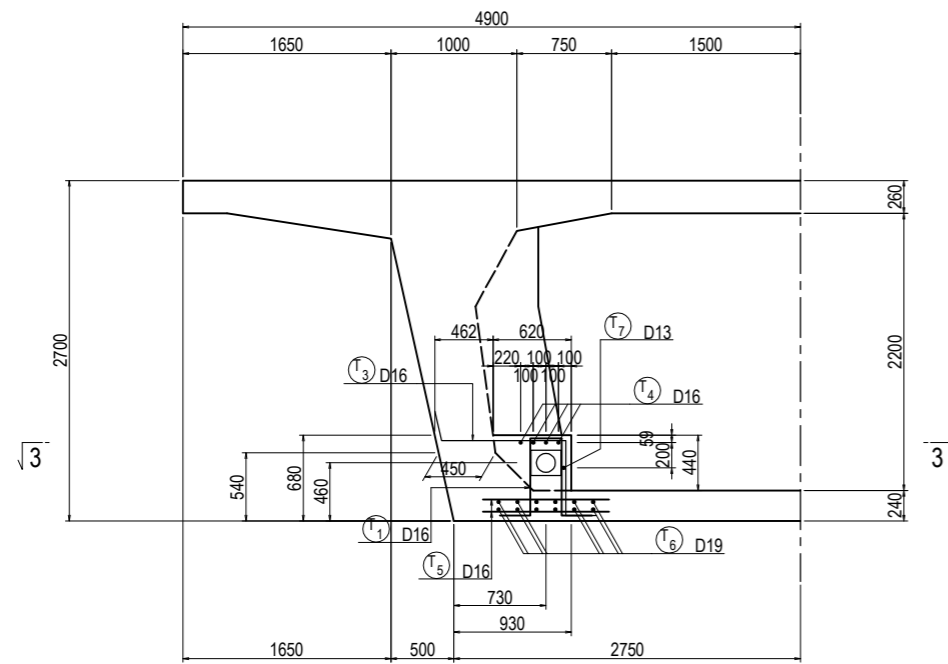


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (35) [BLISTER ANCHORAGE]

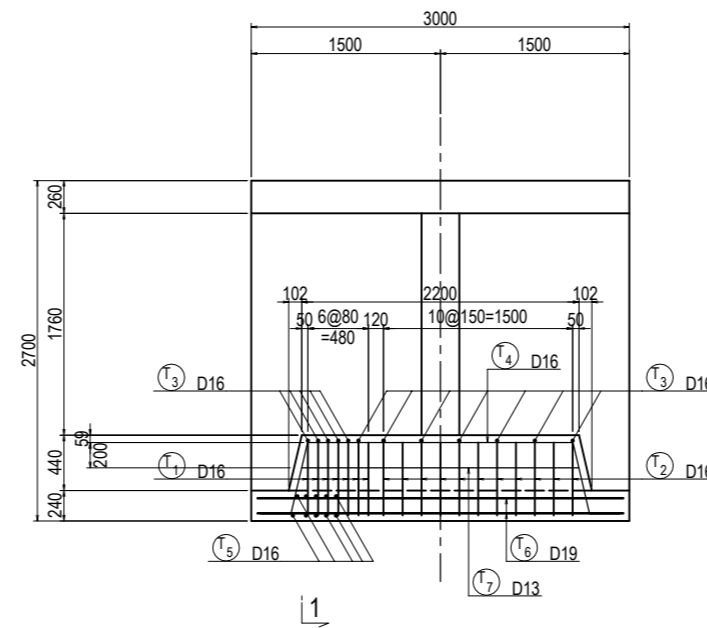
S=1:60

TYPE-B2

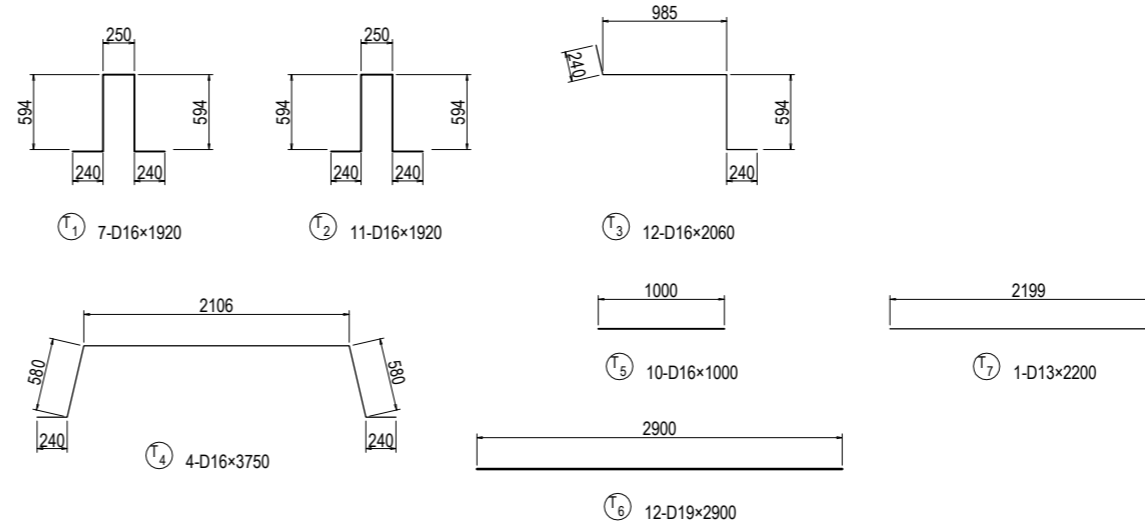
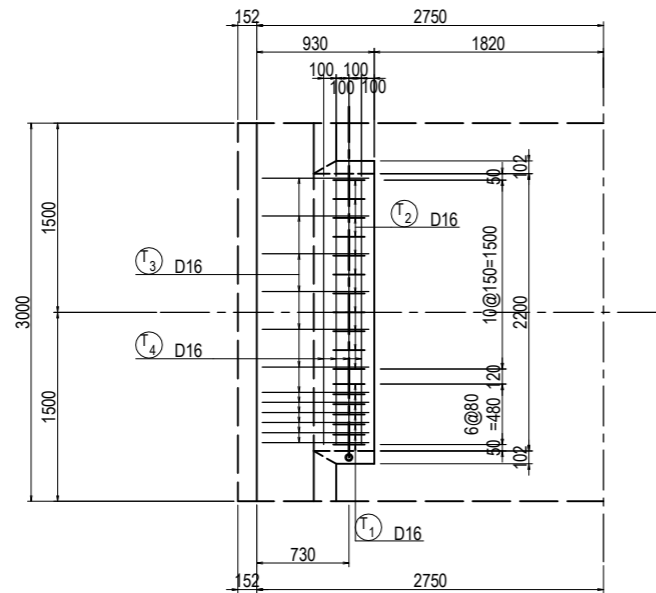
1-1 SECTIONS



2-2 SECTIONS



3-3 SECTIONS

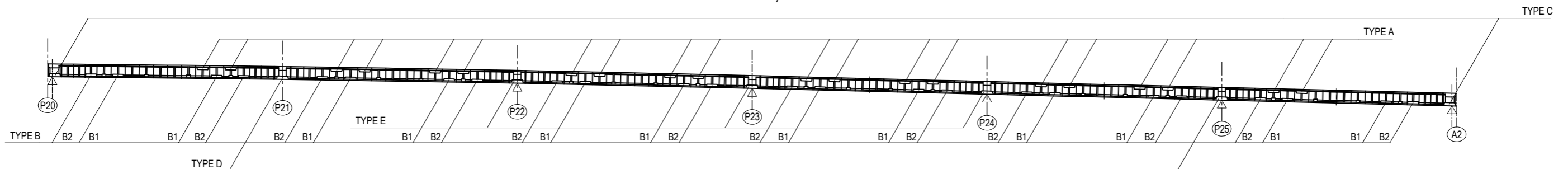


BAR STATISTICS TABLE

(For 1 Anchor)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
Type-B2							
T 1	D16	1920	7	1.56	3.00	21	
2	D16	1920	11	1.56	3.00	33	
3	D16	2060	12	1.56	3.21	39	
4	D16	3750	4	1.56	5.85	23	
5	D16	1000	10	1.56	1.56	16	
6	D19	2900	12	2.25	6.53	78	
7	D13	2200	1	0.995	2.19	2	
				D13	2 kg ×24=	48 kg	
				D16	132 kg ×24=	3168 kg	
				D19	78 kg ×24=	1872 kg	
				Total Weight	212 kg ×24=	5088 kg	

LOCATION <L,R>



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (35)
[BLISTER ANCHORAGE]

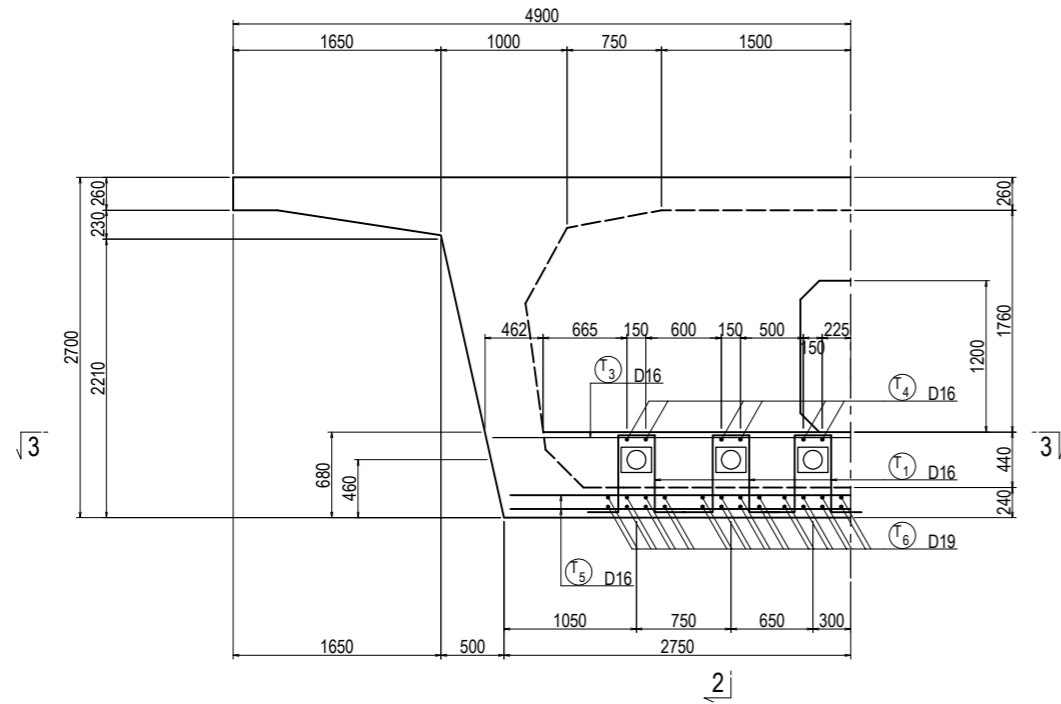
PACKAGE
2
DWG No.
P2-PB-1335

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (36) [BLISTER ANCHORAGE]

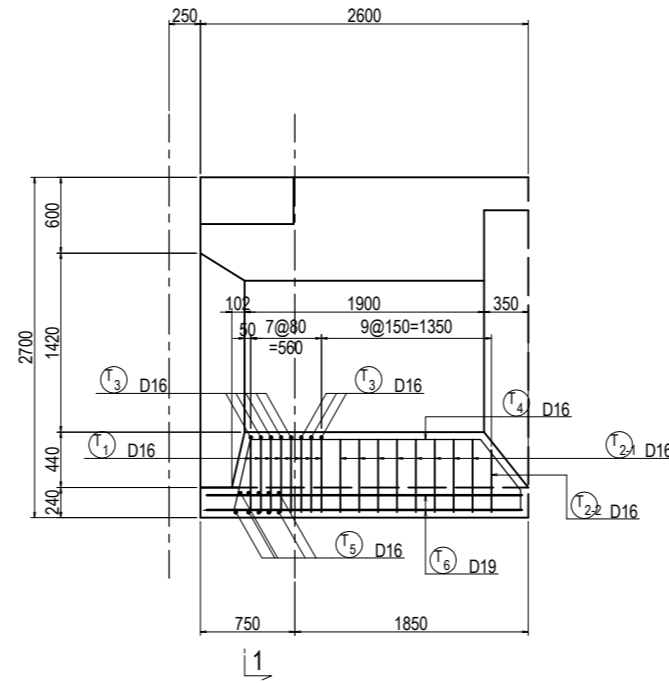
S=1:60

TYPE-C

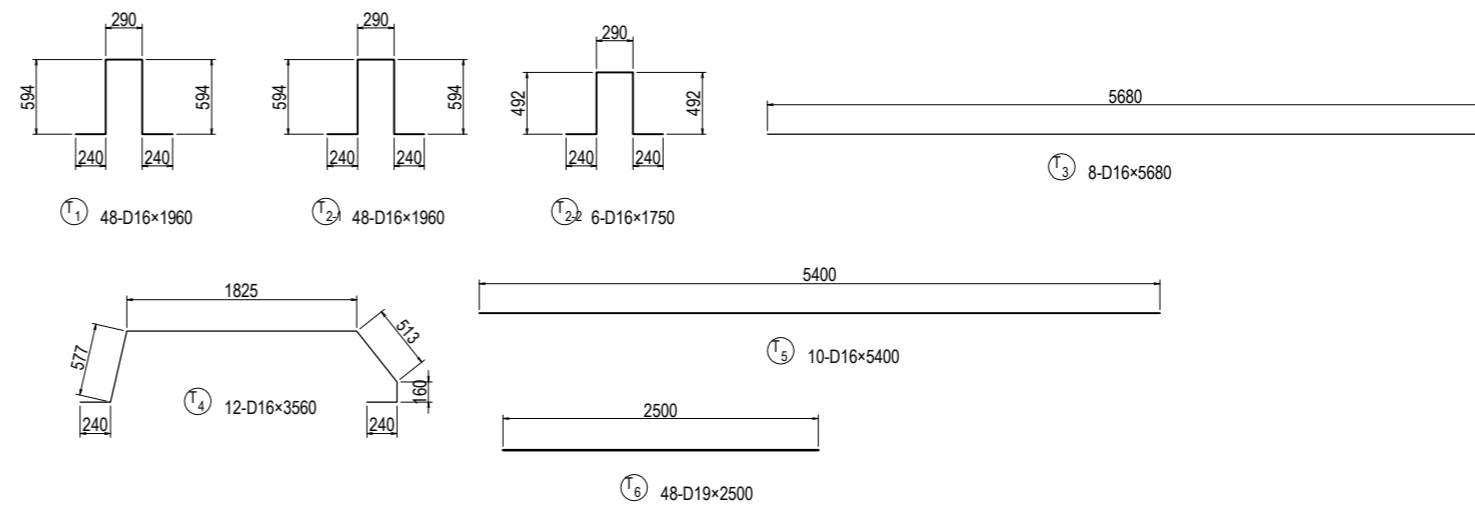
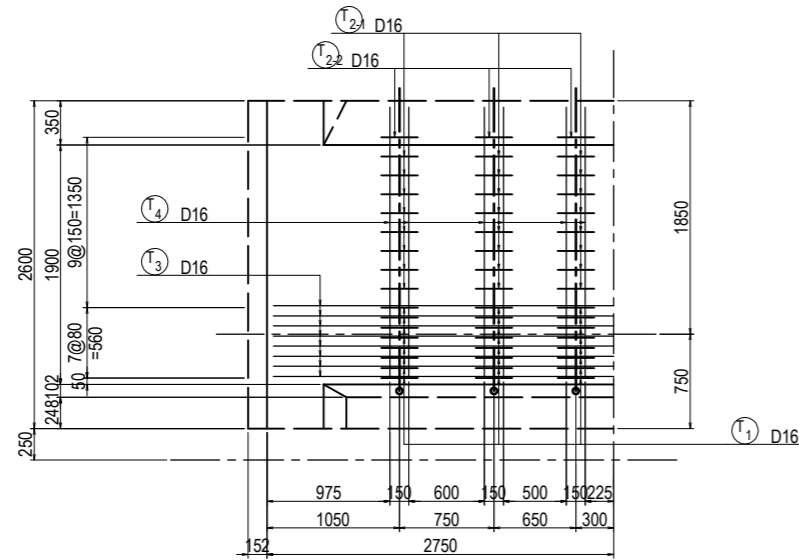
1 - 1 SECTIONS



2 - 2 SECTIONS



3 - 3 SECTIONS

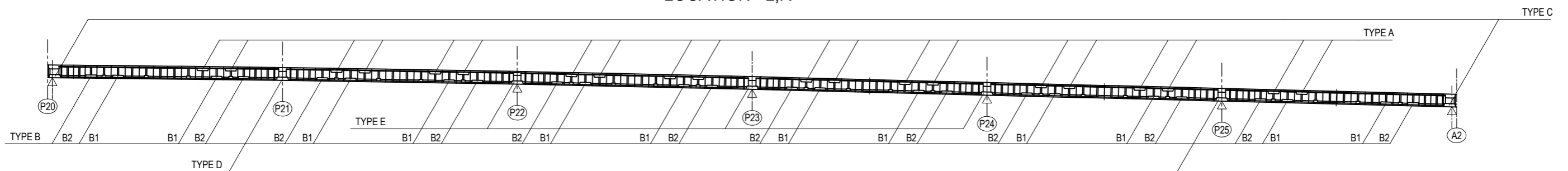


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-C							
T 1	D16	1960	48	1.56	3.06	147	┌┐
2-1	D16	1960	48	1.56	3.06	147	┌┐
2-2	D16	1750	6	1.56	2.73	16	┌┐
3	D16	5680	8	1.56	8.86	71	—
4	D16	3560	12	1.56	5.55	67	┌┐
5	D16	5400	10	1.56	8.42	84	—
6	D19	2500	48	2.25	5.63	270	—
				D16	532 kg	x2= 1064 kg	
				D19	270 kg	x2= 540 kg	
				Total Weight	802 kg	x2= 1604 kg	

LOCATION <L,R>



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (36)
[BLISTER ANCHORAGE]

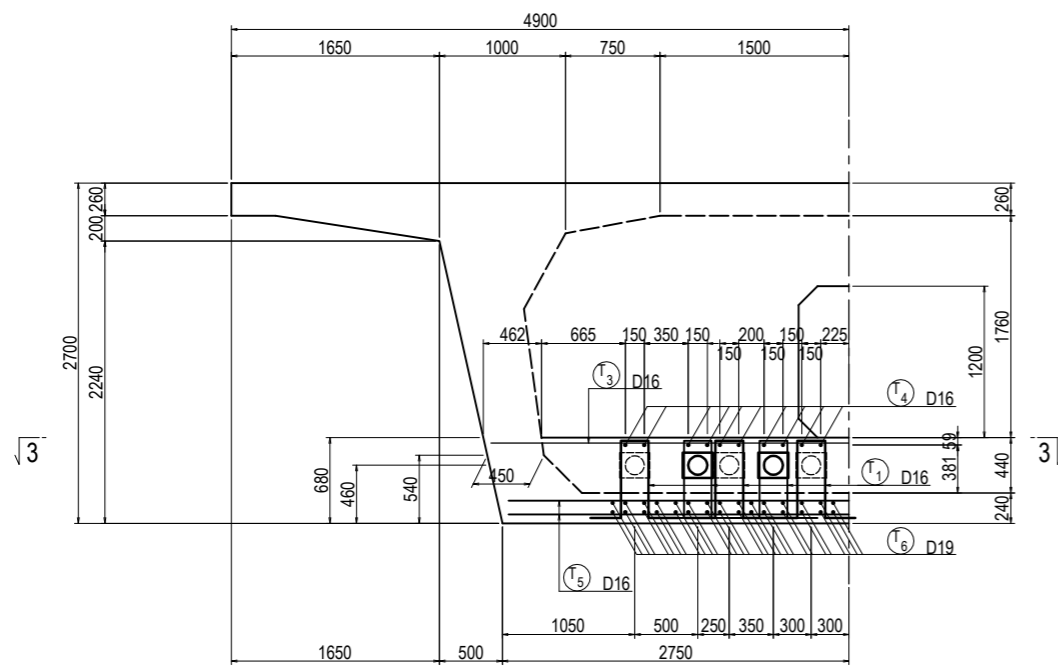
PACKAGE
2
DWG No.
P2-PB-1336

BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (37) [BLISTER ANCHORAGE]

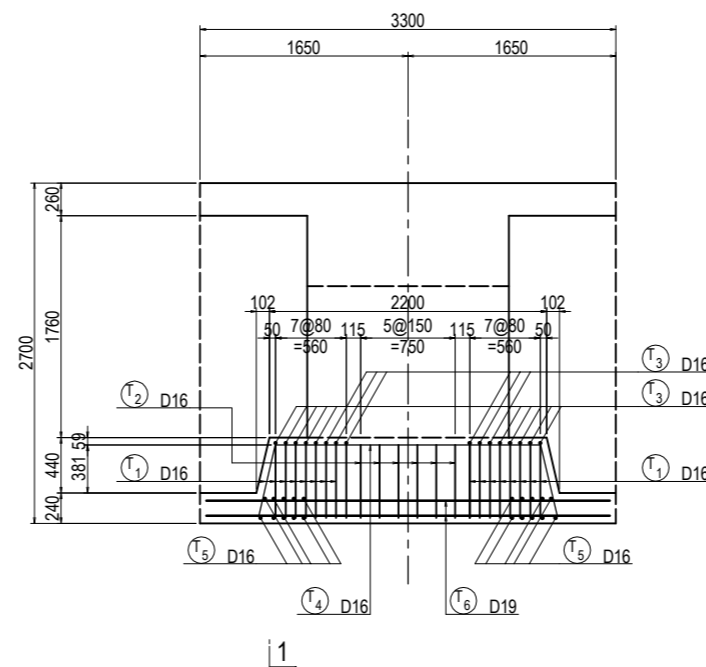
S=1:60

TYPE-D

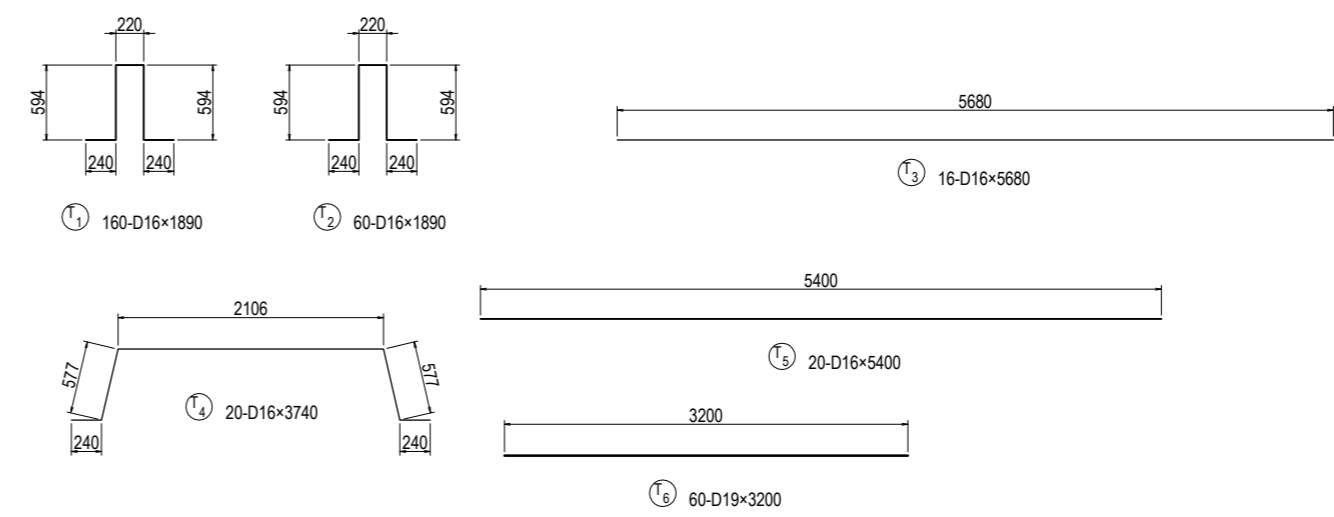
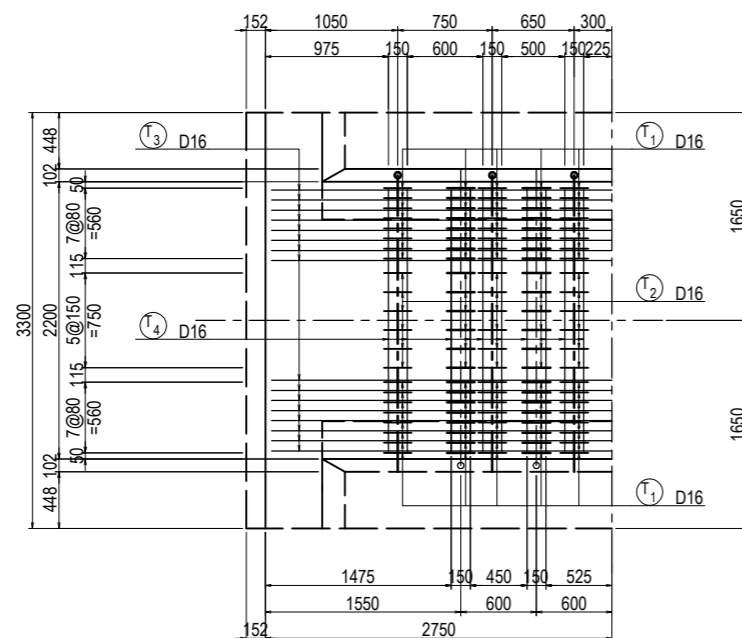
1 - 1 SECTIONS



2 - 2 SECTIONS



3 - 3 SECTIONS

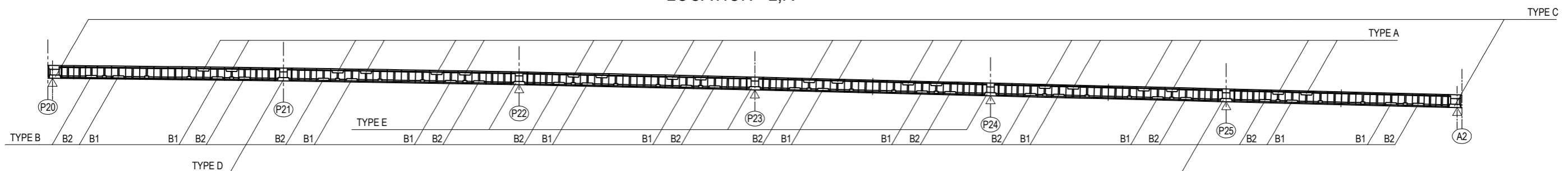


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-D							
T 1	D16	1890	160	1.56	2.95	472	┌┐
2	D16	1890	60	1.56	2.95	177	┌┐
3	D16	5680	16	1.56	8.87	142	—
4	D16	3740	20	1.56	5.83	117	┌┐
5	D16	5400	20	1.56	8.42	168	—
6	D19	3200	60	2.25	7.20	432	—
				D16	1076 kg	×2= 2152 kg	
				D19	432 kg	×2= 864 kg	
				Total Weight	1508 kg	×2= 3016 kg	

LOCATION <L,R>

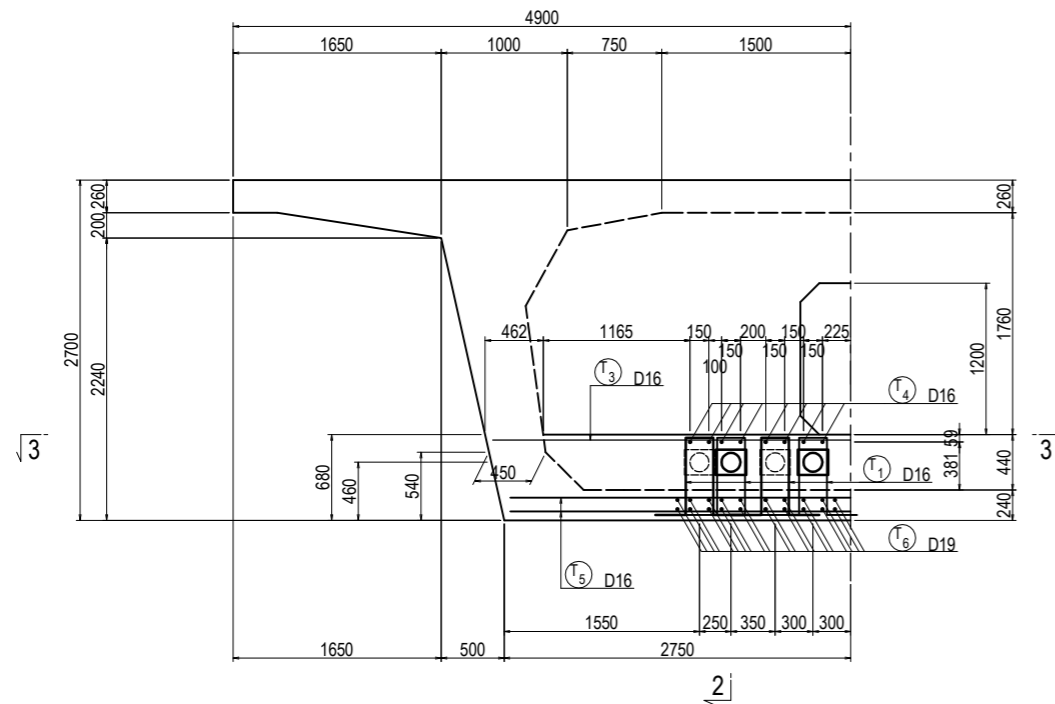


BAR ARRANGEMENT OF SEGMENT P20-A2 <L,R> (38) [BLISTER ANCHORAGE]

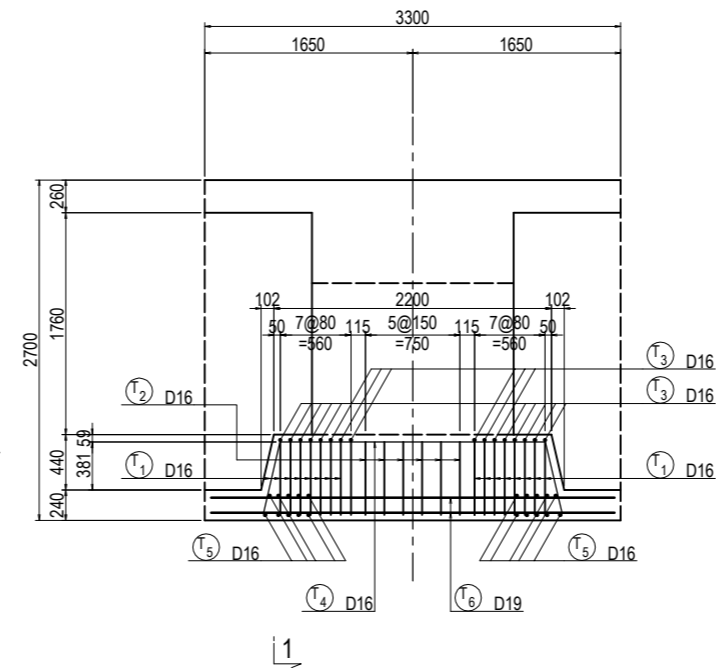
S=1:60

TYPE-E

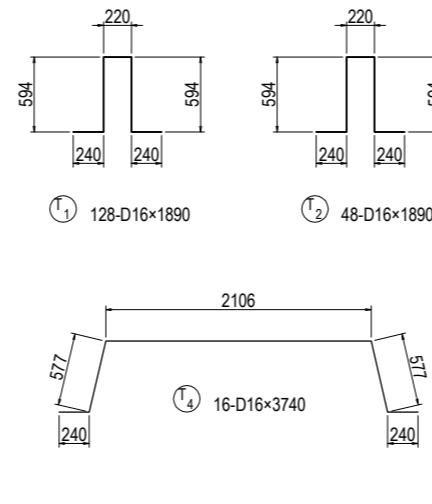
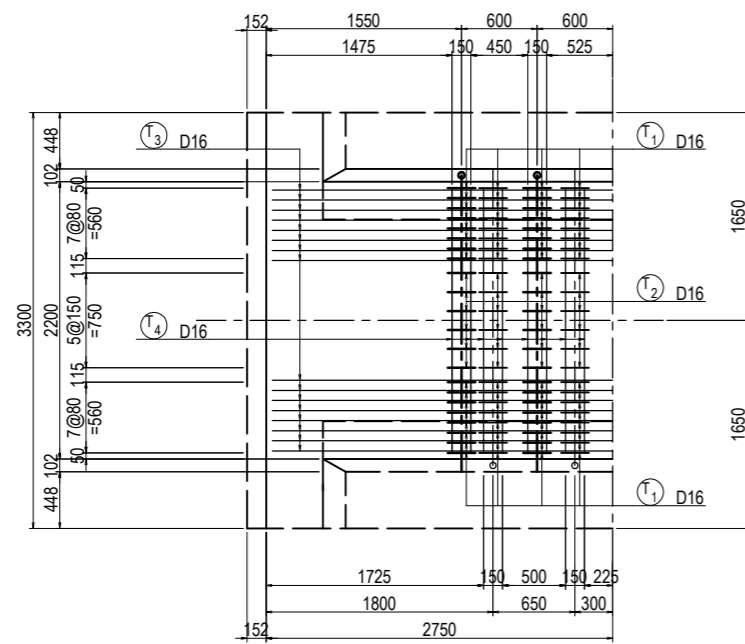
1-1 SECTIONS



2-2 SECTIONS



3-3 SECTIONS

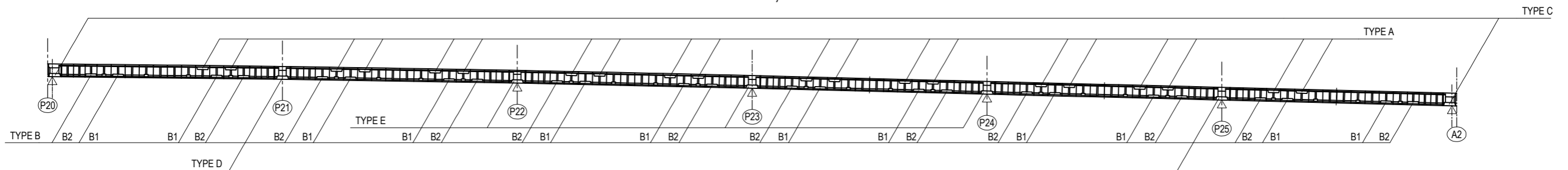


BAR STATISTICS TABLE

(For 1 Block)

Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
TYPE-E							
T 1	D16	1890	128	1.56	2.95	378	┌┐
2	D16	1890	48	1.56	2.95	142	┌┐
3	D16	5680	16	1.56	8.87	142	—
4	D16	3740	16	1.56	5.83	93	┌┐
5	D16	5400	20	1.56	8.42	168	—
6	D19	3200	40	2.25	7.20	288	—
				D16	923 kg	×3= 2769 kg	
				D19	288 kg	×3= 864 kg	
Total Weight				1211 kg	×3= 3633 kg		

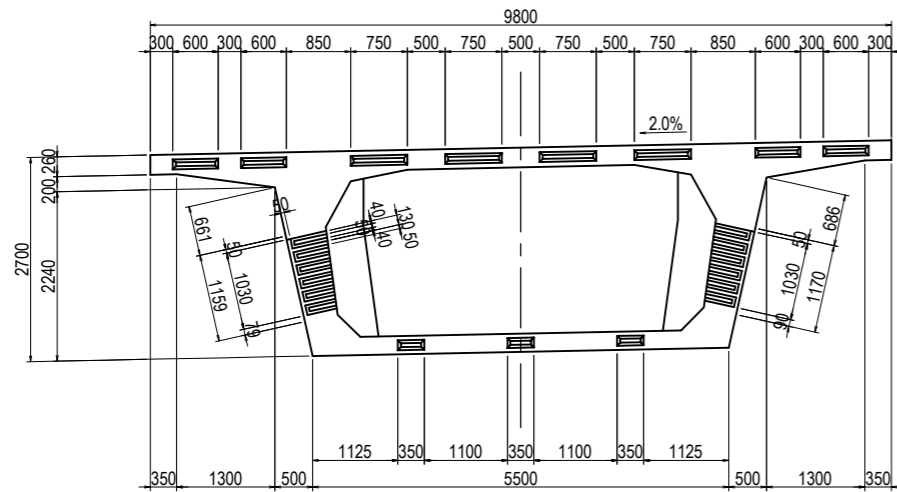
LOCATION <L,R>



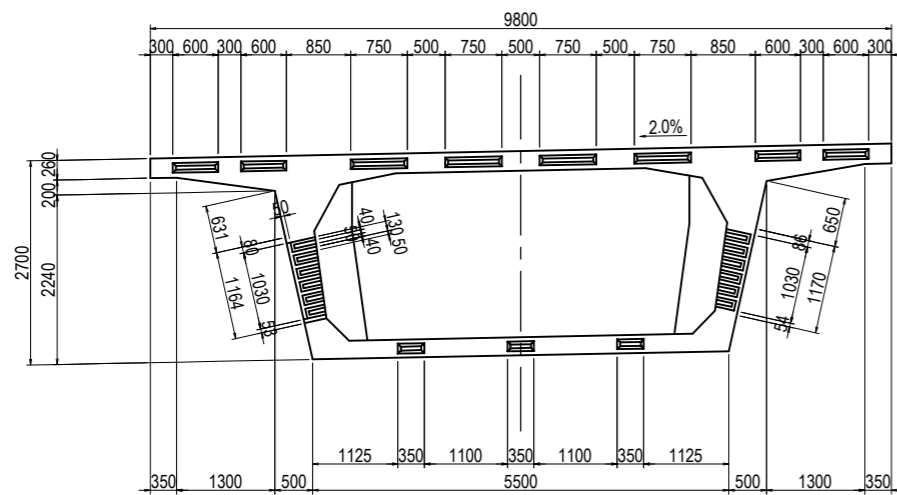
ARRANGEMENT OF SHEAR KEY P20-A2 <L,R>

CROSS SECTIONS S=1:100

Type-A

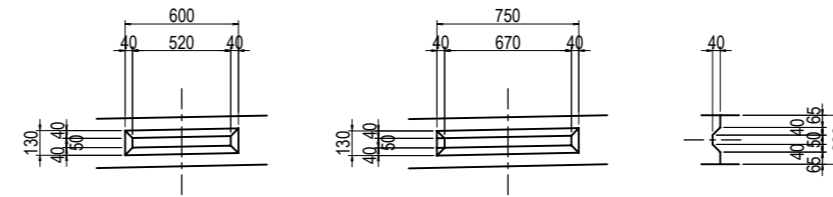


Type-B

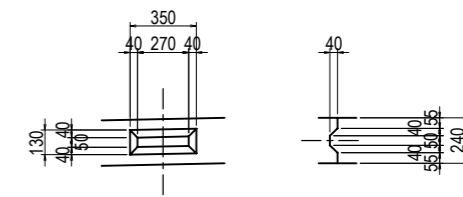


DETAIL OF SHEARING KEY CONVEX S=1:40

UPPER SLAB

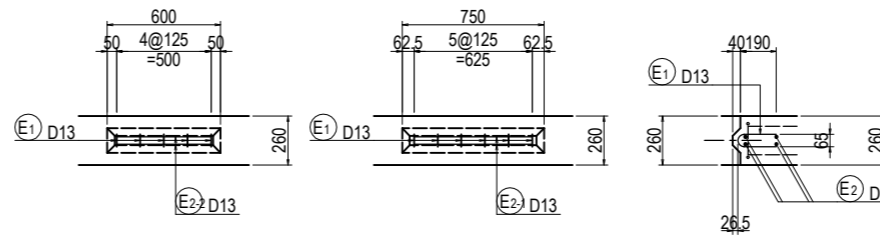


LOWER SLAB

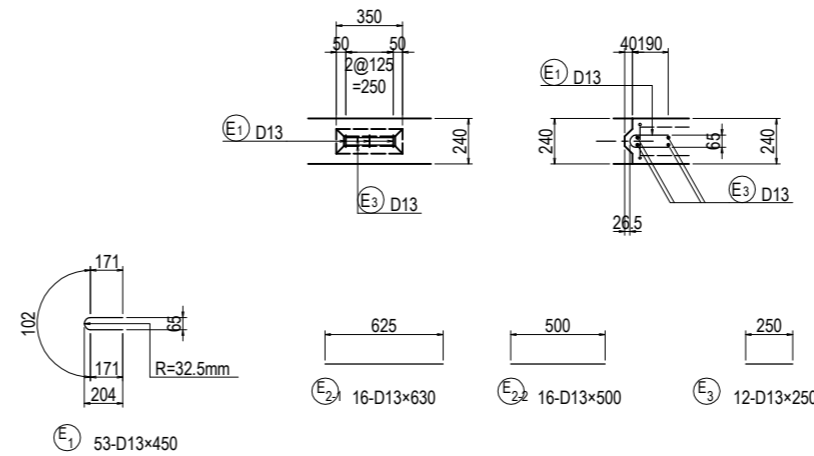


REBAR ARRANGEMENT OF SHEARING KEY S=1:40

UPPER SLAB



LOWER SLAB

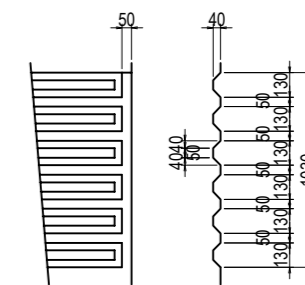


BAR STATISTICS TABLE (For 1 convex shearing key surface of segment)

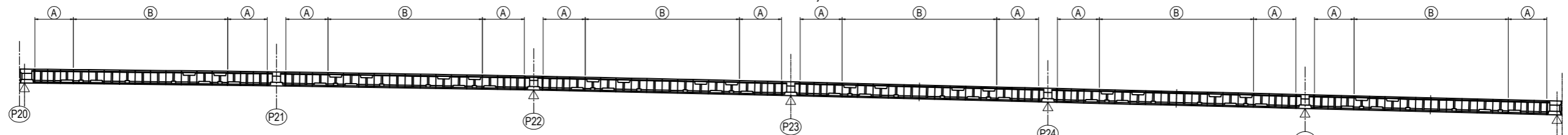
Bar Mark	Bar Size	Length (mm)	No. Of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
E 1	D13	450	53	0.995	0.45	24	C
2-1	D13	630	16	0.995	0.63	10	—
2-2	D13	500	16	0.995	0.50	8	—
3	D13	300	12	0.995	0.30	4	—
D13 46 kg							

DETAIL OF SHEARING KEY CONVEX S=1:40

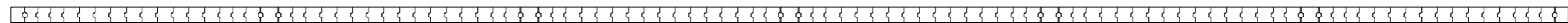
WEB



LOCATION <L,R>

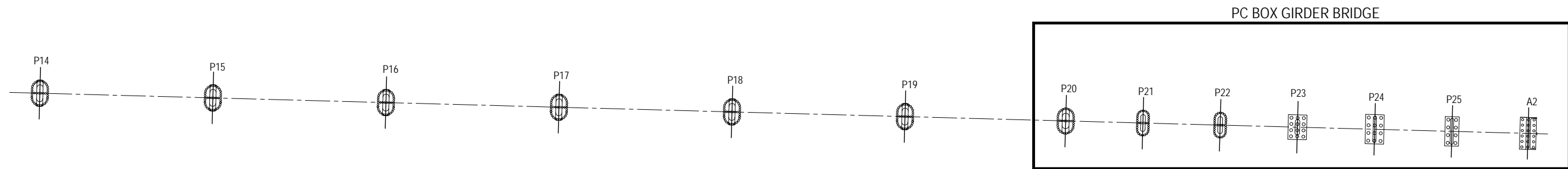
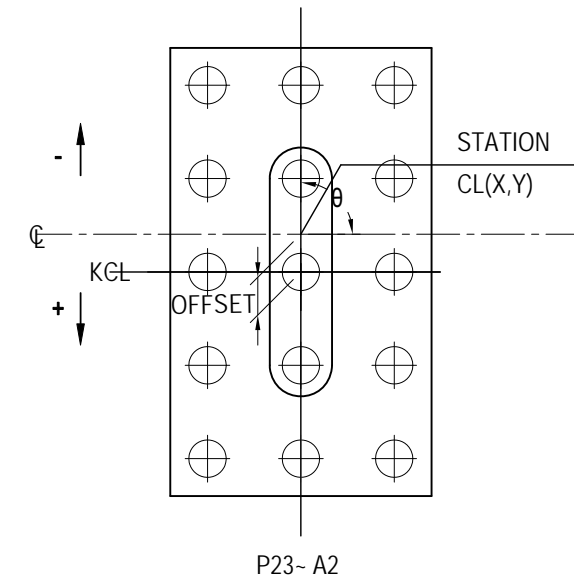
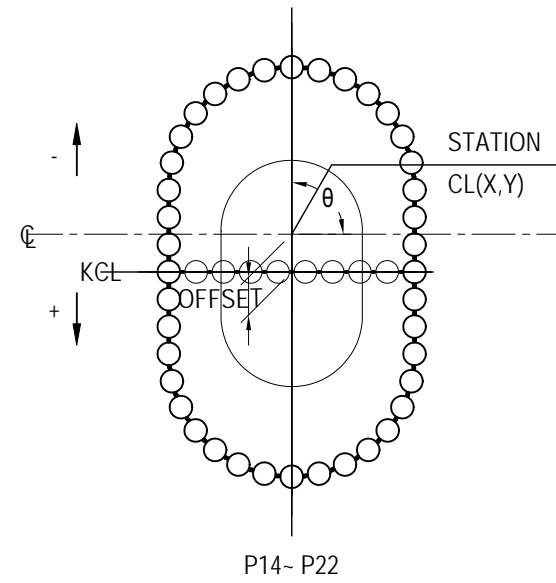


KEY ARRANGEMENT



COORDINATES OF SUBSTRUCTURE (P20-A2)

NAME		P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	A2
STATION		1+424.000	1+536.000	1+648.000	1+760.000	1+872.000	1+984.000	2+088.000	2+138.000	2+188.000	2+238.000	2+288.000	2+338.000	2+388.000
CL	X	1858363.5073	1858460.4724	1858557.4375	1858654.4026	1858751.3677	1858848.3328	1858938.3718	1858981.6598	1859024.9477	1859068.2357	1859111.5237	1859154.8117	1859198.0997
	Y	204959.0244	204902.9729	204846.9214	204790.8699	204734.8184	204678.7669	204626.7190	204601.6961	204576.6731	204551.6501	204526.6271	204501.6041	204476.5811
AZIMUTH		239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"	239d 58' 10.5"
SKEW ANGLE (θ)		90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"	90d 00' 00"
OFFSET (m)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

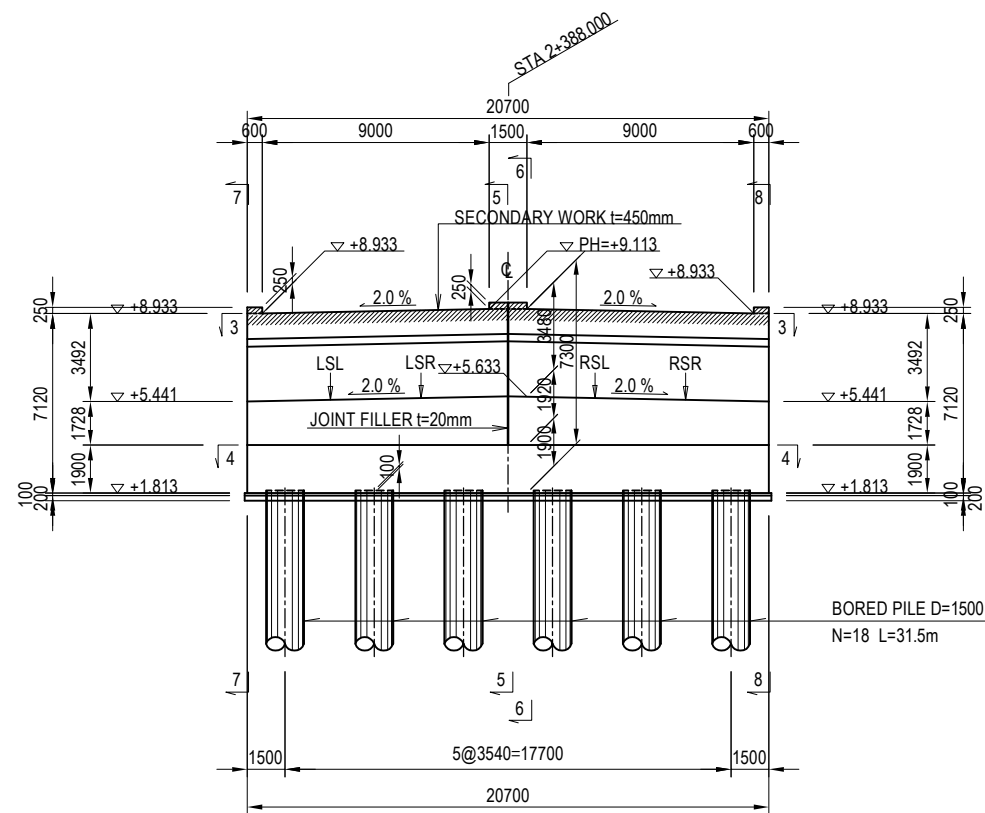


<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td>29 Sep. 2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>3 Oct. 2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>6 Oct. 2017</td> </tr> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	29 Sep. 2017	CHECKED BY	T. HAYAKAWA	3 Oct. 2017	APPROVED BY	Y. SANO	6 Oct. 2017	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">DRAWING TITLE</th> <th>PACKAGE</th> </tr> <tr> <td colspan="2" style="text-align: center;">COORDINATES OF SUBSTRUCTURE (P20-A2)</td> <td style="text-align: center;">2</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">DWG No.</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">P2-PB-2000</td> </tr> </table>	DRAWING TITLE		PACKAGE	COORDINATES OF SUBSTRUCTURE (P20-A2)		2			DWG No.			P2-PB-2000
NAME	SIGNATURE	DATE																											
PREPARED BY	M. OHYAMA	29 Sep. 2017																											
CHECKED BY	T. HAYAKAWA	3 Oct. 2017																											
APPROVED BY	Y. SANO	6 Oct. 2017																											
DRAWING TITLE		PACKAGE																											
COORDINATES OF SUBSTRUCTURE (P20-A2)		2																											
		DWG No.																											
		P2-PB-2000																											

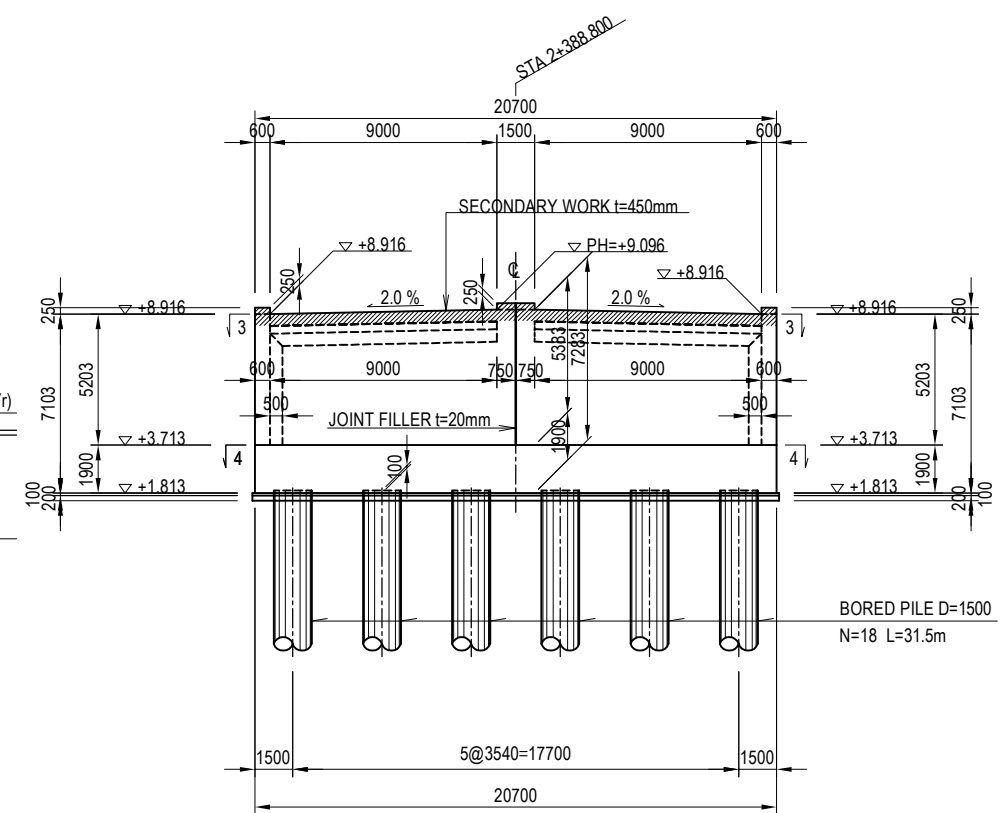
GENERAL VIEW OF A2 ABUTMENT(1)

S=1:300

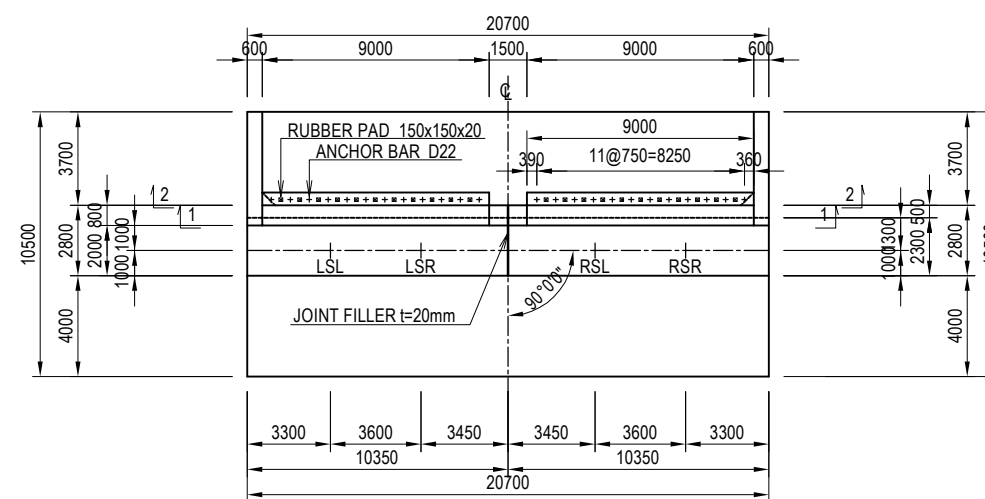
SECTION 1 - 1



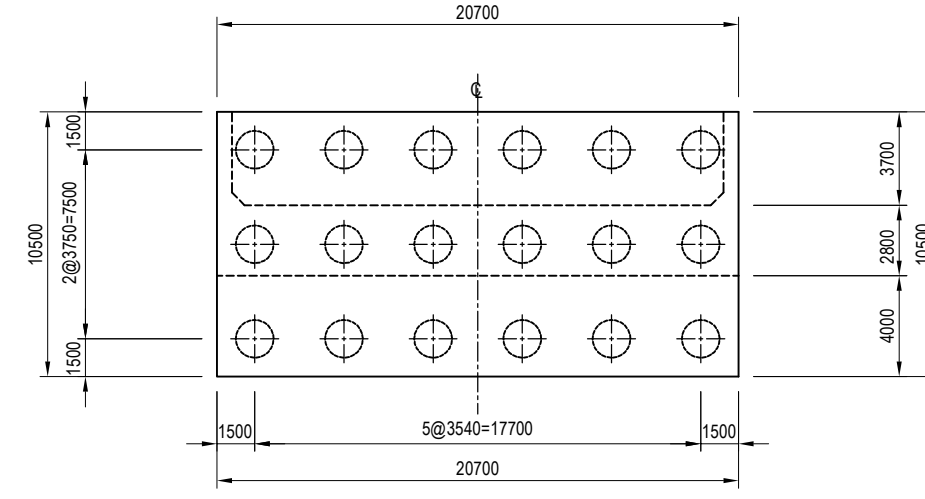
SECTION 2 - 2



SECTION 3 - 3



SECTION 4 - 4

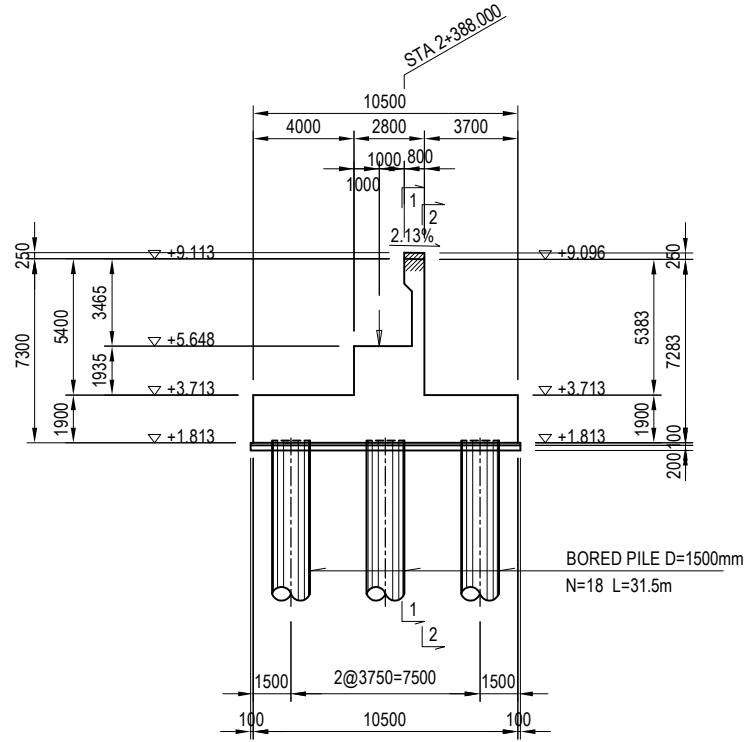


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE GENERAL VIEW OF A2 ABUTMENT(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2001

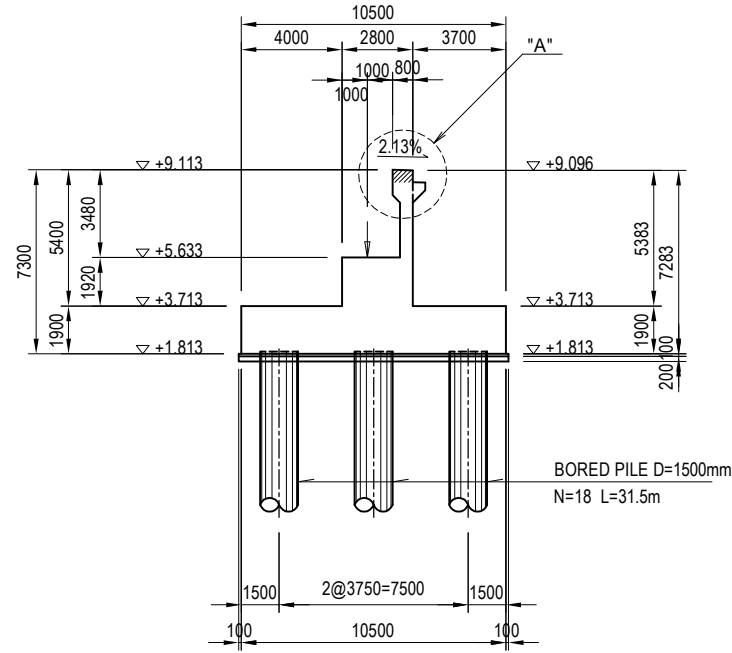
GENERAL VIEW OF A2 ABUTMENT(2)

S=1:300

SECTION 5 - 5

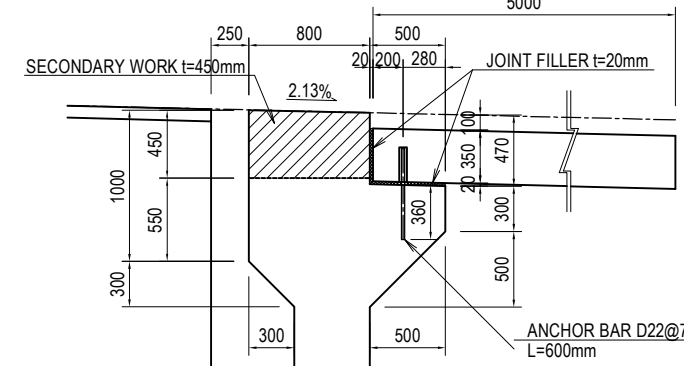


SECTION 6 - 6



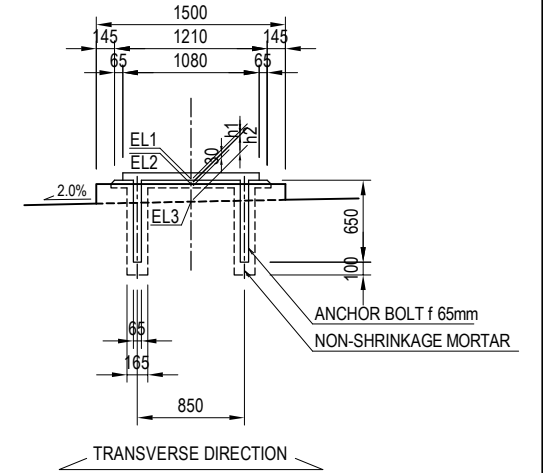
DETAIL "A"

S=1:50

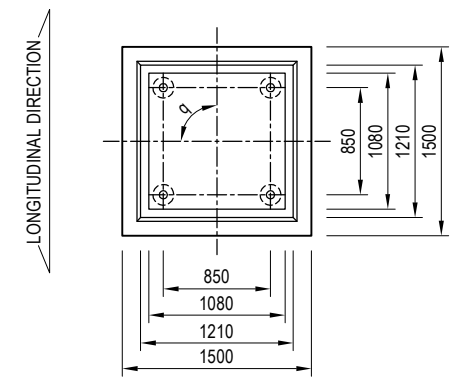
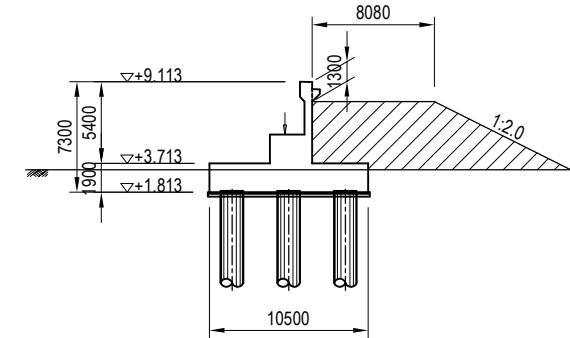


DETAIL OF BEARING

S = 1:60

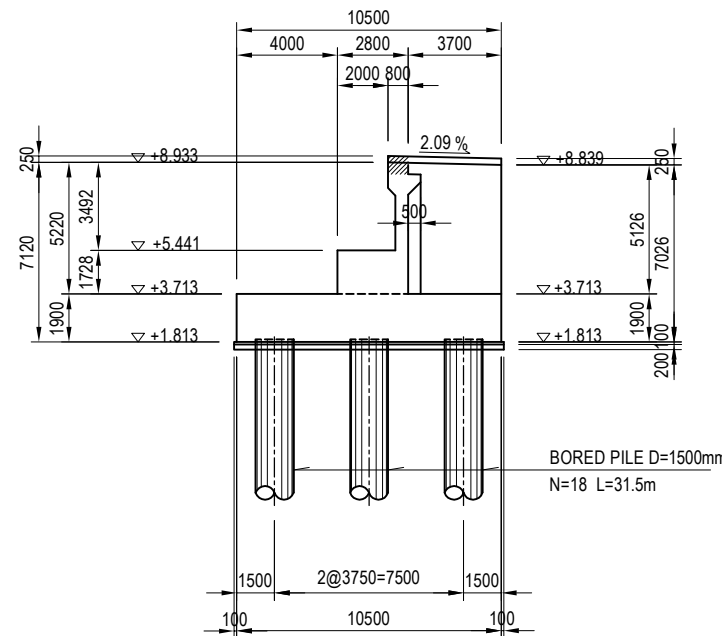


ARRANGEMENT OF BACK-FILLING APPROACH S=1:500

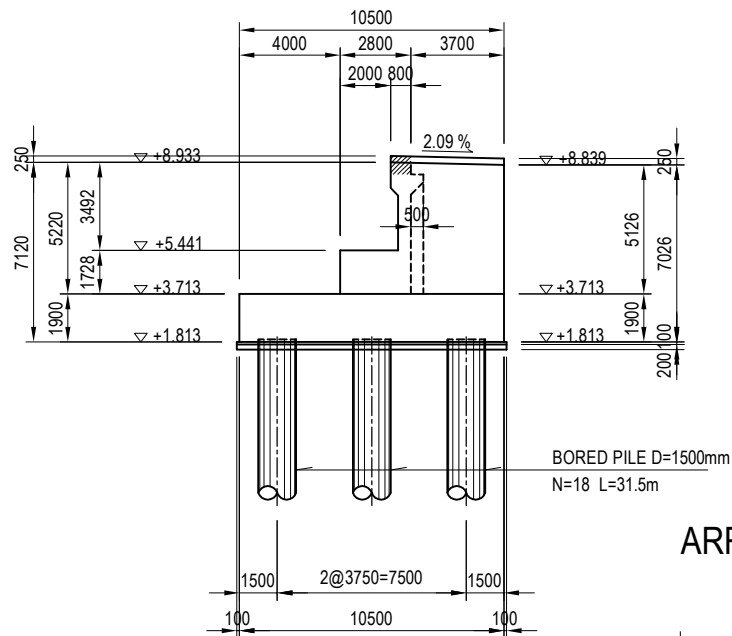


Unit : m	LSL(RSL)	LSR(RSR)
EL1	5.627	5.699
EL2	5.597	5.669
EL3	5.507	5.579
h1	0.030	0.030
h2	0.090	0.090
q	90d0'0"	90d0'0"

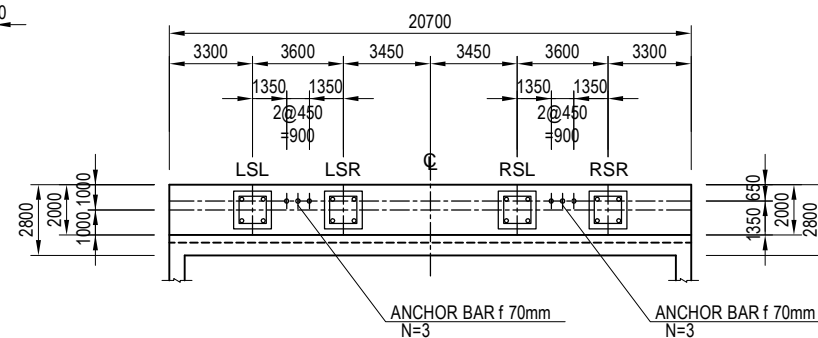
SECTION 7 - 7



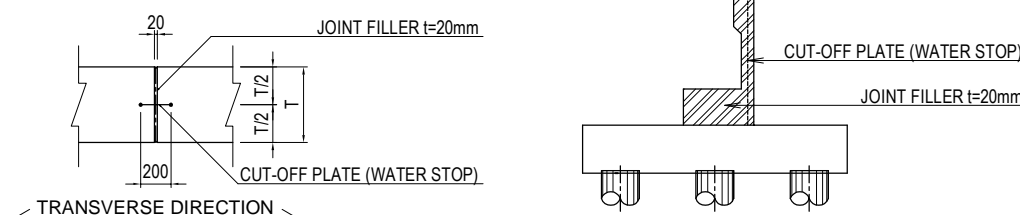
SECTION 8 - 8



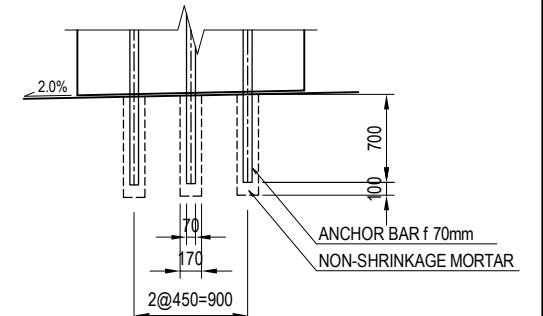
ARRANGEMENT OF BRIDGE SEAT



DETAIL OF JOINT FILLER



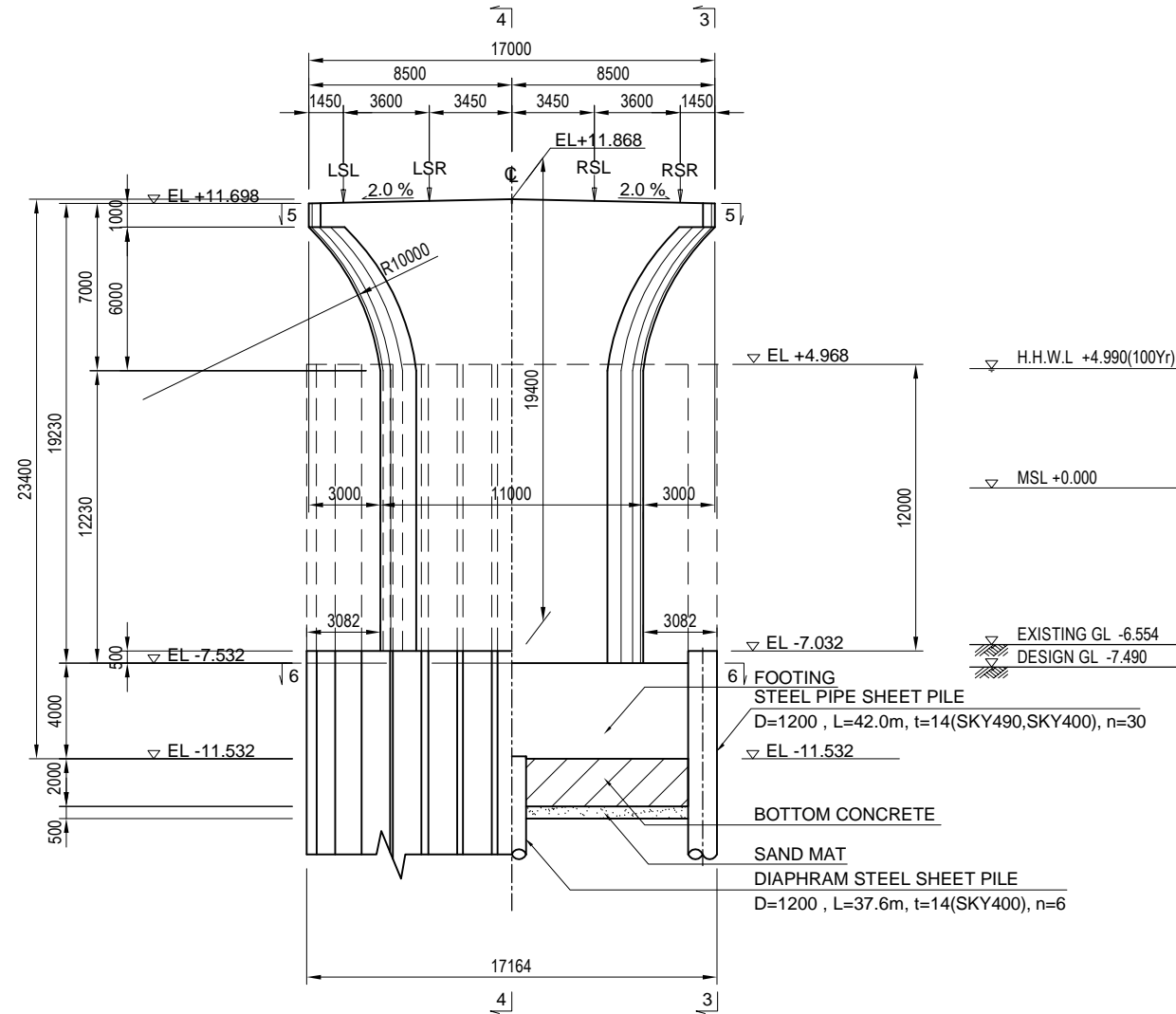
DETAIL OF ANCHOR BAR S = 1:60



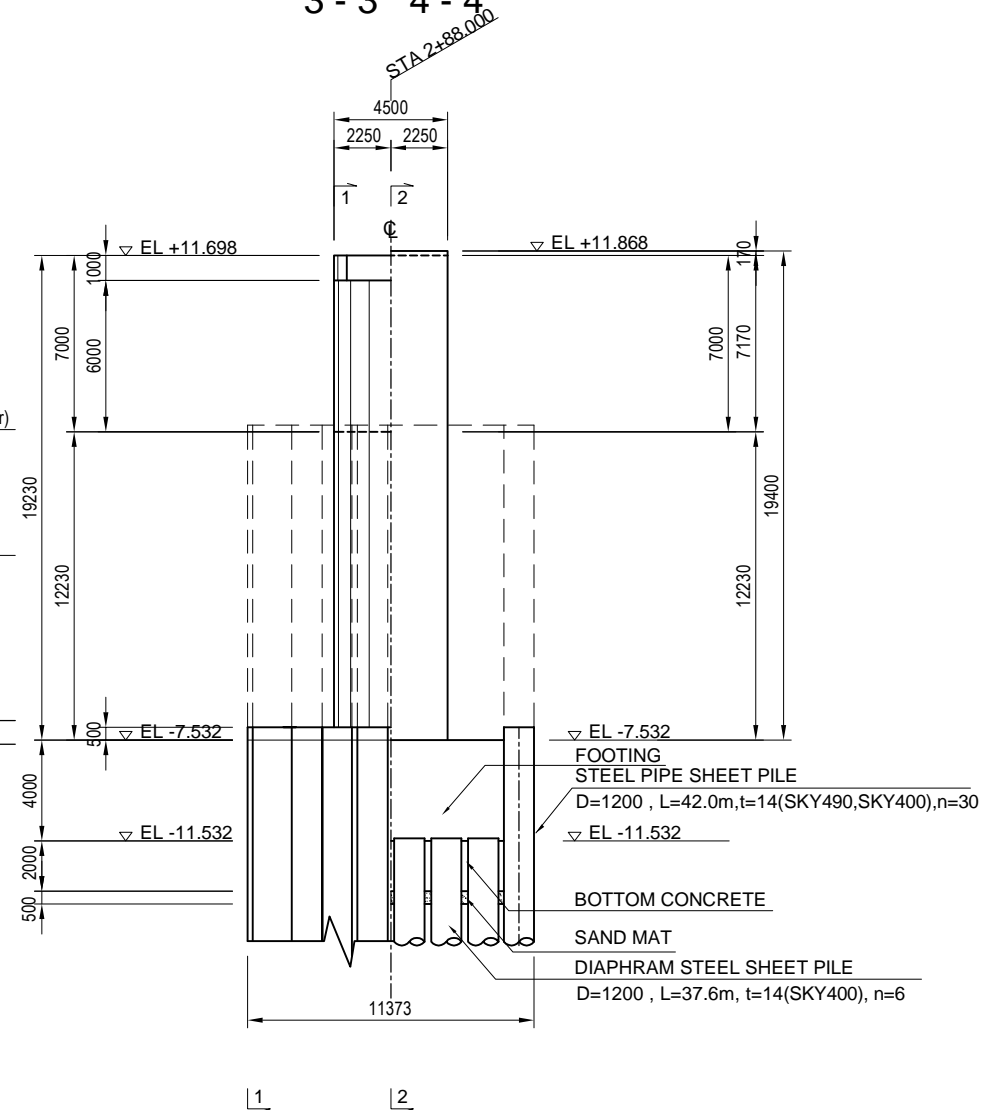
- NOTES :
- Weep holes shall be installed in abutment wall by 3 meter interval or discharge to water from back filled soil.
 - The Contractor shall adjust gradients of top surface of parapet wall to retain continuity in road profile.
 - Regardless of existence of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

GENERAL VIEW OF P20 PIER(1)

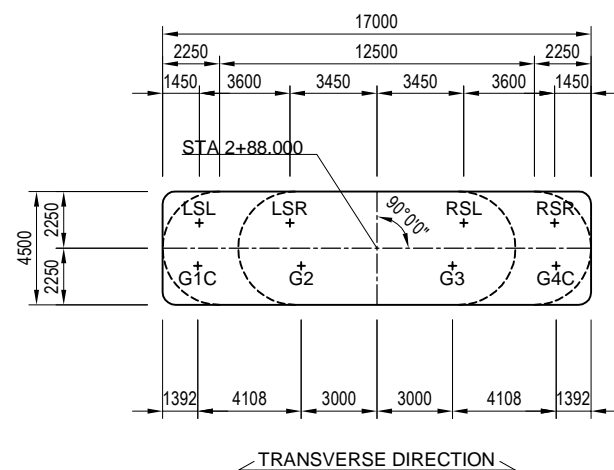
FRONT VIEW
1-1 2-2



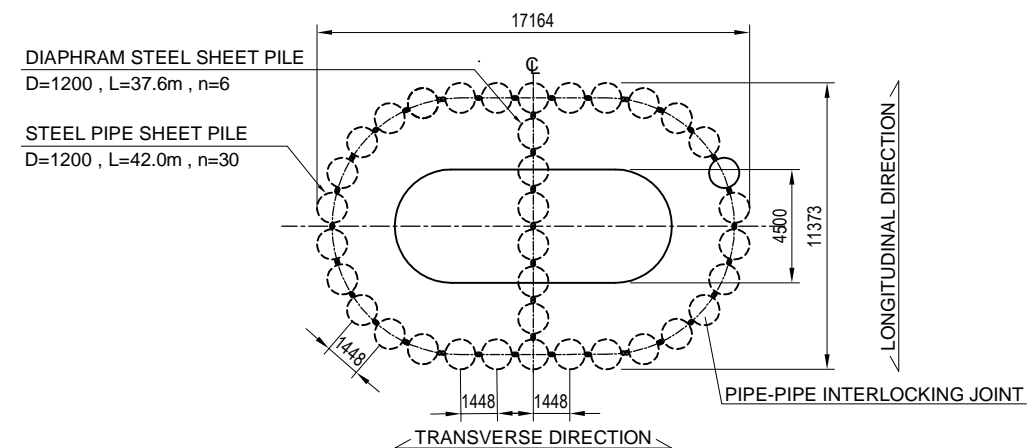
S = 1:300
SIDE VIEW
3-3 4-4



PLAN VIEW
5-5



PILE ARRANGEMENT
6-6

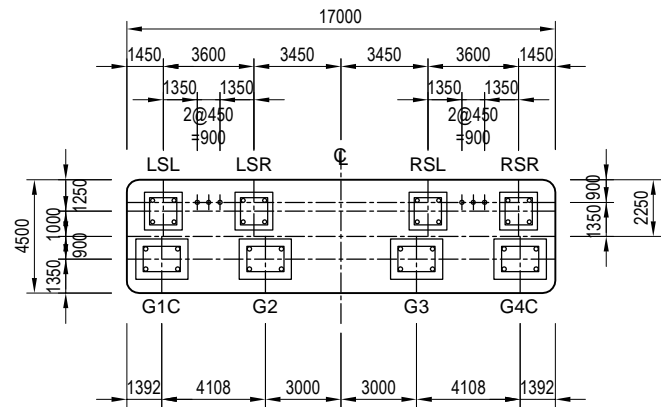


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							GENERAL VIEW OF P20 PIER(1)	2	
								DWG No.	
								P2-PB-2011	

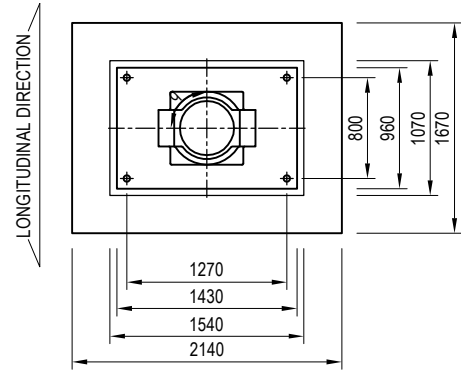
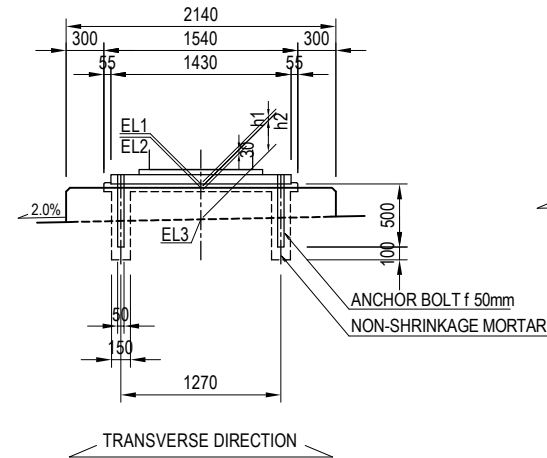
GENERAL VIEW OF P20 PIER(2)

S = 1:300

ARRANGEMENT OF BRIDGE SEAT



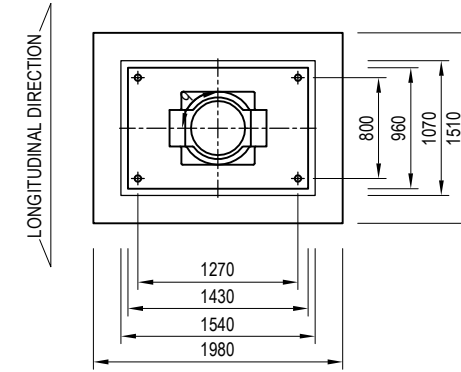
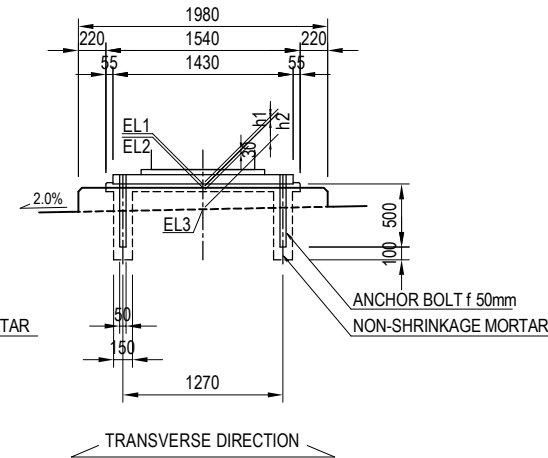
(G1C,G4C)



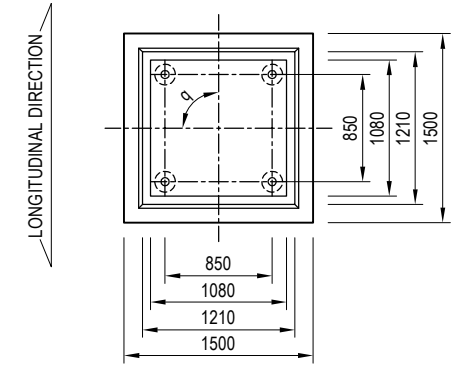
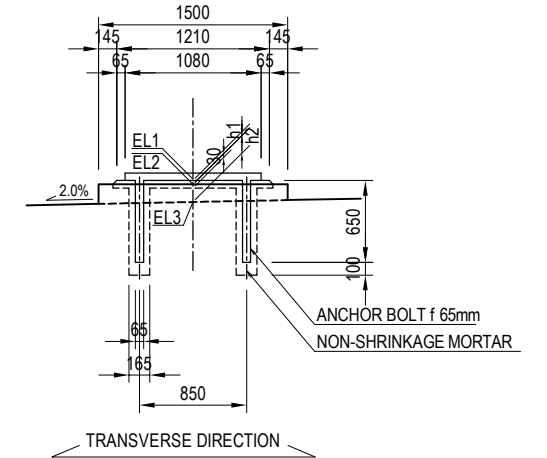
DETAIL OF BEARING

S = 1:60

(G2,G3)



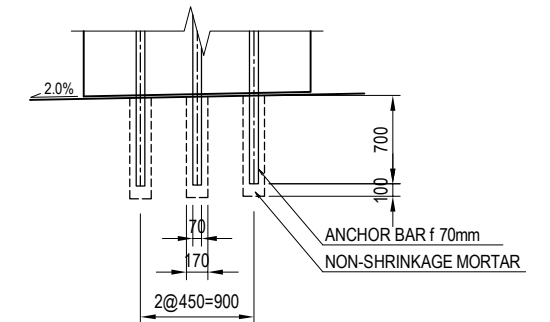
(LSL,LSR,RSL,RSR)



Unit : m	G1C	G2	G3	G4C	LSL	LSR	RSL	RSR
EL1	12.023	12.023	12.023	12.023	11.847	11.919	11.919	11.847
EL2	11.977	11.978	11.978	11.977	11.817	11.889	11.889	11.817
EL3	11.727	11.808	11.808	11.727	11.727	11.799	11.799	11.727
h1	0.046	0.045	0.045	0.046	0.030	0.030	0.030	0.030
h2	0.250	0.170	0.170	0.250	0.090	0.090	0.090	0.090
q	90d'00"	90d'00"	90d'00"	90d'00"	90d'00"	90d'00"	90d'00"	90d'00"

DETAIL OF ANCHOR BAR

S = 1:60



Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

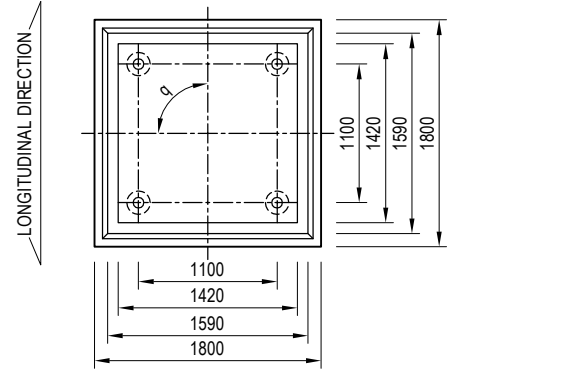
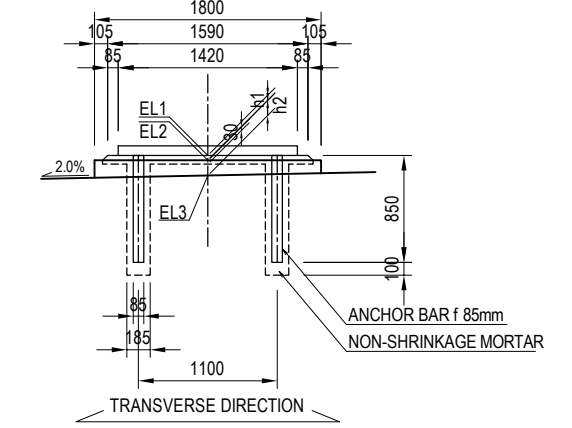
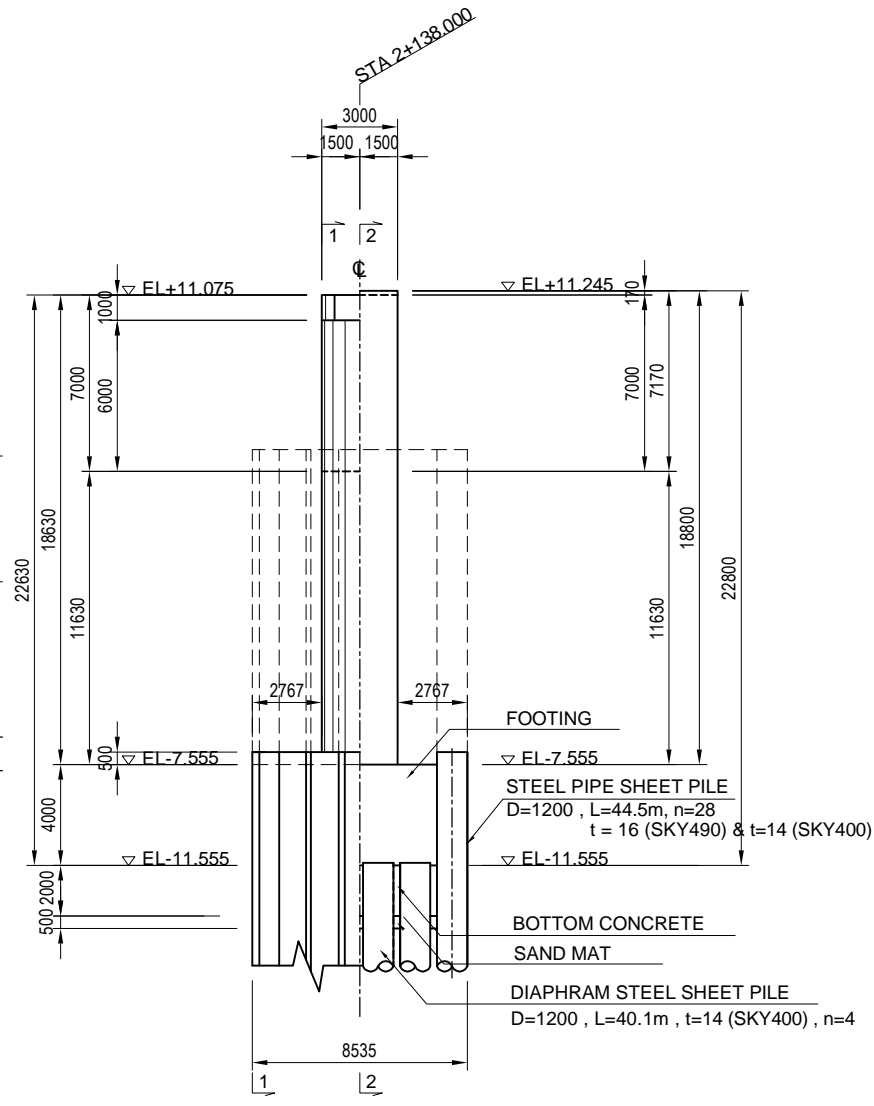
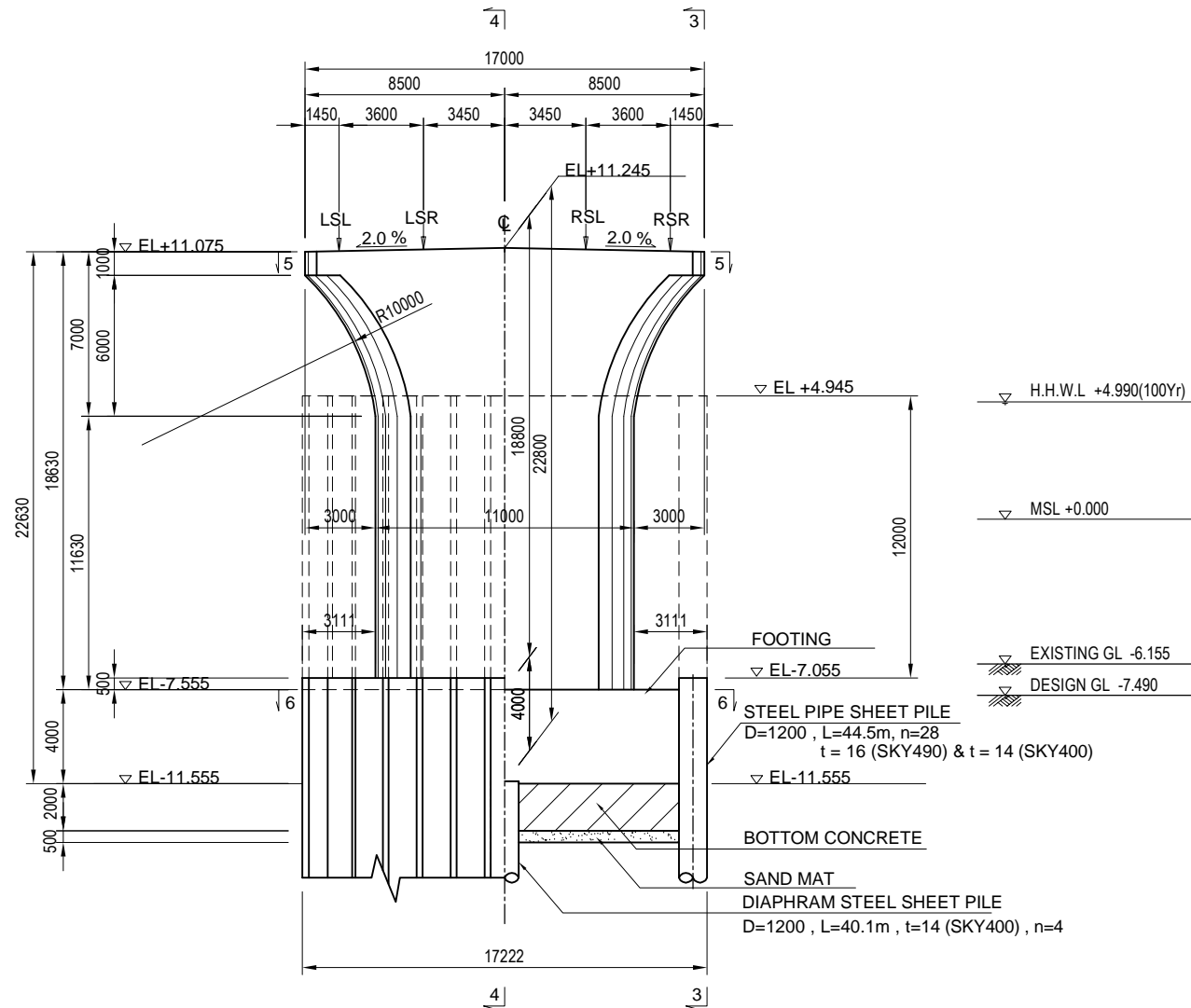
GENERAL VIEW OF P21 PIER

S = 1:300

FRONT VIEW
1-1 2-2

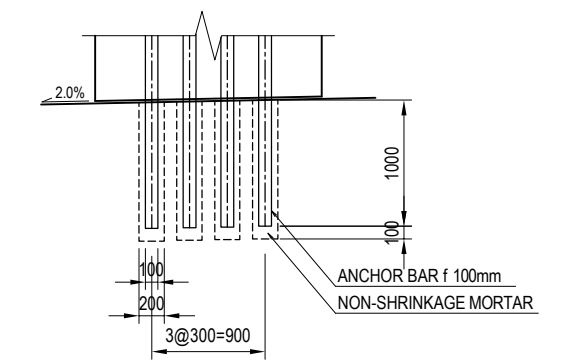
SIDE VIEW
3-3 4-4

DETAIL OF BEARING S = 1:60



Unit : m	LSL	LSR	RSL	RSR
EL1	11.264	11.336	11.336	11.264
EL2	11.224	11.296	11.296	11.224
EL3	11.104	11.176	11.176	11.104
h1	0.040	0.040	0.040	0.040
h2	0.120	0.120	0.120	0.120
q	90d0°0"	90d0°0"	90d0°0"	90d0°0"

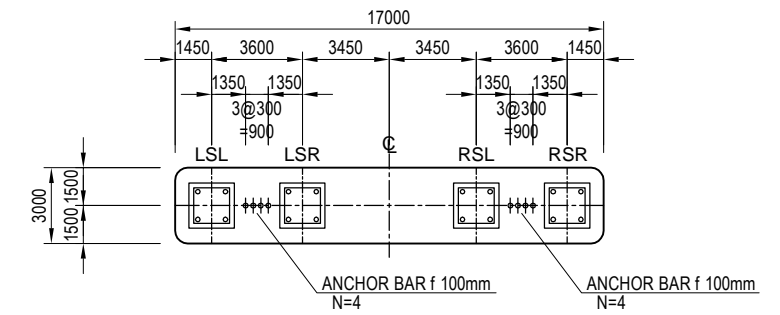
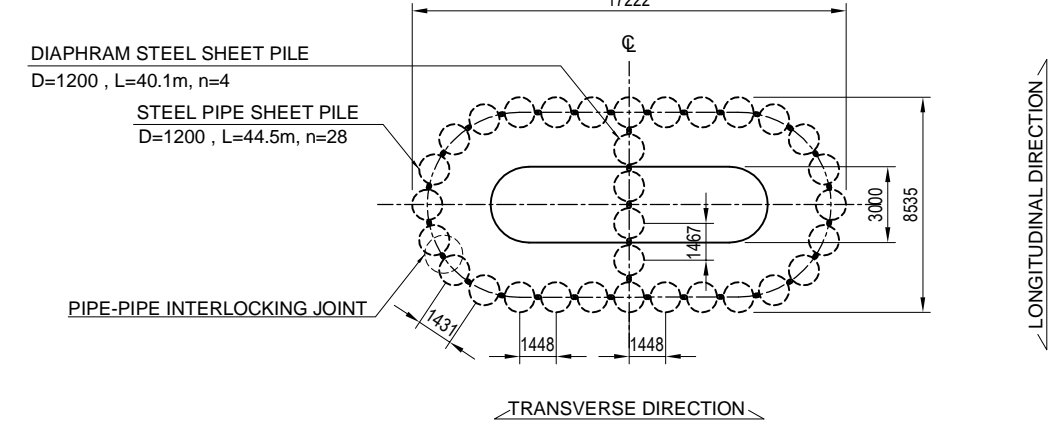
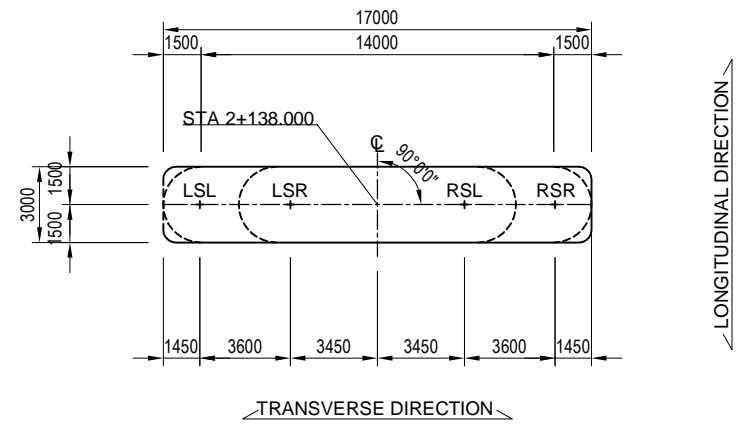
DETAIL OF ANCHOR BAR S = 1:60



PLAN VIEW
5-5

PILE ARRANGEMENT
6-6

ARRANGEMENT OF BRIDGE SEAT



Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

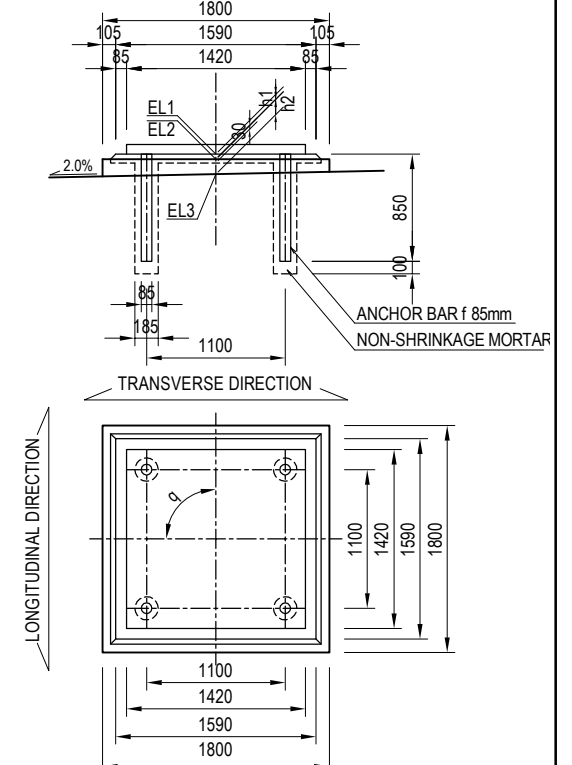
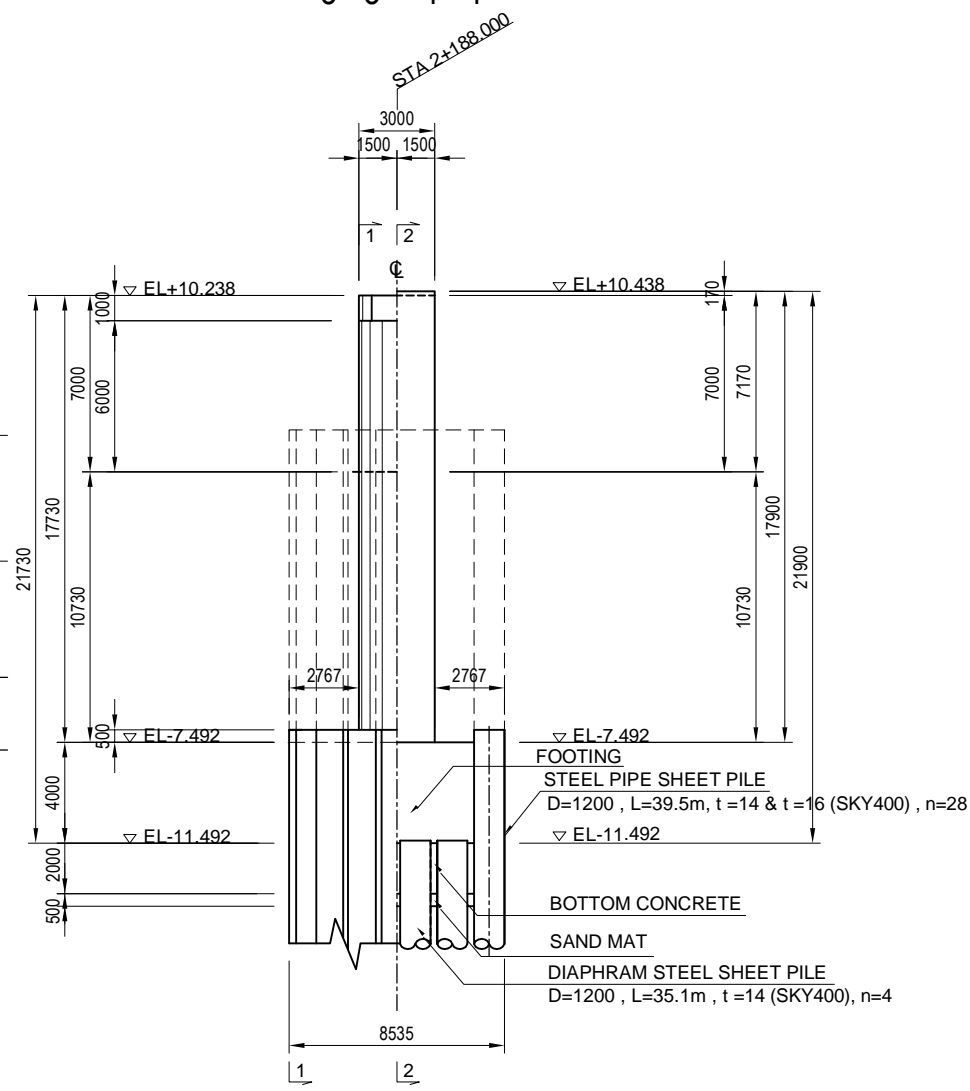
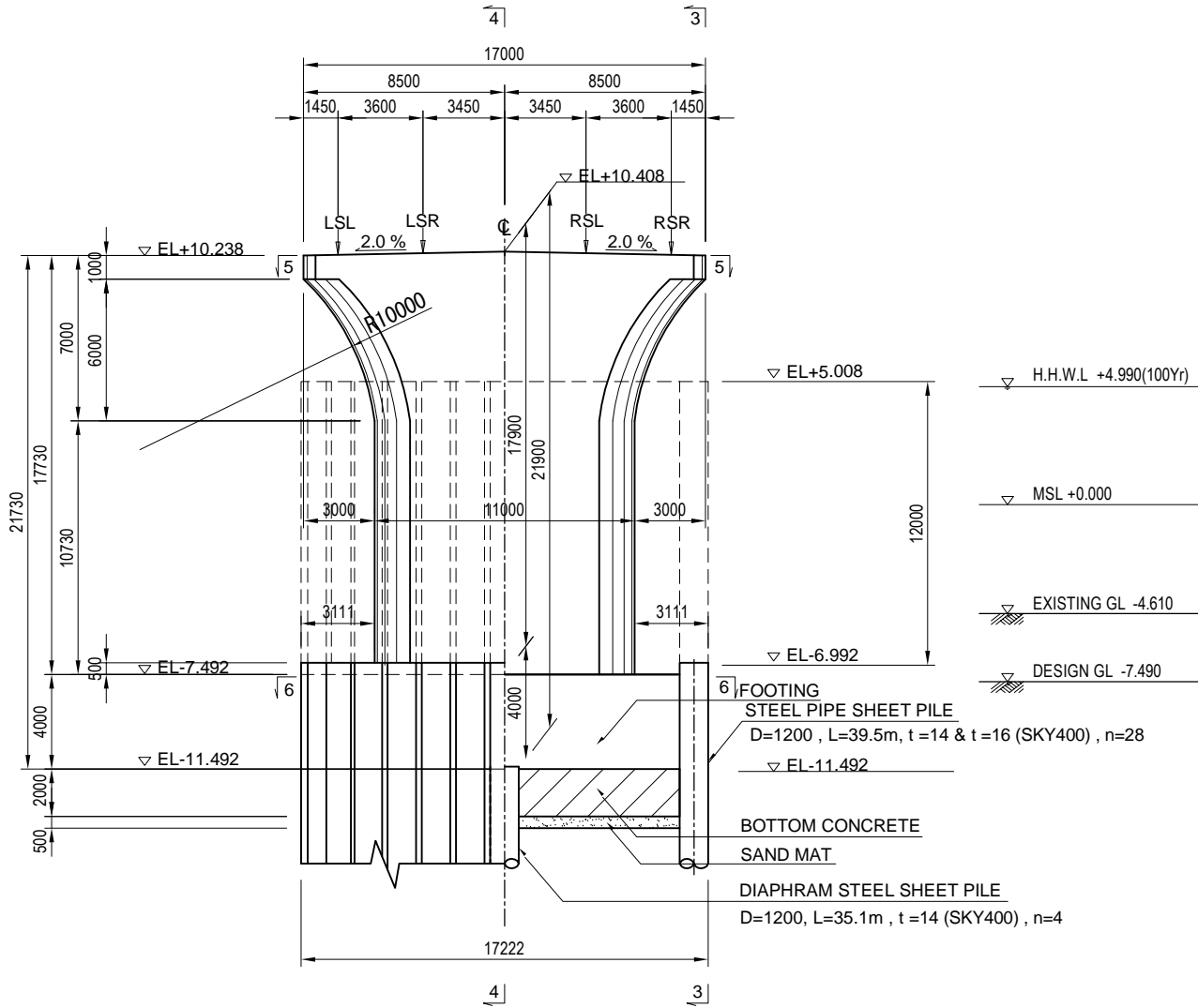
GENERAL VIEW OF P22 PIER

S = 1:300

FRONT VIEW
1-1 2-2

SIDE VIEW
3-3 4-4

DETAIL OF BEARING S = 1:60

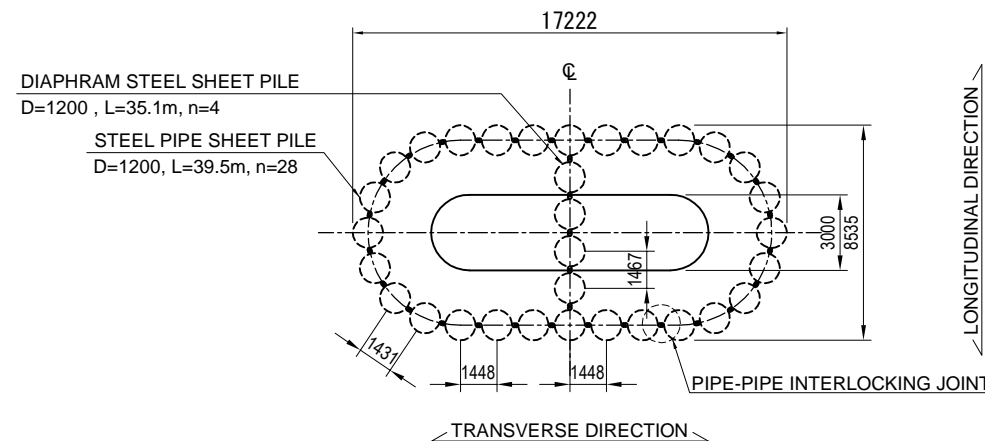
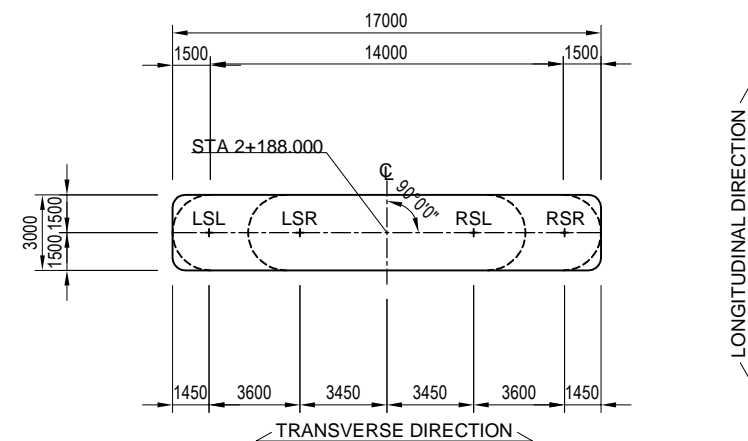


Unit : m	LSL	LSR	RSL	RSR
EL1	10.427	10.499	10.499	10.427
EL2	10.387	10.459	10.459	10.387
EL3	10.267	10.339	10.339	10.267
h1	0.040	0.040	0.040	0.040
h2	0.120	0.120	0.120	0.120
q	90d0°0"	90d0°0"	90d0°0"	90d0°0"

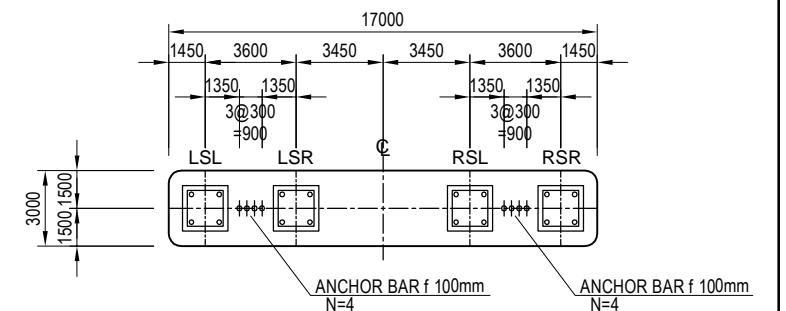
PLAN VIEW
5-5

PILE ARRANGEMENT
6-6

DETAIL OF ANCHOR BAR S = 1:60



ARRANGEMENT OF BRIDGE SEAT



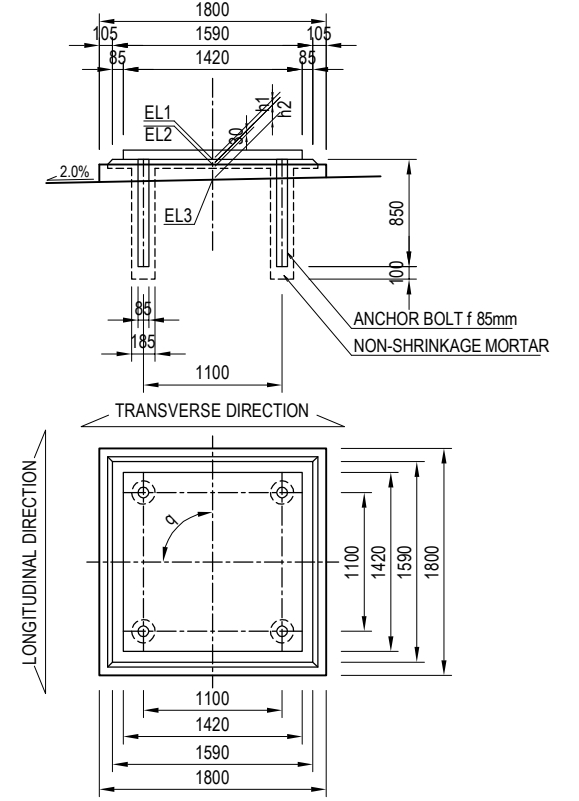
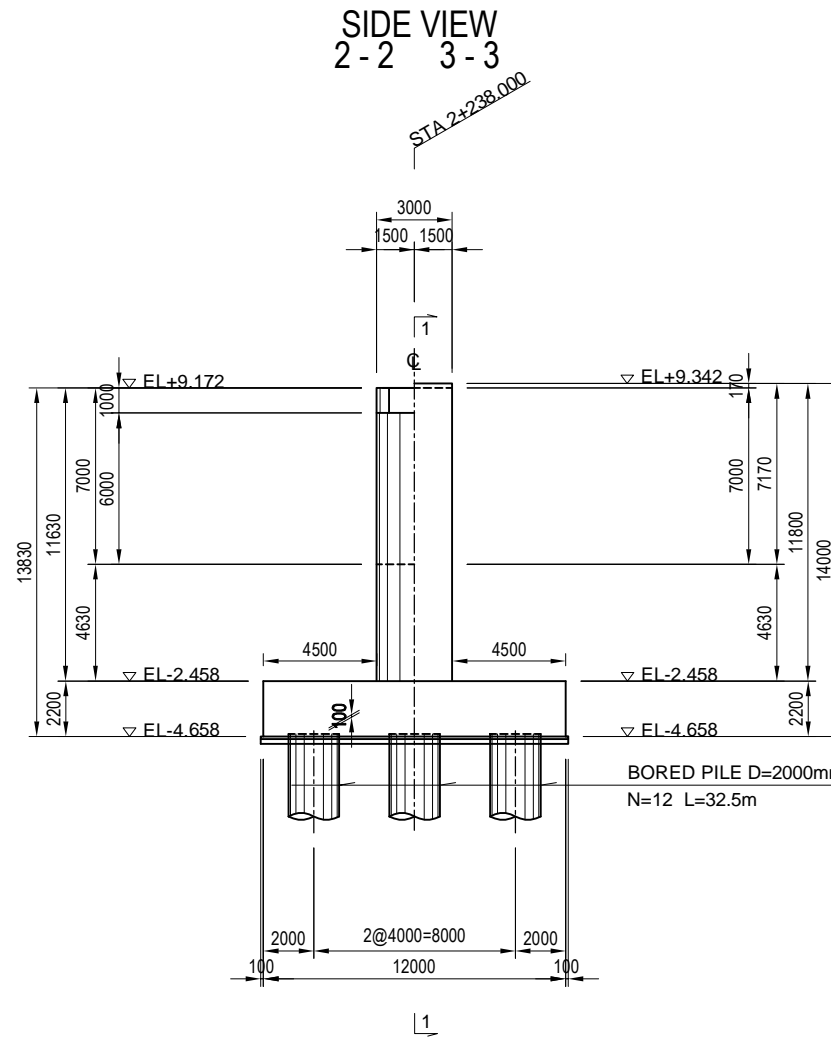
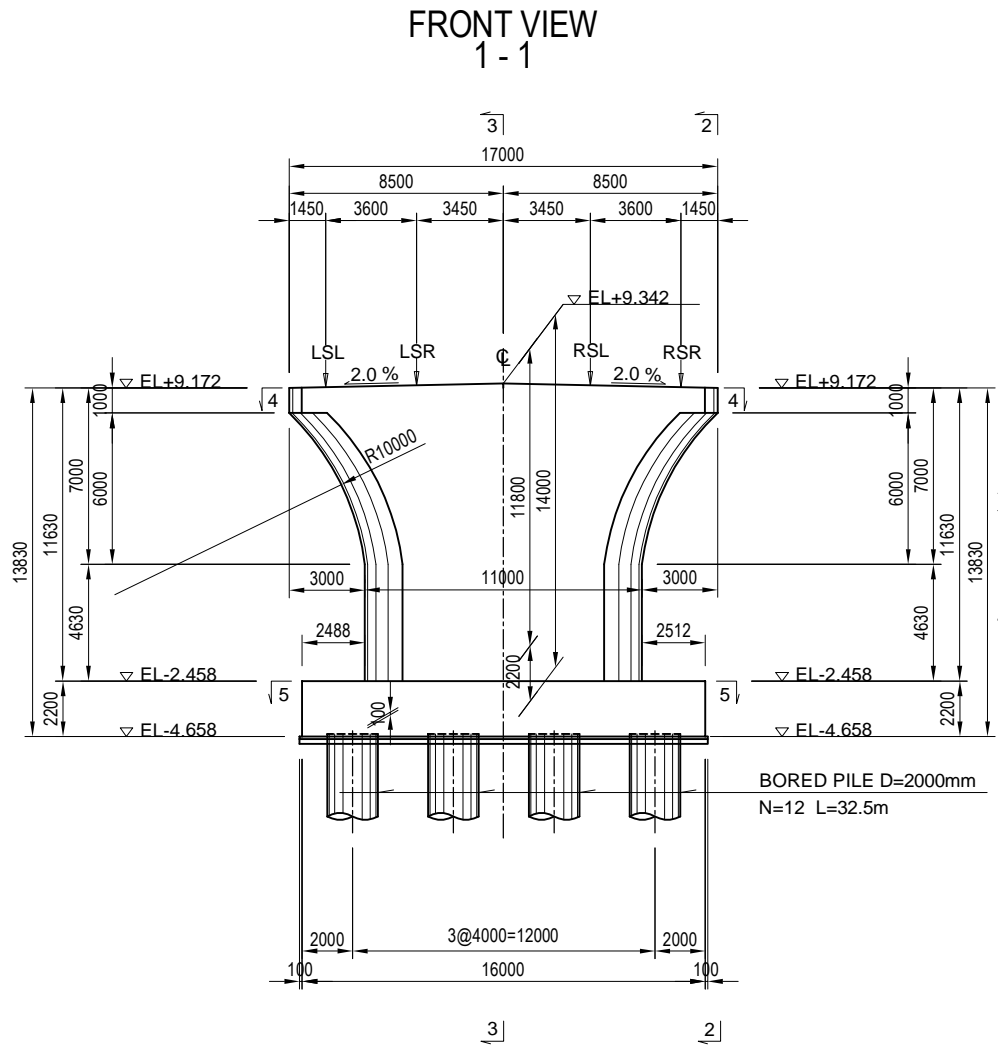
Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

GENERAL VIEW OF P23 PIER

S=1:300

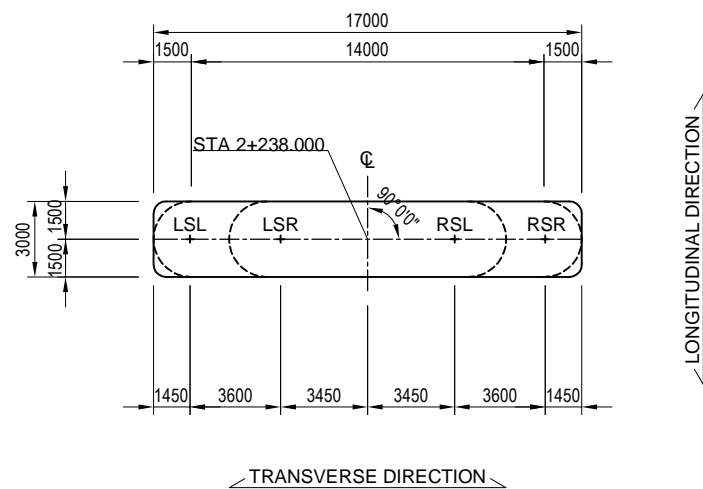
DETAIL OF BEARING

S=1:60

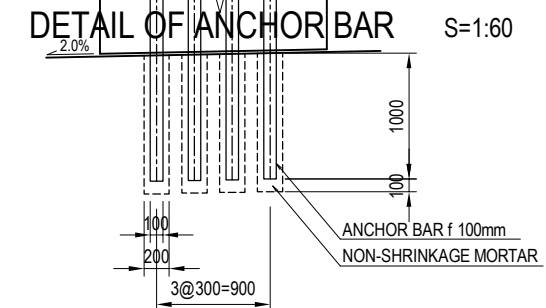
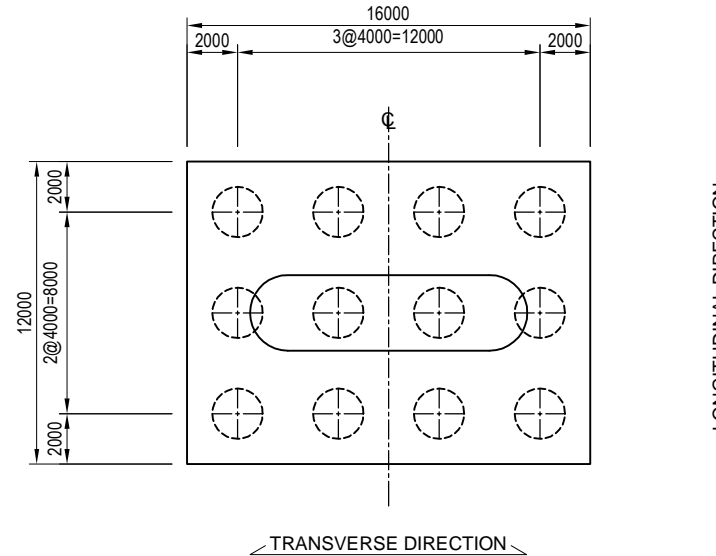


Unit : m	LSL	LSR	RSL	RSR
EL1	9.361	9.433	9.433	9.361
EL2	9.321	9.393	9.393	9.321
EL3	9.201	9.273	9.273	9.201
h1	0.040	0.040	0.040	0.040
h2	0.120	0.120	0.120	0.120
q	90d°0'	90d°0'	90d°0'	90d°0'

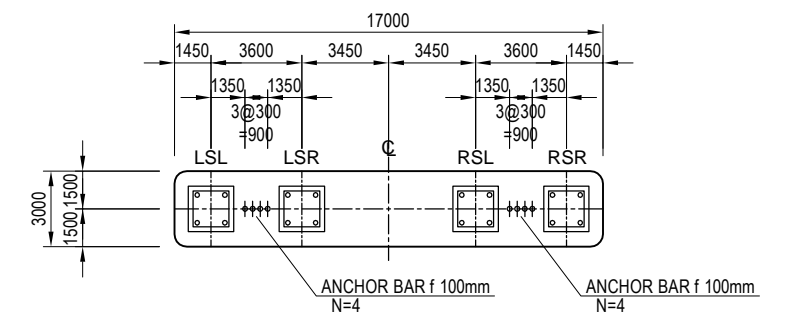
PLAN VIEW 4-4



PILE ARRANGEMENT 5-5



ARRANGEMENT OF BRIDGE SEAT



Notes : Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
GENERAL VIEW OF P23 PIER

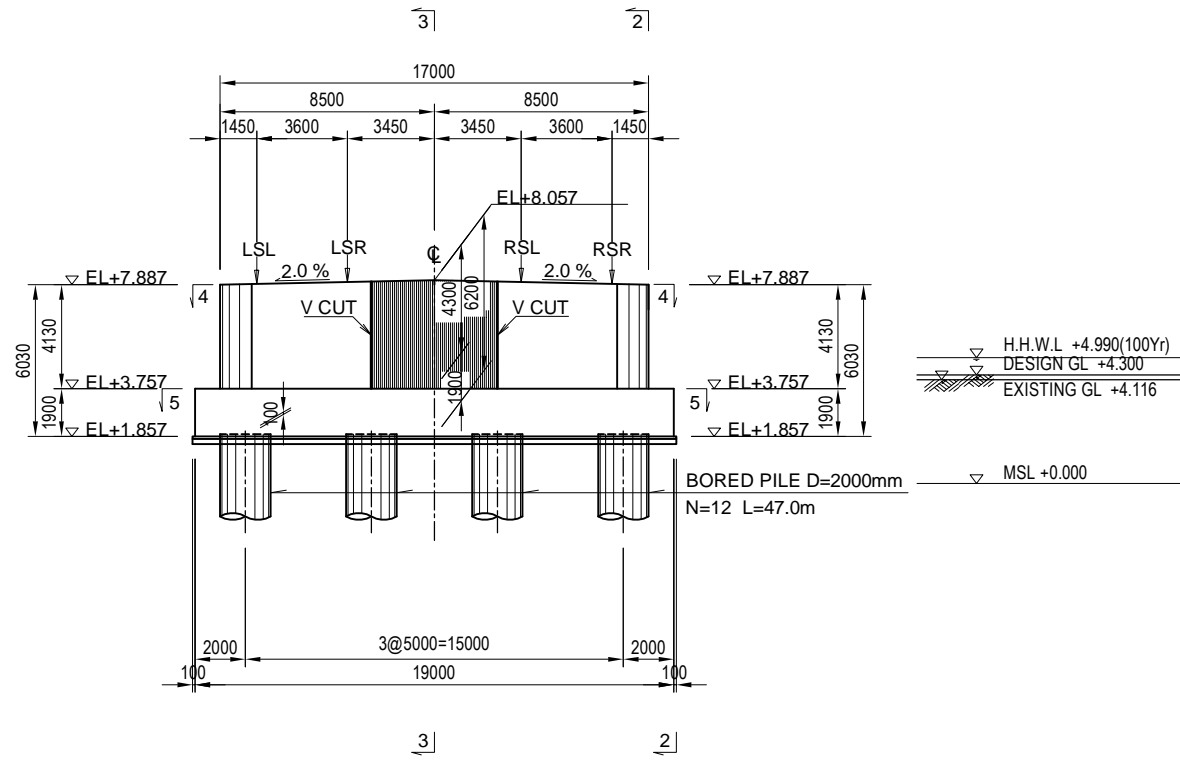
PACKAGE
2
DWG No.
P2-PB-2041

GENERAL VIEW OF P24 PIER

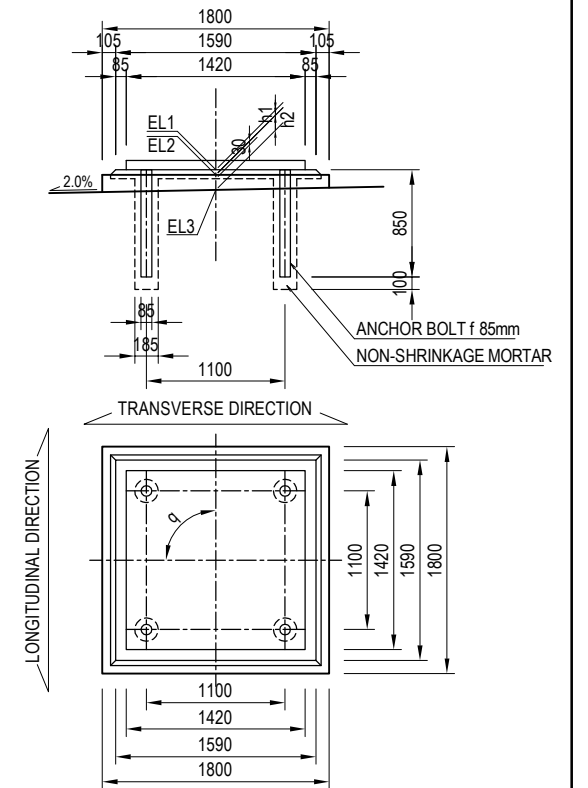
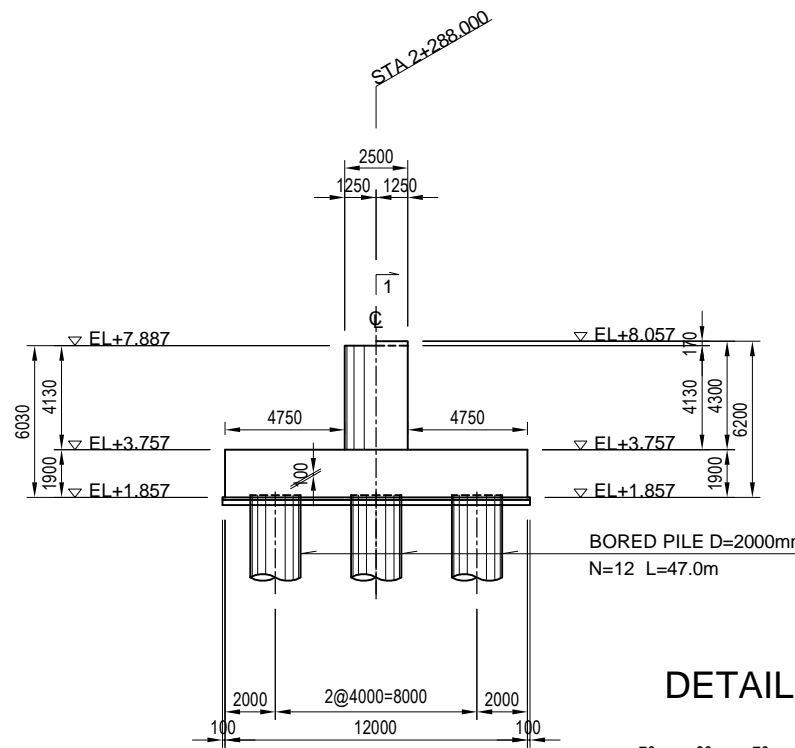
S=1:300

DETAIL OF BEARING S=1:60

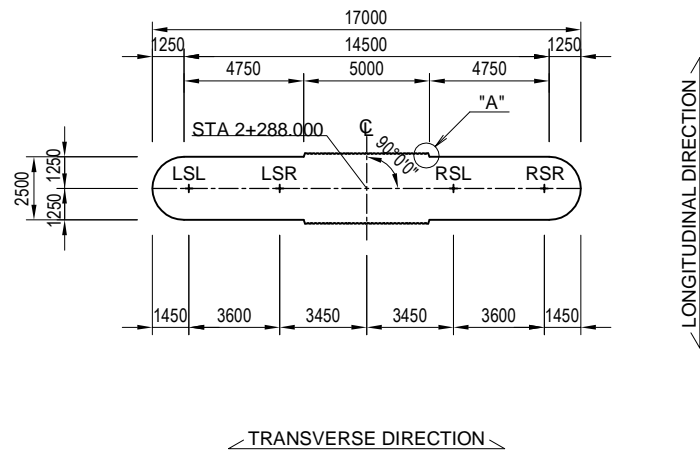
FRONT VIEW
1-1



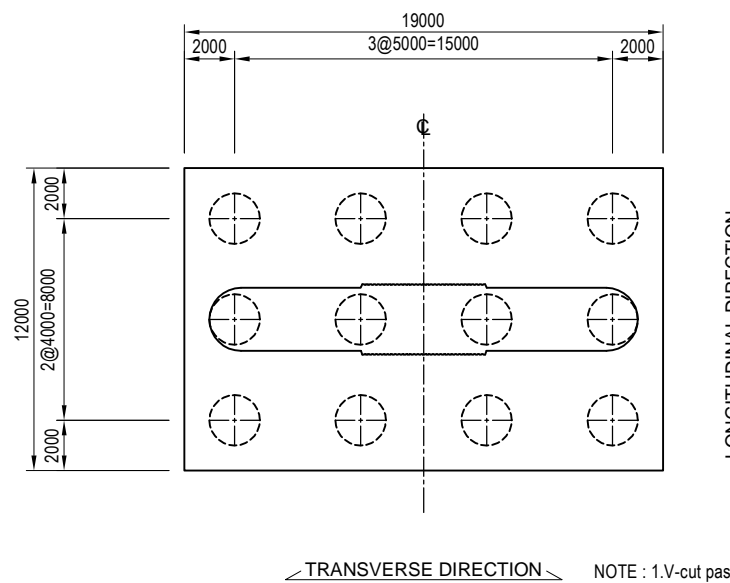
SIDE VIEW
2-2 3-3



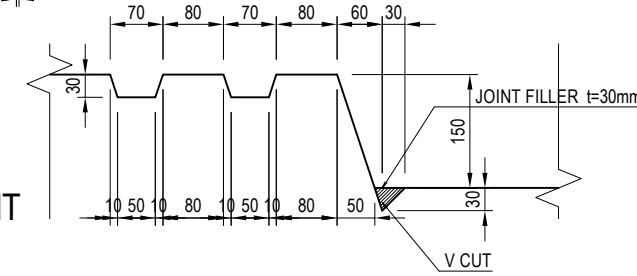
PLAN VIEW
4-4



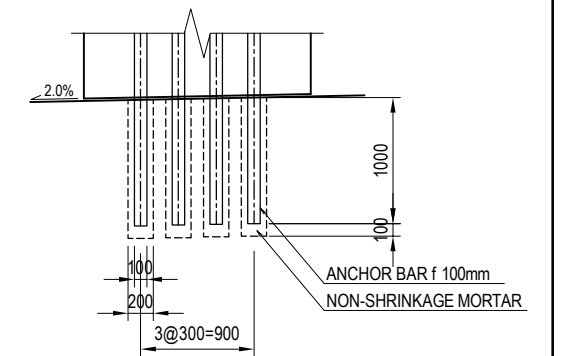
PILE ARRANGEMENT
5-5



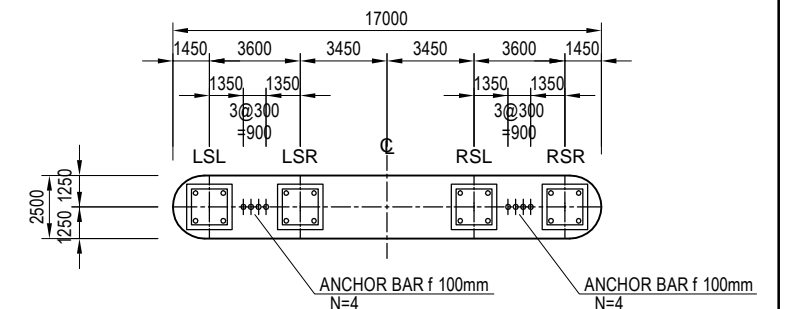
DETAIL "A" S=1:10



DETAIL OF ANCHOR BAR S=1:60



ARRANGEMENT OF BRIDGE SEAT



NOTE : 1. V-cut passes with joint filler shall be made on abutment wall. The V-cut passes shall be continued from a front side surface to a back side surface.
2. Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知寿			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017
							GENERAL VIEW OF P24 PIER	2	
								DWG No.	
								P2-PB-2051	

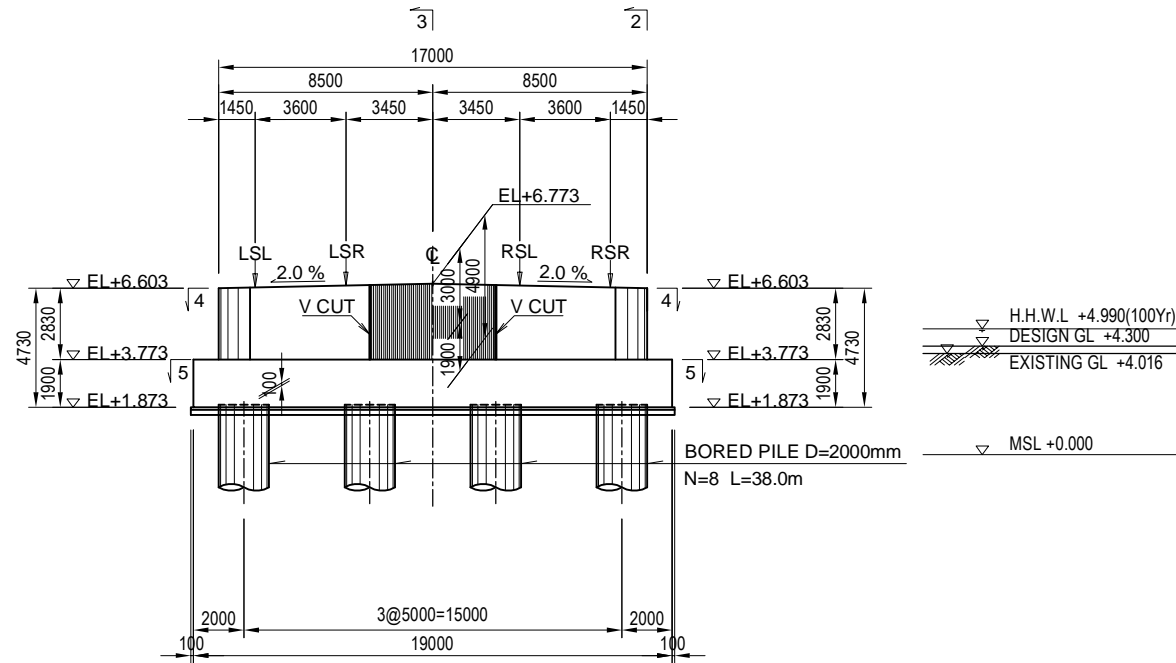
GENERAL VIEW OF P25 PIER

S = 1:300

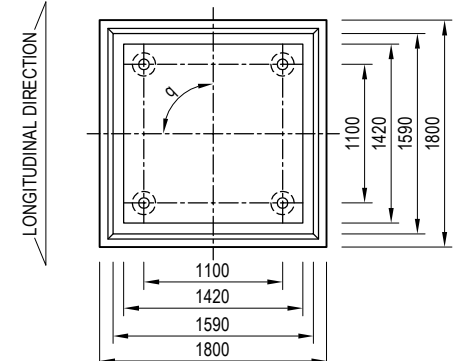
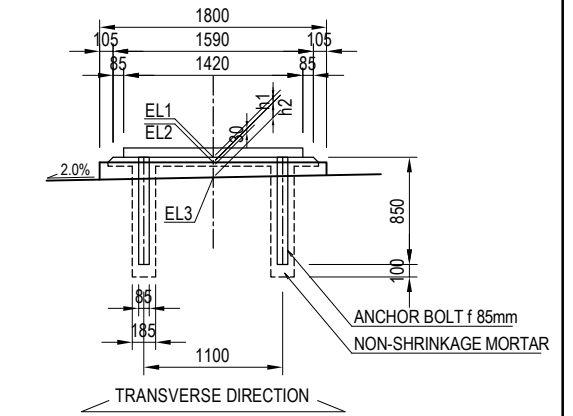
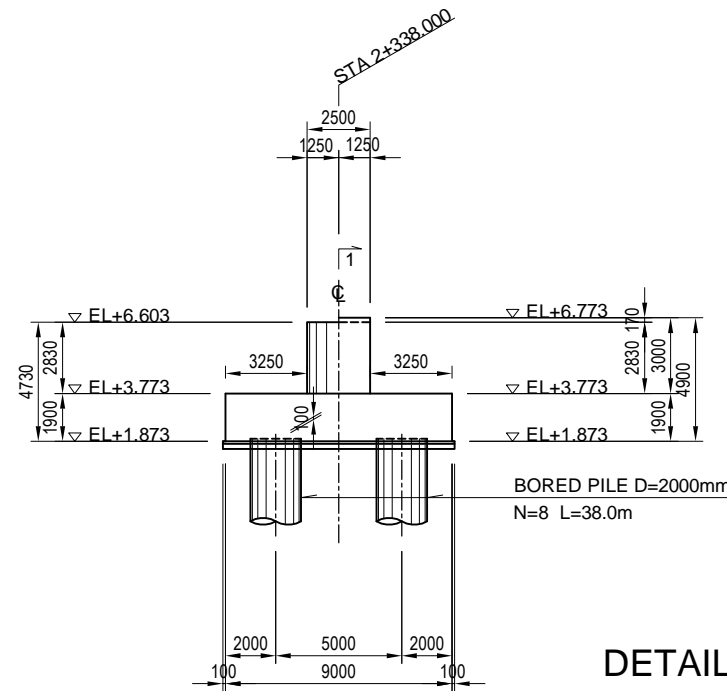
DETAIL OF BEARING S = 1:60

S = 1:60

FRONT VIEW
1-1



SIDE VIEW
2-2 3-3

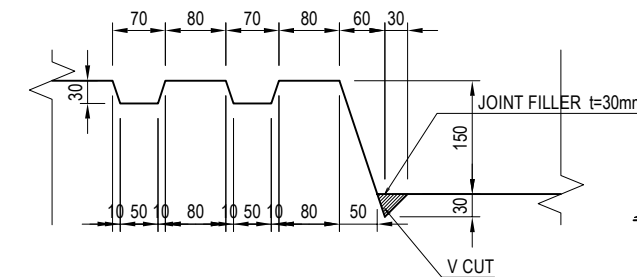


Unit : m	LSL	LSR	RSL	RSR
EL1	6.792	6.864	6.864	6.792
EL2	6.752	6.824	6.824	6.752
EL3	6.632	6.704	6.704	6.632
h1	0.040	0.040	0.040	0.040
h2	0.120	0.120	0.120	0.120
q	90d0'0"	90d0'0"	90d0'0"	90d0'0"

DETAIL "A" S = 1:10

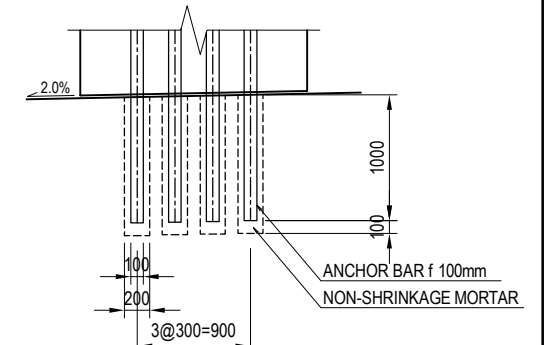
S = 1:10

1

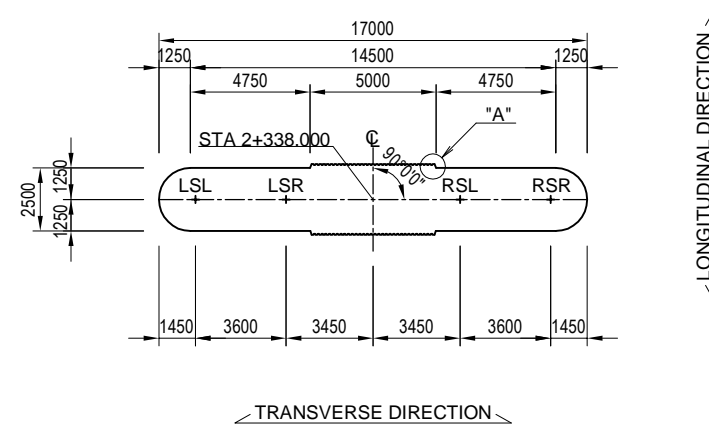


DETAIL OF ANCHOR BAR S = 1:60

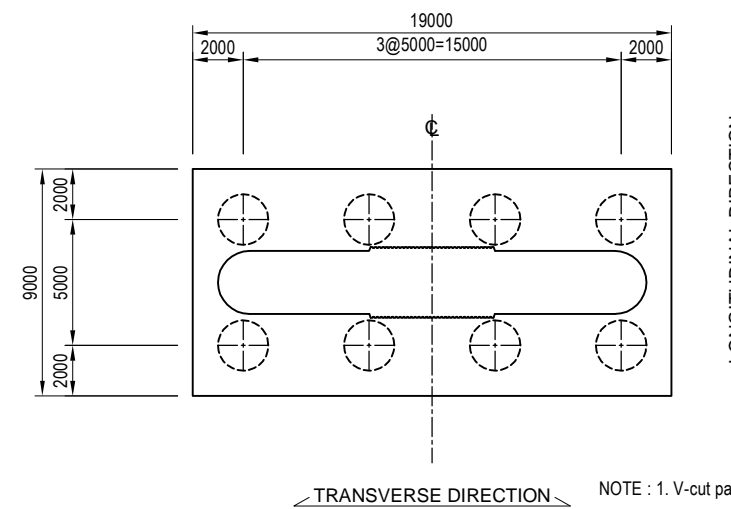
S = 1:60



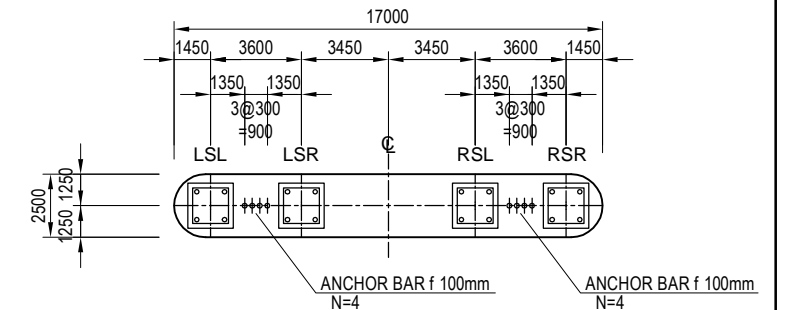
PLAN VIEW
4-4



PILE ARRANGEMENT
5-5



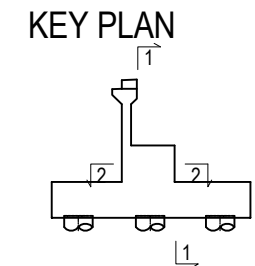
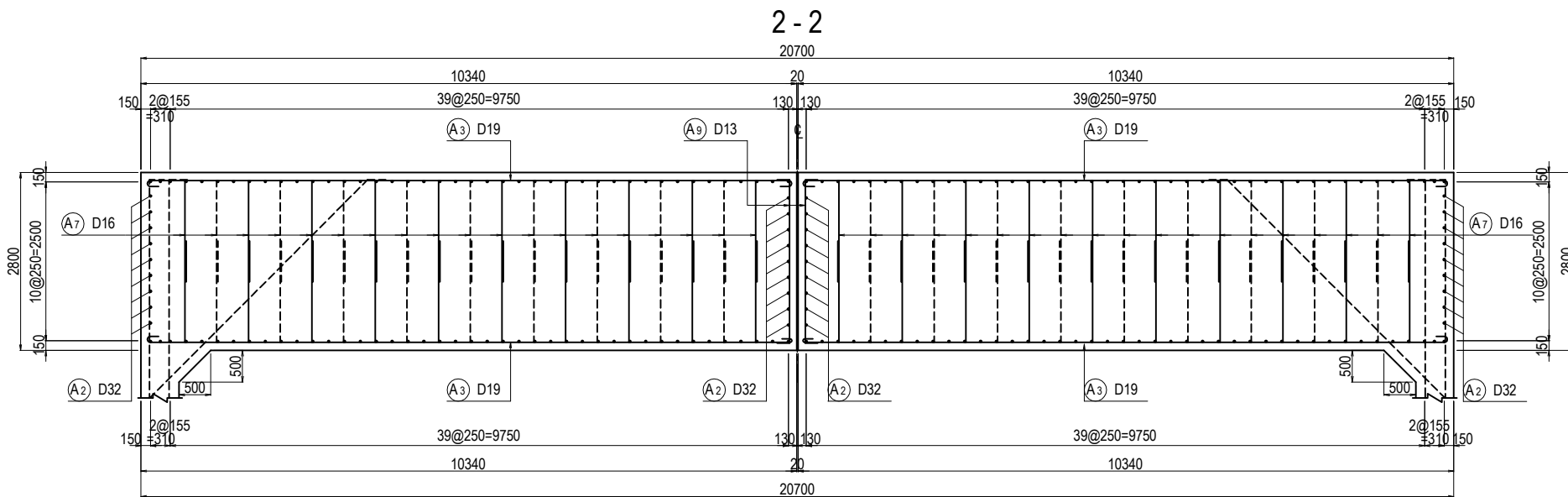
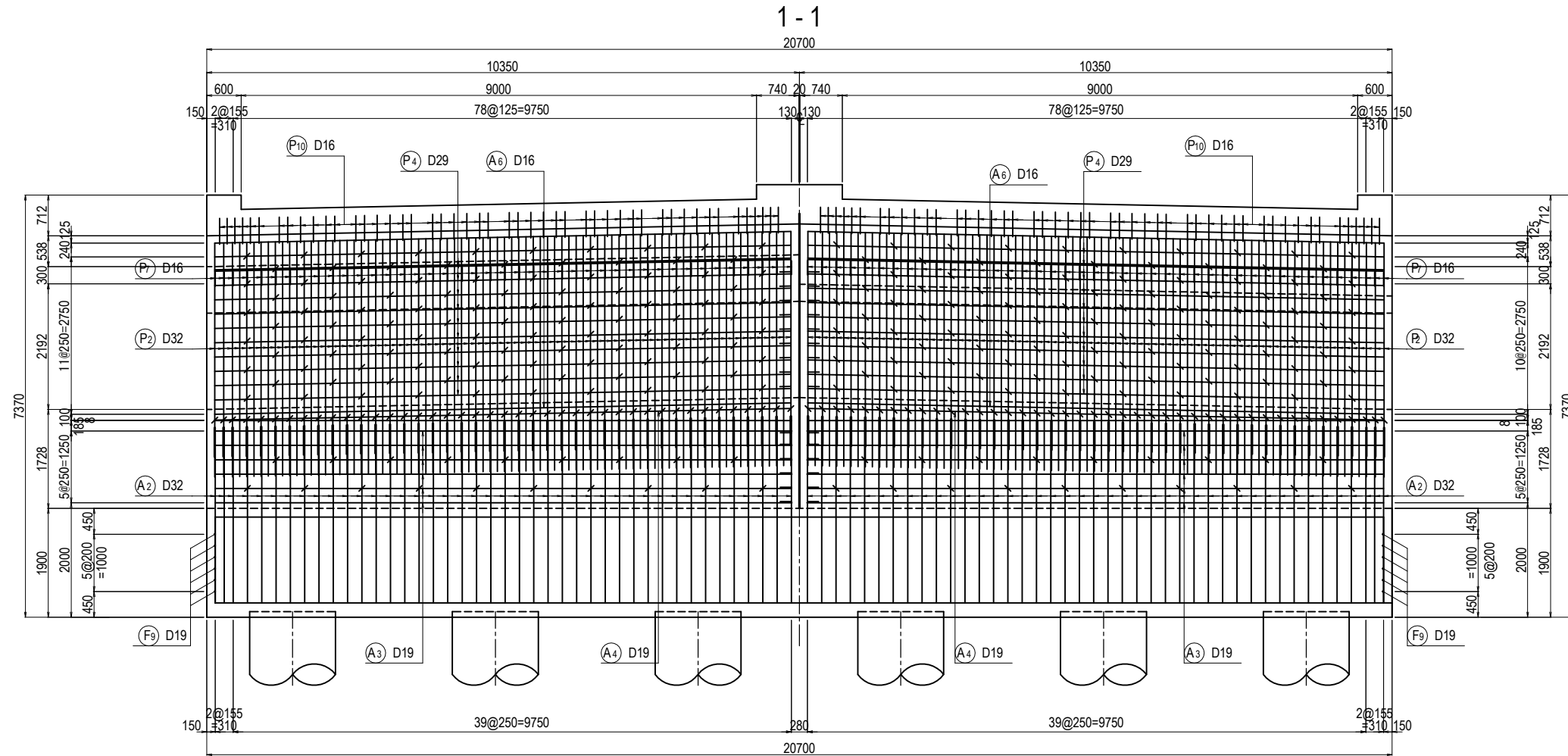
ARRANGEMENT OF BRIDGE SEAT



NOTE : 1. V-cut passes with joint filler shall be made on abutment wall. The V-cut passes shall be continued from a front side surface to a back side surface.
2. Regardless of existences of indications on the Drawings, baseplates of bridge bearings shall be embedded into leveling mortar by 10 mm and the leveling mortar shall be embedded into concrete pedestal or top surface of substructures by 30 mm.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知寿			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017
GENERAL VIEW OF P25 PIER							DWG No.	2	
							P2-PB-2061		

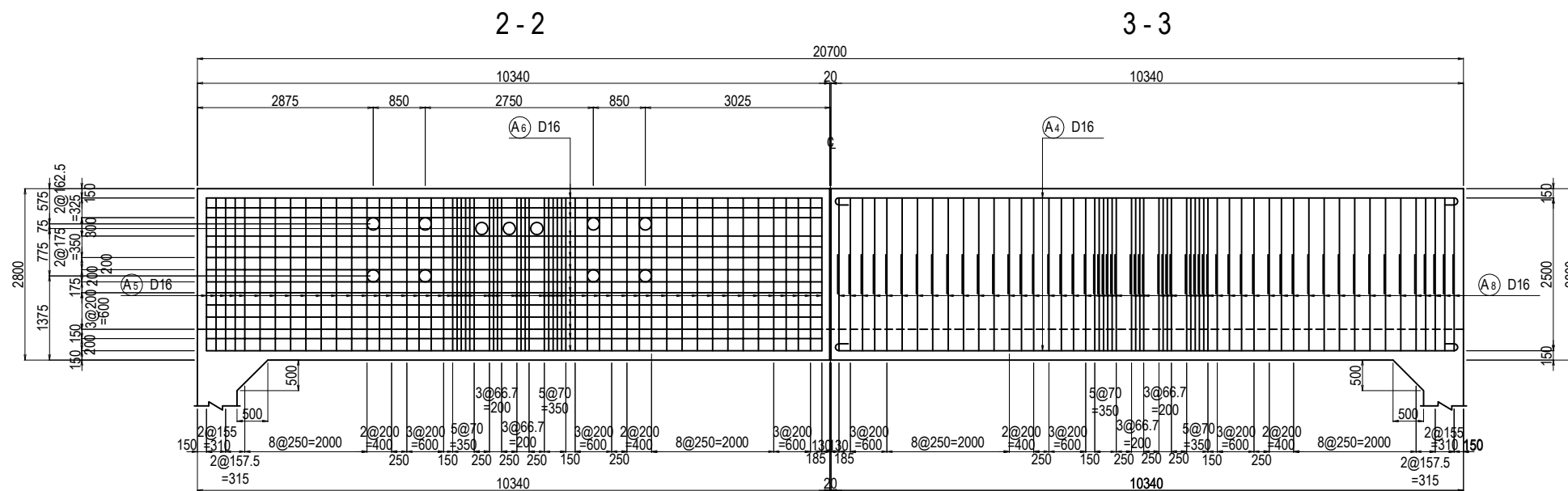
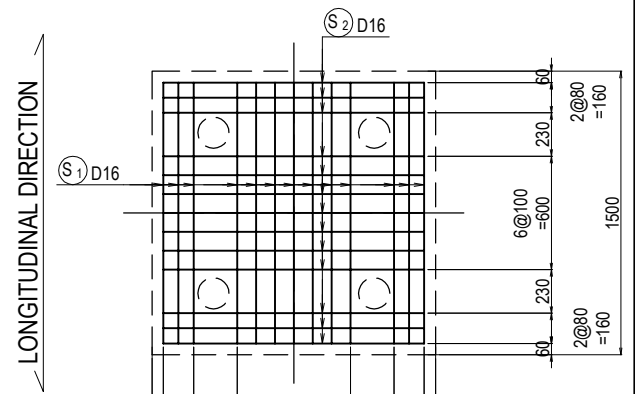
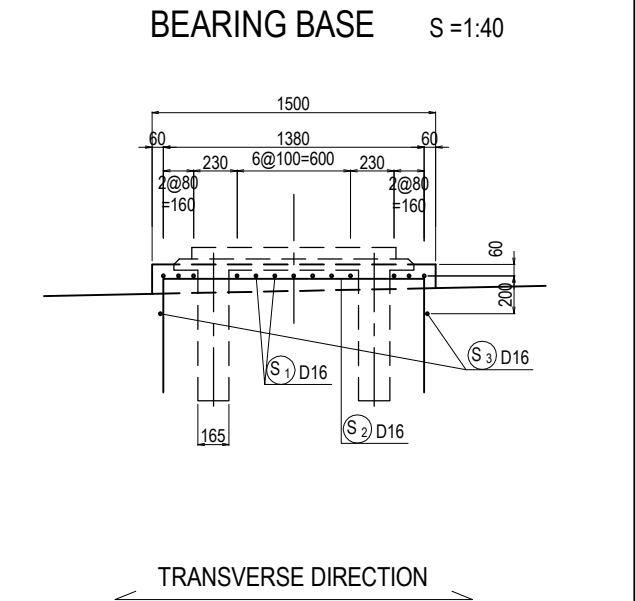
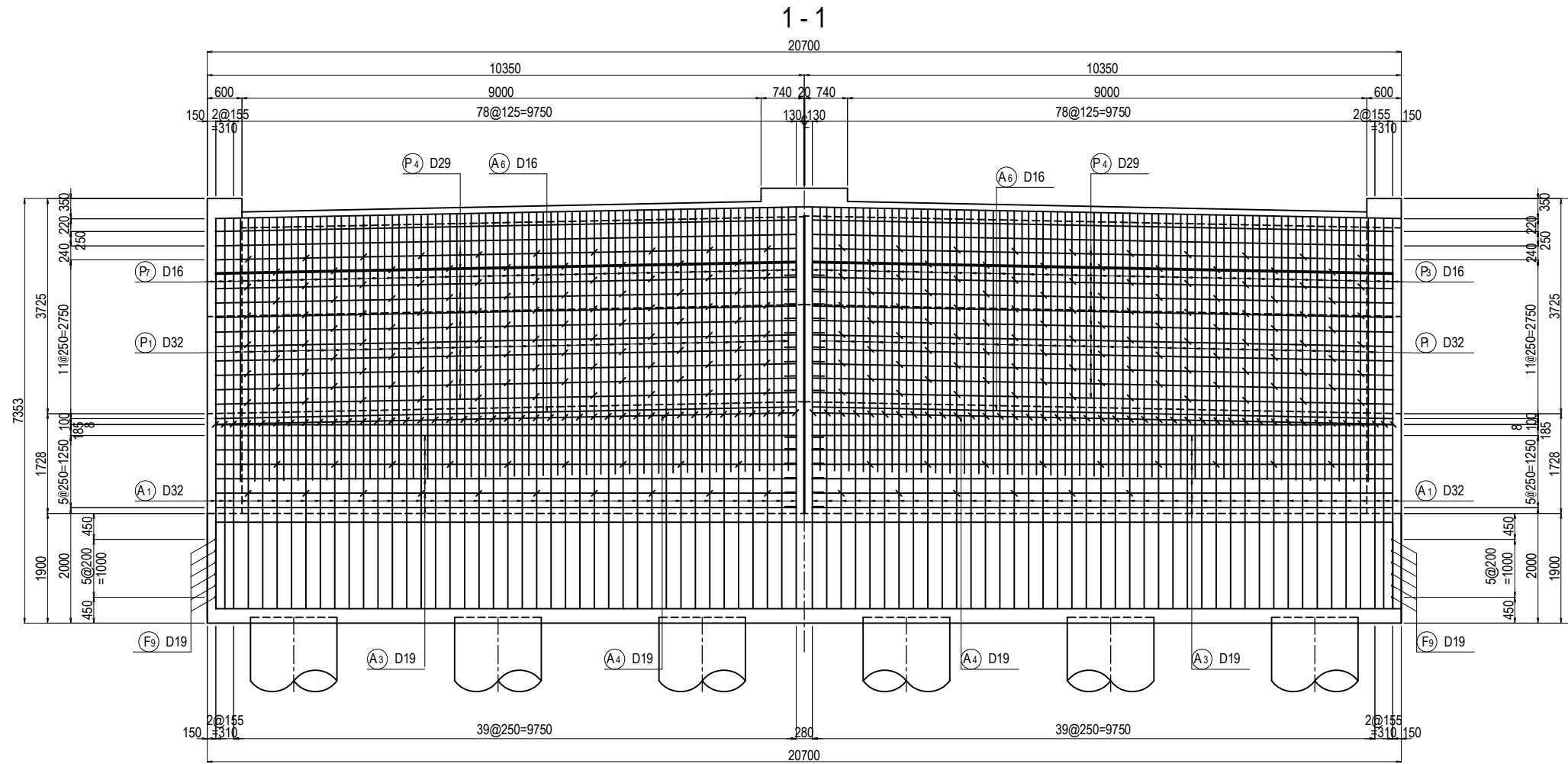
BAR ARRANGEMENT OF A2 ABUTMENT(1) S=1:100



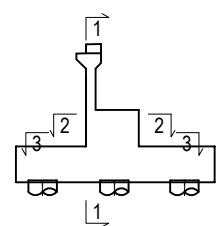
NOTES : Steel bars for fixing bridge expansion joints are reference only.
The contractor shall propose such steel bar considering specifications of expansion joints actually used.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF A2 ABUTMENT(1)	PACKAGE 2 DWG No. P2-PB-2101	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017

BAR ARRANGEMENT OF A2 ABUTMENT(2) S=1:100



KEY PLAN

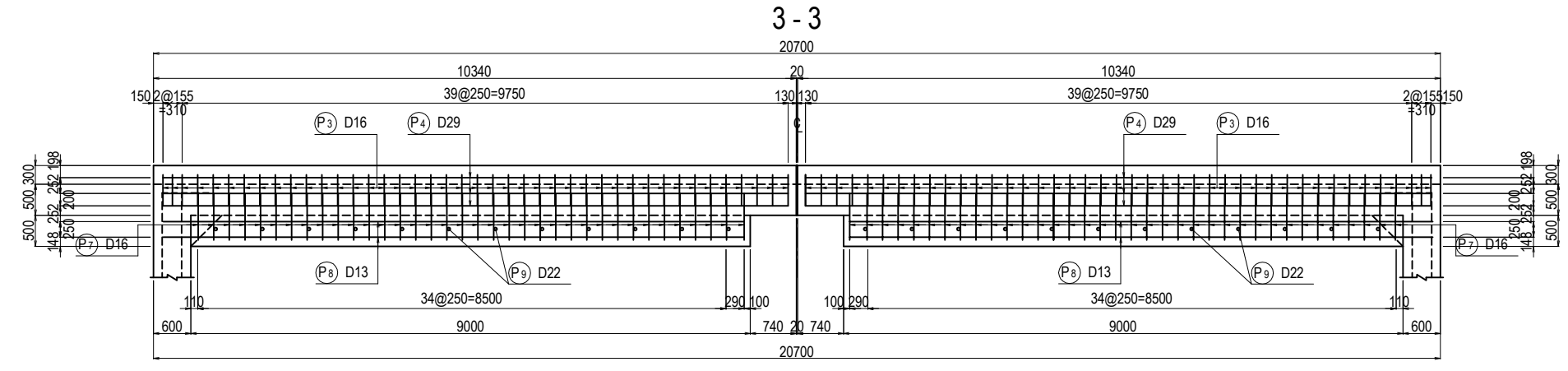
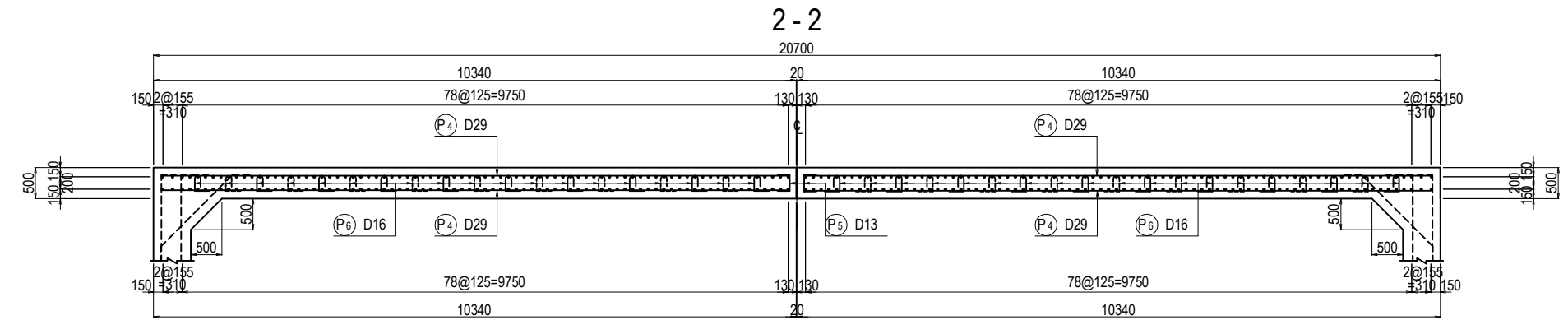
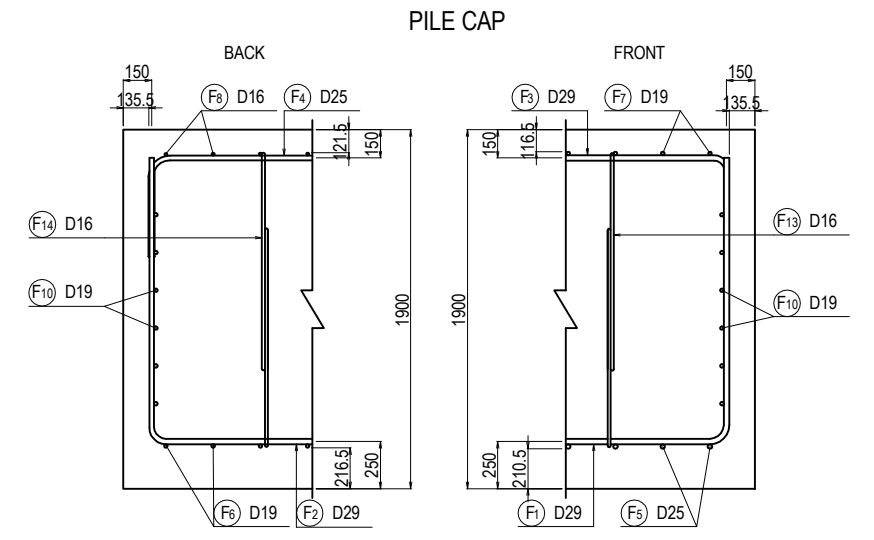
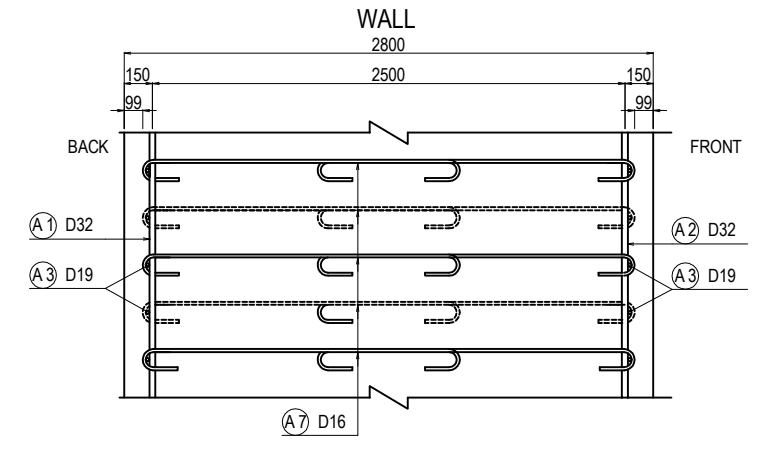
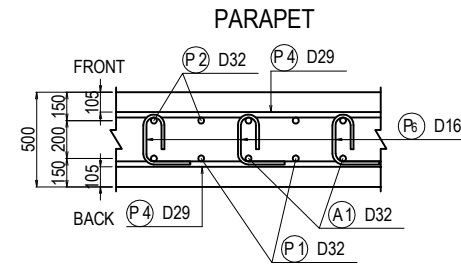
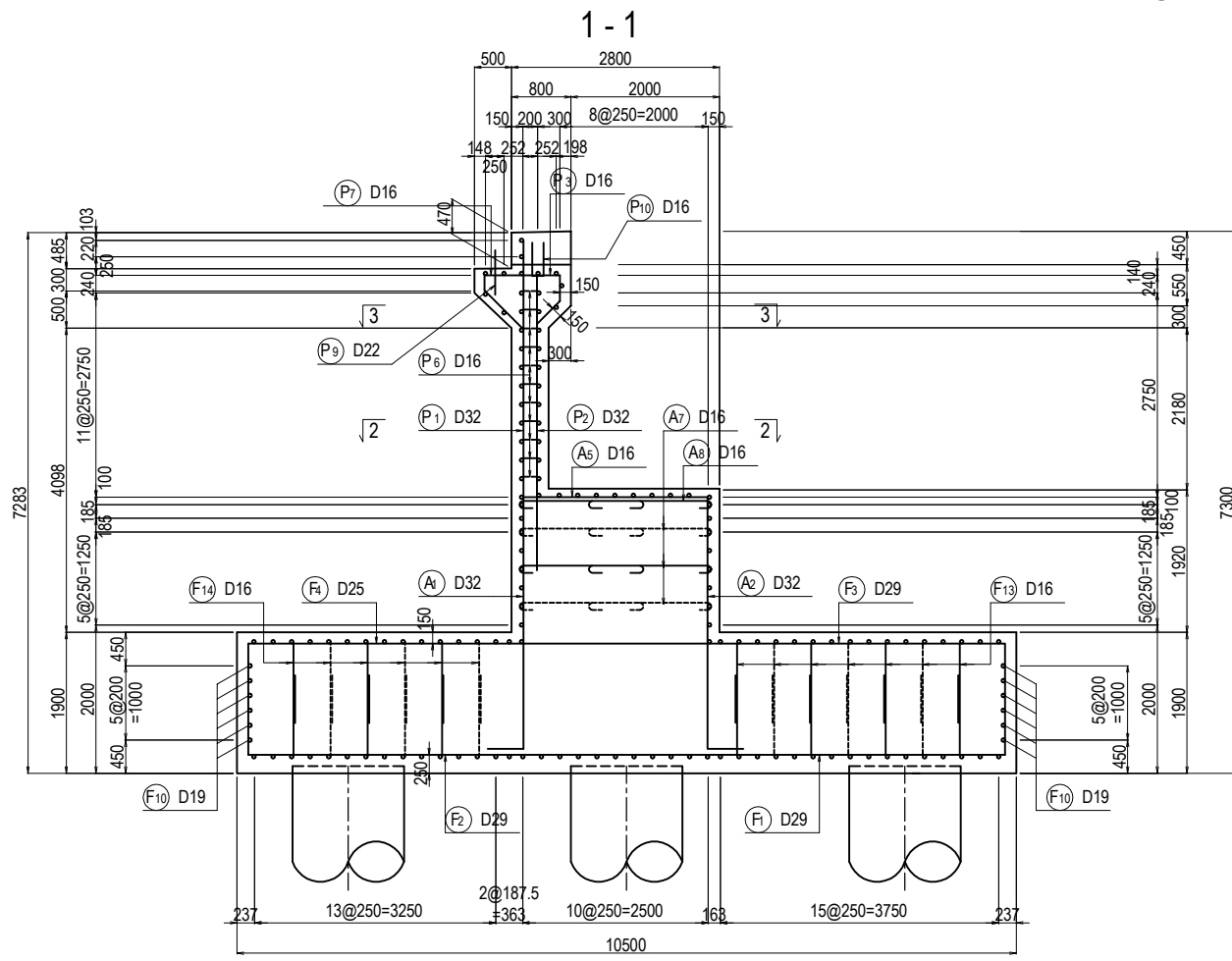


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE <h2 style="text-align: center;">BAR ARRANGEMENT OF A2 ABUTMENT(2)</h2>	PACKAGE 2 DWG No. P2-PB-2102
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

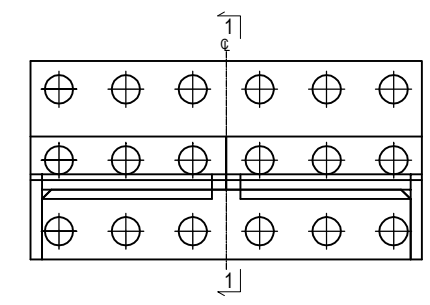
BAR ARRANGEMENT OF A2 ABUTMENT(3)

S=1:100

DETAIL S = 1:40

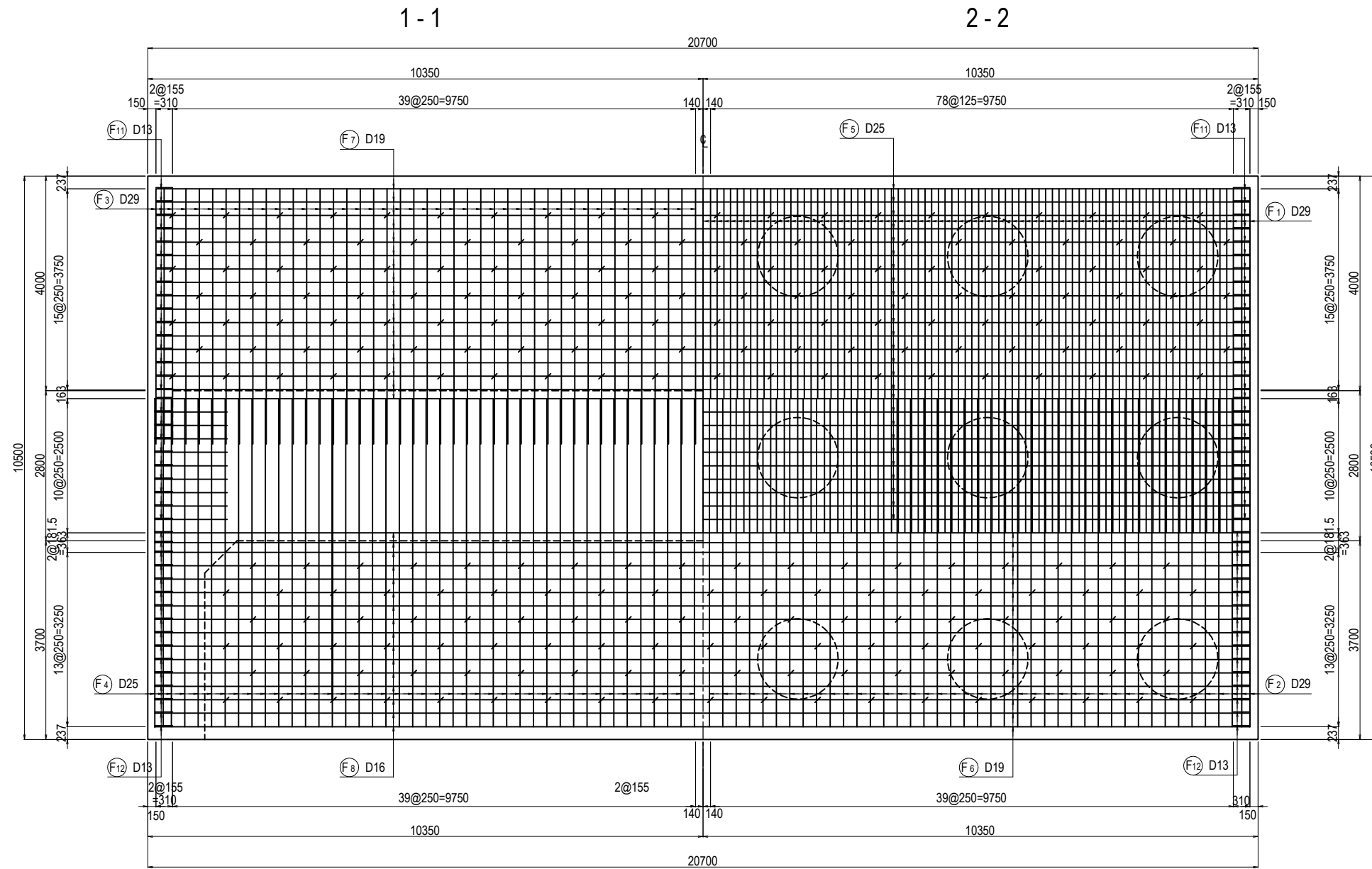


KEY PLAN

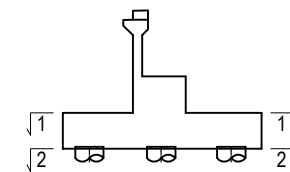


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF A2 ABUTMENT(3)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2103

BAR ARRANGEMENT OF A2 ABUTMENT(4) S=1:100



KEY PLAN

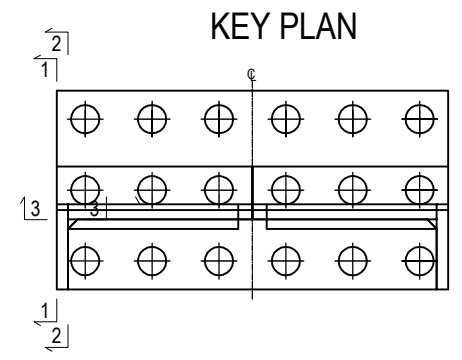
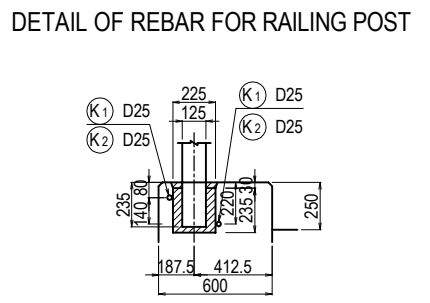
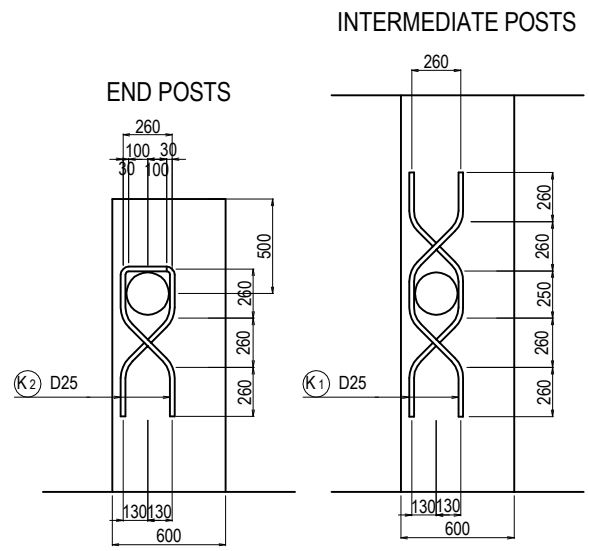
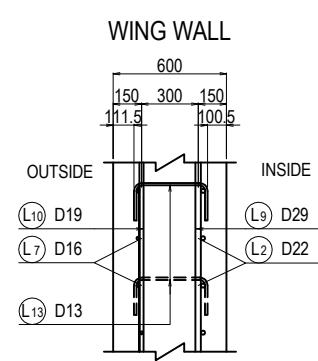
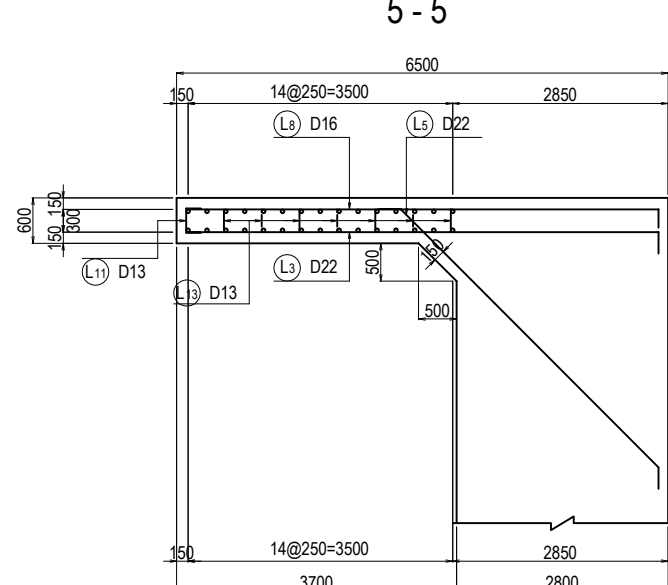
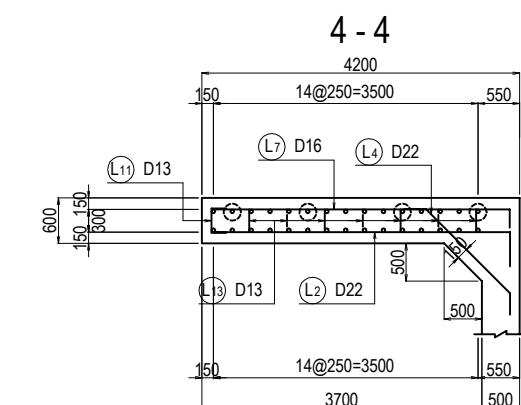
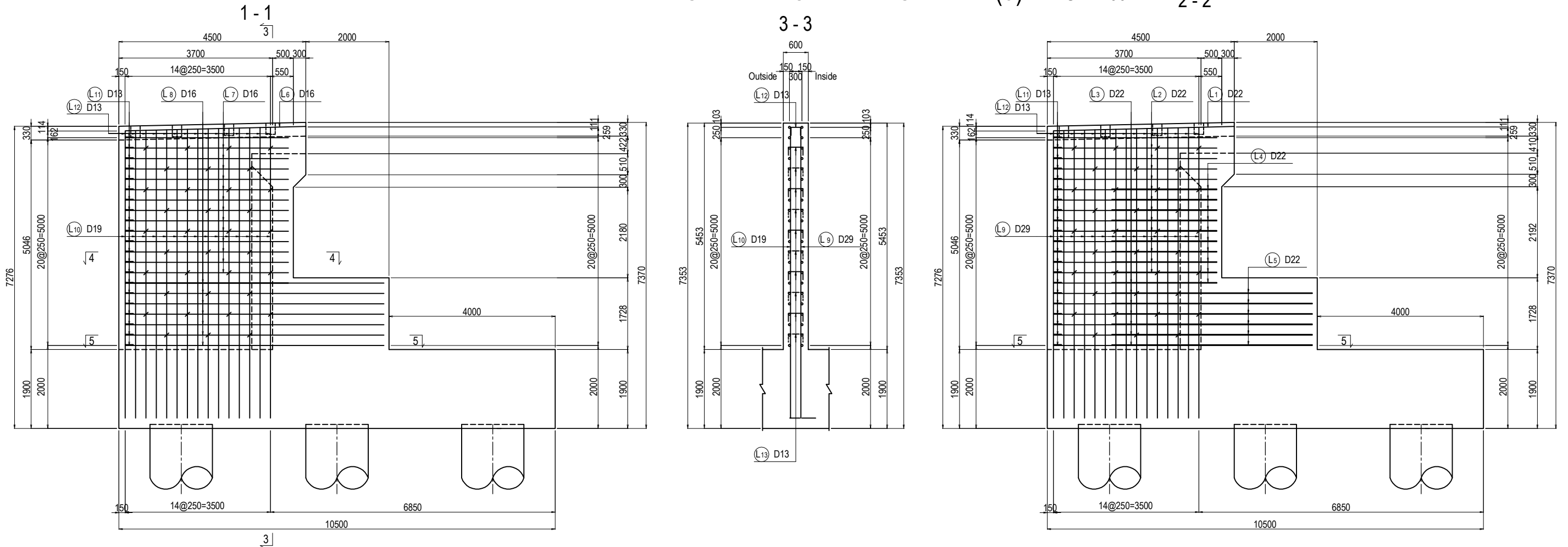


<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 20%;">NAME</th> <th style="width: 20%;">SIGNATURE</th> <th style="width: 20%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> BAR ARRANGEMENT OF A2 ABUTMENT(4)	<small>PACKAGE</small> 2 <small>DWG No.</small> P2-PB-2104
	NAME	SIGNATURE	DATE																			
PREPARED BY	M. OHYAMA		15 Jun.2017																			
CHECKED BY	T. HAYAKAWA		20 Jun.2017																			
APPROVED BY	Y. SANO		21 Jun.2017																			

BAR ARRANGEMENT OF A2 ABUTMENT(5)

S=1:100

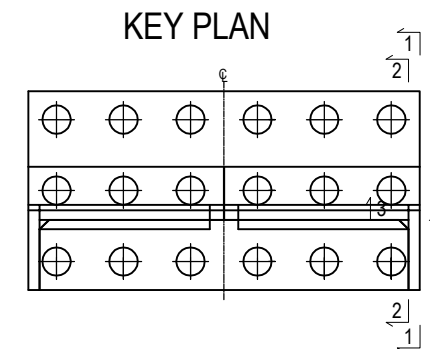
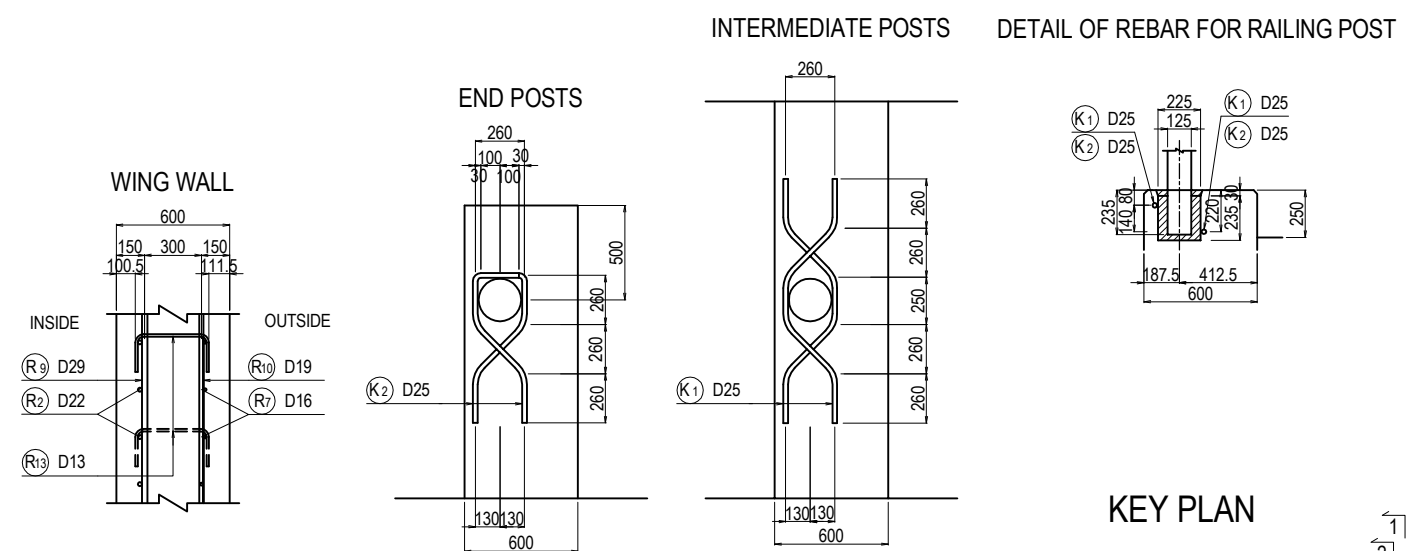
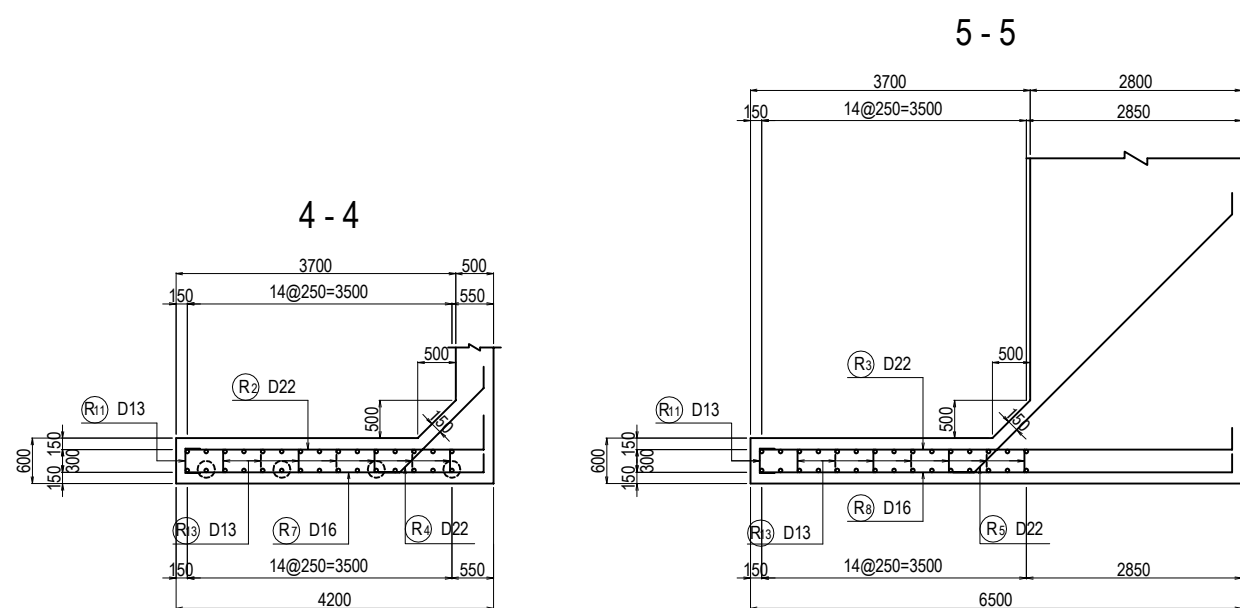
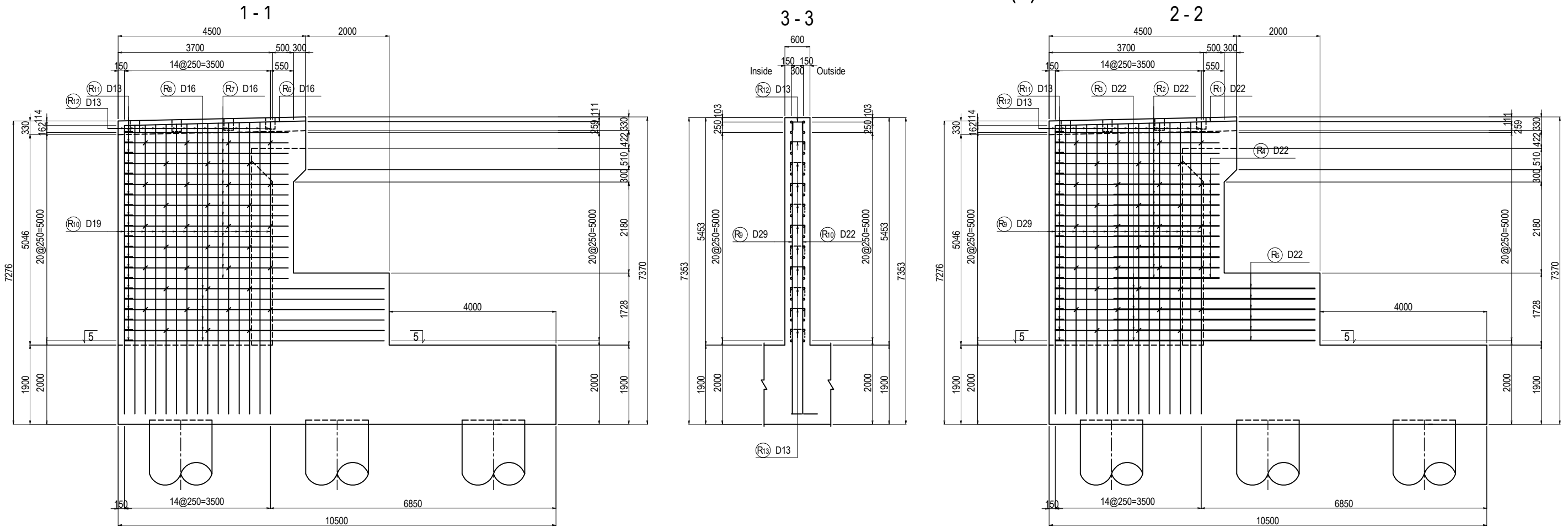
2-2



PROJECT NAME		FINANCED BY		COUNTERPART		JICA STUDY TEAM					DRAWING TITLE		PACKAGE	
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF A2 ABUTMENT(5)		2
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017	DWG No.										
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017	P2-PB-2105										

BAR ARRANGEMENT OF A2 ABUTMENT(6)

S=1:100



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM 	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE			
				PREPARED BY	M. OHYAMA				15 Jun.2017	BAR ARRANGEMENT OF A2 ABUTMENT(6)	2
				CHECKED BY	T. HAYAKAWA				20 Jun.2017		DWG No.
				APPROVED BY	Y. SANO				21 Jun.2017		P2-PB-2106

BAR ARRANGEMENT OF A2 ABUTMENT (7)

BAR QUANTITY

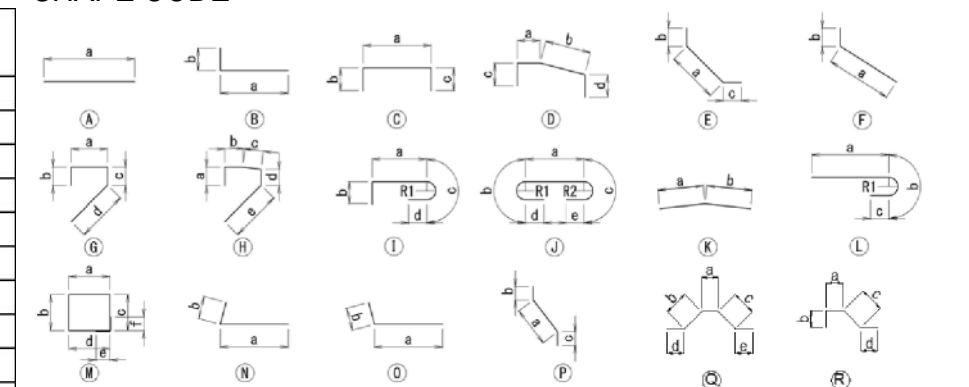
SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
P1	A	D32	78	4620	4620								2245	
P2	A	D32	162	3980	3980								4018	
P3	G	D16	84	1800	500	240	348	707					236	
P4	A	D29	29	10070	10062								1472	
P5	C	D13	22	640	245	195	195						14	
P6	I	D16	208	720	200	240	151	128			48		233	
P7	H	D16	72	2220	240	350	400	161	1061				249	
P8	A	D13	4	9360	9352								37	
P9	A	D22	24	600	600								44	
P10	C	D16	96	1050	150	450	450						157	
A1	B	D32	84	7330	6842	480							3836	AVERAGE
A2	B	D32	120	3870	3382	480							2893	AVERAGE
A3	J	D19	24	10660	9997	179	179	152	152		57	57	576	
A4	J	D19	4	10670	9999	179	179	152	152		57	57	96	
A5	C	D16	116	3750	2500	240	1010						679	
A6	C	D16	28	11090	10062	510	510						484	
A7	J	D16	116	2130	1565	151	151	128	128		48	48	385	
A8	J	D16	232	2130	1565	151	151	128	128		48	48	770	
A9	C	D13	14	2940	2545	195	195						41	
F1	B	D29	162	8000	6500	1500							6532	
F2	B	D29	84	7700	6200	1500							3260	
F3	B	D29	84	5200	4760	435							2202	
F4	B	D25	84	6580	6200	375							2200	
F5-1	A	D25	52	9000	9000								1863	
F5-2	A	D25	26	3980	3980								412	
F6-1	A	D19	32	9000	9000								648	
F6-2	A	D19	16	3600	3600								130	
F7-1	A	D19	34	9000	9000								689	
F7-2	A	D19	17	3600	3600								138	
F8-1	A	D16	32	9000	9000								449	
F8-2	A	D16	16	3420	3420								85	
F9	C	D19	12	10730	10152	285	285						290	
F10-1	A	D19	24	9000	9000								486	
F10-2	A	D19	12	3580	3571								97	
F11	C	D13	54	1940	1542	195	195						104	
F12	C	D13	32	1930	1540	195	195						61	
F13	J	D16	280	1610	1051	151	151	128	128		48	48	703	
F14	J	D16	228	1610	1045	151	151	128	128		48	48	572	
S1	C	D16	52	2580	1380	600	600						209	
S2	C	D16	52	2580	1380	600	600						209	
S3	M	D16	4	5990	1412	1412	1460	1460	240	240			37	

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
L1	B	D22	1	4470	3928	538							14	
L2	B	D22	15	4470	3927	538							204	
L3	B	D22	6	6560	6227	330							120	
L4	E	D22	10	2240	1572	330	330						68	
L5	E	D22	6	5490	4824	330	330						100	
L6	B	D16	1	4170	3925	240							7	
L7	B	D16	15	4170	3924	240							98	
L8	B	D16	6	6470	6224	240							61	
L9	B	D29	15	7400	6956	435							560	AVERAGE
L10	B	D19	15	7250	6956	285							245	AVERAGE
L11	C	D13	21	730	339	195	195						15	
L12	C	D13	15	730	339	195	195						11	
L13	C	D13	35	770	377	195	195						27	
R1	B	D22	1	4470	3928	538							14	
R2	B	D22	15	4470	3927	538							204	
R3	B	D22	6	6560	6227	330							120	
R4	E	D22	10	2240	1572	330	330						68	
R5	E	D22	6	5490	4824	330	330						100	
R6	B	D16	1	4170	3925	240							7	
R7	B	D16	15	4170	3924	240							98	
R8	B	D16	6	6470	6224	240							61	
R9	B	D29	15	7400	6956	435							560	AVERAGE
R10	B	D19	15	7250	6956	285							245	AVERAGE
R11	C	D13	21	730	339	195	195						15	
R12	C	D13	15	730	339	195	195						11	
R13	C	D13	35	770	377	195	195						27	
K1	Q	D25	8	1510	250	368	368	260	260				48	
K2	R	D25	8	1150	260	260	368	260					37	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	363	0
D16	5789	0
D19	3640	0
D22	1056	0
D25	4560	0
D29	14586	0
D32	12992	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	42986	0

SHAPE CODE

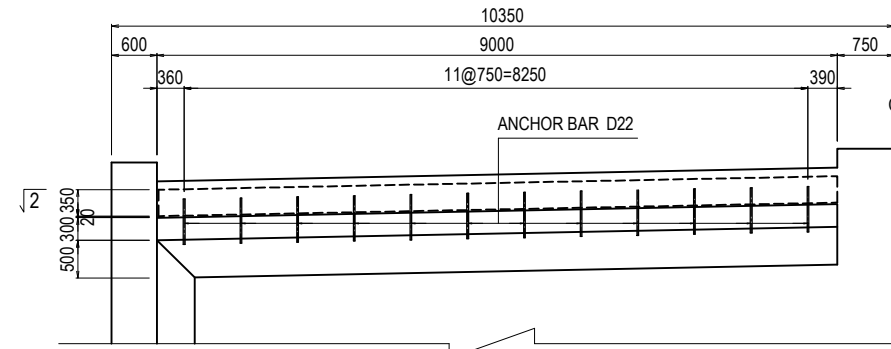


- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

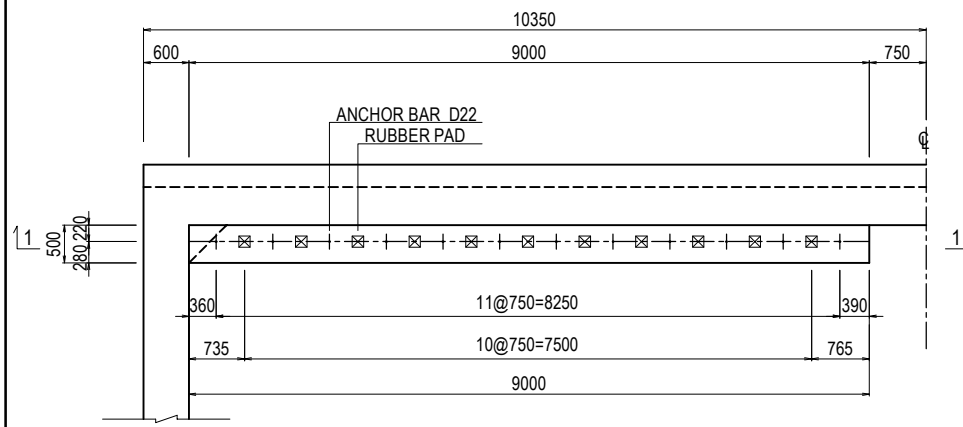
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF A2 ABUTMENT (7)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2107

BAR ARRANGEMENT OF A2 ABUTMENT (8) S=1:100

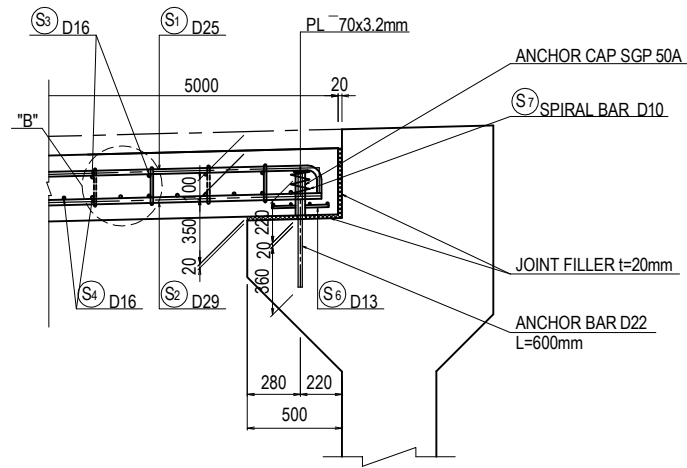
1 - 1



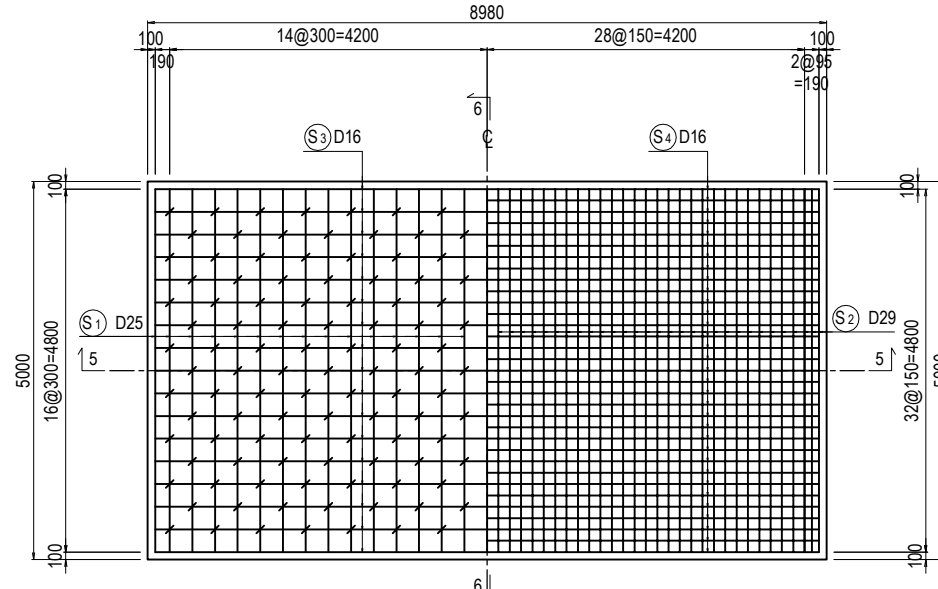
2 - 2



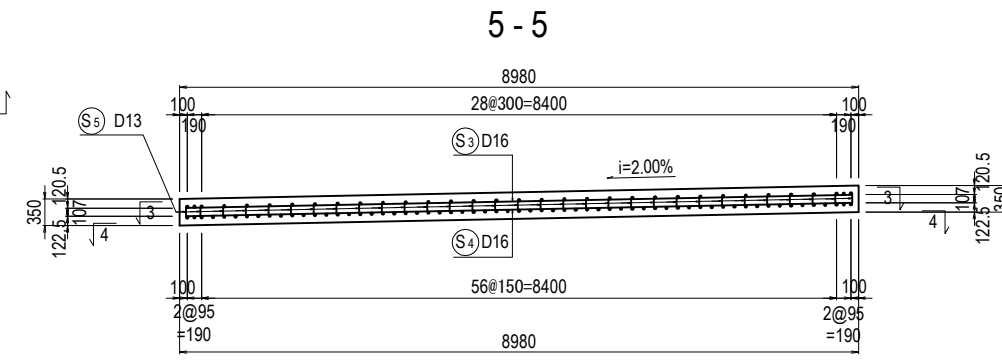
DETAIL "A" S=1:40



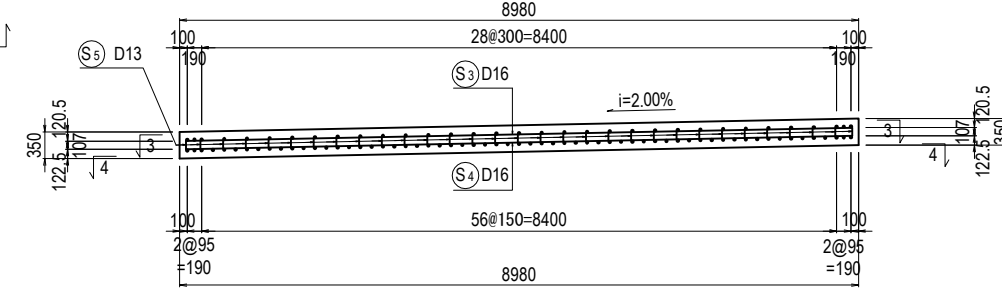
3 - 3



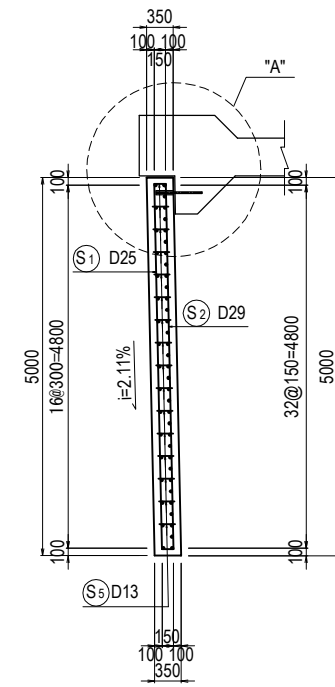
4 - 4



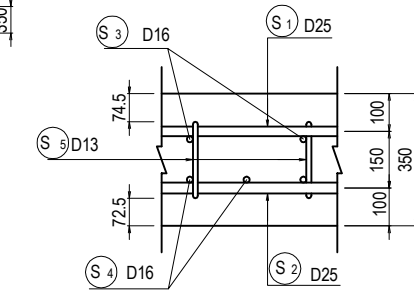
5 - 5



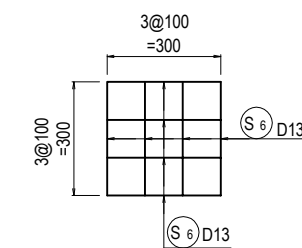
6 - 6



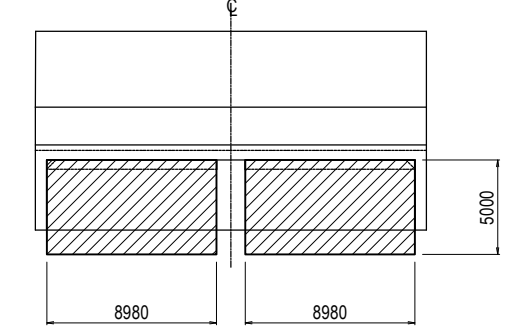
DETAIL "B" S=1:20



DETAIL "C" S=1:20

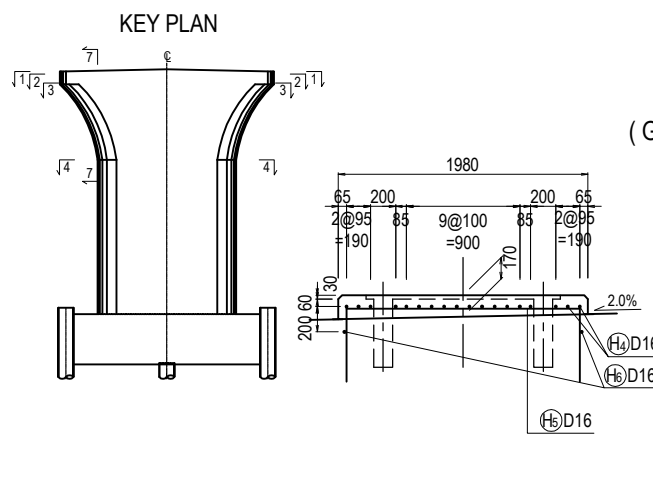
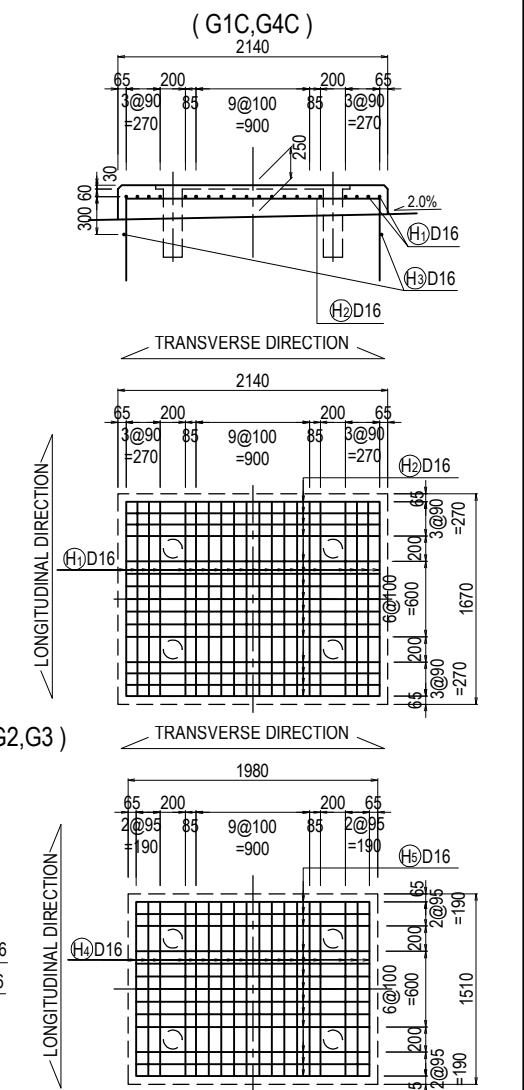
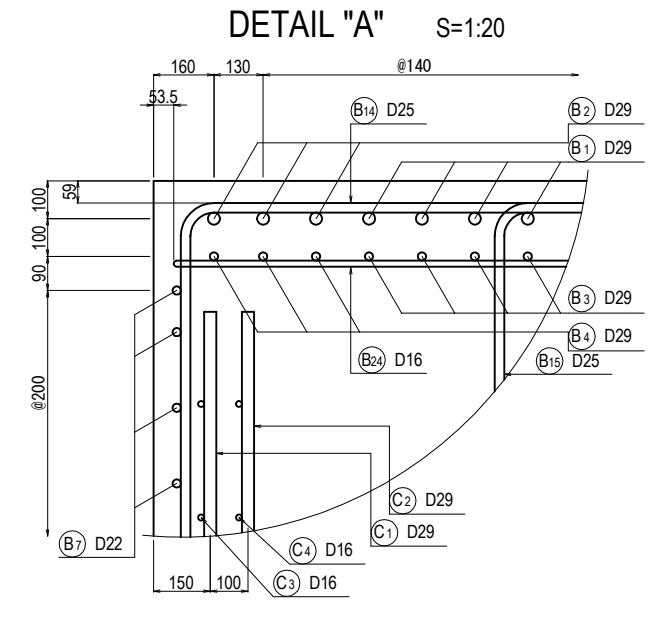
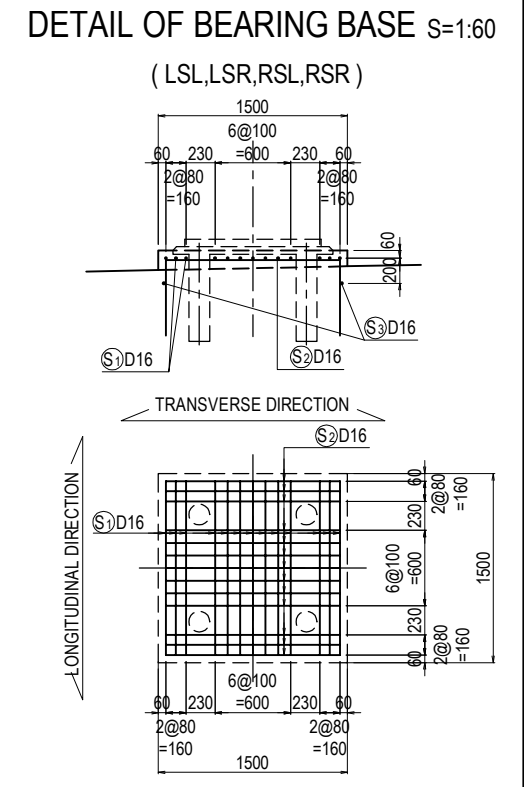
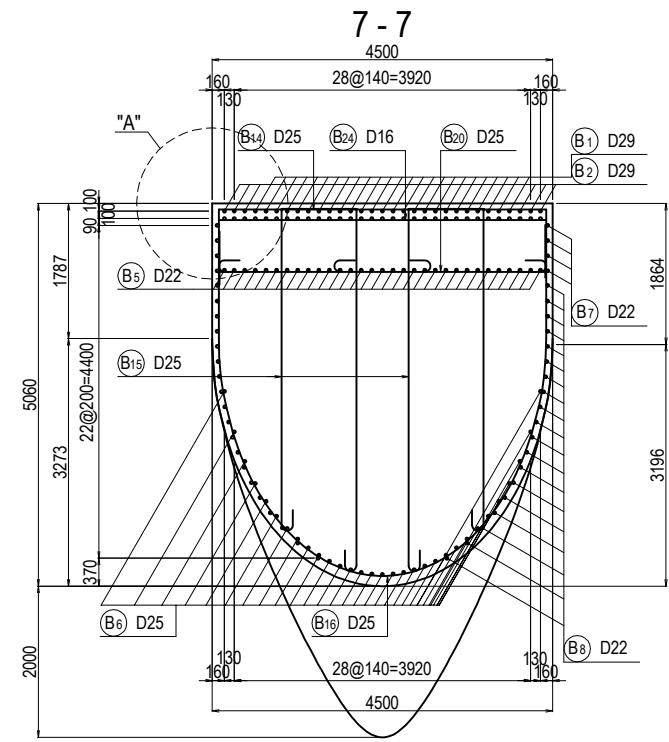
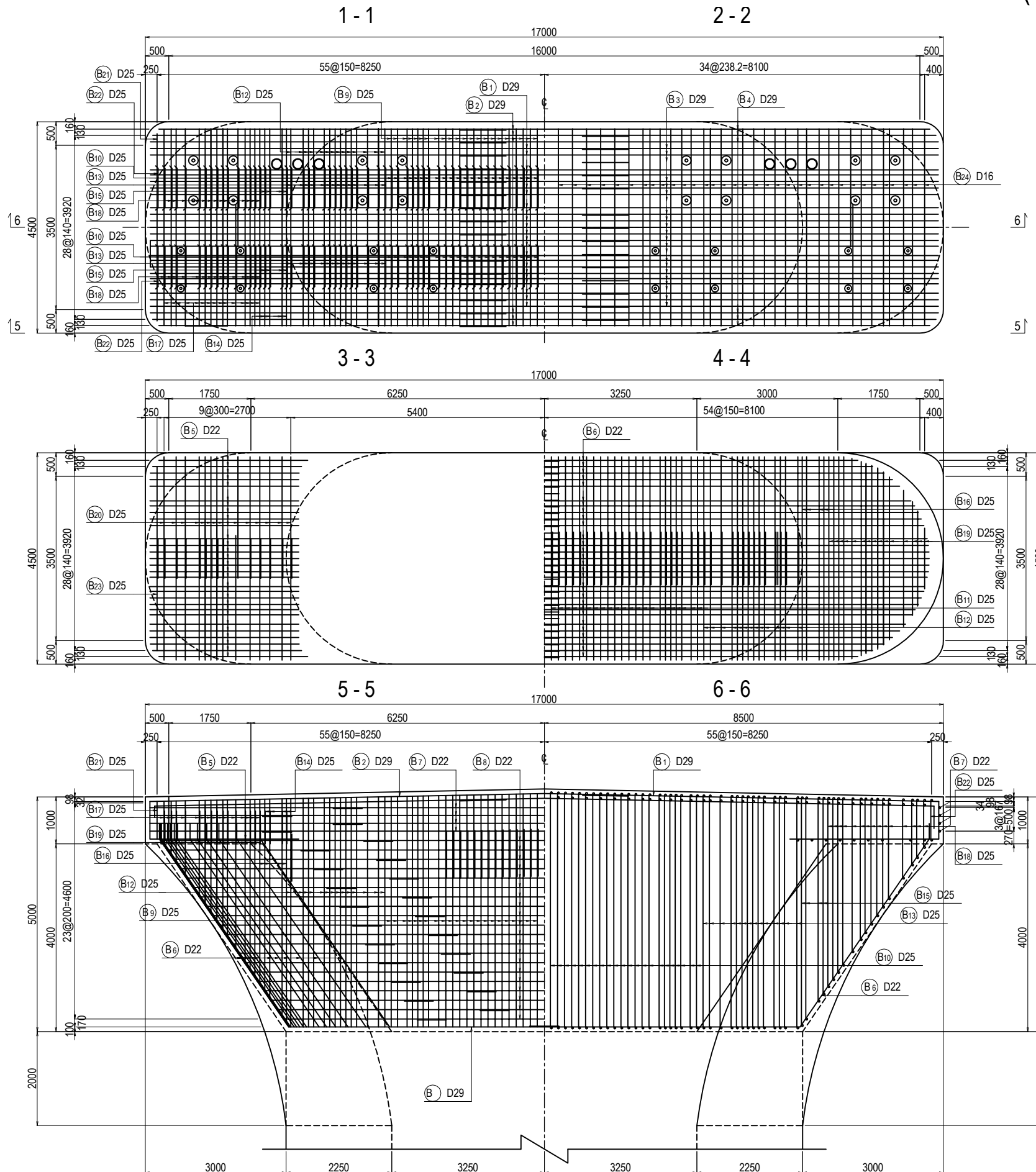


KEY PLAN



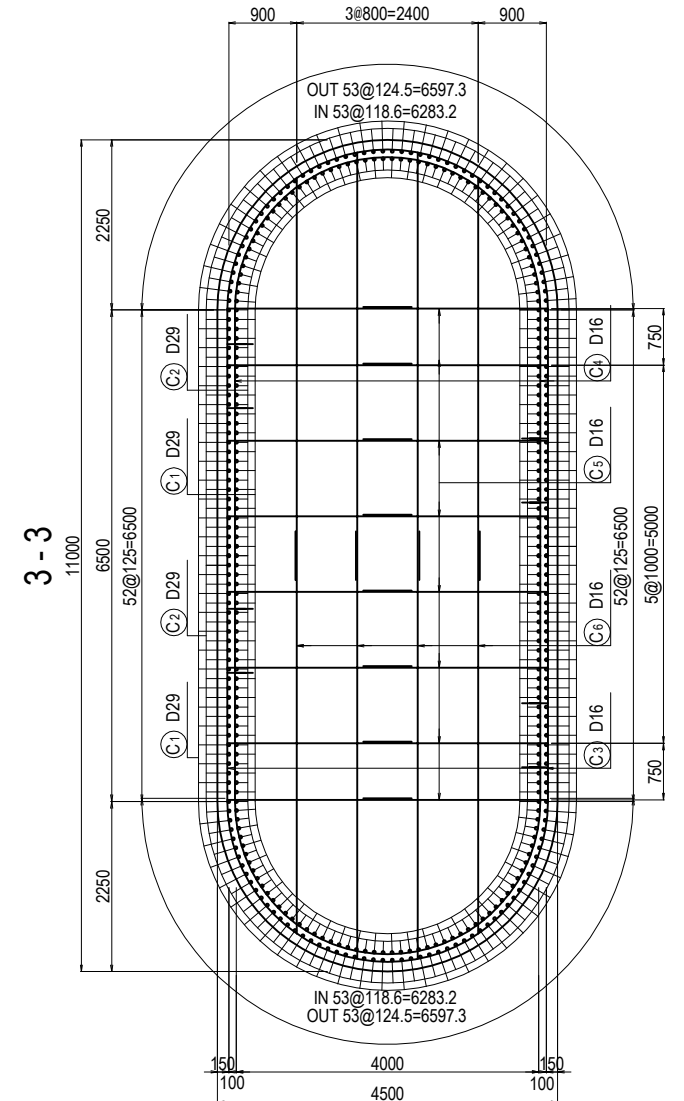
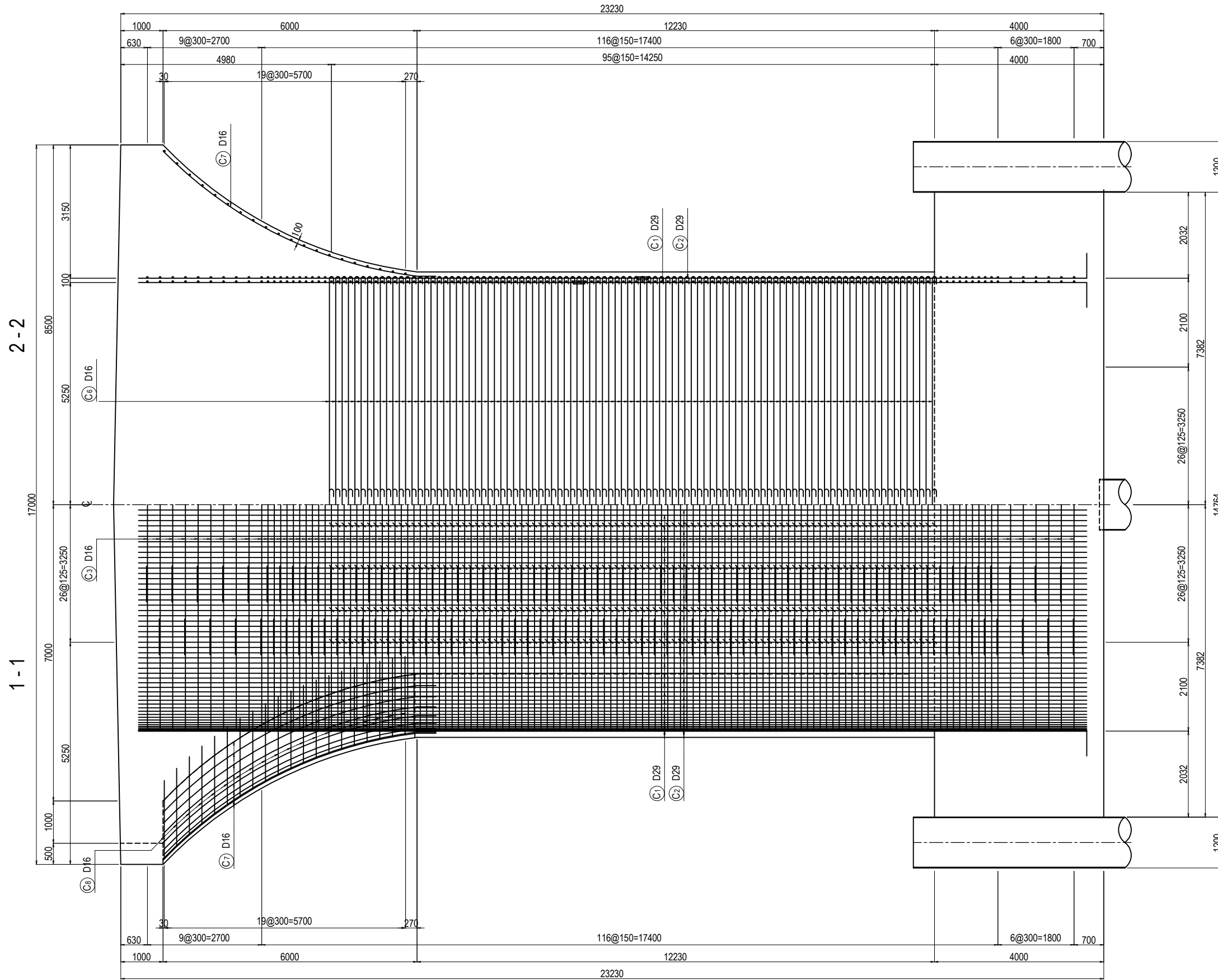
SYMBOL	DIAMETER	LENGTH (mm)	NUMBER	WEIGHT	SHAPE
S1	D25	5110	31	630	□
S2	D29	4810	61	1479	□
S3	D16	9000	17	239	□
S4	D16	8790	33	452	□
S5	D13	590	218	128	□
S6	D13	300	96	29	□
				D29	1479kg
				D25	630kg
				D16	691kg
				D13	157kg
				Total	2957kg
2 Slab x 2957kg=				5914kg	
S7	D10	940	12	6	≡
ANCHOR CAP	50A	230	12	15	SGP
PL	Ø70x3.2		12	1	
				Total	22kg
2 Slab x 22kg=				44kg	

BAR ARRANGEMENT OF P20 PIER (1) S=1:100

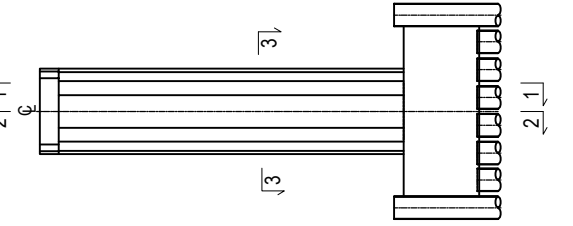


PROJECT NAME		FINANCED BY		COUNTERPART		JICA STUDY TEAM		NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT		JAPAN INTERNATIONAL COOPERATION AGENCY		REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE		NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.		PREPARED BY M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF P20 PIER (1)	2
								CHECKED BY T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
								APPROVED BY Y. SANO	佐野 祐一	21 Jun.2017		P2-PB-2111

BAR ARRANGEMENT OF P20 PIER (2) S=1:100



KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

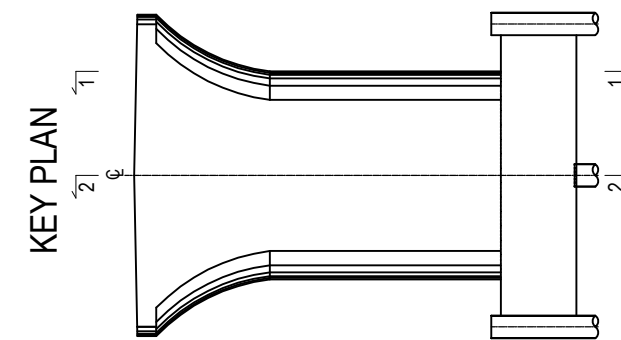
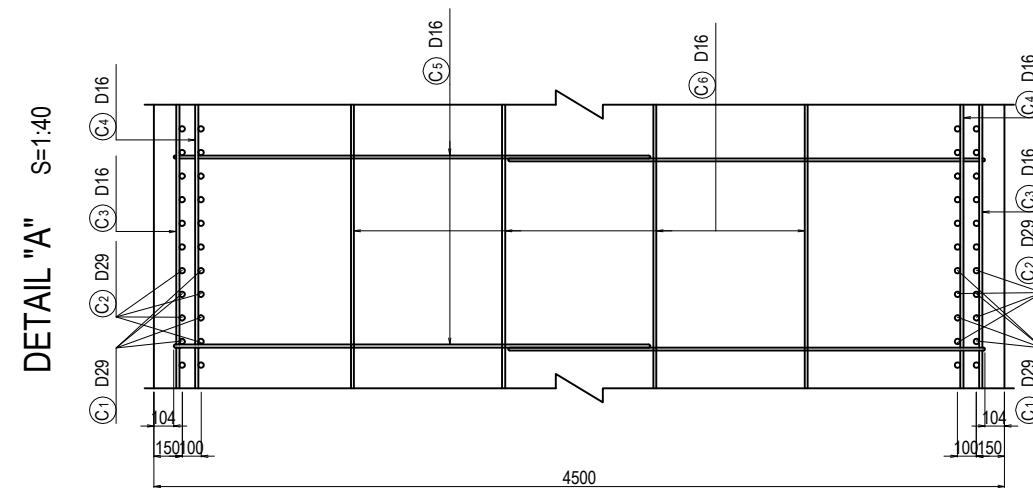
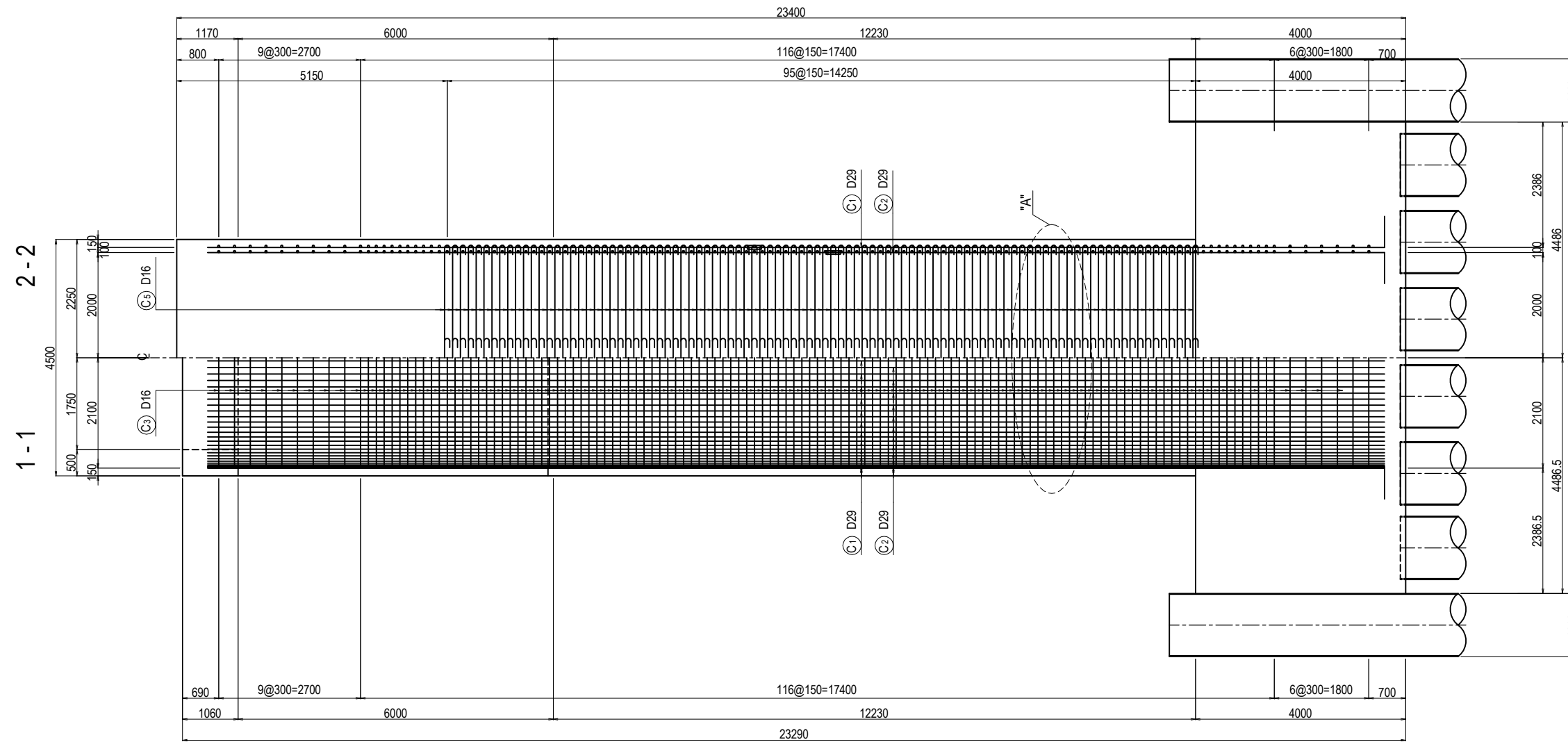
JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P20 PIER (2)

PACKAGE
2
DWG No.
P2-PB-2112

BAR ARRANGEMENT OF P20 PIER (3) S=1:100



PROJECT NAME
 DETAILED DESIGN ON
 BAGO RIVER BRIDGE
 CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
 COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
 MINISTRY OF CONSTRUCTION
 DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO., LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P20 PIER (3)

PACKAGE
 2
 DWG No.
 P2-PB-2113

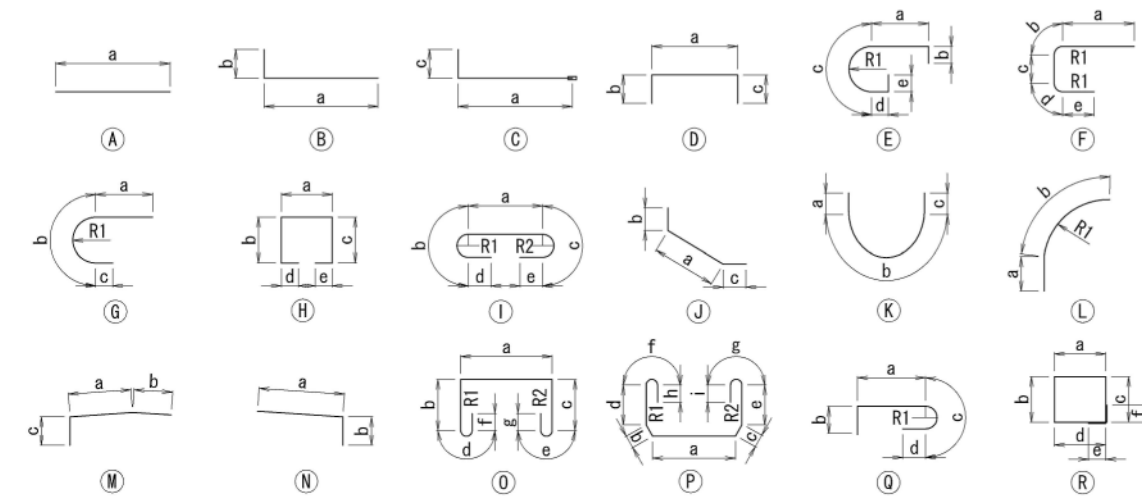
BAR ARRANGEMENT OF P20 PIER (4)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1-1	M	D29	23	11000	8402	1796	802									1275	
B1-2	N	D29	23	8220	7416	802										953	
B2-1	M	D29	6	10910	8305	1796	802									330	AVERAGE
B2-2	N	D29	6	8130	7319	802										246	AVERAGE
B3-1	M	D29	23	11330	8302	2218	802									1313	
B3-2	N	D29	23	7700	6896	802										893	
B4-1	M	D29	6	11230	8206	2218	802									340	AVERAGE
B4-2	N	D29	6	7600	6798	802										230	AVERAGE
B5	B	D25	58	3550	3170	375										820	
B6	J	D25	58	10580	4854	375	5348									2442	
B7-1	A	D22	8	10500	10500											511	
B7-2	F	D22	8	11600	4110	689	3500	689	2610					438.5	438.5	564	
B8-1	A	D22	40	6600	6599											1605	
B8-2	G	D22	40	11000	2800	6875	1325							2188.5		2675	
B9-1	O	D25	45	8710	4330	1750	1750	236	236	200	200			75	75	1560	
B9-2	Q	D25	90	5050	4238	375	236	200						75		1809	AVERAGE
B10	H	D25	90	11580	950	4937	4937	375	375							4148	AVERAGE
B11	I	D25	90	3530	2650	236	236	200	200					75	75	1265	
B12-1	O	D25	28	8710	4330	1750	1750	236	236	200	200			75	75	971	
B12-2	P	D25	56	7270	1891	1954	0	2547	0	236	236	200	200	75	75	1620	AVERAGE
B13	O	D25	56	11300	950	4859	4617	236	236	200	200			75	75	2518	AVERAGE
B14	H	D25	8	6900	4330	906	906	375	375							220	AVERAGE
B15	O	D25	16	9680	950	4368	3483	236	236	200	200			75	75	616	AVERAGE
B16	K	D25	8	10470	1033	8396	1033									333	AVERAGE
B17	H	D25	30	6850	4330	882	882	375	375							818	AVERAGE
B18	O	D25	60	6080	950	2369	1886	236	236	200	200			75	75	1452	AVERAGE
B19	K	D25	30	5880	700	4472	700									702	AVERAGE
B20	I	D25	60	3530	2650	236	236	200	200					75	75	843	
B21	H	D25	2	6630	4162	855	855	375	375							53	
B22	H	D25	4	3400	950	850	850	375	375							54	
B23	I	D25	4	3400	2520	236	236	200	200					75	75	54	
B24	I	D16	138	2970	2410	151	151	128	128					48	48	639	
H1	D	D16	40	2840	1540	650	650									177	
H2	D	D16	30	3310	2010	650	650									155	
H3	R	D16	2	7710	2042	1572	1572	2042	240	240						24	
H4	D	D16	36	2540	1380	580	580									143	
H5	D	D16	26	3010	1850	580	580									122	
H6	R	D16	2	7070	1882	1412	1412	1882	240	240						22	
S1	D	D16	52	2580	1380	600	600									209	
S2	D	D16	52	2580	1380	600	600									209	
S3	R	D16	4	6230	1412	1412	1460	1460	240	240						39	

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
C1-1	B	D29	210	12000	11520	480										12701	SD390
C1-2	A	D29	210	8000	8000											8467	SD390
C1-3	A	D29	210	4850	4845											5132	SD390
C2-1	B	D29	210	10500	10020	480										11113	SD390
C2-2	A	D29	210	8000	8000											8467	SD390
C2-3	A	D29	210	6350	6345											6720	SD390
C3-1	D	D16	264	4830	4346	240	240									1988	
C3-2	E	D16	264	11000	2548	240	6668	1298	240					2122.5		4530	
C4-1	D	D16	265	4830	4346	240	240									1995	
C4-2	E	D16	265	10680	2548	240	6354	1298	240					2022.5		4415	
C5	I	D16	1520	2970	2411	151	151	128	128					48	48	7038	
C6	I	D16	768	6220	5661	151	151	128	128					48	48	7450	
C7	L	D16	42	7270	450	6818								10100		476	
C8	G	D16	40	7710	450	6805	450							2166		481	
																0	

SHAPE CODE



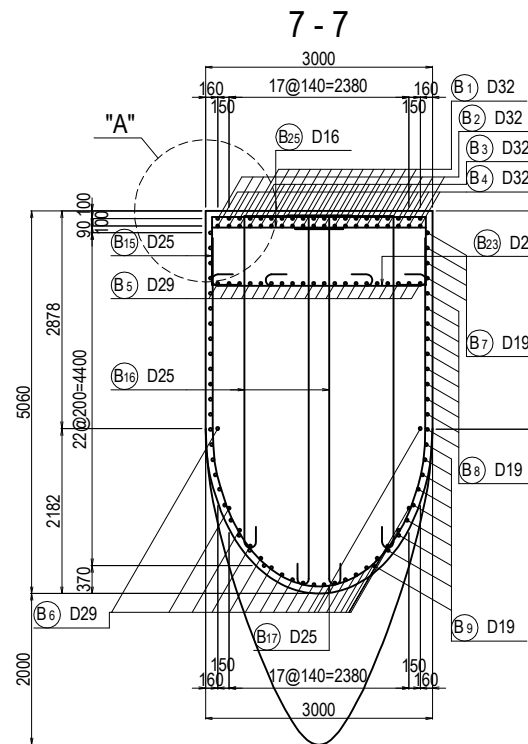
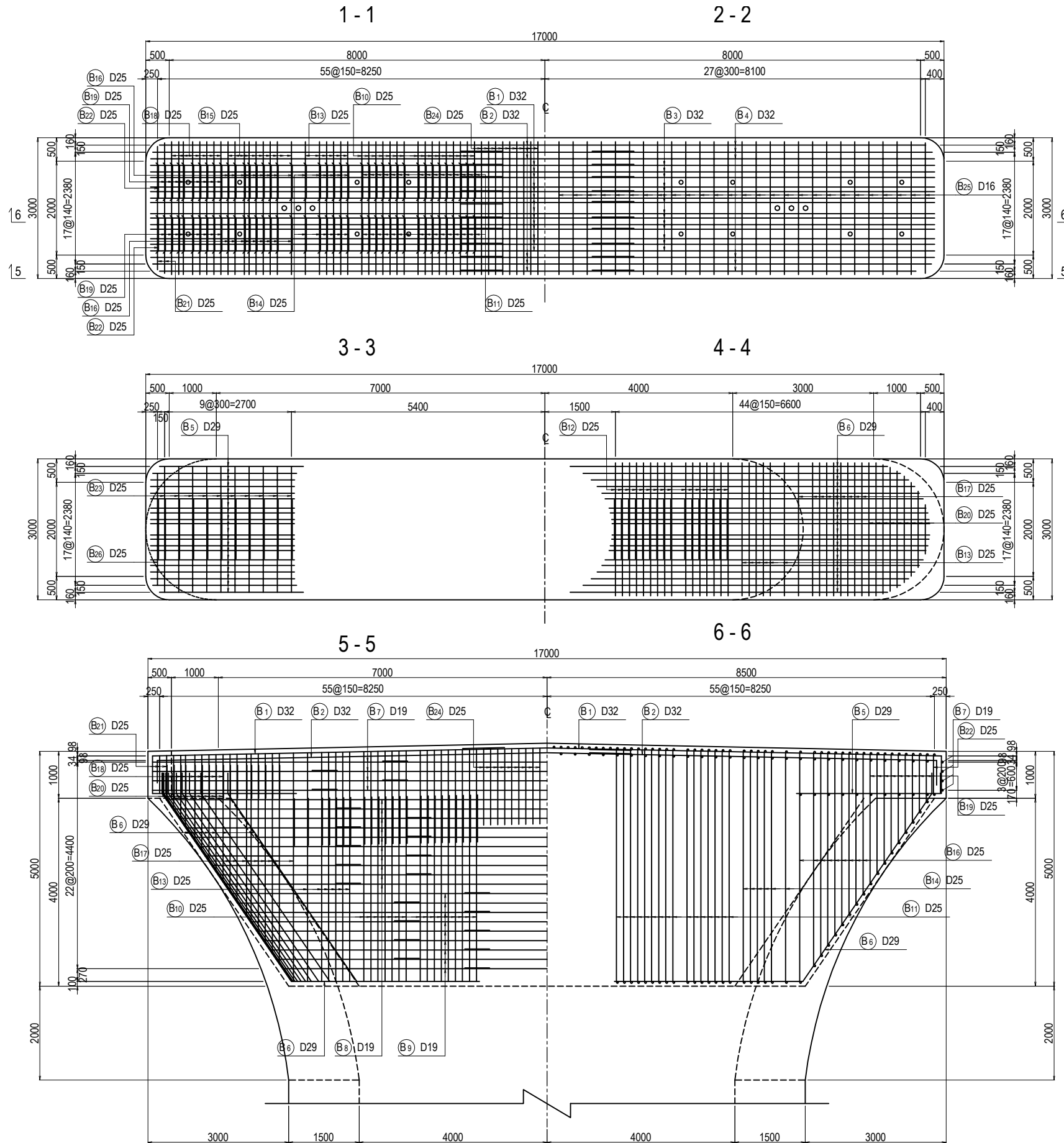
SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	0	0
D16	30112	0
D19	0	0
D22	5355	0
D25	22298	0
D29	58180	0
D32	0	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	115945	0

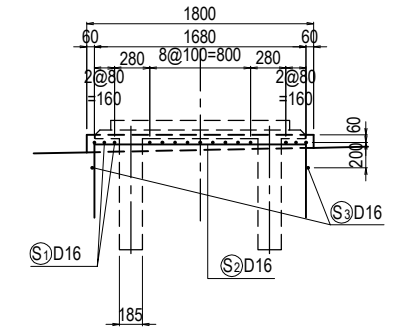
- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A grade of axial rebar for Columns shall be SD 390 or equivalent.
 3. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P20 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2114

BAR ARRANGEMENT OF P21 PIER(1) S=1:100

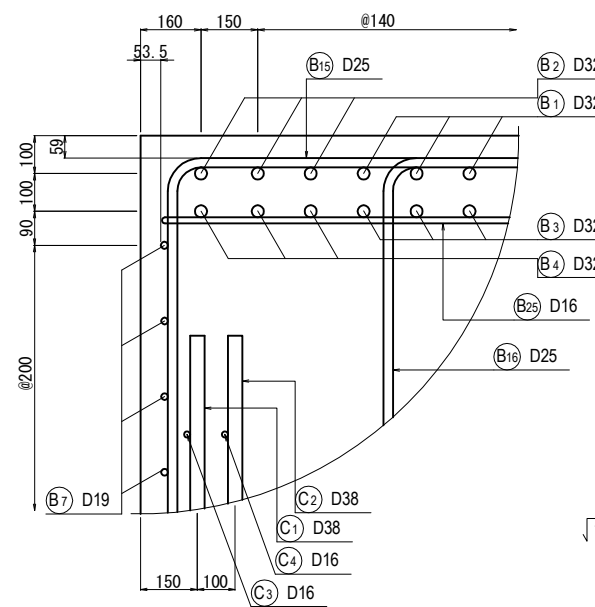


DETAIL OF BEARING BASE S=1:60



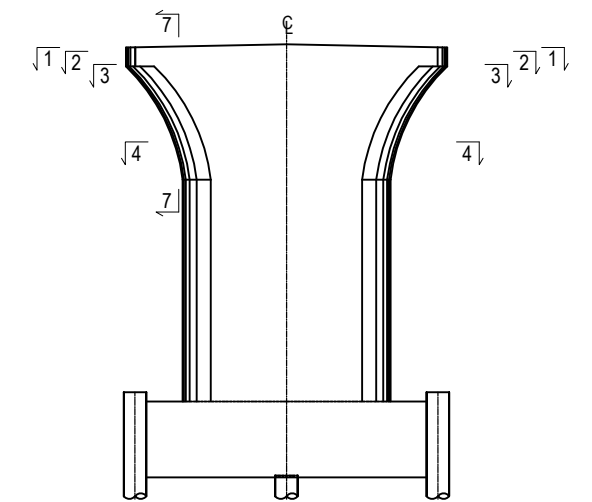
TRANSVERSE DIRECTION

DETAIL "A" S=1:20



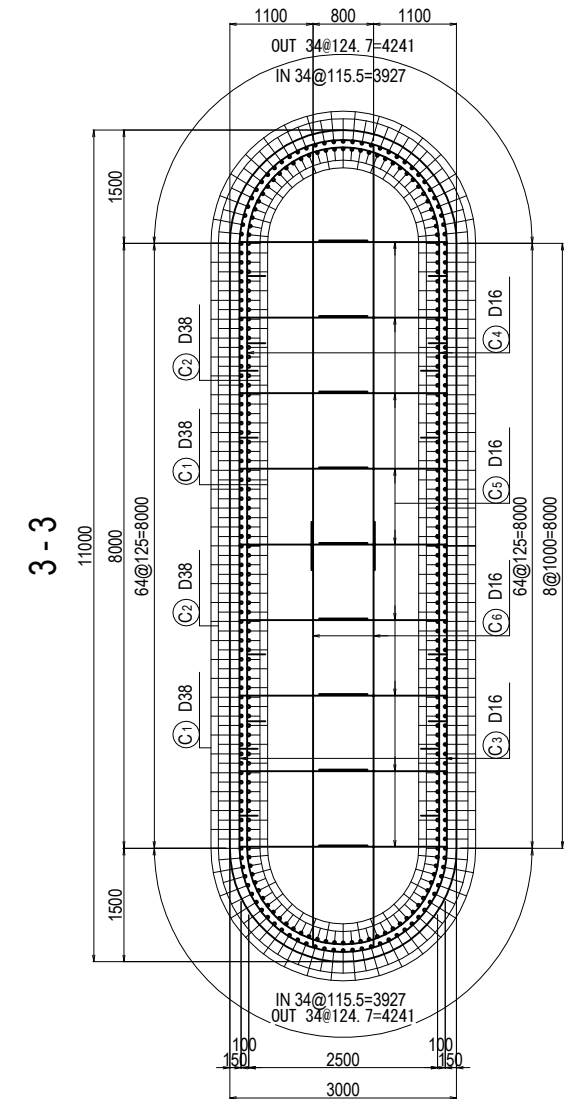
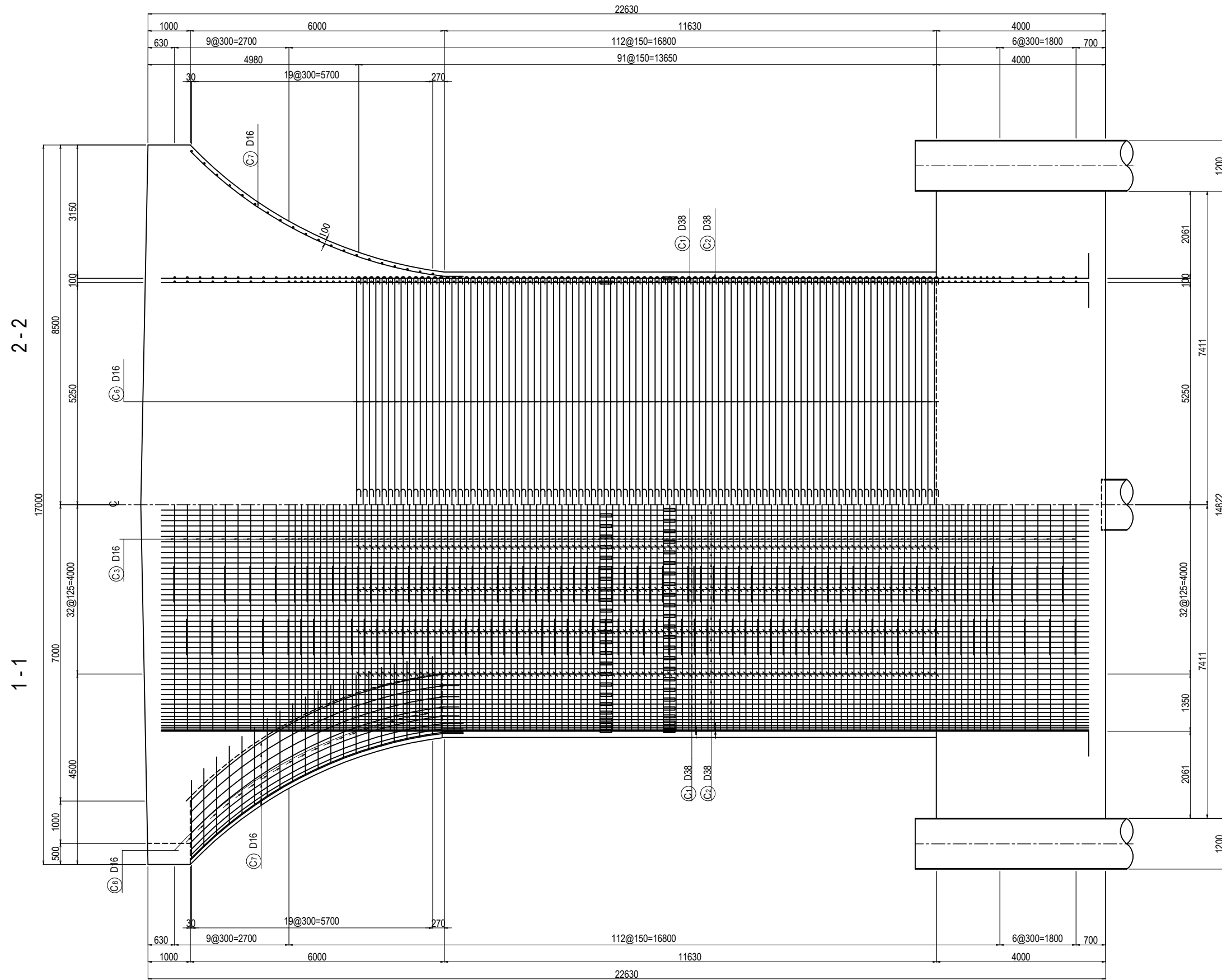
LONGITUDINAL DIRECTION

KEY PLAN

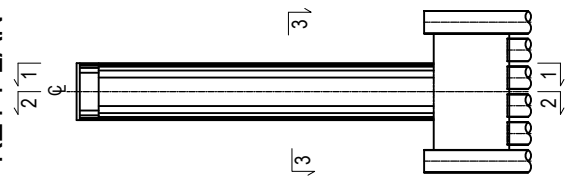


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	PREPARED BY CHECKED BY APPROVED BY	M. OHYAMA T. HAYAKAWA Y. SANO	大山満弘 平川知寿 佐藤 祐一	15 Jun.2017 20 Jun.2017 21 Jun.2017	BAR ARRANGEMENT OF P21 PIER(1)
								2 DWG No. P2-PB-2121

BAR ARRANGEMENT OF P21 PIER(2) S=1:100



KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

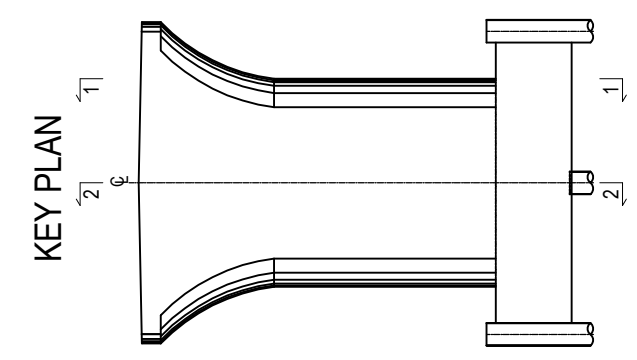
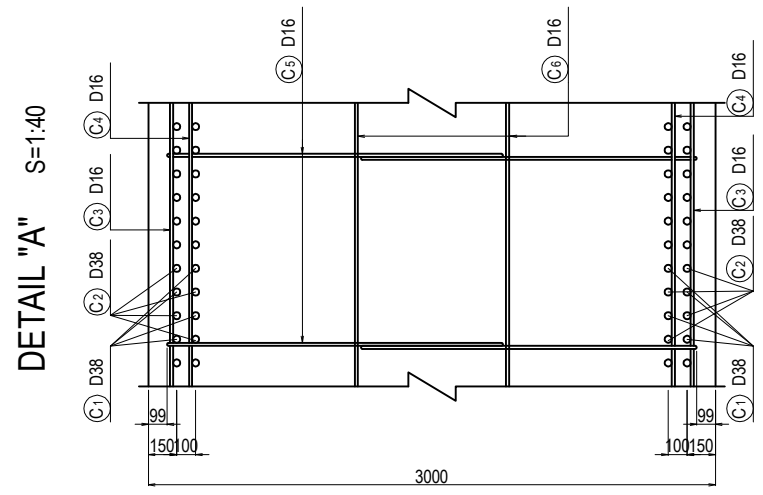
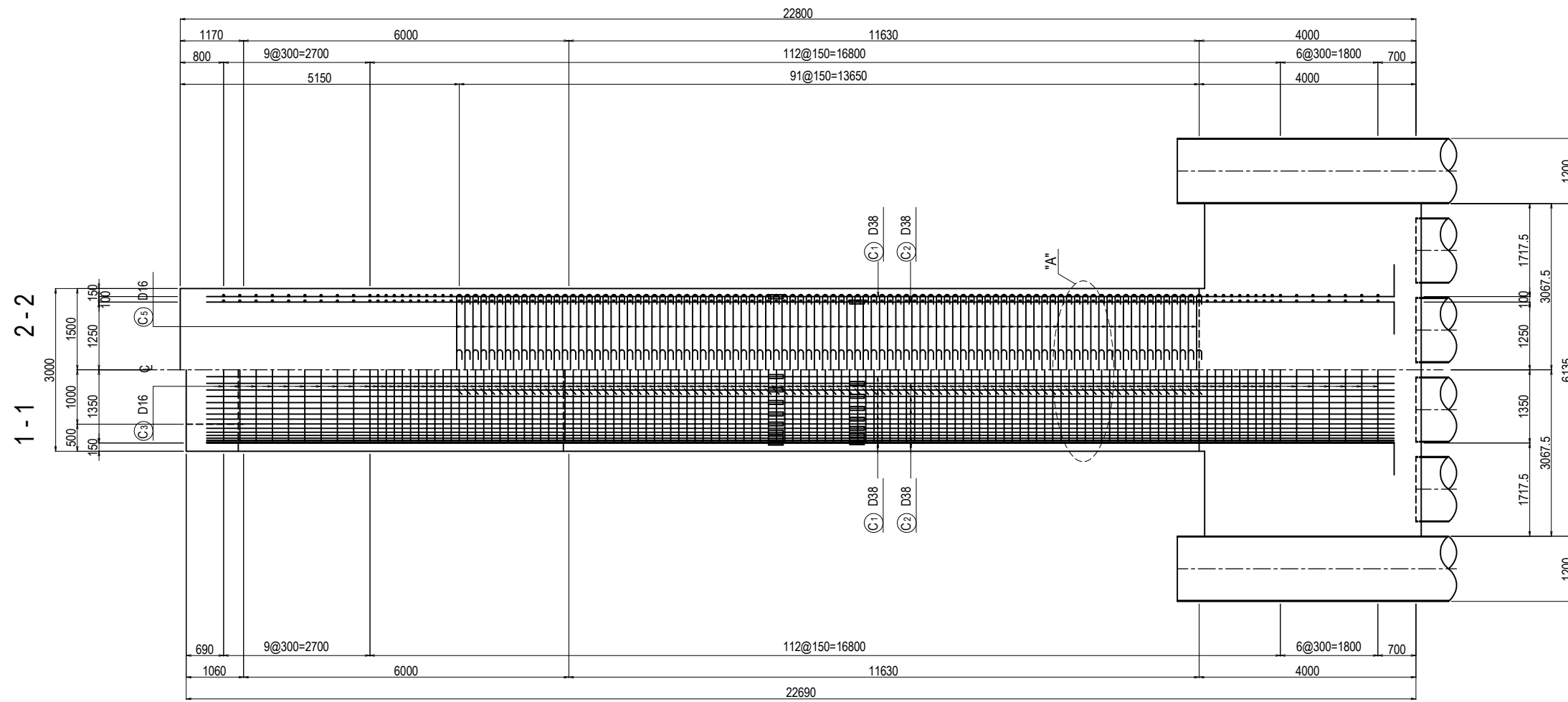
JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P21 PIER(2)

PACKAGE
2
DWG No.
P2-PB-2122

BAR ARRANGEMENT OF P21 PIER(3) S=1:100



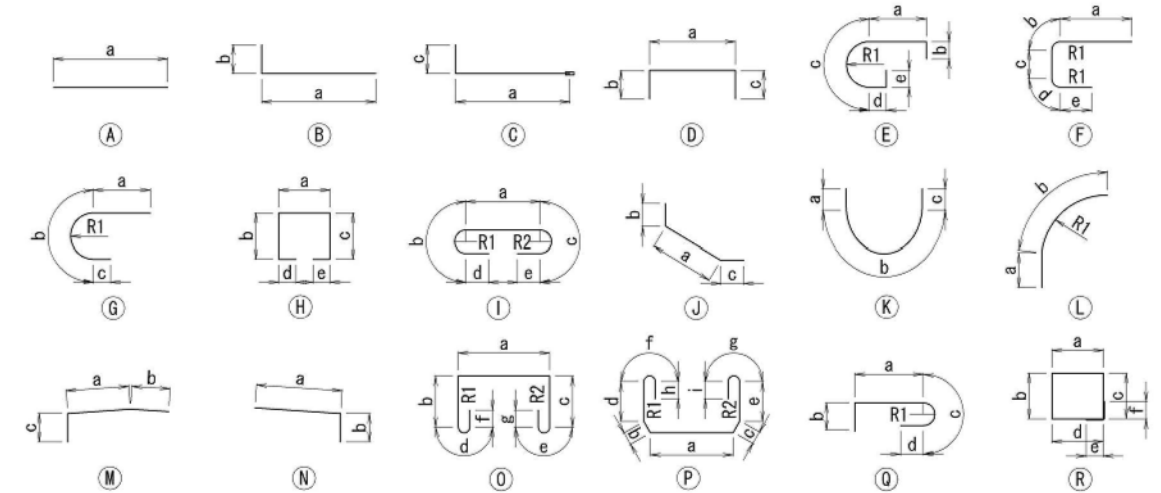
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
BAR ARRANGEMENT OF P21 PIER(3)							2	DWG No.	
								P2-PB-2123	

BAR QUANTITY

BAR ARRANGEMENT OF P21 PIER (4)

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1-1	M	D32	14	11000	3402	1796	802									959	
B1-2	N	D32	14	8300	7496	802										724	
B2-1	M	D32	6	10910	8306	1796	802									408	AVERAGE
B2-2	N	D32	6	8210	7400	802										307	AVERAGE
B3-1	M	D32	14	11000	3302	2218	480									959	
B3-2	N	D32	14	7460	6974	480										651	
B4-1	M	D32	6	10910	8206	2218	480									408	AVERAGE
B4-2	N	D32	6	7360	6878	480										275	AVERAGE
B5	B	D29	40	3500	3065	435										706	
B6	J	D29	40	9300	4854	435	4011									1875	
B7-1	A	D19	8	8500	8500											153	
B7-2	F	D19	8	11940	5030	686	2000	686	3530					437		215	
B8-1	A	D19	20	7500	7500											338	
B8-2	G	D19	20	10300	3641	4514	2141							1437		454	AVERAGE
B9-1	A	D19	18	5000	5000											203	
B9-2	G	D19	18	10190	3584	4514	2084							1437		413	AVERAGE
B10-1	O	D25	32	7710	2830	2000	2000	236	236	200	200			75	75	982	
B10-2	Q	D25	64	4790	3971	375	236	200						75		1220	AVERAGE
B11	H	D25	64	11550	850	4971	4971	375	375							2942	AVERAGE
B12	I	D25	64	2850	1970	236	236	200	200					75	75	726	
B13-1	O	D25	12	7710	2830	2000	2000	236	236	200	200			75	75	368	
B13-2	P	D25	12	10910	1814	1313	1313	2795	2795	236	236	200	200	75	75	521	AVERAGE
B14	O	D25	24	11230	850	4855	4653	236	236	200	200			75	75	1073	AVERAGE
B15	H	D25	16	5390	2830	903	903	375	375							343	AVERAGE
B16	O	D25	36	8860	850	3803	3332	236	236	200	200			75	75	1269	AVERAGE
B17	K	D25	16	8630	1573	5480	1573									550	AVERAGE
B18	H	D25	16	5340	2830	878	878	375	375							340	AVERAGE
B19	O	D25	36	5050	850	1817	1508	236	236	200	200			75	75	724	AVERAGE
B20	K	D25	18	4340	700	2940	700									311	AVERAGE
B21	H	D25	4	5210	2734	863	863	375	375							83	AVERAGE
B22	H	D25	4	3330	850	861	861	375	375							53	
B23	I	D25	40	2850	1970	236	236	200	200					75	75	454	
B24	D	D25	19	6000	2830	1585	1585									454	
B25	I	D16	110	2270	1708	151	151	128	128					48	48	399	
B26	I	D25	4	2700	1820	236	236	200	200					75	75	43	
S1	D	D16	60	2840	1680	580	580									266	
S2	D	D16	60	2840	1680	580	580									266	
S3	R	D16	4	7430	1712	1712	1760	1760	240	240						46	
C1-1	C	D38	196	12000	11411	589										21050	SD390 (196)
C1-2	A	D38	196	10500	10500											18420	SD390
C2-1	C	D38	196	10500	9911	589										18420	SD390 (196)
C2-2	A	D38	196	12000	12000											21050	SD390
C3-1	D	D16	256	6330	5846	240	240									2527	
C3-2	E	D16	256	8660	2548	240	4326	1298	240					1377		3459	
C4-1	D	D16	256	6330	5846	240	240									2527	
C4-2	E	D16	256	8340	2548	240	4012	1298	240					1277		3331	
C5	I	D16	1656	2230	1665	151	151	128	128					48	48	5753	
C6	I	D16	368	6170	5606	151	151	128	128					48	48	3544	
C7	L	D16	32	7270	450	6818								10100		363	
C8	G	D16	40	5350	450	4448	450							1416		334	

SHAPE CODE



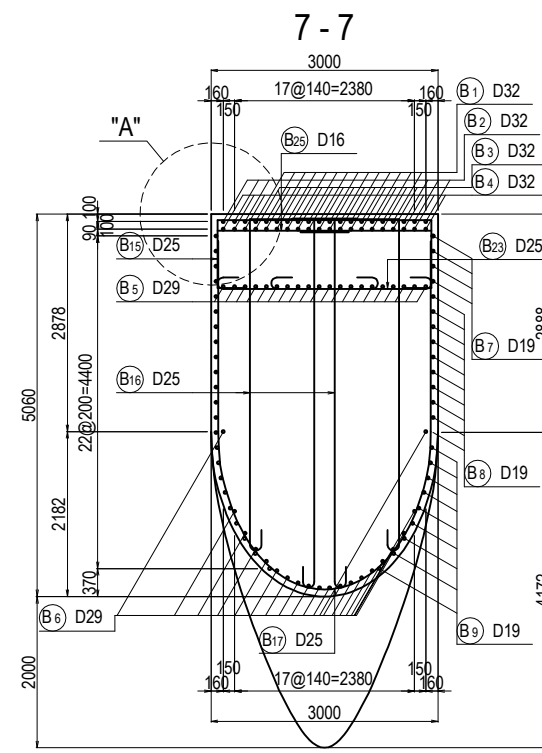
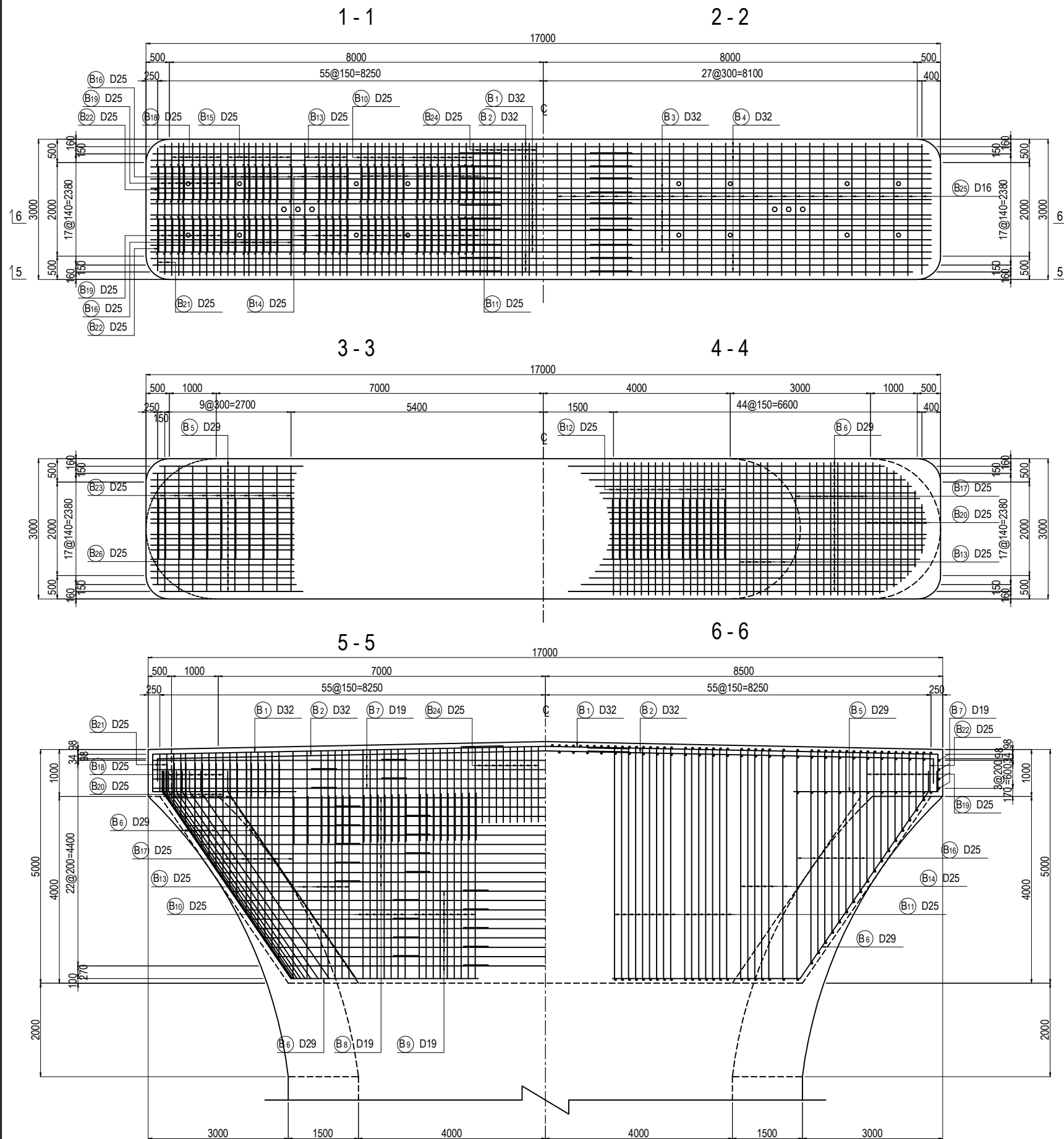
SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	0	0
D16	22815	0
D19	1786	0
D22	0	0
D25	12456	0
D29	2581	0
D32	4691	0
D35	0	0
D38	78940	392
D41	0	0
D51	0	0
TOTAL	123269	392

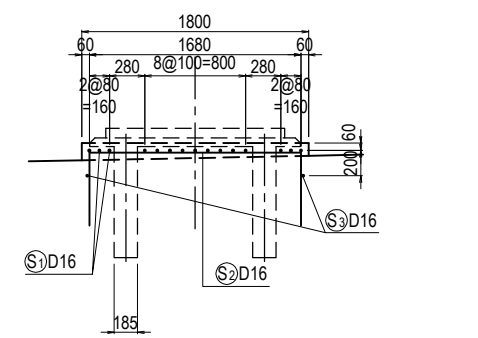
- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A grade of axial rebar for Columns shall be SD 390 or equivalent.
 3. A figure in italic font indicate average length of rebar.
 4. () is number of the Mechanical Splioe.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2124

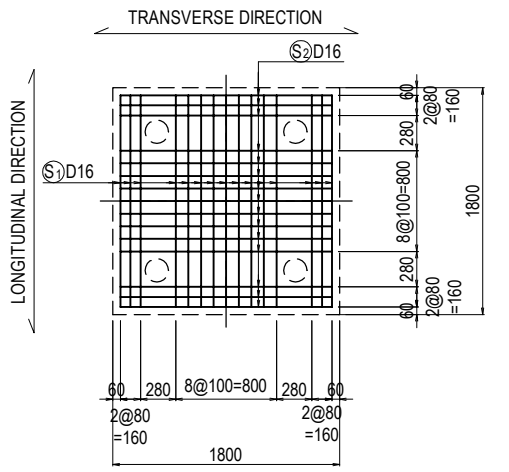
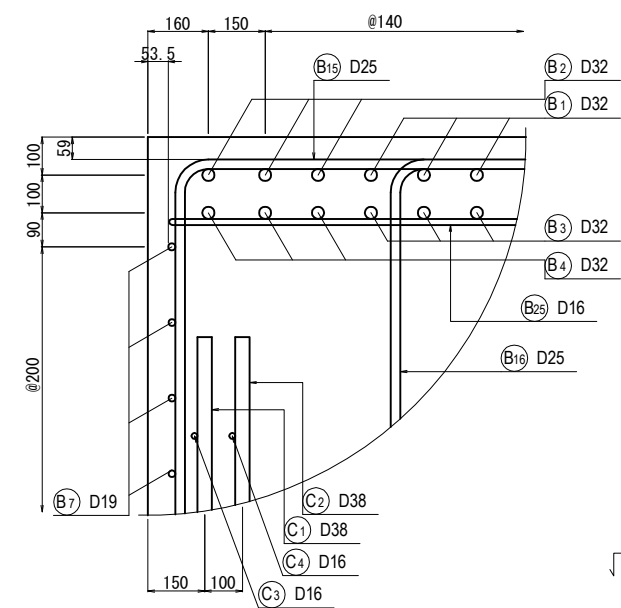
BAR ARRANGEMENT OF P22 PIER (1) S=1:100



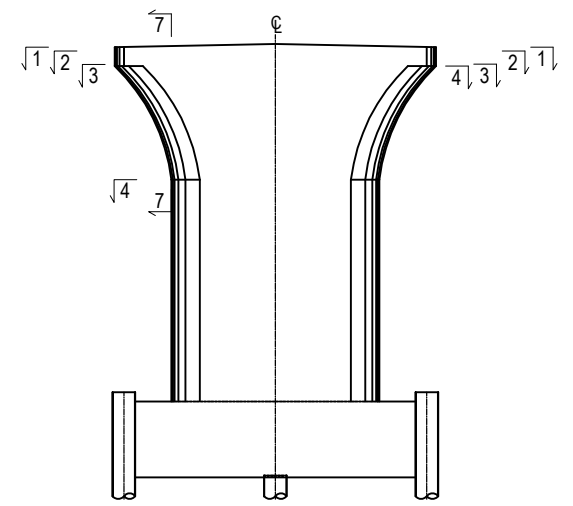
DETAIL OF BEARING BASE S=1:60



DETAIL "A" S=1:20

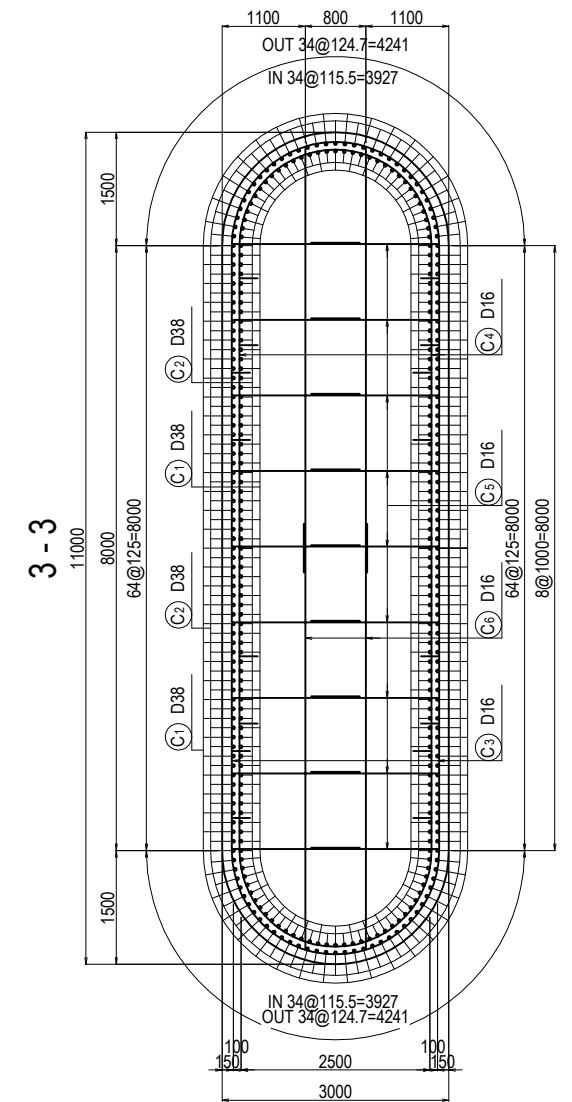
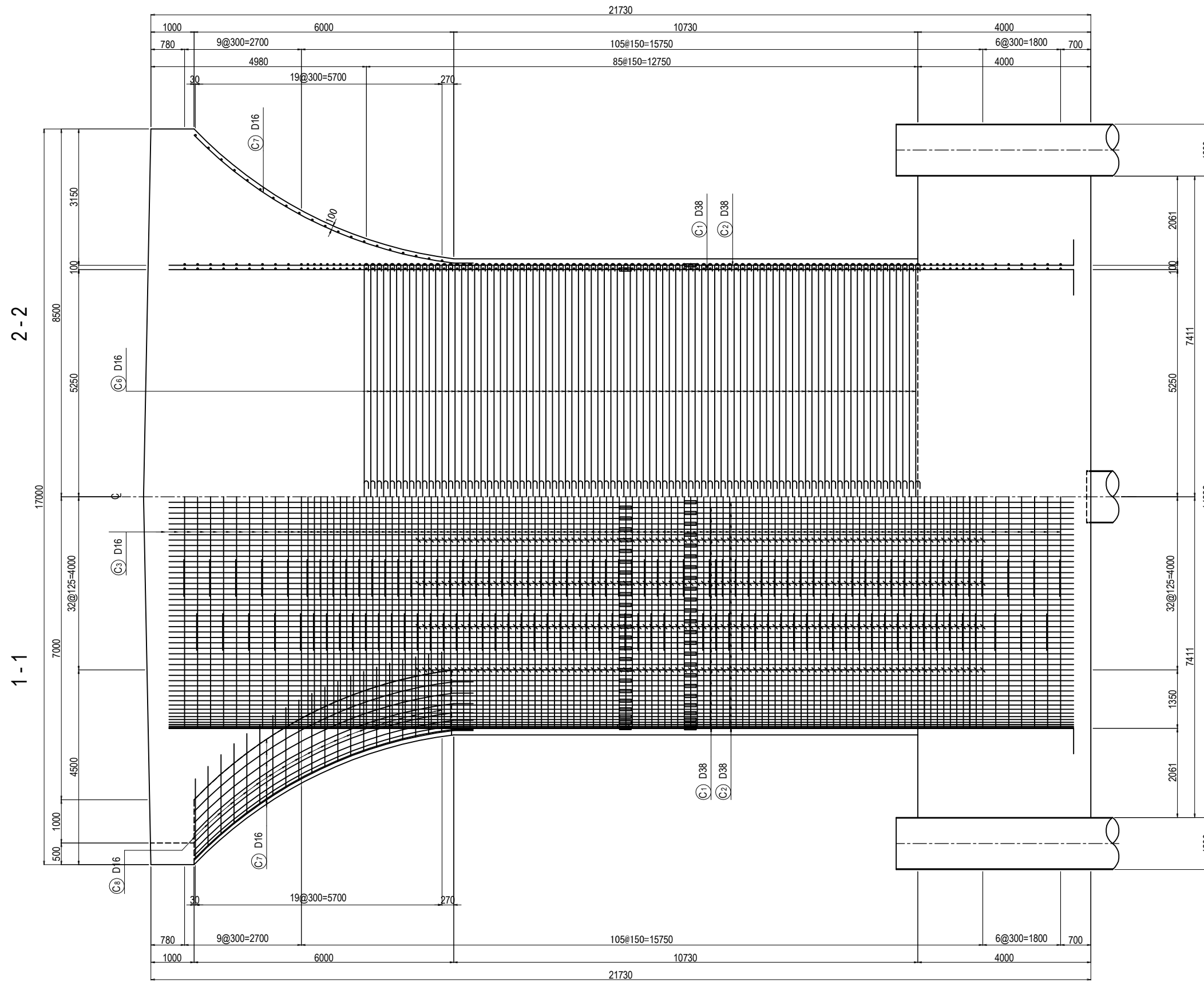


KEY PLAN

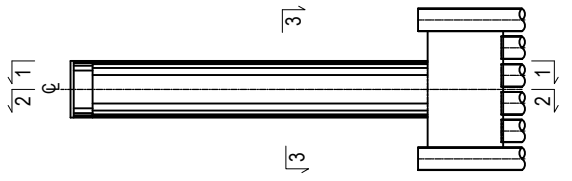


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF P22 PIER(1)	2	
								DWG No.	
								P2-PB-2131	

BAR ARRANGEMENT OF P22 PIER(2) S=1:100



KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

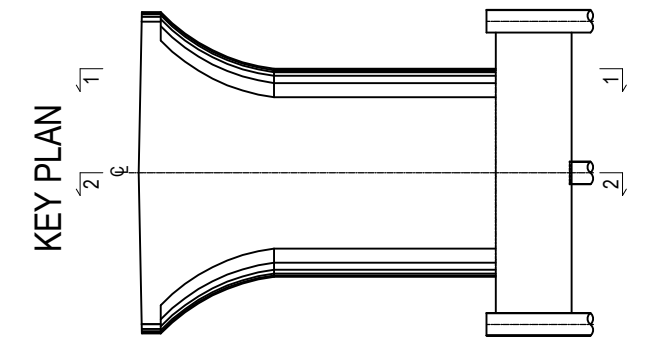
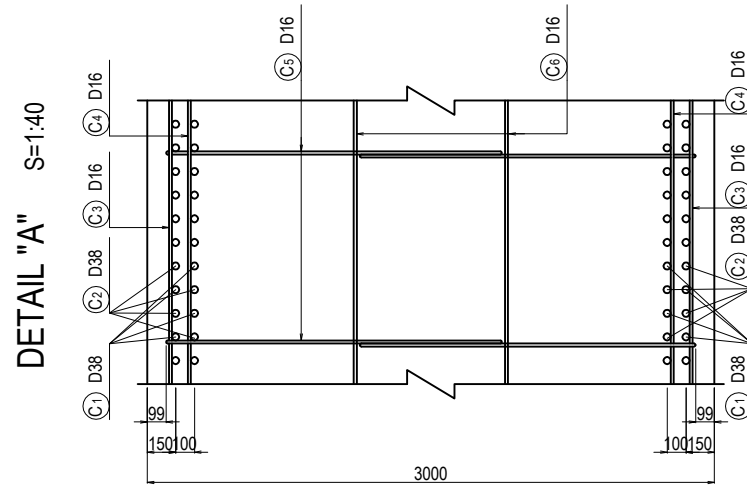
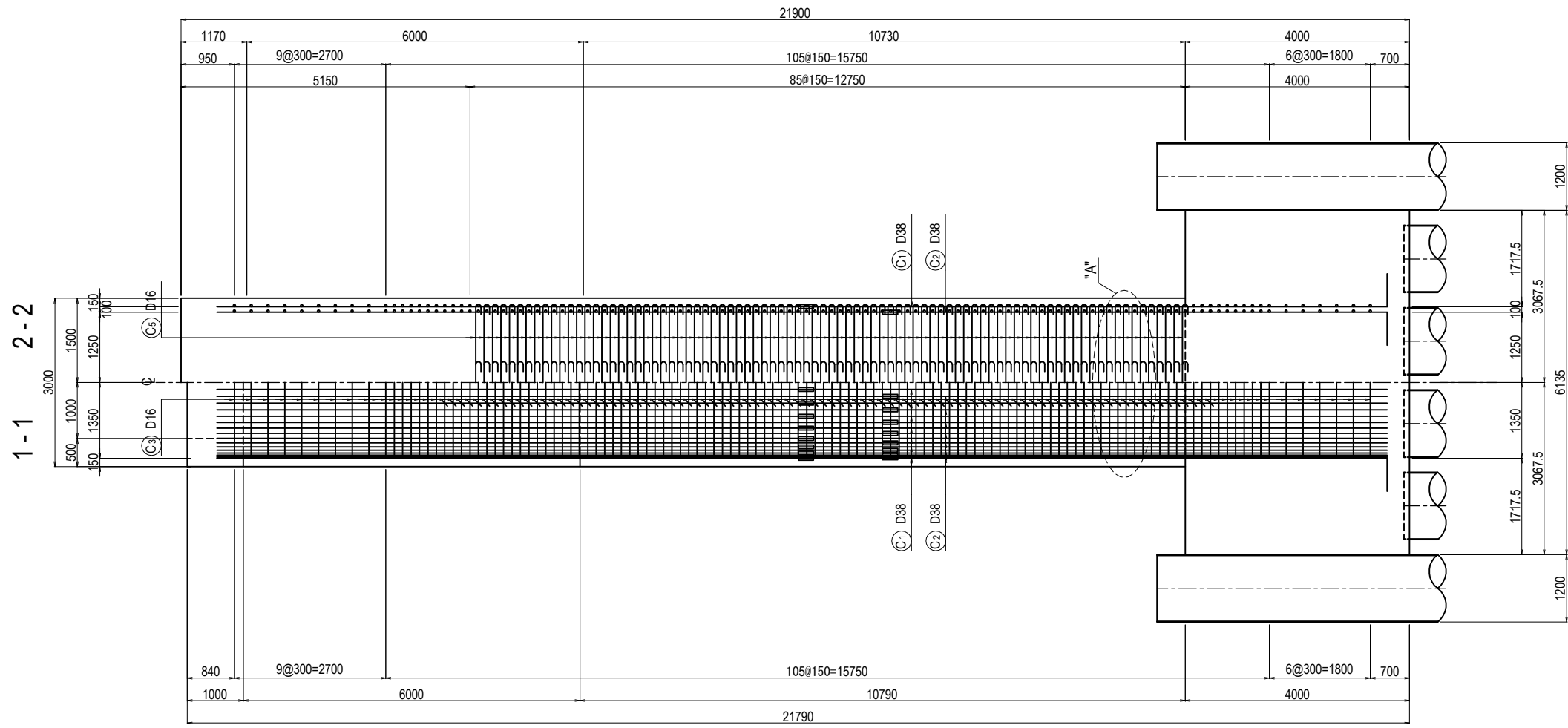
JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P22 PIER(2)

PACKAGE
2
DWG No.
P2-PB-2132

BAR ARRANGEMENT OF P22 PIER(3) S=1:100



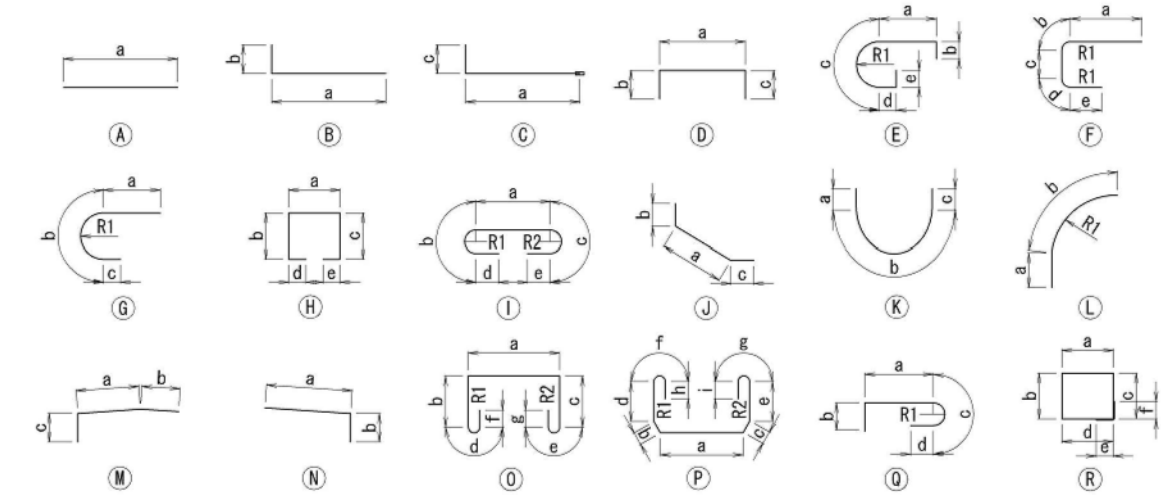
<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">NAME</th> <th style="width: 15%;">SIGNATURE</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> <h2 style="text-align: center;">BAR ARRANGEMENT OF P22 PIER(3)</h2>	<small>PACKAGE</small> 2 <small>DWG No.</small> P2-PB-2133
	NAME	SIGNATURE	DATE																			
PREPARED BY	M. OHYAMA		15 Jun.2017																			
CHECKED BY	T. HAYAKAWA		20 Jun.2017																			
APPROVED BY	Y. SANO		21 Jun.2017																			

BAR QUANTITY

BAR ARRANGEMENT OF P22 PIER (4)

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1-1	M	D32	14	11000	8402	1796	802									959	
B1-2	N	D32	14	8300	7496	802										724	
B2-1	M	D32	6	10910	8306	1796	802									408	AVERAGE
B2-2	N	D32	6	8210	7400	802										307	AVERAGE
B3-1	M	D32	14	11000	8302	2218	480									959	
B3-2	N	D32	14	7460	6974	480										651	
B4-1	M	D32	6	10910	8206	2218	480									408	AVERAGE
B4-2	N	D32	6	7360	6878	480										275	AVERAGE
B5	B	D29	40	3500	3065	435										706	
B6	J	D29	40	9300	4854	435	4011									1875	
B7-1	A	D19	8	8500	8500											153	
B7-2	F	D19	8	11940	5030	686	2000	686	3530						437	215	
B8-1	A	D19	20	7500	7500											338	
B8-2	G	D19	20	10300	3641	4514	2141								1437	464	AVERAGE
B9-1	A	D19	18	5000	5000											203	
B9-2	G	D19	18	10190	3584	4514	2084								1437	413	AVERAGE
B10-1	O	D25	32	7710	2830	2000	2000	236	236	200	200			75	75	982	
B10-2	Q	D25	64	4790	3971	375	236	200						75		1220	AVERAGE
B11	H	D25	64	11550	850	4971	4971	375	375							2942	AVERAGE
B12	I	D25	64	2850	1970	236	236	200	200					75	75	726	
B13-1	O	D25	12	7710	2830	2000	2000	236	236	200	200			75	75	368	
B13-2	P	D25	12	10910	1814	1313	1313	2795	2795	236	236	200	200	75	75	521	AVERAGE
B14	O	D25	24	11230	850	4855	4653	236	236	200	200			75	75	1073	AVERAGE
B15	H	D25	16	5390	2830	903	903	375	375							343	AVERAGE
B16	O	D25	36	8860	850	3803	3332	236	236	200	200			75	75	1269	AVERAGE
B17	K	D25	16	8630	1573	5480	1573									550	AVERAGE
B18	H	D25	16	5340	2830	878	878	375	375							340	AVERAGE
B19	O	D25	36	5050	850	1817	1508	236	236	200	200			75	75	724	AVERAGE
B20	K	D25	18	4340	700	2940	700									311	AVERAGE
B21	H	D25	4	5210	2734	863	863	375	375							83	AVERAGE
B22	H	D25	4	3330	850	861	861	375	375							53	
B23	I	D25	40	2850	1970	236	236	200	200					75	75	454	
B24	D	D25	19	6000	2830	1585	1585									454	
B25	I	D16	110	2270	1708	151	151	128	128					48	48	389	
B26	I	D25	4	2700	1820	236	236	200	200					75	75	43	
S1	D	D16	60	2840	1680	580	580									266	
S2	D	D16	60	2840	1680	580	580									266	
S3	R	D16	4	7430	1712	1712	1760	1760	240	240						46	
C1-1	C	D38	196	11170	10581	589										19594	SD39C (196)
C1-2	A	D38	196	10500	10500											18420	SD39C
C2-1	C	D38	196	9670	9081	589										16964	SD39C (196)
C2-2	A	D38	196	12000	12000											21050	SD39C
C3-1	D	D16	242	6330	5846	240	240									2389	
C3-2	E	D16	242	8660	2548	240	4326	1298	240					1377		3269	
C4-1	D	D16	242	6330	5846	240	240									2389	
C4-2	E	D16	242	8340	2548	240	4012	1298	240					1277		3148	
C5	I	D16	1548	2230	1665	151	151	128	128							5387	
C6	I	D16	344	6170	5606	151	151	128	128							3313	
C7	L	D16	32	7270	450	6818								10100		363	
C8	G	D16	40	5350	450	4448	450							1416		334	

SHAPE CODE



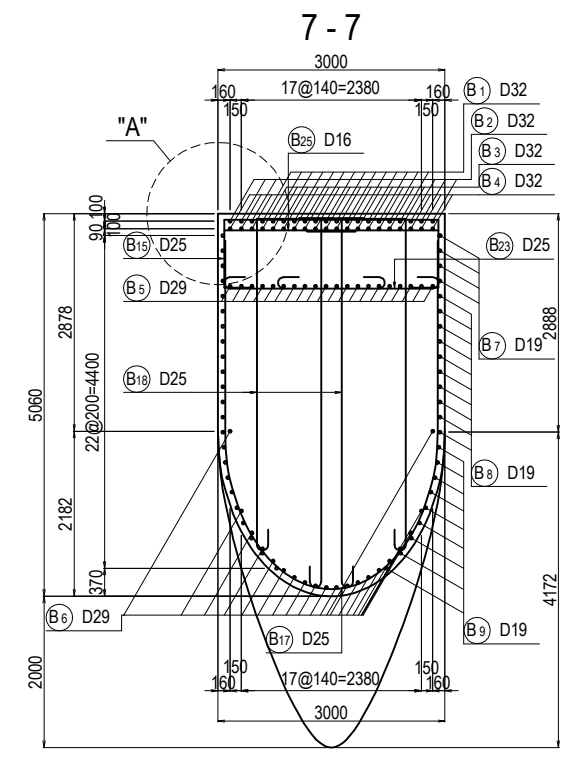
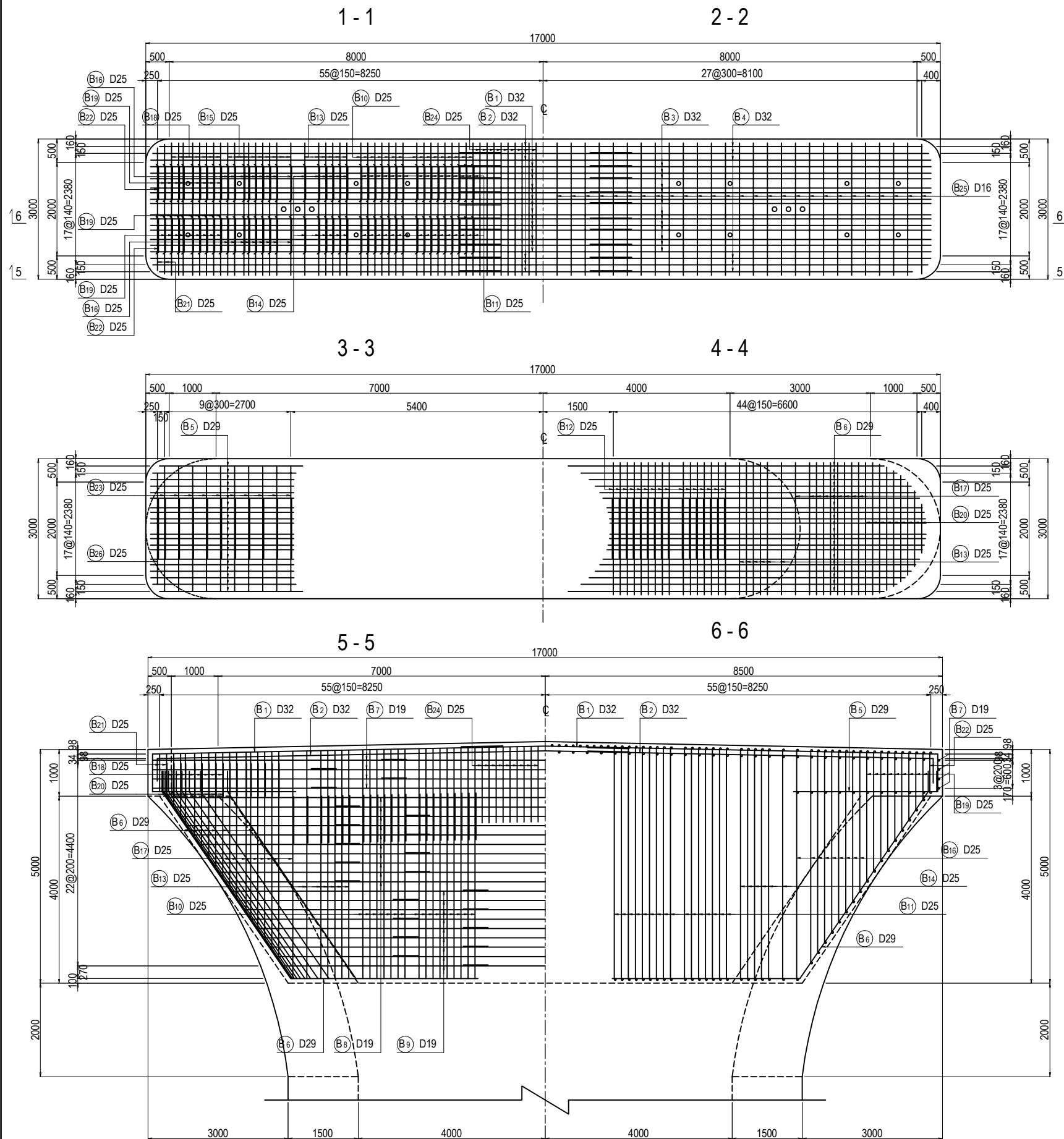
SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	0	0
D16	21559	0
D19	1786	0
D22	0	0
D25	12456	0
D29	2581	0
D32	4691	0
D35	0	0
D38	76028	392
D41	0	0
D51	0	0
TOTAL	119101	392

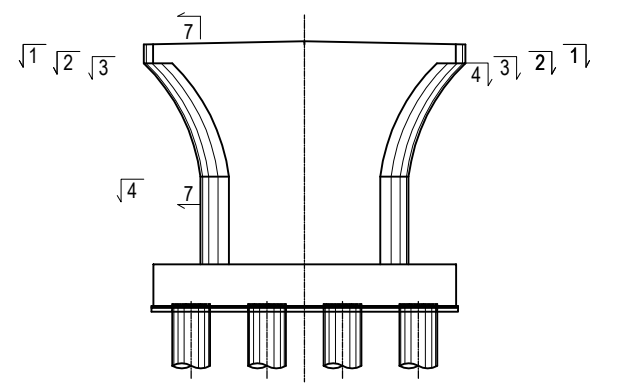
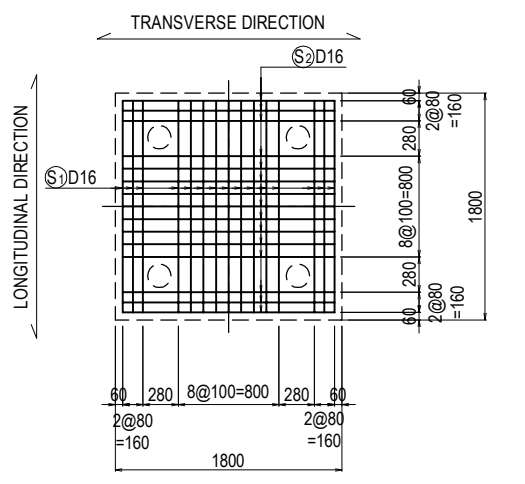
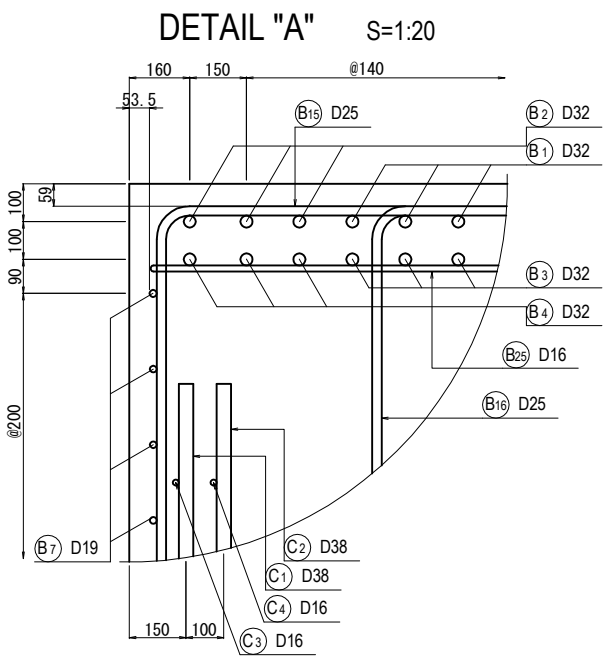
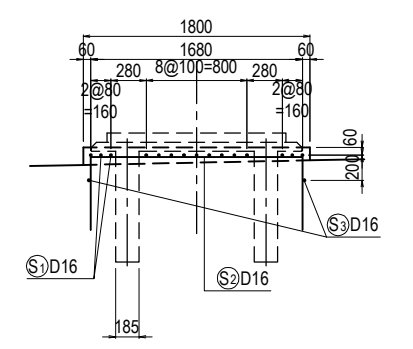
- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A grade of axial rebar for Columns shall be SD 390 or equivalent.
 3. A figure in italic font indicate average length of rebar.
 4. () is number of the Mechanical Splioe.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF P22 PIER (4)	2	
								DWG No.	
								P2-PB-2134	

BAR ARRANGEMENT OF P23 PIER (1) S=1:100

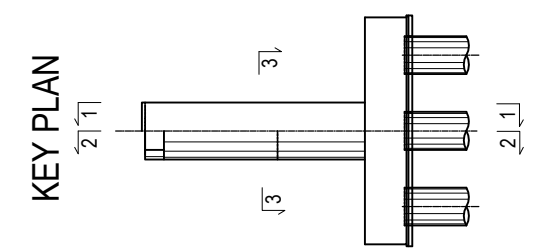
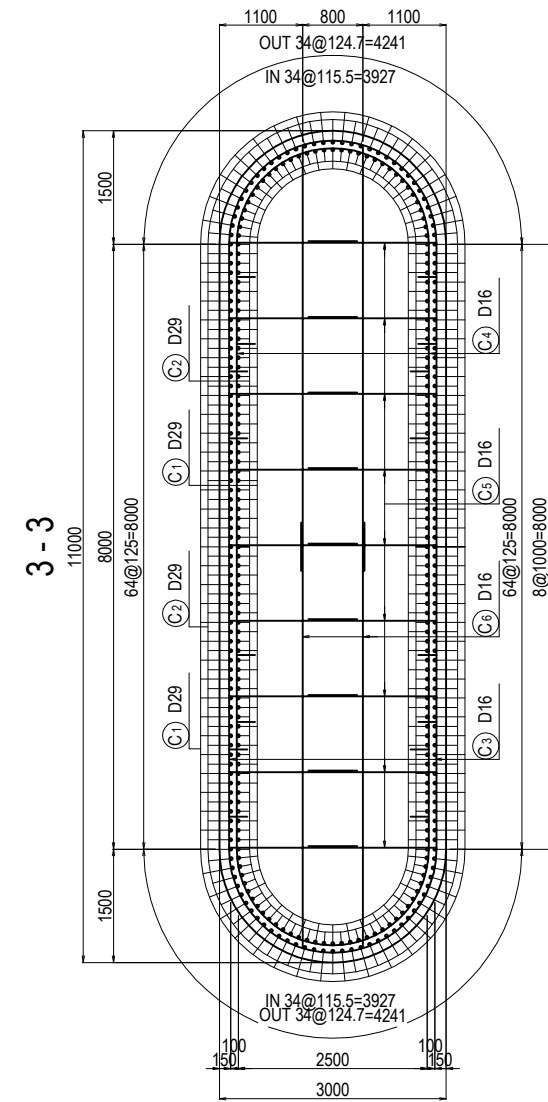
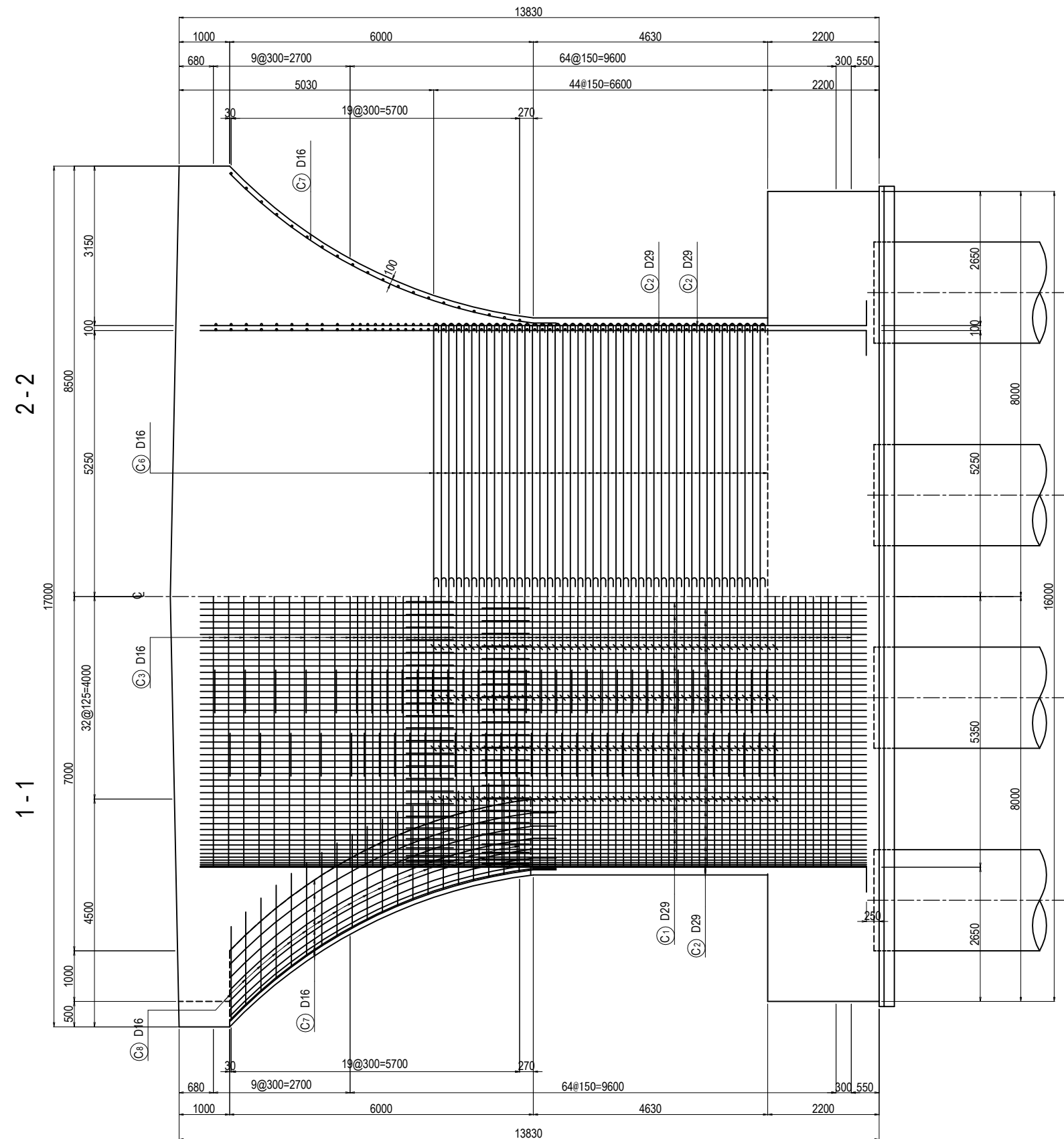


DETAIL OF BEARING BASE S=1:60



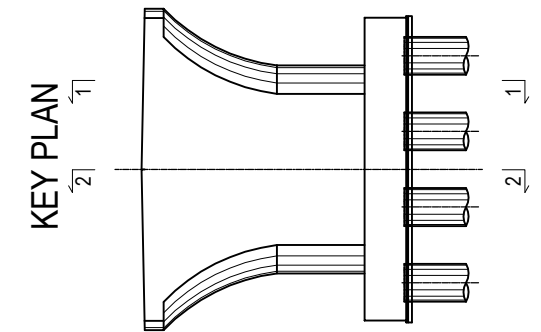
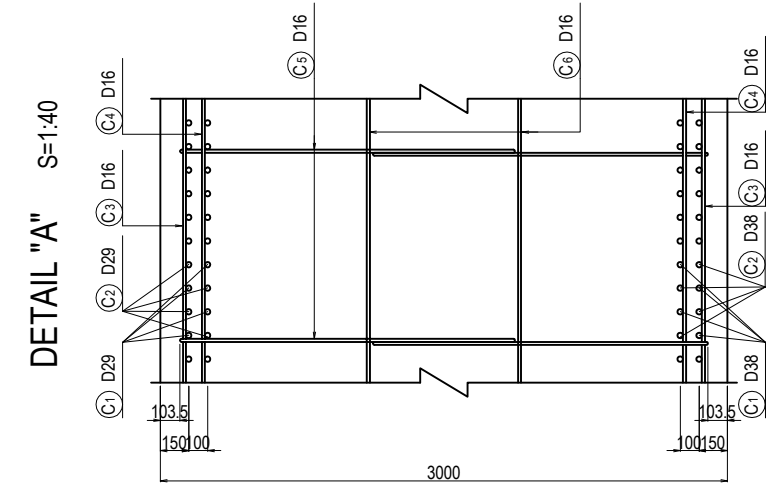
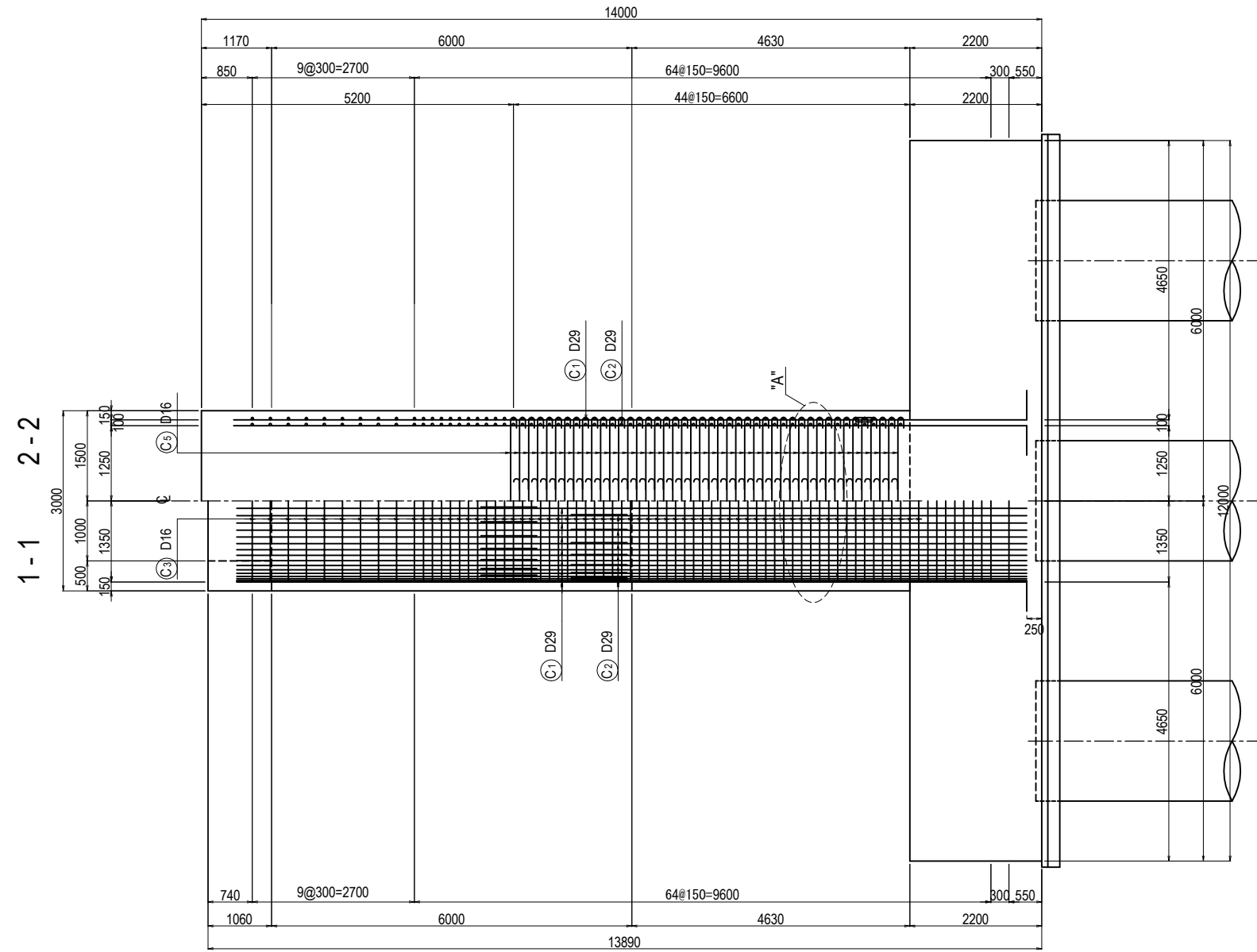
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF P23 PIER (1)	2	
								DWG No.	
								P2-PB-2141	

BAR ARRANGEMENT OF P23 PIER (2) S=1:100



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM 	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
BAR ARRANGEMENT OF P23 PIER (2)							2	DWG No.	
								P2-PB-2142	

BAR ARRANGEMENT OF P23 PIER (3) S=1:100



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

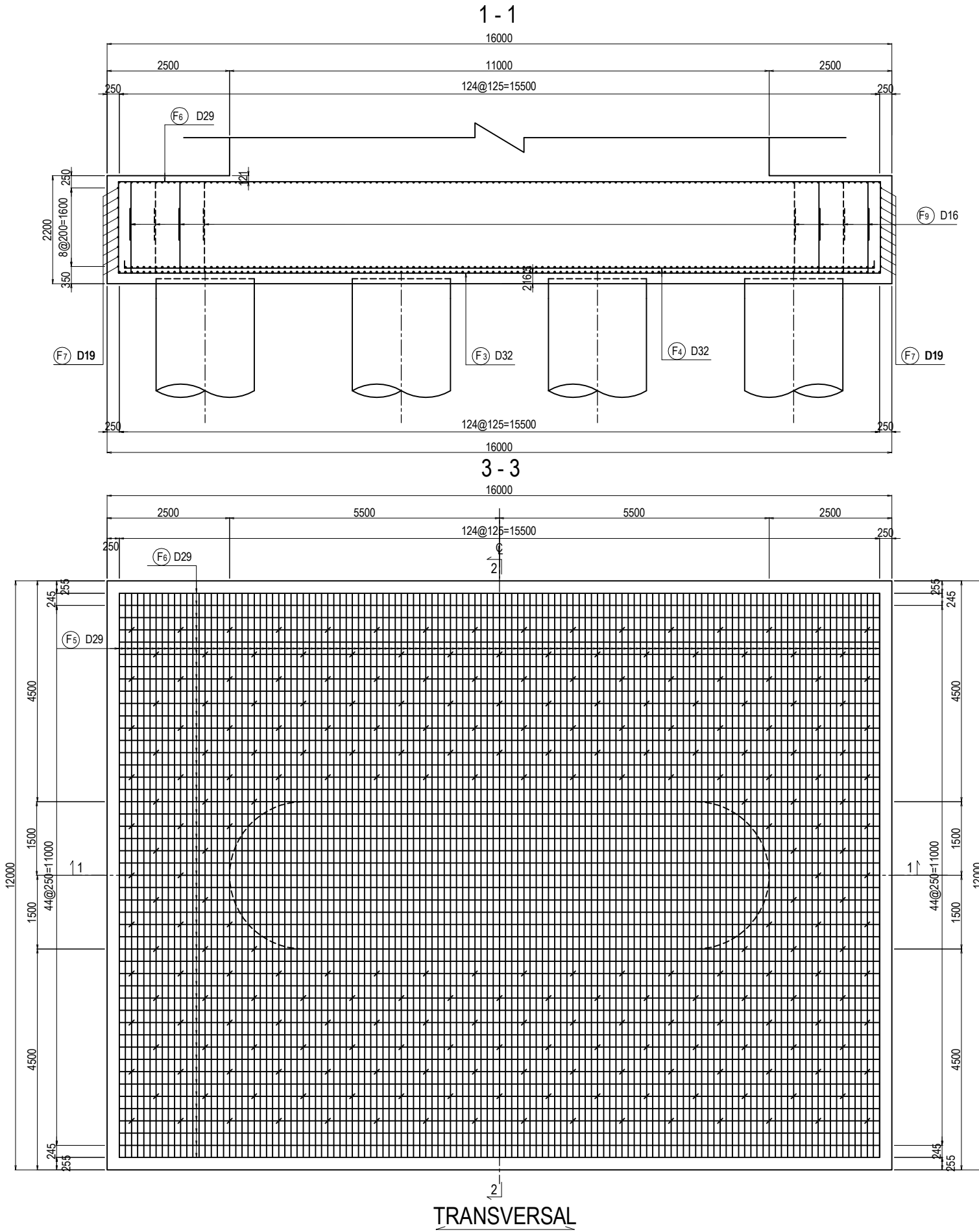
COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO., LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

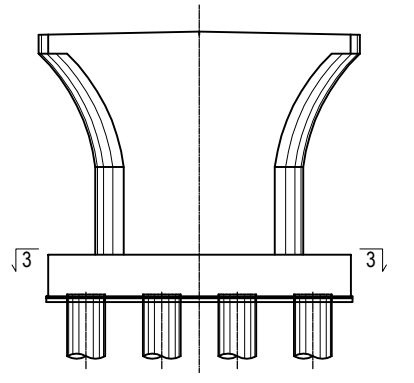
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE		PACKAGE
BAR ARRANGEMENT OF P23 PIER (3)		2
		DWG No.
		P2-PB-2143

BAR ARRANGEMENT OF P23 PIER (4) S=1:100

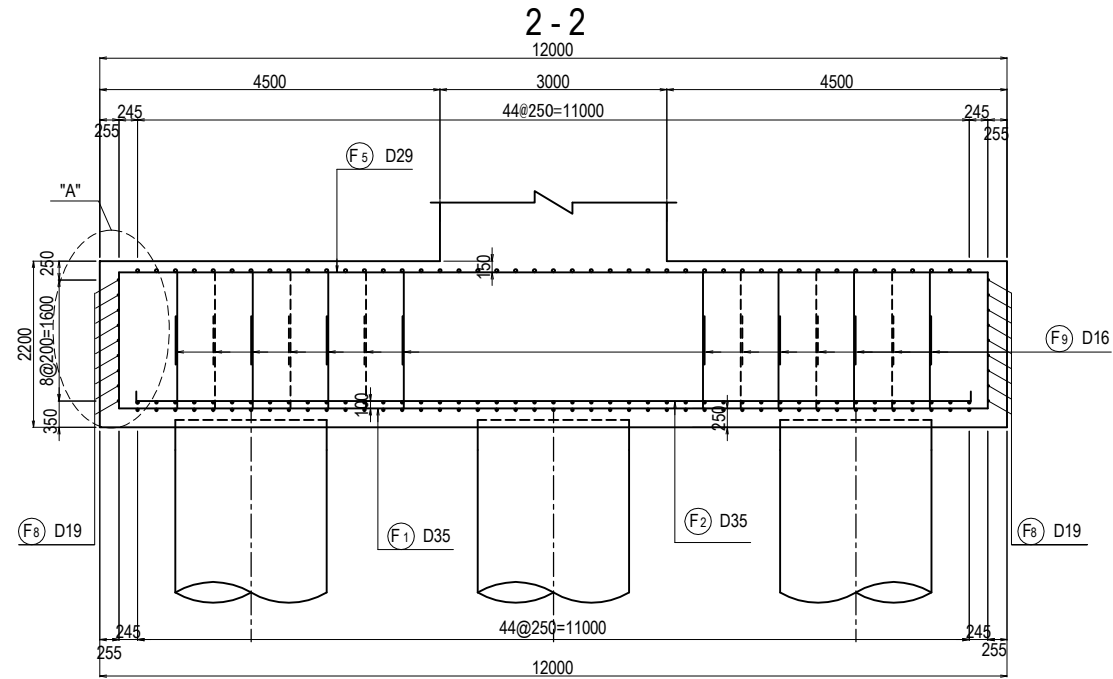


KEY PLAN

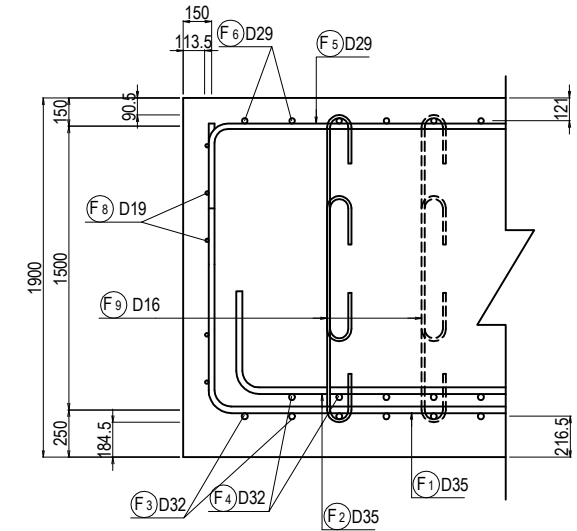


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P23 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P2-PB-2144

BAR ARRANGEMENT OF P23 PIER (5) S=1:100

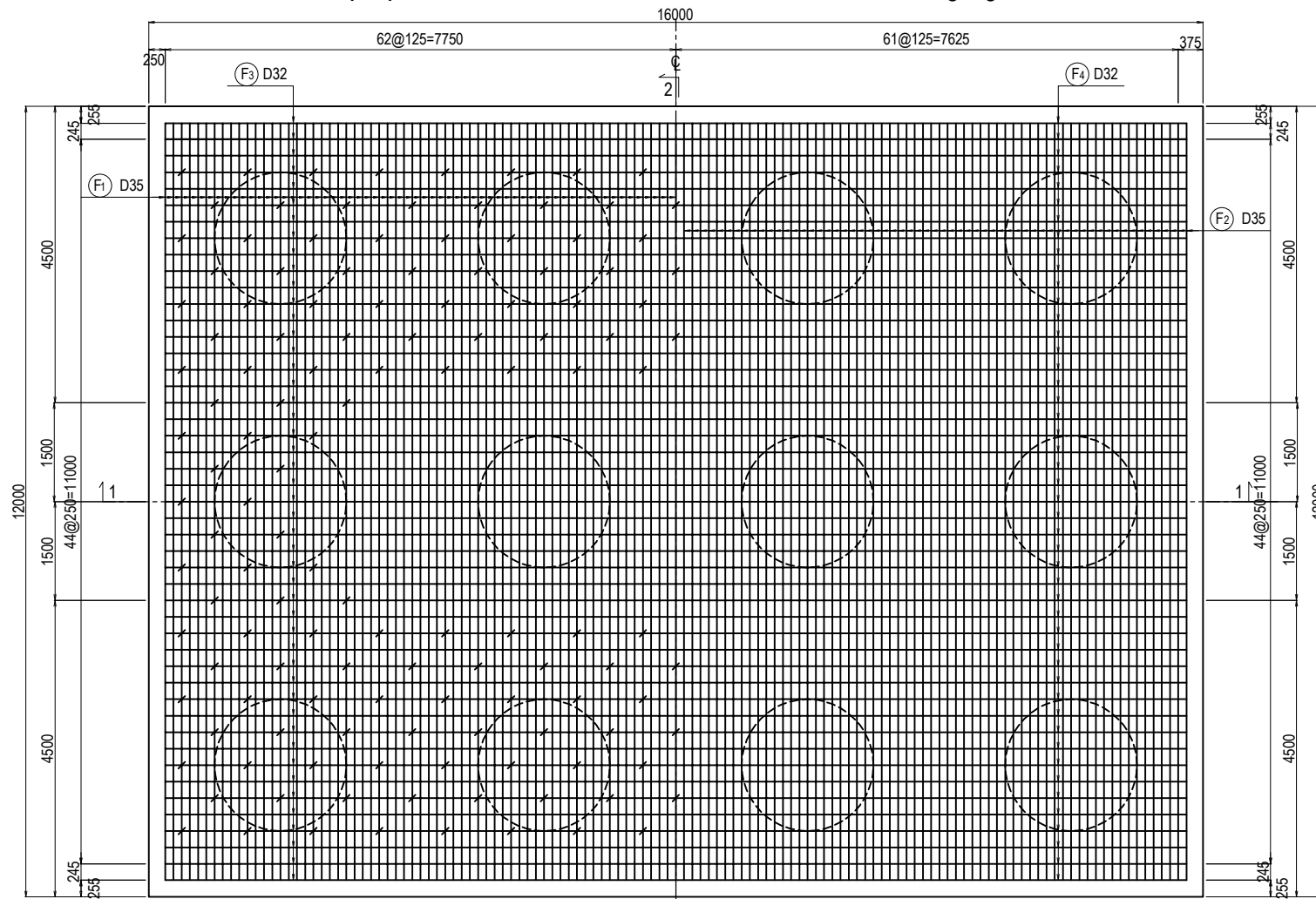


DETAIL "A" S=1:40



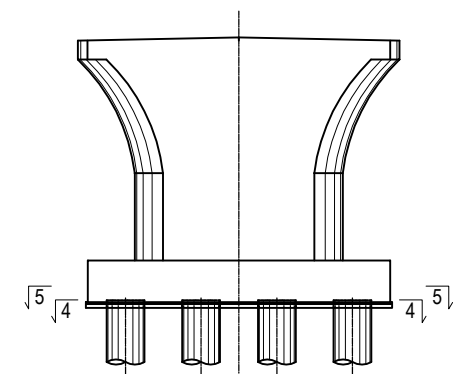
4 - 4

5 - 5



TRANSVERSAL

KEY PLAN



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF P23 PIER (5)	2	
								DWG No.	
								P2-PB-2145	

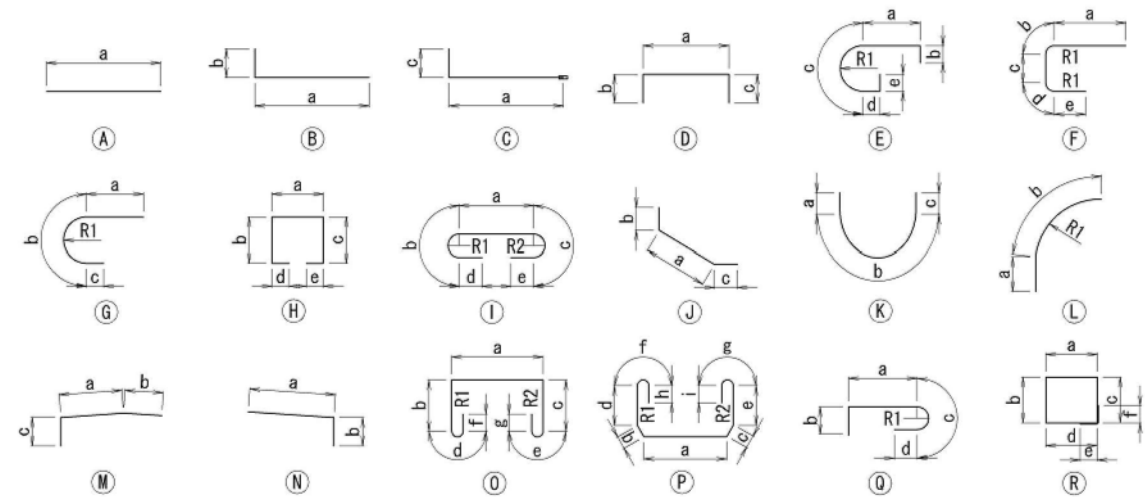
BAR QUANTITY

BAR ARRANGEMENT OF P23 PIER (6)

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1-1	M	D32	14	11000	8402	1796	802									959	
B1-2	N	D32	14	8300	7496	802										724	
B2-1	M	D32	6	10910	8306	1796	802									408	AVERAGE
B2-2	N	D32	6	8210	7400	802										307	AVERAGE
B3-1	M	D32	14	11000	8302	2218	480									959	
B3-2	N	D32	14	7460	6974	480										651	
B4-1	M	D32	6	10910	8206	2218	480									408	AVERAGE
B4-2	N	D32	6	7360	6878	480										275	AVERAGE
B5	B	D29	40	3500	3065	435										706	
B6	J	D29	40	9300	4854	435	4011									1875	
B7-1	A	D19	8	8500	8500									437		153	
B7-2	F	D19	8	11940	5030	686	2000	686	3530							215	
B8-1	A	D19	20	7500	7500											338	
B8-2	G	D19	20	10300	3641	4514	2141							1437		464	AVERAGE
B9-1	A	D19	18	5000	5000											203	
B9-2	G	D19	18	10190	3584	4514	2084							1437		413	AVERAGE
B10-1	O	D25	32	7710	2830	2000	2000	236	236	200	200			75	75	982	
B10-2	Q	D25	64	4790	3971	375	236	200						75		1220	AVERAGE
B11	H	D25	64	11550	850	4971	4971	375	375							2942	AVERAGE
B12	I	D25	64	2850	1970	236	236	200	200					75	75	726	
B13-1	O	D25	12	7710	2830	2000	2000	236	236	200	200			75	75	368	
B13-2	P	D25	12	10910	1814	1313	1313	2795	2795	236	236	200	200	75	75	521	AVERAGE
B14	O	D25	24	11230	850	4855	4653	236	236	200	200			75	75	1073	AVERAGE
B15	H	D25	16	5390	2830	903	903	375	375							343	AVERAGE
B16	O	D25	36	8860	850	3803	3332	236	236	200	200			75	75	1269	AVERAGE
B17	K	D25	16	8630	1573	5480	1573									550	AVERAGE
B18	H	D25	16	5340	2830	878	878	375	375							340	AVERAGE
B19	O	D25	36	5050	850	1817	1508	236	236	200	200			75	75	724	AVERAGE
B20	K	D25	18	4340	700	2940	700									311	AVERAGE
B21	H	D25	4	5210	2734	863	863	375	375							83	AVERAGE
B22	H	D25	4	3330	850	861	861	375	375							53	
B23	I	D25	40	2850	1970	236	236	200	200					75	75	454	
B24	D	D25	19	6000	2830	1585	1585									454	
B25	I	D16	110	2270	1708	151	151	128	128					48	48	389	
B26	I	D25	4	2700	1820	236	236	200	200					75	75	43	
S1	D	D16	60	2840	1680	580	580									266	
S2	D	D16	60	2840	1680	580	580									266	
S3	R	D16	4	7430	1712	1712	1760	1760	240	240						46	
C1-1	B	D29	196	9500	9011	489										9384	SD390
C1-2	A	D29	196	5000	5000											4939	SD390
C2-1	B	D29	196	8000	7511	489										7903	SD390
C2-2	A	D29	196	6500	6500											6421	SD390
C3-1	D	D16	150	6330	5846	240	240									1481	
C3-2	E	D16	150	8640	2548	240	4312	1298	240					1372.5		2022	
C4-1	D	D16	150	6330	5846	240	240									1481	
C4-2	E	D16	150	8330	2548	240	3998	1298	240					1272.5		1949	
C5	I	D16	1656	2220	1661	151	151	128	128							5730	
C6	I	D16	368	6220	5661	151	151	128	128							3570	
C7	L	D16	32	7270	450	6818								10100		363	
C8	G	D16	40	5350	450	4448	450							1416		334	

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
F1-1	B	D35	125	10000	8200	1800										9388	
F1-2	B	D35	125	6400	4600	1800										6008	
F2-1	B	D35	123	9000	8475	525										8314	
F2-2	B	D35	123	4650	4125	525										4295	
F3-1	B	D32	47	12000	10137	1863										3514	
F3-2	B	D32	47	8440	6573	1863										2471	
F4-1	B	D32	45	12000	11520	480										3364	
F4-2	B	D32	45	5470	4990	480										1534	
F5-1	B	D29	125	9000	8565	435										5670	
F5-2	B	D29	125	4480	4045	435										2823	
F6-1	B	D29	47	12000	11565	435										2843	
F6-2	B	D29	47	5480	5045	435										1298	
F7	A	D19	18	11760	11754											476	
F8-1	A	D19	18	12000	12000											486	
F8-2	A	D19	18	4360	4351											177	
F9	I	D16	508	1790	1227	151	151	128	128					48	48	1417	

SHAPE CODE



SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	0	0
D16	19314	0
D19	2925	0
D22	0	0
D25	12456	0
D29	43862	0
D32	15574	0
D35	28005	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	122136	0

- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A grade of axial rebar for Columns shall be SD 390 or equivalent.
 3. A figure in italic font indicate average length of rebar.

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

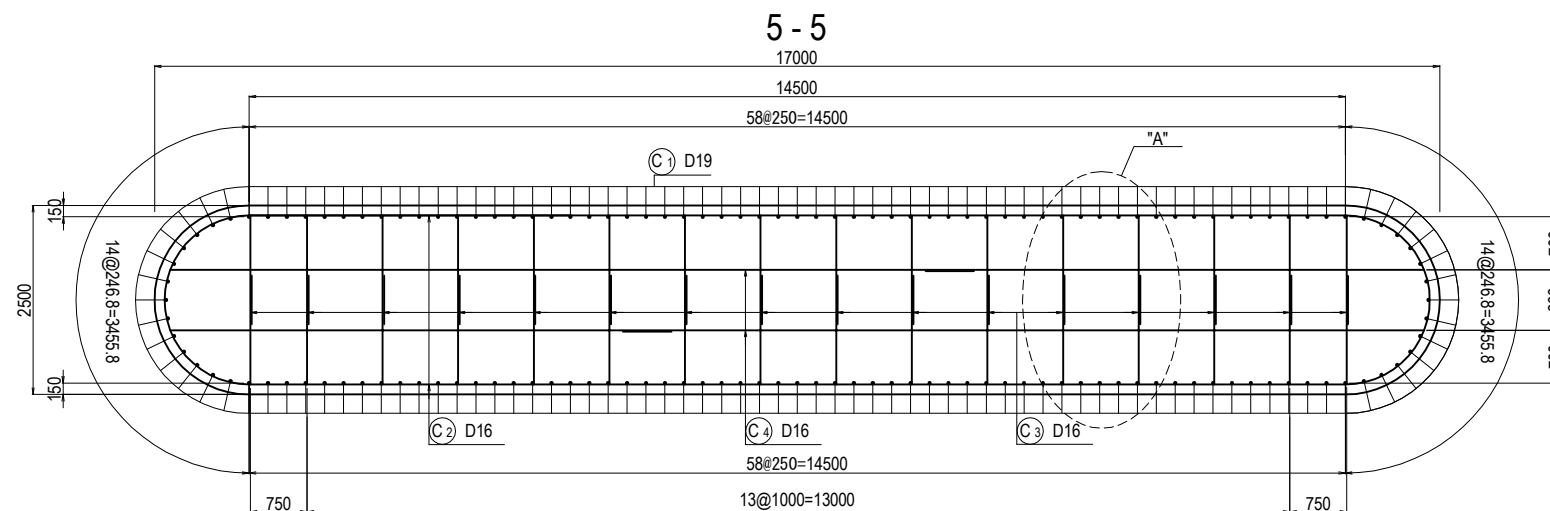
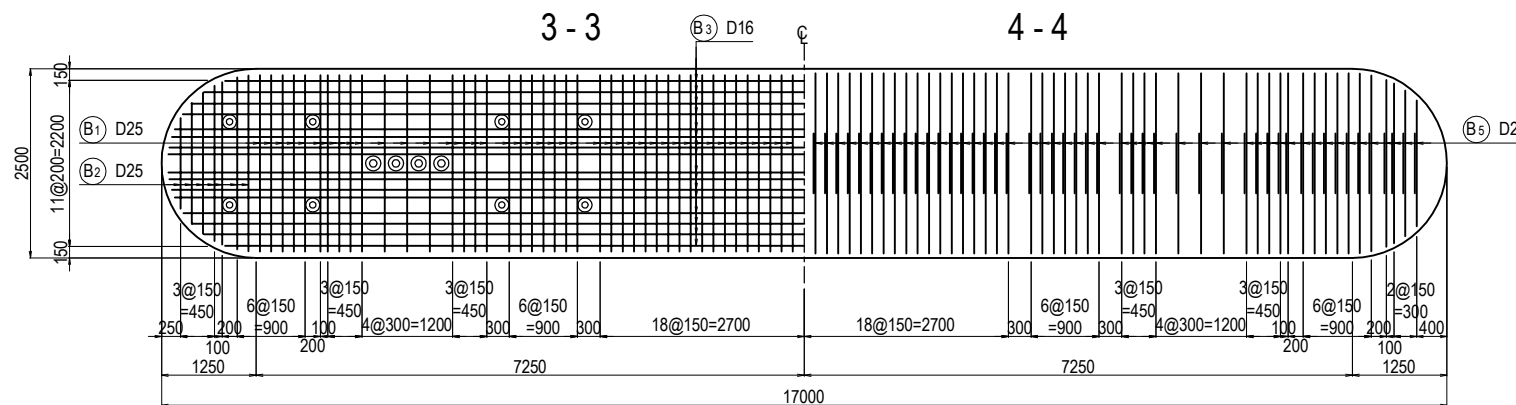
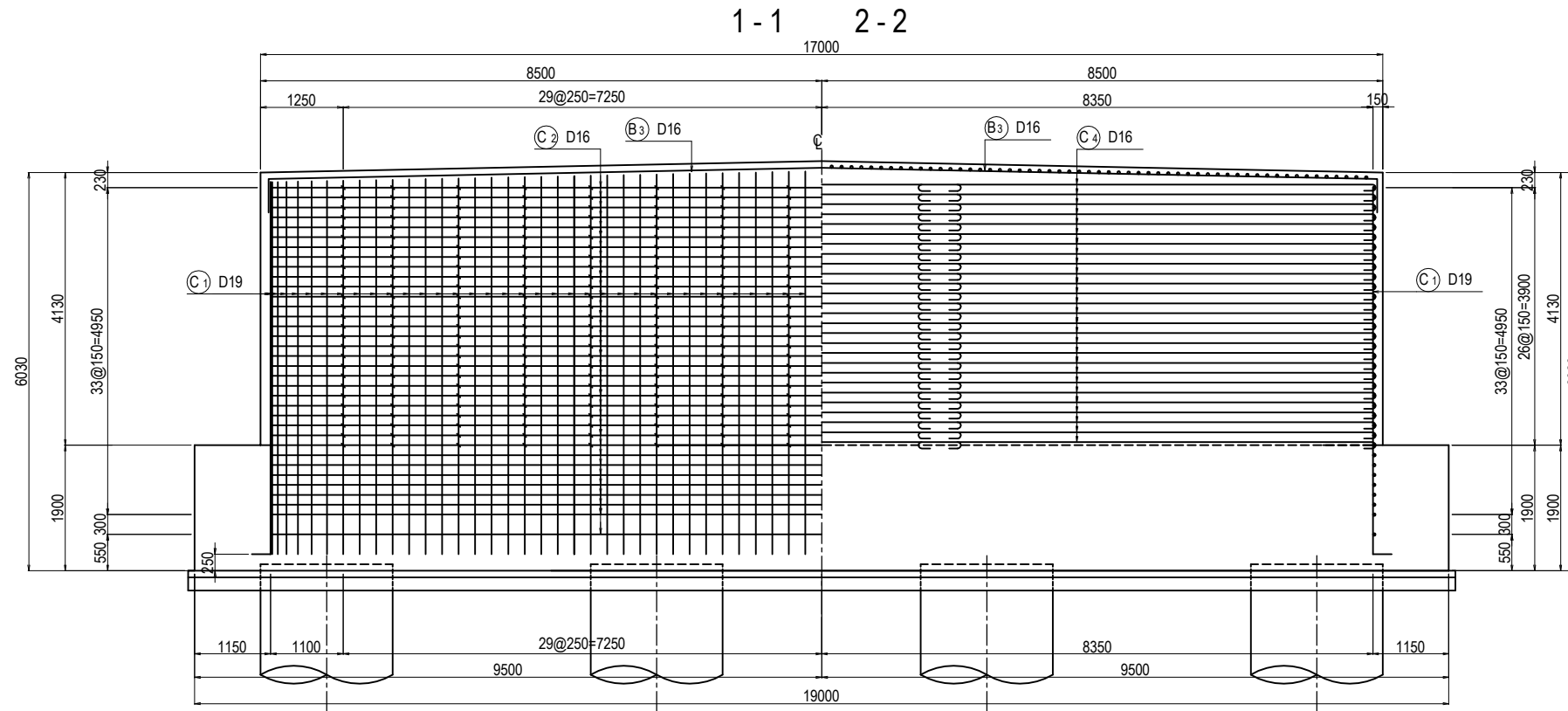
COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

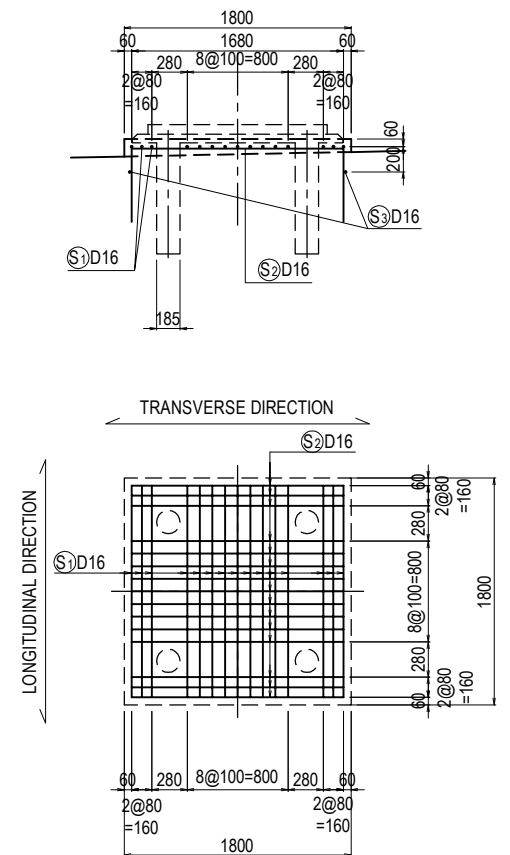
NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	15 Jun.2017
CHECKED BY	T. HAYAKAWA	20 Jun.2017
APPROVED BY	Y. SANO	21 Jun.2017

DRAWING TITLE	PACKAGE
BAR ARRANGEMENT OF P23 PIER (6)	2
	DWG No.
	P2-PB-2146

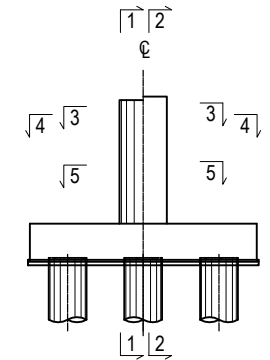
BAR ARRANGEMENT OF P24 PIER (1) S=1:100



DETAIL OF BEARING BASE S=1:60

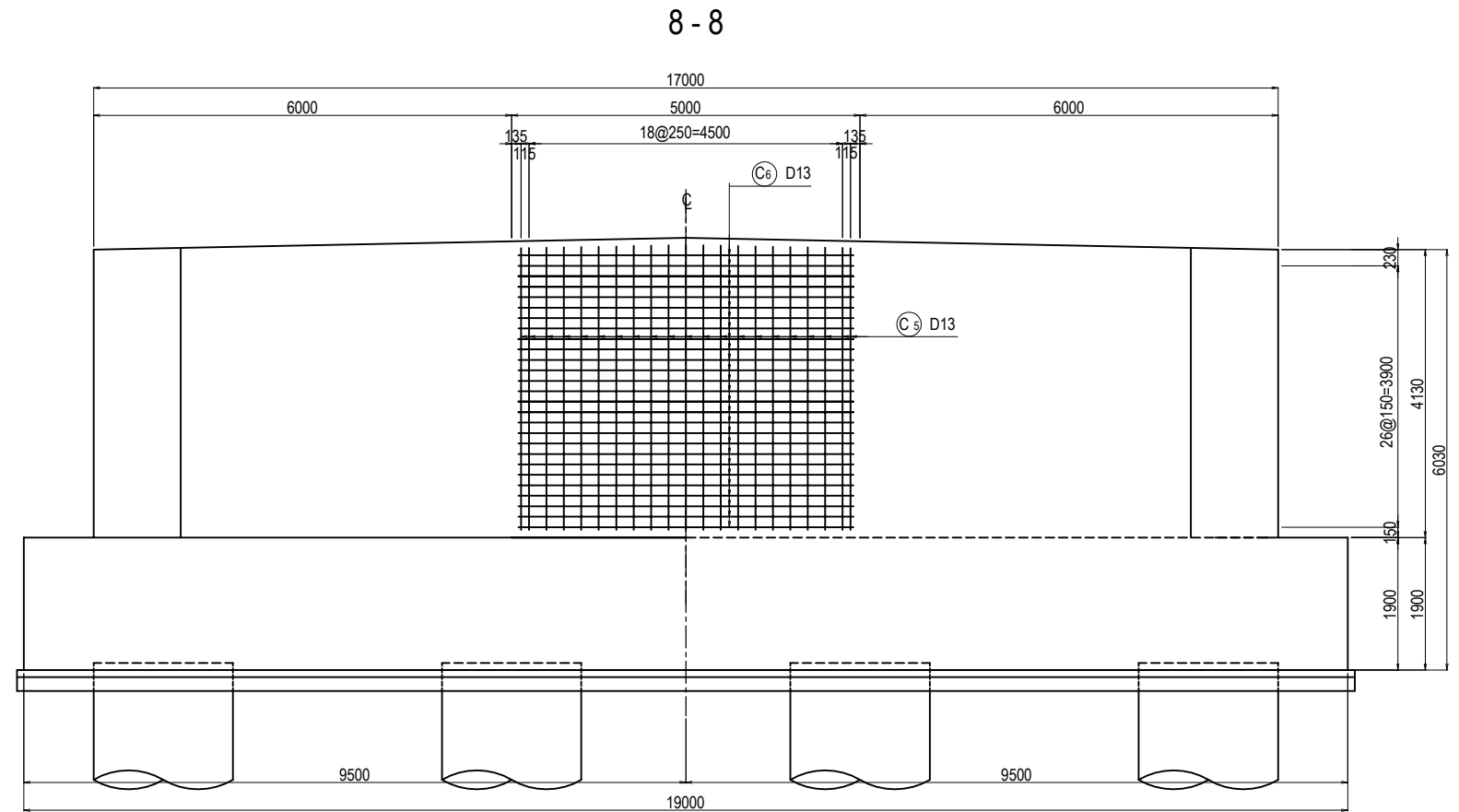
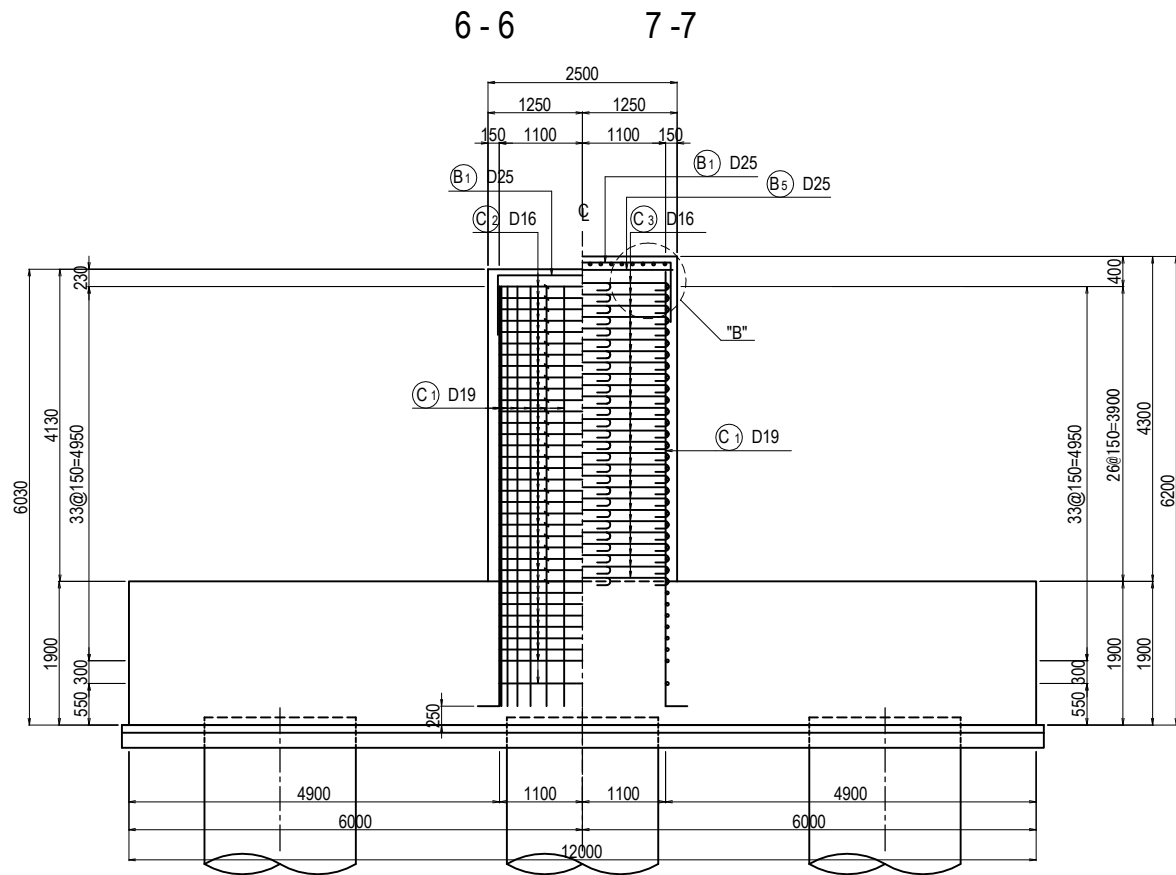


KEY PLAN

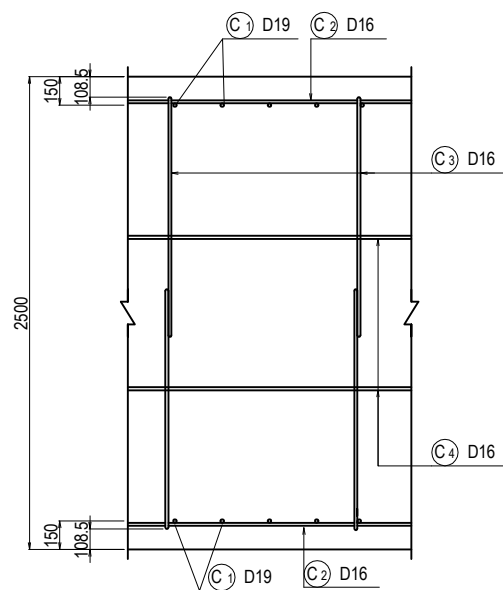


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							BAR ARRANGEMENT OF P24 PIER (1)	2	
								DWG No.	
								P2-PB-2151	

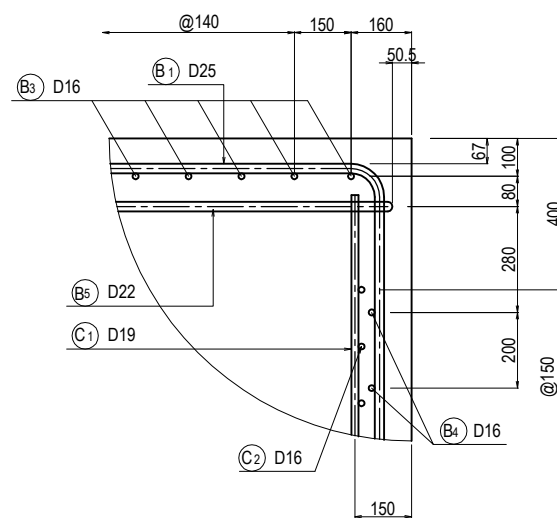
BAR ARRANGEMENT OF P24 PIER (2) S =1:100



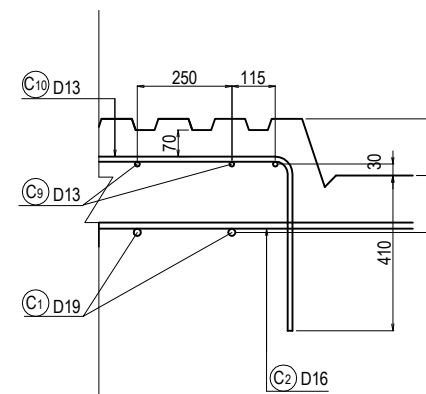
DETAIL "A" S=1:40



DETAIL "B" S=1:20

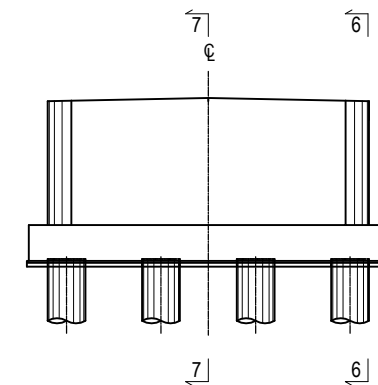


DETAIL "C" S=1:20



TRANSVERSAL

KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

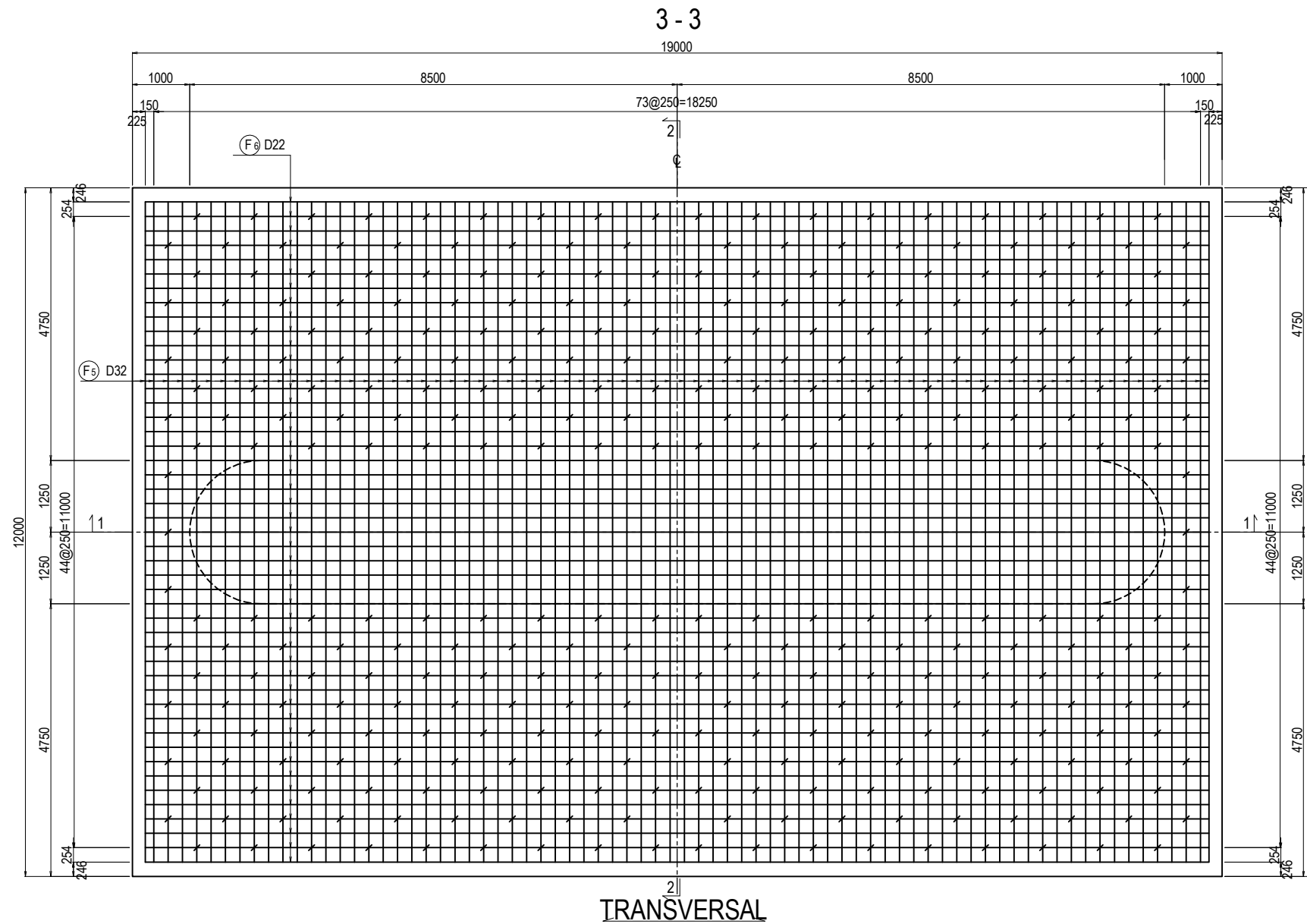
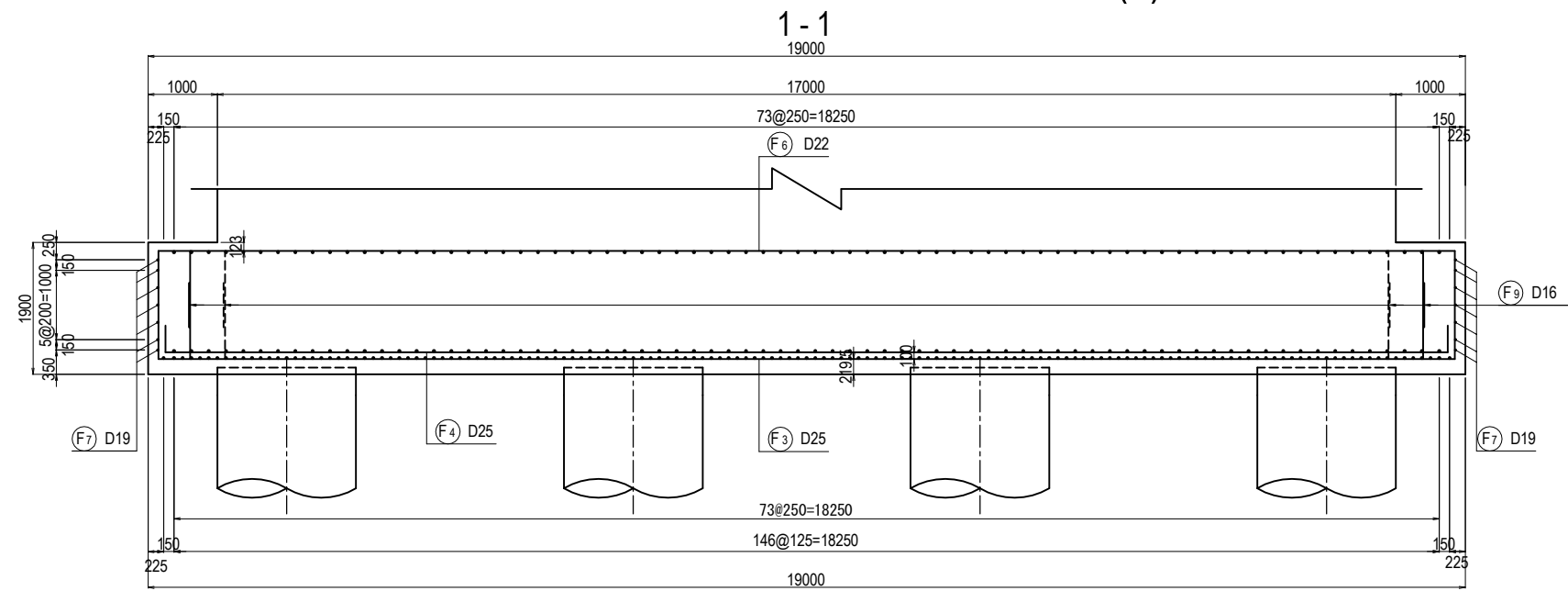
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P24 PIER (2)

PACKAGE
2
DWG No.
P2-PB-2152

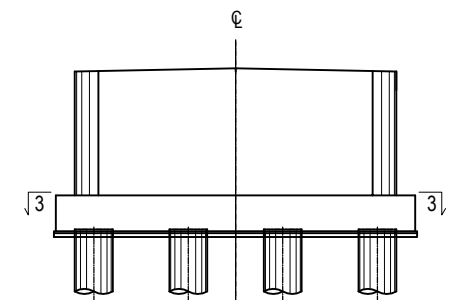
BAR ARRANGEMENT OF P24 PIER (3)

S=1:100



TRANSVERSAL

KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO., LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

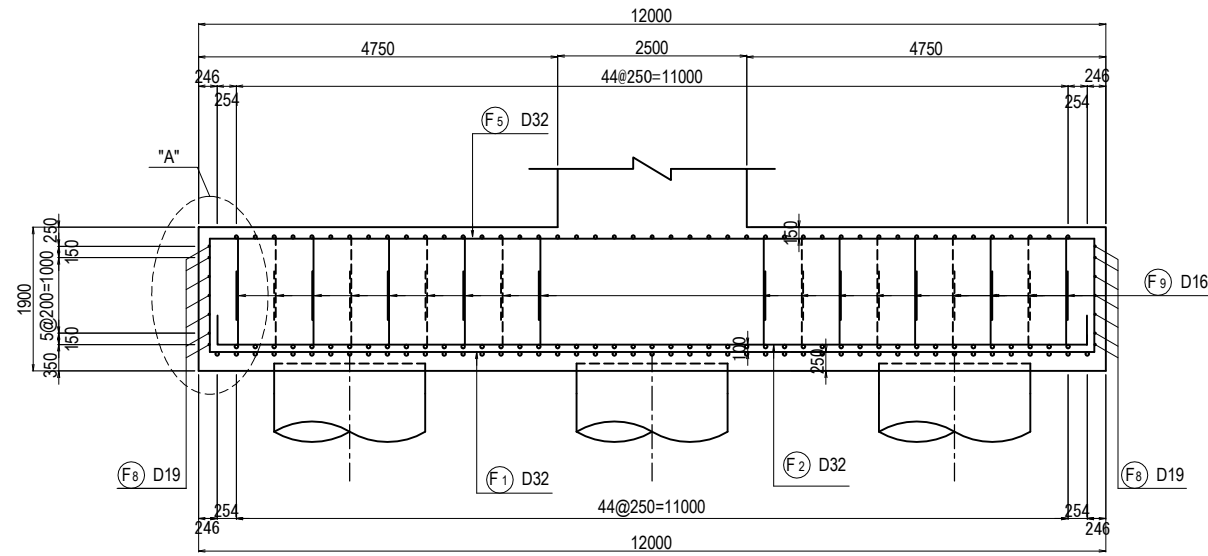
	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
BAR ARRANGEMENT OF P24 PIER (3)

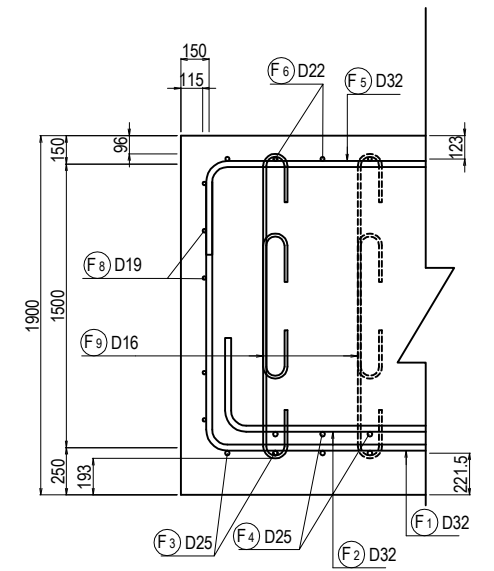
PACKAGE
2
DWG No.
P2-PB-2153

BAR ARRANGEMENT OF P24 PIER (4) S=1:100

2 - 2

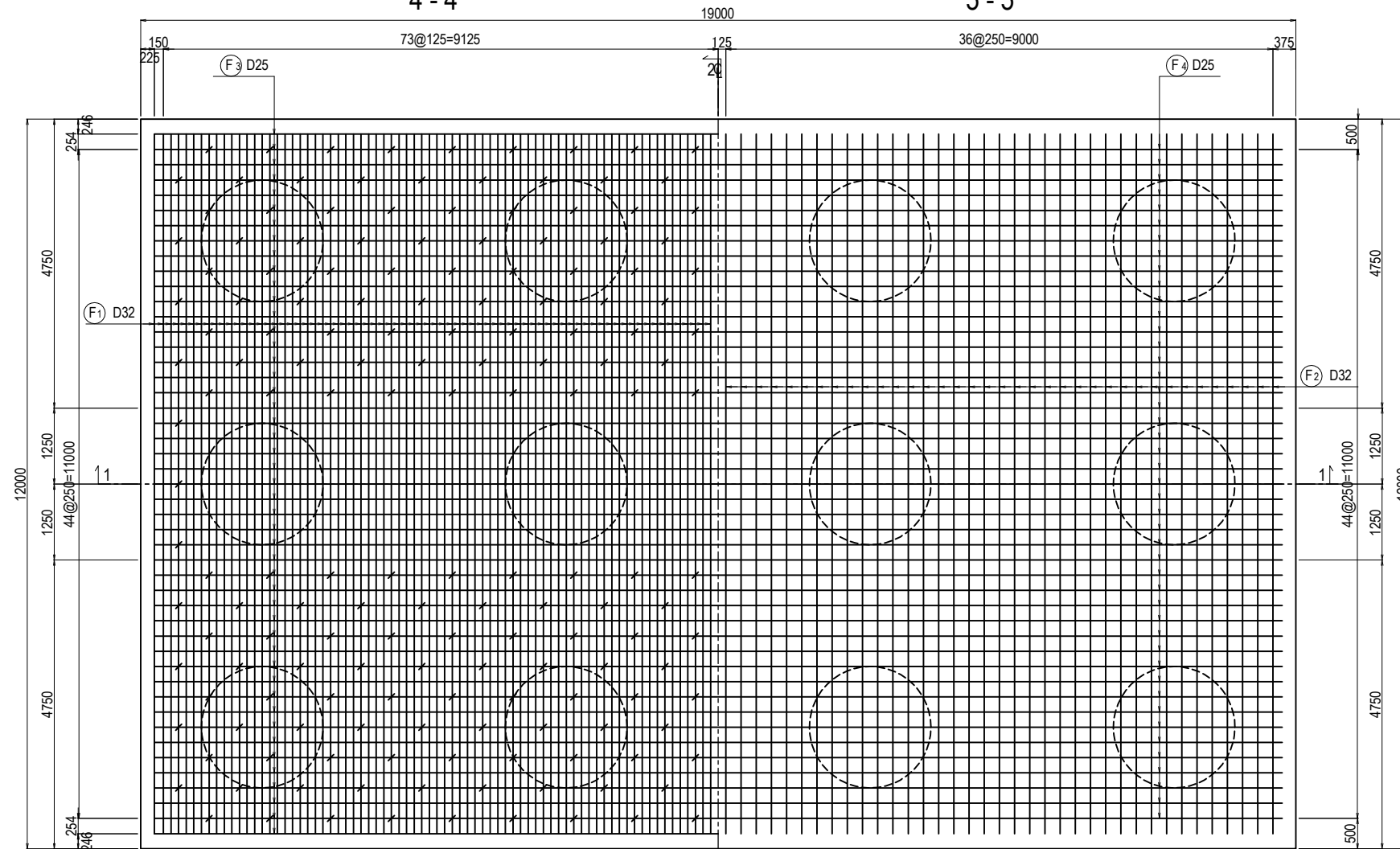


DETAIL "A" S=1:40



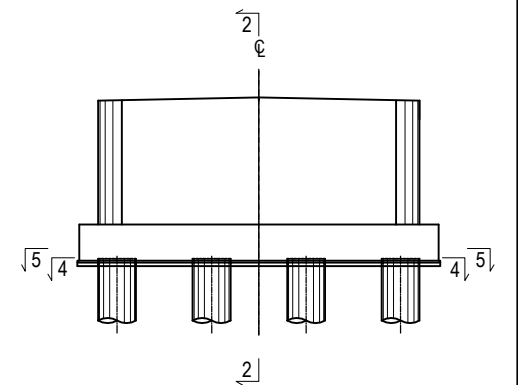
4 - 4

5 - 5



2 |
TRANSVERSAL

KEY PLAN



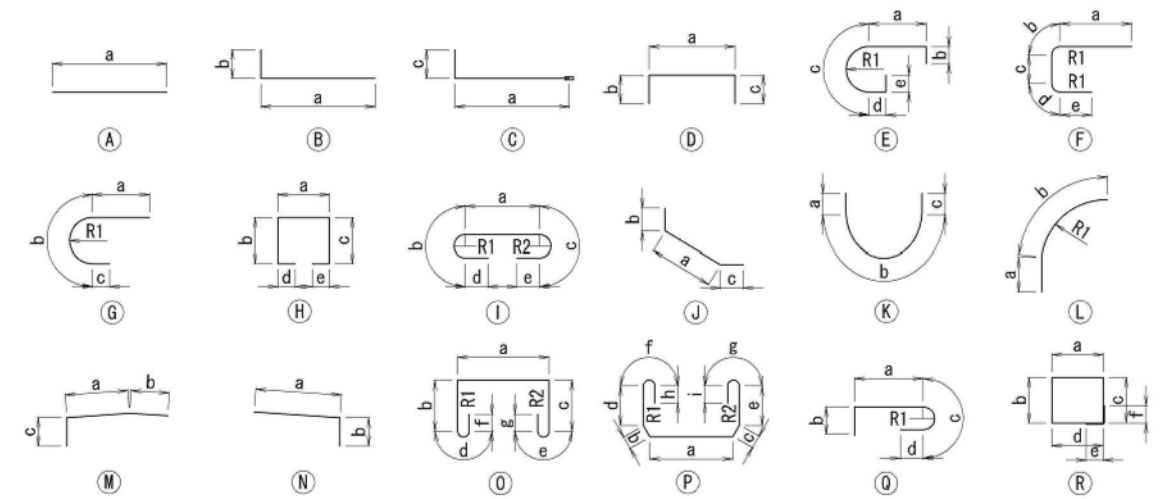
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P24 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2154

BAR ARRANGEMENT OF P24 PIER (5)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1	D	D25	87	3910	2330	790	790									1354	
B2	D	D25	14	3510	1930	790	790									196	AVERAGE
B3-1	M	D16	16	10690	8180	2000	510									267	AVERAGE
B3-2	N	D16	16	7200	6690	510										180	AVERAGE
B4-1	D	D16	4	10520	10035	240	240									66	
B4-2	E	D16	4	10620	4267.5	240	3596	2267.5	240					1144		66	
B5	I	D22	198	2570	1690	236	236	200	200							1546	
S1	D	D16	60	2840	1680	580	580									266	
S2	D	D16	60	2840	1680	580	580									266	
S3	R	D16	4	7430	1712	1712	1760	1760	240	240						46	
C1	B	D19	144	6000	5715	285										1944	AVERAGE
C2-1	D	D16	70	10520	10035	240	240									1149	
C2-2	E	D16	70	10530	4267.5	240	3511	2267.5	240					1118		1150	
C3	I	D16	864	1970	1406	151	151	128	128					48	48	2652	
C4-1	I	D16	54	7430	6869	151	151	128	128					48	48	626	
C4-2	I	D16	54	11000	10442	151	151	128	128					48	48	927	
C5	D	D13	42	4950	4066	440	440									207	AVERAGE
C6	D	D13	54	5730	4808	460	460									308	
F1-1	B	D32	149	10000	8500	1500										9283	
F1-2	B	D32	149	5710	4210	1500										5300	
F2-1	B	D32	147	9000	8520	480										8242	
F2-2	B	D32	147	4470	3990	480										4094	
F3-1	B	D25	47	12000	10444	1556										2245	
F3-2	B	D25	47	10610	9046	1556										1985	
F4-1	B	D25	45	12000	11625	375										2149	
F4-2	B	D25	45	8040	7665	375										1440	
F5-1	B	D32	149	9000	8520	480										8354	
F5-2	B	D32	149	4670	4190	480										4334	
F6-1	B	D22	47	12000	11670	330										1715	
F6-2	B	D22	47	8050	7720	330										1150	
F7	A	D19	16	11760	11751											423	
F8-1	A	D19	16	12000	12000											432	
F8-2	A	D19	16	7350	7350											265	
F9	I	D16	660	1620	1060	151	151	128	128					48	48	1670	

SHAPE CODE



SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	515	0
D16	9331	0
D19	3064	0
D22	4411	0
D25	9369	0
D29	0	0
D32	39607	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	66297	0

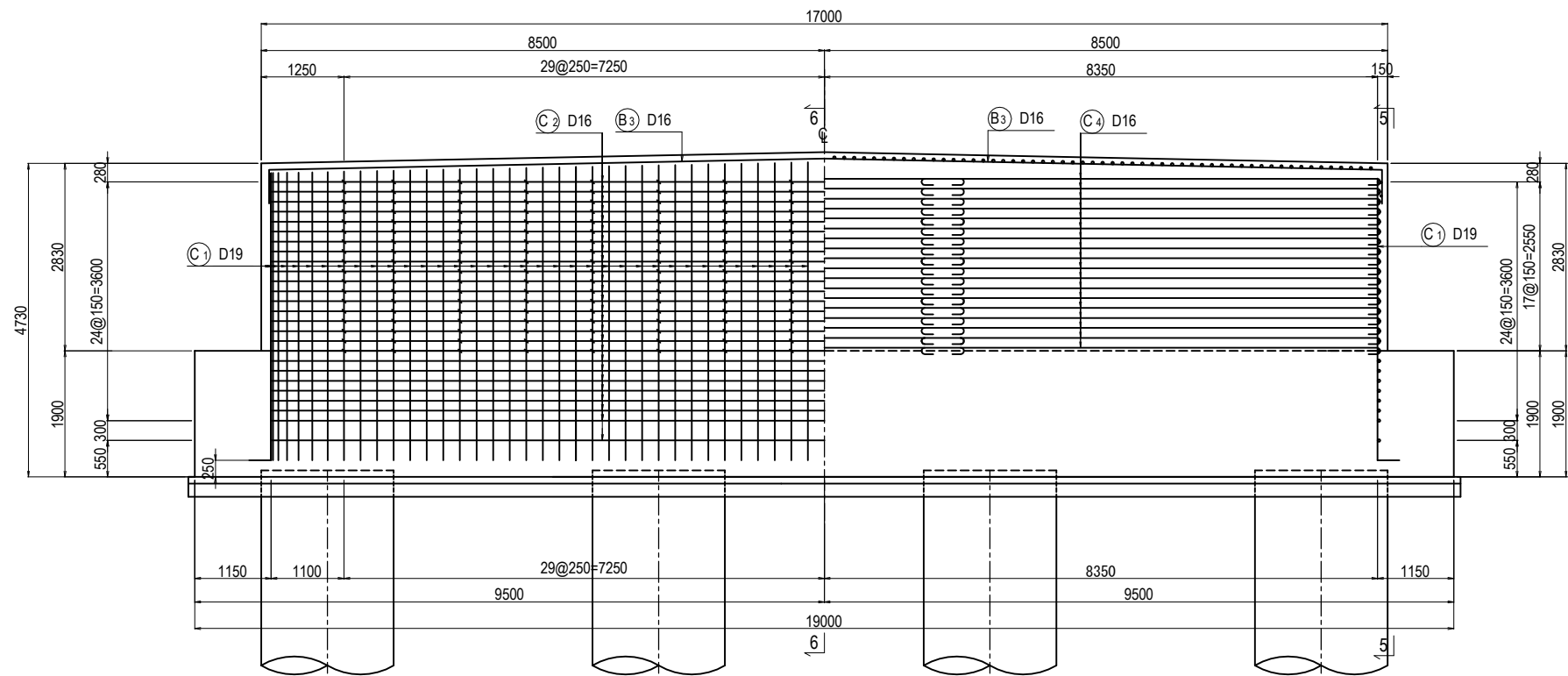
- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P24 PIER (5)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2155

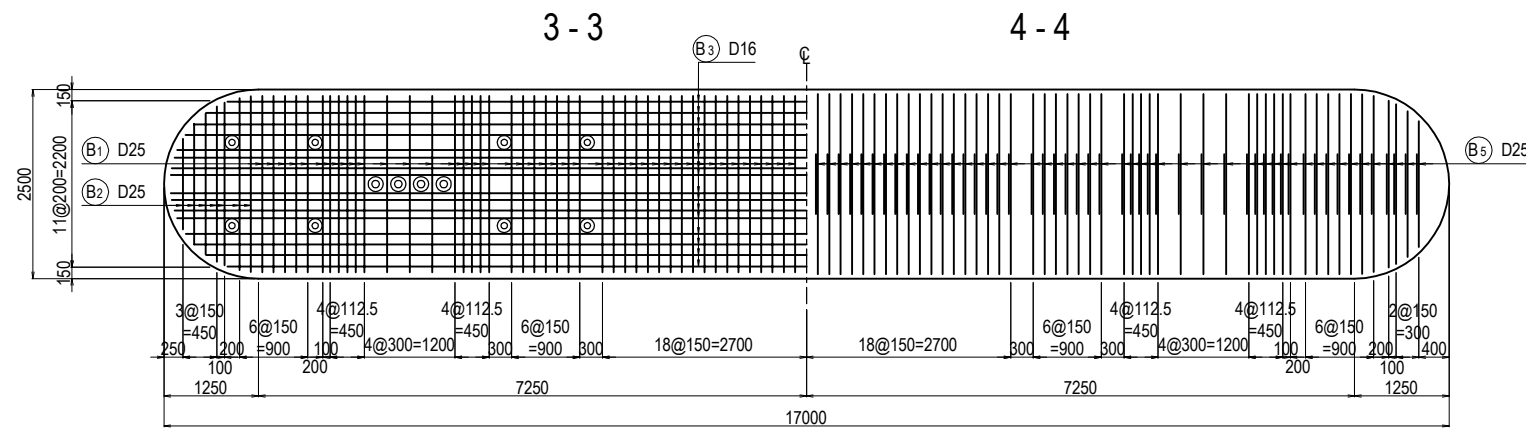
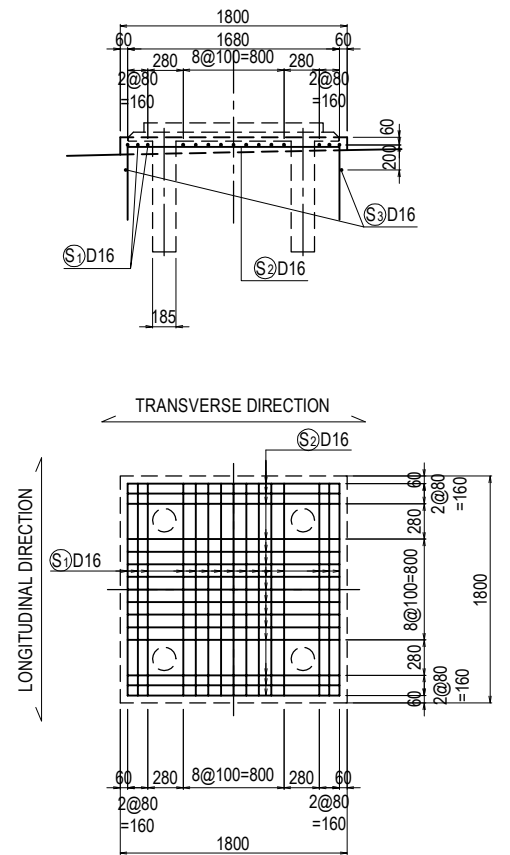
BAR ARRANGEMENT OF P25 PIER (1)

S=1:100

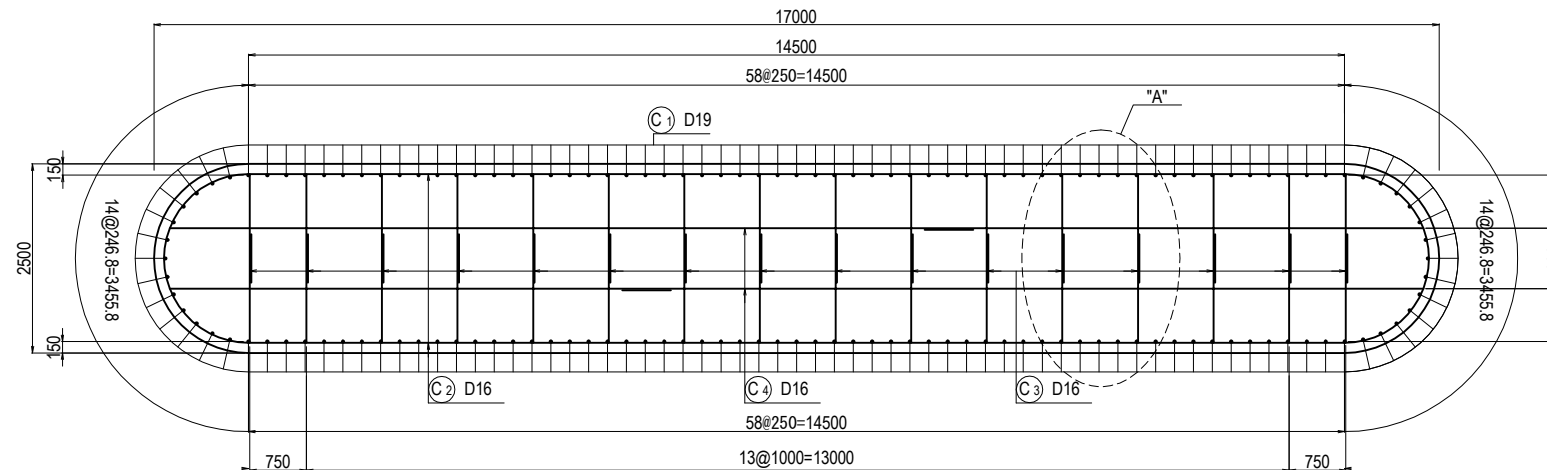
1-1 2-2



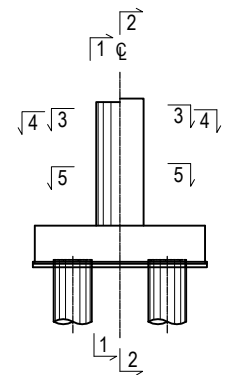
DETAIL OF BEARING BASE S=1:60



5-5

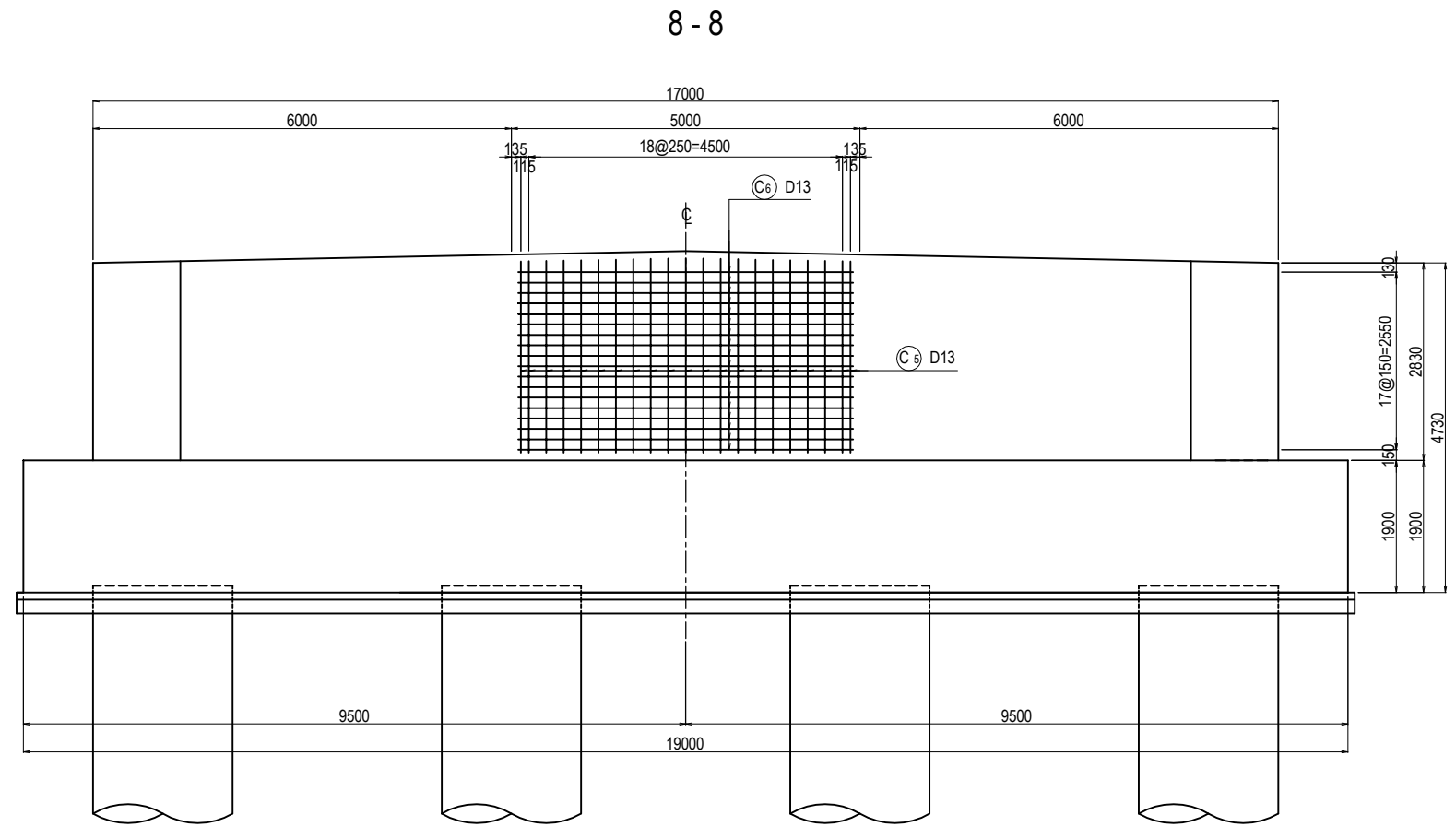
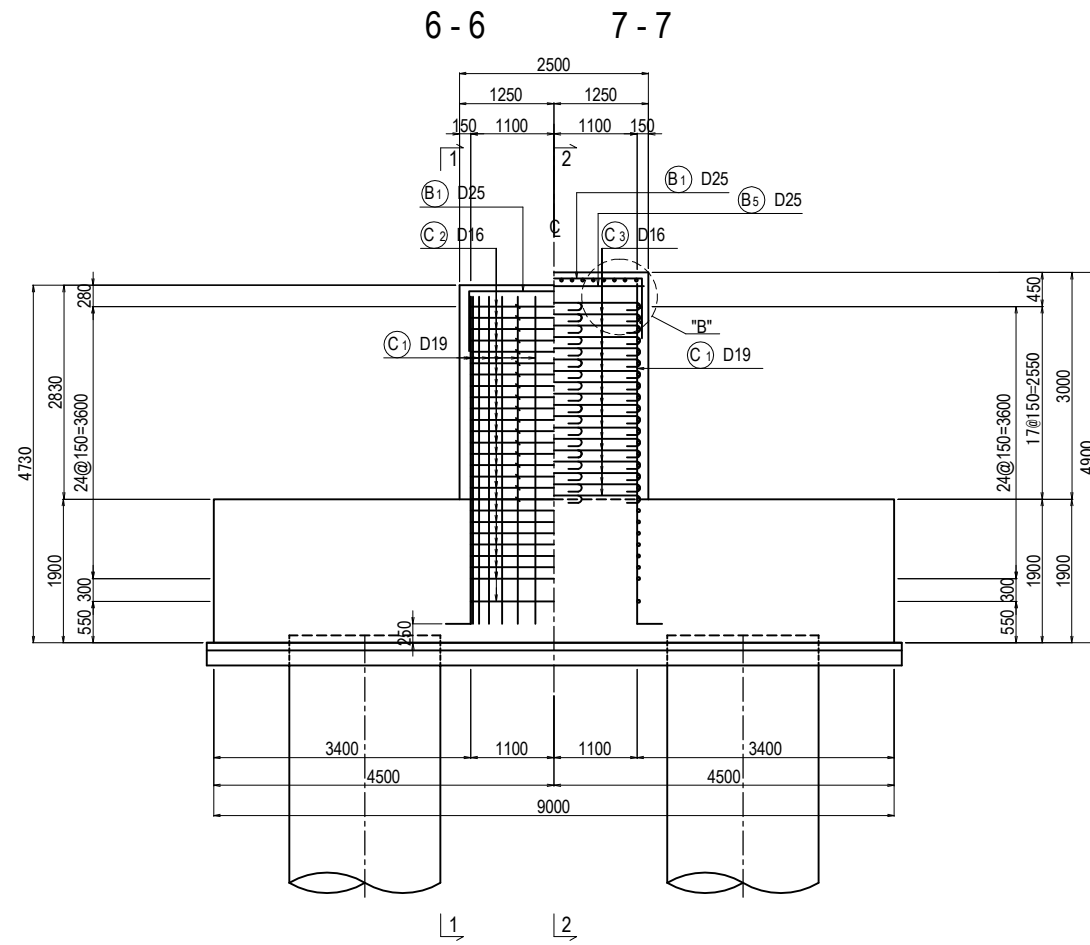


KEY PLAN

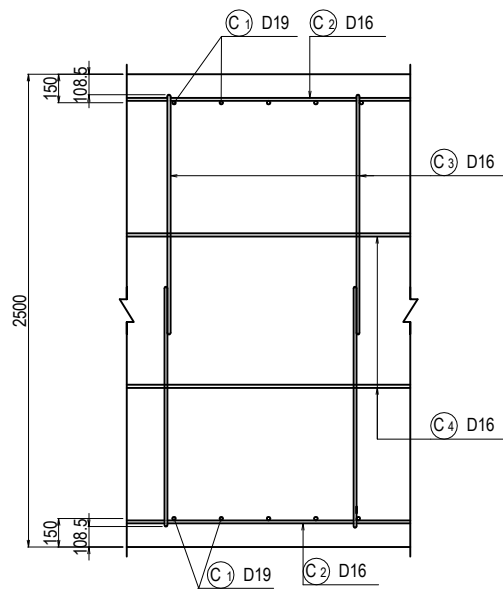


PROJECT NAME	FINANCED BY	COUNTERPART	JICA STUDY TEAM	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE
DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	JICA JAPAN INTERNATIONAL COOPERATION AGENCY	REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	M. OHYAMA	大山 満弘	15 Jun.2017	BAR ARRANGEMENT OF P25 PIER (1)	2
				T. HAYAKAWA	平川 知寿	20 Jun.2017		DWG No.
				Y. SANO	佐野 祐一	21 Jun.2017		P2-PB-2161

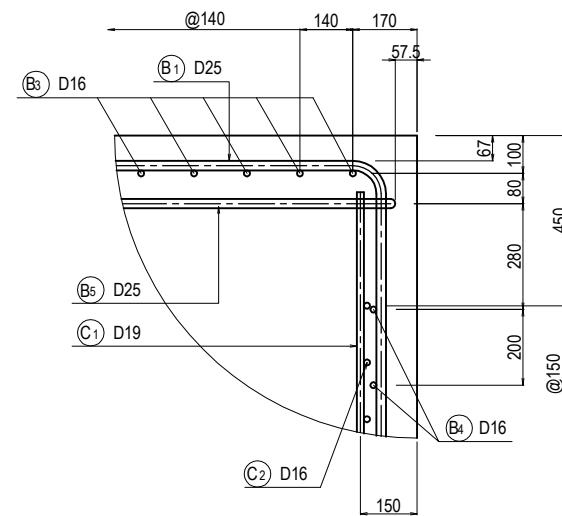
BAR ARRANGEMENT OF P25 PIER (2) S=1:100



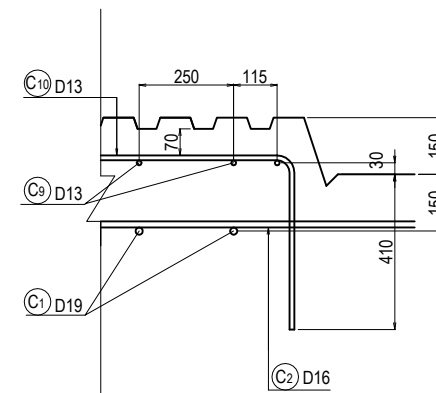
DETAIL "A" S=1:40



DETAIL "B" S=1:20

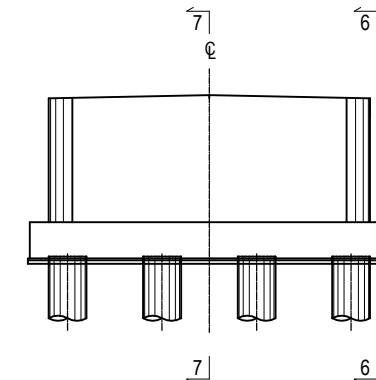


DETAIL "C" S=1:40



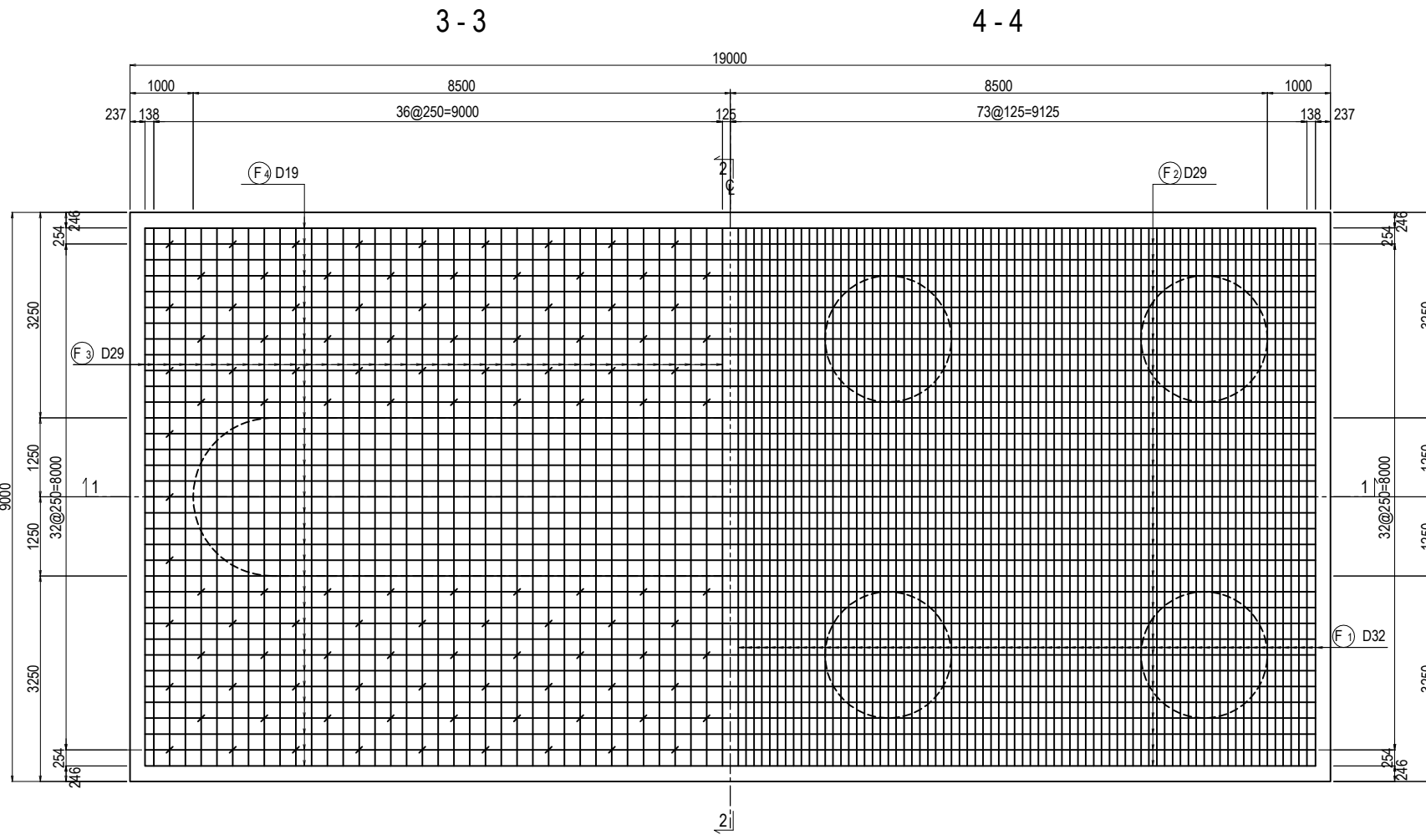
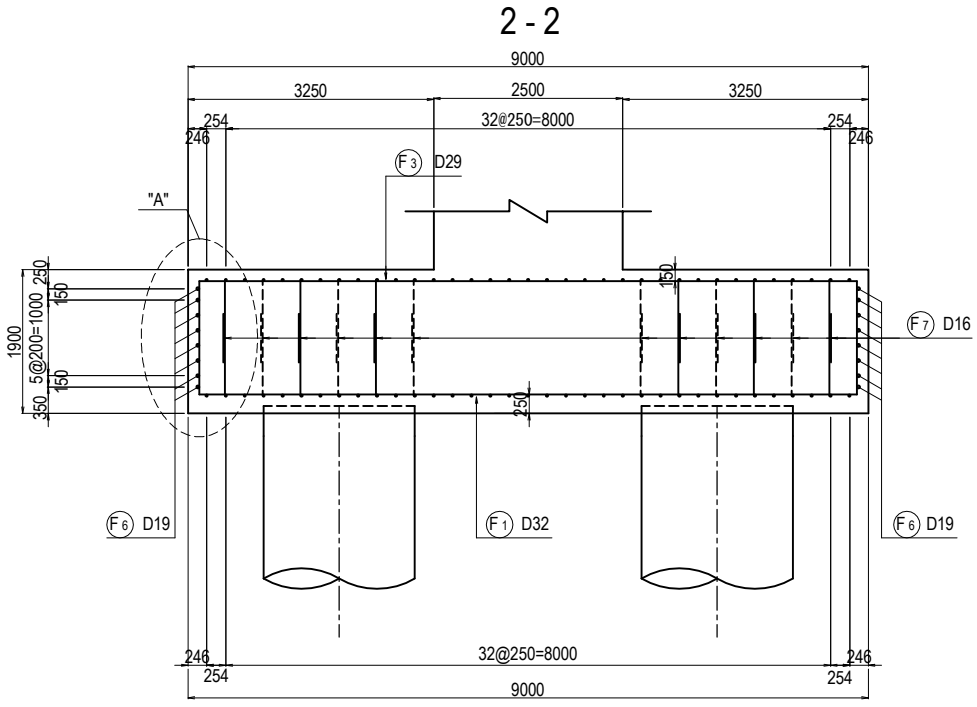
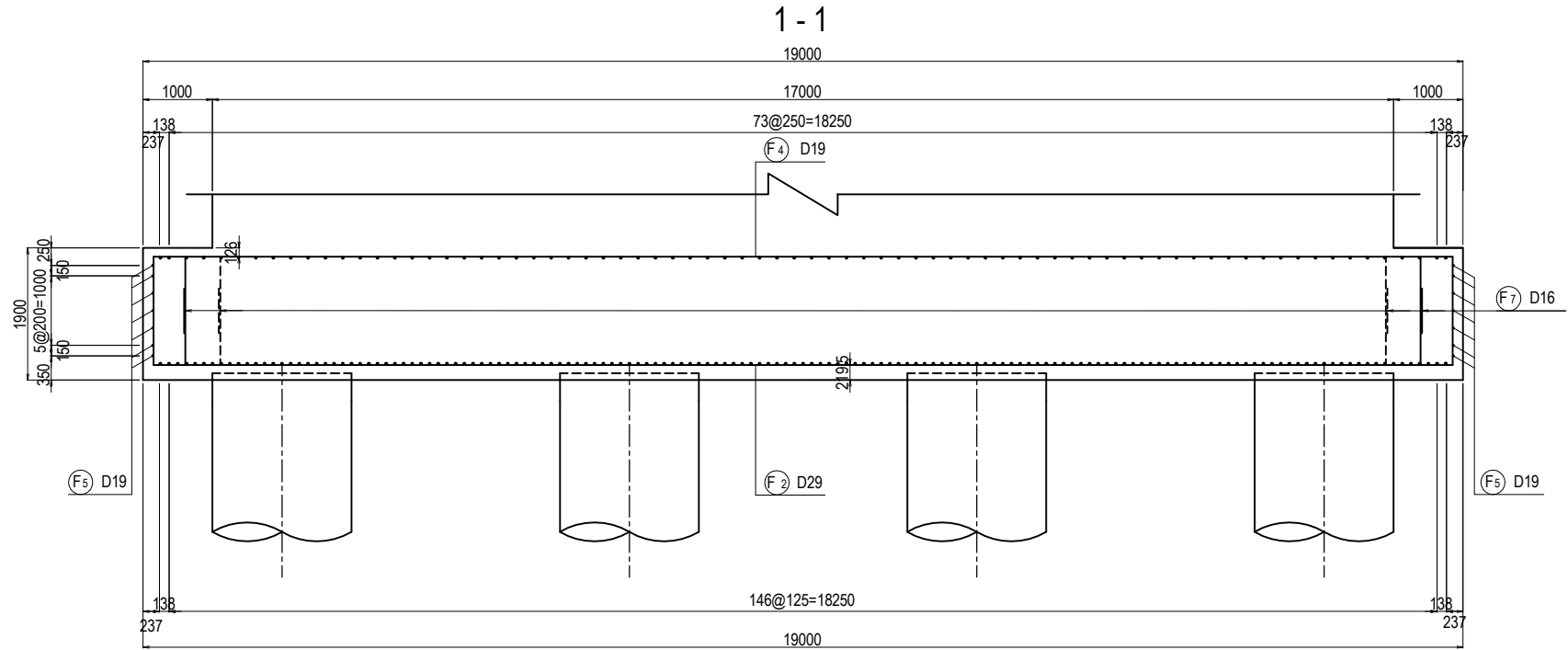
TRANSVERSAL

KEY PLAN

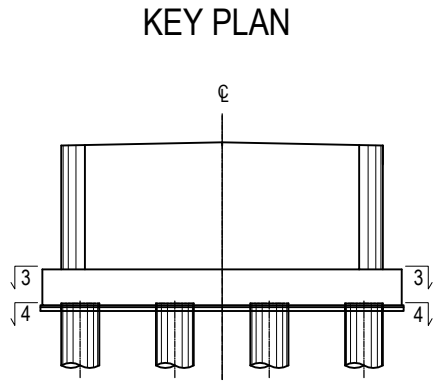
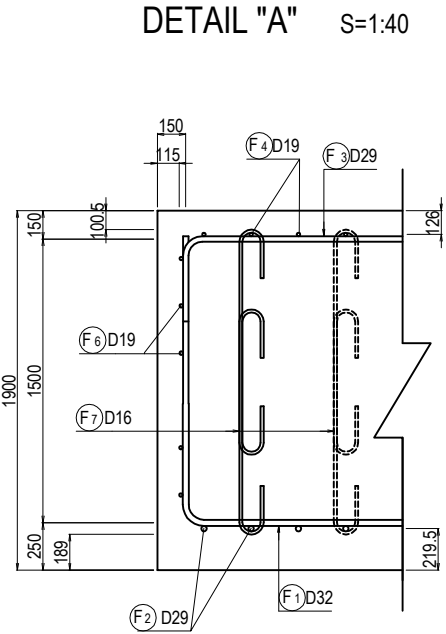


PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY jica JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P25 PIER (2)	PACKAGE 2 DWG No. P2-PB-2162	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知寿			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017

BAR ARRANGEMENT OF P25 PIER (3) S=1:100



TRANSVERSAL



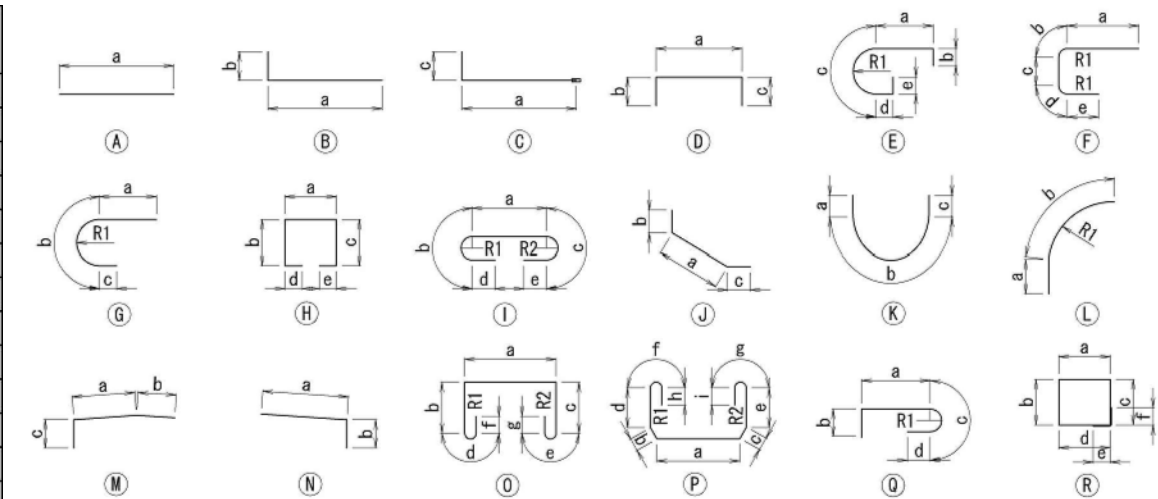
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF P25 PIER (3)	PACKAGE 2 DWG No. P2-PB-2163
---	--	---	--	---	-----------------------	---	--	---------------------------------------

BAR ARRANGEMENT OF P25 PIER (4)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
B1	D	D25	89	3910	2330	790	790									1385	
B2	D	D25	14	3510	1930	790	790									196	AVERAGE
B3-1	M	D16	16	10690	8180	2000	510									267	AVERAGE
B3-2	N	D16	16	7200	6690	510										180	AVERAGE
B4-1	D	D16	4	10520	10035	240	240									66	
B4-2	E	D16	4	10620	4267.5	240	3596	2267.5	240					1144		66	
B5	I	D25	202	2570	1690	236	236	200	200							2066	
S1	D	D16	60	2840	1680	580	580									266	
S2	D	D16	60	2840	1680	580	580									266	
S3	R	D16	4	7430	1712	1712	1760	1760	240	240						46	
C1	B	D19	144	4700	4415	285										1524	AVERAGE
C2-1	D	D16	52	10520	10035	240	240									853	
C2-2	E	D16	52	10530	2267.5	240	3511	4267.5	240					1118		854	
C3	I	D16	576	1970	1406	151	151	128	128					48	48	1768	
C4-1	I	D16	36	7430	6869	151	151	128	128					48	48	417	
C4-2	I	D16	36	11000	10442	151	151	128	128					48	48	618	
C5	D	D13	42	3650	2766	440	440									152	AVERAGE
C6	D	D13	36	5730	4808	460	460									205	
F1	D	D32	149	11700	8700	1500	1500									10861	
F2-1	B	D29	35	12000	10445	1555										2117	
F2-2	B	D29	35	10720	9165	1555										1891	
F3	D	D29	76	9570	8700	435	435									3665	
F4-1	B	D19	35	12000	11715	285										945	
F4-2	B	D19	35	7870	7585	285										620	
F5	A	D19	16	8760	8751											315	
F6-1	A	D19	16	12000	12000											432	
F6-2	A	D19	16	7350	7348											265	
F7	I	D16	444	1630	1070	151	151	128	128					48	48	1128	

SHAPE CODE



SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	357	0
D16	6795	0
D19	4101	0
D22	0	0
D25	3647	0
D29	7673	0
D32	10861	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	33434	0

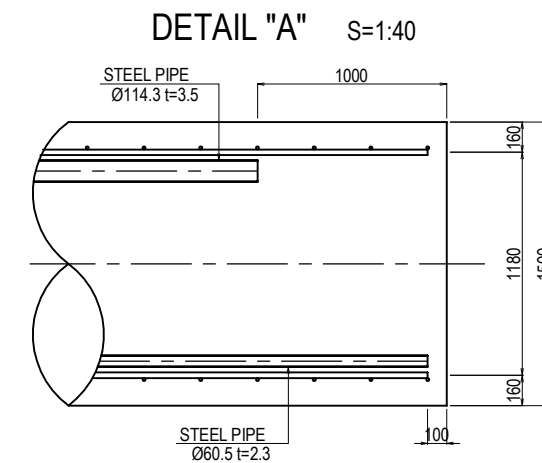
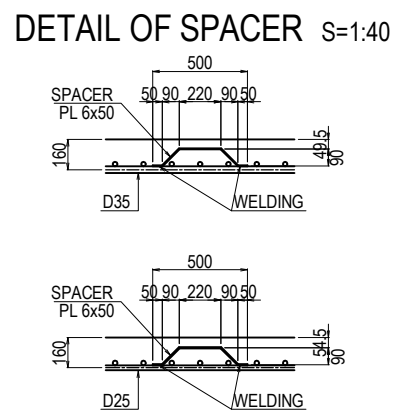
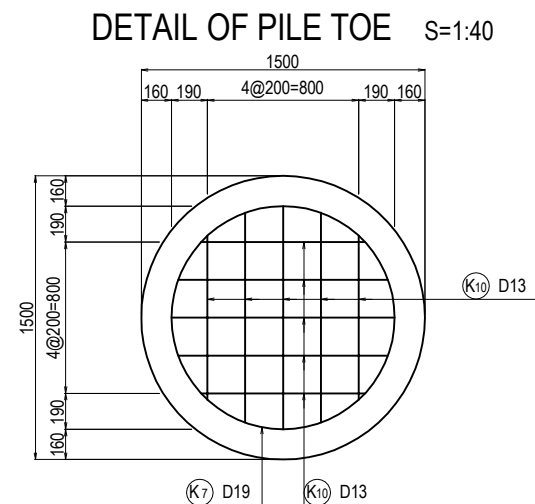
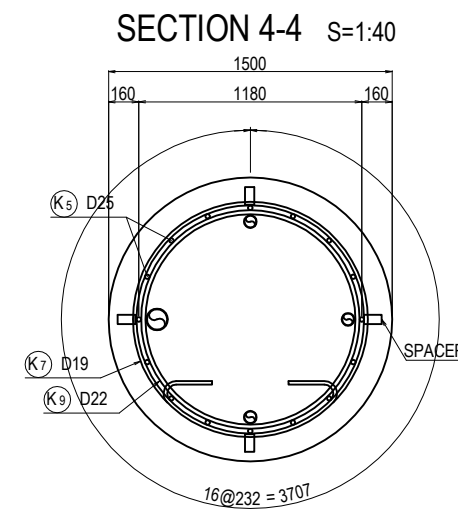
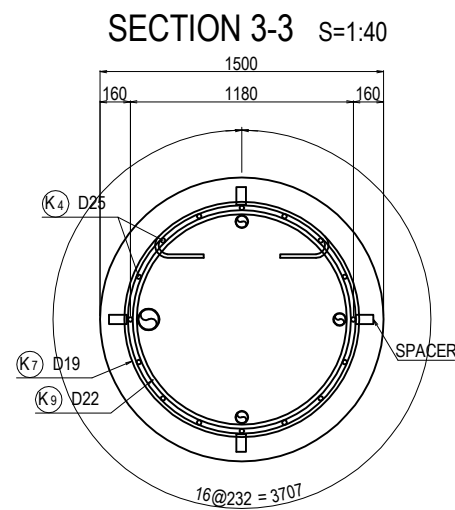
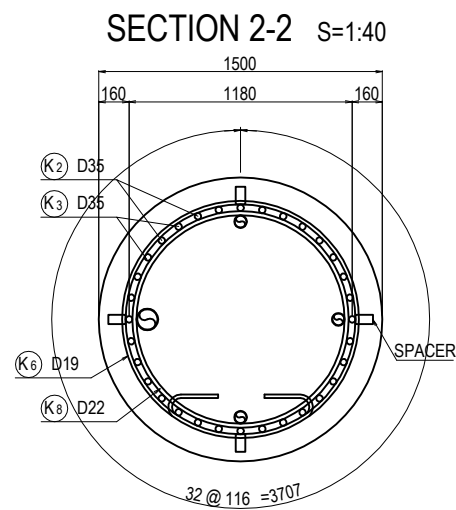
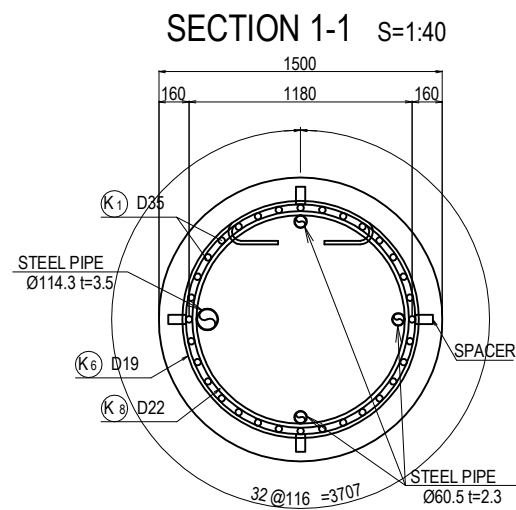
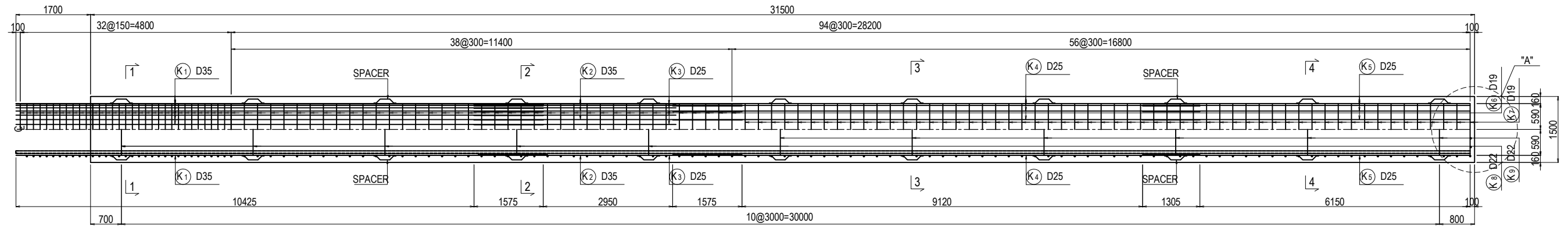
- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF P25 PIER (4)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2164

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR A2 (1)

S=1:100

SEGMENT 1



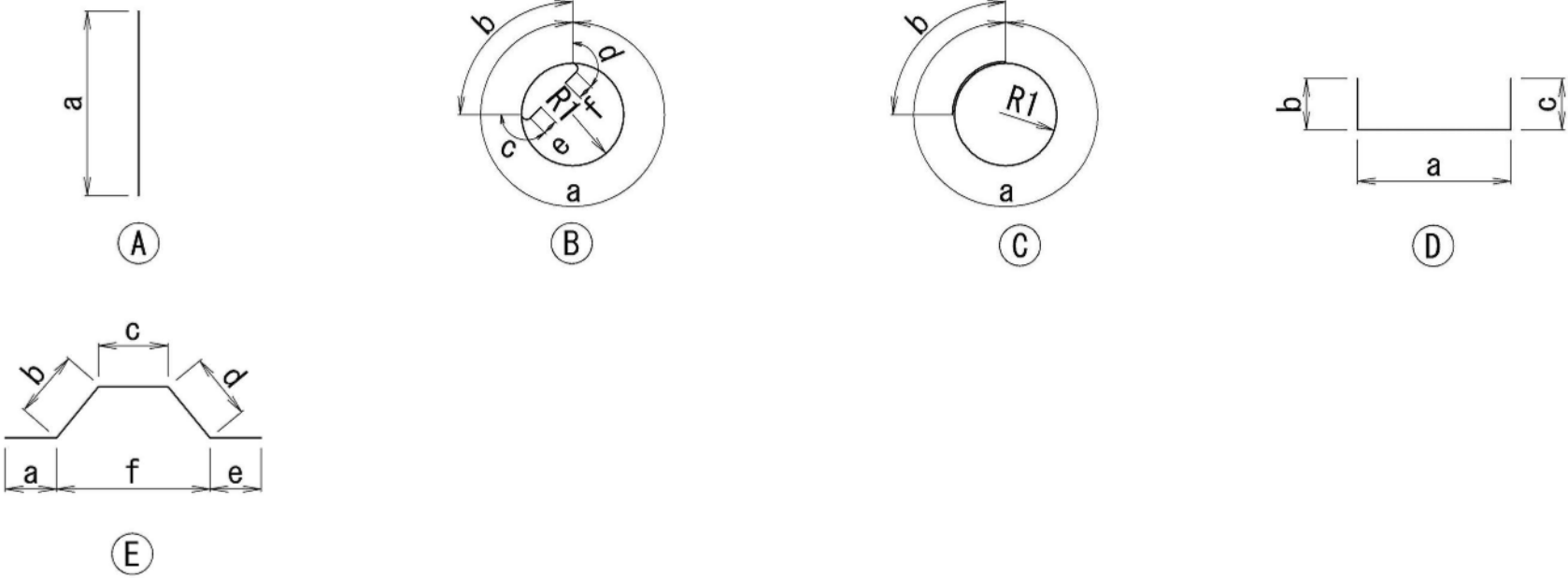
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
BAR ARRANGEMENT OF CAST IN PLACE PILE FOR A2(1)							2	DWG No.	P2-PB-2201

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR A2 (2)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D35	32	12000	12000								2884	
K2	A	D35	16	6100	6100								733	
K3	A	D35	16	4600	4600								553	
K4	A	D25	16	12000	12000								764	
K5	A	D25	16	7460	7455								475	
K6	B	D19	71	5290	3877	760	134	134	190	190	617		845	
K7	B	D19	56	5260	3845	760	134	134	190	190	612		663	
K8	C	D22	5	4410	3528	880					561.5		67	
K9	C	D22	6	4440	3559	880					566.5		81	
K10	D	D13	10	1420	<i>1024</i>	195	195						14	AVERAGE
K11	E	PL	44	580	50	127	220	127	50				60	
REBAR QUANTITY (1NOS)														
DIAMETER														
WEIGHT														
D13														
14 kg														
D16														
0 kg														
D19														
1508 kg														
D22														
148 kg														
D25														
1238 kg														
D29														
0 kg														
D32														
0 kg														
D35														
4170 kg														
D38														
0 kg														
D41														
0 kg														
D51														
0 kg														
PL														
60 kg														
TOTAL														
7138 kg														

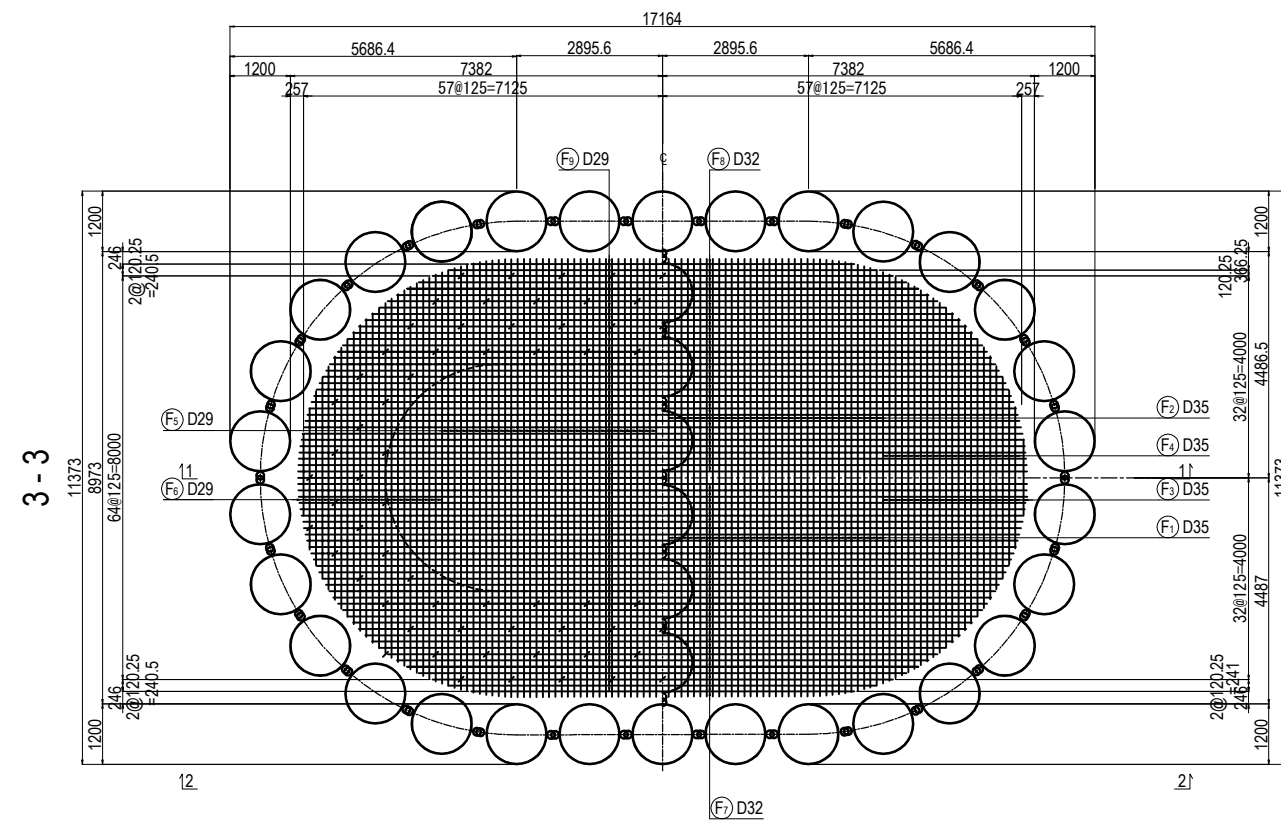
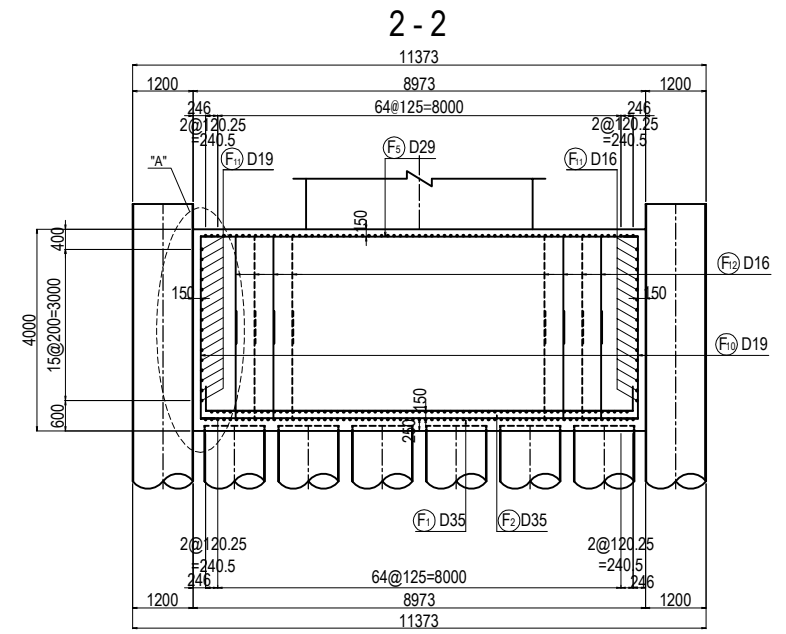
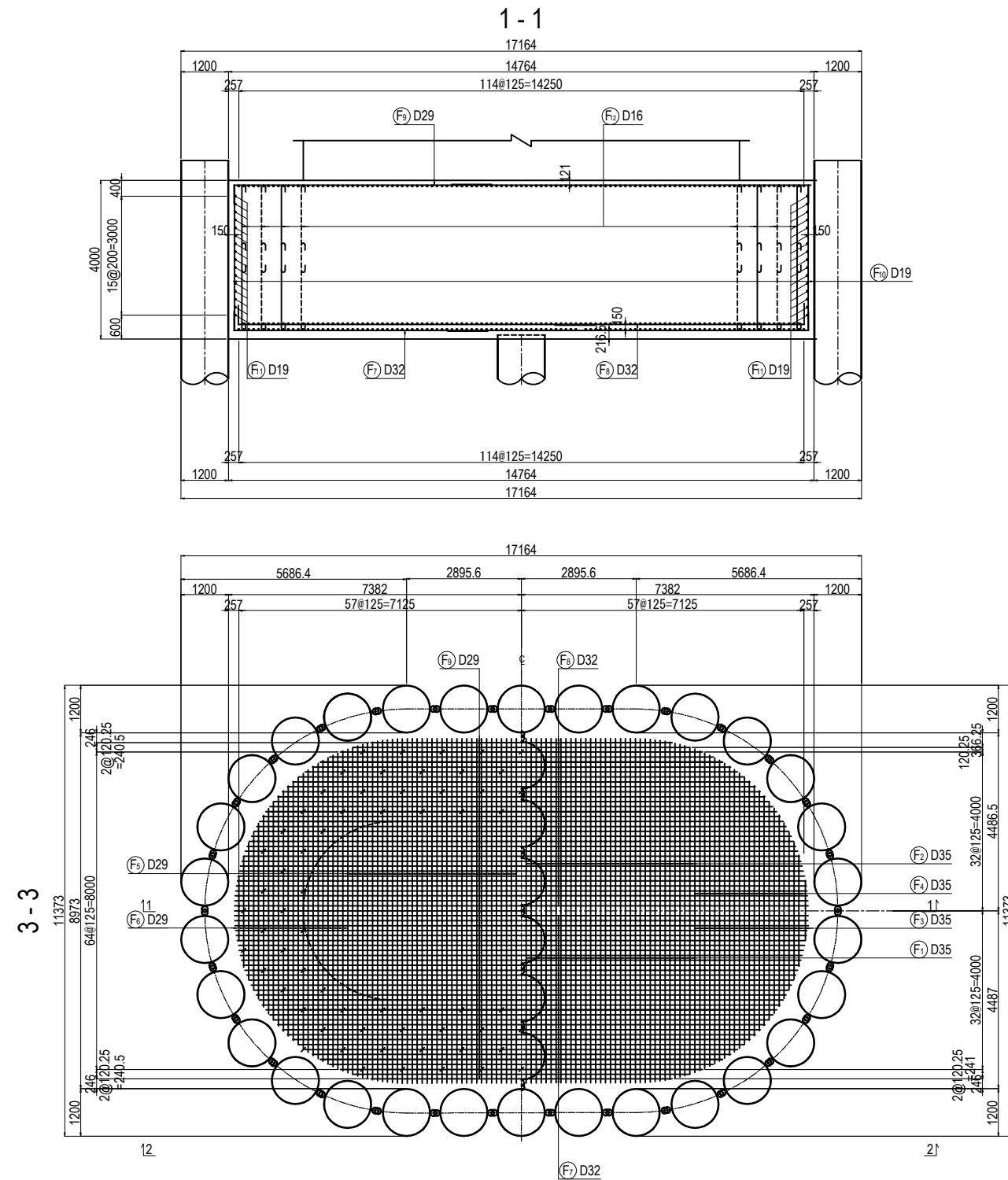
SHAPE CODE



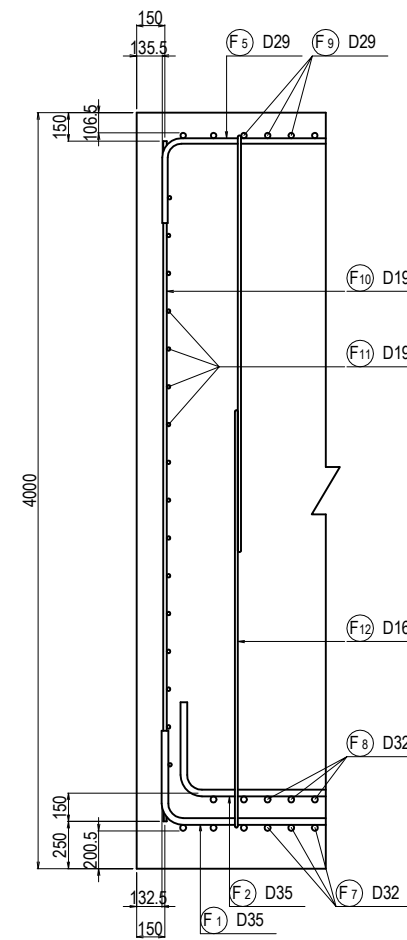
NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NAME</th> <th>SIGNATURE</th> <th>DATE</th> </tr> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td>21 Jun.2017</td> </tr> </table>	NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA	15 Jun.2017	CHECKED BY	T. HAYAKAWA	20 Jun.2017	APPROVED BY	Y. SANO	21 Jun.2017	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR A2(2)	PACKAGE 2 DWG No. P2-PB-2202
NAME	SIGNATURE	DATE																
PREPARED BY	M. OHYAMA	15 Jun.2017																
CHECKED BY	T. HAYAKAWA	20 Jun.2017																
APPROVED BY	Y. SANO	21 Jun.2017																

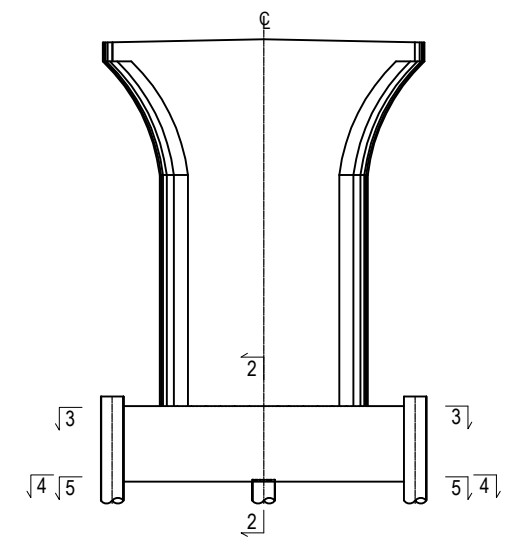
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (1) S=1:150



DETAIL "A" S=1:40



KEY PLAN



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (1)	PACKAGE 2 DWG No. P2-PB-2211
---	--	---	--	---	-----------------------	---	--	---------------------------------------

STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (2)

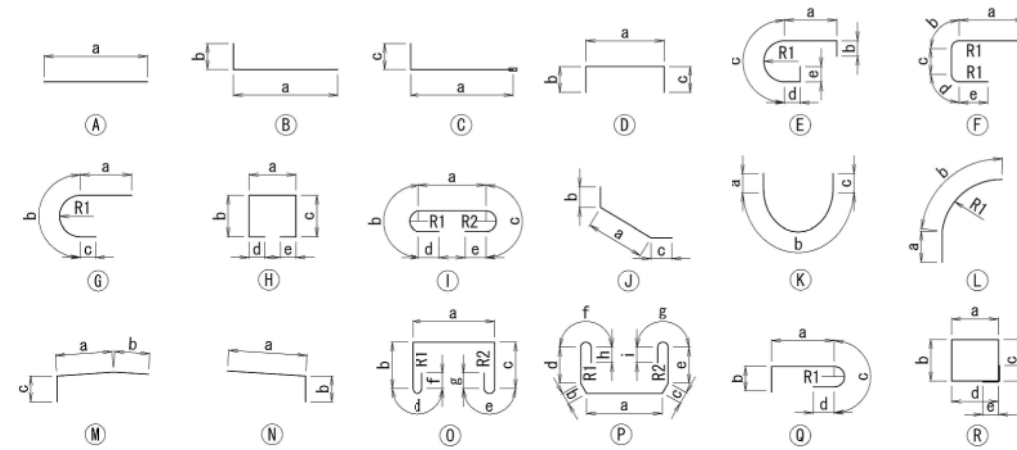
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
F1	D	D35	47	9730	8673	525	525									3434	
F2	D	D35	47	9530	8473	525	525									3364	
F3	D	D35	68	8080	7026	525	525									4126	AVERAGE
F4	D	D35	66	7940	6889	525	525									3936	AVERAGE
F5	D	D29	47	9550	8673	435	435									2262	
F6	D	D29	68	7900	7026	435	435									2708	AVERAGE
F7-1	B	D32	63	10000	9520	480										3925	
F7-2	B	D32	63	5020	4533	480										1970	AVERAGE
F7-3	D	D32	4	9770	8801	480	480									243	AVERAGE
F8-1	B	D32	63	10000	9520	480										3925	
F8-2	B	D32	63	4760	4279	480										1868	AVERAGE
F8-3	D	D32	2	9540	8579	480	480									119	
F9-1	B	D29	63	10000	9565	435										3175	
F9-2	B	D29	63	4830	4388	435										1533	AVERAGE
F9-3	D	D29	4	9680	8801	435	435									195	AVERAGE
F10	A	D19	268	3600	3600											2171	
F11-1	A	D19	32	4000	4000											288	
F11-2	L	D19	32	10000	600	9400								4318		720	
F11-3	L	D19	32	7160	2391	4764								4318		516	
F12	I	D16	160	2660	2096	151	151	128	128					48	48	664	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	0	0
D16	664	0
D19	3695	0
D22	0	0
D25	0	0
D29	9873	0
D32	12050	0
D35	14860	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	41142	0

SHAPE CODE



NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (2)							2	DWG No.	
								P2-PB-2212	

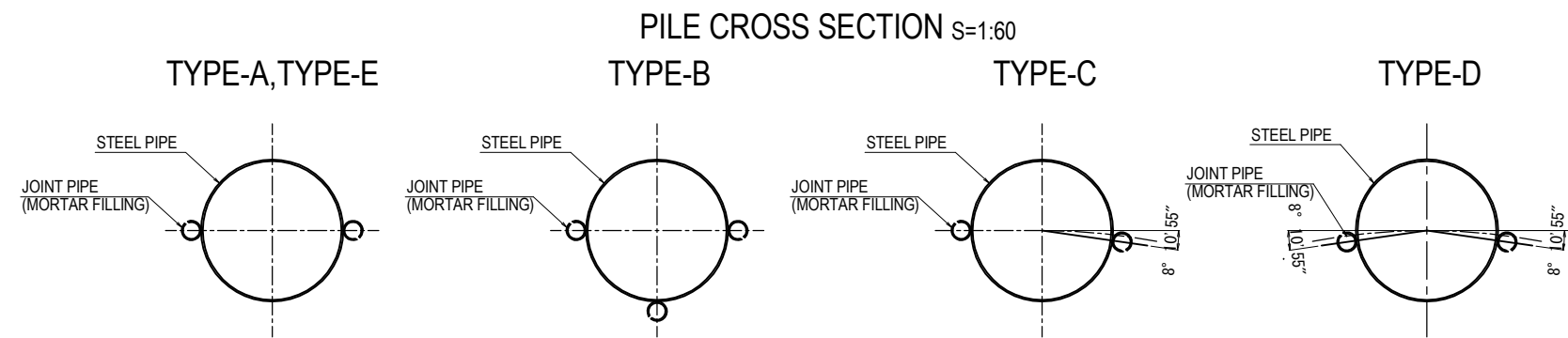
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (3)

PILE COMBINATION S=1:250

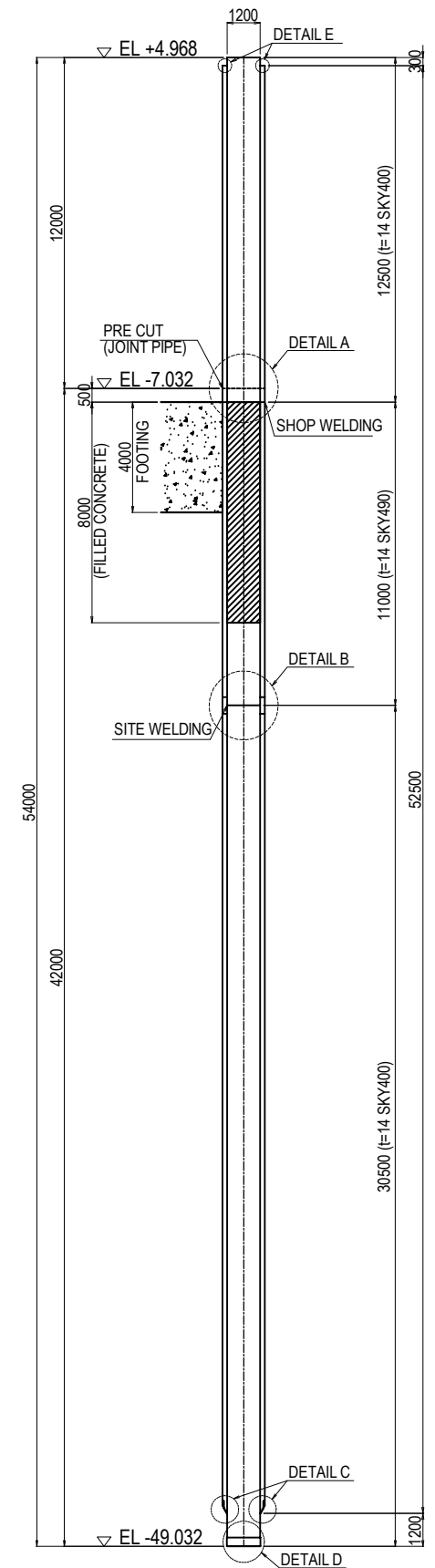
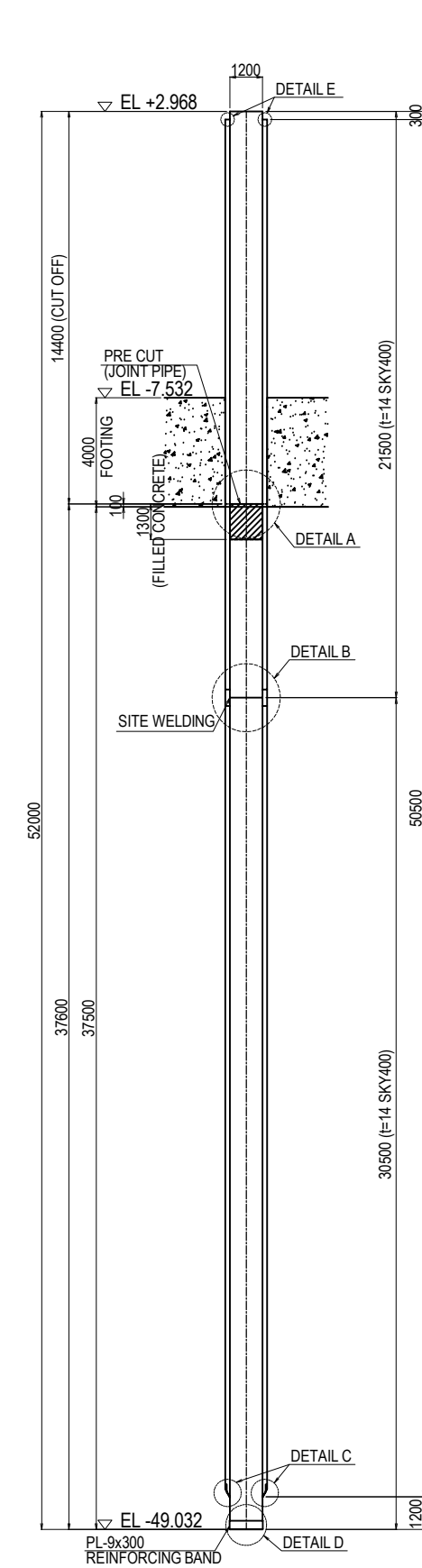
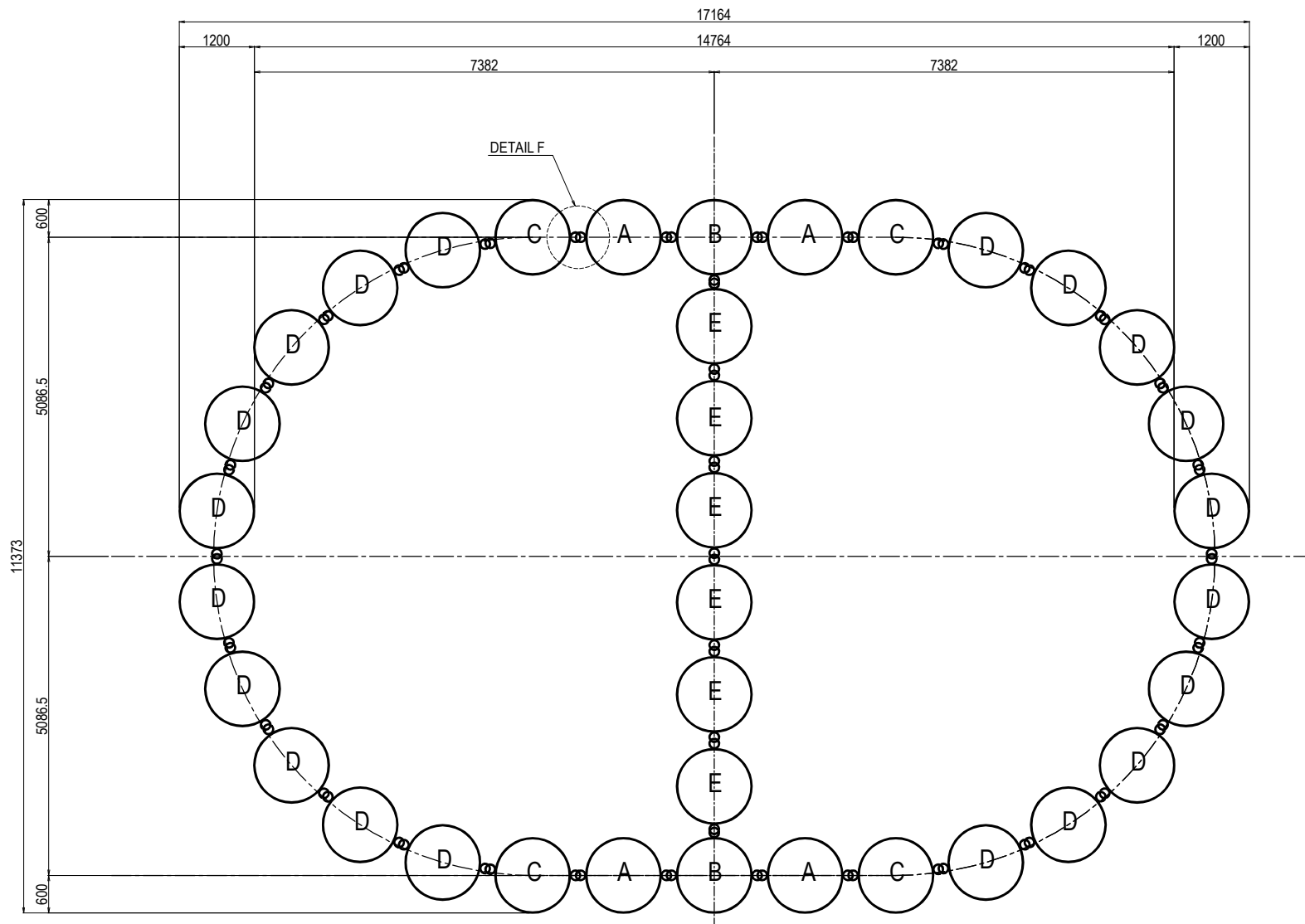
PILE TYPE AND PILE LAYOUT

TYPE-E

TYPE-A,TYPE-B,TYPE-C,TYPE-D



LAYOUT PLAN FOR SPSP AT P20 S=1:100



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

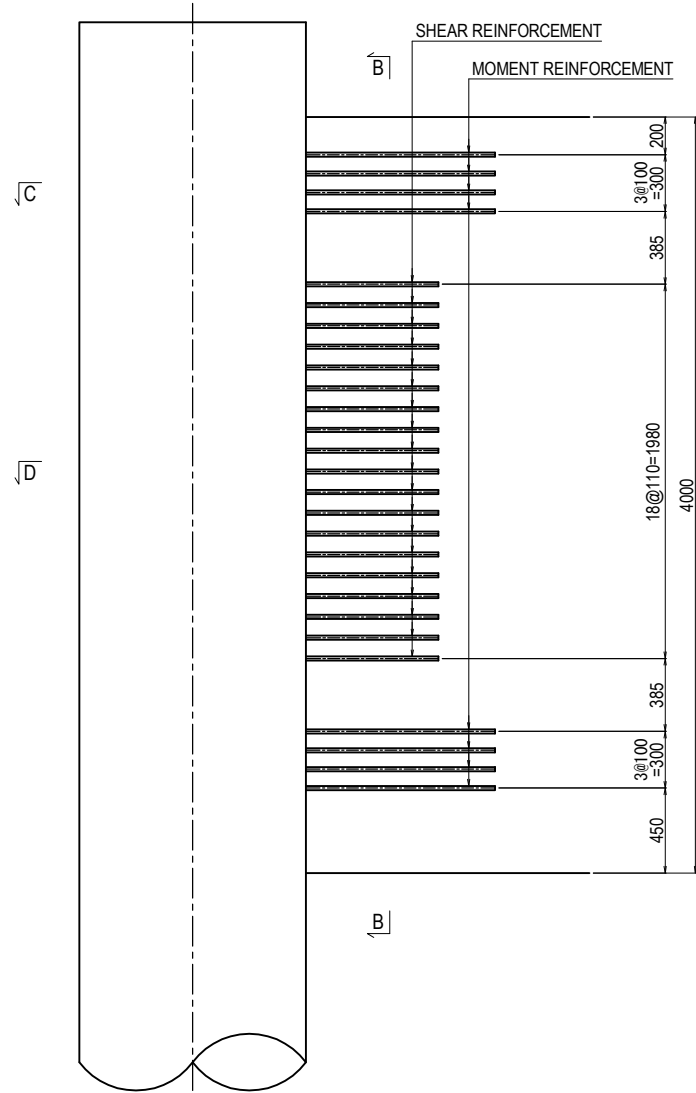
DRAWING TITLE
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (3)

PACKAGE
2
DWG No.
P2-PB-2213

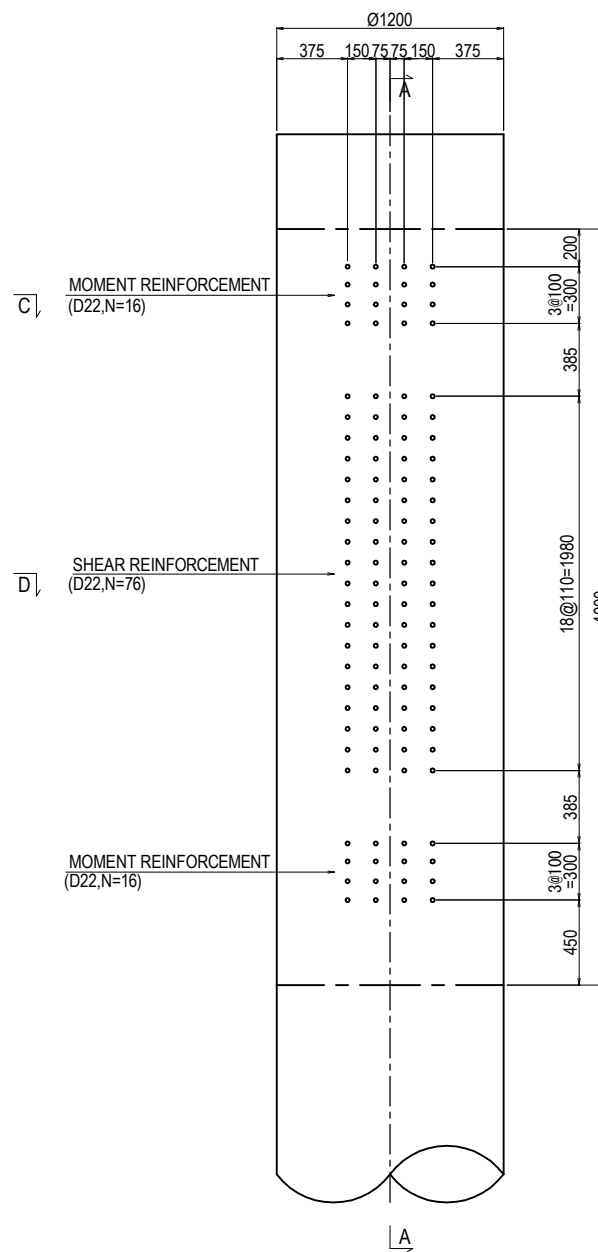
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (4)

ARRANGEMENT OF REINFORCING BAR STUD S=1:40

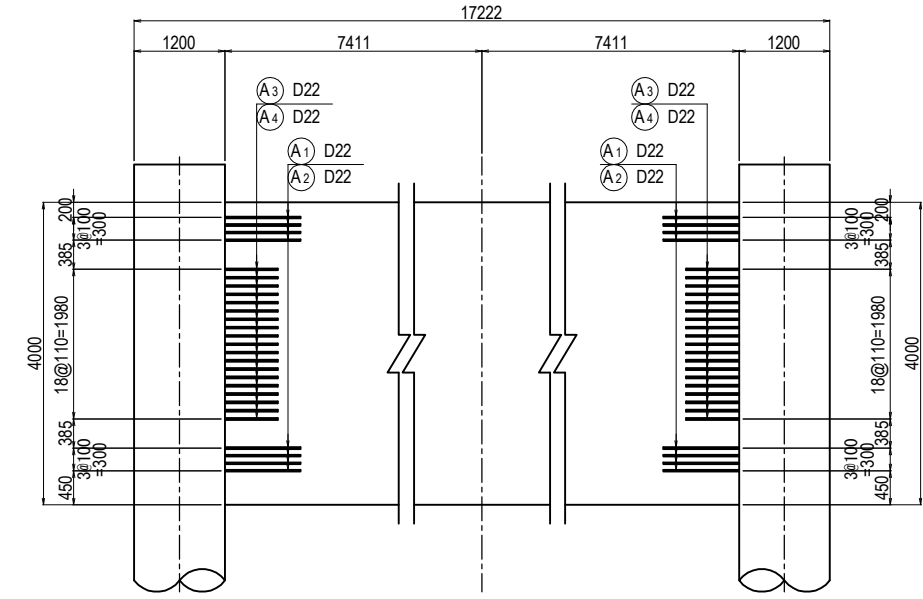
A - A



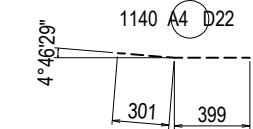
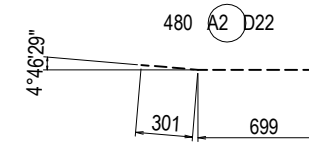
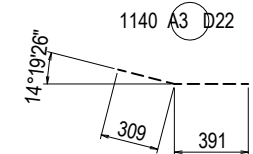
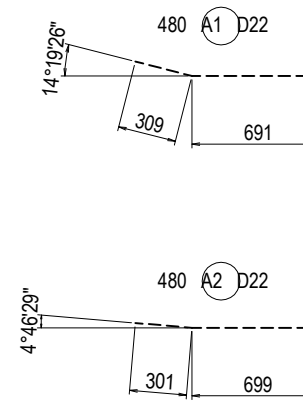
B - B



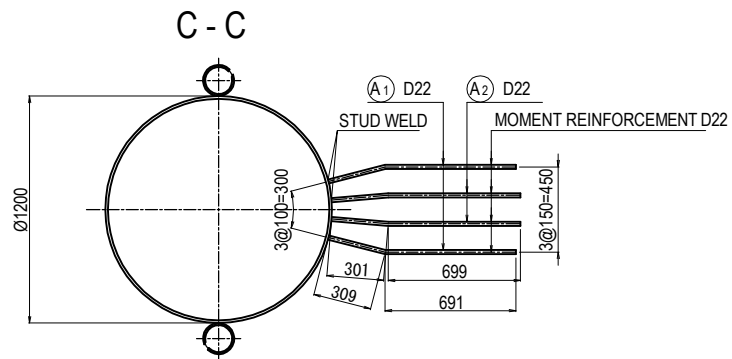
ELEVATION S=1:100



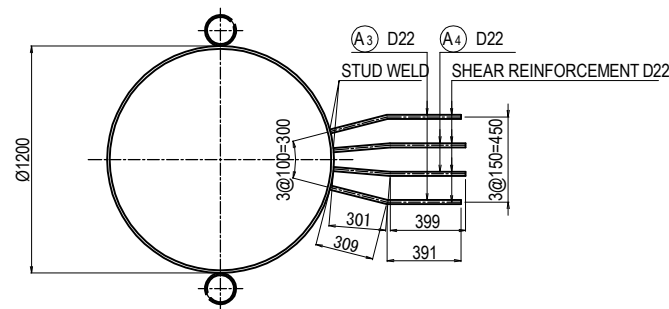
S=1:40



CROSS SECTION S=1:40



D - D



Designation	Diameter (mm)	Unit Weight (kg/m)	Length (mm)	Weight/ea (kg/ea.)	Nos. of bars	Total Weight (kg)	Nos. of joint	Remarks
A1	D22	3.04	1 000	3.04	480	1459		—
A2	D22	3.04	1 000	3.04	480	1459		—
A3	D22	3.04	700	2.13	1140	2428		—
A4	D22	3.04	700	2.13	1140	2428		—
SUBTOTAL						7774 kg		
						D22	7774 kg	
(SM490A-SD)						TOTAL	7774 kg	

NOTES:

1. STUD WELDING MUST SATISFY A PERMISSIBLE VALUE.

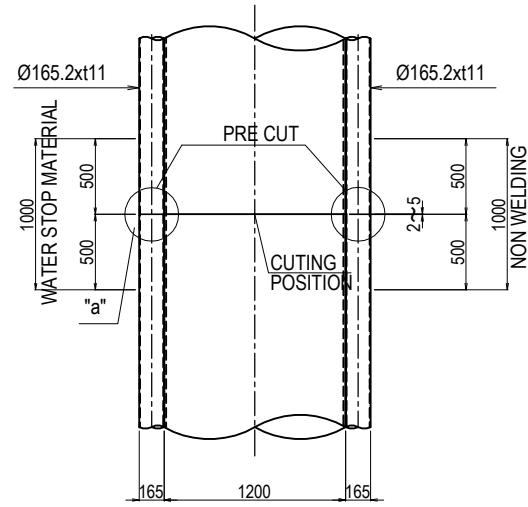
All dimensions are in mm, unless otherwise shown.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 大山 満弘 平川 知寿 佐野 祐一	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (4)	PACKAGE 2 DWG No. P2-PB-2214
---	--	---	--	---	--------------------------------------	---	--	---------------------------------------

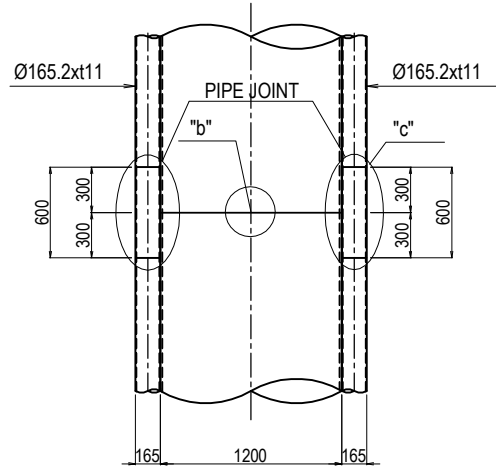
STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (5)

DETAIL OF STEEL PIPE SHEET PILE

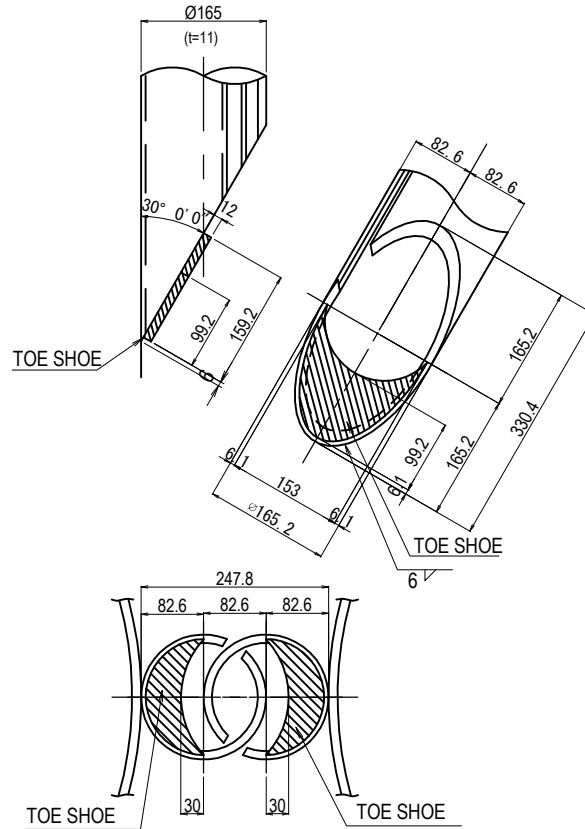
DETAIL-A S=1:50
PRE-CUT



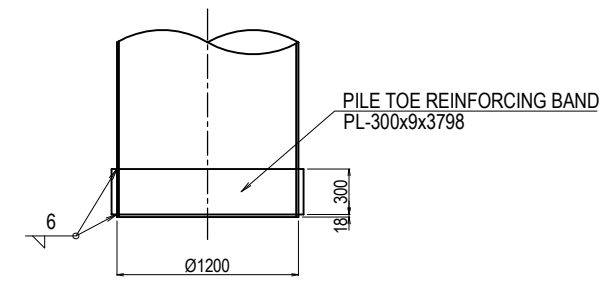
DETAIL-B S=1:50
FIELD JOINT OF PIPE JOINT



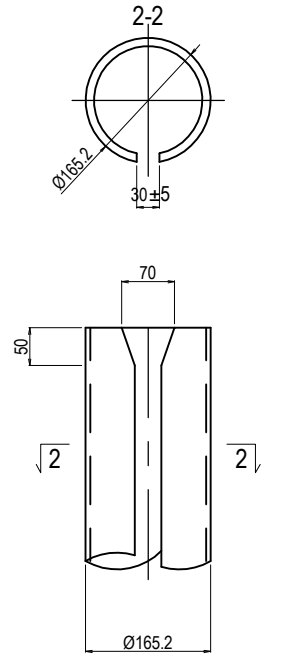
DETAIL-C S=1:10
TOE SHOE



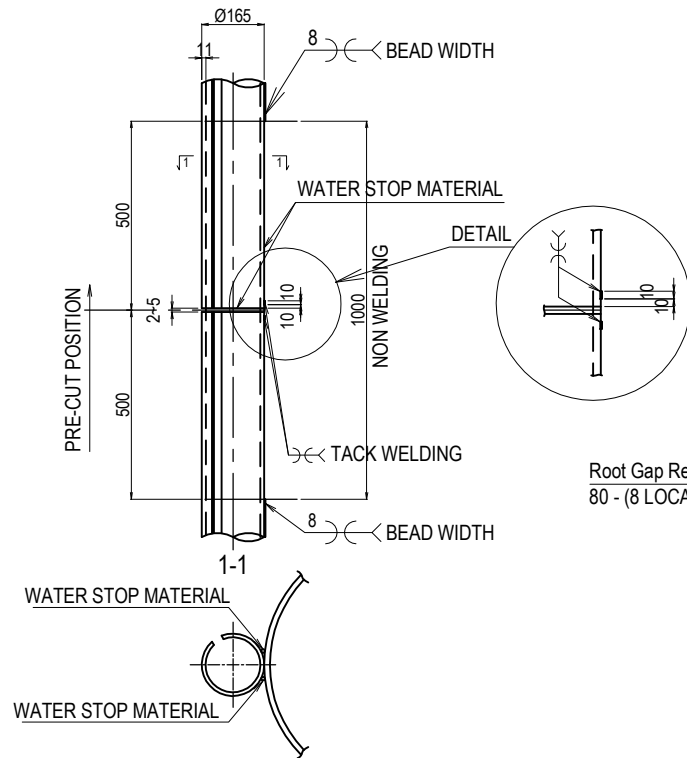
DETAIL-D S=1:50
PILE TOE REINFORCING BAND



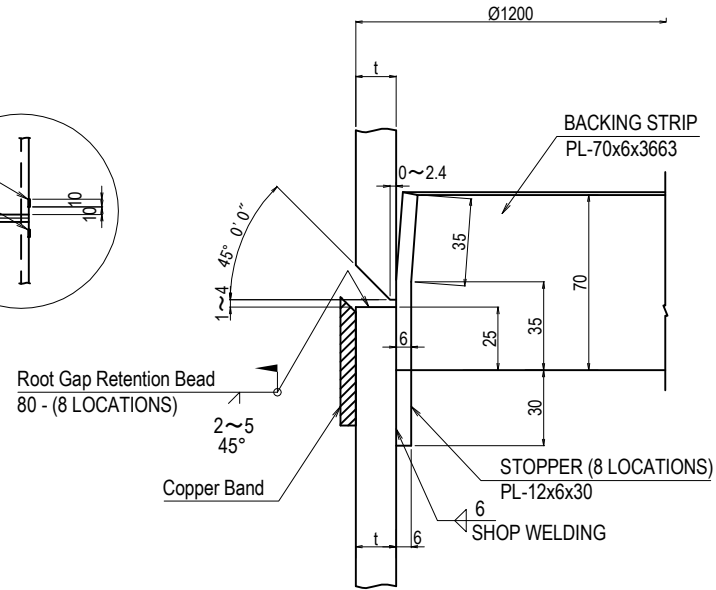
DETAIL-E S=1:10



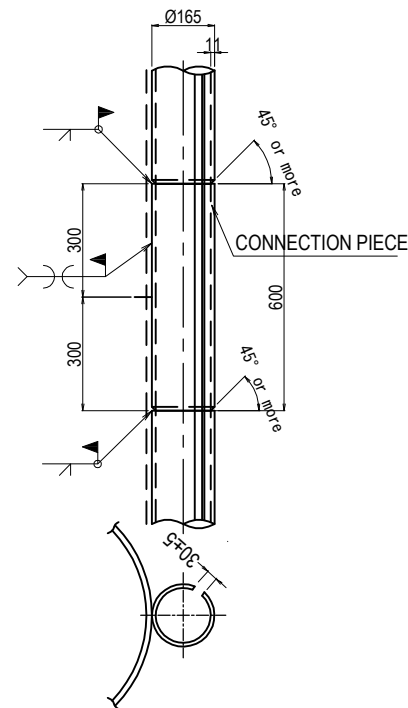
DETAIL-"a" S=1:20
PRE-CUT DETAIL



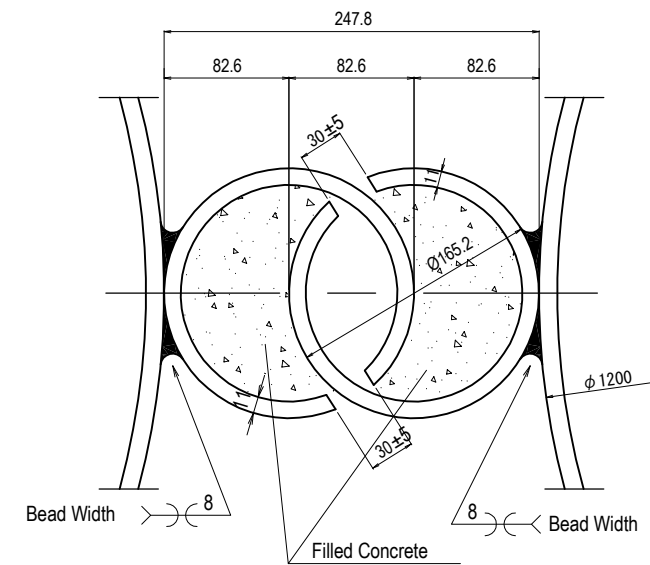
DETAIL-"b" S=1:3
SITE WELD



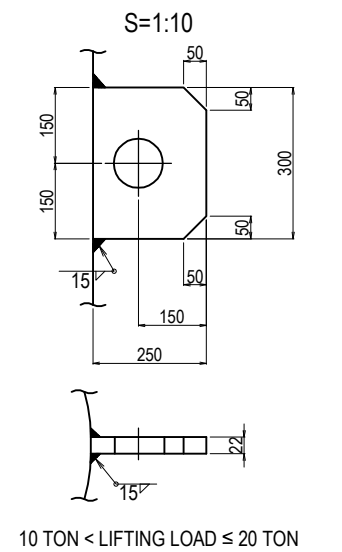
DETAIL-"c" S=1:20
FIELD JOINT OF PIPE JOINT



DETAIL-F S=1:5
PIPE INTERLOCKING JOINT



LIFTING LUG DETAIL



ITEM	SIZE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT / EA (kg/ea.)	TOTAL WEIGHT (kg)	REMARKS
REINFORCING BAND	PL-300×9	3798	36	-	80.5	2898	SS400
BACKING STRIP	PL-70×6×3663	3663	36	-	12.0	432	SS400
TOE SHOE	PL-153×12	159	74	-	2.29	169	SS400
LIFTING LOG	PL-250×22	300	144	-	13	1872	SS400
						5371	kg

(FOR 1 FOUNDATION)

NOTE : Details of notch on interlocking joints shall be examined and revised by the contractor to fit actual construction work.

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

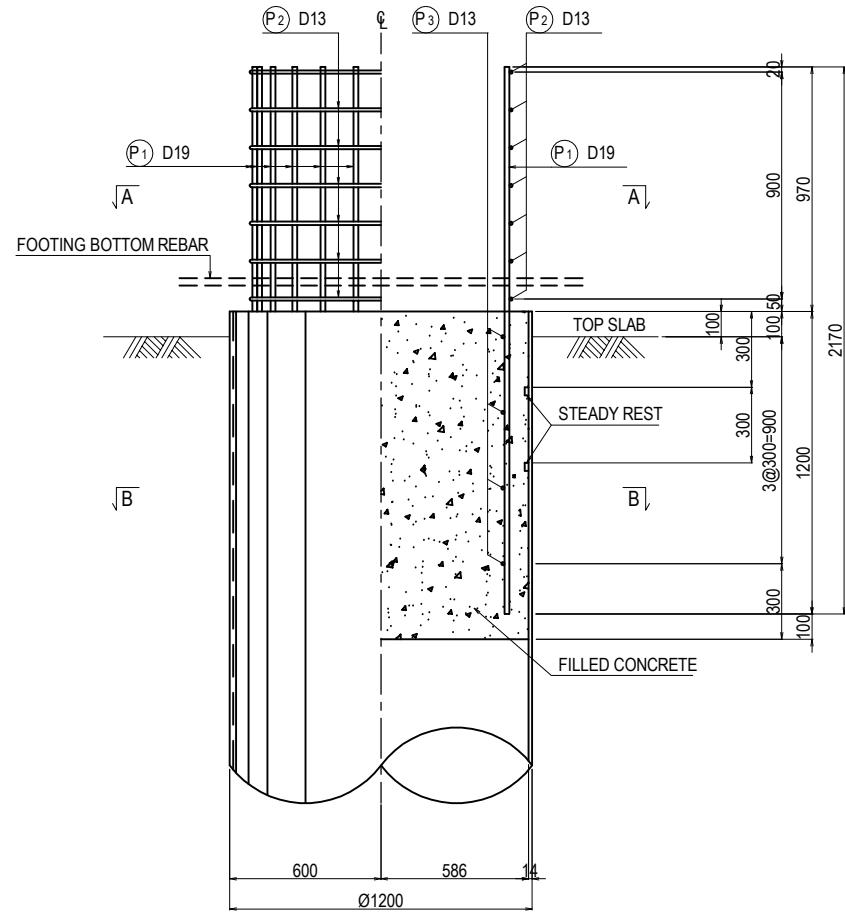
JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

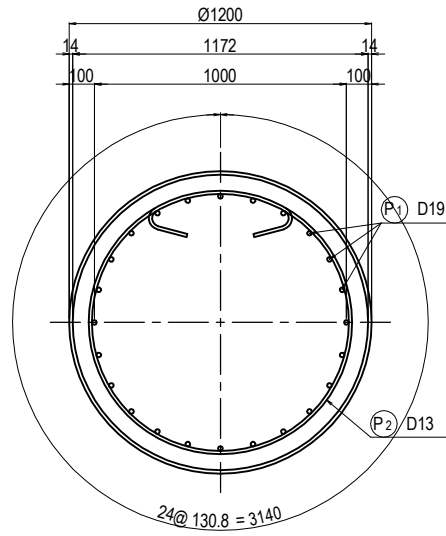
	DRAWING TITLE	PACKAGE
	STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (5)	2
		DWG No.
		P2-PB-2215

STEEL PIPE SHEET PILE FOUNDATION FOR P20 PIER (6)

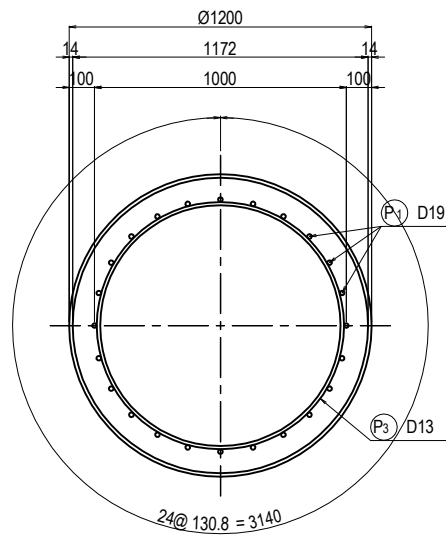
CONNECTION OF BULK HEAD PILE
S=1:30



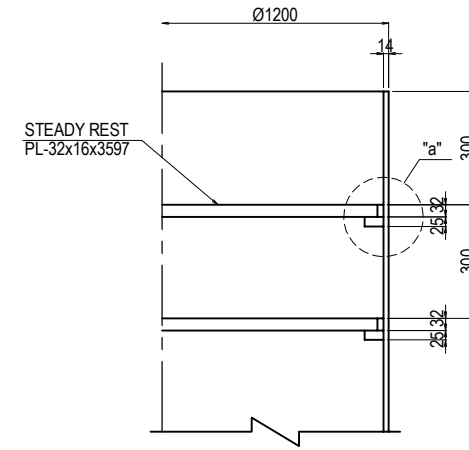
A - A S=1:30



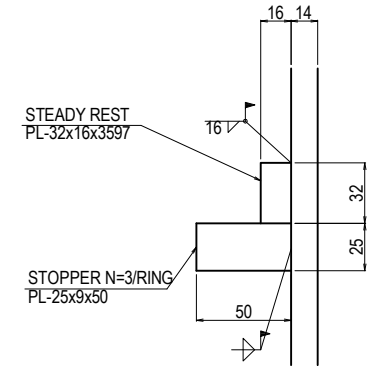
B - B S=1:30



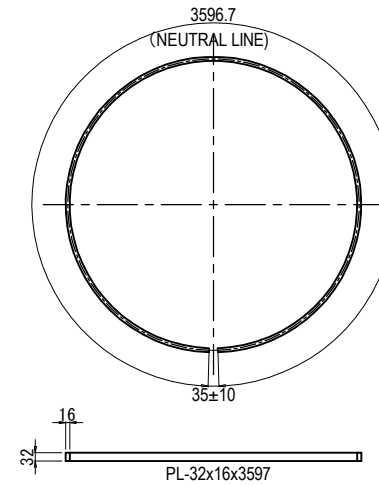
DETAIL OF STEADY REST S=1:20



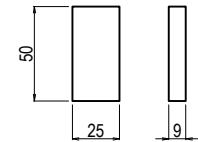
"a" DETAIL S=1:4



STEADY REST S=1:30

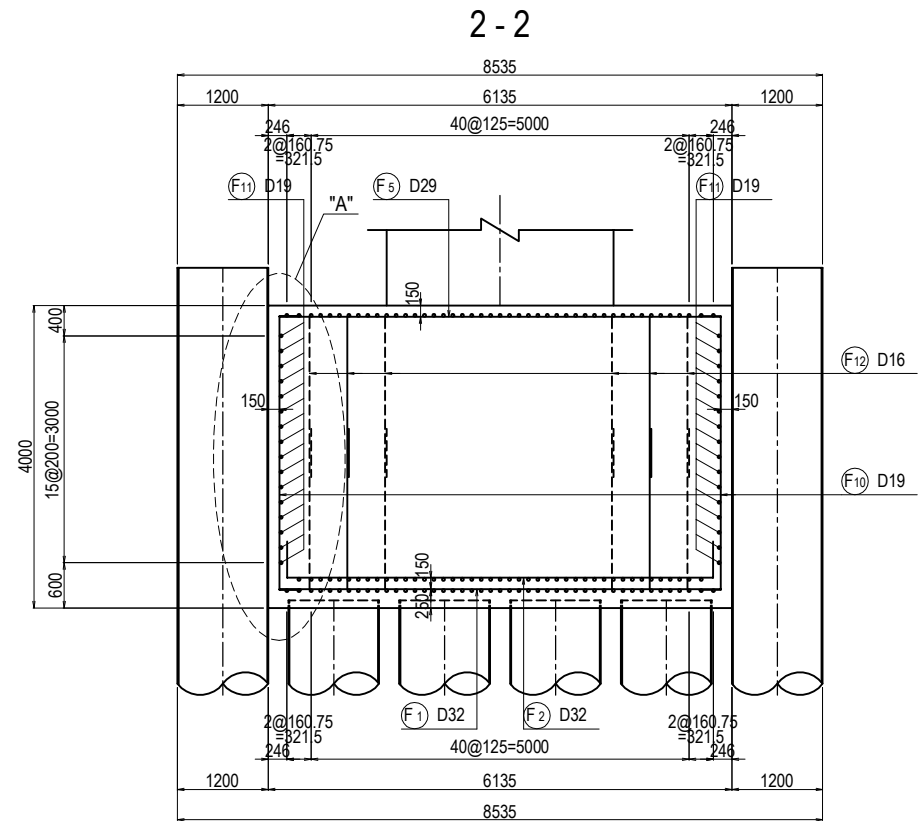
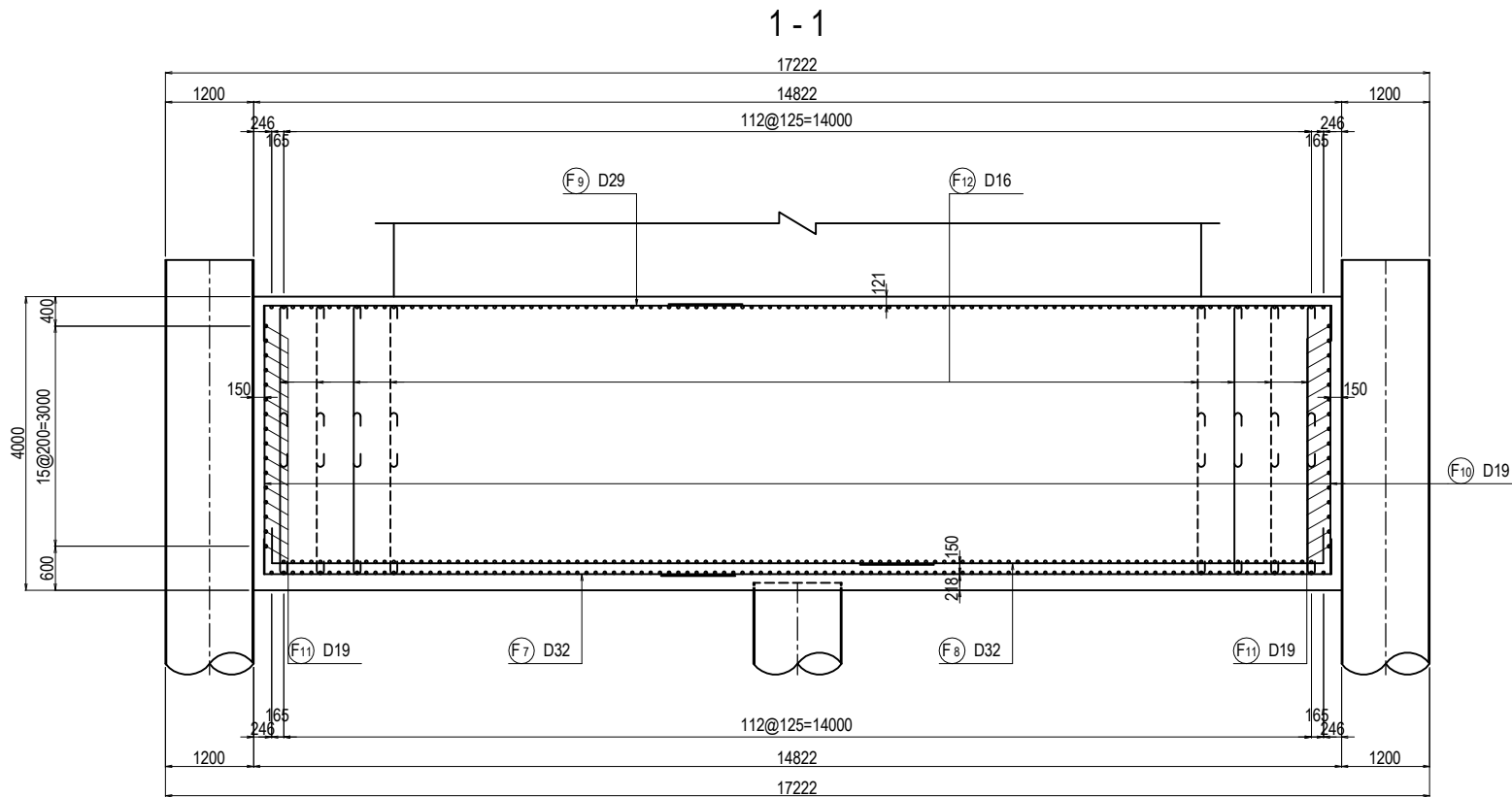


STOPPER S=1:4

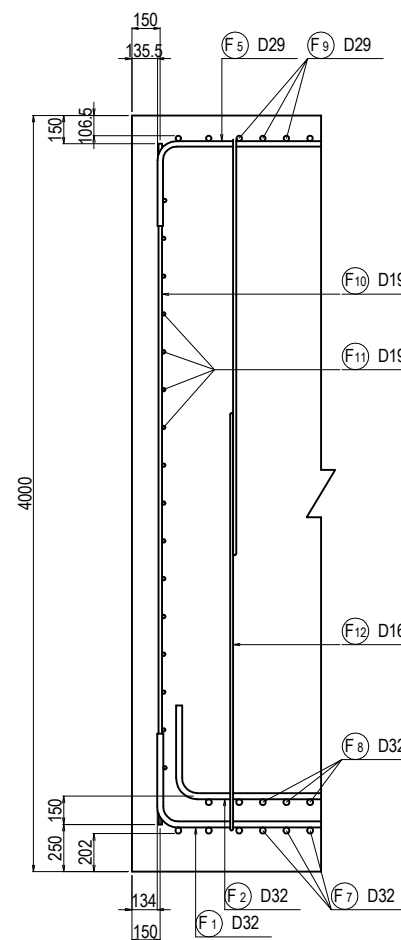


Designation	Diameter (mm)	Unit Weight (kg/m)	Length (mm)	Weight/ea (kg/ea.)	Nos. of bars	Total Weight (kg)	Nos. of joint	Remarks
P1	D19	2.25	2170	4.88	144	703		
P2	D13	0.995	4270	4.24	36	153		
P3	D13	0.995	3460	3.44	24	83		
SUBTOTAL						690 kg		
D13						236 kg		
D19						703 kg		
(SD345) TOTAL						939 kg		

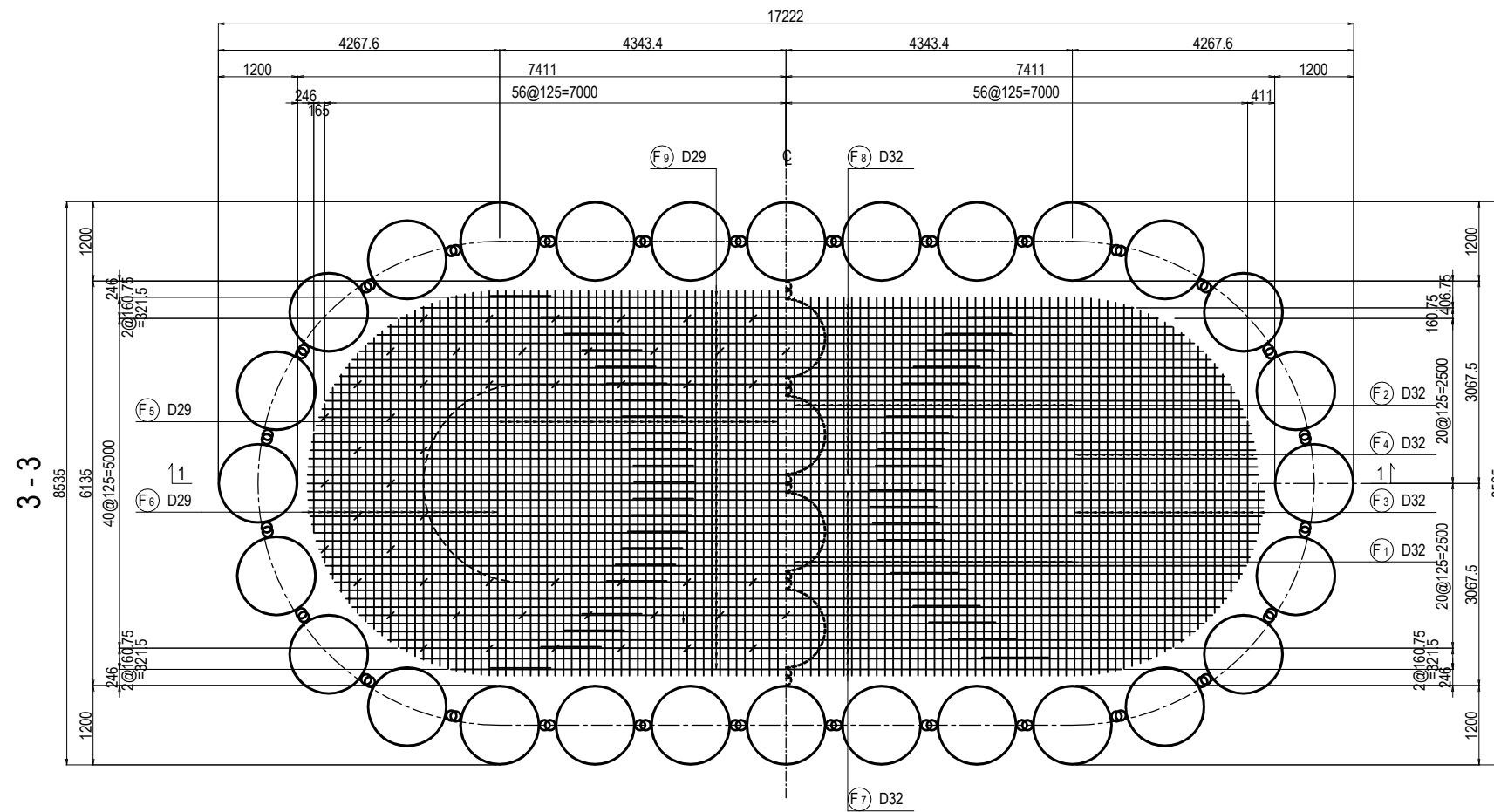
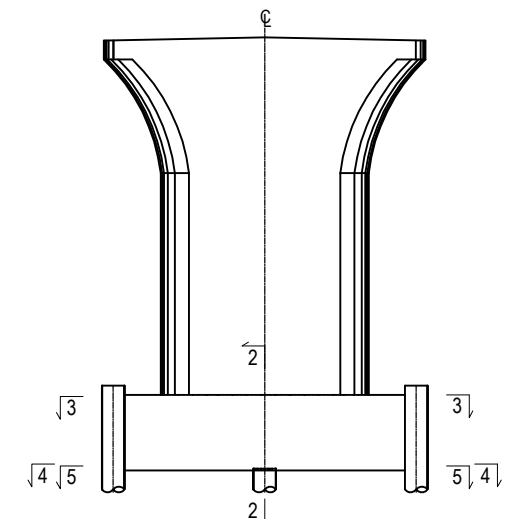
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (1) S=1:100



DETAIL "A" S=1:40



KEY PLAN



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (1)

PACKAGE
2
DWG No.
P2-PB-2221

STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (2)

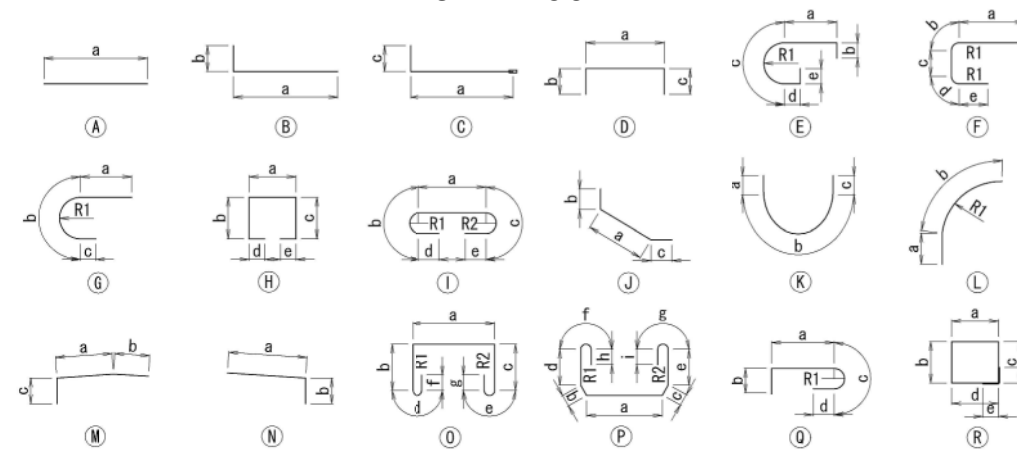
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
F1	D	D32	69	6800	5835	480	480									2923	
F2	D	D32	69	6600	5635	480	480									2837	
F3	D	D32	46	5650	4681	480	480									1619	AVERAGE
F4	D	D32	44	5530	4564	480	480									1516	AVERAGE
F5	D	D29	69	6710	5835	435	435									2334	
F6	D	D29	46	5560	4681	435	435									1289	AVERAGE
F7-1	B	D32	45	10000	9520	480										2804	
F7-2	B	D32	45	5350	4866	480										1500	AVERAGE
F8-1	B	D32	43	10000	9520	480										2679	
F8-2	B	D32	43	5240	4754	480										1404	AVERAGE
F9-1	B	D29	45	10000	9565	435										2268	
F9-2	B	D29	45	5160	4721	435										1170	AVERAGE
F10	A	D19	268	3600	3600											2171	
F11-1	A	D19	32	7000	7000											504	
F11-2	K	D19	32	12000	2287	9106	600							2898.5		864	
F12	I	D16	192	2660	2096	151	151	128	128					48	48	797	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLICE (NOS)
D13	0	0
D16	797	0
D19	3539	0
D22	0	0
D25	0	0
D29	7061	0
D32	17282	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	28679	0

SHAPE CODE



NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

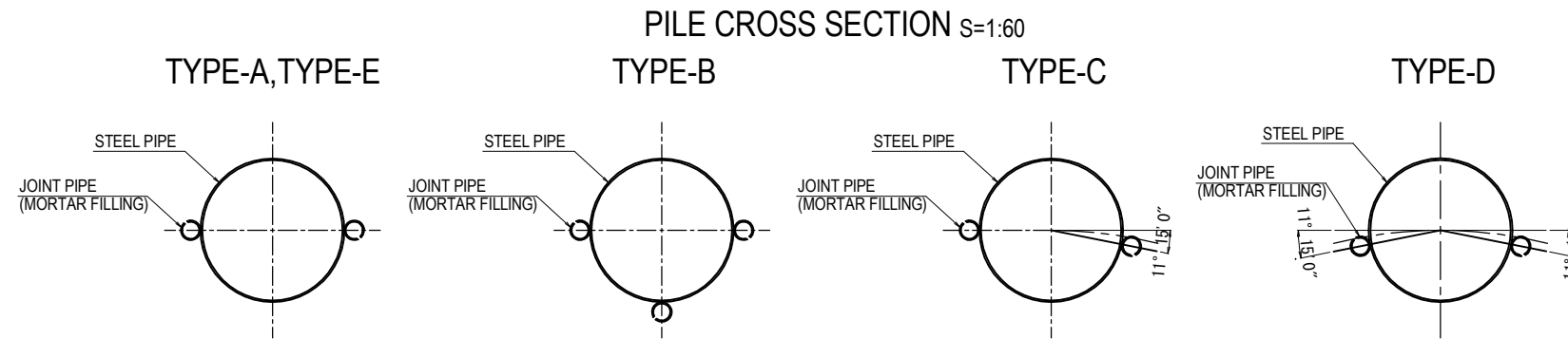
2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (2)							2	DWG No.	P2-PB-2222

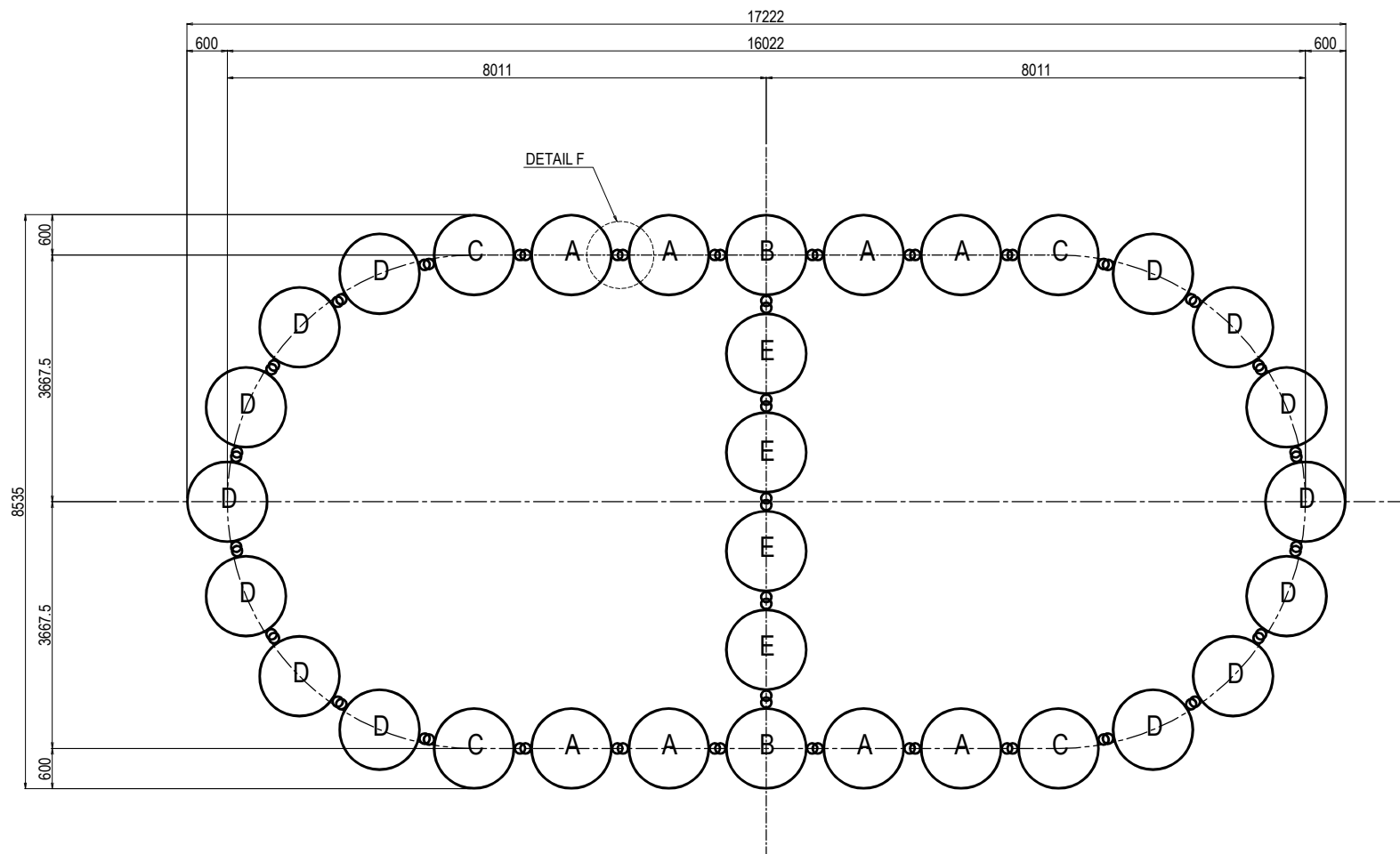
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (3)

PILE COMBINATION S=1:250

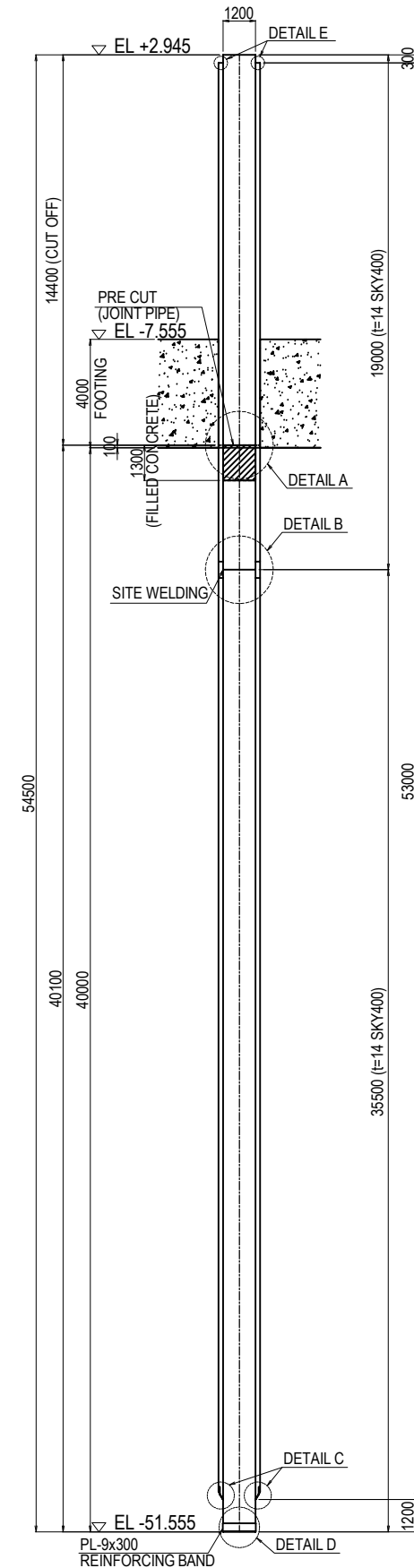
PILE TYPE AND PILE LAYOUT



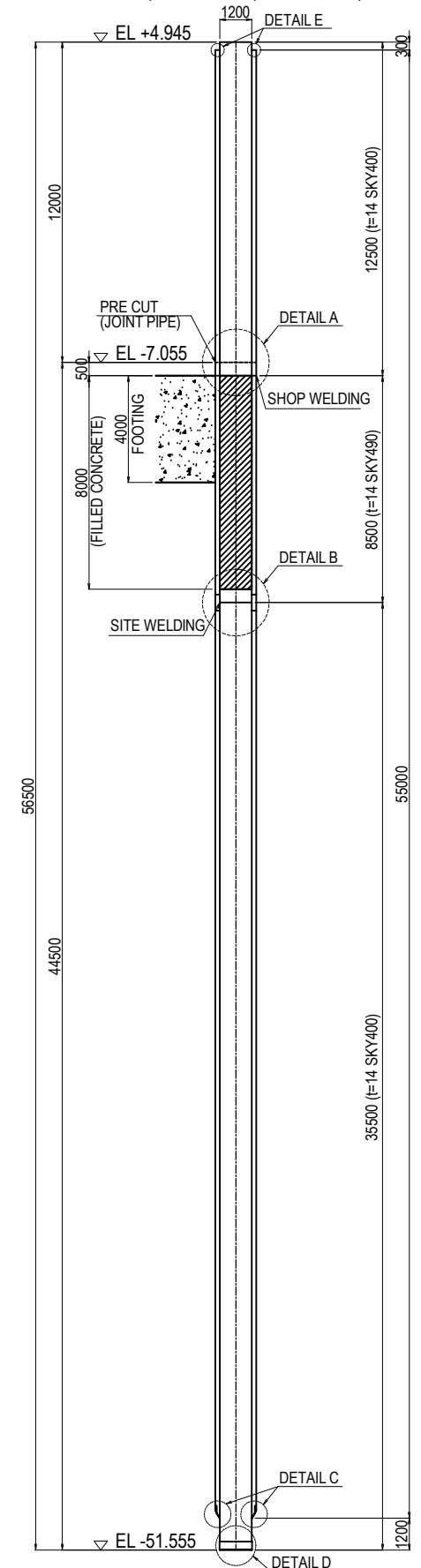
LAYOUT PLAN FOR SPSP AT P21 S=1:100



TYPE-E



TYPE-A, TYPE-B, TYPE-C, TYPE-D



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

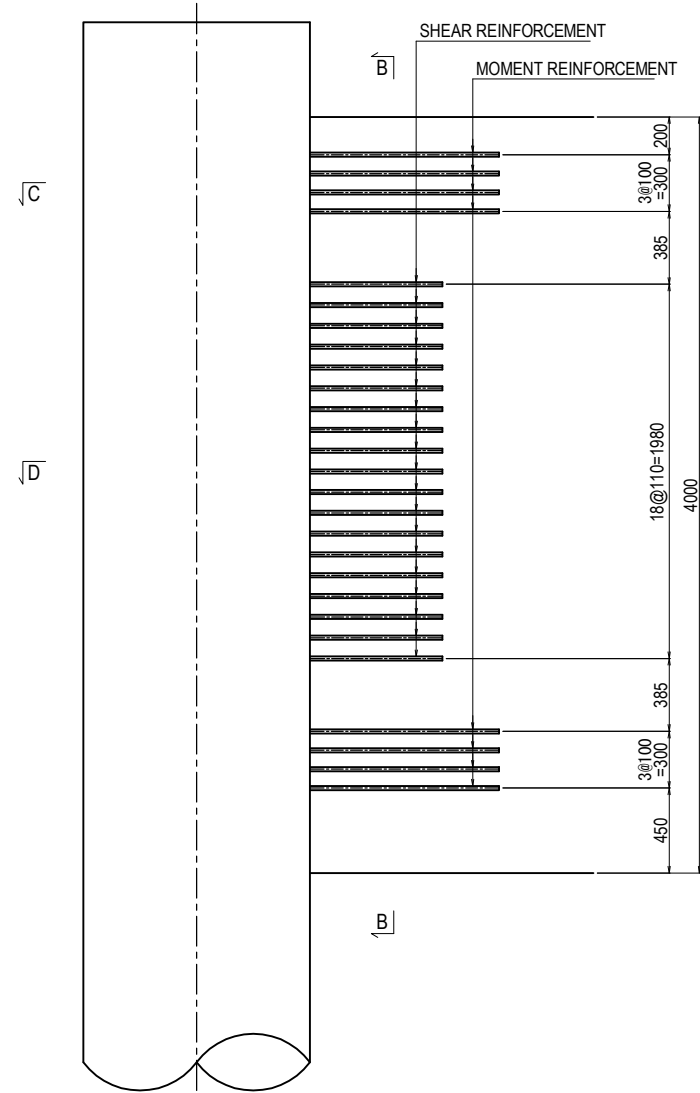
DRAWING TITLE
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (3)

PACKAGE
2
DWG No.
P2-PB-2223

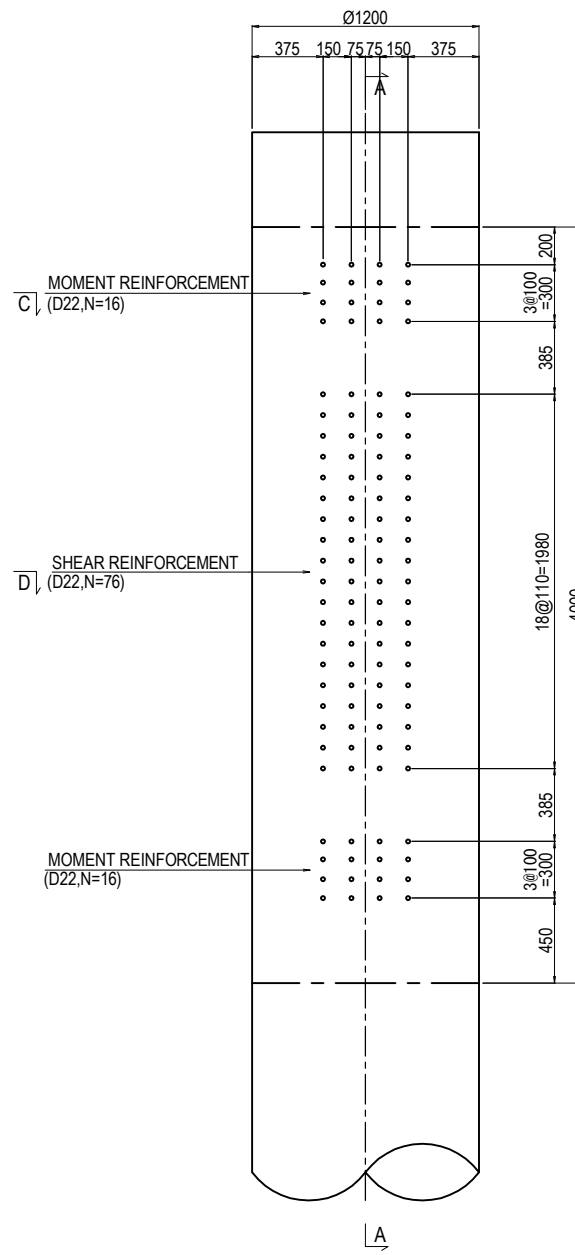
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (4)

ARRANGEMENT OF REINFORCING BAR STUD S=1:40

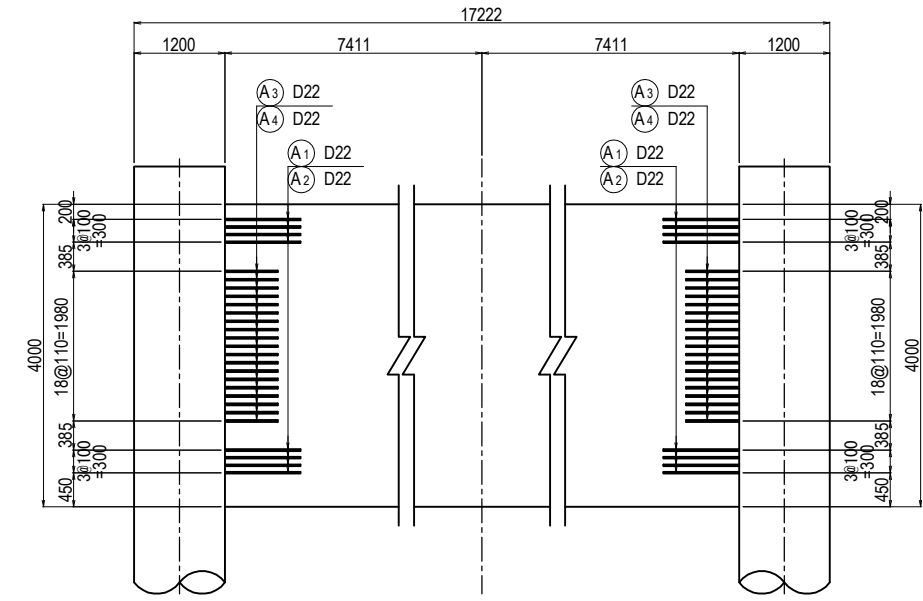
A - A



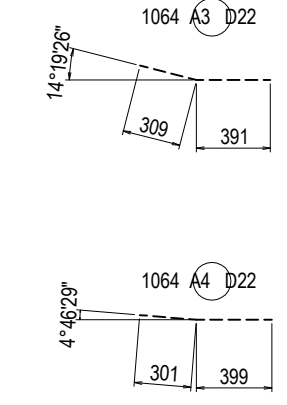
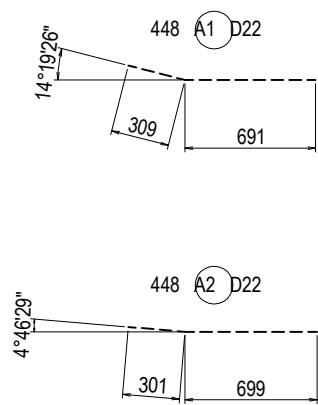
B - B



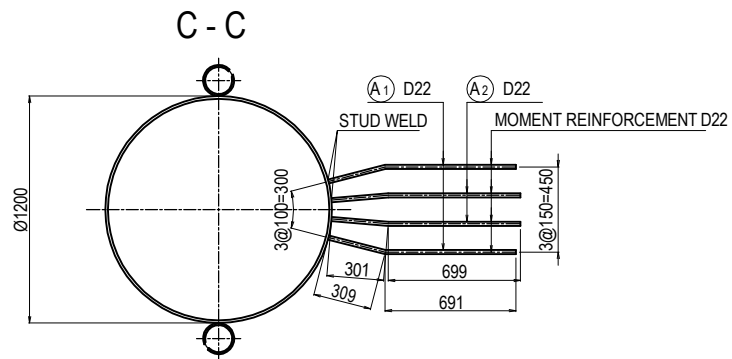
ELEVATION S=1:100



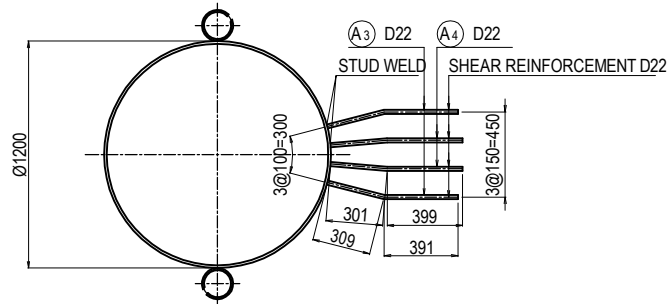
S=1:40



CROSS SECTION S=1:40



D - D



Designation	Diameter (mm)	Unit Weight (kg/m)	Length (mm)	Weight/ea (kg/ea.)	Nos. of bars	Total Weight (kg)	Nos. of joint	Remarks
A1	D22	3.04	1 000	3.04	448	1362		—
A2	D22	3.04	1 000	3.04	448	1362		—
A3	D22	3.04	700	2.13	1064	2266		—
A4	D22	3.04	700	2.13	1064	2266		—
SUBTOTAL						7256 kg		
D22						7256 kg		
(SM490A-SD) TOTAL						7256 kg		

NOTES:

1. STUD WELDING MUST SATISFY A PERMISSIBLE VALUE.

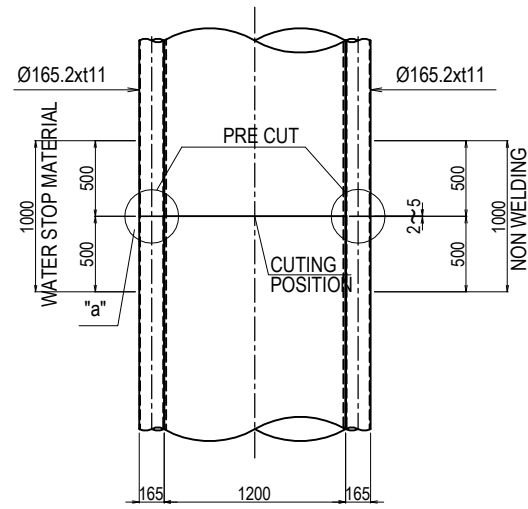
All dimensions are in mm, unless otherwise shown.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (4)	2	
								DWG No.	
								P2-PB-2224	

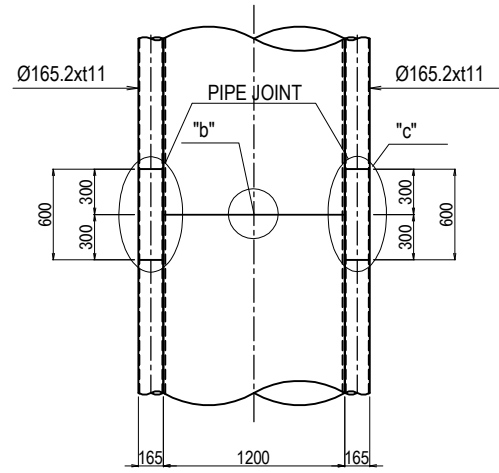
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (5)

DETAIL OF STEEL PIPE SHEET PILE

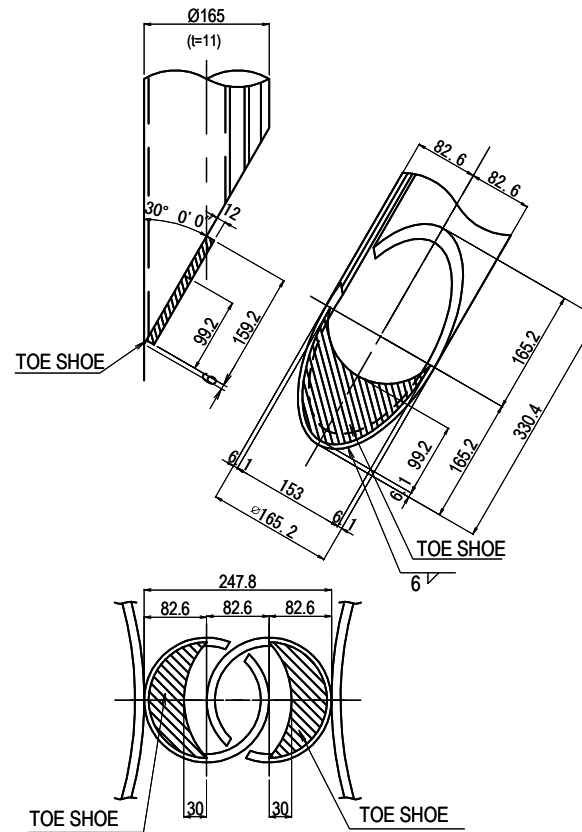
DETAIL-A S=1:50
PRE-CUT



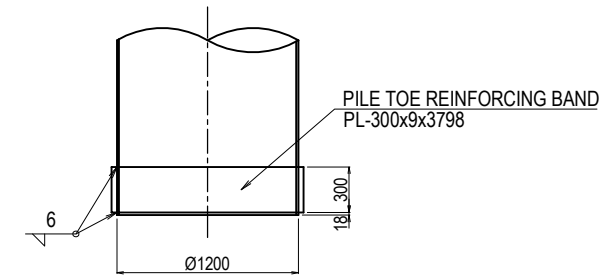
DETAIL-B S=1:50
FIELD JOINT OF PIPE JOINT



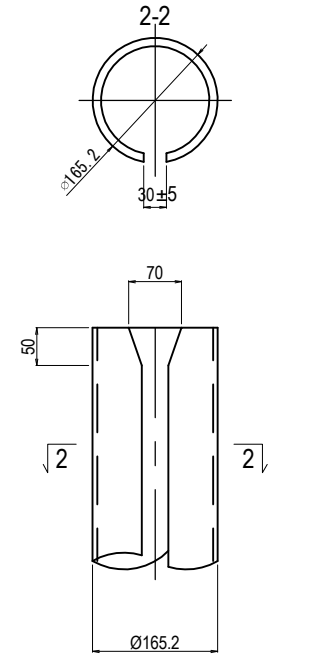
DETAIL-C S=1:10
TOE SHOE



DETAIL-D S=1:50
PILE TOE REINFORCING BAND

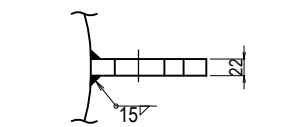
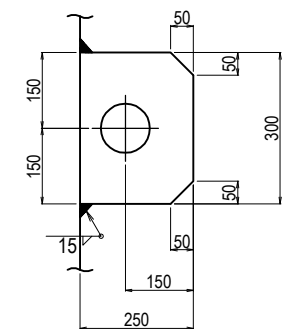


DETAIL-E S=1:10



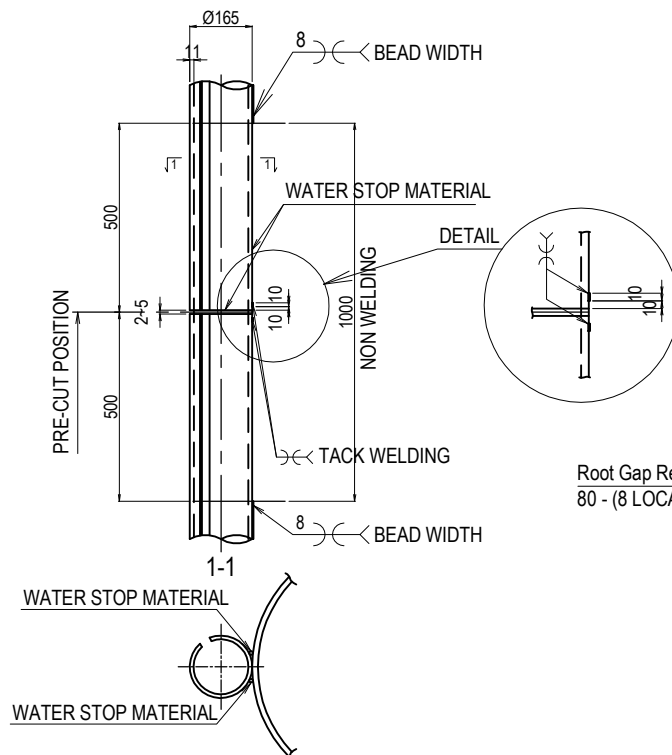
LIFTING LUG DETAIL

S=1:10

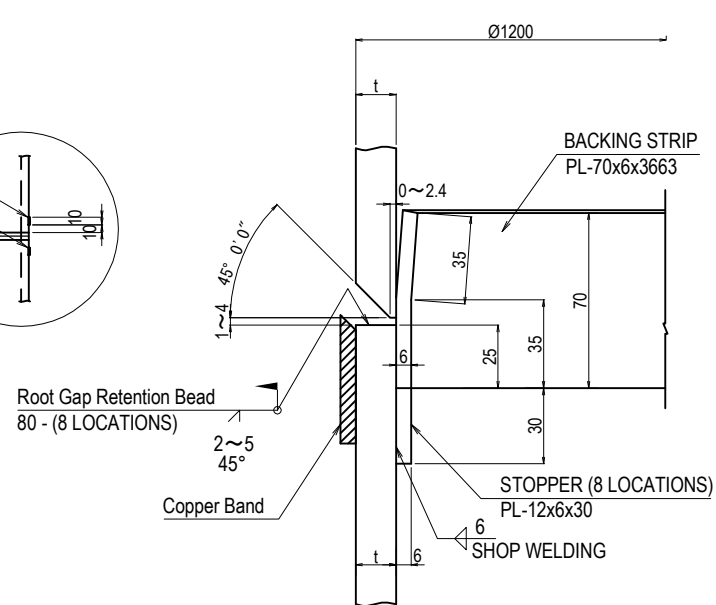


10 TON < LIFTING LOAD ≤ 20 TON

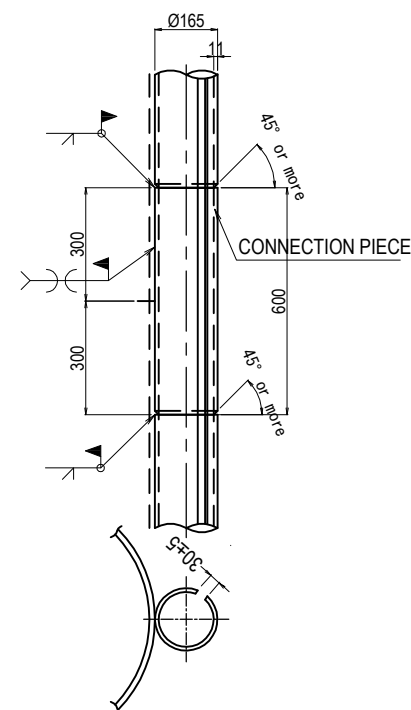
DETAIL-"a" S=1:20
PRE-CUT DETAIL



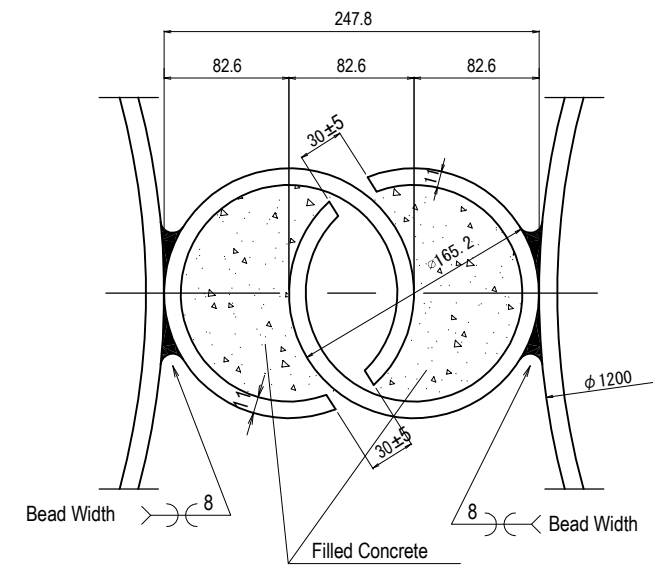
DETAIL-"b" S=1:3
SITE WELD



DETAIL-"c" S=1:20
FIELD JOINT OF PIPE JOINT



DETAIL-F S=1:5
PIPE INTERLOCKING JOINT

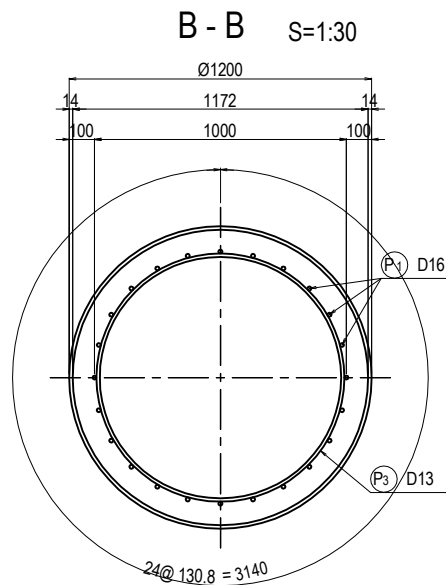
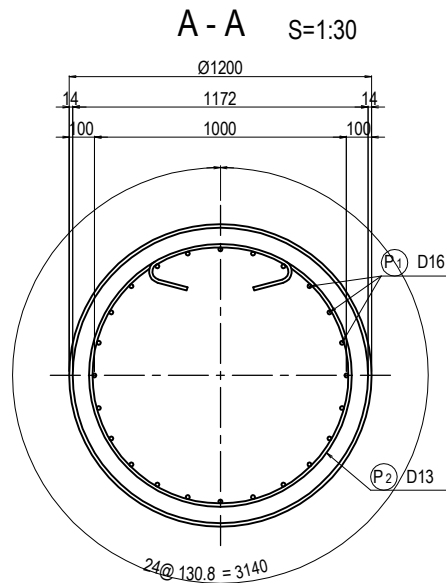
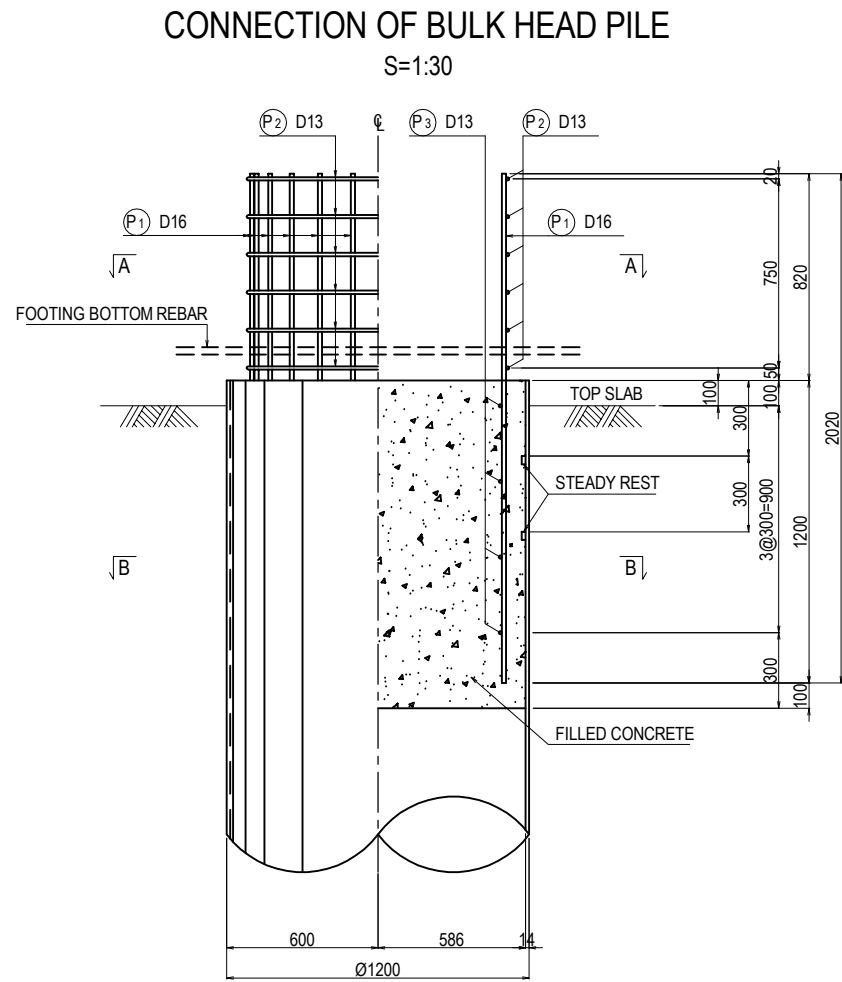


ITEM	SIZE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT / EA (kg/ea.)	TOTAL WEIGHT (kg)	REMARKS
REINFORCING BAND	PL-300×9	3798	32	-	80.5	2576	SS400
BACKING STRIP	PL-70×6×3663	3663	32	-	12.0	384	SS400
TOE SHOE	PL-153×12	159	66	-	2.29	151	SS400
LIFTING LOG	PL-250×22	300	128	-	13	1664	SS400
						4775 kg	

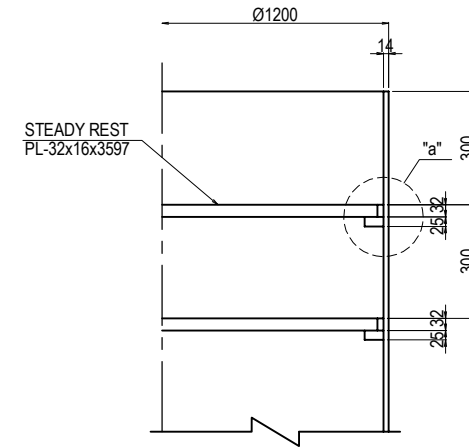
(FOR 1 FOUNDATION)

NOTE : Details of notch on interlocking joints shall be examined and revised by the contractor to fit actual construction work.

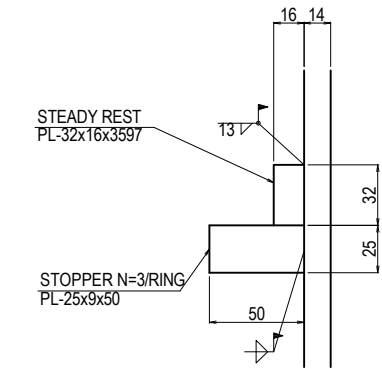
STEEL PIPE SHEET PILE FOUNDATION FOR P21 PIER (6)



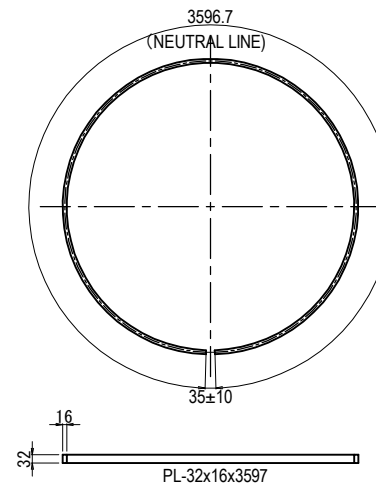
DETAIL OF STEADY REST S=1:20



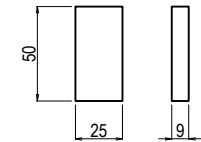
"a" DETAIL S=1:4



STEADY REST S=1:30

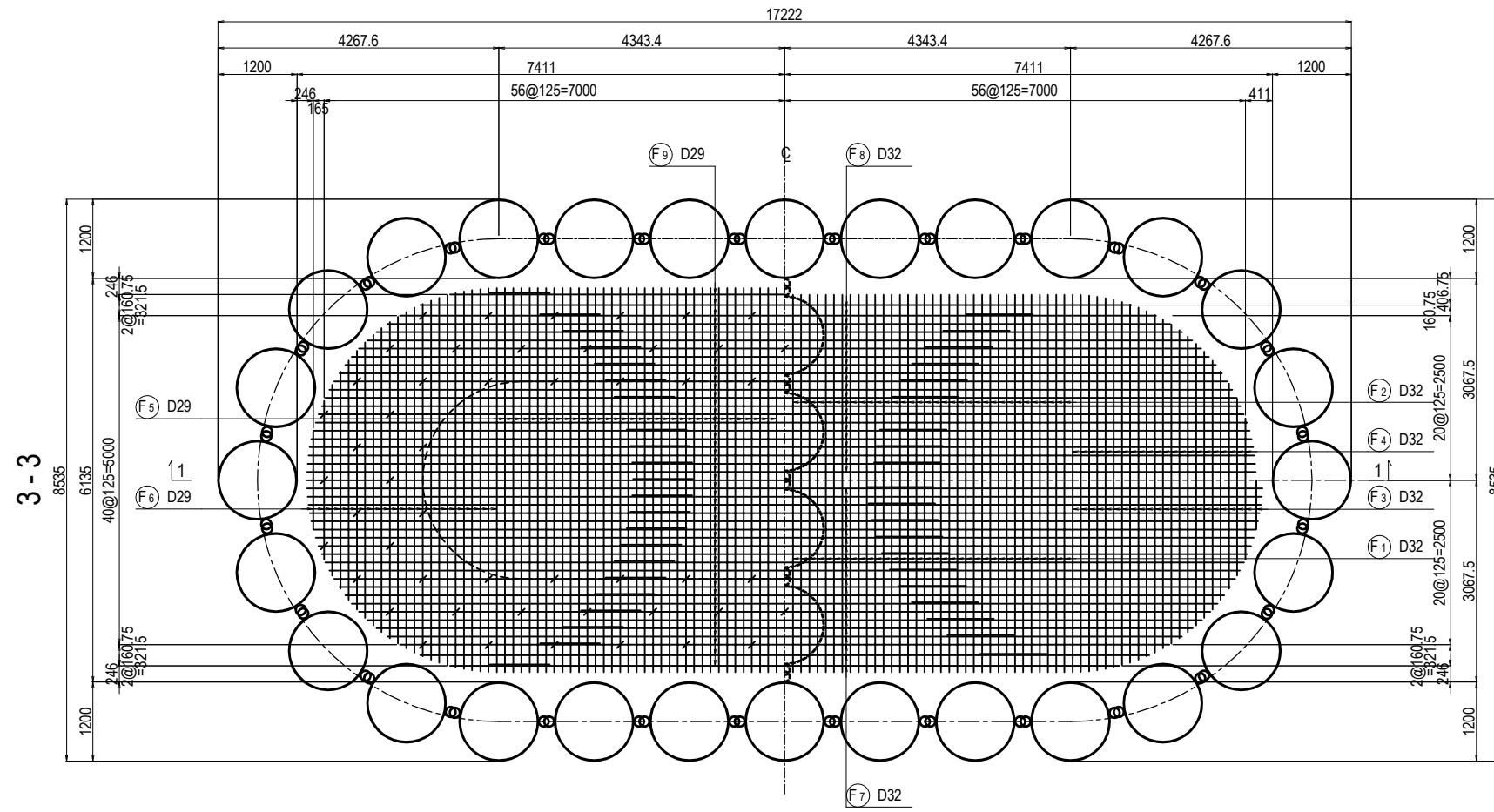
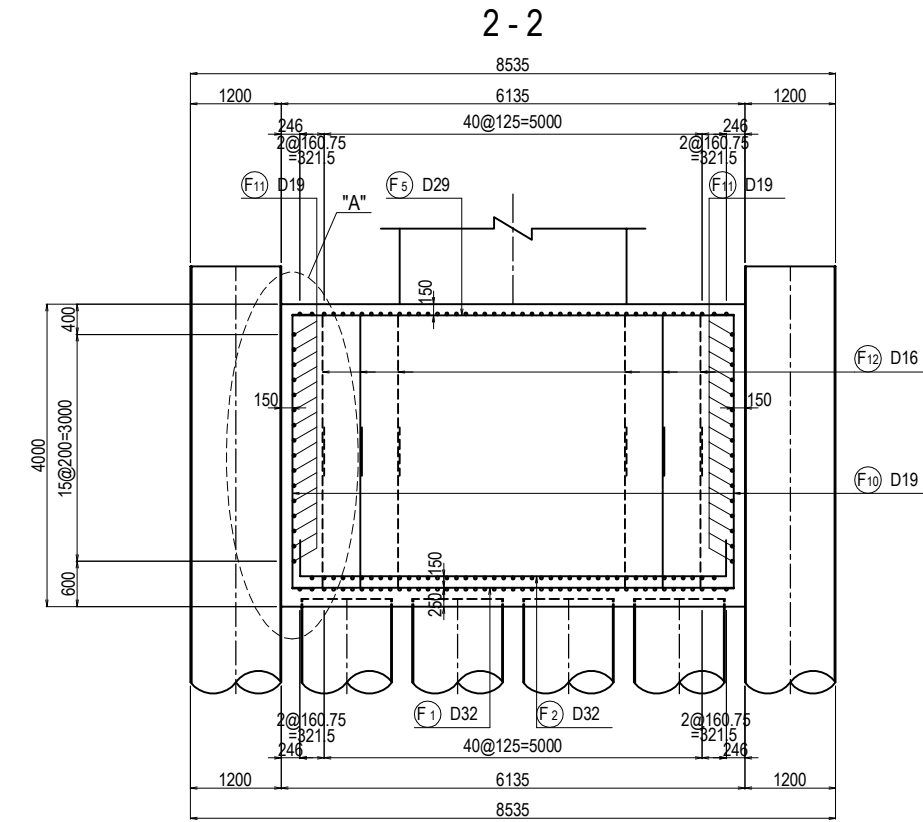
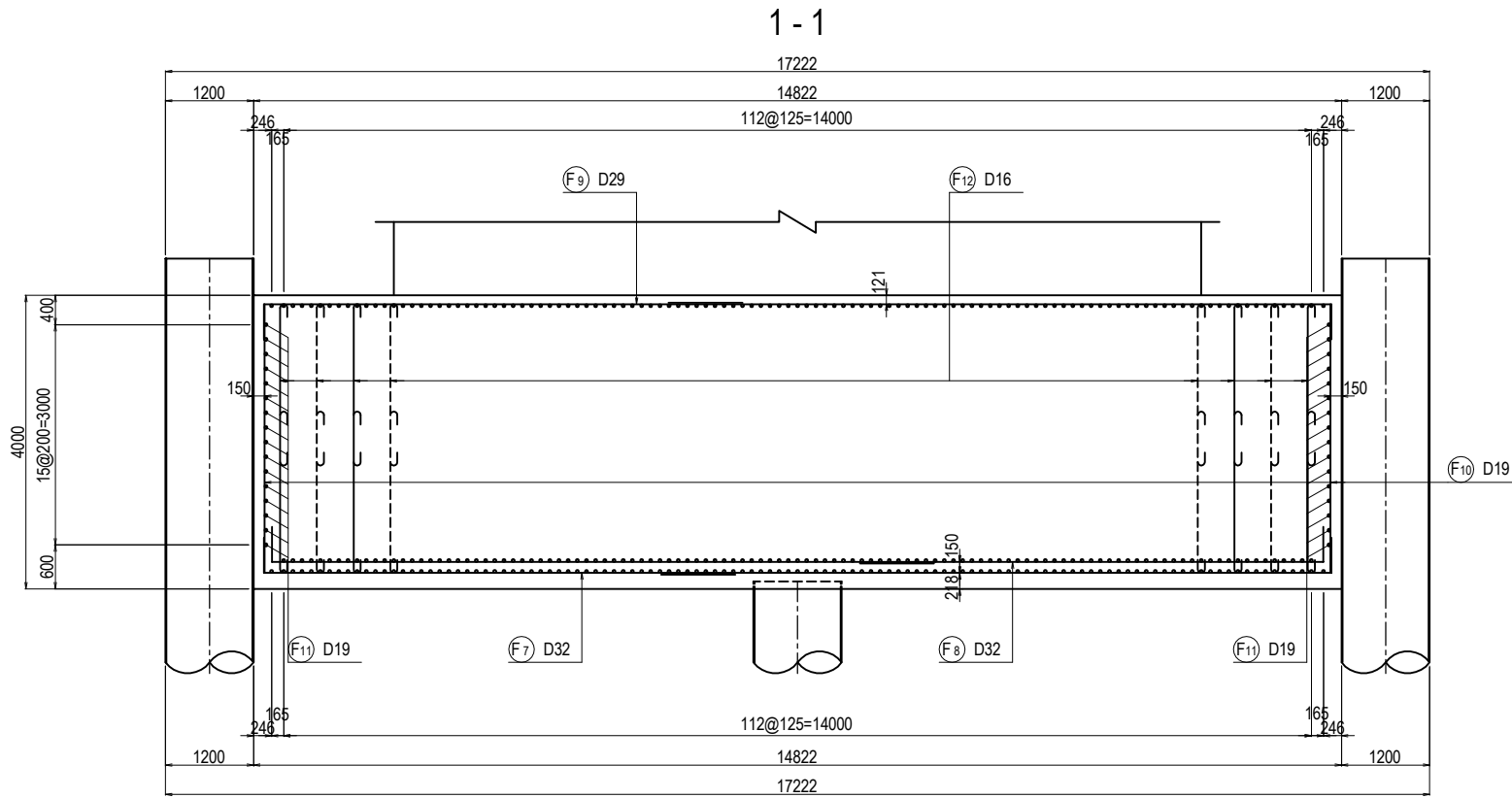


OPPER S=1:4

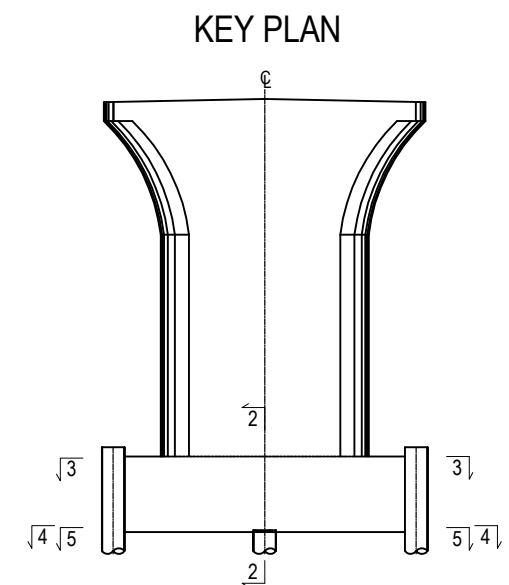
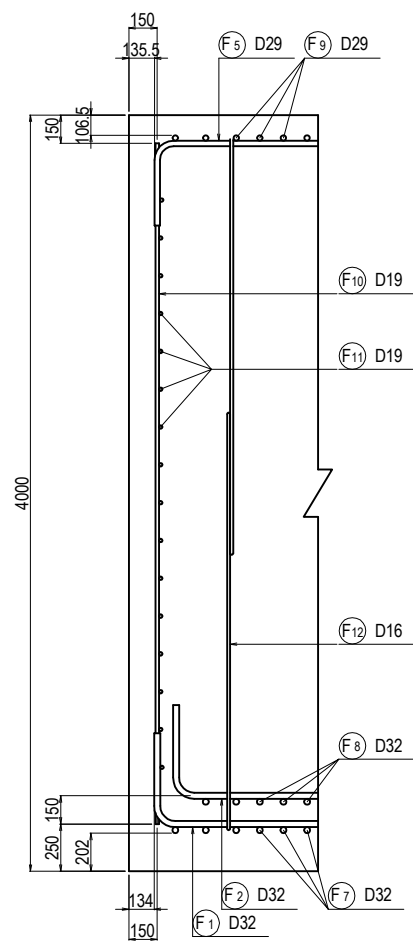


Designation	Diameter (mm)	Unit Weight (kg/m)	Length (mm)	Weight/ea (kg/ea.)	Nos. of bars	Total Weight (kg)	Nos. of joint	Remarks
P1	D16	1.56	2020	3.15	96	303		
P2	D13	0.995	4260	4.24	24	102		
P3	D13	0.995	3460	3.44	16	55		
SUBTOTAL						460 kg		
D13						157 kg		
D16						303 kg		
(SD345) TOTAL						460 kg		

STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (1) S=1:100



DETAIL "A" S=1:40



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (1)							2	DWG No.	P2-PB-2231

STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (2)

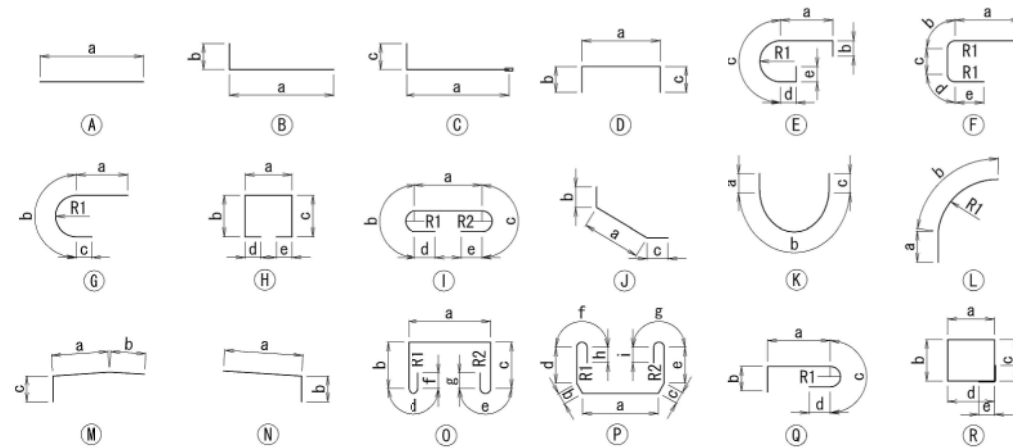
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	i (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
F1	D	D32	69	6800	5835	480	480									2923	
F2	D	D32	69	6600	5635	480	480									2837	
F3	D	D32	46	5650	4681	480	480									1619	AVERAGE
F4	D	D32	44	5530	4564	480	480									1516	AVERAGE
F5	D	D29	69	6710	5835	435	435									2334	
F6	D	D29	46	5560	4681	435	435									1289	AVERAGE
F7-1	B	D32	45	10000	9520	480										2804	
F7-2	B	D32	45	5350	4866	480										1500	AVERAGE
F8-1	B	D32	43	10000	9520	480										2679	
F8-2	B	D32	43	5240	4754	480										1404	AVERAGE
F9-1	B	D29	45	10000	9565	435										2268	
F9-2	B	D29	45	5160	4721	435										1170	AVERAGE
F10	A	D19	268	3600	3600											2171	
F11-1	A	D19	32	7000	7000											504	
F11-2	K	D19	32	12000	2287	9106	600							2898.5		864	
F12	I	D16	192	2660	2096	151	151	128	128					48	48	797	

SUMMARY

DIAMETER	WEIGHT (kg)	MECHANICAL SPLIOE (NOS)
D13	0	0
D16	797	0
D19	3539	0
D22	0	0
D25	0	0
D29	7061	0
D32	17282	0
D35	0	0
D38	0	0
D41	0	0
D51	0	0
TOTAL	28679	0

SHAPE CODE



NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (2)							2	DWG No.	
								P2-PB-2232	

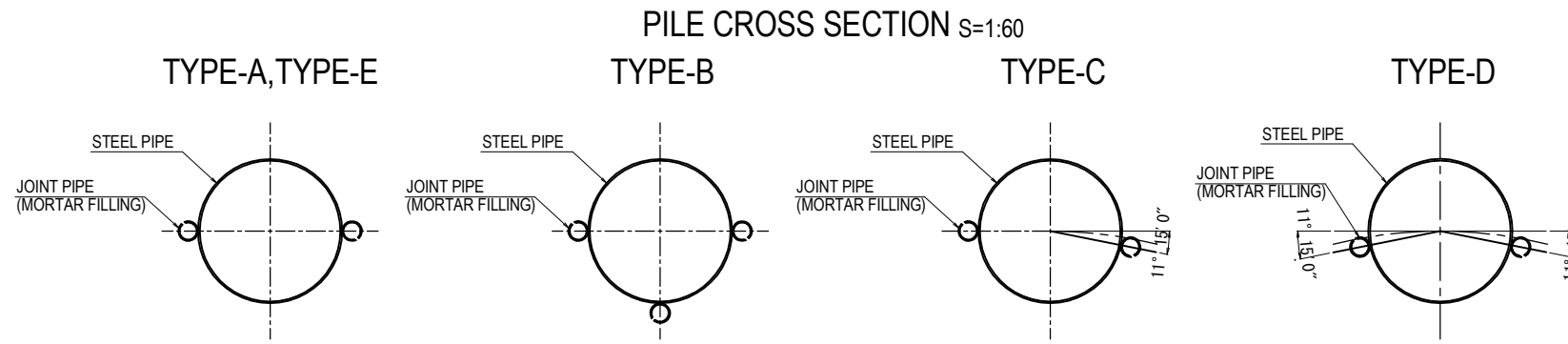
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (3)

PILE COMBINATION S=1:250

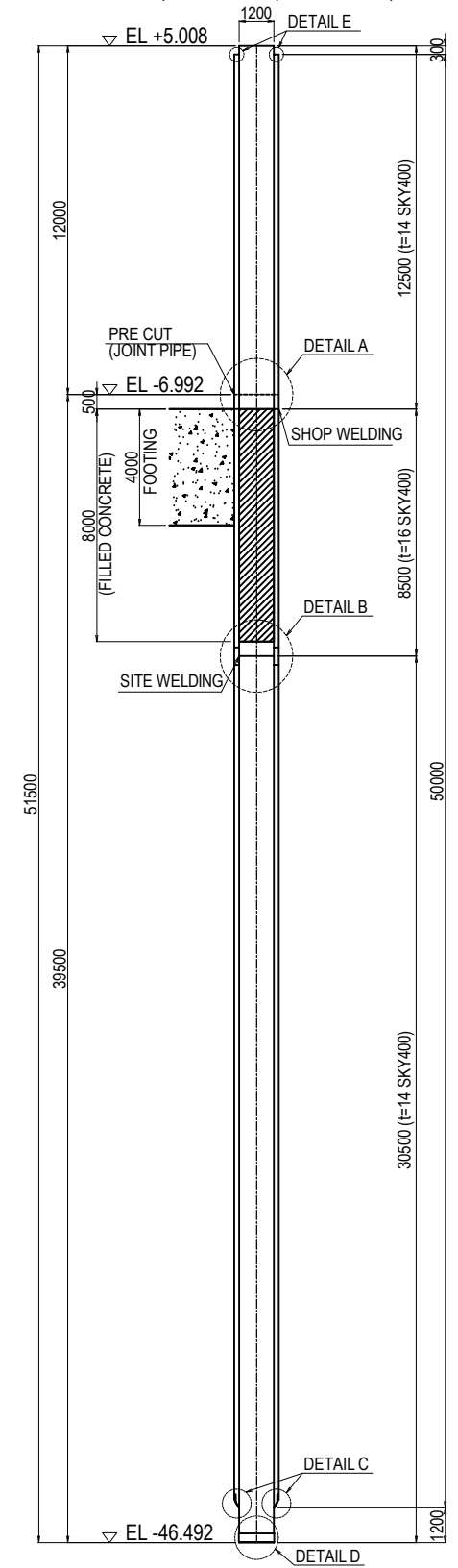
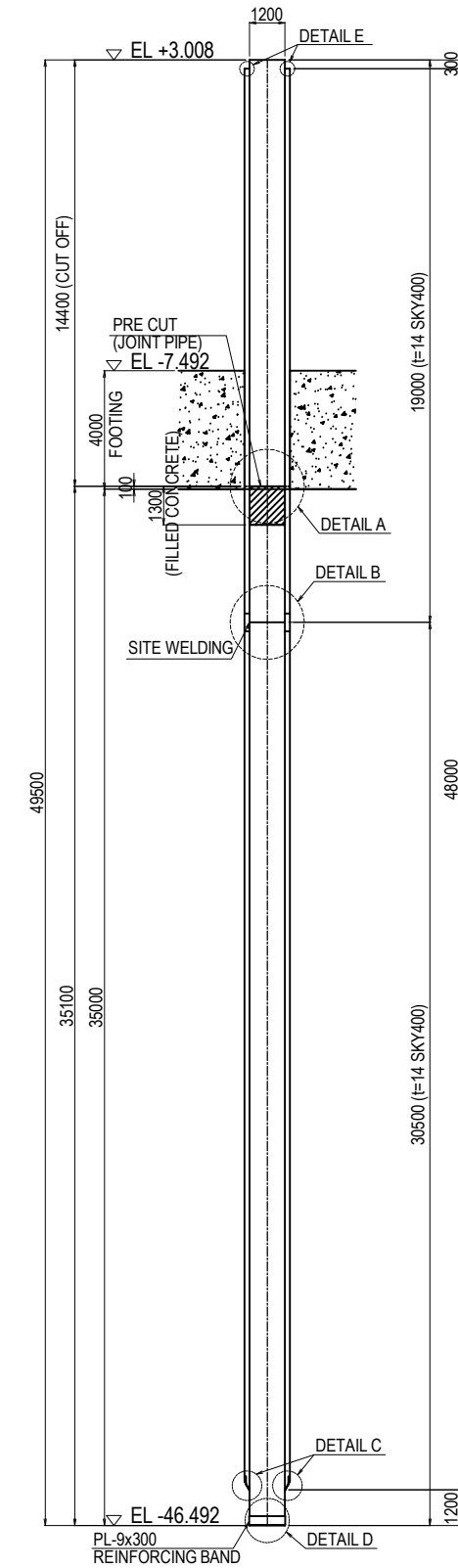
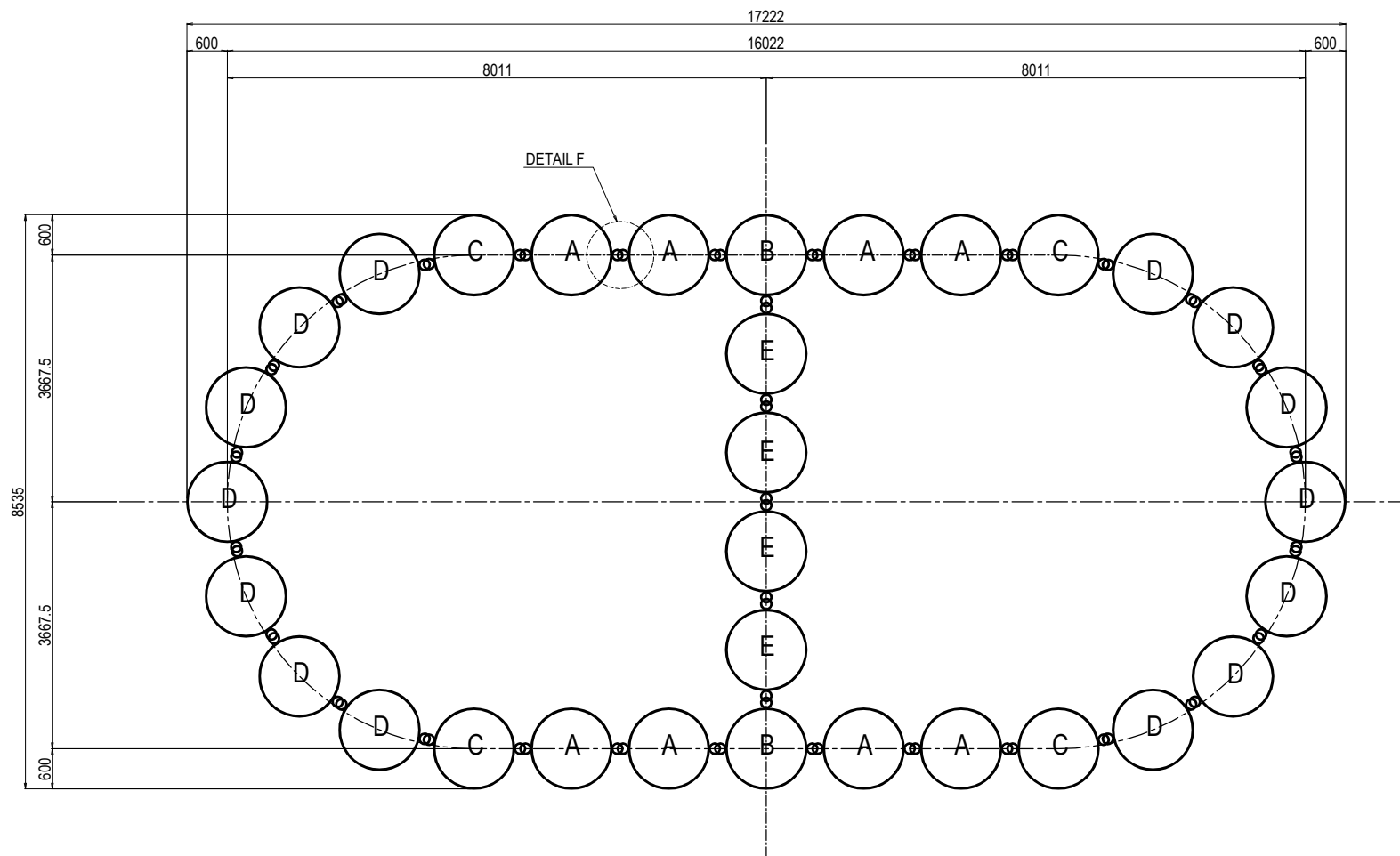
PILE TYPE AND PILE LAYOUT

TYPE-E

TYPE-A,TYPE-B,TYPE-C,TYPE-D



LAYOUT PLAN FOR SPSP AT P22 S=1:100



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
jica JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

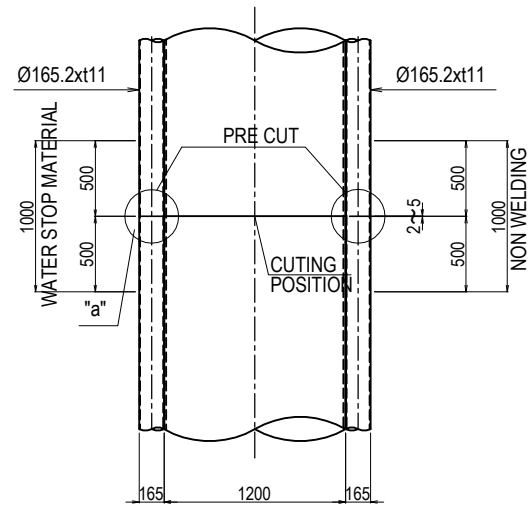
DRAWING TITLE
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (3)

PACKAGE
2
DWG No.
P2-PB-2233

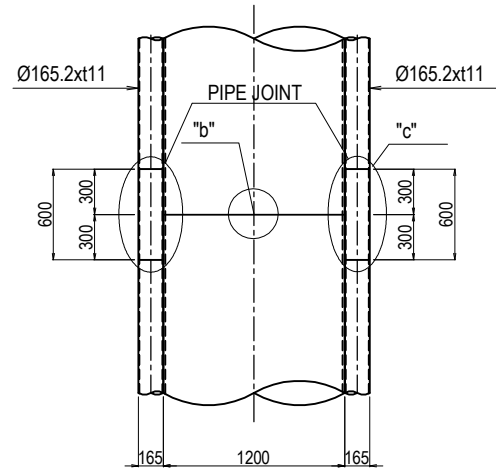
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (5)

DETAIL OF STEEL PIPE SHEET PILE

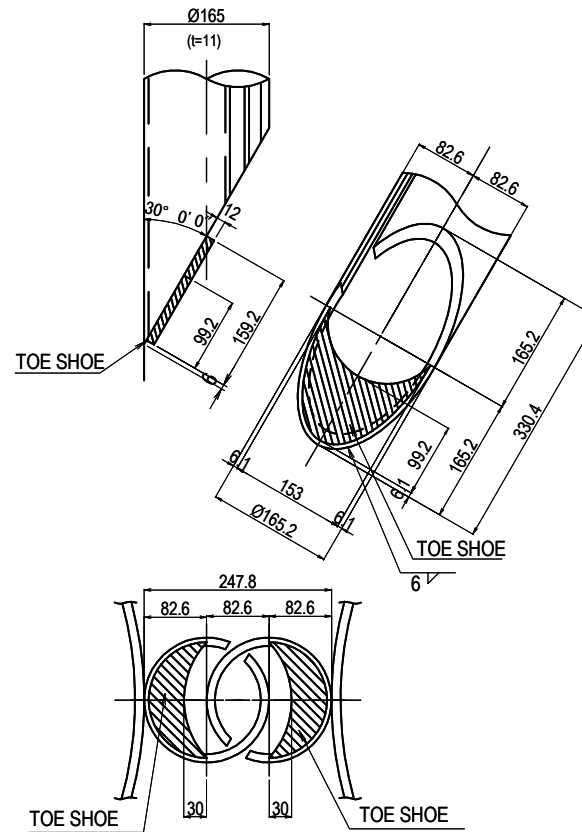
DETAIL-A S=1:50
PRE-CUT



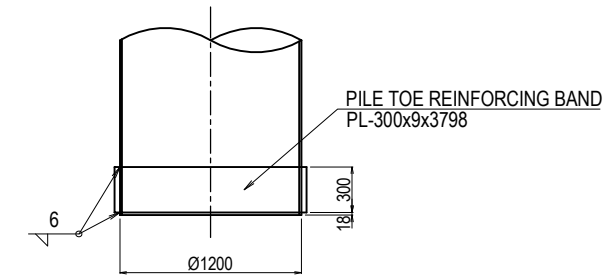
DETAIL-B S=1:50
FIELD JOINT OF PIPE JOINT



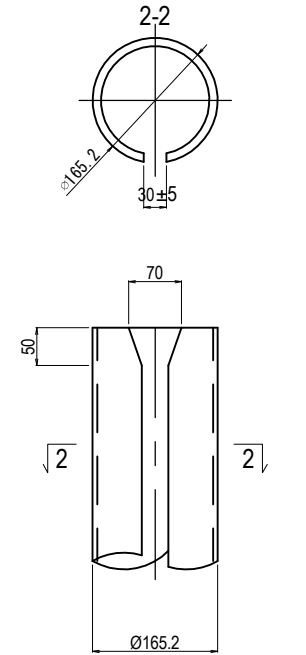
DETAIL-C S=1:10
TOE SHOE



DETAIL-D S=1:50
PILE TOE REINFORCING BAND

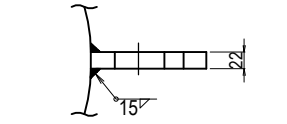
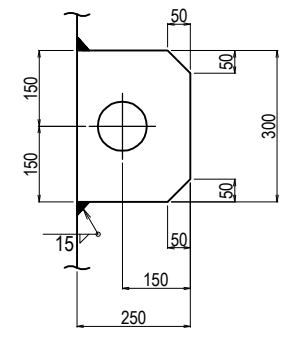


DETAIL-E S=1:10



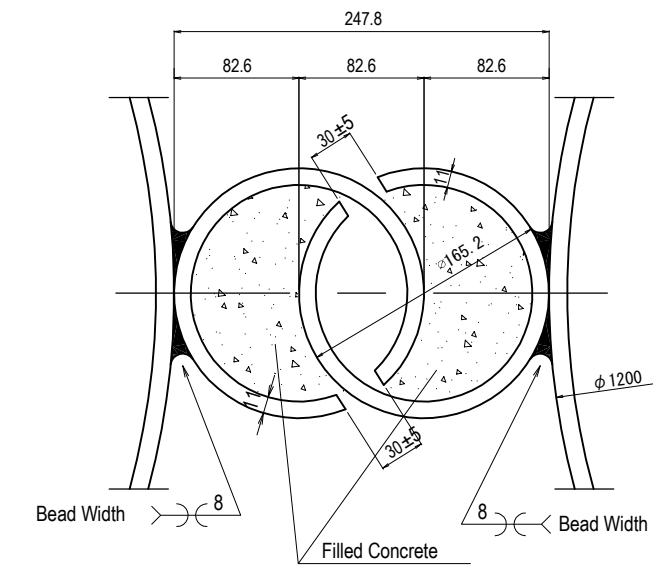
LIFTING LUG DETAIL

S=1:10

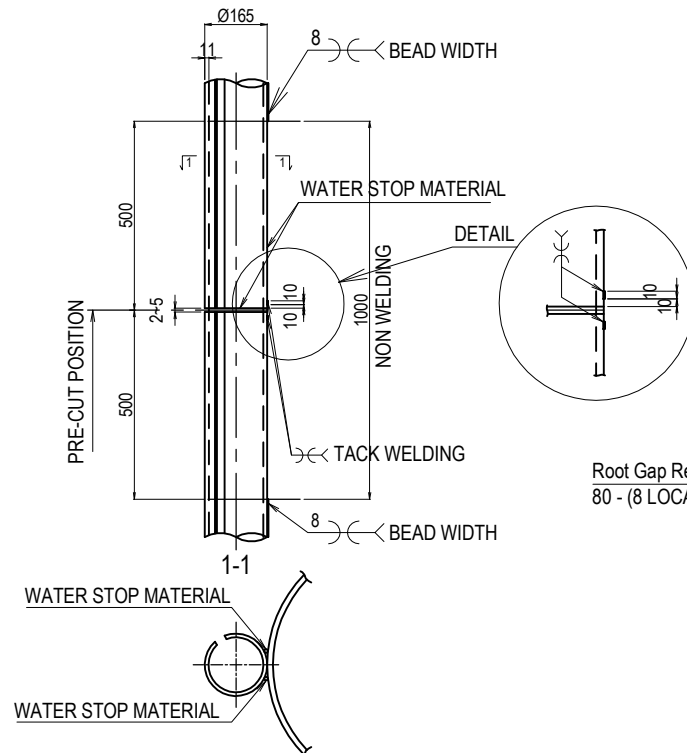


10 TON < LIFTING LOAD ≤ 20 TON

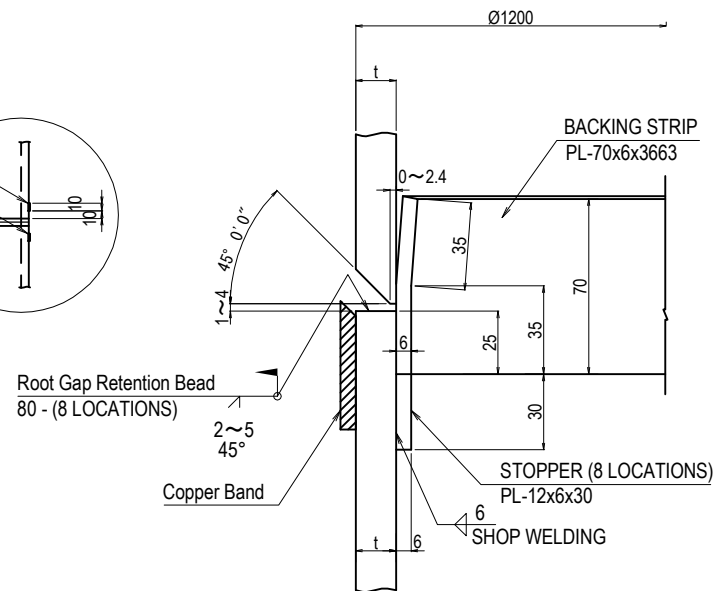
DETAIL-F S=1:5
PIPE INTERLOCKING JOINT



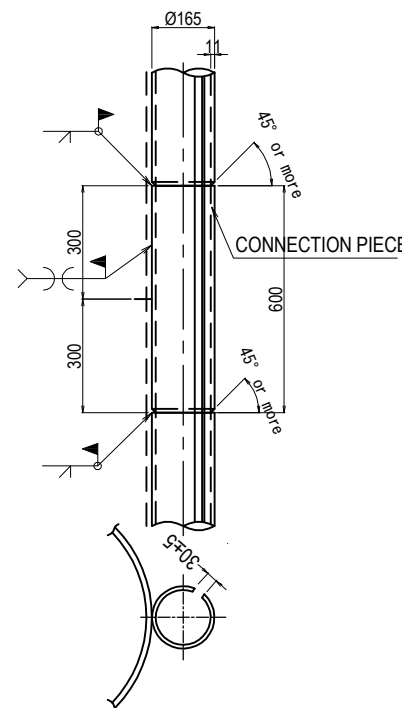
DETAIL-"a" S=1:20
PRE-CUT DETAIL



DETAIL-"b" S=1:3
SITE WELD



DETAIL-"c" S=1:20
FIELD JOINT OF PIPE JOINT



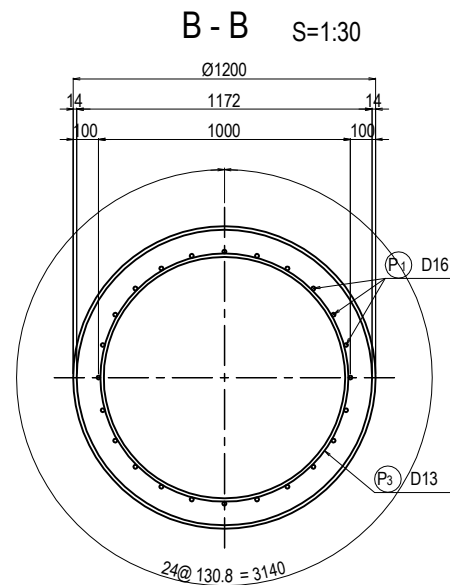
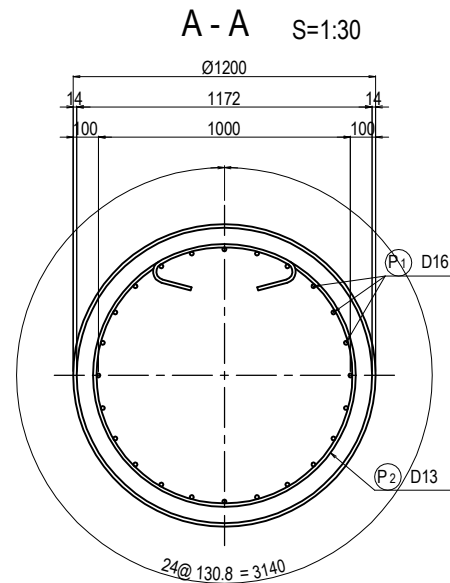
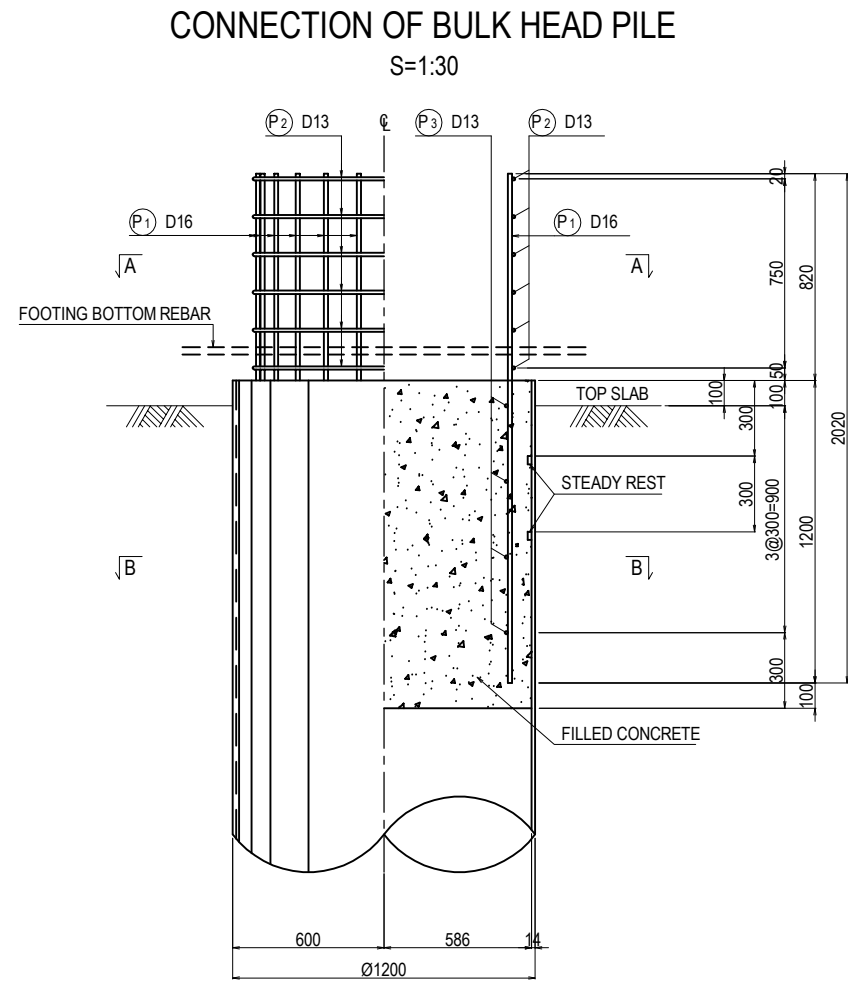
ITEM	SIZE	LENGTH (mm)	NUMBER	UNIT WEIGHT (kg/m)	WEIGHT / EA (kg/ea.)	TOTAL WEIGHT (kg)	REMARKS
REINFORCING BAND	PL-300×9	3798	32	-	80.5	2576	SS400
BACKING STRIP	PL-70×6×3663	3663	32	-	12.0	384	SS400
TOE SHOE	PL-153×12	159	66	-	2.29	151	SS400
LIFTING LOG	PL-250×22	300	128	-	13	1664	SS400
						4775 kg	

(FOR 1 FOUNDATION)

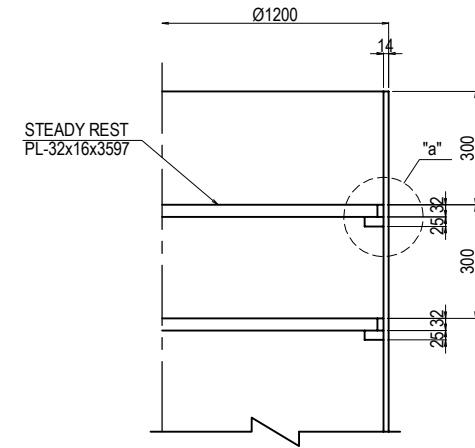
Note: Details of notch on interlocking joints shall be examined and revised by the contractor to fit actual construction work.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (5)	PACKAGE 2 DWG No. P2-PB-2235	
				PREPARED BY	M. OHYAMA	大山 満弘			15 Jun.2017
				CHECKED BY	T. HAYAKAWA	平川 知那			20 Jun.2017
				APPROVED BY	Y. SANO	佐野 祐一			21 Jun.2017

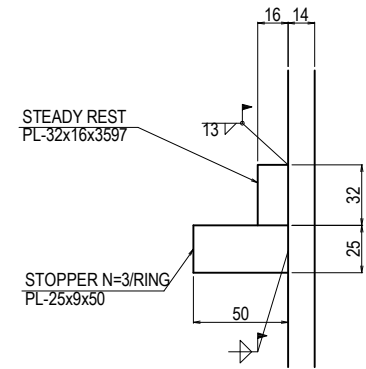
STEEL PIPE SHEET PILE FOUNDATION FOR P22 PIER (6)



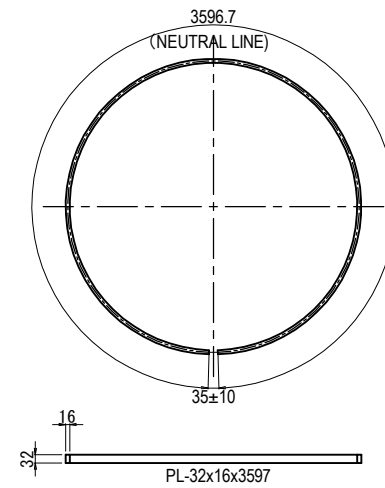
DETAIL OF STEADY REST S=1:20



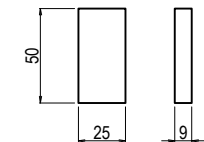
"a" DETAIL S=1:4



STEADY REST S=1:30



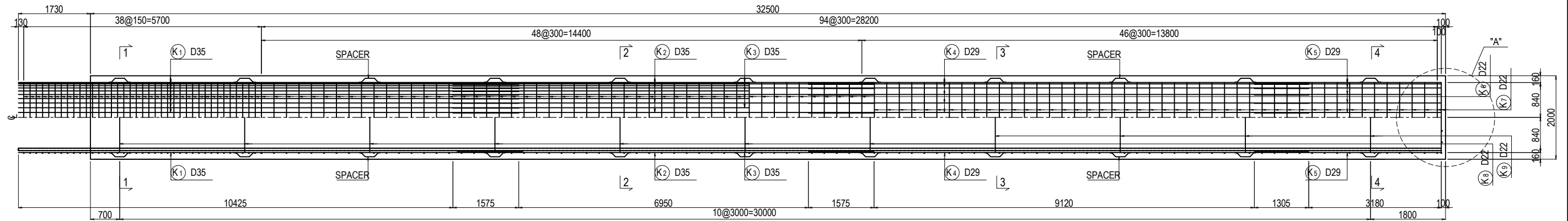
STOPPER S=1:4



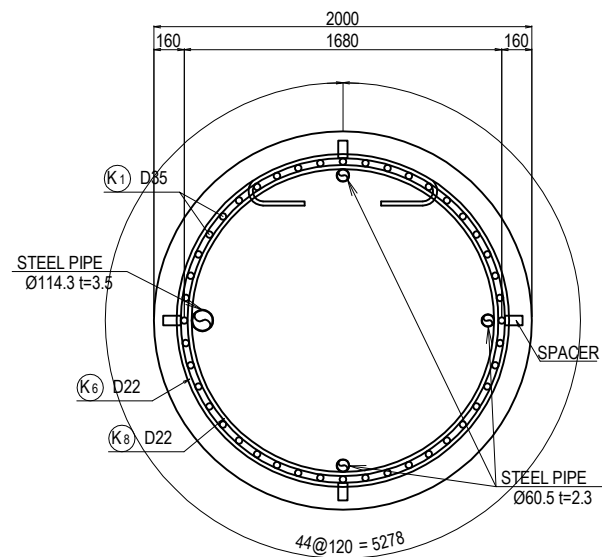
Designation	Diameter (mm)	Unit Weight (kg/m)	Length (mm)	Weight/ea (kg/ea.)	Nos. of bars	Total Weight (kg)	Nos. of joint	Remarks
P1	D16	1.56	2020	3.15	96	303		
P2	D13	0.995	4260	4.24	24	102		
P3	D13	0.995	3460	3.44	16	55		
SUBTOTAL						460 kg		
D13						157 kg		
D16						303 kg		
(SD345) TOTAL						460 kg		

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P23 PIER(1) S=1:100

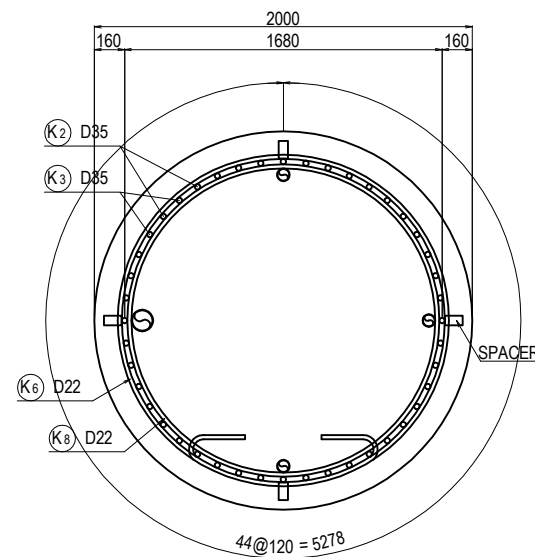
SEGMENT 1



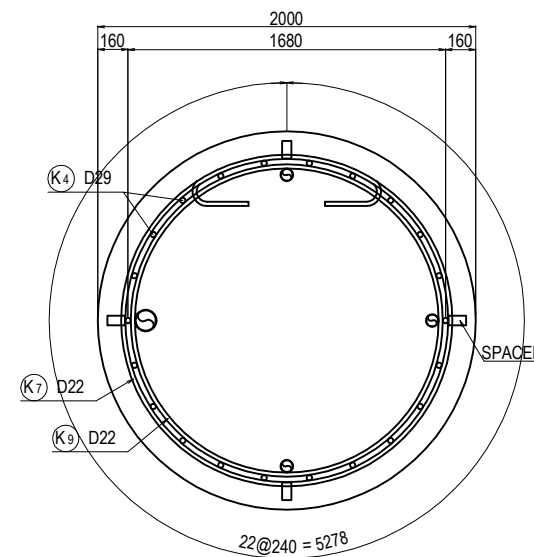
SECTION 1-1 S=1:40



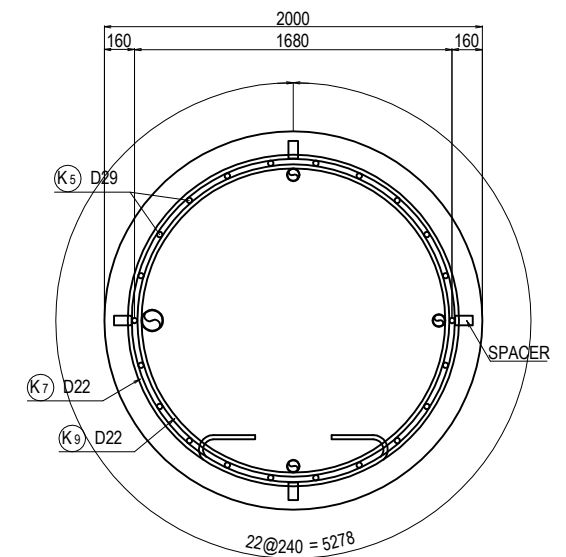
SECTION 2-2 S=1:40



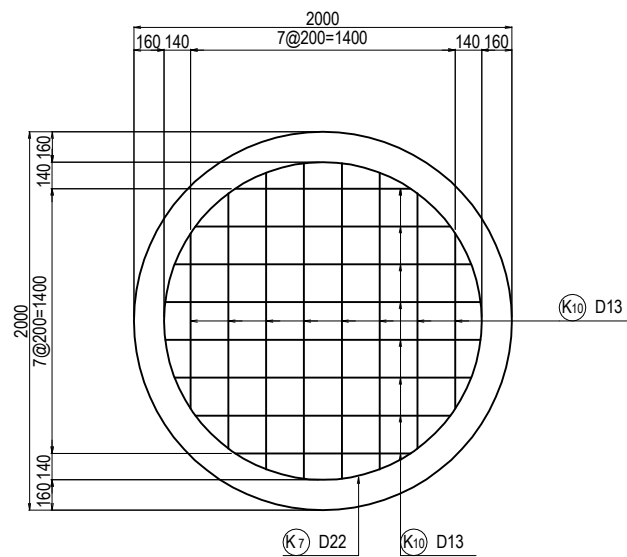
SECTION 3-3 S=1:40



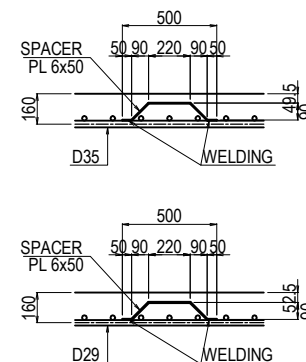
SECTION 4-4 S=1:40



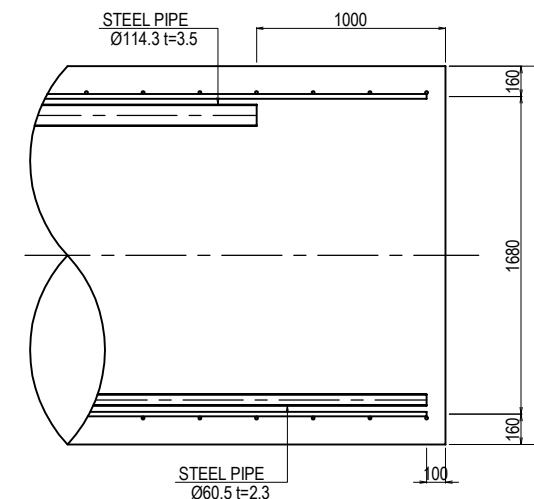
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



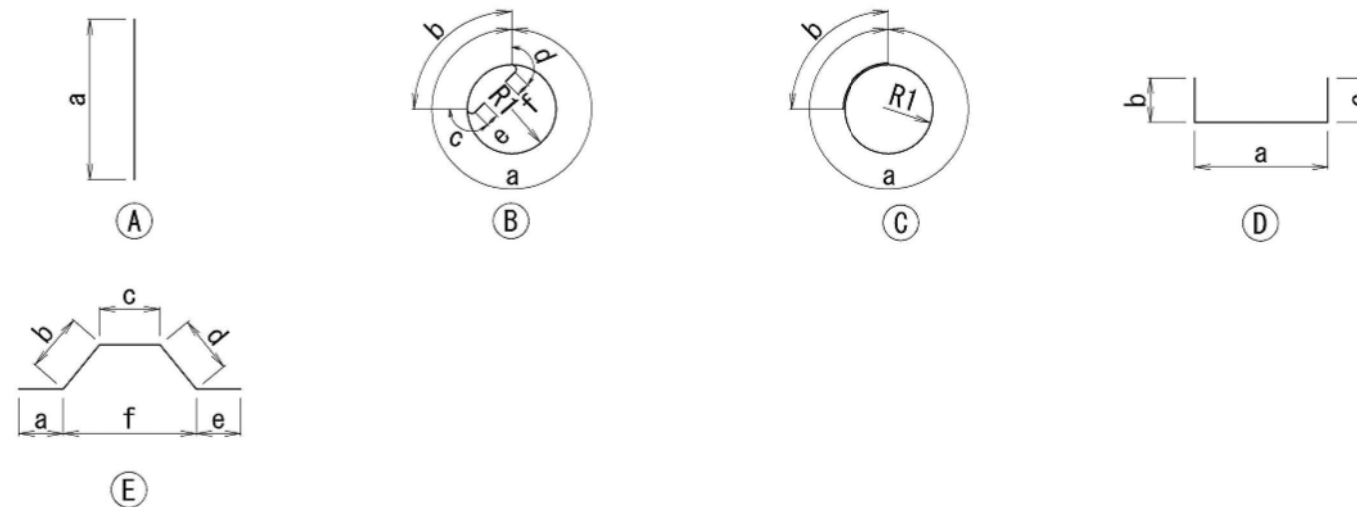
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P23 PIER(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2241

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P23 PIER(2)

BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D35	44	12000	12000								3965	
K2	A	D35	22	10100	10100								1669	
K3	A	D35	22	7100	7100								1173	
K4	A	D29	22	12000	12000								1331	
K5	A	D29	22	4490	4485								498	
K6	B	D22	87	7200	5457	990	156	156	220	220	868.5		1904	
K7	B	D22	47	7180	5438	990	156	156	220	220	865.5		1026	
K8	C	D22	7	6090	5099	990					811.5		130	
K9	C	D22	4	6110	5118	990					814.5		74	
K10	D	D13	16	1770	<i>1380</i>	195	195						28	AVERAGE
K11	E	PL	44	580	50	127	220	127	50				60	
REBAR QUANTITY (1NOS)														
DIAMETER WEIGHT														
D13 28 kg														
D16 0 kg														
D19 0 kg														
D22 3134 kg														
D25 0 kg														
D29 1829 kg														
D32 0 kg														
D35 6807 kg														
D38 0 kg														
D41 0 kg														
D51 0 kg														
PL 60 kg														
TOTAL 11858 kg														

SHAPE CODE

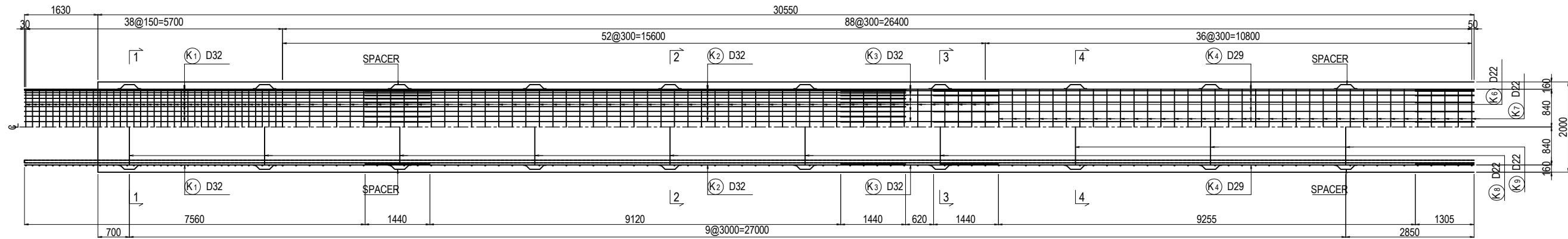


- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
 2. A figure in italic font indicate average length of rebar.

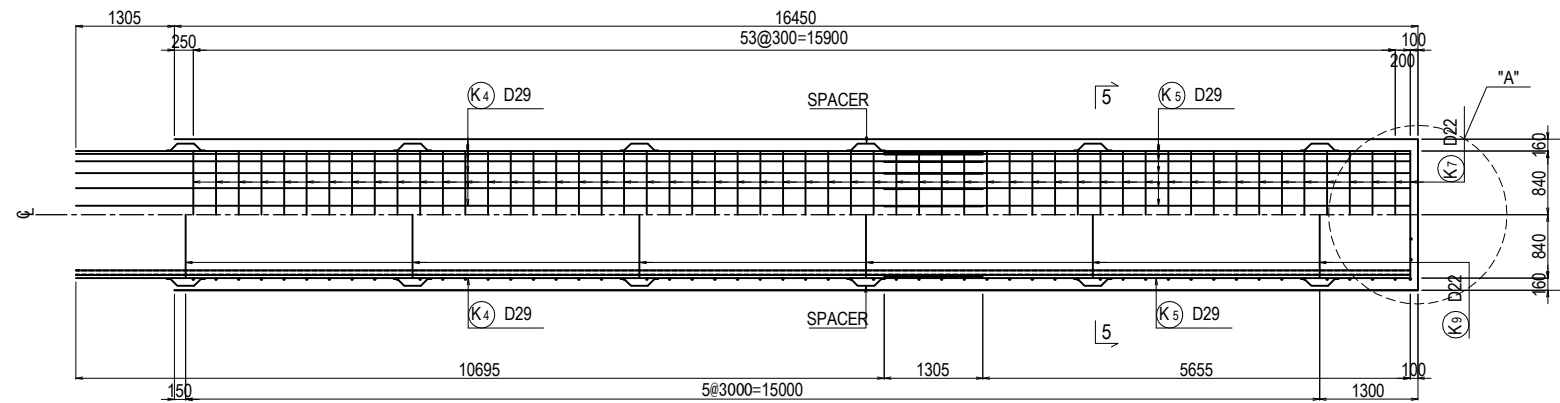
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P23 PIER(2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2242

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P24 PIER(1) S=1:100

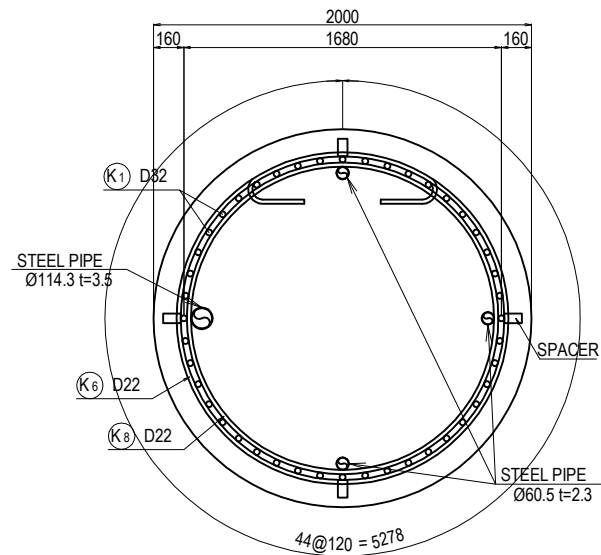
SEGMENT 1



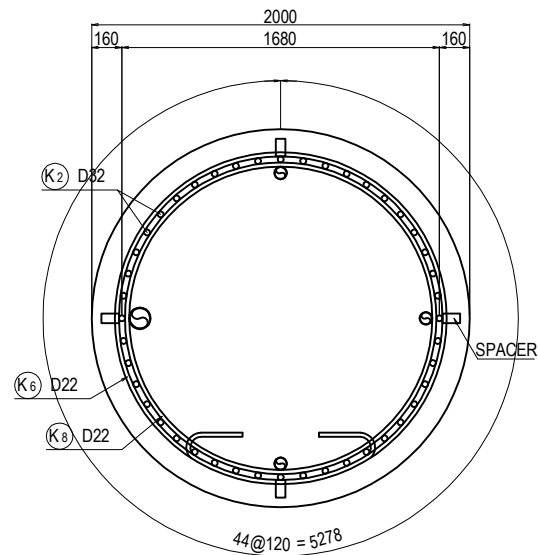
SEGMENT 2



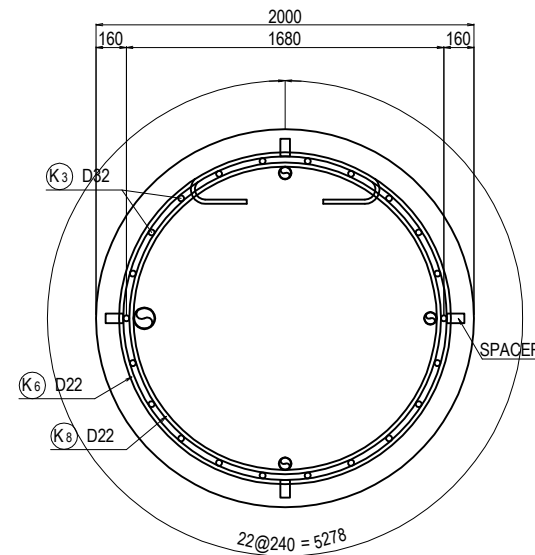
SECTION 1-1 S=1:40



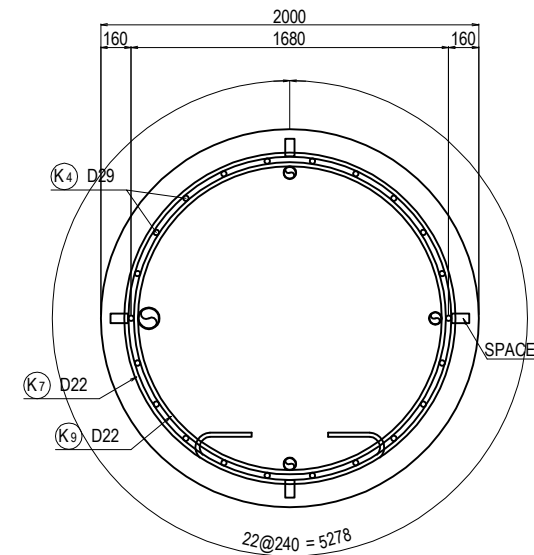
SECTION 2-2 S=1:40



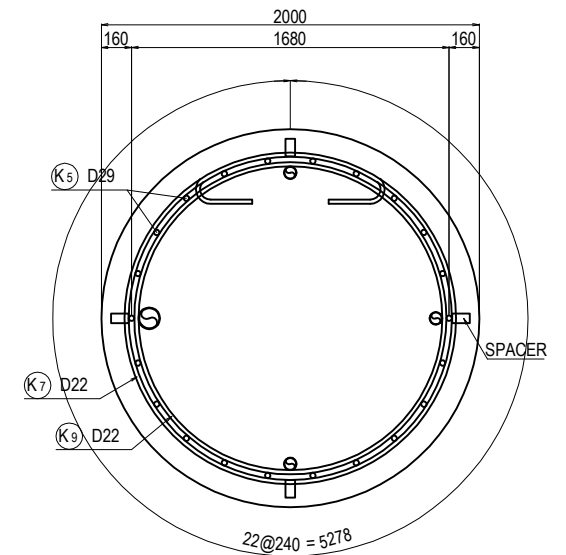
SECTION 3-3 S=1:40



SECTION 4-4 S=1:40



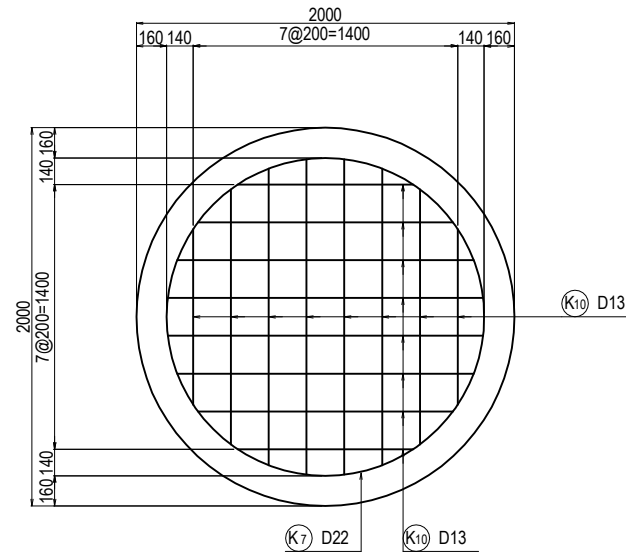
SECTION 5-5 S=1:40



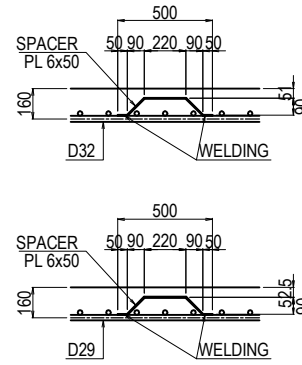
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P24 PIER(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2251

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P24 PIER(2) S=1:100

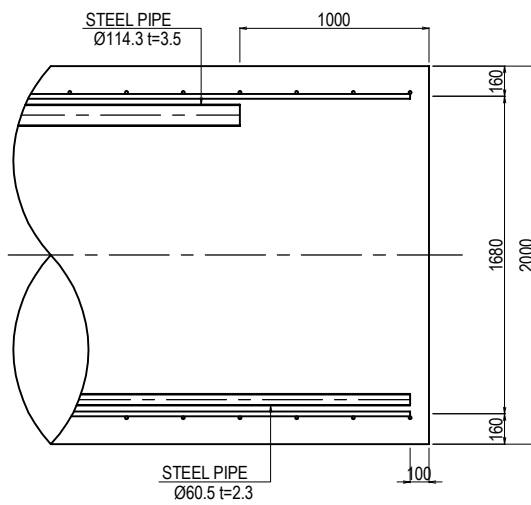
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



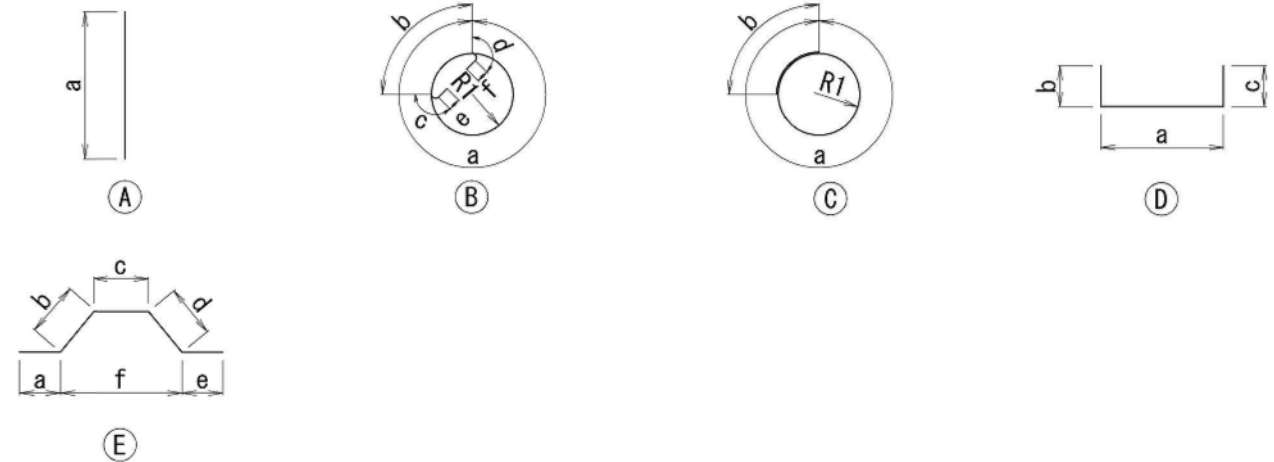
BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D32	44	9000	9000								2467	
K2	A	D32	44	12000	12000								3289	
K3	A	D32	22	3500	3500								480	
K4	A	D29	44	12000	12000								2661	
K5	A	D29	22	6960	6960								772	
K6	B	D22	91	7190	5448	990	156	156	220	220	867		1989	
K7	B	D22	91	7180	5438	990	156	156	220	220	865.5		1987	
K8	C	D22	7	6100	5108	990					813		130	
K9	C	D22	9	6110	5118	990					814.5		167	
K10	D	D13	16	1770	1380	195	195						28	AVERAGE
K11	E	PL	64	580	50	127	220	127	50				87	

REBAR QUANTITY (1NOS)

DIAMETER	WEIGHT
D13	28 kg
D16	0 kg
D19	0 kg
D22	4273 kg
D25	0 kg
D29	3433 kg
D32	6236 kg
D35	0 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	87 kg
TOTAL	14057 kg

SHAPE CODE



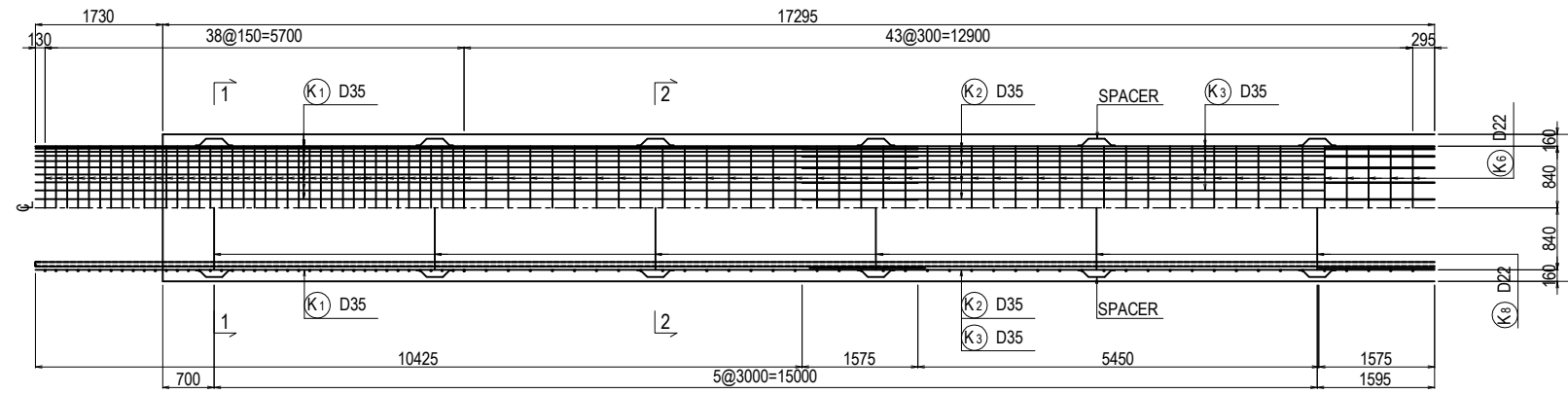
NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.

2. A figure in italic font indicate average length of rebar.

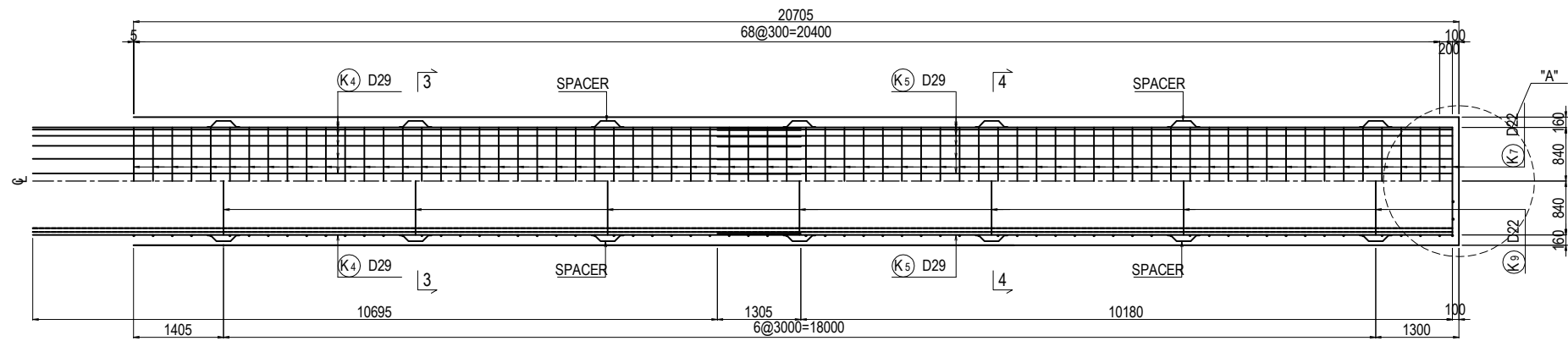
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P24 PIER(2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2252

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P25 PIER(1) S=1:100

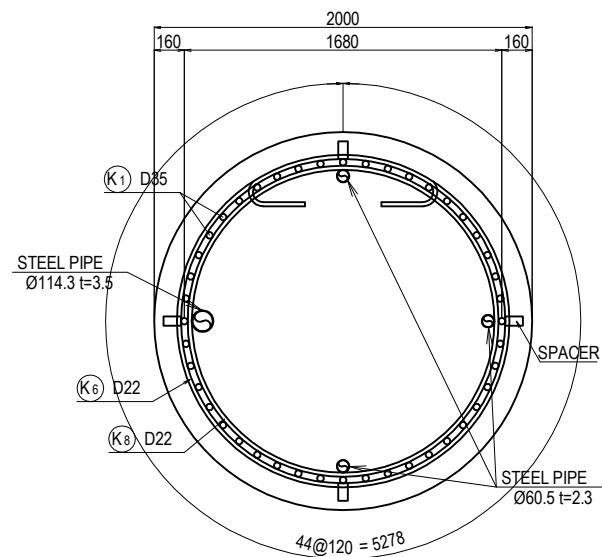
SEGMENT 1



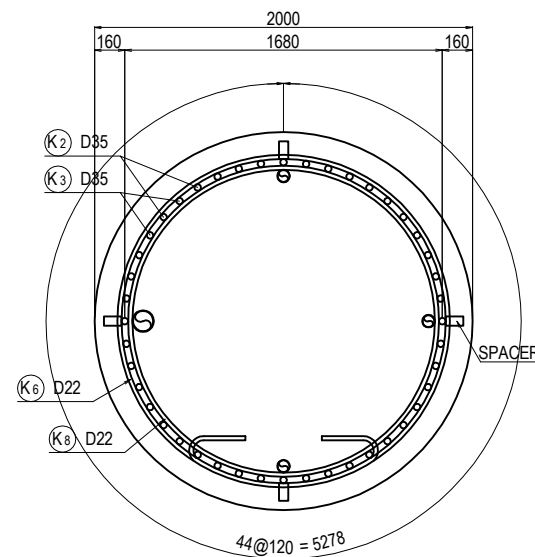
SEGMENT 2



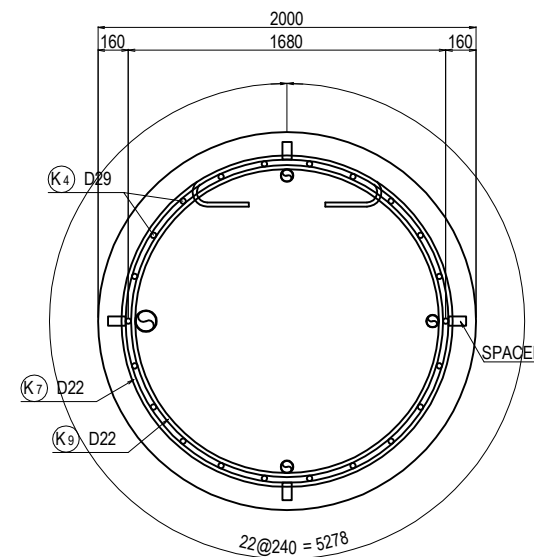
SECTION 1-1 S=1:40



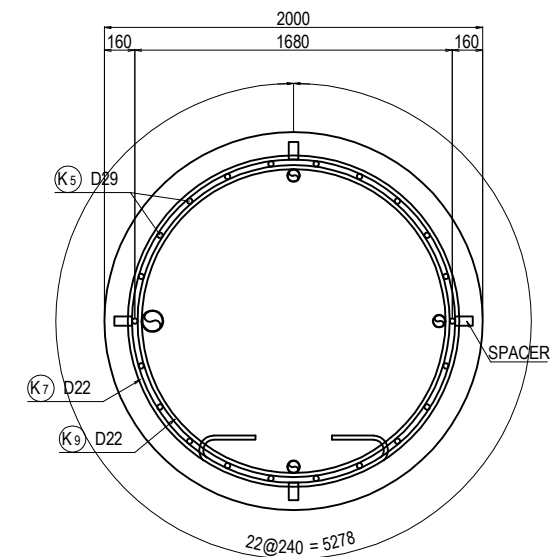
SECTION 2-2 S=1:40



SECTION 3-3 S=1:40



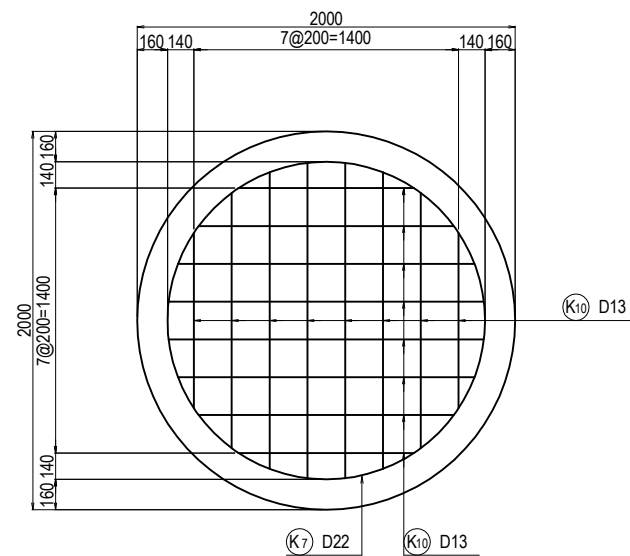
SECTION 4-4 S=1:40



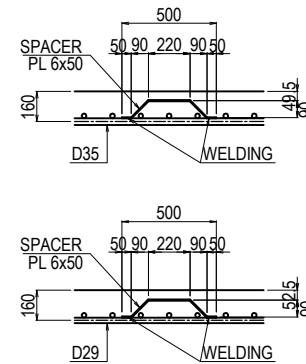
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P25 PIER(1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-2261

BAR ARRANGEMENT OF CAST IN PLACE PILE FOR P25 PIER(2) S=1:100

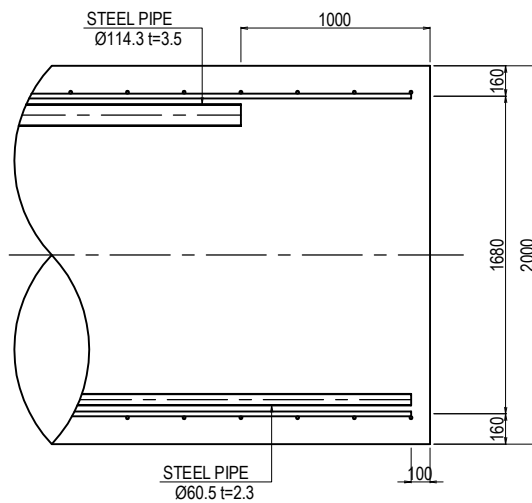
DETAIL OF PILE TOE S=1:40



DETAIL OF SPACER S=1:40



DETAIL "A" S=1:40



BAR QUANTITY

SYMBOL	SHAPE	DIAMETER	NUMBER (NOS)	LENGTH (mm)	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	R1 (mm)	R2 (mm)	WEIGHT (kg)	REMARKS
K1	A	D35	44	12000	12000								3965	
K2	A	D35	22	8600	8600								1421	
K3	A	D35	22	7100	7100								1173	
K4	A	D29	22	12000	12000								1331	
K5	A	D29	22	11490	11485								1274	
K6	B	D22	82	7200	5457	990	156	156	220	220	868.5		1795	
K7	B	D22	70	7180	5438	990	156	156	220	220	865.5		1528	
K8	C	D22	6	6090	5099	990					811.5		111	
K9	C	D22	7	6110	5118	990					814.5		130	
K10	D	D13	16	1770	1380	195	195						28	AVERAGE
K11	E	PL	52	580	50	127	220	127	50				71	

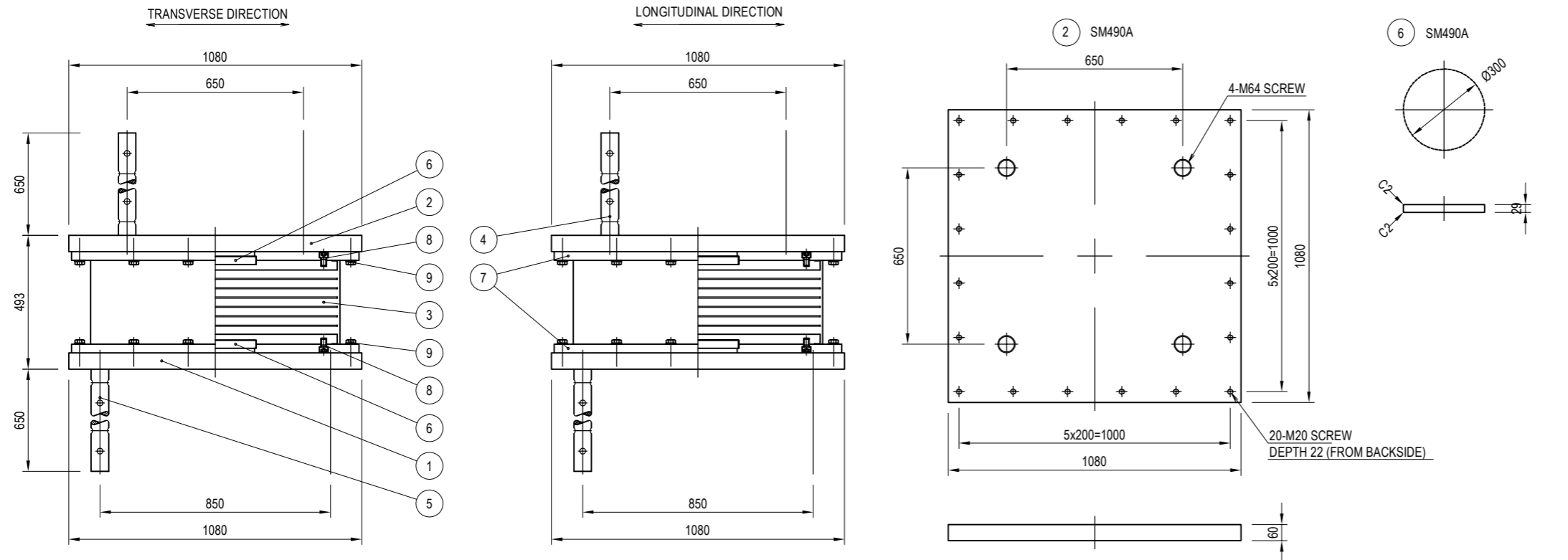
REBAR QUANTITY (1NOS)

DIAMETER	WEIGHT
D13	28 kg
D16	0 kg
D19	0 kg
D22	3564 kg
D25	0 kg
D29	2605 kg
D32	0 kg
D35	6559 kg
D38	0 kg
D41	0 kg
D51	0 kg
PL	71 kg
TOTAL	12827 kg

SHAPE CODE

- NOTES: 1. Unless otherwise specified in the Contract Documents, a grade of rebar shall be SD 345 or equivalent.
2. A figure in italic font indicate average length of rebar.

DETAIL OF BEARINGS P20-A2 < L,R > (1) S = 1 : 20



DESIGN CONDITION

REACTION FORCE		
TOTAL REACTION	R	4000 kN
REACTION DUE TO DEAD LOAD	Rd	2800 kN
LONGITUDINAL (SEISMIC)	Rh1e	1126 kN
TRANSVERSE (SEISMIC)	Rh2e	0 kN
UPLIFT (SEISMIC)	V	280 kN
DEFORMATION		
MAXIMUM (SEISMIC)	UB	292 mm
RUBBER BEARING		
ELASTIC SHEAR MODULUS	Ge	1.0 N/mm ²
FRACTURE STRAIN	yu	550 %
DEFORMATION FOR TEST	ΔL	368 mm
EQUIVALENT RIGIDITY	KB	3.857 kN/mm
ALLOWABLE SHEAR STRAIN	ys	250 %
SECONDARY SHAPE FACTOR	S2	4.29
ROTATION VERIFICATION FORCE	R1	4000 kN
ROTATIONAL DEFORMATION	δr	1.500 mm
VERIFICATION FORCE	R1L	600 kN
COMPRESSIVE DEFORMATION BY VERIFICATION FORCE	δcl	0.593 mm
SUPPORT CONDITION OF BEARING		
LONGITUDINAL	ELASTIC	
TRANSVERSE	FIXED	

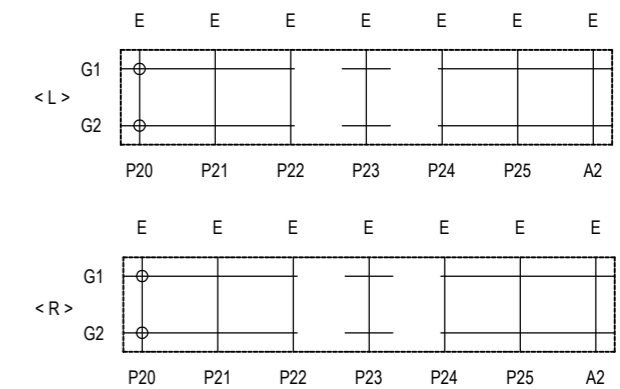
MATERIALS

No.	NAME OF PARTS	TYPE OF MATERIAL	QUANTITY	WEIGHT (kg)	NOTES
①	BASE PLATE	SM490A	1	542.2	
②	SOLE PLATE	SM490A	1	542.2	
3	RUBBER BEARING	NR+SM490A+SS400	1	819.5	
4	ANCHOR BAR	SS400	4	73.5	
5	ANCHOR BOLT	SS400	4	73.5	
⑥	SHEAR KEY	SM490A	2	32.2	
⑦	TOP,BOTTOM PLATE	SM490A	2	520.6	
8	CAP BOLT	—	32	4.8	JIS B 1176
⑨	HEXAGON BOLT WASHER	—	40	8.8	JIS B 1180
TOTAL WEIGHT			2617.3	(kg)	
GENERAL CORROSION RESISTANT COATING FOR OUTSIDE SURFACE PARTS NO. ① SHOULD BE ZINC-GALVANIZED					
ZINC-GALVANIZE ADHESION AMOUNT AT LEAST 550g/m ² , 350g/m ² (BOLTS)					

NOTES

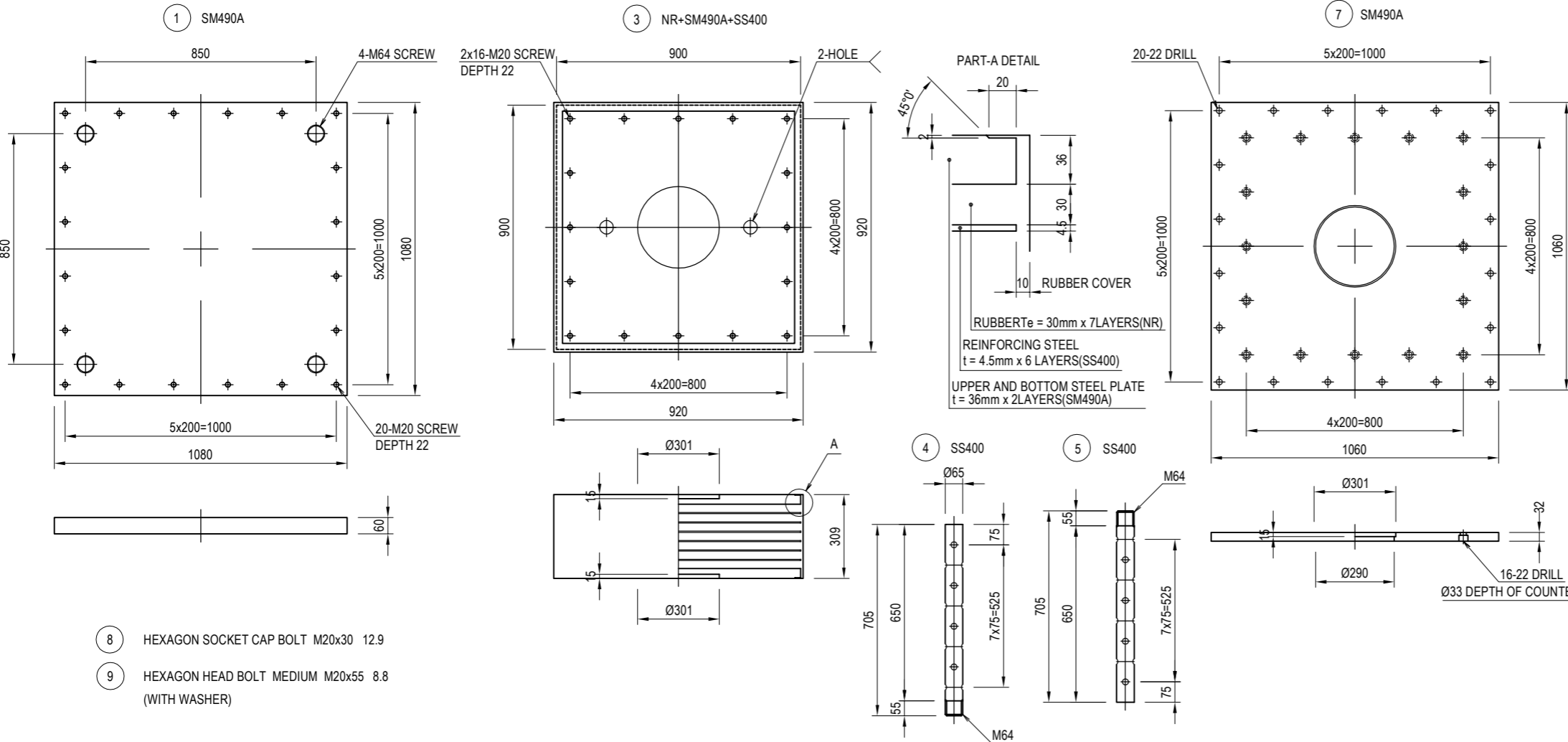
- NO NEED DEPENDING ON THE PRODUCTION COMPANY
- USE ORGANIC ZINC-RICH PAINT COATING ON TOP AND BOTTOM SURFACE OF BEARINGS
- USE BLACK OXIDE COATED CAP BOLT AND PAINT HIGH CONCENTRATION ZINC POWDER AFTER ASSEMBLY
- REBAR FOR REINFORCEMENT, D10ctc50 GRID, SHOULD BE ARRANGED IN BEARING BASE MORTAR. (29kg PER BEARING BASE)

PLAN



NOTES :

- 1) All the dimensions and materials of this drawing are shown as reference.
- 2) Details of the girder and substructure are designed based on this reference drawing.
- 3) All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer.
- 4) All the structural steels shall be galvanized for corrosion prevention with JIS H8641.



DETAIL OF BEARINGS P20-A2 < L,R > (2) S = 1 : 30

DESIGN CONDITION

REACTION FORCE		
TOTAL REACTION	R	8300 kN
REACTION DUE TO DEAD LOAD	Rd	5900 kN
LONGITUDINAL (SEISMIC)	Rh1e	2064 kN
TRANSVERSE (SEISMIC)	Rh2e	0 kN
UPLIFT (SEISMIC)	V	590 kN
DEFORMATION		
MAXIMUM (SEISMIC)	UB	258 mm
RUBBER BEARING		
ELASTIC SHEAR MODULUS	Ge	1.0 N/mm ²
FRACTURE STRAIN	yu	550 %
DEFORMATION FOR TEST	ΔL	315 mm
EQUIVALENT RIGIDITY	KB	8.000 kN/mm
ALLOWABLE SHEAR STRAIN	ys	250 %
SECONDARY SHAPE FACTOR	S2	6.67
ROTATION VERIFICATION FORCE	R1	8100 kN
ROTATIONAL DEFORMATION	δr	1.000 mm
SUPPORT CONDITION OF BEARING		
LONGITUDINAL	: ELASTIC	TRANSVERSE : FIXED

MATERIALS

No.	NAME OF PARTS	TYPE OF MATERIAL	QUANTITY	WEIGHT (kg)	NOTES
①	BASE PLATE	SM490A	1	1171.8	
②	SOLE PLATE	SM490A	1	1171.8	
3	RUBBER BEARING	NR+SM490A+SS400	1	1543.3	
4	ANCHOR BAR	SS400	4	163.9	
5	ANCHOR BOLT	SS400	4	163.9	
⑥	SHEAR KEY	SM490A	2	76.9	
⑦	TOP,BOTTOM PLATE	SM490A	2	1133.6	
8	CAP BOLT	—	40	10.6	JIS B 1176
⑨	HEXAGON BOLT WASHER	—	48	17.3	JIS B 1180
TOTAL WEIGHT			5453.1	(kg)	

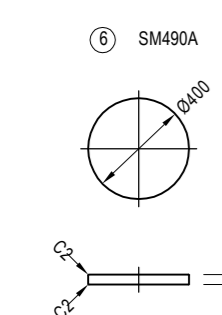
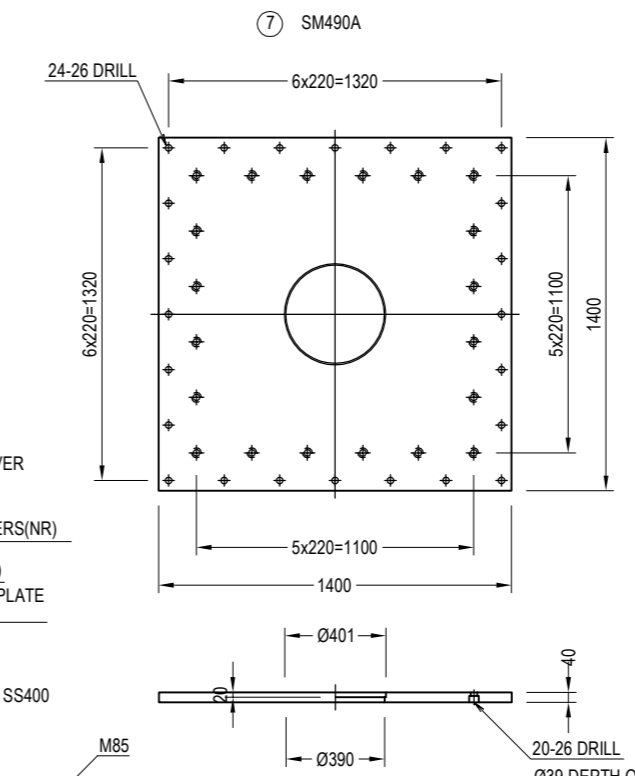
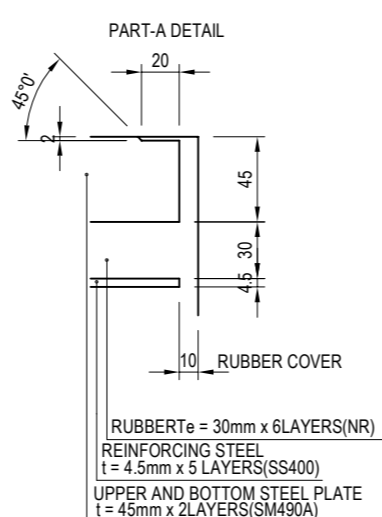
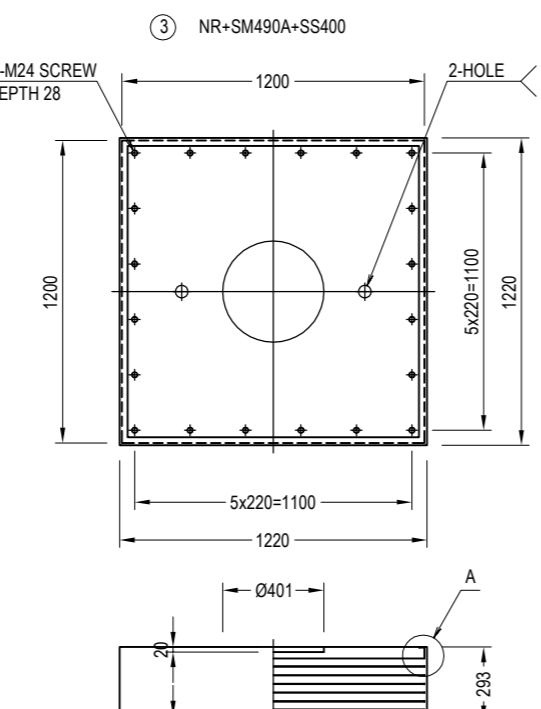
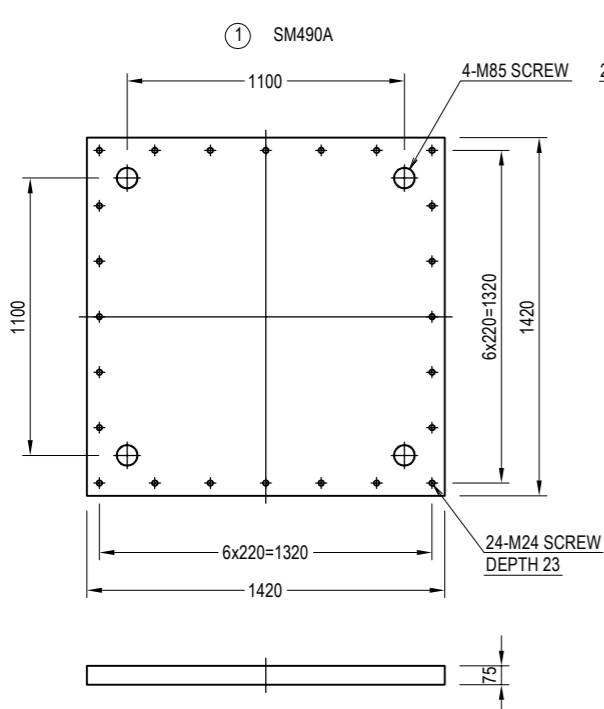
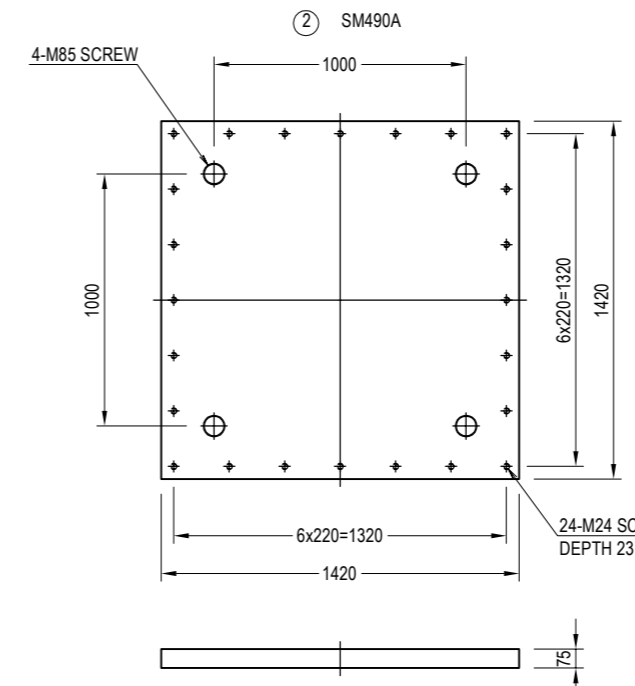
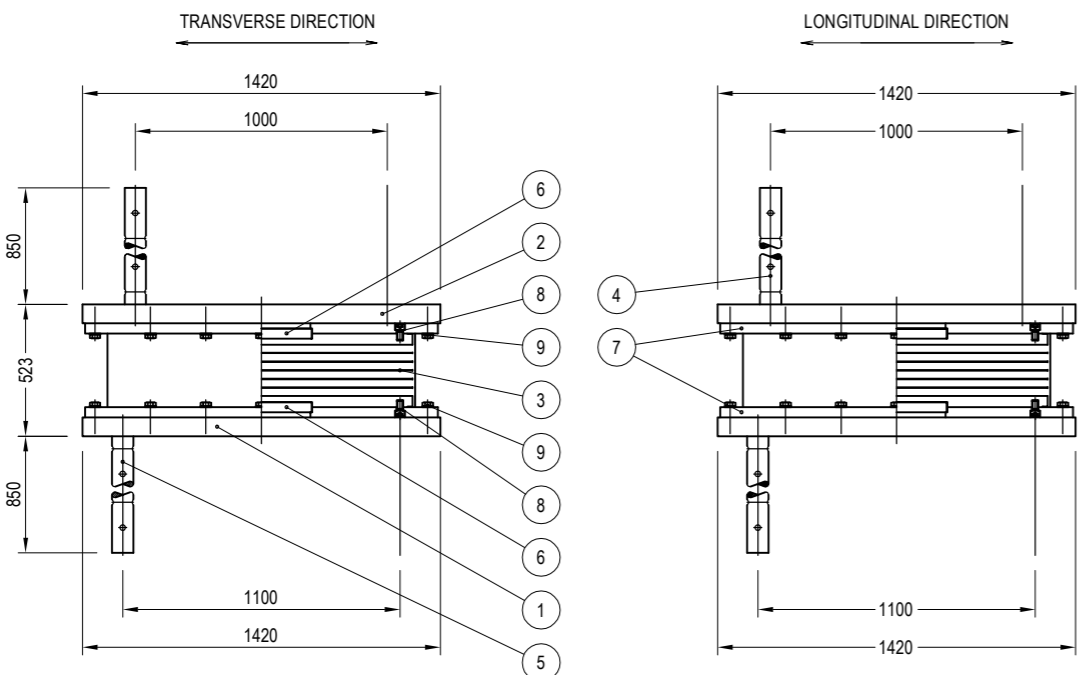
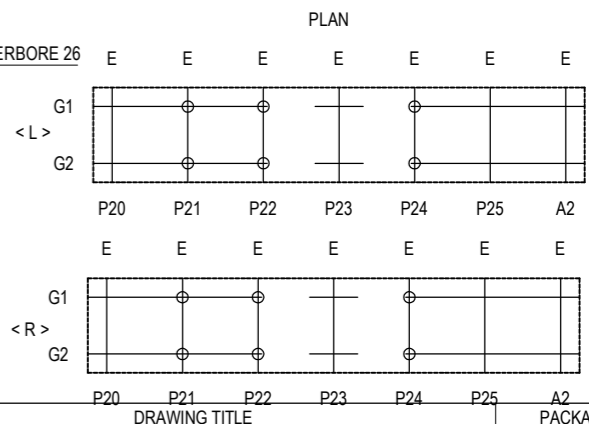
GENERAL CORROSION RESISTANT COATING FOR OUTSIDE SURFACE

ZINC-GALVANIZE PARTS NO. ○ SHOULD BE ZINC-GALVANIZED

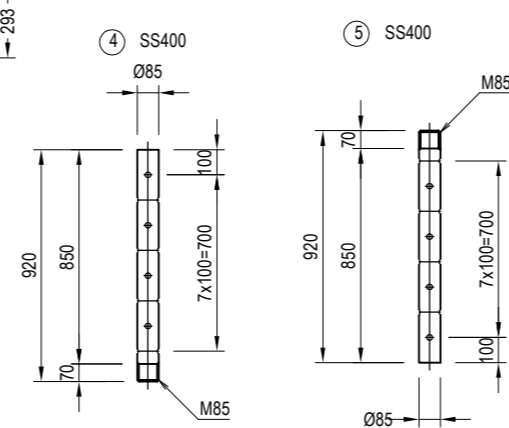
ADHESION AMOUNT AT LEAST 550g/m², 350g/m² (BOLTS)

NOTES

- NO NEED DEPENDING ON THE PRODUCTION COMPANY
- USE ORGANIC ZINC-RICH PAINT COATING ON TOP AND BOTTOM SURFACE OF BEARINGS
- USE BLACK OXIDE COATED CAP BOLT AND PAINT HIGH CONCENTRATION ZINC POWDER AFTER ASSEMBLY
- REBAR FOR REINFORCEMENT, D10tc50 GRID, SHOULD BE ARRANGED IN BEARING BASE MORTAR. (53kg PER BEARING BASE)



- ⑧ HEXAGON SOCKET CAP BOLT M24x40 10.9
- ⑨ HEXAGON HEAD BOLT MEDIUM M24x65 8.8 (WITH WASHER)



- NOTES:
- 1) All the dimensions and materials of this drawing are shown as reference.
 - 2) Details of the girder and substructure are designed based on this reference drawing.
 - 3) All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer.
 - 4) All the structural steels shall be galvanized for corrosion prevention with JIS H8641.

DETAIL OF BEARINGS P20-A2 < L,R > (3) S = 1 : 30

DESIGN CONDITION

REACTION FORCE		
TOTAL REACTION	R	8200 kN
REACTION DUE TO DEAD LOAD	Rd	5800 kN
LONGITUDINAL (SEISMIC)	Rh1e	2006 kN
TRANSVERSE (SEISMIC)	Rh2e	0 kN
UPLIFT (SEISMIC)	V	580 kN
DEFORMATION		
MAXIMUM (SEISMIC)	UB	209 mm
RUBBER BEARING		
ELASTIC SHEAR MODULUS	Ge	1.0 N/mm ²
FRACTURE STRAIN	yu	550 %
DEFORMATION FOR TEST	ΔL	263 mm
EQUIVALENT RIGIDITY	KB	9.600 kN/mm
ALLOWABLE SHEAR STRAIN	ys	250 %
SECONDARY SHAPE FACTOR	S2	8.00
ROTATION VERIFICATION FORCE	R1	8200 kN
ROTATIONAL DEFORMATION	δr	1.000 mm
SUPPORT CONDITION OF BEARING		
LONGITUDINAL	ELASTIC	TRANSVERSE : FIXED

MATERIALS

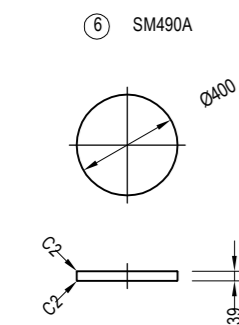
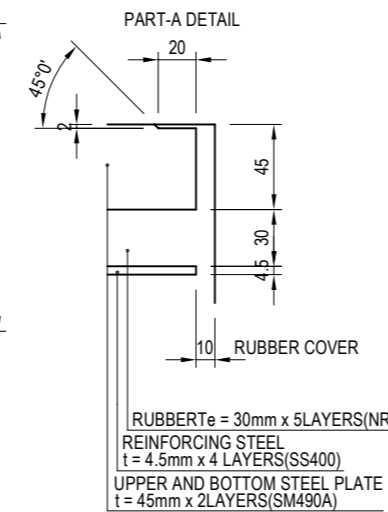
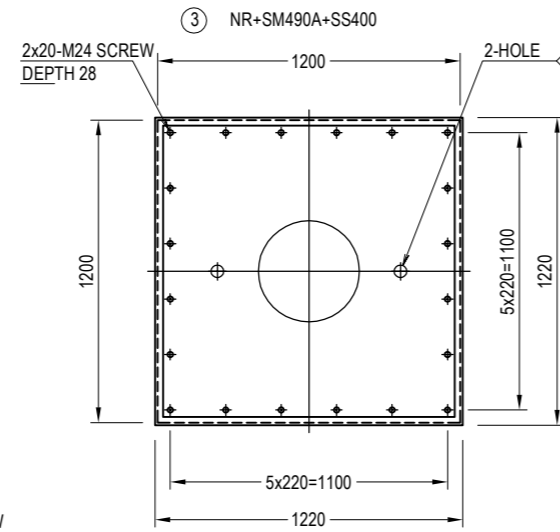
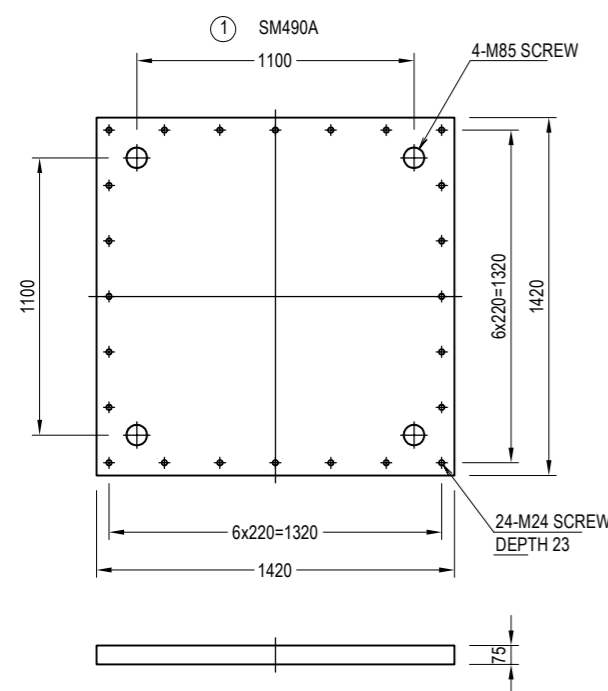
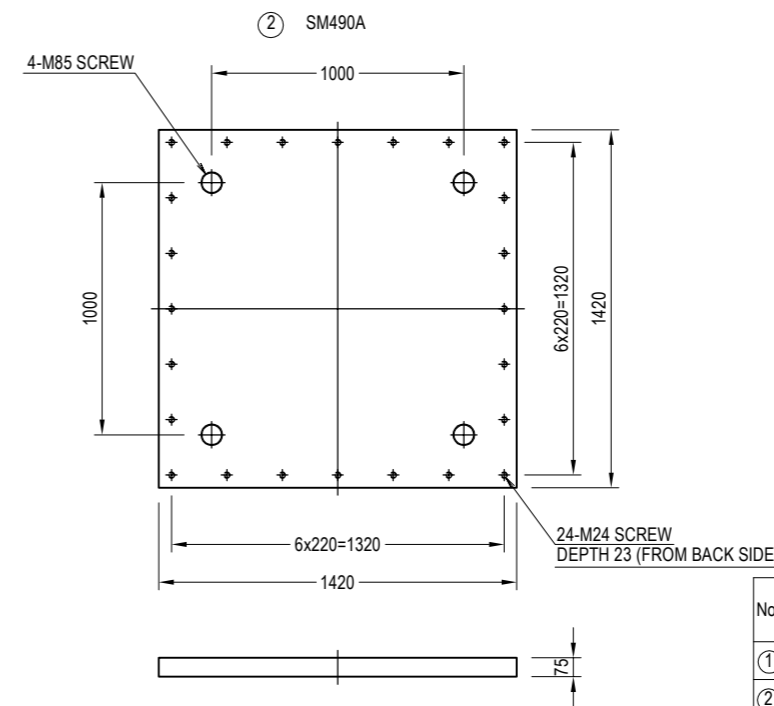
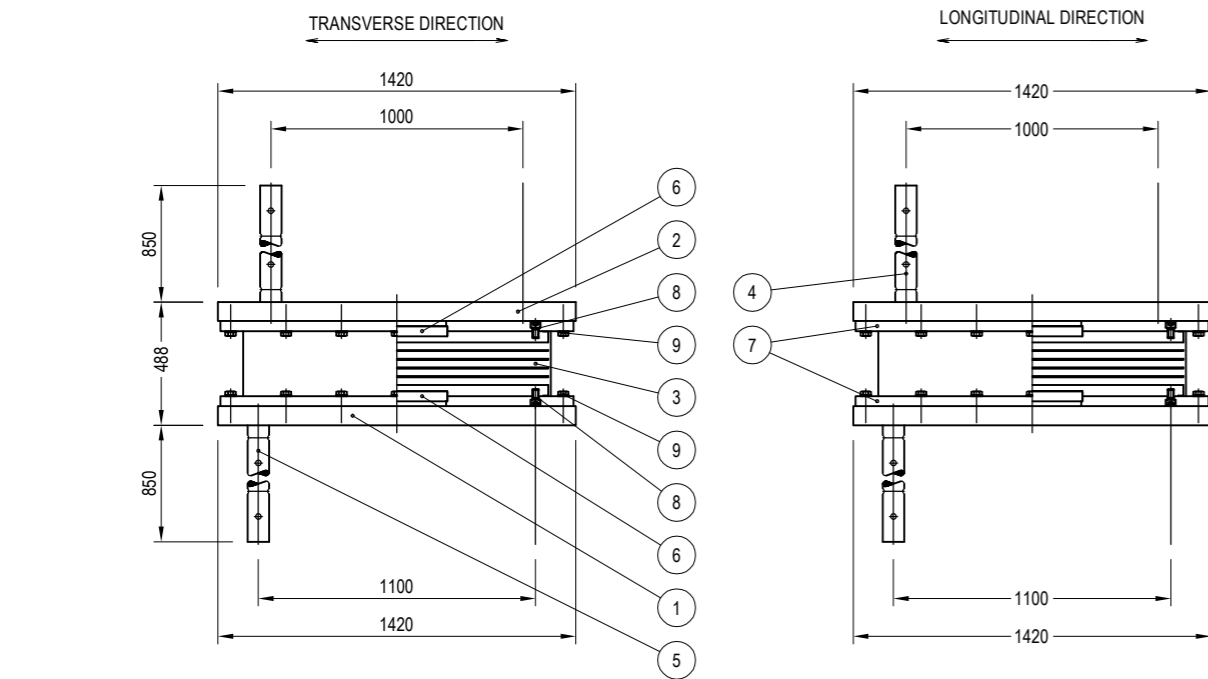
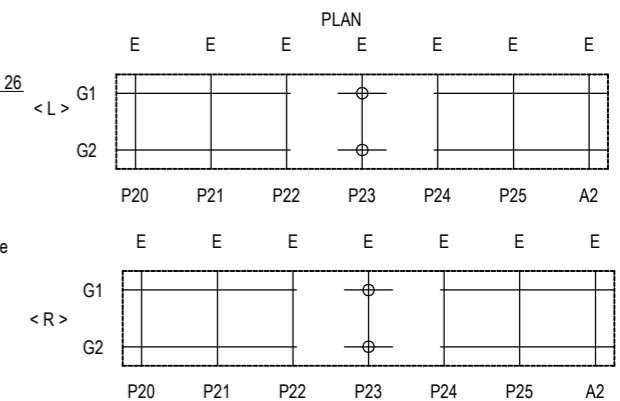
No.	NAME OF PARTS	TYPE OF MATERIAL	QUANTITY	WEIGHT (kg)	NOTES
①	BASE PLATE	SM490A	1	1171.8	
②	SOLE PLATE	SM490A	1	1171.8	
3	RUBBER BEARING	NR+SM490A+SS400	1	1440.0	
4	ANCHOR BAR	SS400	4	163.9	
5	ANCHOR BOLT	SS400	4	163.9	
⑥	SHEAR KEY	SM490A	2	76.9	
⑦	TOP,BOTTOM PLATE	SM490A	2	1133.6	
8	CAP BOLT	—	40	10.6	JIS B 1176
⑨	HEXAGON BOLT WASHER	—	48	17.3	JIS B 1180
TOTAL WEIGHT			5349.8	(kg)	

GENERAL CORROSION RESISTANT COATING FOR OUTSIDE SURFACE

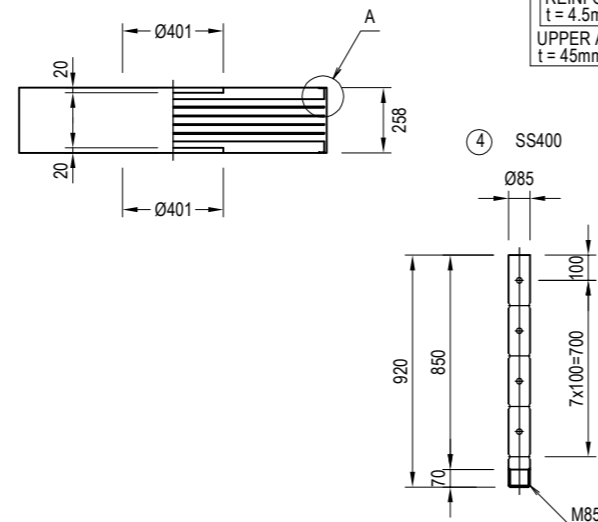
ZINC-GALVANIZE	PARTS NO. ○ SHOULD BE ZINC-GALVANIZED
	ADHESION AMOUNT AT LEAST 550g/m ² , 350g/m ² (BOLTS)

NOTES

- NO NEED DEPENDING ON THE PRODUCTION COMPANY
- USE ORGANIC ZINC-RICH PAINT COATING ON TOP AND BOTTOM SURFACE OF BEARINGS
- USE BLACK OXIDE COATED CAP BOLT AND PAINT HIGH CONCENTRATION ZINC POWDER AFTER ASSEMBLY
- REBAR FOR REINFORCEMENT, D10ct:50 GRID, SHOULD BE ARRANGED IN BEARING BASE MORTAR. (53kg PER BEARING BASE)



- ⑧ HEXAGON SOCKET CAP BOLT M24x40 10.9
- ⑨ HEXAGON HEAD BOLT MEDIUM M24x65 8.8 (WITH WASHER)



NOTES:

- 1) All the dimensions and materials of this drawing are shown as reference.
- 2) Details of the girder and substructure are designed based on this reference drawing.
- 3) All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer.
- 4) All the structural steels shall be galvanized for corrosion prevention with JIS H8641.

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
JICA
JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO. LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA	大山 満弘	15 Jun.2017
CHECKED BY	T. HAYAKAWA	平川 知寿	20 Jun.2017
APPROVED BY	Y. SANO	佐野 祐一	21 Jun.2017

DRAWING TITLE
DETAIL OF BEARINGS P20-A2 < L,R > (3)

PACKAGE
2
DWG No.
P2-PB-3003

DETAIL OF BEARINGS P20-A2 < L,R > (4) S = 1 : 30

DESIGN CONDITION

REACTION FORCE		
TOTAL REACTION	R	8200 kN
REACTION DUE TO DEAD LOAD	Rd	5800 kN
LONGITUDINAL (SEISMIC)	Rh1e	1934 kN
TRANSVERSE (SEISMIC)	Rh2e	0 kN
UPLIFT (SEISMIC)	V	580 kN
DEFORMATION		
MAXIMUM (SEISMIC)	UB	282 mm
RUBBER BEARING		
ELASTIC SHEAR MODULUS	Ge	1.0 N/mm ²
FRACTURE STRAIN	yu	550 %
DEFORMATION FOR TEST	ΔL	368 mm
EQUIVALENT RIGIDITY	KB	6.687 kN/mm
ALLOWABLE SHEAR STRAIN	ys	250 %
SECONDARY SHAPE FACTOR	S2	5.71
ROTATION VERIFICATION FORCE	R1	8200 kN
ROTATIONAL DEFORMATION	δr	1.000 mm
SUPPORT CONDITION OF BEARING		
LONGITUDINAL	: ELASTIC	TRANSVERSE : FIXED

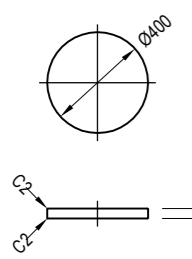
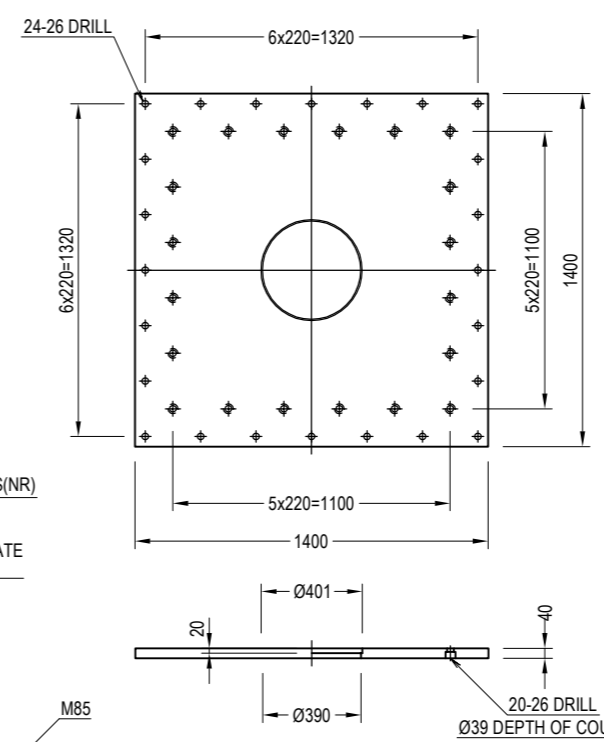
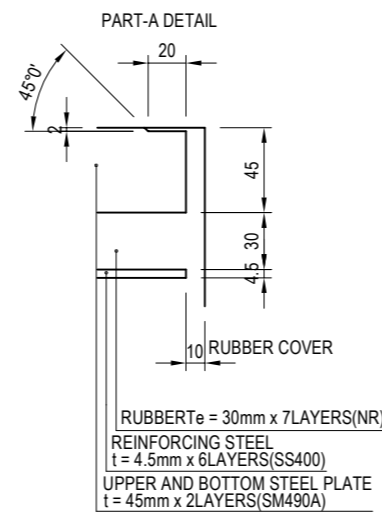
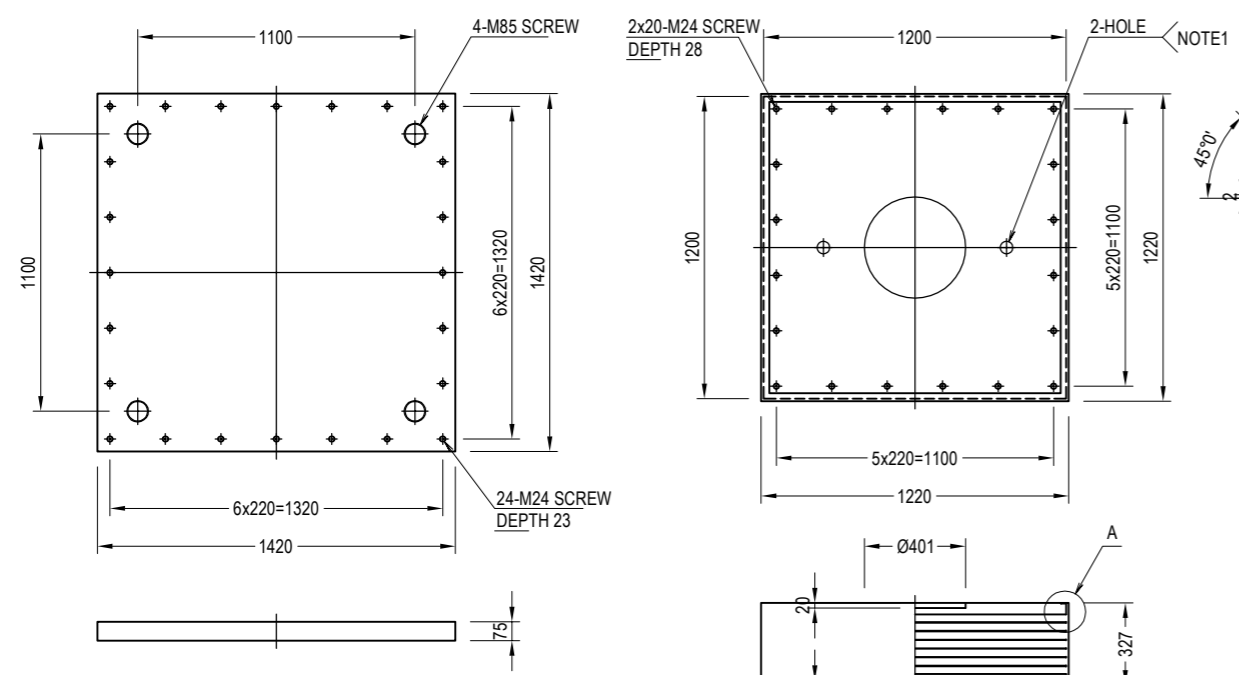
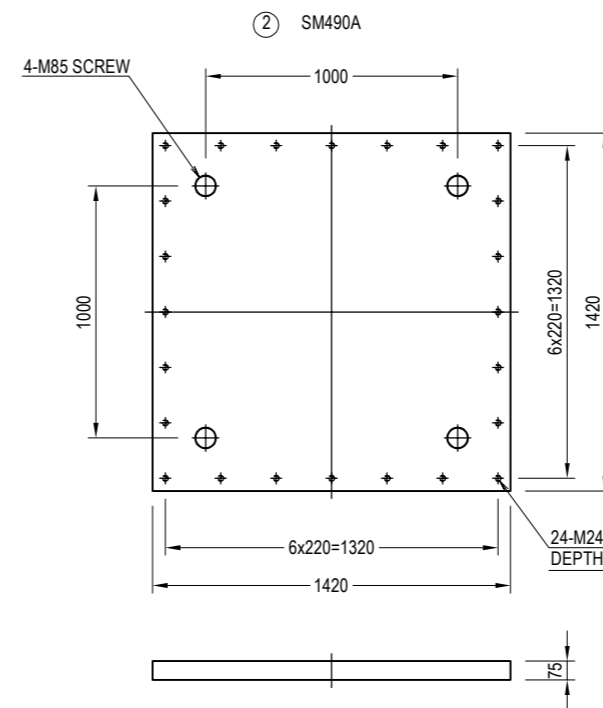
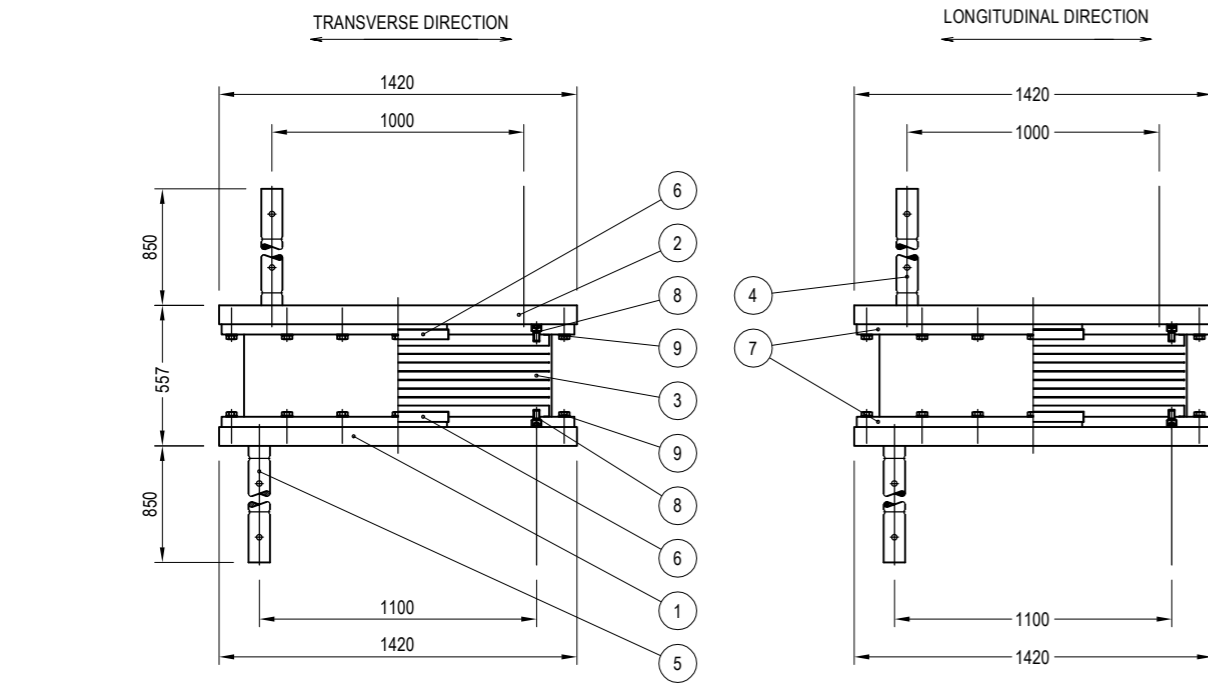
MATERIALS

No.	NAME OF PARTS	TYPE OF MATERIAL	QUANTITY	WEIGHT (kg)	NOTES
①	BASE PLATE	SM490A	1	1171.8	
②	SOLE PLATE	SM490A	1	1171.8	
3	RUBBER BEARING	NR+SM490A+SS400	1	1644.9	
4	ANCHOR BAR	SS400	4	163.9	
5	ANCHOR BOLT	SS400	4	163.9	
⑥	SHEAR KEY	SM490A	2	76.9	
⑦	TOP,BOTTOM PLATE	SM490A	2	1133.6	
8	CAP BOLT	—	40	10.6	JIS B 1176
⑨	HEXAGON BOLT WASHER	—	48	17.3	JIS B 1180
TOTAL WEIGHT			5554.7	(kg)	

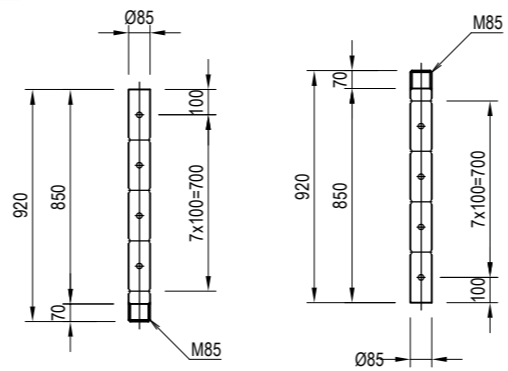
GENERAL CORROSION RESISTANT COATING FOR OUTSIDE SURFACE	
ZINC-GALVANIZE	PARTS NO. ○ SHOULD BE ZINC-GALVANIZED
	ADHESION AMOUNT AT LEAST 550g/m ² , 350g/m ² (BOLTS)

NOTES

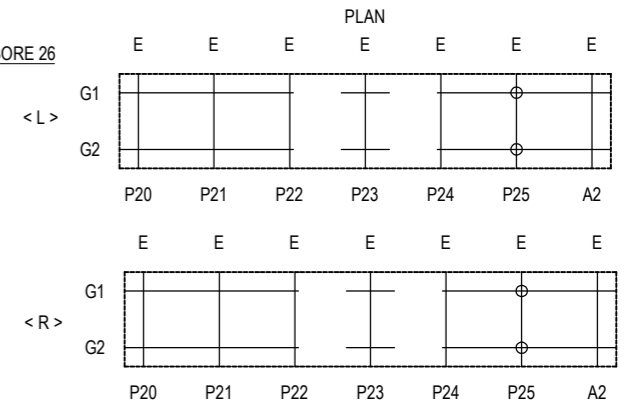
- NO NEED DEPENDING ON THE PRODUCTION COMPANY
- USE ORGANIC ZINC-RICH PAINT COATING ON TOP AND BOTTOM SURFACE OF BEARINGS
- USE BLACK OXIDE COATED CAP BOLT AND PAINT HIGH CONCENTRATION ZINC POWDER AFTER ASSEMBLY
- REBAR FOR REINFORCEMENT, D10ctc50 GRID, SHOULD BE ARRANGED IN BEARING BASE MORTAR. (53kg PER BEARING BASE)



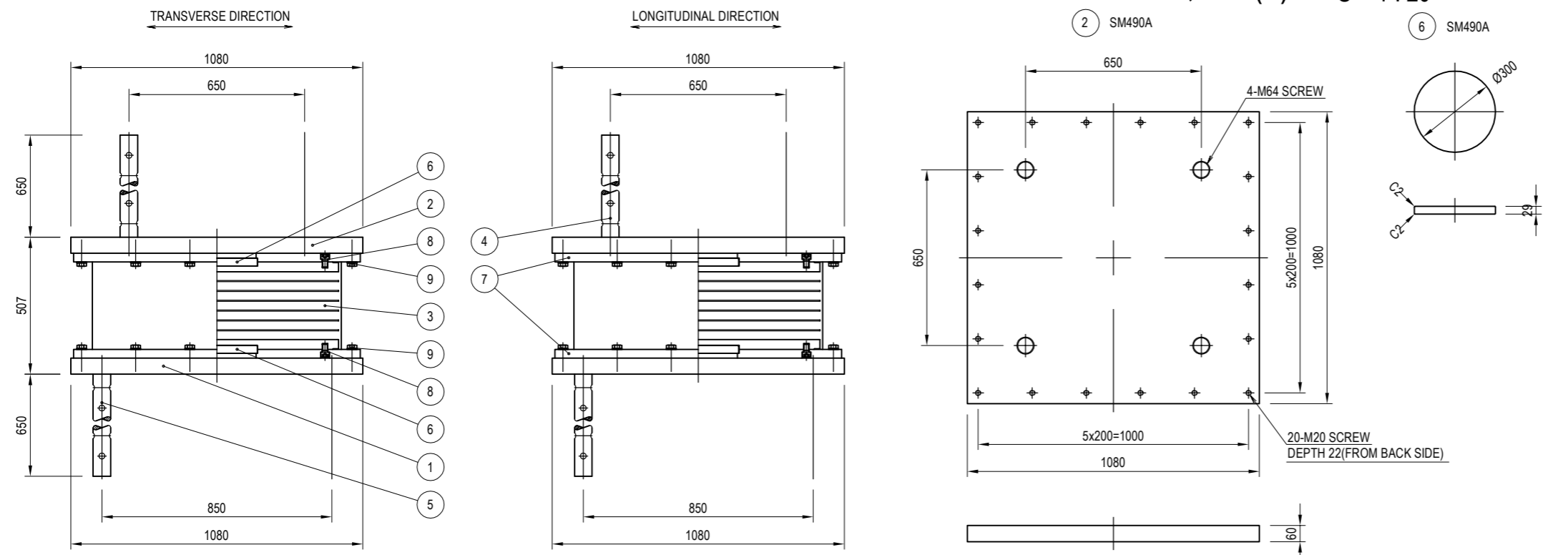
- ⑧ HEXAGON SOCKET CAP BOLT M24x40 10.9
- ⑨ HEXAGON HEAD BOLT MEDIUM M24x65 8.8 (WITH WASHER)



- NOTES:
- 1) All the dimensions and materials of this drawing are shown as reference.
 - 2) Details of the girder and substructure are designed based on this reference drawing.
 - 3) All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer.
 - 4) All the structural steels shall be galvanized for corrosion prevention with JIS H8641.



DETAIL OF BEARINGS P20-A2 < L,R > (5) S = 1 : 20

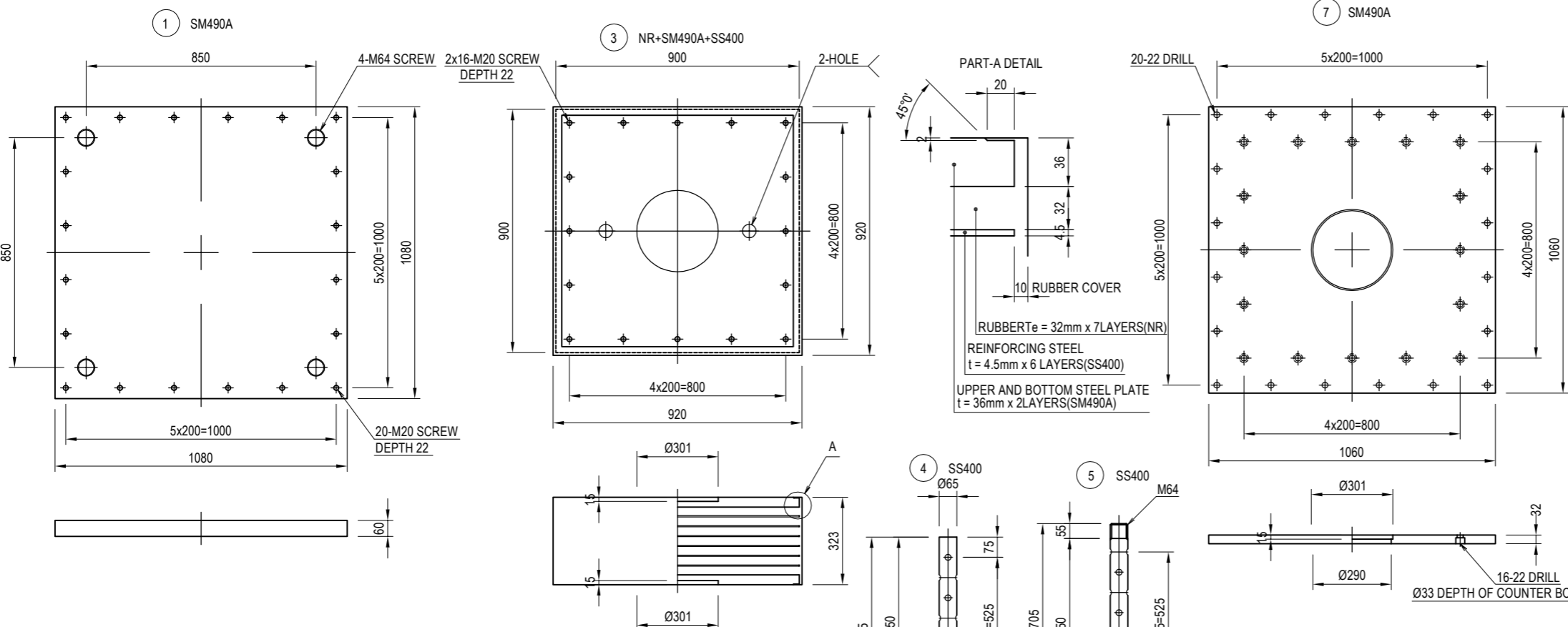


DESIGN CONDITION

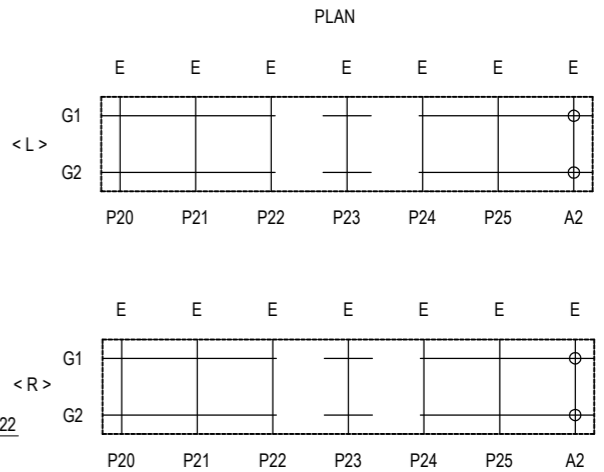
REACTION FORCE		
TOTAL REACTION	R	4000 kN
REACTION DUE TO DEAD LOAD	Rd	2800 kN
LONGITUDINAL (SEISMIC)	Rh1e	1125 kN
TRANSVERSE (SEISMIC)	Rh2e	0 kN
UPLIFT (SEISMIC)	V	280 kN
DEFORMATION		
MAXIMUM (SEISMIC)	UB	311 mm
RUBBER BEARING		
ELASTIC SHEAR MODULUS	Ge	1.0 N/mm ²
FRACTURE STRAIN	vu	550 %
DEFORMATION FOR TEST	ΔL	392 mm
EQUIVALENT RIGIDITY	KB	3.616 kN/mm
ALLOWABLE SHEAR STRAIN	ys	250 %
SECONDARY SHAPE FACTOR	S2	4.02
ROTATION VERIFICATION FORCE	R1	4000 kN
ROTATIONAL DEFORMATION	δr	1,500 mm
VERIFICATION FORCE	R1L	600 kN
COMPRESSIVE DEFORMATION BY VERIFICATION FORCE	δcL	0.674 mm
SUPPORT CONDITION OF BEARING		
LONGITUDINAL : ELASTIC	TRANSVERSE : FIXED	

MATERIALS

No.	NAME OF PARTS	TYPE OF MATERIAL	QUANTITY	WEIGHT (kg)	NOTES
①	BASE PLATE	SM490A	1	542.2	
②	SOLE PLATE	SM490A	1	542.2	
3	RUBBER BEARING	NR+SM490A	1	833.2	
4	ANCHOR BAR	SS400	4	73.5	
5	ANCHOR BOLT	SS400	4	73.5	
⑥	SHEAR KEY	SM490A	2	32.2	
⑦	TOP,BOTTOM PLATE	SM490A	2	520.6	
8	CAP BOLT	—	32	4.8	JIS B 1176
⑨	HEXAGON BOLT WASHER	—	40	8.8	JIS B 1180
TOTAL WEIGHT			2631.0	(kg)	
GENERAL CORROSION RESISTANT COATING FOR OUTSIDE SURFACE					
PARTS NO. ① SHOULD BE ZINC-GALVANIZED					
ADHESION AMOUNT					
ZINC-GALVANIZE AT LEAST 550g/m ² , 350g/m ² (BOLTS)					



- NOTES
- NO NEED DEPENDING ON THE PRODUCTION COMPANY
 - USE ORGANIC ZINC-RICH PAINT COATING ON TOP AND BOTTOM SURFACE OF BEARINGS
 - USE BLACK OXIDE COATED CAP BOLT AND PAINT HIGH CONCENTRATION ZINC POWDER AFTER ASSEMBLY
 - REBAR FOR REINFORCEMENT, D10ctc50 GRID, SHOULD BE ARRANGED IN BEARING BASE MORTAR. (29kg PER BEARING BASE)

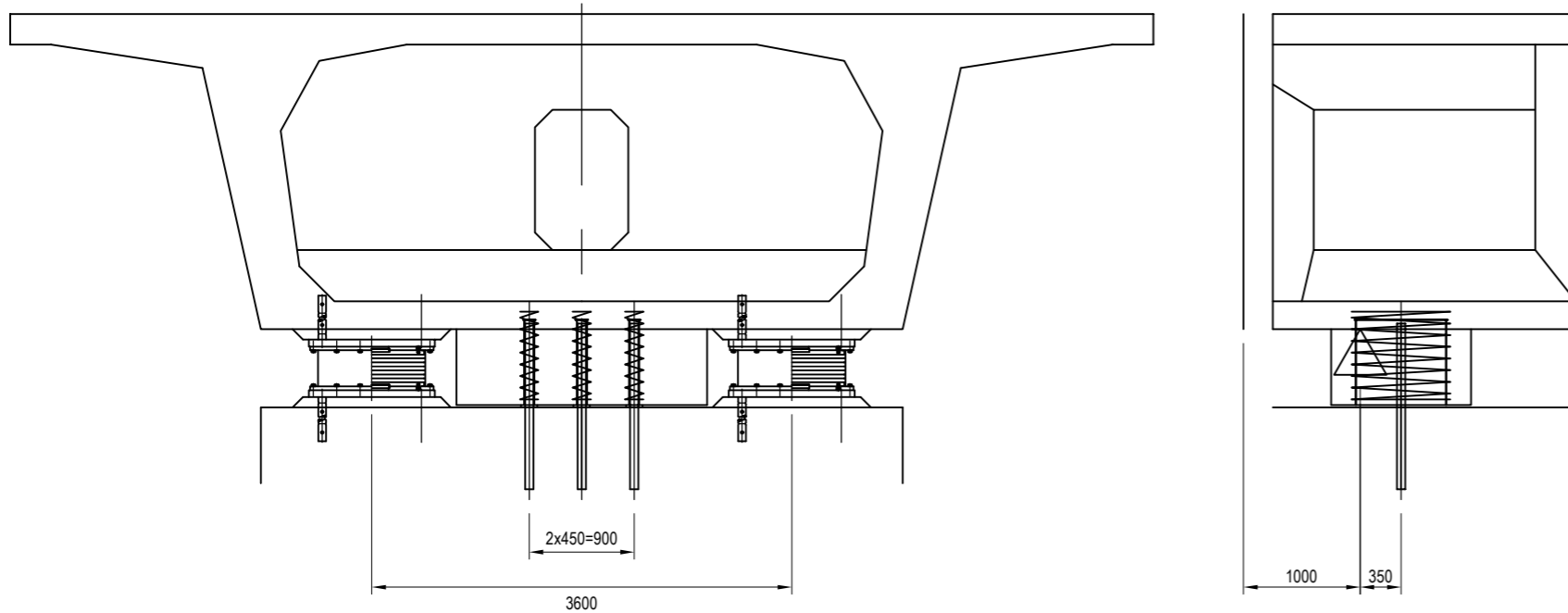


- NOTES :
- All the dimensions and materials of this drawing are shown as reference.
 - Details of the girder and substructure are designed based on this reference drawing.
 - All details and function of the bearing may alter by the proposal of the Contractor and shall be approved by the Engineer .
 - All the structural steels shall be galvanized for corrosion prevention with JIS H8641.

DETAIL OF BEARINGS P20-A2 < L,R > (6) S = 1 : 20

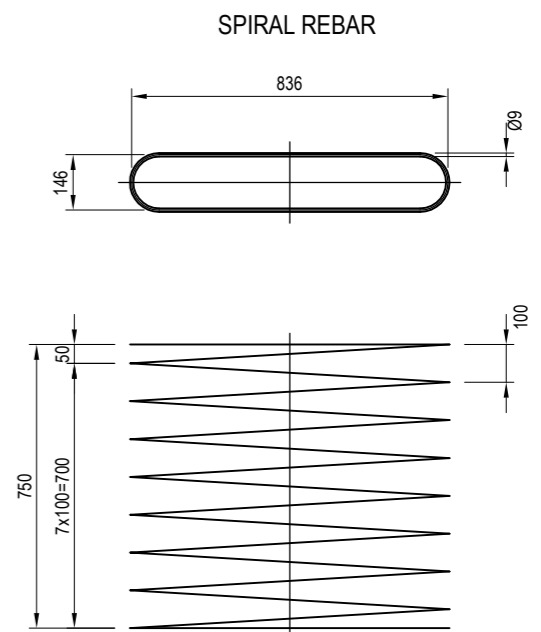
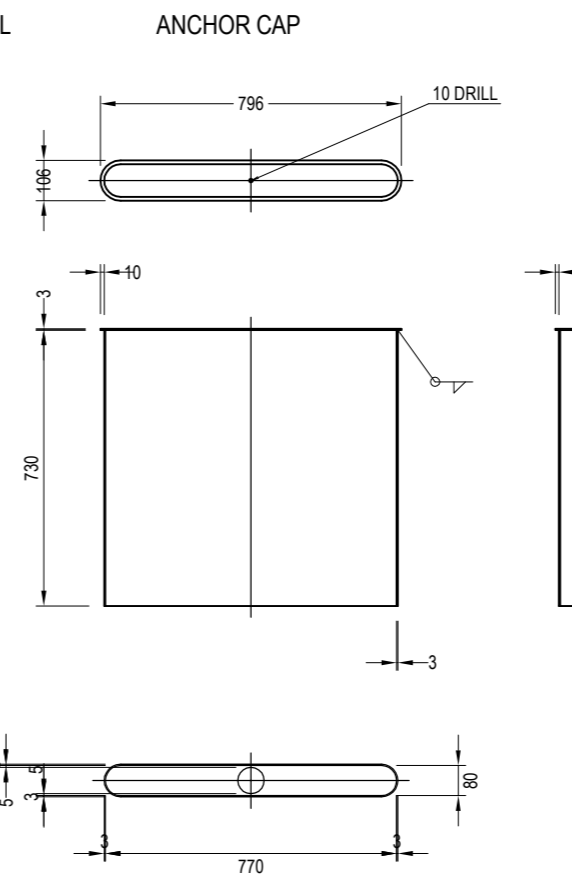
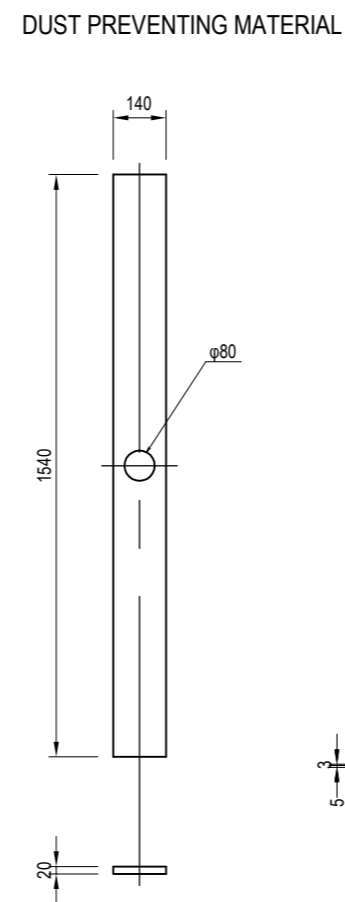
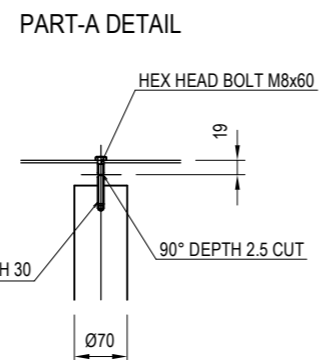
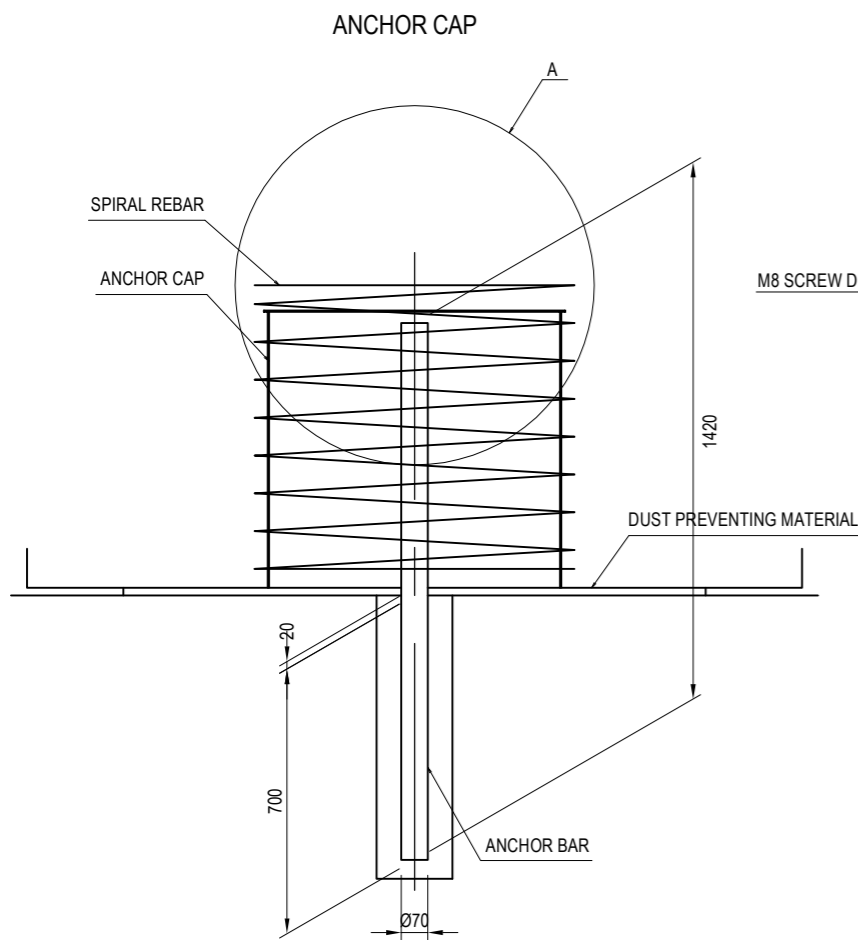
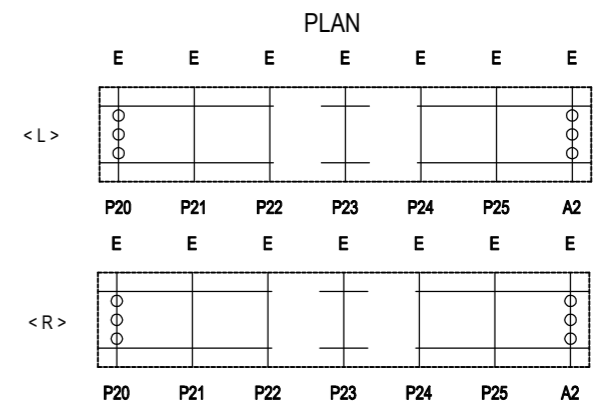
ANCHOR BAR

CROSS SECTION S = 1 : 36



P20,A2 MATERIALS					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø70×1420	S35CN	3	128.7	ZINC GALVANIZE
ANCHOR CAP	80×770×730	SS400	3	96.5	ZINC GALVANIZE
SPIRAL REBAR	Ø9×17480	SS400	3	26.2	—
DUST PREVENTING MATERIAL	140×20×1540	RUBBER	3	—	—
HEX HEAD BOLT	M8×60	—	3	—	—

NOTES
-THE TABLE IS FOR SINGLE BEARING



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO. LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

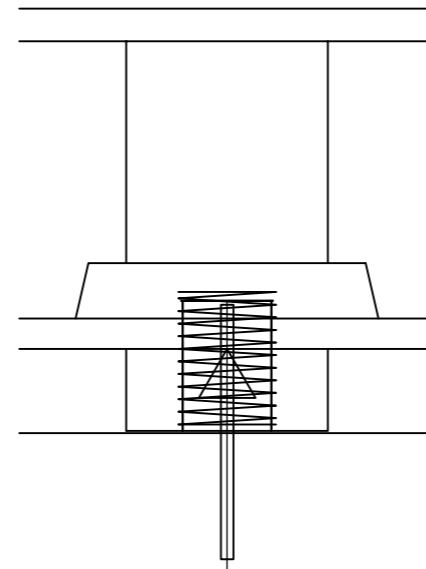
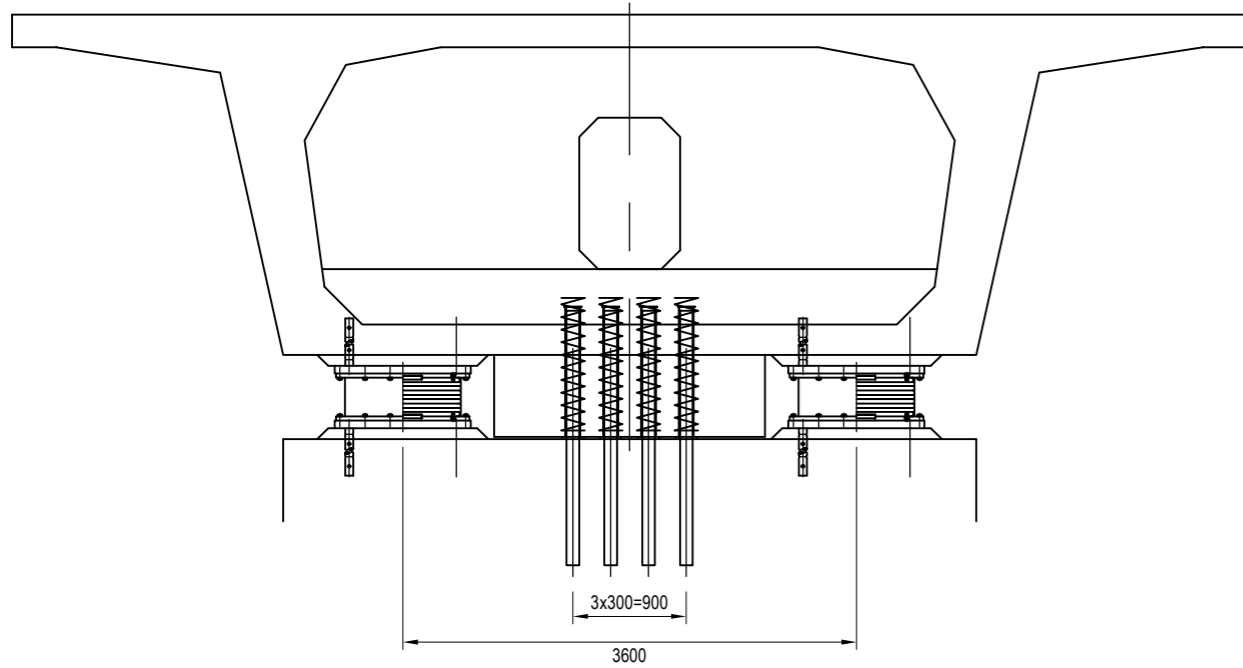
DRAWING TITLE
DETAIL OF BEARINGS P20-A2 < L,R > (6)

PACKAGE
2
DWG No.
P2-PB-3006

DETAIL OF BEARINGS P20-A2 < L,R > (7) ANCHOR BAR

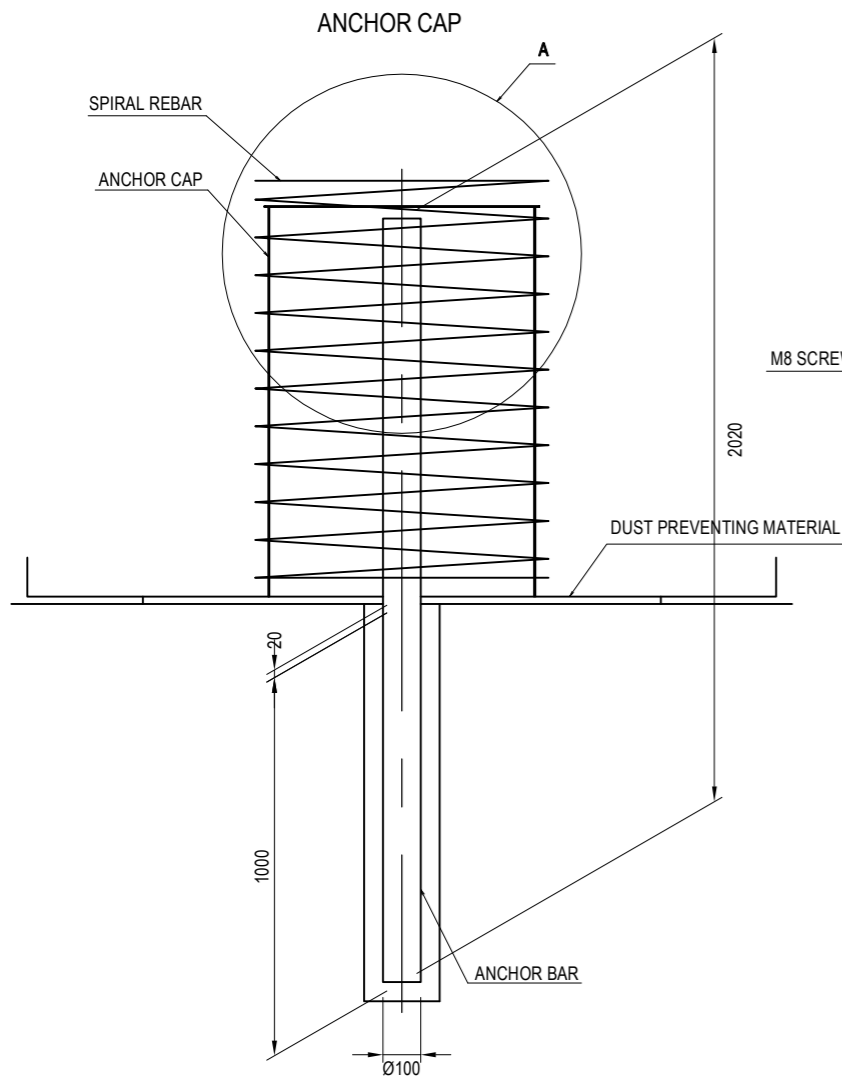
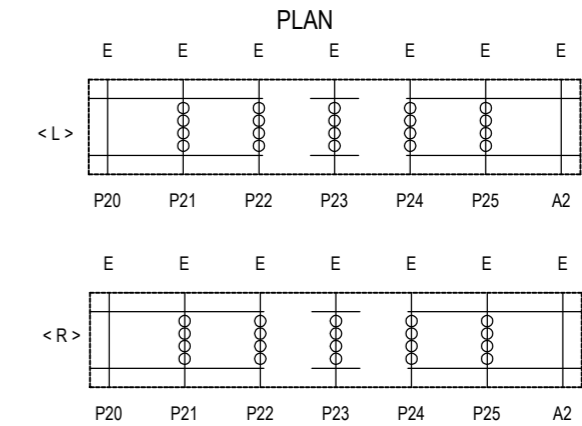
S = 1 : 20

CROSS SECTION S = 1 : 36

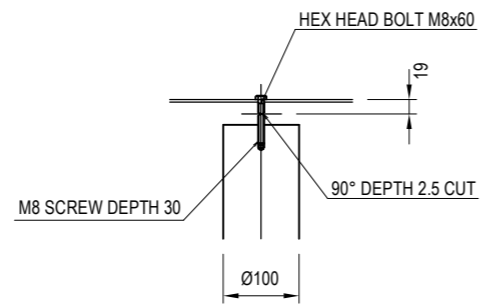


P21 - P25 MATERIALS					
NAME OF PART	SIZE	MATERIAL	QUANTITY	WEIGHT	NOTE
ANCHOR BAR	Ø100×2020	S35CN	4	498.2	ZINC GALVANIZE
ANCHOR CAP	110×700×1030	SS400	4	168.5	ZINC GALVANIZE
SPIRAL REBAR	Ø9×21680	SS400	4	43.3	—
DUST PREVENTING MATERIAL	170×20×1370	RUBBER	4	—	—
HEX HEAD BOLT	M8×60	—	4	—	—

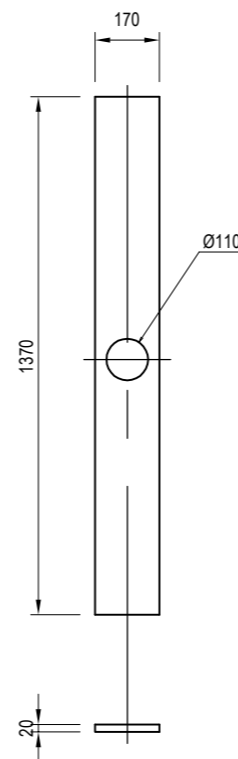
NOTES
-THE TABLE IS FOR SINGLE BEARING



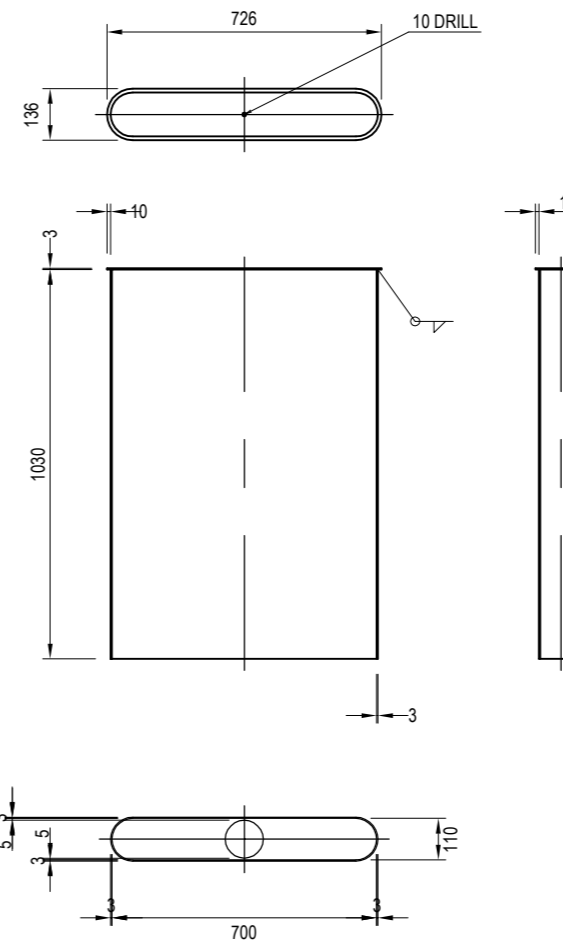
PART-A DETAIL



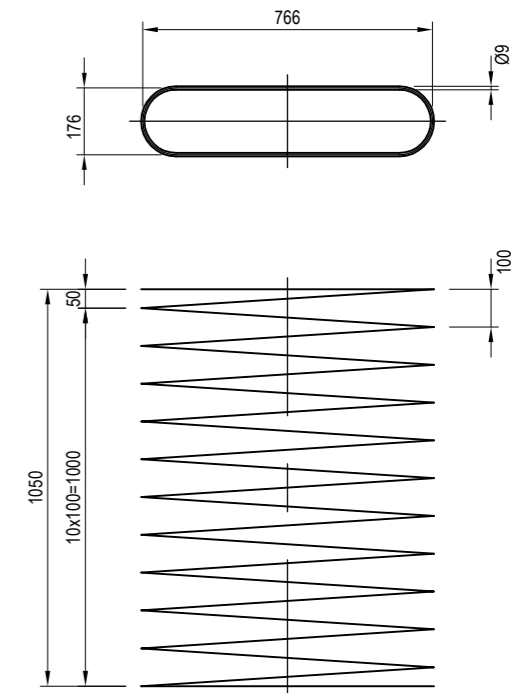
DUST PREVENTING MATERIAL



ANCHOR CAP



SPIRAL REBAR



PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO. LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
DETAIL OF BEARINGS P20-A2 < L,R > (7)

PACKAGE
2
DWG No.
P2-PB-3007

DETAIL OF EXPANSION JOINT P20-A2 < L,R > (1) S=1:30

A2(L)

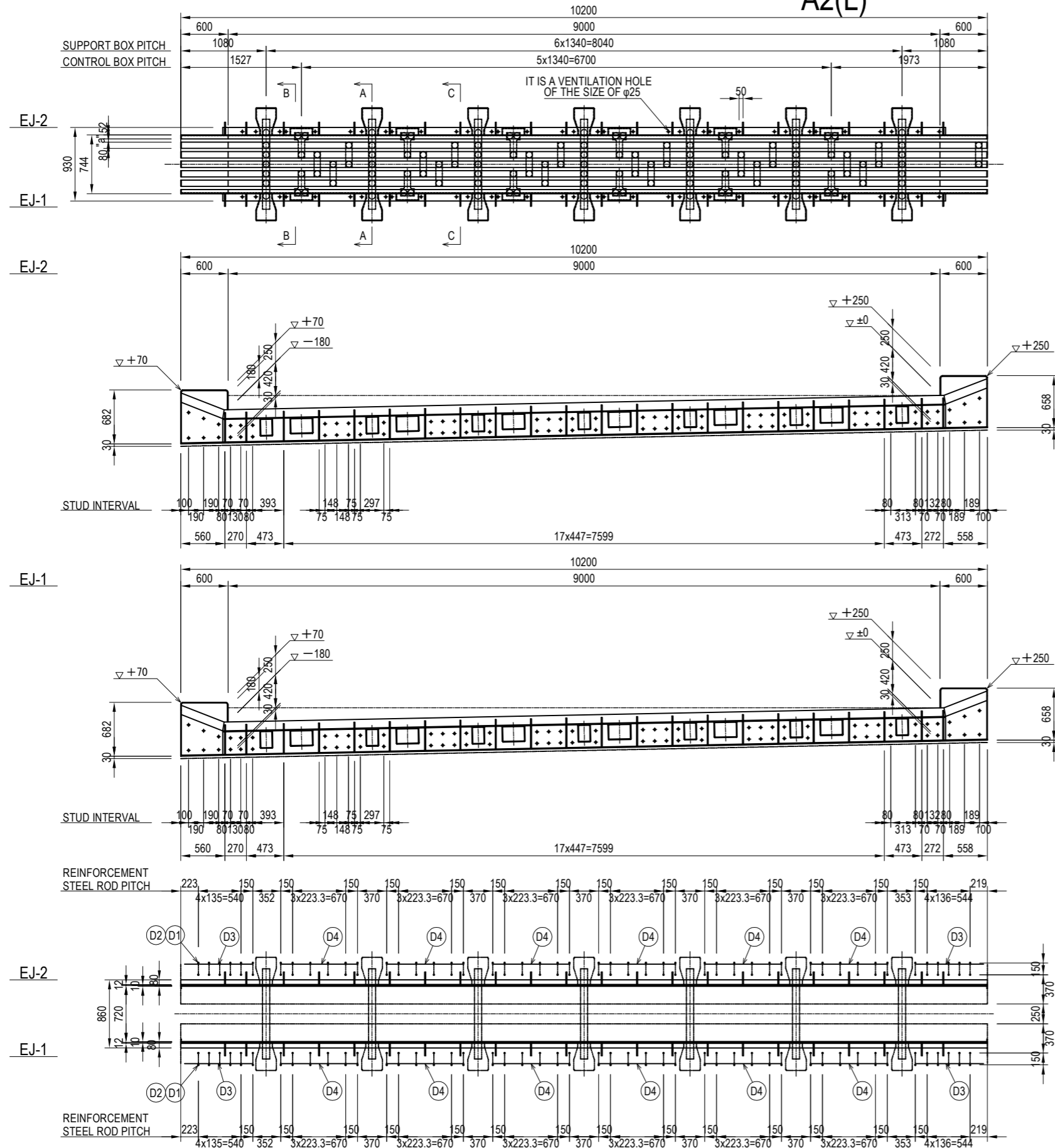
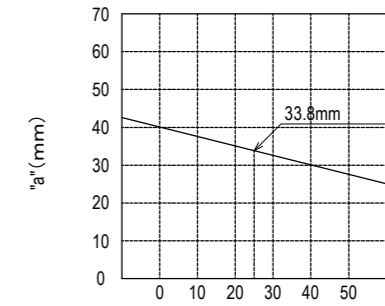


TABLE OF INSTALLATION CLEARANCE (PER ONE CELL)



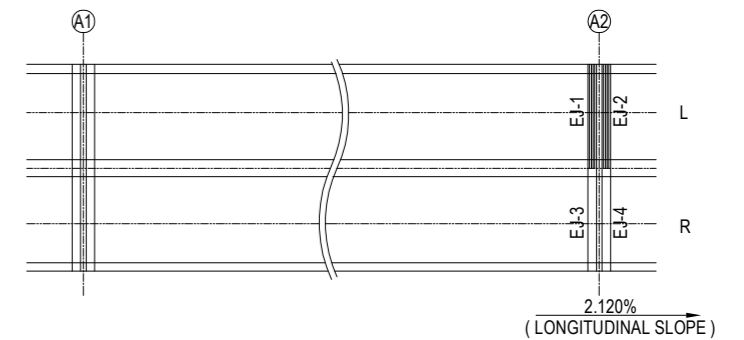
TEMPERATURE (°C)

SHIFTING AMOUNT BY A CHANGE OF TEMPERATURE PER 1 °C (PER ONE CELL) = 0.250mm

AMOUNT OF MOVEMENTS (mm)

SERVICE		GIRDER		
		ΔL (+)	ΔL (-)	ΔL
TEMPERATURE	TEMPERATURE	30.0	30.0	60.0
	CREEP		20.0	20.0
	SHRINKAGE		17.0	17.0
	ALLOWANCE(20%)	6.0	13.4	19.4
	TOTAL	36.0	80.4	116.4
SEISMIC	SEISMIC	223.0	223.0	446.0
	ALLOWANCE(±15mm)	15.0	15.0	30.0
	TOTAL	238.0	238.0	476.0
DESIGN MOVEMENT		476.0		

LOCATION



NOTES

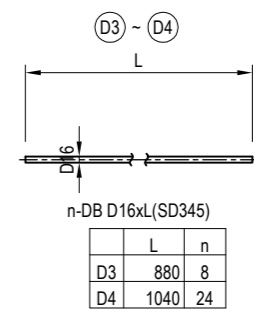
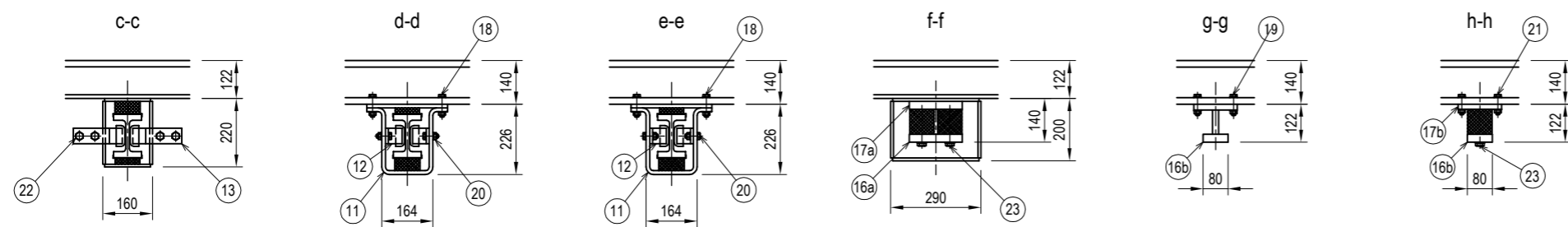
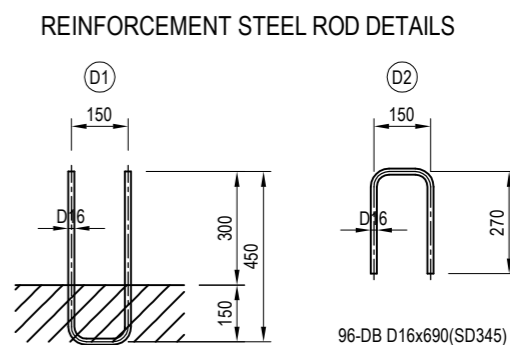
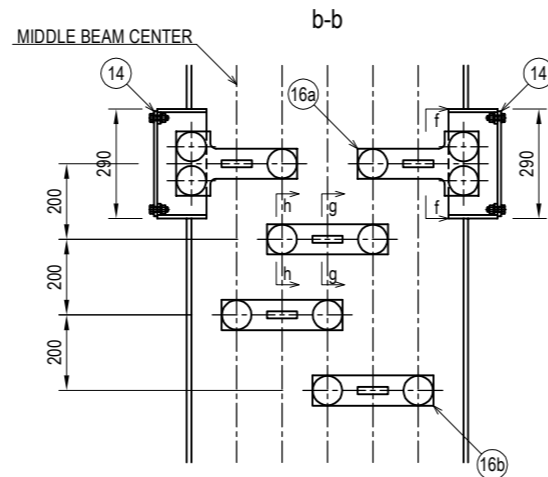
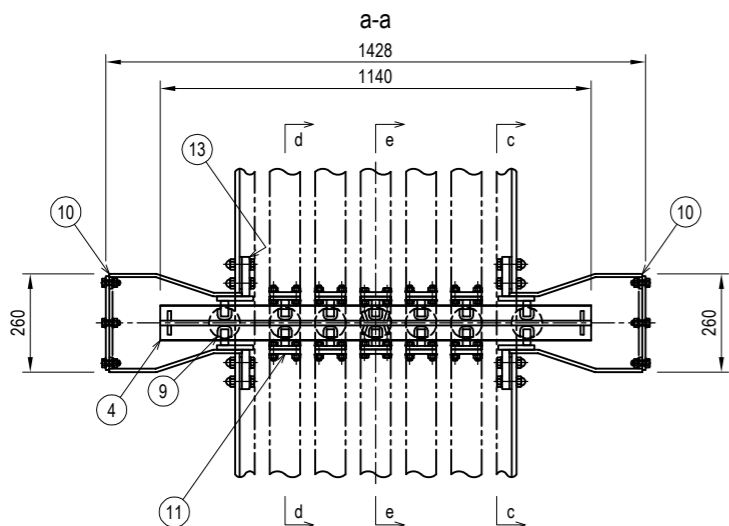
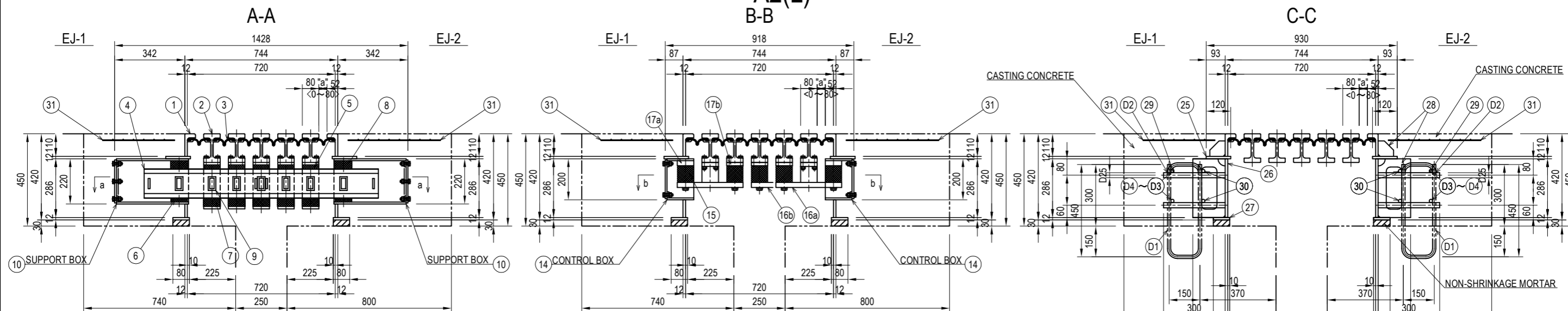
- This drawing shows the state "a"=40mm (at time of neutrality) interval per one cell.
- Refer to NO.2 for the section of A-C and the details of each part.

NOTES:

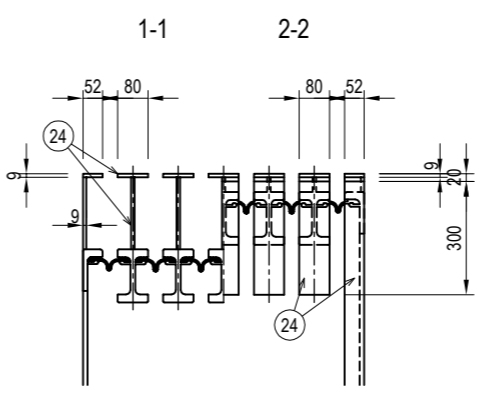
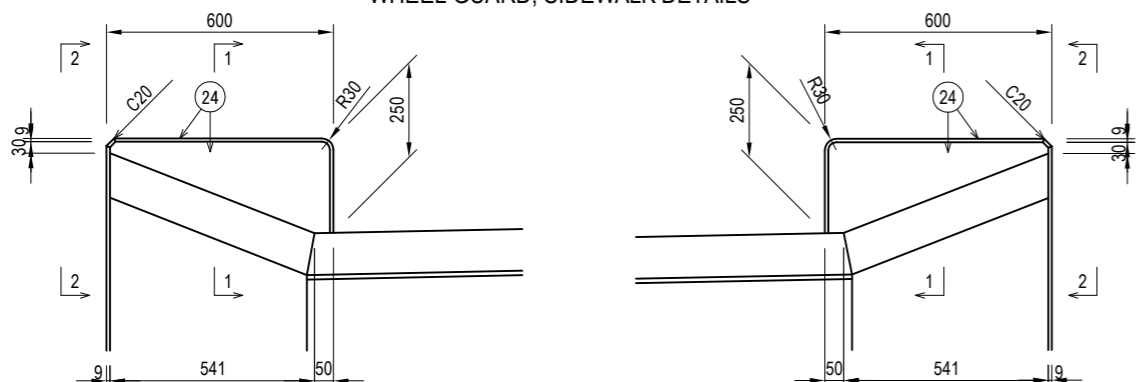
- 1) All the dimensions and materials of this drawing are shown as reference.
- 2) Details of the slab and girder are designed based on this reference drawing.
- 3) All details and function of the expansion joint may alter by the proposal of the Contractor and shall be approved by the Engineer.
- 4) The expansion joint shall be set just before the start of service in consideration of thermal expansion, creep and shrinkage of concrete girder.

DETAIL OF EXPANSION JOINT P20-A2 < L,R > (2) S=1:10

A2(L) B-B



WHEEL GUARD, SIDEWALK DETAILS



- NOTES**
- This drawing shows the state "a"=40mm (at time of neutrality) interval per one cell.
 - The welding portion without directions is 6mm fillet welding.
 - The reinforcement steel rods (D1) ~ (D4) are arranging by the lower industrial company.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF EXPANSION JOINT P20-A2 < L,R > (2)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-3102

DETAIL OF EXPANSION JOINT P20-A2 < L,R > (3) S=1:30

A2(R)

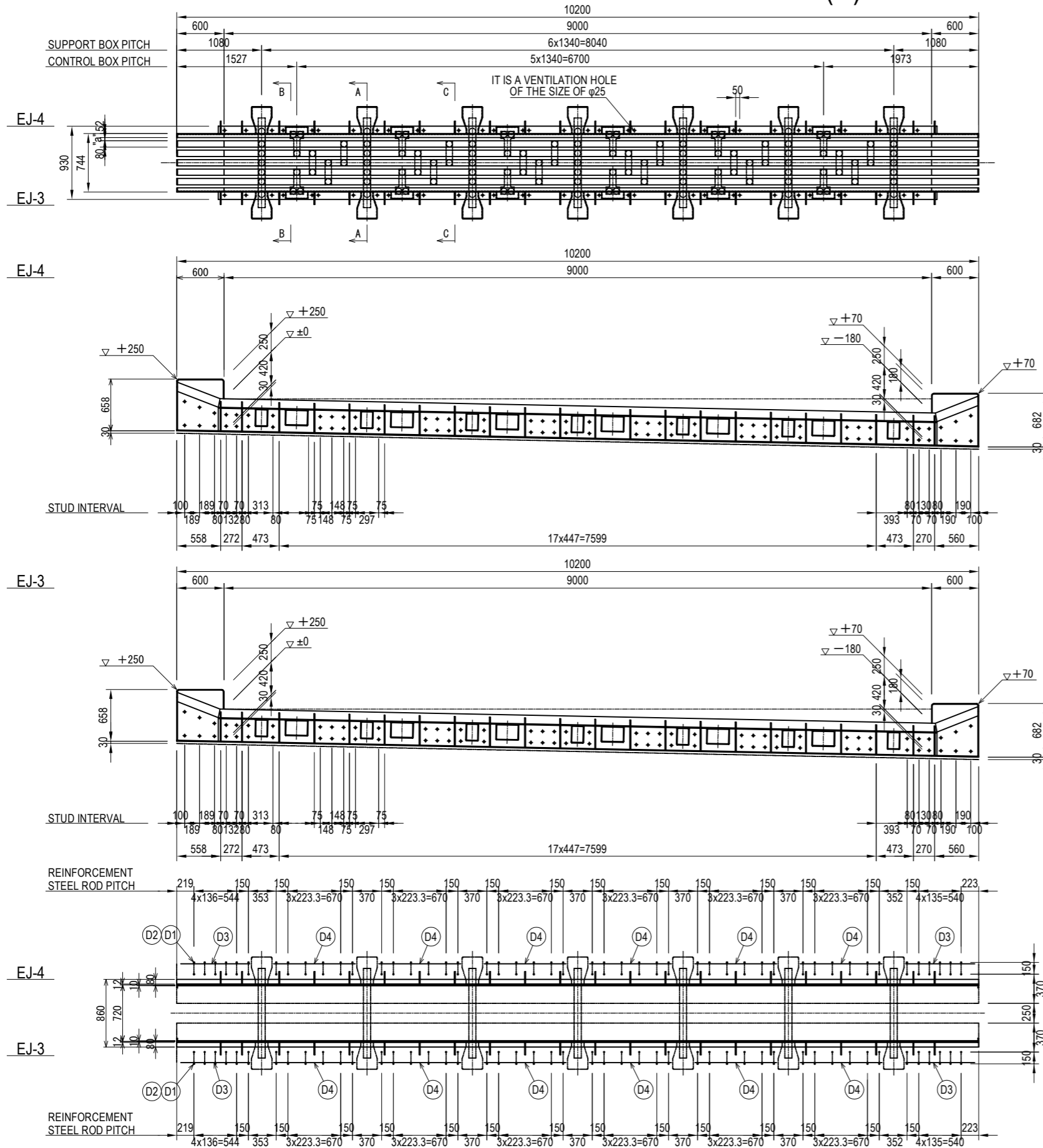
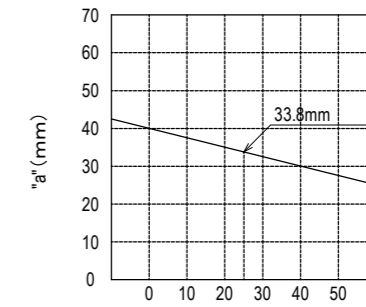


TABLE OF INSTALLATION CLEARANCE
(PER ONE CELL)

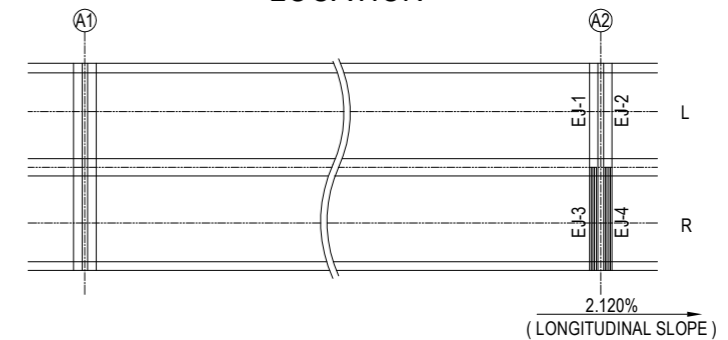


SHIFTING AMOUNT BY A CHANGE OF TEMPERATURE PER 1 °C (PER ONE CELL) = 0.250mm

AMOUNT OF MOVEMENTS (mm)

		GIRDER ΔL (+)	GIRDER ΔL (-)	GIRDER ΔL
SERVICE	TEMPERATURE	30.0	30.0	60.0
	CREEP		20.0	20.0
	SHRINKAGE		17.0	17.0
	ALLOWANCE(20%)	6.0	13.4	19.4
	TOTAL	36.0	80.4	116.4
SEISMIC	SEISMIC	223.0	223.0	446.0
	ALLOWANCE(± 15 mm)	15.0	15.0	30.0
	TOTAL	238.0	238.0	476.0
DESIGN MOVEMENT		476.0		

LOCATION



NOTES

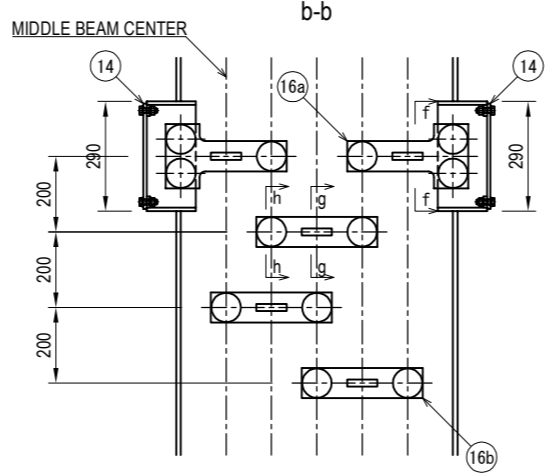
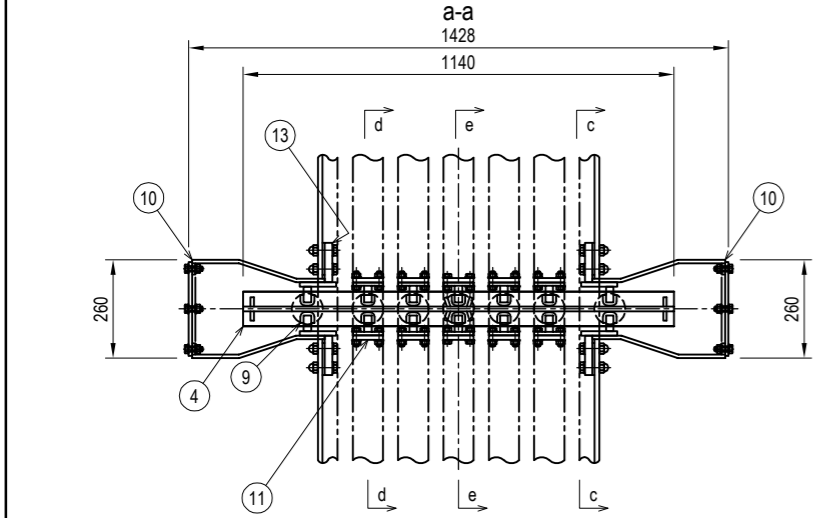
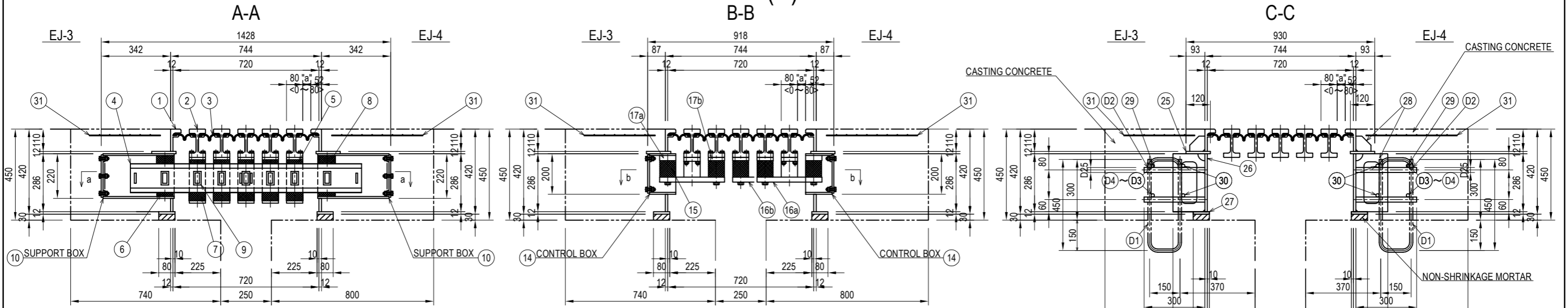
-This drawing shows the state "a"=40mm (at time of neutrality) interval per one cell.
-Refer to NO.2 for the section of A-C and the details of each part.

NOTES:

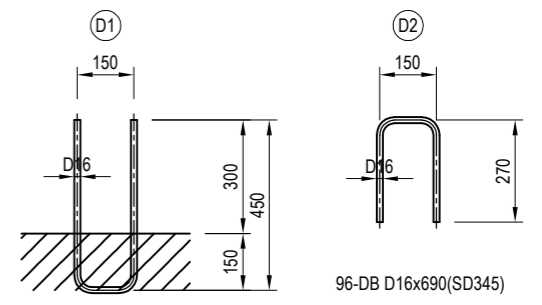
- 1) All the dimensions and materials of this drawing are shown as reference.
- 2) Details of the slab and girder are designed based on this reference drawing.
- 3) All details and function of the expansion joint may alter by the proposal of the Contractor and shall be approved by the Engineer.
- 4) The expansion joint shall be set just before the start of service in consideration of thermal expansion, creep and shrinkage of concrete girder.

DETAIL OF EXPANSION JOINT P20-A2 < L,R > (4) S=1:10

A2(R)

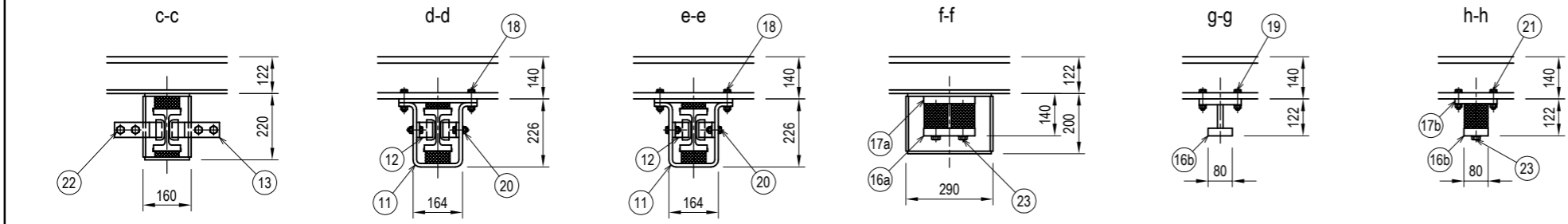


REINFORCEMENT STEEL ROD DETAILS

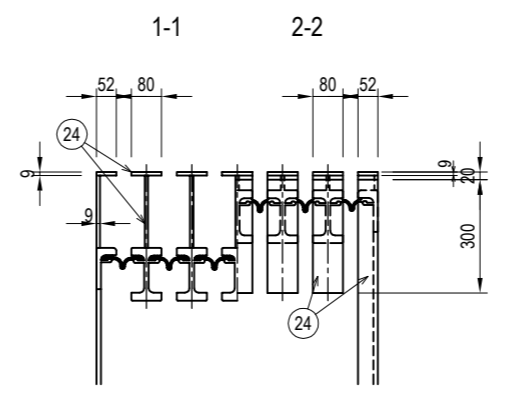
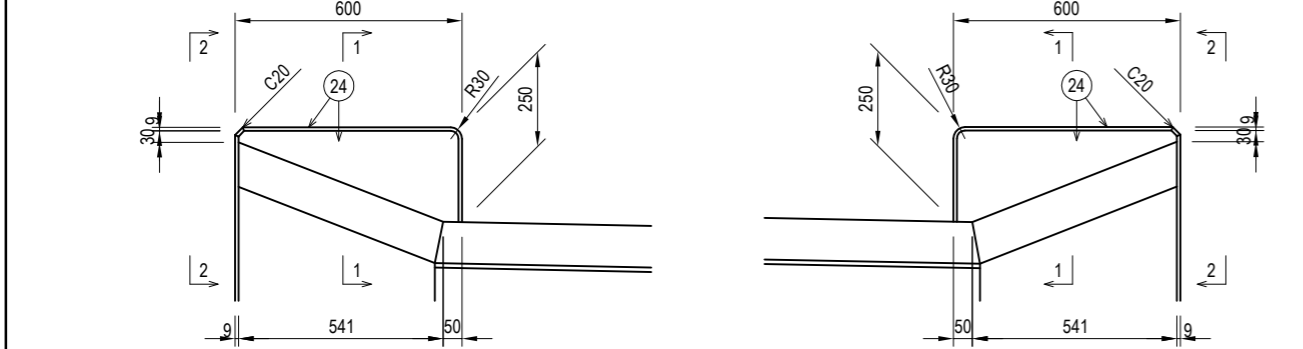


96-DB D16x1050(SD345)

	L	n
D3	880	8
D4	1040	24



WHEEL GUARD, SIDEWALK DETAILS



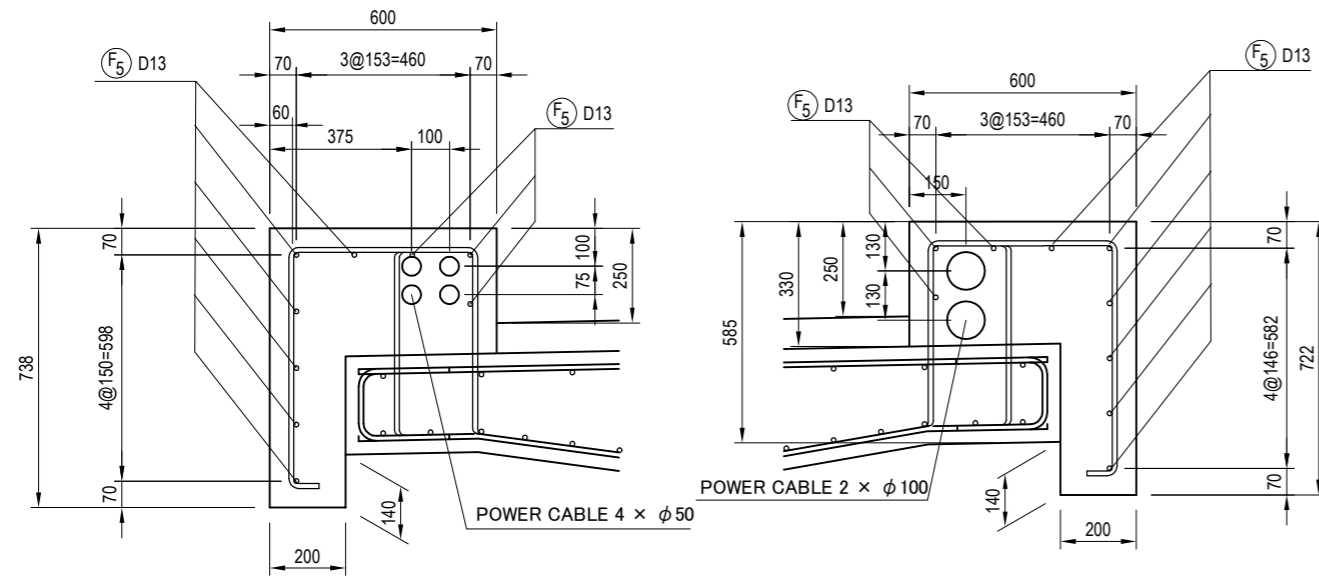
NOTES

- This drawing shows the state "a"=40mm (at time of neutrality) interval per one cell.
- The welding portion without directions is 6mm fillet welding.
- The reinforcement steel rods (D1) ~ (D4) are arranging by the lower industrial company.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO.,LTD.	NAME M. OHYAMA T. HAYAKAWA Y. SANO	SIGNATURE 大山 満弘 平川 知邦 佐藤 祐一	DATE 15 Jun.2017 20 Jun.2017 21 Jun.2017	DRAWING TITLE DETAIL OF EXPANSION JOINT P20-A2 < L,R > (4)	PACKAGE 2 DWG No. P2-PB-3104
---	--	---	--	---	--------------------------------------	---	--	---------------------------------------

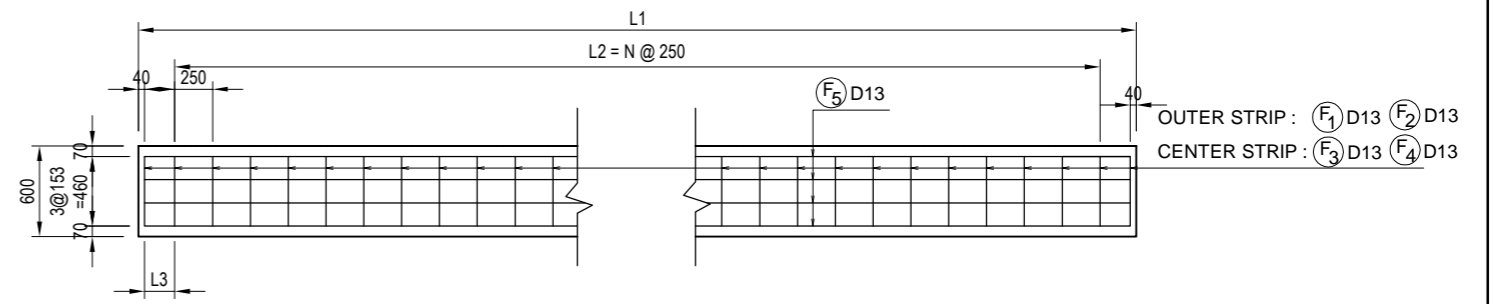
DETAIL OF CURB P20-A2 < L,R >

CROSS SECTION S = 1 : 20



S = 1 : 20

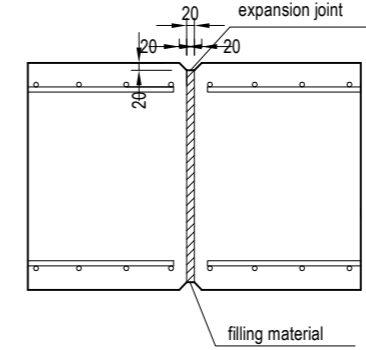
PLAN S = 1 : 50



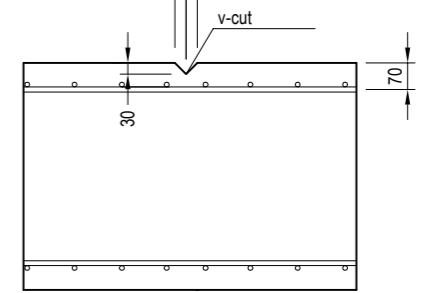
Type	L1	L2	n	L3	L4
A	50000	49500	198	210	3480
B	49750	49250	197	210	3230

S = 1 : 20

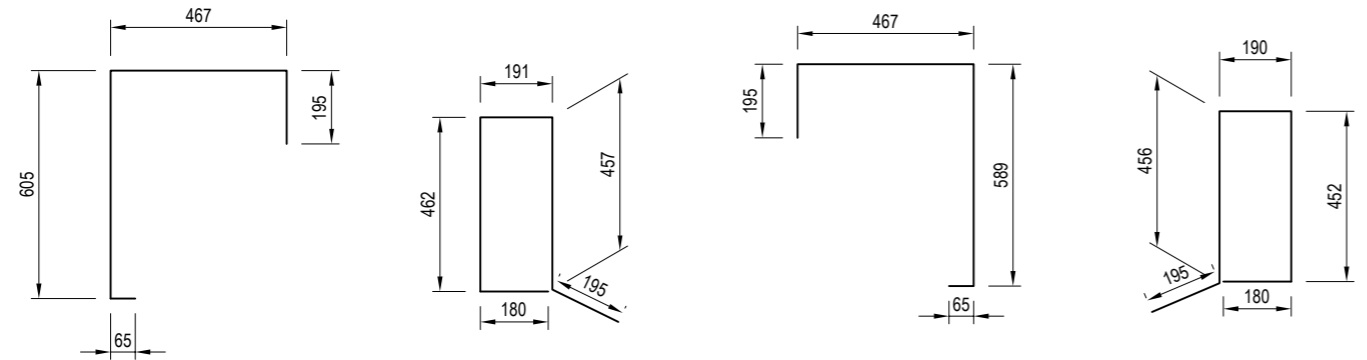
EXPANSION JOINT



V-CUT

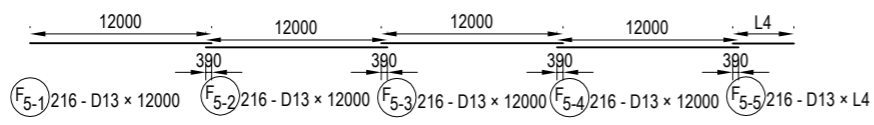


Notes : Install V-cut approximately about every 10m .



- F₁ 2408 - D13 x 1340
- F₂ 2408 - D13 x 1490
- F₃ 2408 - D13 x 1320
- F₄ 2408 - D13 x 1480

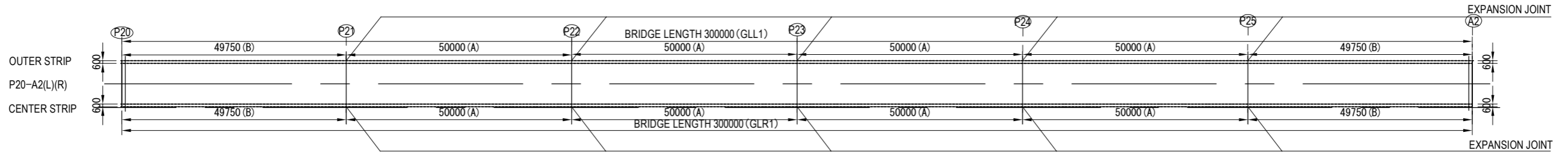
S = 1 : 500



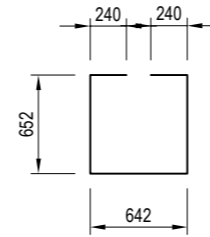
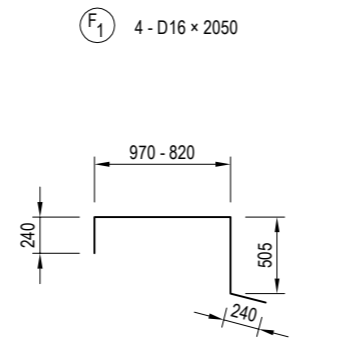
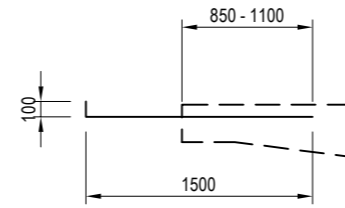
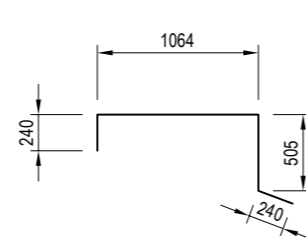
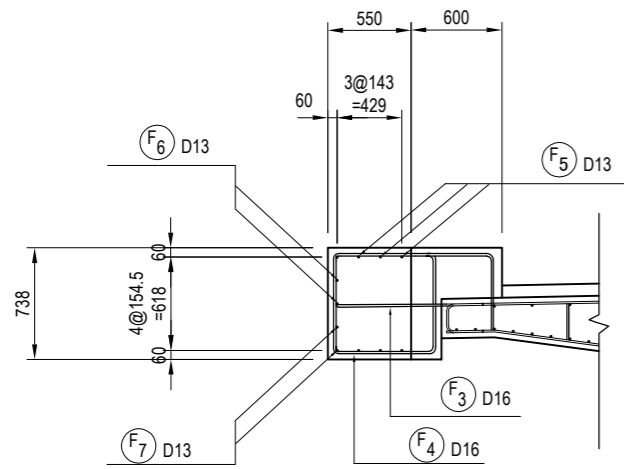
BAR STATISTICS TABLE (SD345)

Bar Mark	Bar Size	Length (mm)	No. of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
F1	D13	1340	2408	0.995	1.33	3203	□
F2	"	1490	2408	"	1.48	3564	□
F3	"	1320	2408	"	1.31	3154	□
F4	"	1480	2408	"	1.47	3540	□
F5	"	51400	216	"	51.14	11046	—
						Total Weight	24507 kg

PLAN S = 1 : 1000

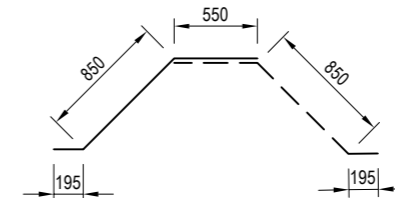
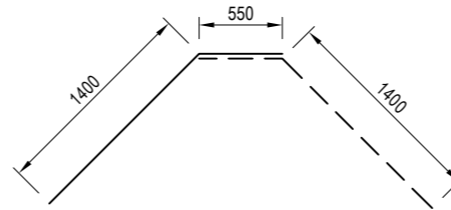
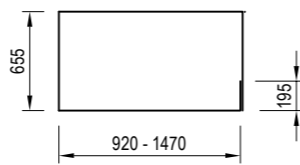
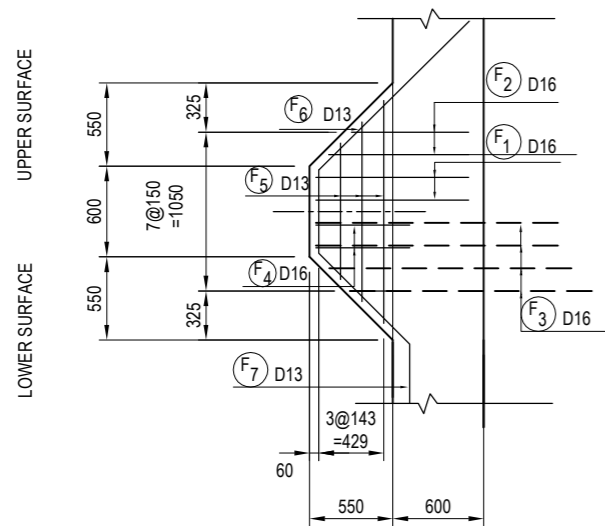


DETAIL OF LIGHTING BASE P20-A2 < L,R > S=1:50



BAR STATISTICS TABLE (SD345 PER LIGHTING BASE)

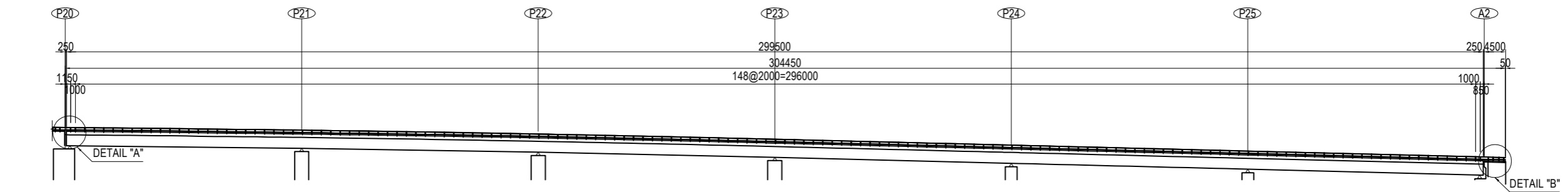
Bar Mark	Bar Size	Length (mm)	No. of Bar (Nos)	Unit Wt (kg/m)	Rod Wt (kg)	Total Weight (kg)	Shape
F1	D16	2050	4	1.560	3.20	13	┌┐
F2	"	1880	4	"	2.93	12	┌┐
F3	"	1600	8	"	2.50	20	┌┐
F4	"	2430	4	"	3.79	15	┌┐
F5	D13	3900	3	0.995	3.88	12	┌┐
F6	"	1950	4	"	1.94	8	┌┐
F7	"	1600	4	"	1.59	6	┌┐
					D16	60 kg	
					D13	26 kg	
					Total Weight	86 kg	



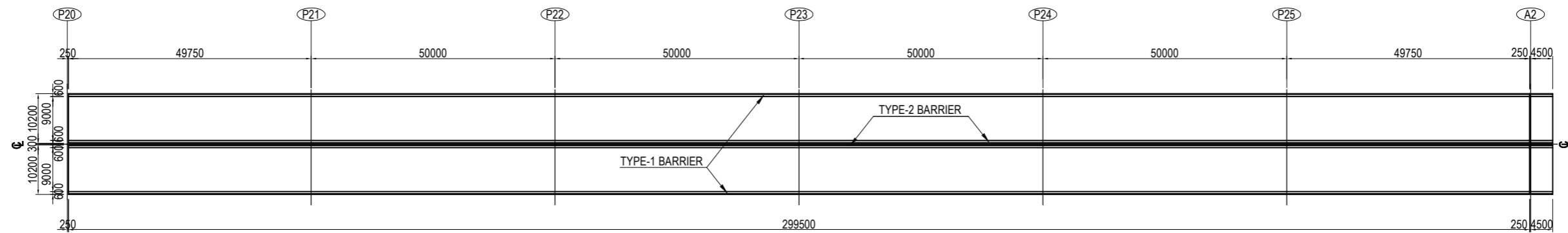
Notes :
Number and location of lighting base shall be referred to the drawings of "F. Lightings" series P2-EL.

DETAIL OF RAILINGS P20-A2 <L,R> (1)

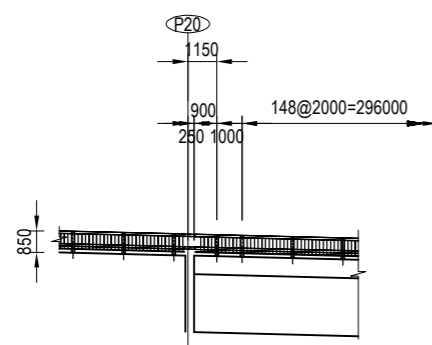
PROFILE S=1:1000



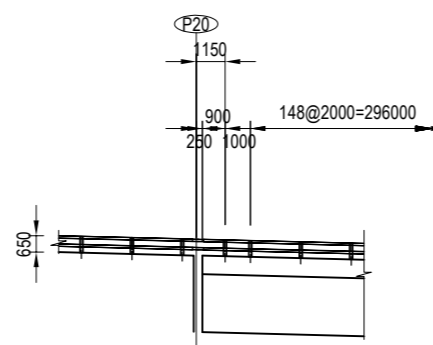
PLAN VIEW S=1:1000



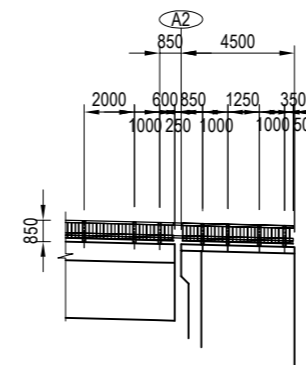
DETAIL OF "A" (TYPE-1) S=1:300



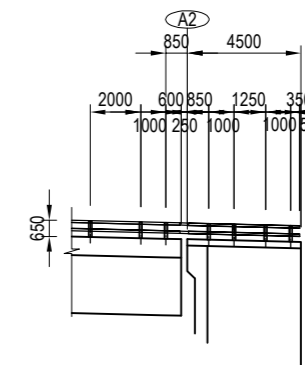
DETAIL OF "A" (TYPE-2) S=1:300



DETAIL OF "B" (TYPE-1) S=1:300



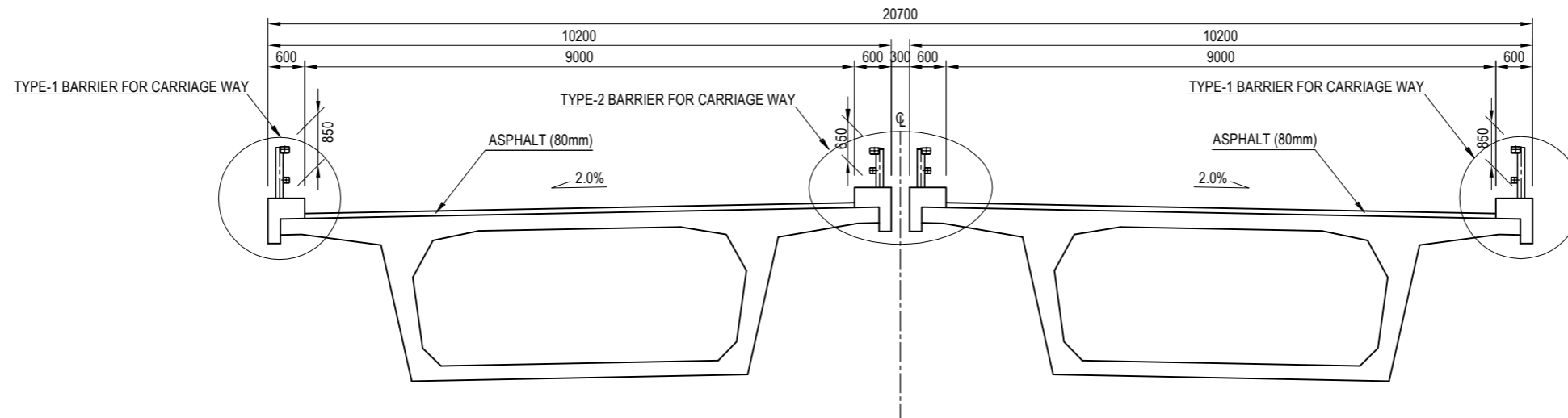
DETAIL OF "B" (TYPE-2) S=1:300



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE DETAIL OF RAILINGS P20-A2 <L,R> (1)	PACKAGE	
				PREPARED BY	M. OHYAMA			15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA			20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO			21 Jun.2017	P2-PB-3401

DETAIL OF RAILINGS P20-A2 <L,R> (2)

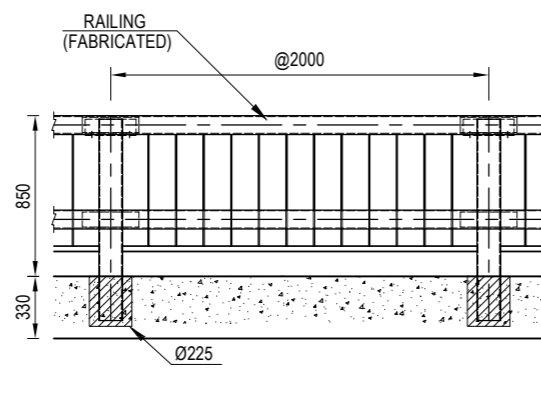
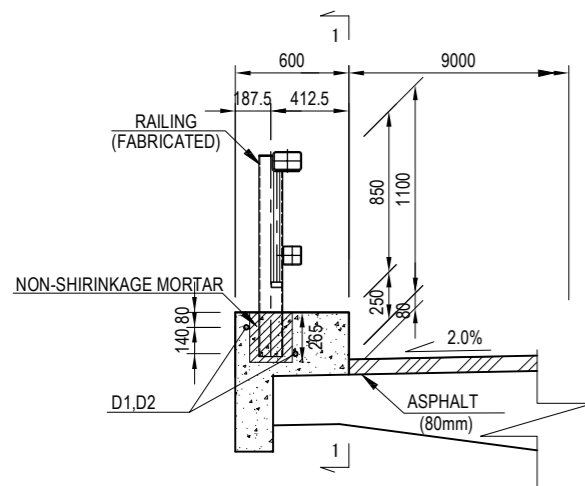
TYPICAL CROSS SECTION S=1:100



TYPE-1 BARRIER FOR CARRIAGE WAY S=1:40

CROSS SECTIONAL VIEW

1 - 1

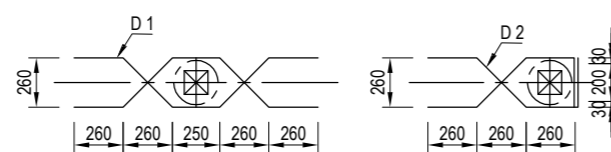


PLAN VIEW

REINFORCEMENT FOR RAILING ANCHORAGE

INTERMEDIATE POSTS

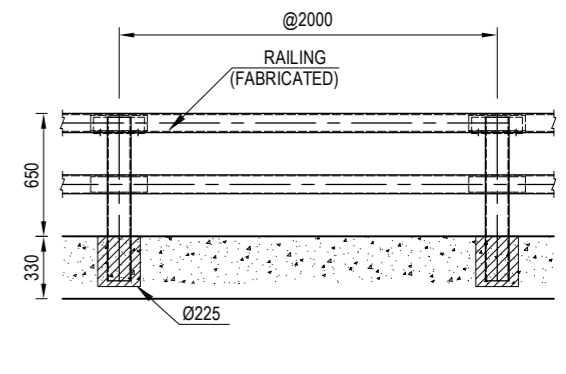
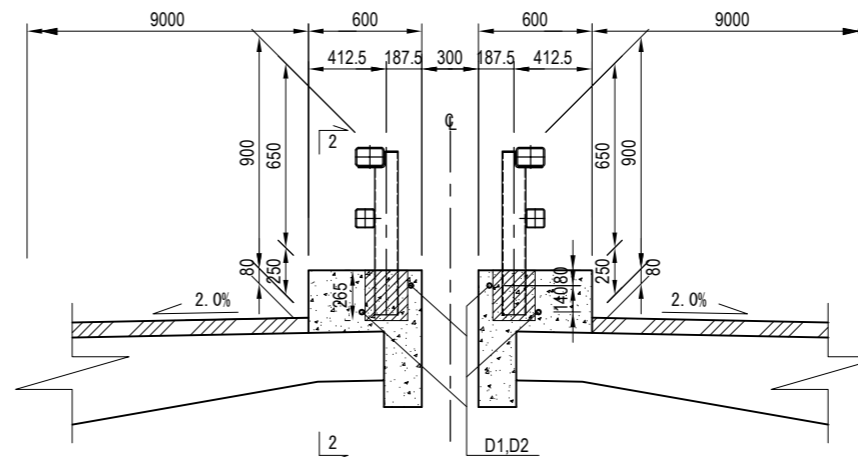
END POSTS



TYPE-2 BARRIER FOR CARRIAGE WAY S=1:40

CROSS SECTIONAL VIEW

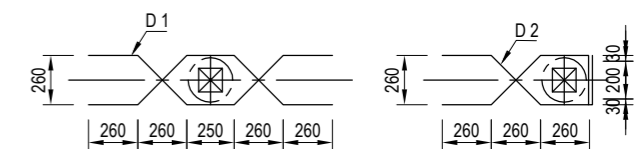
2 - 2



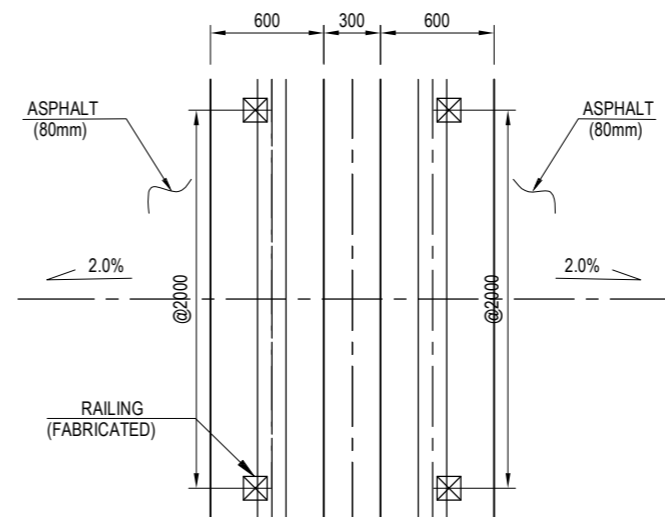
REINFORCEMENT FOR RAILING ANCHORAGE

INTERMEDIATE POSTS

END POSTS



PLAN VIEW



BAR STATISTICS TABLE

REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBERS	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	SHAPE
D 1	25	1 510	1208	3.980	6.01	7260	
D 2	25	1 150	32	3.980	4.58	147	
						TOTAL	7407 kg

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

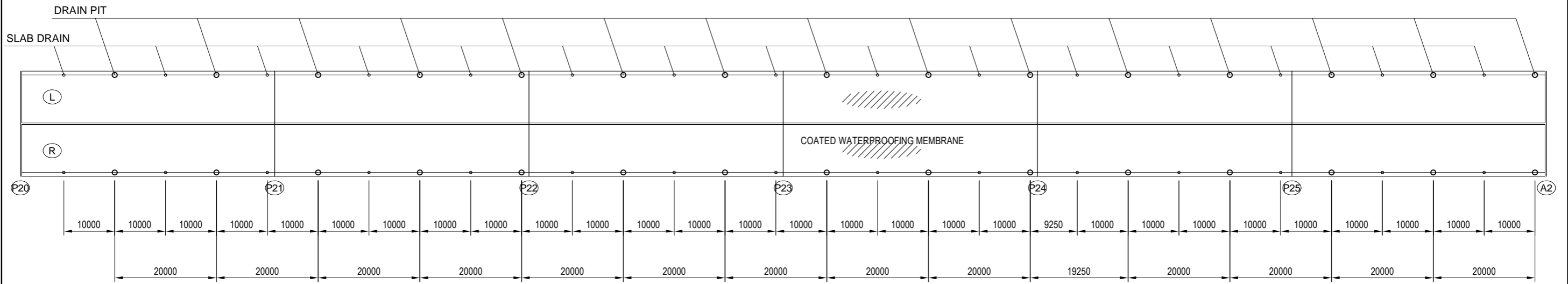
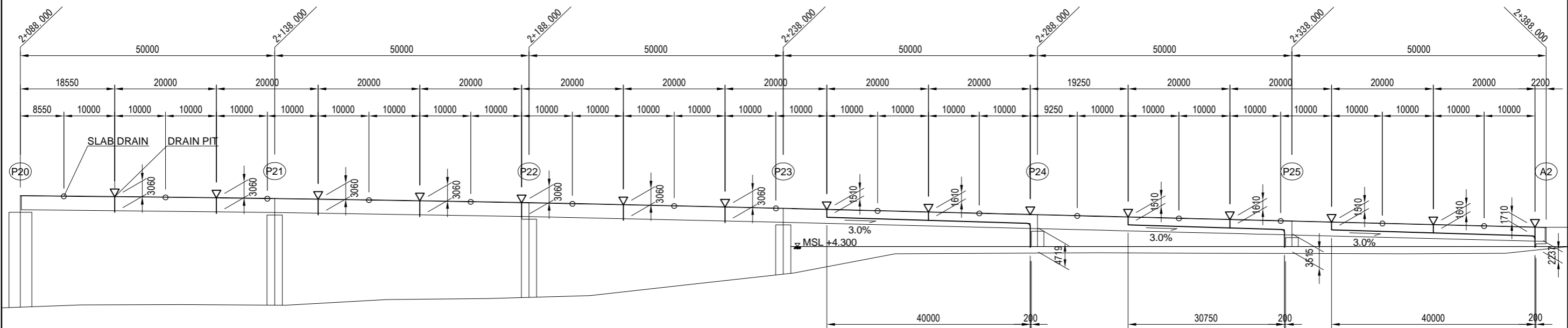
JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
 ORIENTAL CONSULTANTS GLOBAL CO., LTD.
 METROPOLITAN EXPRESSWAY COMPANY LIMITED
 CHODAI CO. LTD.
 NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

DRAWING TITLE
DETAIL OF RAILINGS
P20-A2 <L,R> (2)

PACKAGE
2
DWG No.
P2-PB-3402

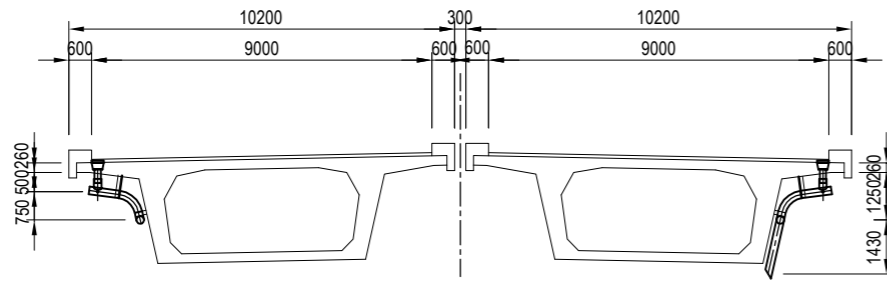
DETAIL OF DRAINAGE P20-A2 <L,R> (1) S = 1 : 800



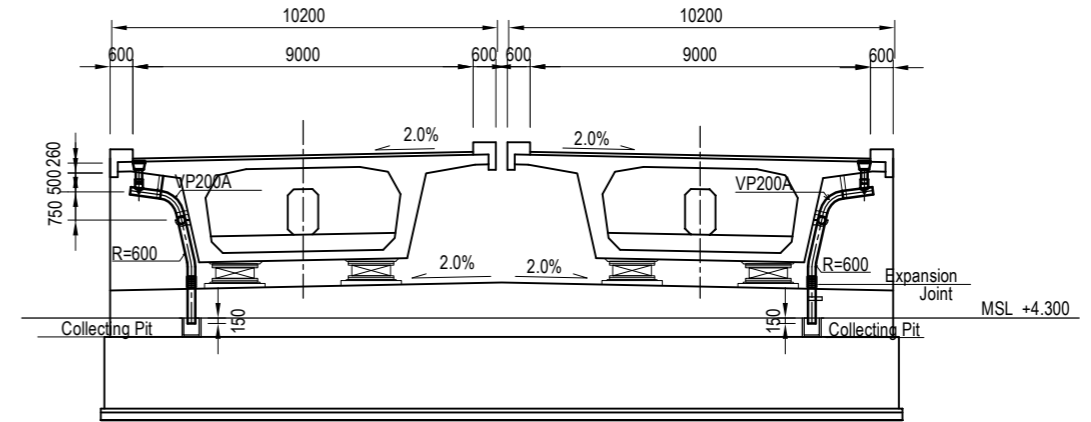
<small>PROJECT NAME</small> DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	<small>FINANCED BY</small> JAPAN INTERNATIONAL COOPERATION AGENCY	<small>COUNTERPART</small> REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	<small>JICA STUDY TEAM</small> NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO. LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 20%;">NAME</th> <th style="width: 20%;">SIGNATURE</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY</td> <td>M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY</td> <td>T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY</td> <td>Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>		NAME	SIGNATURE	DATE	PREPARED BY	M. OHYAMA		15 Jun.2017	CHECKED BY	T. HAYAKAWA		20 Jun.2017	APPROVED BY	Y. SANO		21 Jun.2017	<small>DRAWING TITLE</small> DETAIL OF DRAINAGE P20-A2 (1)	<small>PACKAGE</small> 2 DWG No. P2-PB-3501
	NAME	SIGNATURE	DATE																			
PREPARED BY	M. OHYAMA		15 Jun.2017																			
CHECKED BY	T. HAYAKAWA		20 Jun.2017																			
APPROVED BY	Y. SANO		21 Jun.2017																			

DETAIL OF DRAINAGE P20-A2 <L,R> (2)

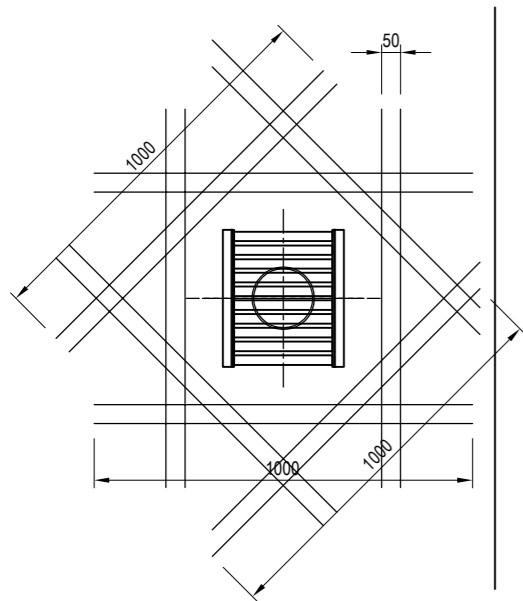
CATCH PIT SECTION S=1:200
P23-A2 P20-P23



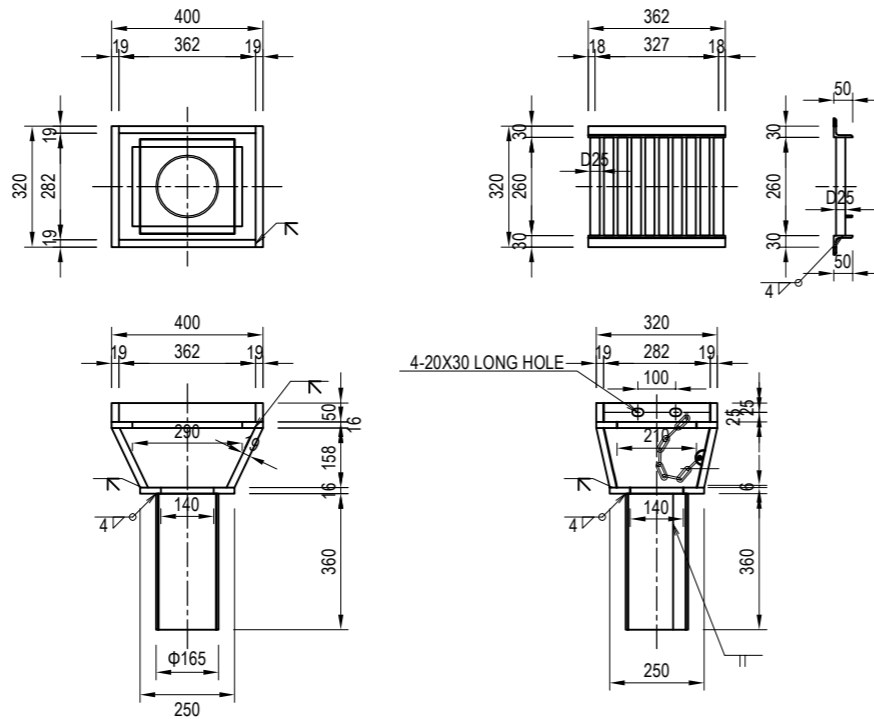
SUPPORT SECTION S=1:200
(A2)
CROSS SECTION



REBAR ARRANGEMENT S=1:20



DETAIL OF CATCH BASIN S=1:20

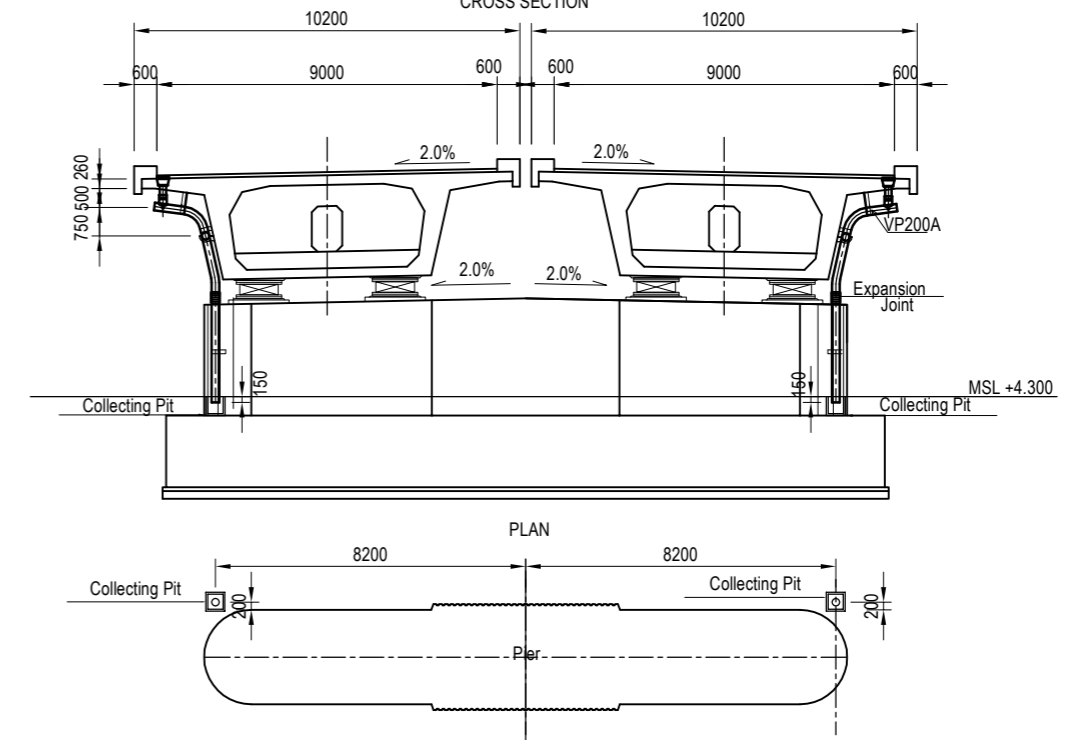


BAR STATISTICS TABLE

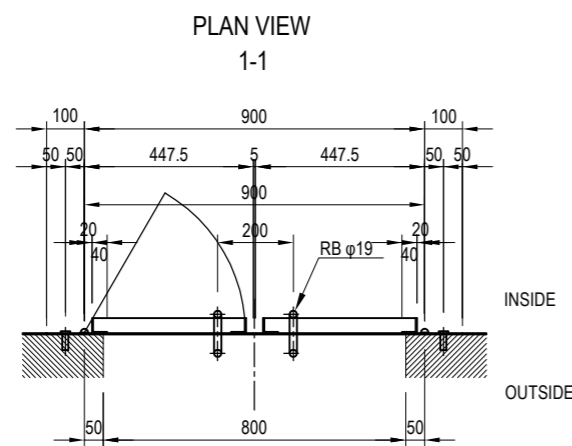
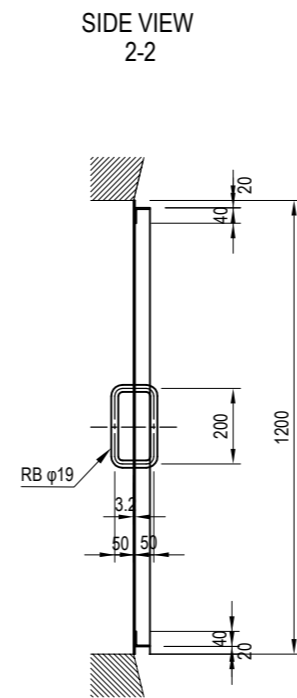
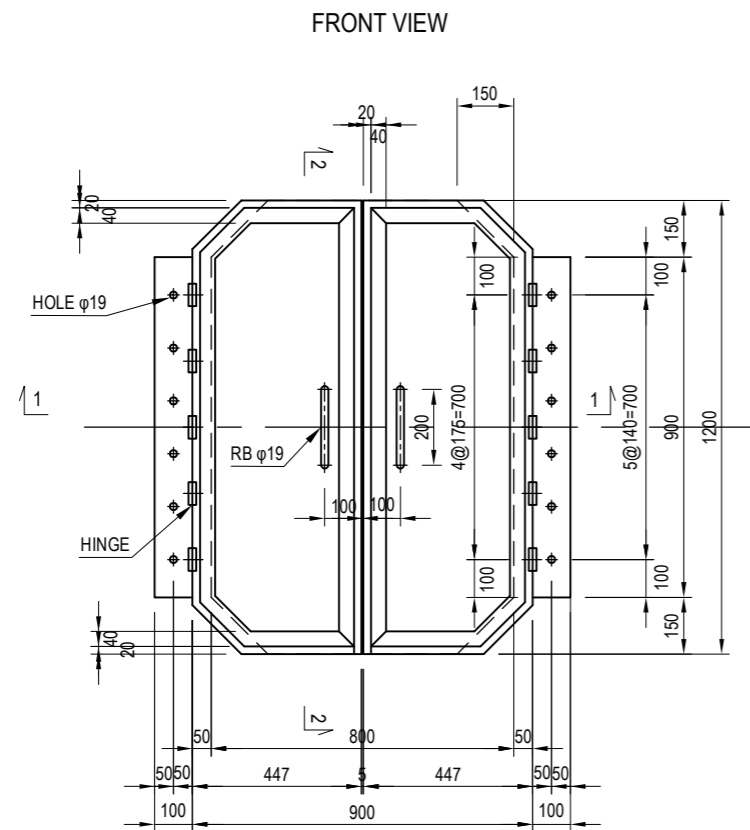
REBAR NO.	DIA (mm)	LENGTH (mm)	NUMBERS	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	REMARKS
D 1	16	1 000	32	1.560	1.56	50	
						TOTAL	50
				CATCH PITS	UNIT QTY	TOTAL (kg)	
				30	50	1500	

Notes : Contractor should install expansion joint into vertical drainage pipe between superstructure and substructure.
The expansion joint should have a capability to relative displacement between superstructure and substructure in service state.

SUPPORT SECTION S=1:200
(P24-P25)
CROSS SECTION

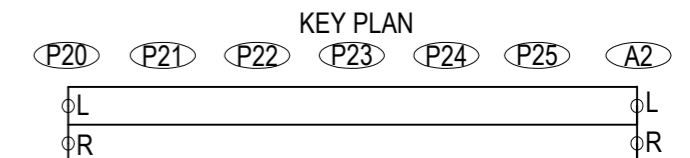


DETAIL OF MANHOLE P20-A2 <L,R> S=1:20



MATERIAL CHART (STEEL COVER FOR INSPECTION HOLE) (1 SET)

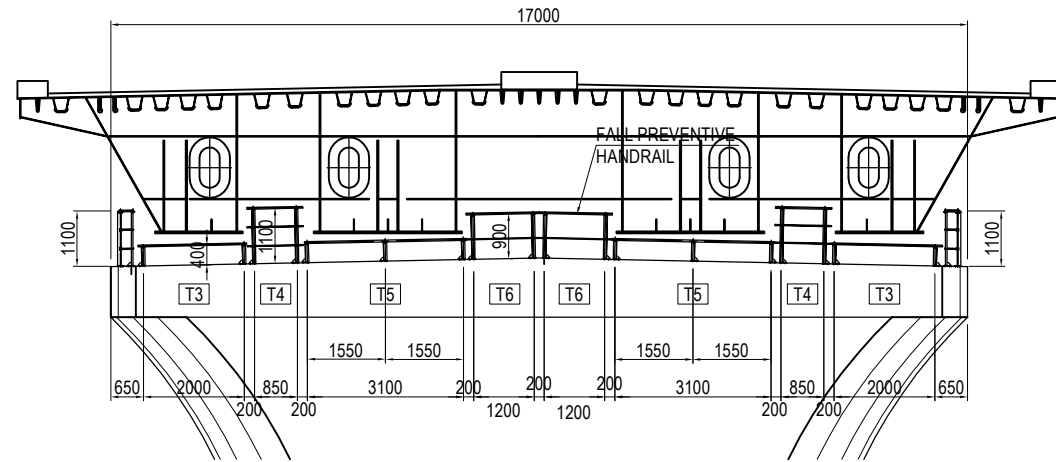
ITEM	LENGTH (mm)	NO.	UNIT WEIGHT (kg/m)	WEIGHT PER UNIT (kg)	WEIGHT (kg)	REMARKS	
PL	448X3.2	1200	2	11.25	13.50	27.0	SS400
PL	100X3.2	900	2	2.51	2.26	4.5	"
L	40X40X3	1160	2	1.83	2.12	4.2	"
L	40X40X3	925	2	1.83	1.69	3.4	"
L	40X40X3	290	4	1.83	0.53	2.1	"
L	40X40X3	167	4	1.83	0.31	1.2	"
RB	φ 19	300	4	2.23	0.67	2.7	"
HOLE IN ANCHOR	M16		12				"
HINGE			10				"
TOTAL					45.1	kg	
MILD STEEL					11.0	kg	
PL					31.5	kg	
RB φ 19					2.7	kg	
TOTAL					45.1	kg	
HOLE IN ANCHOR M16					12	nos	
HINGES					10	nos	



FALL PREVENTIVE HANDRAIL OF P20 PIER (1) S=1:150

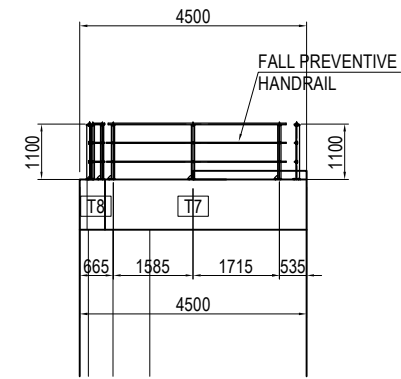
FRONT ELEVATION

2-2

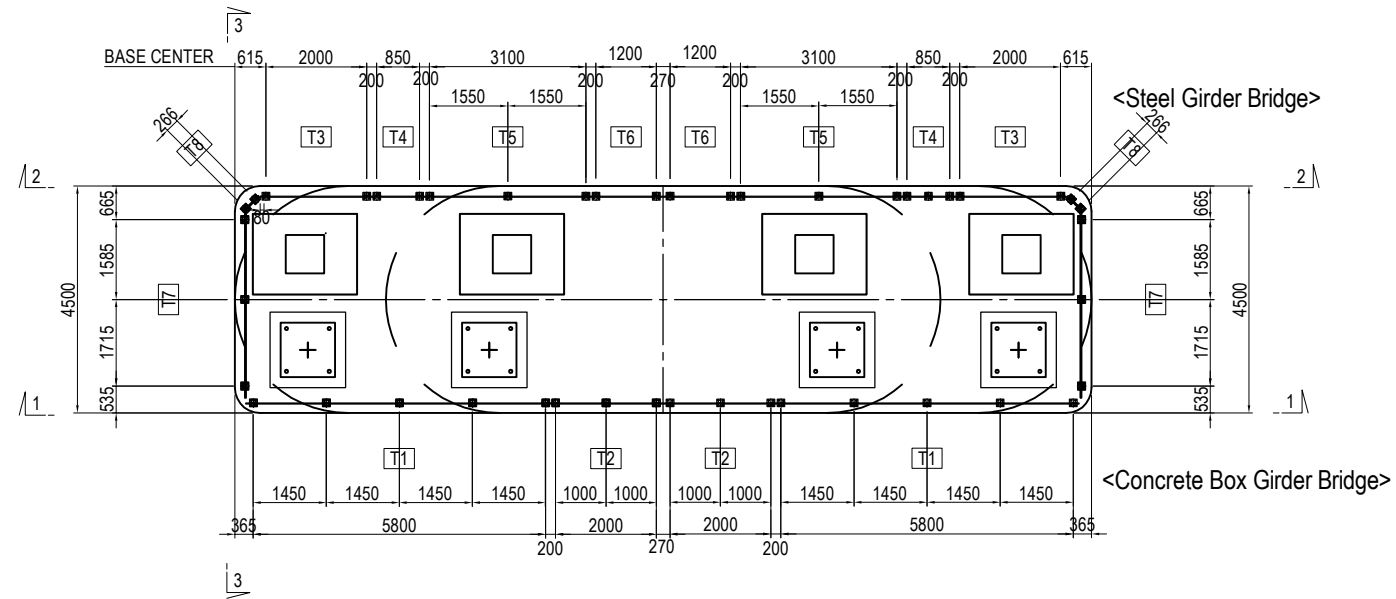


SIDE ELEVATION

3-3

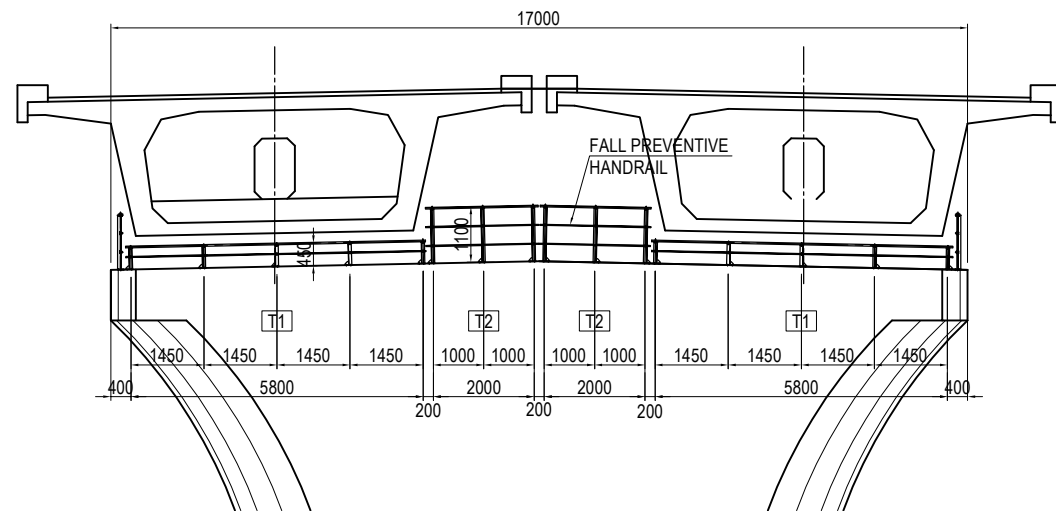


PLAN



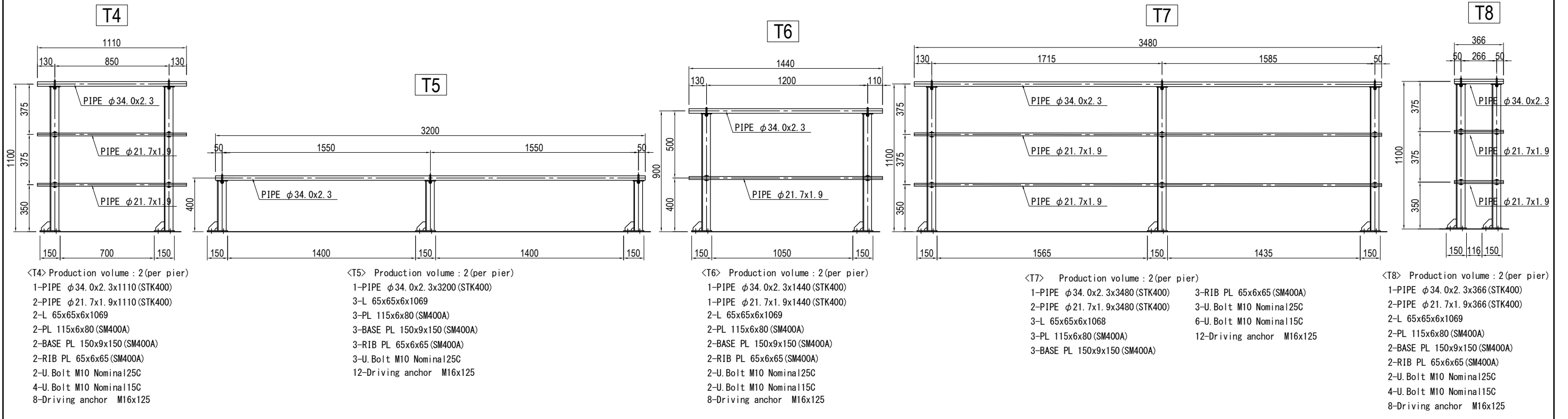
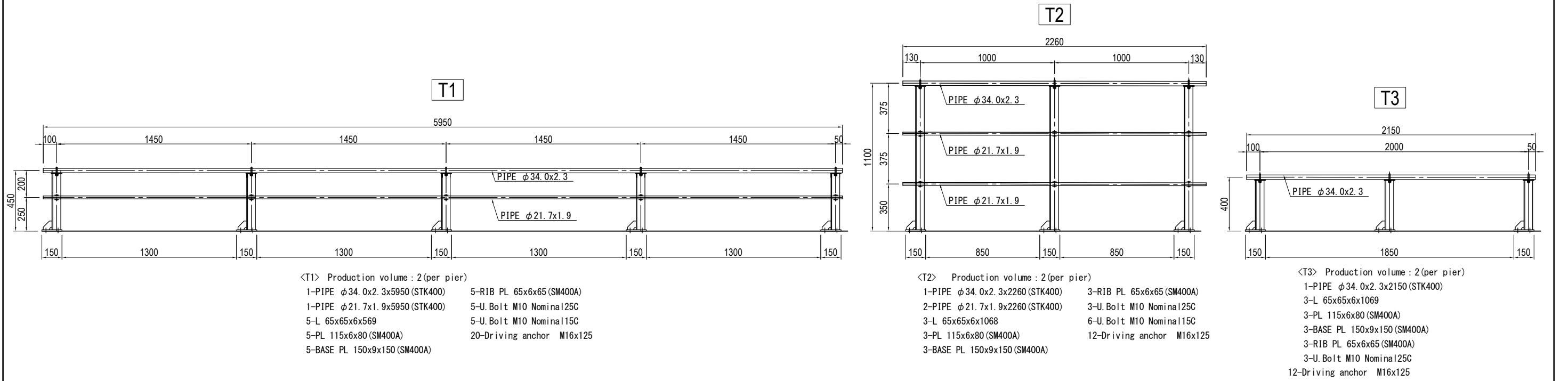
FRONT ELEVATION

1-1



PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE	PACKAGE	
				PREPARED BY	M. OHYAMA				15 Jun.2017
				CHECKED BY	T. HAYAKAWA				20 Jun.2017
				APPROVED BY	Y. SANO				21 Jun.2017
							FALL PREVENTIVE HANDRAIL OF P20 PIER (1)	2	
								DWG No.	
								P2-PB-3701	

FALL PREVENTIVE HANDRAIL OF P20 PIER (2) S=1:30



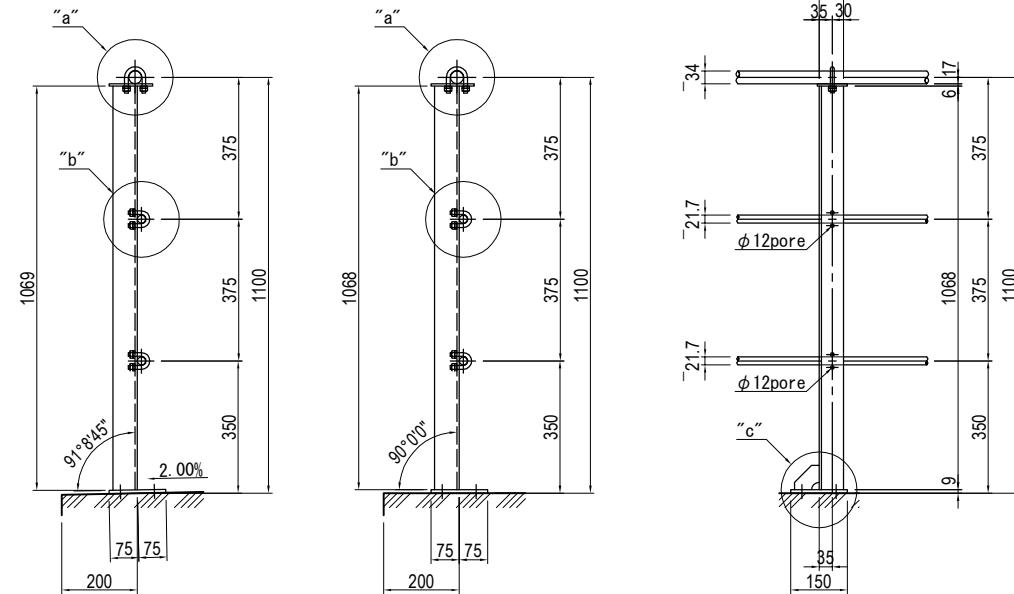
Note) 1 All materials without special mention are SS400.
 2 The surface treatment of the steel member is hot-dip galvanized.
 (The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
 However, bolts and nuts and members with a thickness of less than 3.2 mm shall be HDZ35.)

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE FALL PREVENTIVE HANDRAIL OF P20 PIER (2)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P2-PB-3702

FALL PREVENTIVE HANDRAIL OF P20 PIER (3)

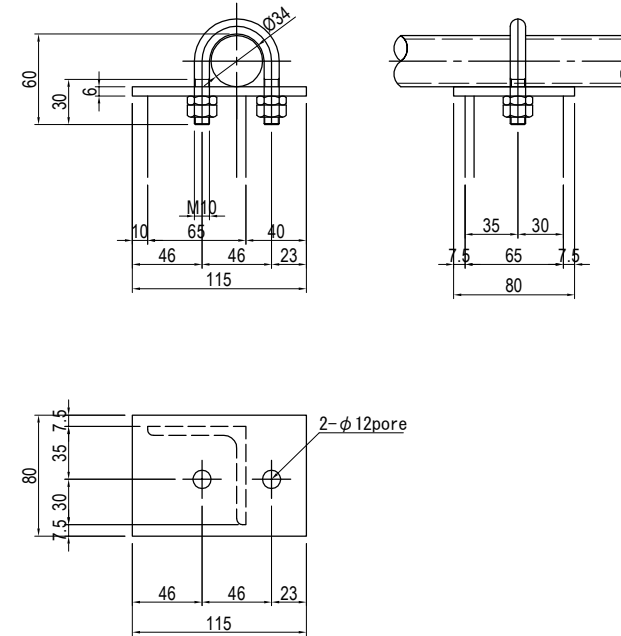
DETAIL OF HANDRAIL S=1:20

T2 T4 T7 T8



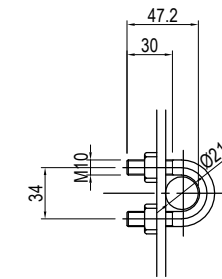
"a" DETAIL S=1:5

U.Bolt Nominal 25C

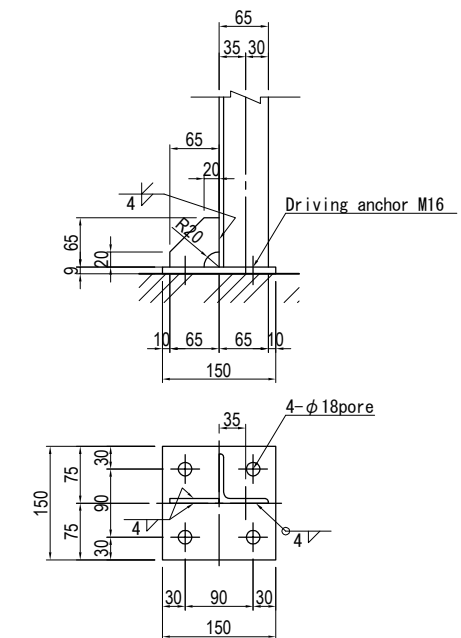


"b" DETAIL S=1:5

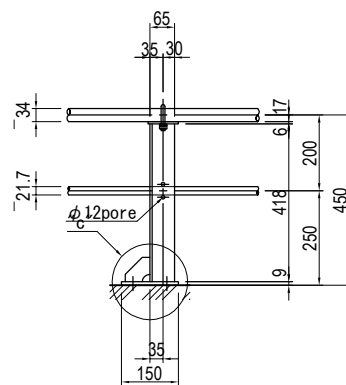
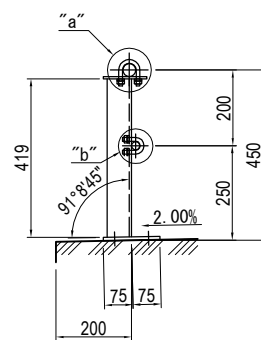
U.Bolt Nominal 15C



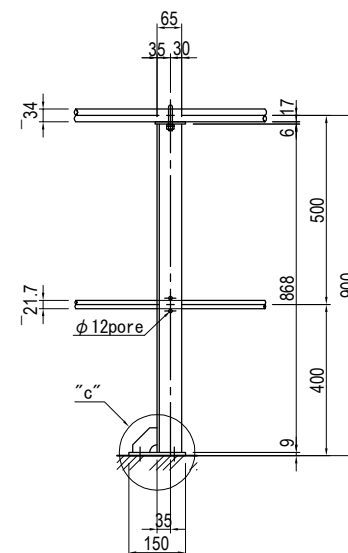
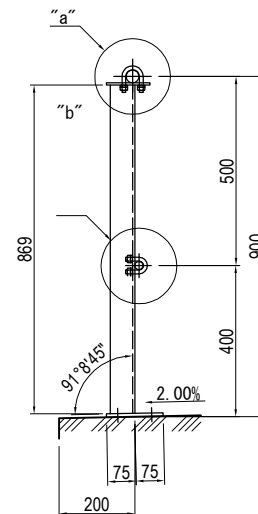
"c" DETAIL S=1:10



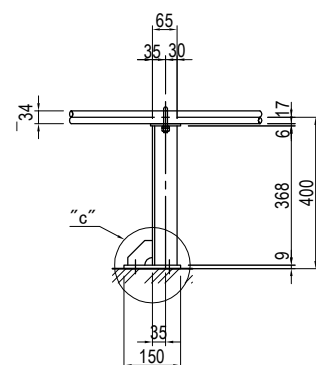
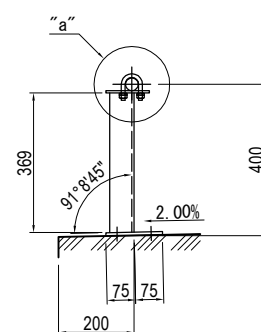
T1



T6



T3 T5

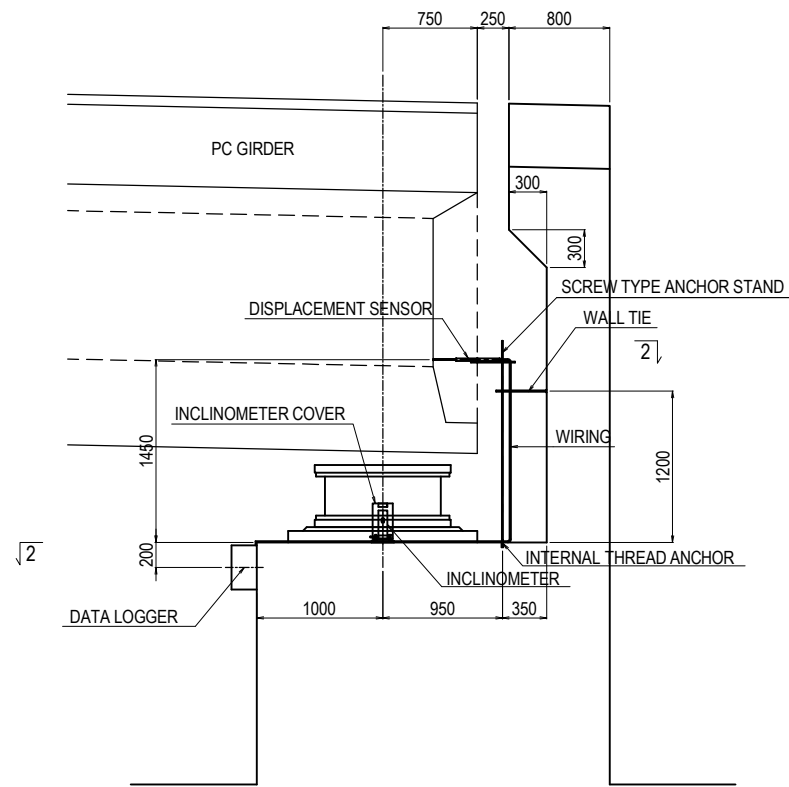


- Note) 1 All materials without special mention are SS400.
 2 The surface treatment of the steel member is hot-dip galvanized.
 (The amount of zinc deposition shall be JIS H 8641 2 type HDZ 55.
 However, bolts and nuts and members with a thickness
 of less than 3.2 mm shall be HDZ35.)

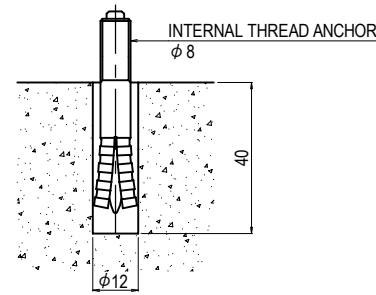
PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JICA JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	NAME	SIGNATURE	DATE	DRAWING TITLE FALL PREVENTIVE HANDRAIL OF P20 PIER (3)	PACKAGE	
				PREPARED BY	M. OHYAMA	大山 満弘		15 Jun.2017	2
				CHECKED BY	T. HAYAKAWA	平川 知寿		20 Jun.2017	DWG No.
				APPROVED BY	Y. SANO	佐野 祐一		21 Jun.2017	P2-PB-3703

INCLINATION AND DISPLACEMENT MEASUREMENT OF ABUTMENT A2 S=1:60

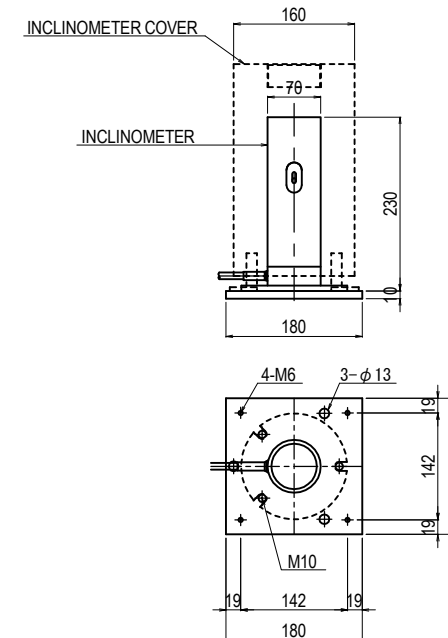
SECTION 1-1



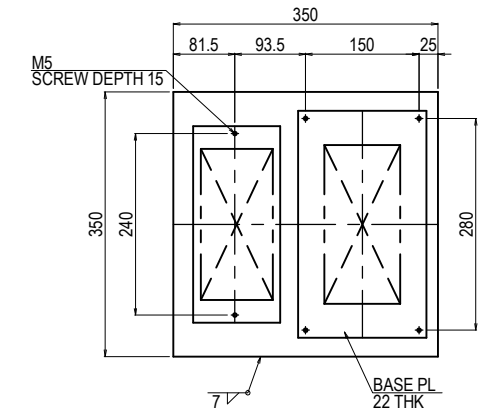
DETAIL OF INTERNAL THREAD ANCHOR S=1:2



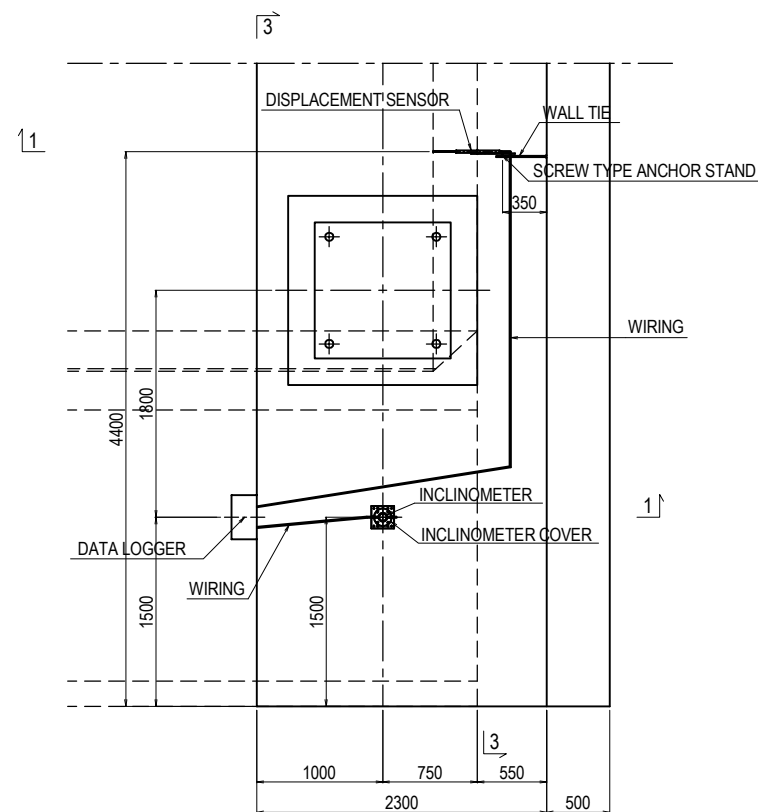
DETAIL OF INCLINOMETER S=1:10



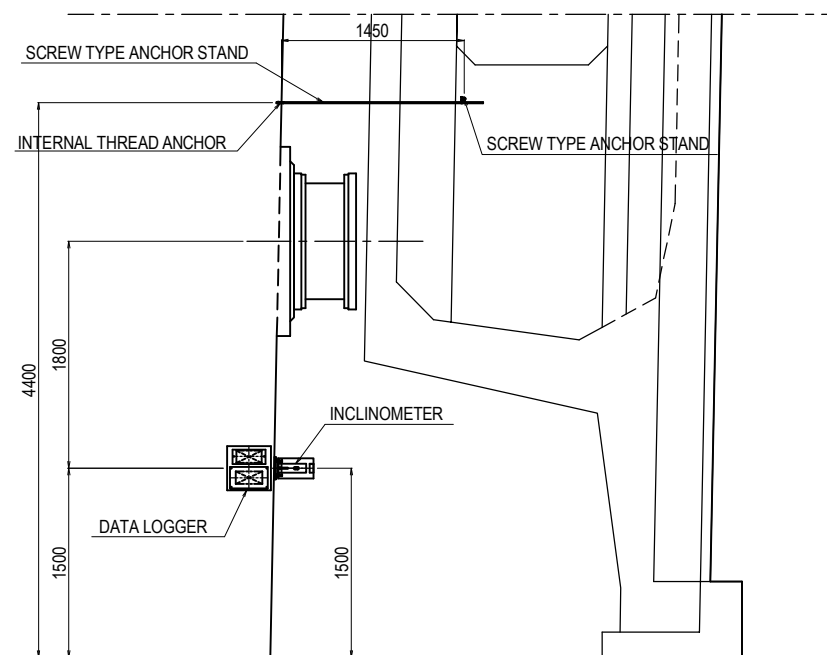
DETAIL OF DATA LOGGER S=1:10



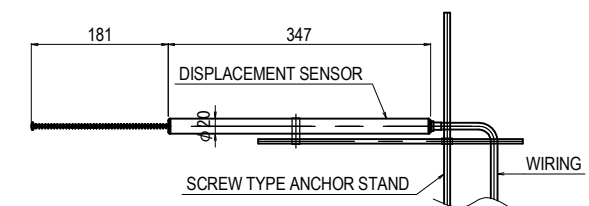
SECTION 2-2



SECTION 3-3



DETAIL OF DISPLACEMENT SENSOR S=1:10



CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK (REFERENCE DRAWING) (For P20 same as P21&P22)

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
<p>THE 1st TEMPORARY TIMBERING INSTALLATION AT UNDER 3.8m WATER LEVEL.</p>	<p>EXCAVATE INSIDE EXTERIOR SHEET PILES AND FILLED WITH CONCRETE AS SHOWN.</p>	<p>UNDERWATER EXCAVATION UP TO -14.032M LEVEL AFTER THE 1st TEMPORARY TIMBERING INSTALLATION.</p>	<p>PLACEMENT OF LEVELING GRAVEL FOLLOWED BY CASTING UNDERWATER BOTTOM SLAB CONCRETE.</p>	<p>DRAINING THE COFFERDAM INTERIOR UP TO +0.84M LEVEL AFTER THE 1st TEMPORARY TIMBERING INSTALLATION.</p>
STEP 6	STEP 7	STEP 8	STEP 9	STEP 10
<p>DRAINING THE COFFERDAM INTERIOR UP TO -2.16M LEVEL AFTER THE 2nd TEMPORARY TIMBERING INSTALLATION.</p>	<p>DRAINING THE COFFERDAM INTERIOR UP TO -11.532M LEVEL AFTER THE 3rd TEMPORARY TIMBERING INSTALLATION.</p>	<p>WELDING OF REINFORCING BAR STUDS TO INTERIOR FACE OF EXTERIOR STEEL PIPE SHEET PILES AND PLACEMENT OF TOP SLAB CONCRETE IN THE AIR.</p>	<p>REMOVAL OF ALL TEMPORARY TIMBERINGS AFTER COLUMN CONCRETE GAINED REQUIRED STRENGTH.</p>	<p>CUT OUT PROTRUDING PORTION OF EXTERIOR SHEET PILES AND BACKFILL ON THE TOP SLAB.</p>

NOTES:

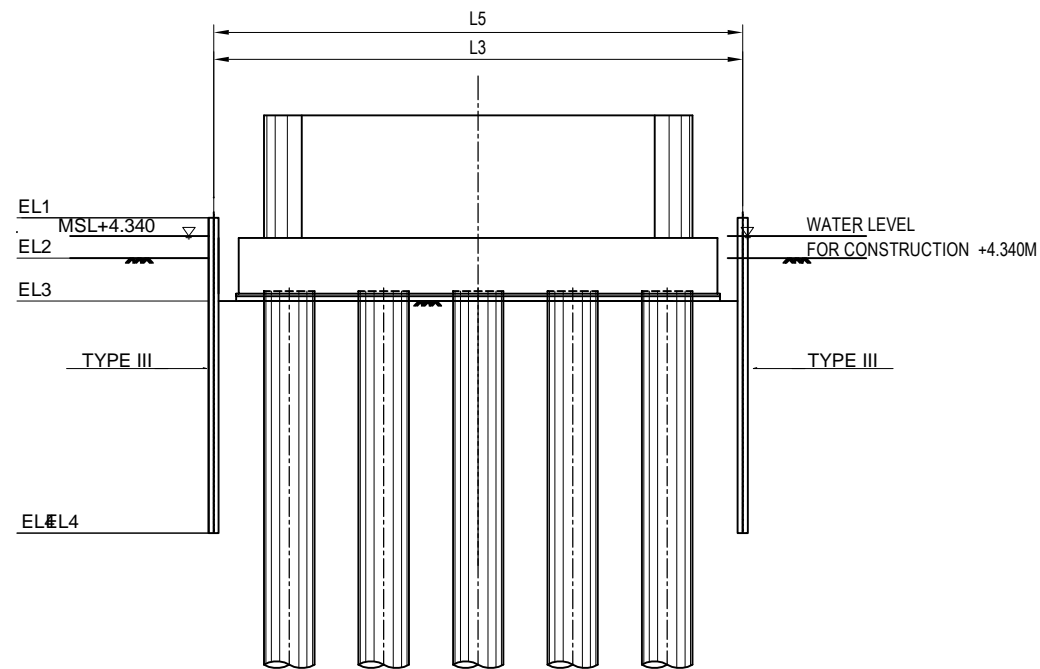
FOR INFORMATION ONLY AND THE CONTRACTOR SHALL DEVELOP CONSTRUCTION SEQUENCE INCLUDING EXCAVATION OUTSIDE COFFERDAM AND STEEL TEMPORARY TIMBERING/BRACING FOR THE ENGINEER'S APPROVAL.

PROJECT NAME DETAILED DESIGN ON BAGO RIVER BRIDGE CONSTRUCTION PROJECT	FINANCED BY JAPAN INTERNATIONAL COOPERATION AGENCY	COUNTERPART REPUBLIC OF THE UNION OF MYANMAR MINISTRY OF CONSTRUCTION DEPARTMENT OF BRIDGE	JICA STUDY TEAM NIPPON KOEI CO., LTD. ORIENTAL CONSULTANTS GLOBAL CO., LTD. METROPOLITAN EXPRESSWAY COMPANY LIMITED CHODAI CO., LTD. NIPPON ENGINEERING CONSULTANTS CO., LTD.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NAME</th> <th style="width: 10%;">SIGNATURE</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr> <td>PREPARED BY M. OHYAMA</td> <td></td> <td>15 Jun.2017</td> </tr> <tr> <td>CHECKED BY T. HAYAKAWA</td> <td></td> <td>20 Jun.2017</td> </tr> <tr> <td>APPROVED BY Y. SANO</td> <td></td> <td>21 Jun.2017</td> </tr> </tbody> </table>	NAME	SIGNATURE	DATE	PREPARED BY M. OHYAMA		15 Jun.2017	CHECKED BY T. HAYAKAWA		20 Jun.2017	APPROVED BY Y. SANO		21 Jun.2017	DRAWING TITLE CONSTRUCTION PLAN OF STEEL PIPE SHEET PILE WORK (REFERENCE DRAWING)	PACKAGE 2 DWG No. P2-PB-4001
NAME	SIGNATURE	DATE																
PREPARED BY M. OHYAMA		15 Jun.2017																
CHECKED BY T. HAYAKAWA		20 Jun.2017																
APPROVED BY Y. SANO		21 Jun.2017																

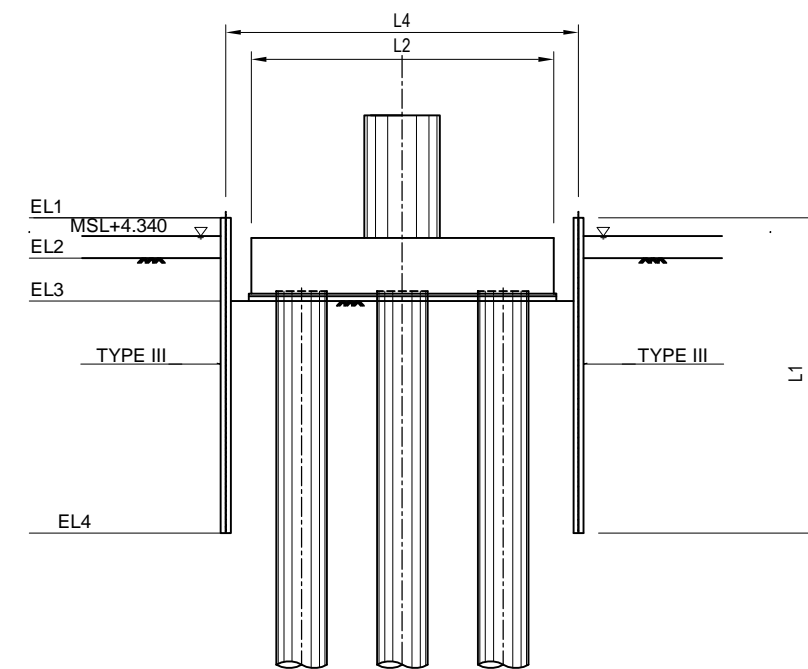
TEMPORARY COFFERDAM (1) (REFERENCE DRAWING)

S=1:300

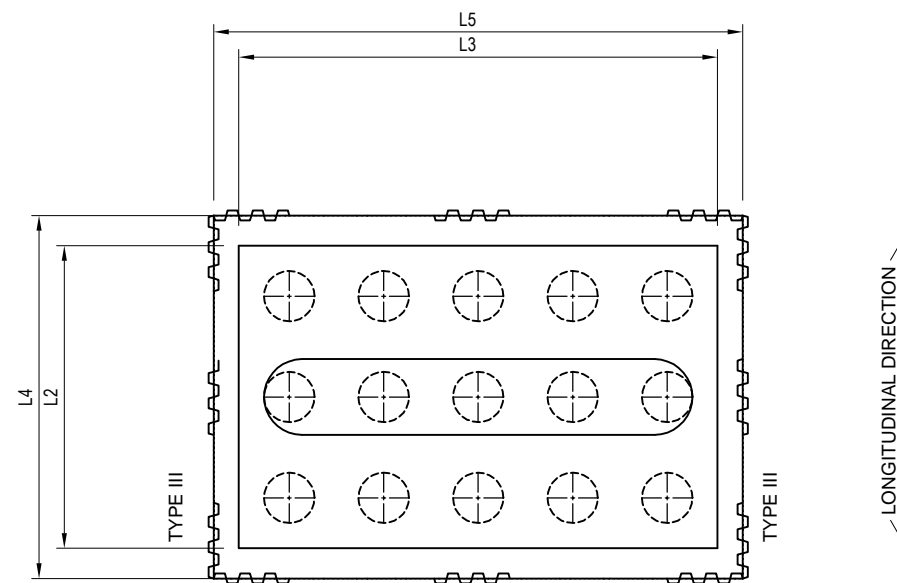
FRONT VIEW



SIDE VIEW



PLAN



QUANTITIES

ITEM	UNIT	SYMBOL	P24	P25	A2
COFFERDAM TYPE	-	-	FS	FS	FS
SHEET PILE LENGTH	M	L1	12.5	12.5	12.5
SHEET PILE WIDTH	M	W	0.40	0.40	0.40
SHEET PILE SHAPE	-	-	III	III	III
SHEET PILE MATERIAL	-	-	SY295	SY295	SY295
UNIT WEIGHT	KG/M	-	60.0	60.0	60.0
ASSUMED GROUND ELEVATION BEFORE EXCAVATION	MSL+ M	EL2	3.300	3.300	3.300
APPROXIMATE DESIGN FLOOR HEIGHT AFTER EXCAVATION	MSL+ M	EL3	1.600	1.600	1.500
TOP ELEVATION OF SHEET PILE	MSL+ M	EL1	4.900	4.900	4.900
TIP ELEVATION OF SHEET PILE	MSL+ M	EL4	-7.600	-7.600	-7.600
PILE CAP DIMENSIONS	LONGITUDINAL	M	L2	12.000	9.000
PILE CAP DIMENSIONS	TRANSVERSAL	M	L3	19.000	20.700
SPACE BETWEEN PILE CAP AND COFFERDAM	M	-	1.0	1.0	1.0
PLANAR DIMENSION OF COFFERDAM	LONGITUDINAL	M	L4	14.000	11.000
PLANAR DIMENSION OF COFFERDAM	TRANSVERSAL	M	L5	21.000	22.700
TOTAL LENGTH IN PLAN	M	-	70.000	64.000	70.400
NUMBER OF SHEET PILE	NOS	-	175	160	176
TOTAL WEIGHT OF SHEET PILE	KG	-	131,250	120,000	132,000

PROJECT NAME
DETAILED DESIGN ON
BAGO RIVER BRIDGE
CONSTRUCTION PROJECT

FINANCED BY
 JAPAN INTERNATIONAL
COOPERATION AGENCY

COUNTERPART
 REPUBLIC OF THE UNION OF MYANMAR
MINISTRY OF CONSTRUCTION
DEPARTMENT OF BRIDGE

JICA STUDY TEAM
 NIPPON KOEI CO., LTD.
ORIENTAL CONSULTANTS GLOBAL CO., LTD.
METROPOLITAN EXPRESSWAY COMPANY LIMITED
CHODAI CO., LTD.
NIPPON ENGINEERING CONSULTANTS CO., LTD.

	NAME	SIGNATURE	DATE
PREPARED BY	M. OHYAMA		15 Jun.2017
CHECKED BY	T. HAYAKAWA		20 Jun.2017
APPROVED BY	Y. SANO		21 Jun.2017

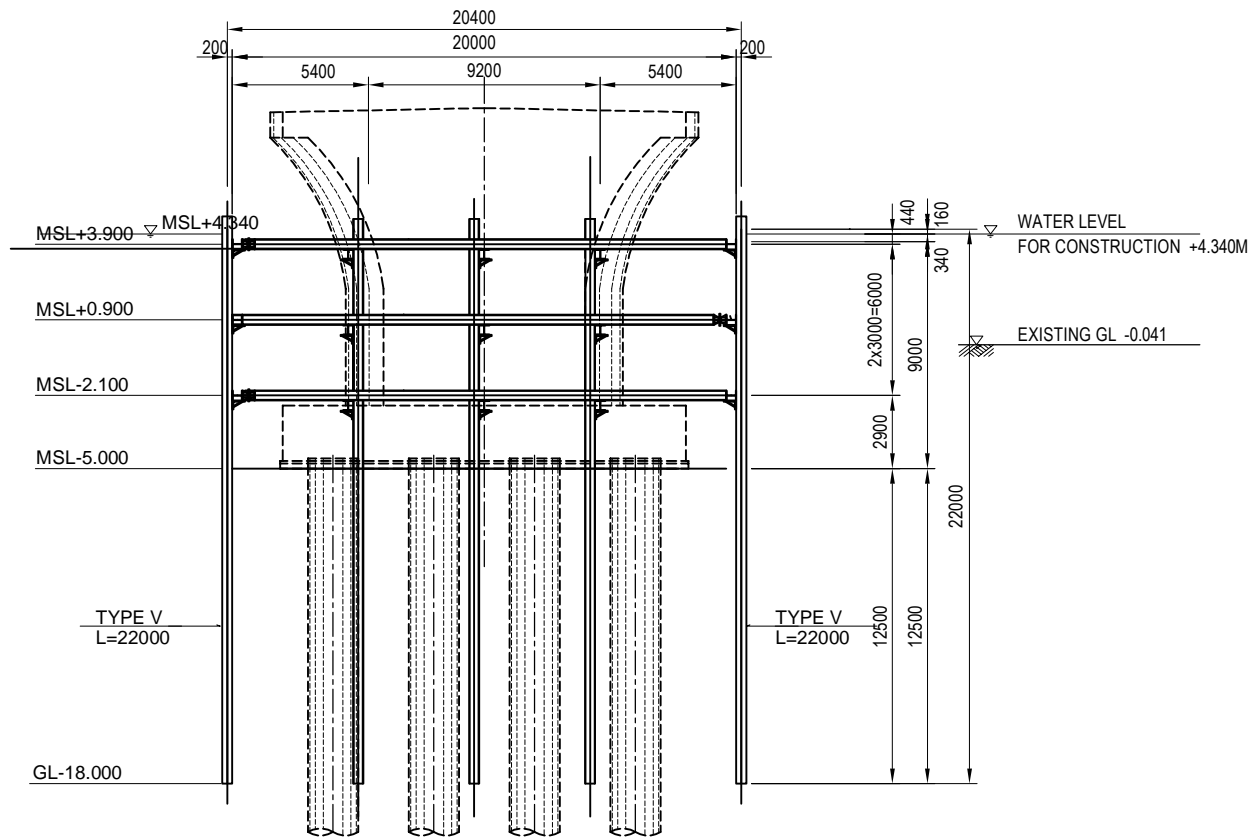
DRAWING TITLE
TEMPORARY COFFERDAM (1)
(REFERENCE DRAWING)

PACKAGE
2
DWG No.
P2-PB-4011

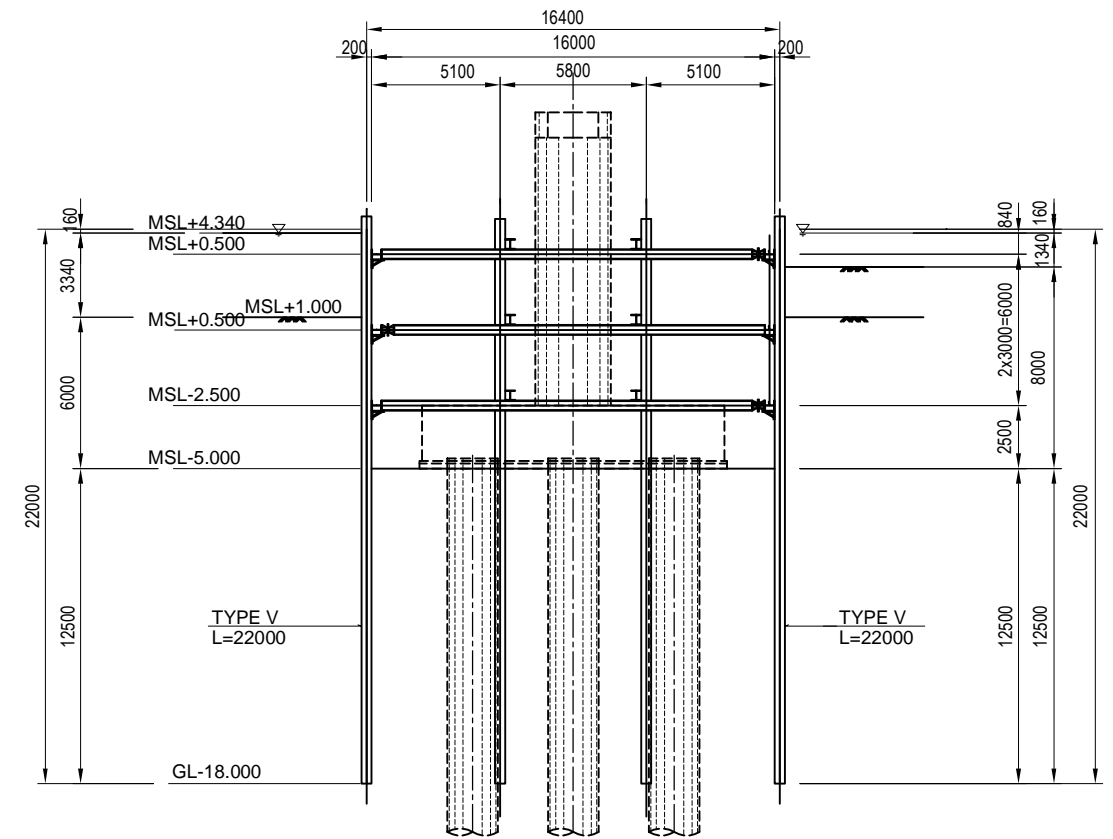
TEMPORARY COFFERDAM (2) (REFERENCE DRAWING)

S=1:300

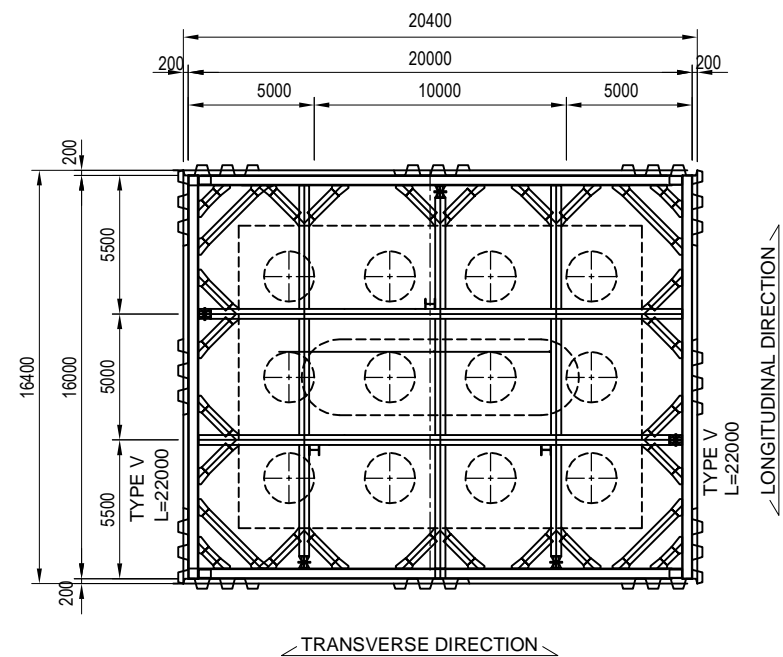
FRONT VIEW



SIDE VIEW



PLAN



QUANTITIES

Name	Specification	Length (m)	nos	Unit weight	Total weight
				(kg/m)	(kg)
Supporting Beam	H- 400×400×13×21	18.000	6	172.0	18,576
	H- 400×400×13×21	14.000	6	172.0	14,448
	H- xxx				0
Brace	H- 400×400×13×21	16.700	6	172.0	17,234
	H- 400×400×13×21	12.700	9	172.0	19,660
Bond Timber	H- 400×400×13×21	0.420	12	172.0	867
	H- 400×400×13×21	2.540	12	172.0	5,243
	H- 400×400×13×21	1.120	60	172.0	11,558
Intermediate Pile	H- 400×400×13×21	22.000	3	172.0	11,352
Total of Main Member					98,938
Sub-member(A)	98,938 × 0.22				21,766
Sub-member(B)	98,938 × 0.04				3,958
Total of Sub-Member					25,724
Total of Mold Steel					124,662

QUANTITY TABLE OF SUPERSTRUCTURE P20-A2 (REFERENCE DRAWING)

Structure Component	Wcrk Item	Specification	Unit	Quantity			Remark
				P20-A2(L)	P20-A2(R)	Total	
Segment manufacture	Concrete	50 Mpa	m3	2080.0	2080.0	4160.0	
	Inner form		m2	3276.7	3276.7	6553.4	
	Edge form		m2	1359.8	1359.8	2719.6	
	Side form		m2	2530.1	2530.1	5060.2	
	Bottom form		m2	1676.9	1676.9	3353.8	
	PC Strands	3S12.7	kg	12478.0	12478.0	24956.0	Transverse Tendon for Slab
	Steel re-bar	SD345, D13	ton	152.0	152.0	304.0	
SD345, D1E-D25		ton	158.8	158.8	317.6		
Pier head cast in place (include key segment)	Concrete	50 Mpa	m3	152.0	152.0	304.0	
	Form		m2	215.0	215.0	430.0	
Segment connection	Adhesive coating		m2	590.0	590.0	1180.0	Adhesive (Apply to single side)
PC Tendon (Site Construction)	PC Strands	19S15.2	kg	50854.0	50854.0	101708.0	Longitudinal External Tendon
		12S15.2	kg	36629.0	36629.0	73258.0	Longitudinal Internal Tendon
		4S15.2	kg	262.0	262.0	524.0	Internal Tendon for Crossbeam
		3S12.7	kg	1025.0	1025.0	2050.0	Internal Tendon for Slab
	PC bar	φ32	kg	4632.0	4632.0	9264.0	PC bar for Crossbeam
Bearing	Elastomeric bearing	G10	ncs	2	2	4	920mm x 920mm x 224mm(Σ1e)
		G10	ncs	2	2	4	920mm x 920mm x 210mm(Σ1e)
		G10	ncs	0	0	0	920mm x 920mm x 180mm(Σ1e)
		G10	ncs	2	2	4	1220mm x 1220mm x 210mm(Σ1e)
		G10	ncs	6	6	12	1220mm x 1220mm x 180mm(Σ1e)
		G10	ncs	2	2	4	1220mm x 1220mm x 150mm(Σ1e)
Anchor Bar		S35CN, φ70,φ100	kg	2800.0	2800.0	5600.0	
Expansion joint		LR-6	m	10.2	10.2	20.4	Expansion Joint for A2
Wheel guard	Concrete	24 Mpa	m3	170.0	170.0	340.0	
	Form		m2	840.0	840.0	1680.0	
	Steel re-bar	SD345, D13	ton	12.3	12.3	24.6	
Waterproof			m2	2696.0	2696.0	5392.0	Spray Type
Drain pit			ncs	15	15	30	
Drainage pipe	superstructure	VP200A	m	145.0	145.0	290.0	
	substructure	VP200A	m	20.9	20.9	20.9	
Manhole	Steel material	SS400	kg	90.2	90.2	180.4	Manhole at P20 & A2

QUANTITY TABLE OF SUBSTRUCTURE P20-A2 (REFERENCE DRAWING)

QUANTITY OF RC STRUCTURES P20-A2 (ABUTMENT AND PIERS)

Structure Component	Work Item	Specification	Unit	Quantity		Remark	
				Total of P20-A2			
Pier Column, Beam and Pile Cap (Reinforced Concrete Structure)	Concrete	$\sigma_{ck}=30\text{N/mm}^2$	m ³	2,634.6			
		$\sigma_{ck}=24\text{N/mm}^2$	m ³	2,076.0			
	Re-bar	SD345	D 13	kg	1,235.0		
			D16 ~ D25	kg	220,012.0		
			D29 ~ D32	kg	136,524.0		
			D 35	kg	28,005.0		
			D 38	kg	—		
			D 51	kg	—		
			Total	kg	385,776.0		
	Mechanical splice	SD345	D29 ~ D32	kg	94,299.0		
			D 38	kg	154,968.0		
			D 35	Point	—		
	SD390	SD345	D 38	Point	784.0		
			D 51	Point	—		
			Total	Point	—		
D 38			Point	—			

QUANTITY OF SPSP P20-P22

Structure Component	Work Item	Specification/Division	Unit	Quantity		Remark		
				Total of P20-P22				
STEEL PIPE	Pile number		nos.	86.0		Outside Steel Pipe Well		
			nos.	14.0		Bulkhead Steel Sheet Pipe Wall		
		Total	nos.	100.0				
	Steel Sheet Pipe Well and Bulkhead Steel Sheet Pipe Wall	Pile Length		m	5,372.0			
			Steel pipe weight	ϕ 1200, SKY400	t=14mm	kg	1,867,494.0	
				ϕ 1200, SKY400	t=16mm	kg	111,146.0	
				ϕ 1200, SKY490	t=14mm	kg	232,312.0	
				ϕ 165.2	t=11mm	kg	449,225.0	
		Accessories weight	Reinforcement Band	PL t= 9mm	kg	8,050.0	SS400	
			Members for Perimeter Field Welding (Backing Ring Stopper)	PL t=6mm	kg	1,200.0	SS400	
				PL t=16mm	kg	—	SS400	
			Sling	PL t=22mm	kg	5,200.0	SM490A	
			Interlocking Toe	PL t=12mm	Piece	206.0	SS400	
	In-situ Attached Interlocking		Point	206.0				
	Precut		Point	206.0				
	Excavation inside	Cofferdam		m ³	90.0			
		Pile head		m ³	97.0			
	Concrete filling	Fill concrete	$\sigma_{ck}=18\text{N/mm}^2$	m ³	740.6			
		Pile head	$\sigma_{ck}=24\text{N/mm}^2$	m ³	19.6			
	Cleaning inside joint pipe			m	10,747.0			
Mortar filling inside joint pipe	$\sigma_{ck}=21\text{N/mm}^2$	Mortar length	m	8,251.8				
		Mortar quantity	m ³	206.3				
Sealing inside joint pipe	$\sigma_{ck}=0.1-0.3\text{N/mm}^2$	Sealing length	m	2,012.4				
		Sealing quantity	m ³	50.4				
		Sealing bag	m	2,012.4				
Excavation inside the well			m ³	2,479.3				
Backfill inside the well			m ³	—				
Footing concrete		$\sigma_{ck}=24\text{N/mm}^2$	m ³	1,214.1				
Bottom slab concrete		$\sigma_{ck}=21\text{N/mm}^2$	m ³	575.4				
Spread sand			m ³	143.8				
Pile head	Shear Connector	PL-32x16x3597	kg	397.1				
	Stopper	PL-25x9x50	kg	7.4				
Pile head Re-bar	Re-bar	SD345	D 13	kg	549.2			
			D16 ~ D25	kg	1,308.1			
			D29 ~ D32	kg	—			
			Total	kg	1,857.3			
Footing Re-bar	Re-bar	SD345	D 13	kg	—			
			D16 ~ D25	kg	13,031.0			
			D29 ~ D32	kg	70,609.0			
			D 35	kg	14,860.0			
			D 38	kg	—			
			D 51	kg	—			
			Total	kg	98,500.0			
			Mechanical splice	SD345	D 38	Point	—	
D 51	Point	—						
Total	Point	—						
Welding of the dowel	Number of welding of stad bar		nos.	9,288.0				
	Welding of the dowel Weight (SD345, D22)		kg	22,274.6				

QUANTITY OF CAST-IN-PLACE PILES P23-A2

Structure Component	Work Item	Specification	Division	Unit	Package 2		Remark
					Total of P23-A2		
Foundation Pile	Pile Diameter	CIP Pile		m	7.5		
	Pile Number	Number		nos.	50.0		
	Pile Length	Liner Meter		m	149.0		
	Concrete	$\sigma_{ck}=30\text{N/mm}^2$	D 13	kg	896.0		
			D16 ~ D25	kg	117,396.0		
			D29 ~ D32	kg	158,816.0		
			D 35	kg	134,156.0		
			D 38	kg	—		
			D 51	kg	—		
			PL	kg	218.0		
	Total	kg	411,482.0				
Miscellaneous Steels	Steel Pipe (STK400), Plate (SS400)		kg	28,064.0			